



FEMISE REPORT ON THE
EURO-MEDITERRANEAN PARTNERSHIP

2010

THE EURO-MEDITERRANEAN PARTNERSHIP AT CROSSROADS



Illustration Alain Soucasse

Coordinators

Ahmed Galal, Economic Research Forum, Egypt
Jean-Louis Reiffers, Institut de la Méditerranée, France

November 2010



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November 2010

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1. Introduction

One of the main stakes of major crises is to know if the countries concerned can continue their rapprochement while facing difficulties in a co-operative way and coordinating their policies. Clearly, this was not the case during the 1929 crisis which had grown deeper, starting from the implementation of the Hamley Smooth Tarif Act and the retaliatory measures that had been put in place as a response. Fortunately, the current period does not call to mind such events and one can hope that history will not repeat itself.

Nevertheless, there are certain signs indicating that the issue could rise if recovery is deemed insufficient and if political ties in favour of a better convergence of situations, on a world and regional level, were to be distended. Indeed, one observes, that the foreign exchange rates of the major world operators are obviously not at equilibrium, that considerable current account deficits are growing and that public transfers, supposed to act as a necessary compensation net, pile-up to immeasurable amounts with the mass of private capital (often floating) seeking to be invested.

Obviously, this raises difficulties to less developed countries, which have anchored their foreign exchange rate to currencies, or baskets of currencies made up of the most used currencies in international exchange (dollar, euro, sterling pound). Such countries would hesitate between having access to such resources - with a slight increase of volatility - by integrating international capital markets or, instead, maintaining control over the domestic process of accumulation. One also observes, that even within greater regions that are relatively integrated, the coordination of economic policies is not always easily carried out. The competitive group of countries that proceeded with courage to real adjustments through the last ten years are reticent towards countries lagging and which require more nominal flexibility.

A decline in domestic demand is added to the mix almost everywhere, however much more in developed countries, which automatically produces tensions on the external accounts of developing countries.

These are the reasons that explain the title of this report, the euro-Mediterranean partnership, launched in Barcelona and active through the Union for the Mediterranean, must tackle the issue of post-crisis engines that could be implemented to consolidate the progress observed since 2005. The partnership, which remains the main engine used since the Barcelona agreements, and more precisely the introduction of a free-trade area between the 27 countries concerned, accompanied by progress in the movement of factors and public transfers to facilitate adjustments and institutional transformations, will be the one to be questioned in this report.

Indeed, the crisis might have had a relatively mitigated financial outfall with respect to Mediterranean partners of the EU, but on the other hand, it had one of the significant outfalls on exports, foreign direct investments, workers remittances and prices of raw materials and agro-food products, which brought a decline in growth rates and had severe consequences on the balance of public accounts and employment (cf Ahmed Galal and Jean-Louis Reiffers "Crise et voies de sortie de crise dans les pays méditerranéens partenaires de la Femip" EIB November 2010 and the country profiles of the second part of this report). In addition, one clearly observes a deceleration in the general pace of trade liberalization, especially in developed countries. The latter have set up an arsenal of standards (a movement now imitated by developing countries), explicitly raise the issue of delocalizing, and have launched active structural policies which aim at fostering comparative advantages in new activities, especially in those of the environment and the knowledge economy.

The point of view of FEMISE is that MPs cannot neglect the possibility of launching their own kind of structural policies, or else they will remain specialized on traditional productions and those of non-tradable goods. However, they must at the same time, continue to be integrated into the world economy by consolidating the intermediate stage, that of regional integration. As this report will show, while the continuation of international opening and related institutional reforms cannot be the quasi-exclusive engine of convergence in the region any more, nevertheless, there is still potential and, in any case, greater international opening is a pre-requisite for structural policies to have the expected results.

In this report, the first part will provide a progress report on the movement of goods and factors by indicating the mobilizable potential and the nature of the future stakes. One of the most important stakes is to examine whether international opening of MPs, which allows for the convergence of per capita incomes between countries as all know, also creates pressures within countries because of the necessary adjustments and thus contributes in dilating the national social space by increasing inequalities. This first part will consequently treat the movement of goods, capital and migration and will be concluded by a chapter devoted to poverty, the most characteristic social indicator of the final effects of the policies followed.

In the second part, a detailed examination of the reactions to the crisis in the various MPs will be presented.

Chapter 1. Impact of the Euro-Mediterranean Partnership 15 Years after Barcelona: What Do we Know ? What Can be done?

This chapter aims to provide a general assessment of the impact of the Euromed partnership almost 15 years after the implementation of the Barcelona agreement. It is organized in four sections. The first provides an analysis of trade patterns between the EU and Mediterranean countries since 1995. It focuses on the main changes in these trade patterns and questions the effects of the Barcelona agreement. The second section presents a survey of the quantitative assessments of the Euromed partnership, especially the Barcelona Agreement. In particular, effects on trade and GDP are investigated as well as effects on real convergence. This section concludes that despite significant potential gains expected from these agreements, actual gains seem to be positive but small. A similar conclusion applies to the South-South integration. As a matter of fact, most quantitative studies on GAFTA conclude that there are small effects on trade and GDP.

Section three investigates the reasons for such small effects. For that purpose, an analysis of the various obstacles to gains from trade is carried out. These include all the criticisms previously mentioned, i.e. delays in the implementation of the tariff schedule, the lack of EU market access for agricultural products, the presence of NTBs (especially

Technical Barriers to Trade and the lack of harmonization), the lack of regional integration in terms of services and FDI, the role of rules of origins, the impact of inappropriate specialization, the role of scale economies and product differentiation, etc...

Section four concludes with several policy recommendations. The latter not only include

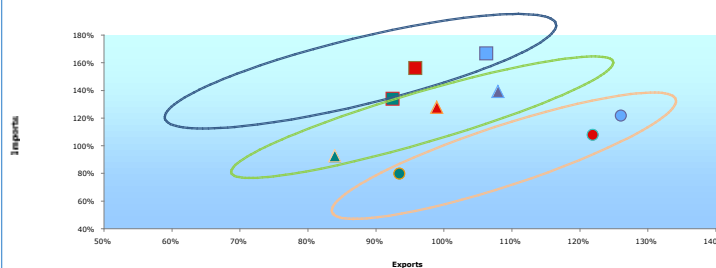
policy measures directly linked to regional integration, but also indirect measures which are necessary to optimize the effects of the Barcelona agreement, such as education and research, innovation and technology, governance, macroeconomic and financial policies, etc...

I. Main characteristics of the EU-MPs trade patterns since 1995

I.1. A slow down of the EU relative share in trade with MPs

As a whole, the 1995-2009 period was characterized by a decline in foreign trade between the 27 EU countries (EU27) and the Mediterranean Partner Countries (MPs). In 1995, exports from MPs to the EU were 1.6 times higher than exports to the rest of the world (RoW), and imports were 1.2 times higher. In 2009, as shown by figure 1, the share of the RoW exceeds that of the EU (blue square on the graph) except in the case of manufactured goods imports. The accession to the EU of the 12 new member states in the 2000s did not reverse

Figure 1. Share of EU27 (in %) in trade with MPs versus trade with the Rest of the World (RoW)



Source: FEMISE calculations based on COMTRADE

this trend whereas such countries contributed to 8 to 9% to the relative share of the EU as compared to the RoW in 2009.

The positioning of the categories of sectors on figure 1 also shows that the EU has always been and still remains the principal supplier of manufactured goods to the MPs, although since the 2000s it is no longer the main outlet for this category of goods.

Table 1. Share of the EU (in %) in MPs trade

	Exports			Imports		
	1995	2005	2009	1995	2005	2009
West Med	69%	62%	58%	64%	57%	55%
East Med	47%	34%	29%	46%	26%	29%
Israel	34%	29%	26%	53%	39%	37%
Turkey	57%	57%	47%	51%	45%	40%
MP10	53%	51%	44%	53%	43%	41%

Source: FEMISE calculations based on COMTRADE

These observations should however be nuanced depending on the countries under consideration. Table 1 above shows that west Mediterranean countries (Algeria, Morocco and Tunisia) remain very close to the EU, even though there is a downward trend for both exports and imports. East Mediterranean countries (Egypt, Jordan, Lebanon, Syria, West Bank and Gaza) are more oriented towards the RoW partners, with the EU amounting to a third of the trade.

I.2 Weak growth of the Euro-Med trade

The drop of the relative participation of the EU to the MPs foreign trade is confirmed by the analysis of the growth rate. The optimum growth period took place around 2000-2005, for both imports and exports (figure 2). All the partners took part in this MPs trade opening partly driven by the Barcelona agreement.

It must be noted that trade growth with the EU did not reach the scope expected. Be it over the 1995-2008 period (+6%) or during each sub-period, the growth of the exports to the EU is lower than that of the exports to the other partners regardless of the type of sector. This observation has been verified in all MPs. This phenomenon can be explained by the dynamics initiated by the EuroMed free trade agreement (FTA) running out of steam, considering that by the beginning of 2000 the tariff dismantling between the EU and the MPs had been completed. The strong growth of exports to China (+20% over the 1995-2008 period) cannot explain this phenomenon since these markets only amount to 2% of

MPs exports in 2009. Instead, it indicates that the MPs tried to diversify their export markets. In parallel, it is worth noting that the share of the US market (excluding oil) experienced a 20% drop (23% for the manufactured products) in 2000 down to 11% (13% for the manufactured products) in 2009.

However, it is difficult to explain how the growth rate of the EU-originated imports to MPs (globally 2% over the 1995-2008 period) remains lower than that of imports coming from the RoW (+ 4%) whereas during the same period, the dismantling of the MPs-EU tariff barriers was almost completed in most MPs.

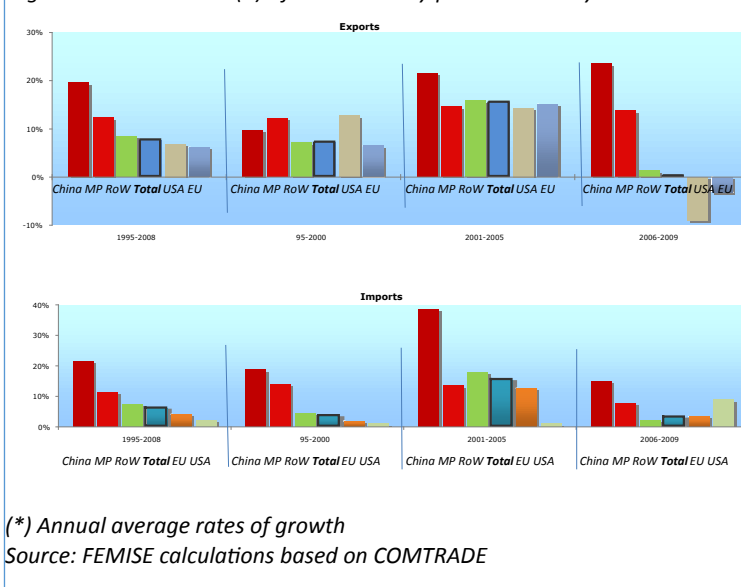
Several reasons could explain this decline of the EU as supplier of the MPs:

- The MPs have diversified their sources of supply, and in that respect the constant rise of the Chinese suppliers must be noted (+ 19% over the 1995-2008 period and + 39% over the 2001-2005 period), strongly driven by the manufactured products. In 2009 China accounted for 14% of the manufactured good imports to the MPs and for 1% of all imports excluding oil.
- The sectorial specializations the range increase of which is insufficient as we shall see subsequently.

I.3. Increased global trade deficit with the RoW and improvement of the position vis-a-vis the EU

The search for supply sources outside of the UE27 inevitably increases the trade deficit of the

Figure 2. Growth rate (*) of MPs trade by partner country

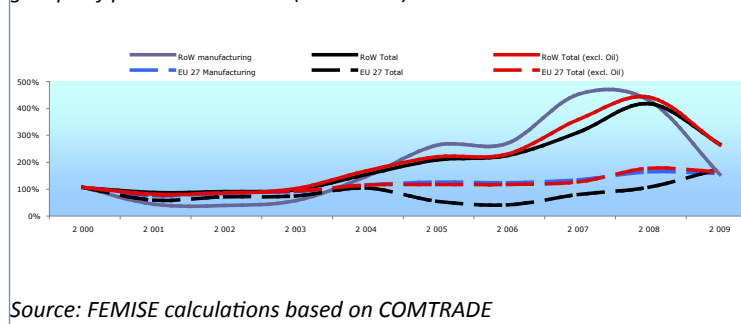


MPs vis-a-vis the RoW (US\$-61.5 billions in 2009) which exceeds that of the EU (US\$-32 billions, annex 3).

Figure 3 illustrates the gap that took place around the year 2004 regardless of the type of sector. The normalization of the trade balance on the basis of the year 2000 makes it possible to observe that the trade deficits with the RoW have relatively increased relative to the partners of the RoW.

The 2009 crisis has deeply affected the MPs (see annex 2) with a drop of almost a third in trade which played a strong role on the trade deficit drop vis-a-vis the RoW partners as shown by figure 3. This drop concerns all the MPs groups. It should be noted however that restrictions on imports are higher with the RoW partners (-32%)

Figure 3. Comparative evolution of the MPC trade balances with the 2 groups of partner countries (2000=100)



than with the EU (-22%) and that the losses of exports markets are more significant on the European markets (-32% versus -29%)

Turkey weighs heavily on the trade deficit of MPs (42% of the global balance and 28% of the trade deficit with the EU). Only Algeria and Syria, because of their oil exports, have positive balances with the EU, although Syria suffers from a deficit with the RoW. The trade position of Israel is different since its manufactured goods come from

Europe (deficit of US\$ -4 billions in 2009), a budget line for which this country enjoys major outlets on the markets of the RoW with an excess of US\$14 billions in 2009.

1.4. The issue of agriculture

In 2009, agricultural products roughly amounted to 9% of the total exports of MPs, with inter-country variations. Syria – with 36% of agricultural exports – is the most representative country followed by Morocco (19%), Jordan (15%) and Egypt (12%) (Annex 4).

The conservation of tariff barriers and of quotas on agricultural product inputs in the European markets was such that the EU relative part for this category of products is significantly lower than

its total trade share. In 2009, the UE15 amounted to only one third of the MPs agricultural markets. Agricultural exports were directed more to the other MPs (16% of the export markets) and to the RoW markets. The exports of agricultural products to the EU amounted to no more than 7% of total MPs exports.

The exports of agricultural products are specialized to certain categories of products: fruits and vegetables amount to more than half of

Table 2. Relative shares of MPs trade partners

	<i>Total exports</i>	<i>Agricultural exports</i>
<i>EU</i>	44%	31%
<i>ROW</i>	47%	53%
<i>MPs</i>	9%	16%

Source: FEMISE calculations based on COMTRADE

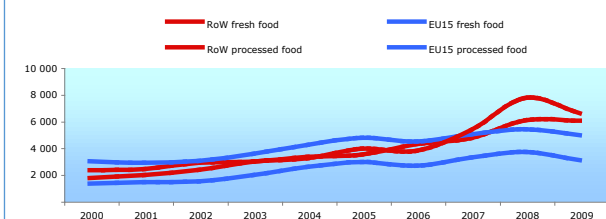
the export markets and 70% of exports to the EU (annex 5). The exports to the RoW and MPs are more diversified with a higher share for the cereals (respectively 14% and 21% of the export markets), and the meats and preparations for the MPs markets.

Since the beginning of the 2000s, MPs have developed a local agrofood industry; the export of conditioned agrofood products grows more rapidly than that of fresh food products and this mainly on non European markets (figure 4).

1.5. Did the Barcelona process improve the nature of the MPs integration to World Trade?

Based on the observation of the three types of significant indicators of the nature of the integration of MPs into World Trade (part of manufactured exports, technological level, part of intra-sectorial type trade) (table 2), it can be seen that most Med countries have noticeably improved their situation on the international stage.

Figure 4. Exports (in US\$ millions) of MPs agricultural products as per their conditioning level



Source: FEMISE calculations based on COMTRADE

During the 1995-2009 period the MPs increased their relative part of manufactured goods in their exports (table 3). Yet, the level of this global indicator was strongly influenced by the two most economically powerful countries of the zone - Turkey and Israel – which respectively represent 36% and 28% of MPs-to-RoW exports and 42% and 11% of MPs-to-EU exports. A countrywise analysis (annex 6) shows on the one hand (i) that the trade proximity with the EU of west

Mediterranean countries – such as Tunisia and Morocco – has facilitated the reinforcement of the industrial development and that conversely (ii) east Mediterranean countries have improved their level of specialization in manufactured goods mainly under the influence of trade with the RoW. Turkey (with Israel), is one of the countries that exports the largest share of manufactured goods especially towards their European partners.

Moreover, the growth of medium and high technology products in the MPs exports of manufactured goods (from 24 to 32% between 1995 and 2009 for all the MPs (table 3) and from 28% to 40% for the MPs excluding Algeria and Syria) demonstrates that this specialization into industrial goods took place in parallel with a global range improvement.

Although in the last 15 years the share of medium-high tech products trade took place mainly with non-European partners (35%), the most significant improvements took place with the EU.

Moreover, for the MPs - excluding Algeria and Syria – the share of medium-high tech products was the same (41% to 42%) (annex 7-2) regardless of the partner again with a faster growth at the end of the period for the trade with the EU.

Finally, it should be noted that the fastest growth concerned mainly the medium tech products (from 9.4% in 1995 to 17.5% in

Table 3. MPs Performance Indicators

	Share of manufacturing exports	Share of technologically intensive (mid. and high) exports	Intra-branch trade			
	1995	2009	1995	2009	1995-2000	2001-2009
World	59%	62%	24%	32%	37,8	48,8
EU	58%	61,50%	19%	31%	27,9	37,5
ROW	57%	62%	30%	35%	39,1	46,7

Source: FEMISE calculations based on COMTRADE

2009) and more specifically with the EU (from 8.8% to 21%) (annex 7-1). This mechanically led to a drop in the relative share of labor-intensive and resource-intensive products. The share of the primary goods and energy – about a third of the exports – remained nevertheless high.

The intra-sectorial trade indicator is representative of the level of participation of the countries to the international industrial activities. Globally, we can note a noticeable improvement of the intra-sectorial trade shares between the 2 periods - 1995-2000 and 2001-2009 - with a faster growth of this type of exchanges with the RoW. However, due to the method of calculation, the global results for all the MPs does not represent the mean obtained by the countries which compose it, which calls for a country-specific analysis (annex 9) [1].

Although there is a general trend towards the improvement of the intra-sectorial trade share (except for Syria and Algeria, whose levels are lower, and Jordan), it is mainly with the RoW partners that the intra-sectorial trade levels are most significant. It can be observed however that the two countries closest to the EU - Tunisia and Morocco – have a stronger development of this type of exchanges with their European partners.

Finally, in the last 15 years, the MPs have slightly improved their performances in terms of widening of the range of exported products and of bringing their export structures closer to that of the world average (annex 8). However, indi-

vidually the MPs do not boast the same results. From one hand, exports from Algeria, Jordan, Syria are highly concentrated on a small number of products at the beginning of the period, and from the other hand, exports from Tunisia and Turkey are diversified. Likewise, during the same period, the export structures of Jordan, Morocco and Turkey are getting closer to the average world structures.

I.6. Strong geographical sectorial specializations that are struggling to improve and go upmarket

The sectorial characteristics of the MPs external markets are different as a function of the group of partners. Exports to the RoW concern mainly generic sectors such as chemistry, metallurgy or primary products except oil (annex 10), whereas the exports which target the European markets concern sectors more strongly marked by specific demands linked to the characteristics of the products or production process (such as in the case of vertical production processes). This concerns mainly the textile and garment industry, electronic components or computers.

The MPs supply approximately a third of the textile-garment markets of the EU (annex 11) and sensibly make progress in more technological sectors such as electronic components, non-electrical machinery or even transportation equipment.

However, globally, the growth of MPs specialization towards better quality products (with higher unit va-

lue), was too weak during the 1995 – 2009 period to initiate a real increase of the local production systems. Thus, a fine analysis of the MPs exports that enables differentiating the quality ranges of the MPs products exported to the EU (see box) shows that near half the MPs exports are comprised of low quality products (graph 5). The growth of MPs specializations in high unit value products was slow during the 1995-2009 period. It is only as of 2006 that a noticeable improvement was observed with a drop of low value products and a slight growth of medium and high quality products.

At the level of the different specialization sectors, similar trends can be observed (annex 12). In the garment industry, MPs are losing market shares in Europe. Low quality products still amount to almost half of the exports in this sector yet we can see the premises of an increase as of 2006-2007 of high quality products, which can be associated with the reorientation of the European producers ordering Fast Fashion from Mediterranean industrialists. The textile and garment sector followed the same trend towards medium range products. On the contrary, the electronic component sector shifted towards low unit value products as of 2000 (Annex 12). The transportation equipment sector, mainly in Turkey, remained specialized in low quality products (graph 6).

MPs remain specialized in low quality products, with an improvement in medium range and medium quality products. The study of the evolution of the MPs specializations on EU15 import markets shows that during the 1995-2009 period, the growth of high tech product share is weak (graph 7)

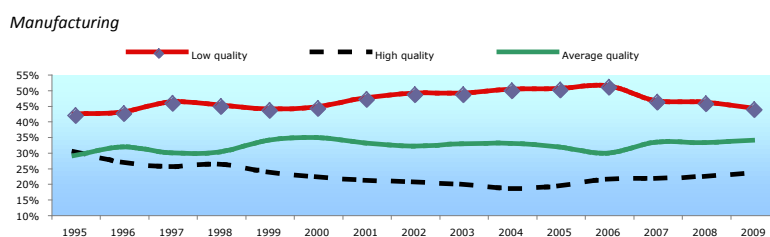
and the shares of the low tech and low labour products stagnate at about 13% of the European imports. The only positive growth rests on the participation of the MPs to the importations of medium tech products.

Regardless of the technological intensity level, MPs industrialists find it difficult to assert a position on top of the range markets. More specifically, between 1995 and 2009, in labour and resource industries – which represent almost half of the MPs manufactured exports – the share of the low quality products follows an increasing trend (graph 8). Likewise, the small share of technologically intense industries is mainly represented by low quality products. However, the global up-market process in medium tech industries is confirmed by a significant growth of the medium range products [2].

II. Quantitative assessments of the Euromed agreements : a survey and critical analysis

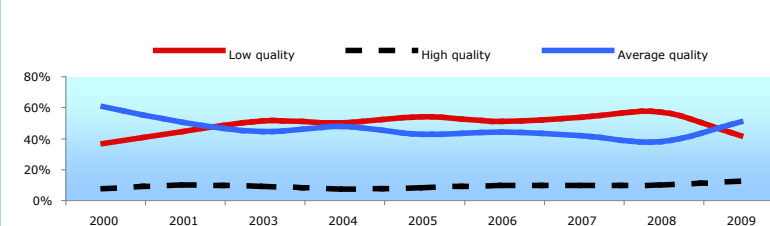
This section presents the results of the various quantitative assessments related to the EU-Mediterranean

Figure 5. MPs exports per quality ranges



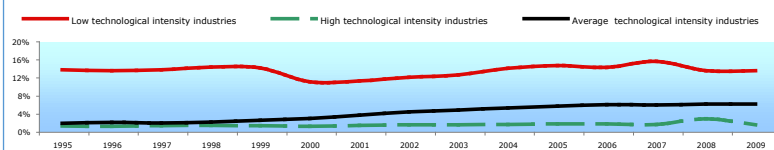
Source: FEMISE calculations based on COMTRADE

Figure 6. Turkey exports in transportation equipment par quality classes



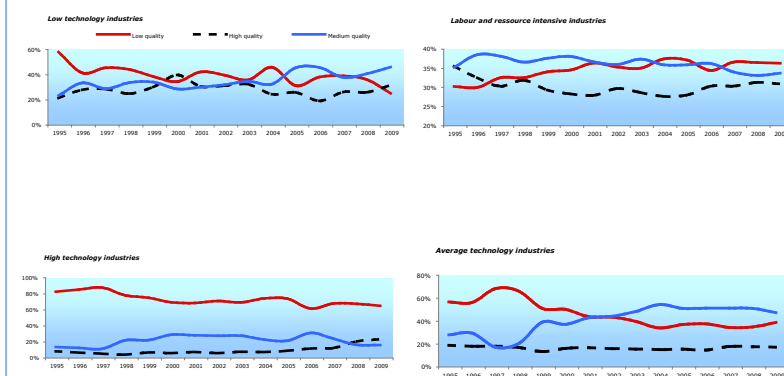
Source: FEMISE calculations based on COMTRADE

Figure 7 Evolution of the share (in %) of MPs in EU extra-European imports per technological intensity



Source: calculs FEMISE à partir de COMTRADE

Figure 8 MPs exports to the EU by technological intensity and range level



Source: FEMISE calculations based on COMTRADE

tial between the European Union and Mediterranean Partner countries as an indicator of the lack of regional integration. It also sheds light into the trade-growth relationship that exists in the Mediterranean countries. The sign of this relationship provides useful information about the capacity of a regional agreement to boost economic growth through trade liberalization. Finally, the progress in the process of regional integration between the Mediterranean economies (GAFTA agreement) is also appraised through a survey of quantitative studies.

partnership, especially the Barcelona agreement. The results of ex-ante studies are presented first. They rely on simulations through Computable General Equilibrium (CGE) models. Next follows ex-post analyses, which are generally based on gravity model. As argued in this section, there may be significant differences between the two types of studies.

In addition, the present section provides some insights into the existence of a trade poten-

II.1 Ex-ante studies conclude the existence of significant potential gains of the Euromed agreement

Table 4 summarizes the results found in 24 CGE models which assess the effects of trade liberalization in the Euromed area[3]. Although the results greatly differ depending on the assumptions considered in the models, almost all studies highlight the positive effects on GDP and trade growth in Mediterranean countries.

Box: Identification of segments of specialisation by quality range within the sectors.

We will use the method developed by Dulleck, Fost and Woerz, (2005) whereby each product is classified at the finest level of the list by sector and range according to its unit value. The first step in the process consists of establishing a reference grid based on MPs exports to the EU15. Each product is classified in a sector, listed in decreasing order of unit value. The values of these imports are then added up according to the classification by unit value and the sector products are split into three sub-groups. The first third, by cumulative import value, is the one in which unit values are the highest and is referred to as the high-end products segment; the second third is the mid-range products segment and the last third is the low-end products segment.

GDP and trade are assumed to grow by more than 5% in a significant number of studies. As a matter of fact, the Euromed agreement is expected to increase GDP growth by up to 12.2% in Morocco (Philippidis and Sajuan, 2006), 8.9% in Tunisia (Augier and Gasiorek, 2003), 6% in Jordan (Lucke and Lucke, 2001) and 5.6% in Egypt (Hoeckman and Konan, 1998). Trade effects are sometimes even greater in some simulations, i.e.

up to 54% for Morocco and 48% for Tunisia (Bouet, 2005), 31% in Egypt (Konan and Maskus, 1997), 18% for Tunisia (Brown, Deardorff and Stern, 1997), 14% in Morocco (McDonald et al., 2006) and 12% in Jordan (Lucke and Lucke, 2001).

The reasons for such positive effects have been presented previously. Relying on the new trade theory

Table 4. Impact of the Barcelona agreement on MENA countries: A survey of CGEs models (results in % change)

	Country	Av. tariff cut	GDP	Imports	Exports
Augier and Gasiorek, 2003	Egypt	29,8	1,4	0,1	-0,4
	Israel	6,9	0,2	0	0,1
	Jordan	20,8	-0,2	0	-0,2
	Morocco	23,1	5,4	0,1	-0,8
	Tunisia	30	8,9	0,2	-0,9
	Turkey	8,8	0	0	0
Bayar et al., 2001	Turkey	8,9	0		
	Tunisia	27,5	6,5		
	Morocco			1,3	1,1
	Egypt	23,6	4,3	2,7	6,3
Bouet, 2005	Turkey		0,9	9,6	9,6
	Morocco		1,7	50,9	54,1
	Tunisia		3,6	43,6	48,1
Brown, Deardorff, and Stern, 1997	Tunisia		0,9	7,6	18,1
Hamdouch and Chater, 2001	Morocco	54,7	-1,6	1,3	1,1
Chemingui and Dessus, 2004	Syria	8,3	0,4	5	4,1
Chemingui and Thabet, 2001	Tunisia		1,2	15	14
Cokburn et al., 1998	Tunisia	10,9	0,7		
Dessus and Eisenmann, 1998	Egypt	23,3	0,7	3,8	4
Feraboli, 2003	Jordan	11,4	0		
Feraboli, 2005	Jordan	11,4	3		
Gaitan and Lucke, 2007	Syria	11,5	1,6		
Harrosen et al., 1993	Turkey	8,1	1,3		
Harrosen et al., 1996	Turkey	8	1,1		
Hoeckman and Konan, 1998	Egypt	25	5,6		
Hoeckman and Messerlin, 2002	Tunisia		7,7		
	Egypt		0,7		
Konan and Kim, 2004	Egypt		0,8		
	Tunisia		6,9		
Konan and Maskus, 1997	Egypt	15,1	2,1	23,4	31,3
Konan and Maskus, 2000	Egypt	44,8	0,3		
Lucke and Lucke, 2001	Jordan	14	6	11,5	3
	Syria	9,5	2,2	9,9	4,3
McDonald et al., 2006	Morocco	26,1	1,1	13,3	14
Mercenier and Yeldan, 1997	Turkey	8	-0,8		
Philippidis and Sanjuan, 2006	Morocco		12,2		
Rutherford and Tarr, 2000	Morocco	19	1,3		

Source: own survey mainly based on Lucke and Nathanson (2007)

and the new theory of regional integration, they include the gains due to the removal of tariff barriers (factor reallocation), terms of trade effects as well as gains due to imperfect competition (scale economies and product differentiation). Additional gains can also be mentioned although they are not always considered in CGEs. They include the liberalization of services, FDI as well as the elimination of NTBs.

II.2 Ex-post analyses reveal that this agreement has only limited effect but that trade potential of MPs with regard to the EU is still significant

As explained in Femise/EIB (Ahmed Galal, J-L Reiffers 2010), the ex post effects of preferential trade agreements since the beginning of the 80s (evaluated using CGE models), represent approximately 20-25% of trade creation. The trade creation effect appears to be diminishing at end-period, which is natural when taking into account the initial level of tariff protection. In addition, one should recall that tariff dismantling was asymmetrical, since prior to 1995 MPs had free access to the European market for industrial products whereas this was not the case for European exporters to PM markets. A role was probably also played by the limitations imposed by the EU on the development of agricultural trade, dismantling of the multifibre agreement, which considerably eroded preferences, and the signature of preferential trade agreements with the CEEC economies. Thus, it is obvious that potential resides in agricultural goods trade and in services trade.

III. Why are the gains from the EU-Mediterranean agreements so small?

Amongst the major obstacles mentioned in the literature, the shallow integration remains unachieved because tariffs applied by MPs to EU imports remain significant, despite the Barcelona agreement.

In addition, the lack of deep integration is one of the major reasons put forward to explain the small effects of the Euromed partnership. This obstacle includes several aspects, especially persistent protection in agriculture, the presence of significant NTBs, restrictive rules of origin as well as the lack of service liberalization.

Some other obstacles are also investigated in this section. They include the slow integration process between MPs (horizontal integration), the type of trade specialization (which often rely on low value added products) as well as the innovation gap between the EU and Mediterranean countries, which is a major obstacle to growth and convergence.

III.1. Progress toward tariff liberalization is too slow in MP countries

Table 5 sheds light into the progress made by MP countries with regard to tariff liberalization. A first interesting insight is given by the first column which provides useful information about the average tariffs applied by MP countries to all countries. It clearly appears that Israel, Lebanon and Turkey have already made significant progress toward tariff liberalization. On the other hand, tariffs remain at higher levels in all the other countries. The second column indicates the average tariff applied to EU imports. Israel and Turkey have reduced to a large degree their

Table 5. Average tariffs applied by MPs in 2009 (unweighted average)			
	Tariffs with all countries	Tariffs with EU	Share of Duty free EU lines
Algeria	14,1	12,9	n.a
Morocco	8,2	3,9	51
Tunisia (2006)	22,2	18	39,2
Egypt	9,4	10,1	6,2
Lebanon (2007)	5,1	5,4	n.a
Israel (2008)	2,1	0,1	95
Jordan (2007)	10,1	11	38,3
Syria	12,8	14,1	n.a
Turkey	1,2	0,1	n.a

Source: TRAINS; De Wulf and Maliszewska (eds.) (2009; n.a. non available)

tariffs applying to EU imports, whereas progress has been much more limited in the other countries. As a matter of fact, Israel has removed its tariffs to EU imports for 95% of its tariff lines. This suggests that the liberalization process between the EU and Israel is almost completed. Morocco is also in progress, whereas progress in and Egypt, Jordan, Syria, Algeria and even Tunisia is slower [4].

These results explain to a certain extent the limited effects of the Barcelona agreement identified in the previous section. In other words, the slow path at which tariffs are removed in MP countries leads to a limited preference margin for EU imports in MP country markets. As a result, the observed effects of the Barcelona process are much lower than the potential effects identified in CGE models, given that they were based on more substantial tariff liberalization.

III.2. Protection with regard to agriculture leads to efficiency losses

Since the liberalization of agriculture is excluded from the Barcelona agreement, protection remains at high levels both in Mediterranean countries and in the EU. As a matter of fact, Table 6 shows significant average tariffs, especially in Egypt, Tunisia but also Jordan, Morocco, Syria and Turkey.

More important than tariffs, NTBs in agriculture remain at particularly high levels. Indeed, the calculation of Trade Restrictiveness Indexes (TRIs) by Kee et al. (2006) suggest that i) protection due to NTBs is much greater than protection due to tariffs; ii) TRIs in agriculture are generally greater than in manufactured products; iii) NTBs in MP countries are particularly high compared to tariff protection, especially for Morocco and Tunisia (Table 7).

As a result, the efficiency effects expected from the Barcelona agreement cannot be exploited in agriculture and food products. In particular, the limited market access to the EU for key MP coun-

Table 6. Tariff protection in agriculture (%)

	Average tariff	Tariff peak (%)
EU	<i>n.a.</i>	<i>n.a.</i>
Algeria	19,4	<i>n.a.</i>
Morocco	23,1	227
Tunisia	49	889
Egypt	78,4	<i>n.a.</i>
Lebanon	11,3	<i>n.a.</i>
Israel	3,9	<i>n.a.</i>
Jordan	26,3	<i>n.a.</i>
Syria	22,5	<i>n.a.</i>
Turkey	21,2	<i>n.a.</i>

Source: TRAINS; De Wulf and Maliszewska (eds.) (2009); last year available; *n.a.* non available

tries, such as Morocco, prevents these countries from developing their comparative advantages in specific export products, especially fruit and vegetables. This statement is also supported by a recent empirical study based on gravity models (Emlinger et al., 2008). In the same way, the remaining protection in MP countries limits to a large extent market access to EU exporters (dairy products, cereals, etc...).

Currently, the obstacles to further trade liberalization in agriculture are mainly of political nature. In this regard, the stalling of multilateral negotiations since the initiation of the Doha round in 2001 has reinforced the political unwillingness to further liberalize agriculture.

Table 7. Trade restrictiveness Indexes (TRIs) for Tariffs and NTBs

	Tariffs and NTBs	Tariff Only
EU	0,45	0,08
Algeria	0,55	0,02
Morocco	0,71	0,09
Tunisia	0,94	0,1
Egypt	0,53	0,12
Lebanon	0,46	0,09
Israel	<i>n.a.</i>	<i>n.a.</i>
Jordan	0,24	0,11
Syria	<i>n.a.</i>	<i>n.a.</i>
Turkey	0,4	0,1

Source: Kee et al. (2006)

III.3. More generally, non tariff barriers remain at high levels in Mediterranean countries...

As shown above, tariff removal does not translate into a removal of trade protection. Indeed, the Barcelona agreement does not address NTB elimination. As a matter of fact, overall protection remains at high levels in MPs.

To illustrate this statement, Kee et al. (2009) have recently calculated ad-valorem equivalent (AVEs) of NTBs in 91 countries in the world. The main results are reported in Table 5. It is striking to observe that MP countries exhibit significant AVEs for NTBs. For example, in Algeria, Egypt and Morocco, NTBs exhibit an average of about 40% in tariff equivalent. If we add these AVEs to the remaining tariff protection with regard to the EU, overall protection amounts up to 60%.

Figure 9 also suggests that AVEs in MPs are generally much greater than in both developed and emerging countries. In particular, Algeria, Morocco and Egypt show higher AVEs than Central American and Asian countries. There are however two exceptions. The one is Tunisia which exhibits AVEs close to the world average, and Turkey, which is the only MP country with a low AVE level (only 6%).

One should also notice that NTBs in the EU15 are also significant, i.e. about 13.4% in AVEs. Based on the results of Kee et al., they are greater than in Japan (11.1%), the USA (9.5%) and Canada (4.5%). To sum up, it is obvious that the exclu-

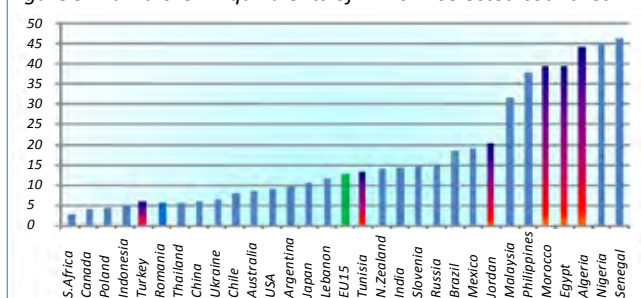
sion of NTBs from the Barcelona process reduces to a large extent the potential gains of regional integration in the Euromed area. This is mainly due to the fact that the reduction in tariff accounts only for a small part of trade liberalization since NTBs are much greater than tariffs in most countries.

III.4. The specific impact of Technical Barriers to Trade (TBTs)...

Additional analysis makes it possible to investigate problems due to specific NTBs. In particular, Technical Barriers to Trade (TBTs) seem to be a major obstacle to trade, as shown by Michalek (2005). This author argues that contrary to CEECs, the share of MP countries' exports subject to regulation is quite low. This partly reflects the inability of MP to fulfill technical regulation or standards in the EU. However, there are some differences between Israel and Turkey (which have a higher export share subject to regulation) and the other MP countries (which have a high share of exports subject to no regulation).

In any case, the existence of substantial TBTs leads to trade distortion with regard to MP-EU trade. As a result, potential gains due to economic integration cannot be exploited. In this respect, Michalek (2005) shows in a partial equilibrium approach that technical harmonization has a positive impact on trade between countries which implement this harmonization procedure. These results have strong policy implications which will be discussed in the next section.

Figure 9. Ad-Valorem Equivalents of NTBs in selected countries



Source: Kee et al. (2009)

III.5. The case of rules of origin

Rules of origin (ROOs) define the conditions that a product must fulfill to be deemed as originating in the country from which preferential access is being sought. The main justification for ROOs is to prevent trade deflection, whereby a product from a non-participating country

can reach the EU through free trade partners of the EU to avoid the payment of customs duties. However, several authors argue that ROOs are sometimes very restrictive and lead to significant costs and reduction in trade within a PTA (Breton and Manchin, 2003a; Pomfret, 2003, etc...). However, the restrictiveness of ROOs also depends on the specification of cumulation, which can be bilateral, diagonal or full.

The Barcelona process was initially based on a process of bilateral cumulation. However, the benefits of this type of cumulation are limited, mainly because of the fact that it imposes the EU as the supplier of inputs and because the EU is not the cheapest supplier. Diagonal cumulation seems of greater relevance for the Euromed region. In this case, qualifying input from anywhere in the region could be used in the production of a final product which could then be exported duty free to the EU. In this regard, Augier et al. (2005) show that diagonal cumulation has a strong positive impact on trade within the EU area. In a more recent study, Gasiorok et al. (2008) reinforce this conclusion as well as Breton and Manchin (2003b). However, they also show that the current ROOs are not always perceived as a major obstacle to South Mediterranean countries' exports to the EU. It depends on the country and the industry. For instance, a large proportion of Egyptian exports to the EU are in industries where establishing a proof of origin is simple. One exception is textiles where the possibility of cumulation with Turkey would improve firms' ability to export.

In any case, the adoption and the implementation of a Pan-European diagonal cumulation system would be of crucial importance, as stated in the Palermo Declaration 2003. Beyond that, the question is also raised about the adoption of a system of full cumulation (Breton and Manchin, 2003b). This would make possible more fragmentation of production processes among the members of the Euromed area. As a result, economic linkages and trade would be stimulated within the region. Addi-

tional discussion will be provided later in the policy recommendation.

III.6. Services have been excluded from the Barcelona agreement despite a recent liberalization process

Another aspect of the non achievement of regional integration between the EU and Mediterranean countries is related to services, which were initially excluded from the Barcelona agreement. This absence of liberalization for services is also a major obstacle to gains from trade. As a matter of fact, Togan and Michalek (2007) show a significant effect on GDP, especially for Turkey and Tunisia. As an example, the liberalization of the banking sector in Turkey is expected to increase GDP by 2.4%.

However, since the early 2000s, some progress has been made by Mediterranean countries in two respects. First, they have started a liberalization progress through GATS commitment. Second, the initiation of regional negotiations in 2006 for service liberalization with the EU is expected to progressively improve the situation, provided that an agreement is actually concluded and implemented.

Several attempts have been made to quantify trade barriers for services. Based on data corresponding to the year 1995, i.e. before the liberalization process, Fontagné et al. (2009) calculate AVEs for 9 categories of services in more than 60 countries in the world, of which three are MP countries (Egypt, Tunisia and Turkey). Results show that i) protection of services in these countries is high, i.e. very often greater than 50% depending on the country and the service category; ii) the highest AVEs are found for business services (AVEs up to 88% in Turkey), construction (up to 81% in Egypt), communication (up to 72% in Tunisia) as well as banking and insurance (up to 63% in Turkey).

More recent studies find evidence that protection has decreased in recent years. For example, Togan

and Michalek (2007) show that AVEs in Turkey for the banking and telecommunication sectors, which respectively amounted to 31.5% and 33.5% in the late 1990s, decreased to 3.7% and 2.7% in 2005. This spectacular decrease in service protection in Turkey highlights the strong integration process of this country in the world economy, especially with regards to the EU (see also Galal and Reiffers, 2008).

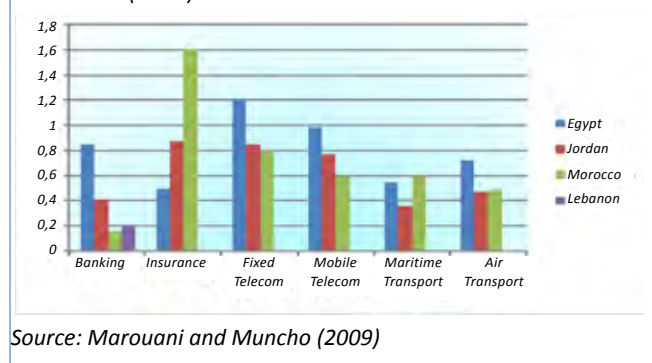
A similar study which focuses on Egypt, Jordan, Morocco and Lebanon also reveals some progress for these countries, though to a lesser extent than Turkey (Marouani and Munro (2009)). This study shows there have been significant regulatory reforms over the past decade in the service sectors investigated, despite the continued existence of a broad range of restrictions. Banking, telecom and air services have been subject to the most extensive reforms, which mainly led to the softening of the constraints imposed on foreign equity participation. This concerns in particular Lebanon and Jordan, for which foreign participation has dramatically increased, especially in the banking sector. As a result, these countries have considerably reduced protection in Mode 2 and 3, while maintaining high protection levels in Mode 4 [5]. As observed by the authors, this allows them to attract more foreign capital while keeping some control on management and employment in these sectors.

Morocco has also undergone significant reforms in the air transport, telecom and banking sectors. However, in these service categories, the government continues to keep control of capital participation of strategic companies. In addition, foreign exchange control plays the role of a transversal barrier for modes 1 and 2. With regard to Egypt, the insurance and telecom sectors have been the most liberalized, but progress toward privatization of large public companies has been slower than in the other MP countries.

To sum up, the recent progress toward service liberalization in MP's is a first step toward more in-

tegration to the world economy. However, some additional progress must still be made toward more liberalization to the level reached by other emerging countries. In addition, a specific agreement with the EU seems to be necessary so as to create a genuine FTA which includes services. This would boost the gains due to the Euromed agreement by extending its scope. As an exam-

Figure 10. Trade Restrictive Indexes (TRIs) in Egypt, Morocco and Jordan (2009)



ple, trade in services accounts an additional 25% of trade of goods, leaving a significant space for additional gains.

III.7. A lack of genuine horizontal integration (GAFTA)

As suggested by several authors, MPs would be in a position to benefit more from vertical integration (with the EU) provided that the horizontal integration (with other Mediterranean countries) is also achieved (Puga and Venables, 1997, Péridy and Bagoulla, 2010b). This is due to the fact that integration between MP countries is expected to improve the efficiency of the production processes in this area (through market de-segmentation, scale economies, appropriate industrial location and other efficiency gains). This in turn is expected to increase the gains in the whole Euromed area, through backward and forward linkages.

However, and despite real efforts made by MP countries to reduce tariffs in the GAFTA area, it is obvious that south-south regional integration

is far from being achieved. In this respect, many obstacles still remain. These include:

- Significant and sometimes increasing NTBs in the GAFTA area, especially for textiles (cumbersome administrative procedure, high TBTs, lack of mutual recognition or common standards, trade frictions in sensitive industries).
- The lack of liberalization in specific sectors, especially services
- Persisting segmented markets due to political disputes and the lack of cross-border infrastructure. This makes it impossible to exploit scale economies in this area.
- Problems related to unclear and inappropriate rules of origin.
- The presence of important distortions which lead to negative spillover effects in some MP countries. For example, energy prices substantially differ among GAFTA members: countries such as Saudi Arabia have the lowest price of oil in the world compared to Lebanon which is an importer of oil. This leads to a significant distortion which is detrimental to Lebanese firms by reducing their competitiveness not only in the GAFTA markets but also within their own domestic market. This situation is even reinforced by state intervention through subsidies and taxes in the oil industry which are not harmonized between countries (Ghoneim and Péridy, 2009)
- Problems due to slow macroeconomic and governance reforms.
- The lack of attractivity for FDI (Neaime, 2005, Abu-Al-Foul and Soliman, 2008)
- The lack of financial and monetary cooperation. This concerns exchange rate misalignment, divergence in business cycles, monetary and macroeconomic policies, etc... (Neaime, 2005; Abu-Bader and Abu-Qarn, 2008)

These obstacles lead to significant inefficiencies which prevent the Euromed area to producing additional welfare gains. In this respect, the implementation of a Pan-European FTA becomes a central issue, which will be discussed in the next section.

III.8. Specialization in MPs are still based on low value added products

As shown in section one, the great bulk of MP country exports still concentrate on low value added products. Although there has been recent improvement by increasing the technical contents of the products, progress toward upgrading is too slow.

Progress toward research, innovation and human capital is too slow

An increasing number of research studies points out the role of education and research in explaining the economic success of some countries in terms of growth or convergence. With regard to MPs, although their average growth performance over the past decades is slightly greater than that of EU-15 countries (about 3%), several authors argue that some Mediterranean countries have not clearly started their convergence process toward EU per capita levels (Guétat and Serranito, 2010; Péridy and Bagoulla, 2010), except Tunisia, Turkey as well as Egypt to a lesser extent. This raises the question about the causes of this phenomenon. In recent research, Péridy (2010) show that the innovation gap between the EU and MP countries is a major factor which explains the lack of convergence process between these two areas.

For example, Figure 1 exhibits the values of R&D expenditures in the Euromed area. Three country groups can be identified. The first includes Northern European countries (plus Israel as an exception), with R&D expenditures which generally exceed 2% of GDP. In this respect, Scandinavian countries show the greatest percentages (above 3%). An intermediate group involves Southern EU countries (Spain, Italy and Portugal) with a corresponding percentage generally above 1% (except Greece with 0.6%). The last group includes MPs which generally exhibit R&D shares below 1%, except Tunisia (1.1%). This classification also work taking other variables, such as the human capital index, the technological innovation index, the number of researchers per million inhabitants, etc...

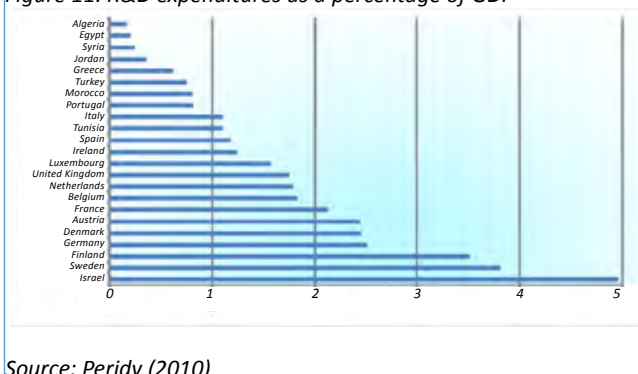
In a next step, Péridy (2010) tests the impact of several R&D and innovation proxies on growth within the Euromed area. It is shown that the innovation parameters are positive and significant at a 1% level whatever the index considered and whatever the estimator. This result suggests that innovation plays a crucial role in the Euromed area for explaining differences in growth across countries. It is also shown that the innovation gap between the EU and MP is a major factor which explains the lack of convergence of these countries toward EU standard. In this regard, the countries which show the best innovation performance, such as Tunisia and Turkey strongly increase

gap between MP countries and the EU is detrimental to growth and convergence of MP countries toward EU standards. The following section returns to these issues through policy recommendations.

Section 4: Policy Recommendations

The investigation of the effects of the Barcelona agreement (section 2) and the identification of the major obstacles which explain that these effects are small (section 3), lead to the following recommendations.

Figure 11. R&D expenditures as a percentage of GDP



Source: Péridy (2010)

their chances of convergence toward EU standards of living. On the other hand, Algeria and Syria exhibit a much poorer performance, which significantly explains their divergence. As a result, regional integration and openness are necessary but not sufficient conditions for growth and convergence. Innovation matters as well as other variables such as the type of specialization (low or high value added products), infrastructure, education and research.

To sum up and conclude this section, many obstacles referred to above relate to the lack of deep integration both vertically (EU-MP) and horizontally (GAFTA). Beyond that, the problem of the specialization process is also crucial for explaining some disappointing effects of the Euromed partnership. This questions the role of industrial policies as well as public and private investment in appropriate industries. Finally, the problem of innovation and research extends the previous investigation by showing that the innovation

1. Mediterranean countries must complete their tariff removal with regard to EU products. As shown in this chapter, Israel and Turkey are the only Mediterranean countries which have substantially reduced their tariffs vis-à-vis EU imports. The other countries still exhibit significant average tariffs, i.e. up to almost above 10% in most of them. This can be explained both by the slow path of tariff reduction in some countries and by the fact that some other countries have signed only recently the Barcelona agreement. In any

case, the completion of tariff removal in the coming years should produce additional trade and welfare gains which are missing today.

2. Priority must also be given to the removal of NTBs. Indeed, we have shown that except for Turkey which has significantly reduced its NTBs, the other Mediterranean countries exhibit significant NTBs, especially in Algeria, Egypt and Morocco. In these three countries, NTBs amount for about 40% as tariff equivalent. Tunisia is at an intermediate position, i.e. close to the world average (13%). In addition, the EU must also reduce its BNTs vis-à-vis MPs since the EU tariff equivalent is also significant (13%).

3. Amongst the various NTBs which can be reduced, Technical Barriers to Trade can be reduced through progress toward mutual recognition or the adoption of EU technical regulation (although this solution appears to be costly for MPs).

4. The adoption of the diagonal cumulation system for rules of origin should also be a priority as a means of reducing trade costs between the EU and Mediterranean countries. In this regard, the Palermo Declaration (2003) has paved the way for the implementation of this system. Beyond that, the question is also raised about the adoption of a system of full cumulation. This would make possible more fragmentation of production processes among the members of the Euromed area. As a result, economic linkages and trade would be stimulated within the region.

5. The question of the liberalization of agriculture has been debated for a long time. This has become an issue of political nature. Protection (including NTBs) is currently at a very high level, not only in Mediterranean countries (with trade restrictiveness indexes varying from 0.24 in Jordan to 0.94 in Tunisia) but also in the EU (0.45). The increased liberalization in agriculture would make it possible to i) produce additional efficiency and welfare gains; ii) stimulate comparative advantages and thus exports, especially in Morocco which has a strong comparative advantage in these products; iii) reduce the migration pressure of seasonal workers (since domestic production could be possible at larger scale in Mediterranean countries before exports to the EU). On the other hand, this liberalization would lead to a loss in producer surpluses in the EU competing sectors (fruit and vegetables, especially tomatoes, citrus fruit, strawberries, etc...). However, it must be reminded that EU producers were also expected to experience a production loss when Spain and Portugal joined the EC in 1986. Contrary to what was expected, EC producers have been in a position to face the Spanish competition and to develop their own production thanks to the implementation of product differentiation and quality improvement, e.g. French strawberry producers.

6. Liberalization of services is necessary to increase efficiency and welfare gains from the Barcelona agreement. In spite of signifi-

cant progress toward liberalization in the past decade (through GATS commitments), there is still significant progress to be made. Turkey is the country which has achieved the most service liberalization with protection levels below 5% in the banking and telecom sectors. Jordan and Lebanon have significantly increased foreign participation in most sectors, especially banking. However, these countries still control management and employment in services (Mode 4). Morocco can improve its efforts in liberalizing strategic services companies which the government still controls. In addition, the question of foreign exchange control, which plays the role of a transversal barrier for modes 1 and 2, should be investigated. In addition, additional liberalization is expected in the insurance sector for which restrictions are still significant. With regard to Egypt, the insurance and telecom sectors have been the most liberalized, but progress toward privatization of large public companies has been slower than in the other Mediterranean countries. Additional progress is expected in this area. Finally, a specific agreement with the EU seems to be necessary so as to create a genuine FTA which includes services. This would boost the gains due to the Euromed agreement, by extending its scope. In this regard, the initiation of regional negotiations in 2006 for service liberalization with the EU is expected to progressively improve the situation, but negotiation should be accelerated.

7. Promoting horizontal integration between Mediterranean countries should also be encouraged. This would improve the efficiency of the production processes in this area (through market de-segmentation, scale economies, appropriate industrial location and other efficiency gains). This in turn is expected to increase the gains in the whole Euromed area through backward and forward linkages. Despite real progress in tariff liberalization within the GAFTA area, this area is still not integrated. As a matter of fact, intra-GAFTA trade barely accounts for 10% of the

overall trade of these countries. Several ambitious action plans should be implemented:

- a. A reduction of trade costs which remain very high within the area (strong reduction in NTBs, liberalization of services, adoption of clear rules of origins, etc...)
- b. Reducing distortions through fiscal harmonization
- c. Attracting FDI through appropriate fiscal, economic, and industrial incentives and policies.
- d. Fighting against market segmentation which prevent Mediterranean countries from exploiting scale economies (development of cross-border infrastructures as well as administrative and political cooperation)
- e. Speeding up macroeconomic and governance reforms
- f. Initiating financial and monetary cooperation (addressing the exchange rate misalignment and harmonizing when necessary monetary and macroeconomic policies)

Regional integration and trade liberalization are necessary but not sufficient conditions for boosting growth in Mediterranean countries and promoting their convergence process. Several other conditions must be fulfilled through appropriate policy measures:

8. Developing knowledge economics, i.e. human capital, innovation and R&D. This chapter has shown that innovation is a major vector of growth in the Euromed area. In this regard, the innovation gap between the EU and Mediterranean countries prevent these countries from converging toward EU GDP standards. The recent efforts of Tunisia, for which R&D accounts for more than 1% of its GDP, is encouraging and we have shown that this explains to a certain extent that this country has started its convergence process toward the EU. However, Algeria, Syria and Egypt rank well behind. This is a major obstacle to growth. As a result, governments in Mediterranean countries should give priority to education, innovation and research by i) developing

public investment in this area, including training; ii) providing incentives for private investment in specific high-tech or innovative sectors (clean energy, IT, etc...); attracting foreign capital through FDI in selected industries.

9. Promoting “value added” specialization and upgrading. It is well established that the current specialization process in Mediterranean countries is not particularly growth-creating because it relies on low value added industries and because of the lack of upgrading. Serious efforts must be made in this field. Although the government cannot directly change this situation, it can initiate some new directions through i) the promotion of training and innovation in the appropriate industries; ii) fiscal incentives for domestic and foreign firms

10. Improving the business environment by i) extending and completing macroeconomic reforms ii) accelerating the reform of the State and the public sector toward more transparency and efficiency (governance); iii) extending the domestic access to foreign firms; iv) investing in infrastructure (highways, high speed trains, maritime transport).

Given that these efforts also have a cost, the EU-Mediterranean agreements can be used as a means to share a part of the efforts thanks to i) increased EIB loan participation; ii) developing joint training, education and research programs; iii) developing innovative projects through the Union for the Mediterranean framework; iv) the development of technology transfers through private EU investments in the Mediterranean region, etc...

Endnotes

1. Similarly, the world indicator does not represent the average of results for the 2 partner groups, that is EU and the RoW.
2. Medium range technology industries represent more than 33% of MPs exports in 2009 excluding energy and primary products, versus 15% in 1995.

3. See also Annex B1 for an example of CGE models.
4. Please note that data corresponding to Tunisia are from 2006.
5. This study takes into account the four types of services, including Mode1 (cross-border trade), Mode 2 (consumption abroad), mode 3 (commercial presence) and mode 4 (presence of natural persons).

Chapter 2. Capital Flows In The Euro-Med Region

I. Introduction

Globalization and financial integration present both challenges and opportunities to Mediterranean Partner Countries (MP). With perhaps the exception of Lebanon, Egypt, and Jordan, MP are not yet well integrated into the world economy, and if the trend continues, they risk becoming even more marginalized. This is evidenced by the fact that recent growth performance in the region was not up to international standards of emerging countries. The Mediterranean (MED) region has not benefited from private capital being channeled to emerging markets. Moreover, the current capital inflows are still mainly in the form of short-term capital being unevenly distributed within the region. Lebanon, however, has done remarkably well in terms of attracting foreign direct investment (FDI), placing its economy in the forefront of countries in the MED region. This trend is expected, however, to be adversely affected by the current financial crisis in the coming years.

What is even more alarming is the aftermath of the 2008 global financial crisis, which has affected directly the MPs via the trade and capital flows channels. Some MPs are facing today a sharp decline in both domestic and international liquidity coupled with other aftershocks of the financial crisis, thus contributing to further macroeconomic imbalances. Exports revenues have declined by about \$75 billion in between 2008 and 2009 in all MPs, with related declines in tourism revenues, remittances, and portfolio and foreign direct investments. While some developed countries and a number of large emerging market economies are now showing some signs of recovery, the effect of the crisis on MPs has not yet fully unfolded. However, a low degree of financial integration with global capital markets, limited exposure of the MPs' banking system to derivative financial assets, and spillovers from increased public spending in the Gulf Cooperation Council (GCC) countries have helped these countries avoid a substantial fallout from the crisis.

Weaknesses in the financial sectors of some MPs made the transmission of the financial crisis in the region a source of concern, and have undermined the recent integration efforts of those countries with the EU. Moreover, insufficient growth prospects in the more advanced economies, higher financing costs, and a decrease in FDI and workers' remittances are leading to soaring capital account deficits, and are a source of concern for the sustainability of the balance of payments, and could subsequently trigger a balance of payment crisis due to the still prevailing fixed exchange rate regimes in several MPs. In addition, some MPs still suffer from the absence of bond markets, well developed stock markets, high real interest rates, and a combination of inadequate governance and the absence of an adequate business environment conducive to attracting FDI and portfolio investments. These factors among others limit the rebound after the crisis in the region..

Intra-regional capital flows have been primarily in the form of workers' remittances and foreign direct investments—mainly from the GCC countries like Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates to the poorer MPs, like Egypt, Jordan, Lebanon, Morocco and Tunisia—which are highly correlated with the donor's business cycle and thus with fluctuations in world market prices of oil. Both of these factors have adversely been affected by the global financial crisis. Inter-regional capital flows between the EU and the MED regional which have amounted to about USD 20 billion since the signing of the Barcelona Agreements in 1995 are also expected to be adversely affected as a result of the recent EU's debt and financial crisis with consequences on some MPs which have relied on those flows for growth and development and for meeting their debt and debt service obligations. The rest of the chapter is divided as follows. Section II describes in detail the major trends of capital flows in the MPs over the past five years emphasizing FDI and portfolio investments, as well as remittances and bank credits to the private sector. Section III studies capital flows' volatility, as well

as their contribution towards national investment and public debts. Finally, the last section will offer policy recommendations on how to increase the capital flows' attractiveness, how to control/manage their volatility, and how to further orient the flows towards economic development.

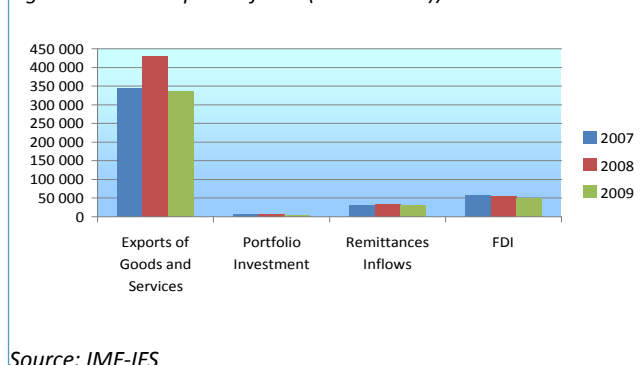
II. Trends in Capital Flows in the MPs: 2004-2009

Capital flows to the MPs have started to drop in 2008 for the first time since 2001, and the declining trend is expected to continue in the foreseeable future. In the wake of the global financial crisis, most MPs suffered from the negative spillover effects emanating mainly from the EU as well as

competitiveness, large trade and budget deficits, the accumulation of sizeable external debts and in some instances have increased the potential for a balance of payment crisis. The implications have also been felt on the balance sheets of private sector's corporations.

Currently, capital is flowing in one direction, namely MPs providing liquidity to portfolios managed in the major markets to cover their mounting losses and margin calls. However, the accelerating growth of money supply through central banks increasing extensively net credit to the banking sector, has made little impact on the credit crunch in those countries, and there is no picking up of bank lending because of the persistent risk aversion and the insistent tendency of flight to quality in most MPs. Currently, financial markets that fuelled growth in MPs are drying up. This constitutes an extremely serious constraint for those countries, as this is the time when external capital inflows are needed most to stimulate economic growth and employment and to roll over debt. Private flows (including financial flows and remittances) to MPs have also fallen since 2008.

Figure 1. MPCs Capital Inflows (USD Million)



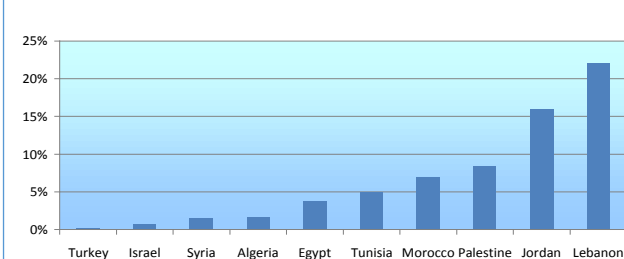
from GCC countries. Capitals flows from GCC and EU countries to MPs have been hit primarily through lower workers' remittances, as well as, through lower FDI, portfolio flows, and exports mainly to the EU, (Figure 1). Low EU's real GDP growth rates lowered the demand for the MPs' exports, mainly from Egypt, Tunisia, and Morocco [1].

Moreover, the recent record oil price decreases have affected negatively the growth outlook in all MPs. Lower oil revenues since 2008, will continue to generate low liquidity in GCC countries - with negative spillover effects into the MPs- and are expected to contribute in increasing further the region's interest rates, and in lowering worker's remittances and portfolio flows [2]. Higher interest rates have led to lower GDP growth rates, nominal exchange rate appreciations, losses in international

II.1. Remittances Inflows to the MPs: 2004-2009

Financial integration in the MPs is still a far reaching goal. While labor markets in the Mediterranean region are highly integrated relative to other integrated regions worldwide, capital markets are still far from being integrated for several reasons. Large intra-regional labor movements have been the main vehicle of the region's financial integration, triggering substantial financial flows in the form of workers' remittances. To a large extent, intra-regional labor movement has been from MPs to GCC countries. In the early 1990s, the stock of foreign labor in the GCC countries reached 5 million and accounted for about two thirds of the total GCC labor force; of these, 55 percent came from MPs. This share has decreased since the mid-1990s, while the share of Asian labor has increased. The MPCs labor force in

Figure 2. Remittances 2009 (Inflows in % of GDP)



Source: World Bank, World Development Indicators, and IMF.

the GCC countries is expected to decline further as policies of substituting nationals for foreign labor are gradually implemented by the GCC countries. The inflow of MPs labor into the GCC countries has been beneficial for both the exporting and importing countries. For the GCC economies, it provides needed skilled and unskilled manpower in various fields. For the MPs, it is a source of employment for often unused factors of production. Moreover, capital flows in the form of labor remittances have a direct positive balance of payments impact and account for much of the private investment in certain countries in the region, such as Jordan, Egypt, and Lebanon. Remittances have recently amounted to about 15 percent of the exports of goods and services of MPs (Figure 1). Workers' remittances were equivalent to about 22 percent of GDP in Lebanon, 17 percent of GDP in Jordan, and 9 percent in the West Bank and Gaza in 2009 (Figure 2). Therefore, any decrease in remittances, resulting from the

crisis, will have a detrimental effect on the MPs' rate of growth of real GDP, debt service capabilities, and may trigger a balance of payment crisis due to the fact that both Jordan and Lebanon are still adopting a fixed exchange rate regime to the US dollar.

Remittances revenues constitute an important source of foreign exchange and contributor to economic growth for all the MPs.

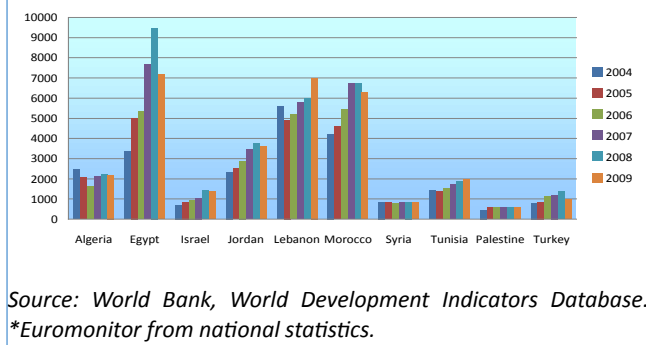
They constitute also another important source of hard currency, providing valuable foreign exchange that is used to finance current account deficits and foreign debt service payments, not to mention meeting consumption demands of the domestic market. In Egypt, for instance, remittances have increased from USD 3.3 billion in 2004, to USD 9.4 billion in 2008, constituting a 180 percent increase. However, these flows have decreased by one third in 2009-as a result of the financial crisis-to reach the USD 7.1 billion level. Lebanon, however, fared much better despite the recent financial crisis. Remittances have increased from USD 5.5 billion in 2004, to USD 7 billion in 2009, followed by Jordan where remittances have also increased from USD 2.3 billion in 2004, to USD 3.6 in 2009. The picture is quite similar in Morocco, Tunisia, and Israel where remittances have also increased from USD 4.2, 1.4, and 0.714 in 2004, to USD 6.2, 1.9, and 1.3 billion in 2009, respectively. No significant

Table 1. Remittances Inflows to MPs: 2004-2009 (USD Million)

	2004	2005	2006	2007	2008	2009*
Algeria	2460	2060	1610	2120	2202	2193
Egypt	3340.7	5017.3	5329.5	7655.8	9476	7150
Jordan	2330.3	2499.7	2883.3	3434.1	3737	3604
Lebanon	5591.4	4924.3	5202.2	5769.2	6000	7000
Morocco	4220.8	4589.5	5451.3	6730.4	6730.4	6264
Syria	855	823	795	824	850	828
Tunisia	1431.6	1392.7	1510	1715.7	1870	1966
Palestine	454.8	597.97	597.97	597.97	597.97	560
Turkey	804	851	1111	1209	1360.9	970
Israel	714	850	944	1042	1422	1313
MPCs Total	22202.64	23605.47	25434.47	31098.33	34246.34	31936.03

Source: World Bank, World Development Indicators Database. *Euromonitor from national statistics.

Figure 3. Remittances Inflows: 2004-2009 (USD Million)



change in the inflow of remittances to Algeria, Syria, and Turkey is registered over the period under consideration (see Table 1 and Figure 3).

II.2. FDI Inflows to MPs: 2004-2009

World FDI flows experienced declines in 2008 and 2009 as a result of the ensuing global financial crisis. The Middle East and North Africa (MENA) region's share in global FDI inflows has remained low relative to other emerging regions worldwide. Figure 4 indicates that the MENA region's share in total FDI inflows has remained below the 4 percent level in 2007. While South, East, and South East Asia ranked first in terms of FDI inflows with a 13.5 percent share, followed by Latin America and the Caribbean region with a 6.8 percent share, Africa with a 2.8 percent share, and the MENA region with a 3.2 percent share.

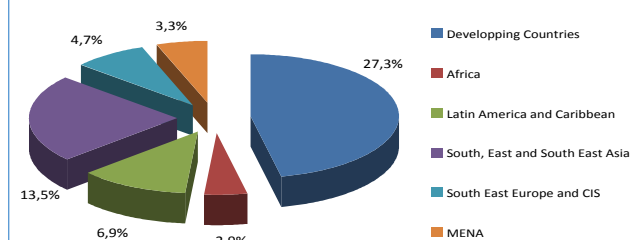
Inflows of FDI to the MPs witnessed a sharp decline in 2009 relative to 2007, when they dropped from USD 55.7 to USD 32.7 billion, constituting a decline of about 70 percent (Table 2). The economies of the MPs are currently faced with tighter international capital markets and a drying up of external financing, as global deleveraging and increasing risk aversion curtailed international investors' interest in these economies. As a result, MPs' economies were deprived from their main growth engine, which translated into more pressure on the balance of payments, with similar pressures on exchange rates. If these declining trends continue in the foreseeable

future they may then jeopardize the recent EU-MED financial integration efforts through a widening of the income gap between the EU and its MPs.

The MPs may be divided into 2 sub-groups with regard to attracting FDI inflows. The first group comprises those countries that managed to achieve considerable growth in the inflow of FDI, regardless of the negative spillover effects of the global financial crisis. Under that category comes Lebanon, where FDI inflows more than doubled in between 2004 and 2009, increasing from USD 2.48 billion in 2004 to reach USD 4.8 billion in 2009. Algeria and Syria are in a similar situation; however the magnitude of the increase has been less significant in between 2004-2009, reaching respectively USD 2.85 and 1.43 billion in 2009.

The second group includes those MPs that have achieved significant growth in FDI prior to the 2008 financial crisis, but have been adversely affected by the crisis, and they are Egypt, Israel, Turkey, Morocco, Jordan and Tunisia. In Egypt, FDI inflows peaked in 2007 at USD 11.6 billion, but then experienced a significant decline to USD 6.7 billion in 2009, which is a decrease of about 72 percent. This serious decline in the inflow of FDI to Egypt could have had detrimental consequences on Egypt's economy, and could have triggered a balance of payment crisis, had Egypt continued pursuing a rigid fixed exchange rate peg to the USD. The earlier move to a flexible ex-

Figure 4. FDI Inflows to Various Emerging Regions: 2007 (%)



Source: UNCTAD, World Investment Report, 2008.

Notes: MENA: Middle East and North Africa, and CIS: Commonwealth of Independent States.

Table 2. FDI Inflows to MPs: 2004-2009 (USD Million)

	2004	2005	2006	2007	2008	2009
Algeria	882	1081	1795	1662	2646	2847
Egypt	2157	5376	10043	11578	9495	6712
Israel	2947	4818	15296	8798	10877	3892
Jordan	937	1984	3544	2622	2829	2385
Lebanon	2484	3321	3132	3376	4333	4804
Morocco	895	1653	2450	2803	2487	1331
Palestine	49	47	19	28	52	33
Syria	320	583	659	1242	1467	1434
Tunisia	639	782	3312	1616	2758	1688
Turkey	2779	10010	20223	22023	18148	7611
MPCs Total	14089	29658	60469	55749	55092	32735

Source: UNCTADstat..

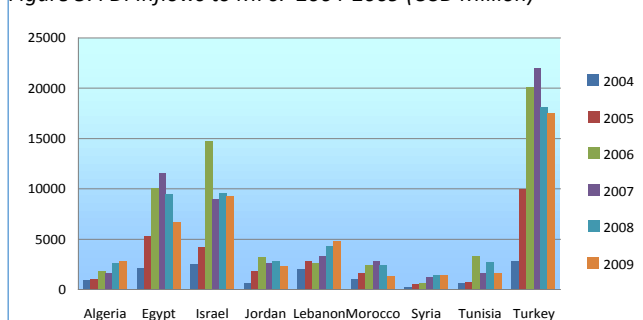
change rate system in 2002 has helped Egypt stimulate exports, service its accumulated foreign debt, and use monetary policy more effectively to deal with internal and external macroeconomic imbalances. In Jordan and Tunisia, FDI inflows rose to USD 3.5 and 3.3 billion respectively in 2006, but declined subsequently to USD 2.38 and 1.68 billion in 2009 respectively. Jordan is in a much tighter position than Egypt due to the still prevailing rigid exchange rate peg to the US dollar. If this declining trend in FDI inflows continues then Jordan may well experience a balance of payment crisis, forcing its central to move to a free float. Similarly, Morocco and Turkey's FDI inflows reached the USD 2.8 and 22 billion levels in 2007, to decline to USD 1.33 and 7.6 billion in 2009. In Israel, and after peaking in 2006 at USD 15.29 billion, FDI declined to 3.89 billion in the year 2009.

Figure 5 indicates that Turkey accounts for about 35 percent of total FDI inflows to the MPs on average and over the period under consideration, followed by Israel, Egypt, and Lebanon with an average share of 18, 13, and 9.6 percent respectively. From the low end, and with a lower than 10 percent share of total FDI to the MPCs, is Syria, Algeria and Tunisia who are still not able to attract enough FDI to stimulate domestic growth.

Table 3 sheds more light on the contribution of FDI to real GDP growth rates in MPCs. The data indicates that the ratio of FDI stocks to GDP in eight MPCs did not exceed the 10 percent level over the 2004-2009 period. This clearly indicates that FDI inflows-considered as the main engine of economic growth- to the MPs are not yet able to contribute significantly to the growth rates of real GDP. In 2009, this ratio varied from a high of 14.3% in Lebanon and 10.4% in Jordan, to a low of 0.46% in Palestine, 1.46% in Morocco, 3.57% in Egypt, but stood at 2, 2.7, 2.28, 4.2, and 1.76% in each of Algeria, Syria, Tunisia, Turkey and Israel respectively.

Even though some MPs have undertaken recently some financial reforms and pursued sound macroeconomic policies, the current financial crisis-which is not of their making-is disproportionately penalizing them and pu-

Figure 5. FDI Inflows to MPs: 2004-2009 (USD Million)



Source: UNCTAD, World Investment Report, Various Issues.

Table 3. FDI Inflows as Ratio to GDP in MPs: 2004-2009 (%)

	2004	2005	2006	2007	2008	2009
Algeria	1.04	1.06	1.53	1.24	1.55	2.02
Egypt	2.74	5.99	9.35	8.89	5.85	3.57
Israel	2.63	5.67	6.11	7.18	3.76	1.76
Jordan	5.71	13.97	22.08	15.42	13.34	10.41
Lebanon	9.31	13.04	11.94	13.50	14.69	14.30
Morocco	2.14	7.65	3.73	3.73	2.80	1.47
Palestine	1.36	1.17	..	..	0.78	0.46
Syria	1.11	1.82	1.97	3.06	2.69	2.73
Tunisia	2.27	2.70	10.65	4.54	6.76	4.2
Turkey	0.71	2.08	3.80	3.41	2.49	2.28

Source: UNCTAD, World Investment Report, Various Issues.

ting an additional hurdle that will have to be overcome in the near future, as financial capital is leaving their markets and flowing back to the epicenter of the crisis which has opened a floodgate of bond issuing to finance gigantic stimulus packages. MPs need therefore to exert intensive efforts to raise their share in global FDI inflows which has remained relatively low. The measures that could be taken include in addition to adequate macroeconomic policies to respond to the current financial crisis- the acceleration of south-south economic, financial, and trade integration efforts, coupled with enhanced reform programs, and stressing the institutional and governance aspects in particular. Moreover, these countries need to accelerate the implementation of the privatization process, which represents an important factor in promoting the inflow of FDI at the global level, particularly the

privatization of the services sector. MPs would also have to fight financial and administration corruption and eliminate bureaucracy, which represent strong impediments to the inflow of FDI. The political instability the region has been facing as a result of the failure to achieve comprehensive peace continues to exert a negative influence on the ability of the MPs to attract FDI. Even so, in some MPs, the evolution of FDI inflows in the first part of 2010 allows for some optimism.

II.3 Portfolio Flows to MPs: 2004-2009

II.3.1 MPs Stock Markets

The scenario of portfolio flows to the MPCs is quite similar to the FDI scenario. Private capital and portfolio flows to the region have been also relatively li-

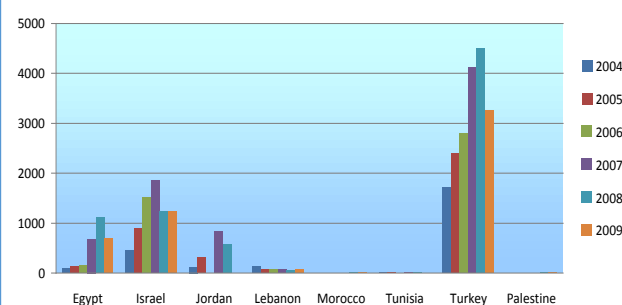
Table 4. Portfolio Inflows to MPs: 2004-2009 (USD Million)

	2004	2005	2006	2007	2008	2009
Egypt	91.7	132.2	152.3	678.9	1118.3	691.4
Israel	443.3	888.1	1516.1	1849.6	1229.2	1236.5
Jordan	125.2	312.7	540	840.3	572.78	350.12
Lebanon	135	63.5	69.67	74.920	59.86	63.84
Morocco	0.204	0.011	0.012	0.224	11.8	5.12
Tunisia	12.84	3.85	2.4	4.21	5.19	3.26
Turkey	1710	2402	2801	4118	4495	3261
Palestine	1.03	2.27	0.98	1.05	12.3	10.11
MPs Total	2519.27	3804.63	5082.46	7567.20	7504.44	5621.35

Note: Algeria and Syria are excluded due to lack of data.

Source: IMF-IFS.

Figure 6. Portfolio Inflows to MPs: 2004-2009 (USD Million)



Source: IMF-IFS.

mitted. While cross border capital flows between the financial markets of the GCC countries increased significantly in recent years, they remained negligible with the other MPs. Intra-regional portfolio investments have been made mainly in those MPs that implemented policies conducive to strengthening the operational framework of the domestic financial market, such as Egypt and Jordan. It should also be noted that capital markets in the MPCs have traditionally been less important in channeling capital flows. A fairly developed commercial banking system has taken the lead in attracting and distributing capital, and in stimulating portfolio investments in the MPs. Table 4 indicates that with the exception of Israel and Turkey, portfolio flows have remained relatively very low and below the USD 1 billion level in all the MPs. In between 2008-2009, and as a result of the financial crisis, portfolio flows have declined in Egypt, Jordan, and Turkey, from USD 1.1, 0.572 and 4.4, billion to USD 0.691, 0.35 and 3.2 billion respec-

tively. Total portfolio flows to the MPCs have declined also from USD 7.5 billion in 2008, to USD 5.6 billion in 2009, constituting a 33 percent decline.

Similar to the FDI flows scenario, Figure 6 indicates that Turkey seems to enjoy the highest inflow of portfolio flows, followed by Israel and Egypt. Turkey accounts for about 60 percent of total portfolio inflows to the MPs on average and over the period under consideration, followed by Israel, Egypt, and Lebanon with an average share of about 20, 15, and 3 percent respectively. From the low end, and with a lower than 5 percent share of total portfolio flows to the MPs are Tunisia and Morocco.

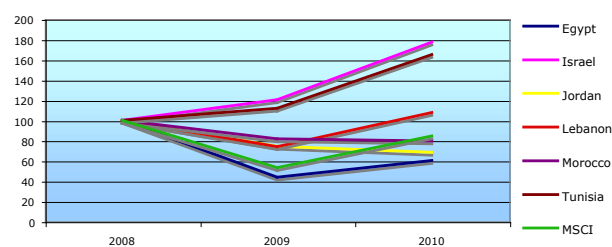
With the possible exception of Egypt, Israel, Turkey, and Morocco, MPs' equity markets have only come to the fore in the 1990s. Despite their small market capitalization, during the past ten years, the MPs equity markets have exhibited performance characteristics parallel to other emerging markets in similar stages of development (Papaioannou and Tsesekeos 1997, Akdogan and Edgar 1995). Record market capitalization growth rates can be noted in Egypt and Morocco and to a lesser extent in Jordan over the 2005-2010 period (Table 5) prior to the financial crisis. This is due to massive privatization plans introduced in Egypt and Jordan, to the extensive sale of government assets to private firms,

Table 5. Stock Market Capitalization in MPs: 2005-2010 (USD Million)

	2005	2006	2007	2008	2009	2010 (July)
Algeria	..	..	..	..	..	..
Egypt	79,508	93,6	134,903	83,185	86,267	76,325
Jordan	37,639	29,78	41,298	35,984	31,985	28,065
Lebanon	4,917	8,303	16,093	14,789	18,297	17,909
Morocco	5,569	11,894	18,535	63,42	60,694	61,764
Palestine	3,157	2,712	2,403	2,104	3,199	3,408
Syria	2,835	4,22	499	638	9,399	12,028
Tunisia	2,835	4,22	4,992	6,381	9,399	12,028
Turkey	161,537	163,774	289,985	119,698	235,996	232,112

Source: Arab Monetary Fund, Joint Arab Economic Report, various issues, and Federation of Euro/Asian Stock Exchange (<http://www.feas.org>)

Figure 7. MPs Stock Market Performance: 2008-2010



Source: Egyptian Stock Exchange, Tel Aviv Stock Exchange, Amman Stock Exchange, Beirut Stock Exchange, Casablanca Stock Exchange, Bloomberg, and Wikinvest.

Notes: MSCI is the Morgan Stanley Capital International Index for Emerging Markets.

and to the considerable efforts devoted recently to enhancing the efficiency, depth, and liquidity of the two stock markets. However both Egypt and Jordan's stock market capitalizations have declined significantly in between 2007-2009 as a result of the global financial crisis, from USD 134.9 and 41.3 billion in 2007, to USD 76.32 and 28.06 billion respectively in 2010. In addition, it should be noted that the open access to foreign investors to almost all MPs stock markets has contributed significantly to the growth performances of MPs' stock market capitalization.

The spillover effects of the global financial crisis on the MPs and its effects on their stock markets varied according to their degree of financial integration with the EU/US stock markets. MPs such as Egypt, Jordan, and Morocco (See Figure 7) with large exposure to EU/US banks, bonds and equity markets, were the first to suffer. These countries are facing a four-edged sword, i.e. plunging asset prices, higher cost of borrowing, capital outflows

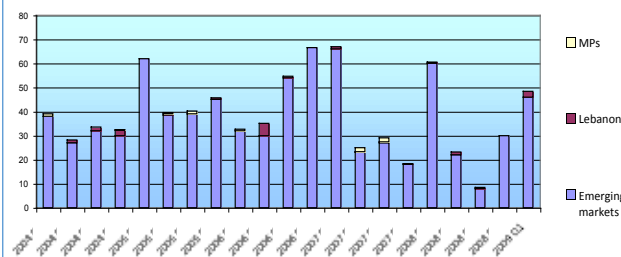
and a decrease in exports. Other MPs such as Tunisia and Israel have become more resilient with respect to past crises, owing to the built up of adequate foreign exchange reserves, and robust fiscal stance.

II.3.2 MPs Bond Markets

While some MPs countries have been hit by the worst exogenous financial shock in decades, other countries were ill equipped to fight the financial consequences of the crisis given their poor financial markets, especially their bond markets. Alleviating the low liquidity flows of those countries, and providing them with the fiscal space needed to combat the financial crisis would also help stabilize European demand, and should thus be regarded as an integral component of EU countries' stimulus package. However, the limited reliance on international financial flows in the majority of MPs- with the exception of perhaps Egypt and Jordan- has contained the full disruption of local financial markets. MPs' bond markets are still primitive and their bond issuance constitute a relatively very small portion of other emerging markets' bond issuance with the exception of Lebanon (see Figure 8).

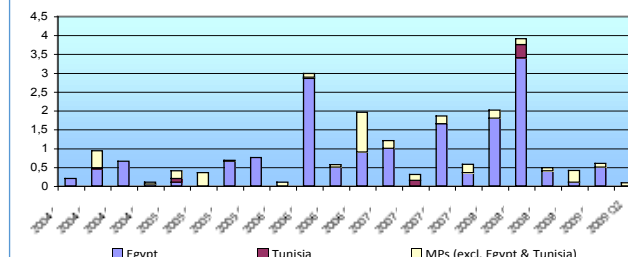
Figure 9 indicates that with the exception of Egypt and Tunisia, cross border liquidity in the form of loans has remained low and in some instances totally insignificant in all MPs. This contained to some extent the financial fallout in all these countries.

Figure 8. MPs Bond Issuance, 2004-2009 (USD Billion)



Source: IMF-IFS.

Figure 9. MPs Cross Borders Loans: 2004-2009 (USD Billion)



Source: IMF-IFS.

II.4. Intra MPs Capital Flows

During the mid 1990s, intra MPs capital flows averaged between 1 and 3 percent of the average GDP. However, these low ratios improved significantly after the hikes in oil prices reaching the 10 percent level in 2006, to decline back to 2 percent of average GDP in between 2007-2009. Private capital flows within the region have been relatively limited. While cross border transactions between the financial markets of the GCC countries increased significantly in recent years, from about 5 percent of their total transactions with the world in 1992, to 50 percent in 2006, they remained negligible with the other MPs, at 5 percent of total transactions. Intra-regional investments have been made mainly in those MPs that implemented policies conducive to strengthening the operational framework of the domestic financial market, such as Egypt and Jordan. Intra-MED investments in 2007 were concentrated in the services sector, which received around 50 percent of the total, followed by industry and agriculture in that order. Notwithstanding the many negative effects of the global financial crisis which had some positive implications for intra-MED investments as was evident in the case of Lebanon, where the large inflow of capital in 2008 and 2009, led to a noticeable increase in investments in real estate and improvement in the balance of payments in 2009.

II.5. Efforts to Promote Intra-MED Investment

At the country level, investment promotion policies focused on three main elements, namely, (1) enacting and updating investment promotion laws, (2) establishing national committees to oversee investment projects and facilitate administrative procedures relating to these projects; And (3) establishing free trade areas.

At the regional level, the Investment Development Committee in the MED countries was established under the Economic Unity Council in September 2003. The Committee aims to provide information

pertaining to the development of intra-MED investment and the promotion of MED investment projects through research and analysis of the investment situation in the MED world, and the periodic issuance of a MED investment map that identifies investment opportunities in the region, both geographically and by sector. The investment map that was issued lately included four thousand investment projects spread over 15 MED countries, as well as a list of the main obstacles to intra-MED investment. The Committee is also working towards the establishment of a MED investment area in an effort to attract migrant MED capital.

In this connection, it is worth noting the establishment of the Islamic Development Bank Fund for Infrastructure in 2002, with the aim of attracting MED migrant capital to invest in infrastructure projects in the Islamic MED world. Recently, the Fund has approved three projects worth around USD 200 million, which were selected from 200 investment projects submitted by 55 countries members of the Islamic Development Bank.

II.6. Domestic Credit in MPs: 2004-2008

The private sector still plays a major role in contributing to national investment and growth in nearly all MPCs, with the exception of Syria. The private sector is and will remain the main engine of growth and development in almost all MPs. A fairly developed commercial banking system has taken the lead in extending credit to the private sector, in contrast with a much less developed stock and bond markets, which have not yet been able to significantly contribute to growth by helping local firms to raise funds domestically to finance new investment projects in the MPs economies.

Despite the current negative repercussions of the global financial crisis, domestic credit to the private sector has been on an increasing trend over the last five years (Table 6 and Figure 10). In Turkey domestic credit more than tripled over the 2004-2008 period, increasing from USD 70 billion in 2004 to USD

Table 6. Domestic Credits to the Private Sector: 2004-2008 (USD Million)

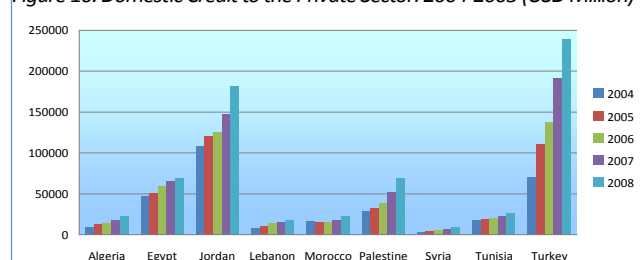
	2004	2005	2006	2007	2008
Algeria	9484	12395	14471	18057	22497
Egypt	47623	51454	59415	66075	69682
Jordan	107735	120361	125798	147727	182063
Lebanon	8524	11089	13817	15678	17788
Morocco	16531	14977	15814	18398	22210
Palestine	28363	32084	37967	52511	68826
Syria	2860	4207	4961	6104	8625
Tunisia	18382	18818	19708	22515	26864
Turkey	70059	110226	137472	191089	239628

Source: IMF/IFS.

239.6 billion in 2008. Similarly in Lebanon and Algeria where domestic credit more than doubled from USD 8.5 and 9.4 billion in 2004, to 17.7 and 22.4

to the private sector. However, if private demand and consumption fail to pick up, coupled with a limited scope for continued policy stimulus would imply a

Figure 10. Domestic Credit to the Private Sector: 2004-2005 (USD Million)



Source: IMF-IFS.

worsening of the growth and unemployment problems. In the long run, focus will need to shift toward raising MPs' productive capacity. Addressing unemployment calls for greater private sector-led growth. Low integration with the EU's economies means losing out on the upside potential. As the recovery takes place, MPs government policy focus will need to shift towards enhancing private sector's productivity.

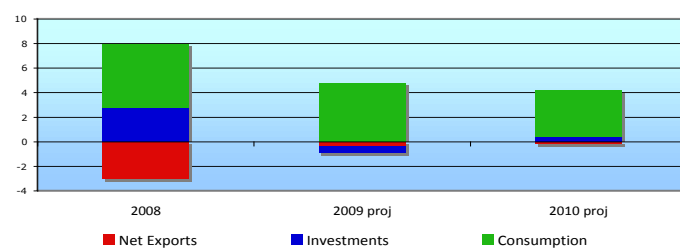
billion respectively in 2008. Syria also experienced significant increases in domestic credit to the private sector from USD 2.8 billion in 2004 to USD 8.6 billion in 2008. Other less significant increases over the period under consideration have occurred in each of Egypt, Jordan, Morocco, West Bank and Gaza, and Tunisia.

With the drying up of capital flows to the MPs and tight budget and current account deficits, and exports under pressure, future growth will hinge on the private sector. Private consumption which is the highest contributor to the growth rate of real GDP is expected to be the MPs' main engine of growth in the foreseeable future (see Figure 11). As the recovery takes place, policy focus will need to shift towards further private sector developments. One way to achieve this goal is through extending further credit

II.7. Capital Flows, Monetary Policy, and Exchange Rates

The exchange rate in Algeria, Jordan, Lebanon, Syria, Tunisia and Morocco has effectively been fixed to the US dollar. However, for Jordan, Lebanon, Morocco, and Tunisia where the capital account is not fully liberalized and cross-border capital transfers are not only restricted to the repatriation of workers' remittances, monetary policy is still ineffective in dealing with internal macroeconomic imbalances, as well as with the aftermath of the global financial crisis. It is well known that any monetary policy can, at best, accommodate only two elements of the impossible trinity of (a) full capital account liberalization; (b) a fixed exchange rate; and (c) an independent monetary policy geared towards the achievement of domestic objectives. A country following a floating exchange rate regime can enjoy a fully effective monetary policy

Figure 11. MPs Contribution to Real GDP Growth Rates (%)



Source: IMF-IFS.

and free international capital movement across its borders, while a country that has adopted a fixed exchange rate regime can depart from foreign interest rates and apply an independent monetary policy, provided international capital movement across its borders is prohibited. A case in point is Syria, however Syria has never adopted an effective monetary policy to deal with internal macroeconomic imbalances. If the exchange rate is fixed and cross-border capital movements are free, then monetary policy is powerless to achieve domestic goals, since any attempt by the monetary authorities to tighten the money supply will also prompt them to sterilize capital inflows in order to prevent the exchange rate from appreciating.

III. Capital Flows Impact, Volatility, and Contribution to Investment and Debt

III.1. Contribution of Capital Flows to National Investment

After having contributed to about 4 percent of the growth rate of real GDP in 2008, investment in MPs

is unfortunately expected to be the lowest contributor to the growth rate of real GDP in 2010, followed by net exports which are expected to contribute negatively to the growth rate of GDP. MPs will have to rely upon private consumption to stimulate GDP growth followed by government consumption in 2010 and 2011. The trade balance

has been experiencing recurrent deficits since the early 2000s-with the exception of perhaps Egypt and Turkey- and has not been able to be conducive to growth and development, and during the 2008 crisis has contributed negatively to the real GDP growth rate.

Given the size of its economy, Turkey has led the MPs in terms of investment levels in 2008, at about USD 160 billion, followed by Algeria, Israel, and Morocco with USD 57, 37, and 32 billion respectively (Table 7). Total investment in Lebanon, Jordan, and Syria has remained below the USD 10 billion level, at USD 8.9, 5.4, and 7.5 billion respectively in 2008.

Figure 12 indicates that despite the 2008 financial crisis, national investment in all MPCs is still on an increasing trend since 2004, despite the drying up of capital flows since late 2008 and the resulting upward pressure on real interest rates. The public sector in almost all MPs has been the main player in terms of stimulating investment projects whether

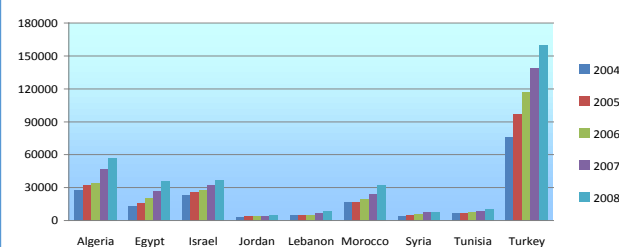
Table 7. MPs National Investment*: 2004-2008 (USD Million)

	2004	2005	2006	2007	2008
Algeria	28283	32248	34567	46476	57057
Egypt	13355	16122	20133	27206	36455
Israel	22776	25751	27409	32640	37305
Jordan	3124	4299	4635	4645	5437
Lebanon	4833	4789	5129	6939	8996
Morocco	16589	17141	19316	24437	32288
Syria	4261	4950	5853	7484	7524
Tunisia	6796	6308	7393	8687	10872
Turkey	76210	96748	116876	139188	160367

Source: Data Bank-World Bank.

Notes: *National Investment is proxied by Gross Capital Formation. Gaza and West is excluded due to lack of data.

Figure 12. MPs National Investment: 2004-2008 (USD Million)



Source: Data Bank-World Bank.

on infrastructure or other types of public projects. The increase in public investments whether through expenditures on infrastructure projects or through various stimulus packages introduced sin-

out effect, the drying out of liquidity especially liquidity originating in the GCC countries, and other forms of capital flows such as portfolio and FDI.

Table 8 indicates that the contribution of FDI to national investment has been significant for Egypt and Jordan over the 2004-2008 period, peaking in 2006 at about 50 and 70 percent, to revert back to 26 and 52 percent respectively in 2008. Tunisia and Lebanon have a little less significant contributions of FDI to national investments at about 48 and 25 percent

Table 8. FDI as Ratio to Total Investment: 2004-2008 (%)

	2004	2005	2006	2007	2008
Algeria	3.12	3.35	5.19	3.58	4.64
Egypt	16.15	33.35	49.88	42.56	26.05
Israel	11.10	16.59	53.86	27.63	25.84
Jordan	20.84	41.27	70.51	56.45	52.04
Lebanon	41.24	58.28	52.15	48.65	48.17
Morocco	6.45	9.64	12.68	11.47	7.70
Palestine	--	--	--	--	--
Syria	6.45	10.10	11.26	16.59	19.50
Tunisia	9.40	12.40	44.80	18.60	25.37
Turkey	3.65	10.35	17.17	15.81	11.32

Source: UNCTAD, World Investment Report, Various Issues and Data Bank-World Bank.

ce the crisis erupted is behind the increase in national investments. It is expected to see, however, a trend reversal starting 2009, as a result of higher real interest rates and the subsequent crowding

in 2008 respectively. Much less significant are the contributions in each of Algeria, Morocco, and Syria, with averages around 10 percent of total investment over the period under consideration.

Table 9. Portfolio Investment as Ratio to Total Investment: 2004-2008 (%)

	2004	2005	2006	2007	2008
Algeria	--	--	--	--	--
Egypt	0.01	0.01	0.01	0.02	0.03
Israel	0.02	0.03	0.06	0.06	0.03
Jordan	--	--	--	--	--
Lebanon	0.03	0.01	0.01	0.01	0.01
Morocco	0.00	0.00	0.00	0.00	0.00
Syria	--	--	--	--	--
Tunisia	0.00	0.00	0.00	0.00	0.00
Turkey	0.02	0.02	0.02	0.03	0.03

Source: IMF-IFS.

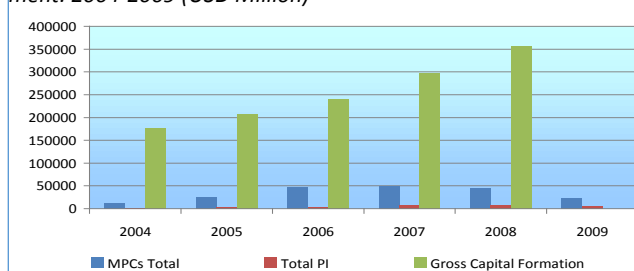
Table 9 indicates that the contribution of portfolio flows to national investment has not been significant for all the MPs over the 2004-2008 period, with the exception of perhaps Israel with a contribution of about 0.06 percent in between 2006-2007. In Egypt the contribution of portfolio flows to total investment has remained below 0.03 percent over the period under consideration, with similar figures for Turkey. Figures for Lebanon are much lower at about 0.01 percent of total investment. The contribution of portfolio flows to national investment has remained insignificant in each of Morocco and Tunisia.

It is clear from Figure 13 that both FDI and portfolio investments do not contribute much to national investments in most MPCs. This explains their low

flows constitute only a small portion of gross capital formation. In addition, the growth literature is rich in studies showing the positive contribution of government expenditures to economic growth, specifically in Less Developed Countries (LDCs). In those studies, public spending was analyzed based on its contribution to the productive sector –from the supply side –; and to its contribution to the demand side – in the Keynesian and post-Keynesian framework. Despite many critics of the early 1990's when the more liberal economic system was set against government intervention in the economy, many empirical studies, showed that public spending leads to growth. Endogenous growth models and many neoclassical studies (Barro, 1991, and Barro and Sala-i-Martin 1995), clearly state that government intervention in infrastructure has a

positive effect on growth through its positive impact on households and firms' income. In addition, government spending on infrastructure favors and enhances private investment. It is clear that the government should not intervene whenever the market, i.e. the private sector, is able to enhance growth (investment, technical innovations, research, etc....). This is however clearly not the case in most MPs where the public sector assumes a major role in the economy.

Figure 13. Contribution of FDI and Portfolio Flows to Total Investment: 2004-2009 (USD Million)



Source UNCTAD, World Investment Report, Various Issues and Data Bank-World Bank and IMF-IFS.

contribution to growth and development in those respective economies. For reasons already discussed above FDI flows are still limited to the MED region, whereas portfolio flows are even more limited due to the still undeveloped stock markets and the mere absence of well developed bond markets.

With the very disappointing contributions of FDI and portfolio investments to national investments and growth in most MPCs, it should be noted that one stylized fact in the MED region is that the size of the public sector in each MP is significant, and the majority of capital expenditures is undertaken by the public sector. This explains the observations made in Figure 13 where FDI and portfolio

III.2. Capital Flows, Exchange Rates and Debt

The current financial crisis has reversed the gains made during the past decade in reducing the debt burdens of some MPs, and might also carry the risk of new debt/exchange rate crises because of a dangerous combination of fixed exchange rates, negative external financial shocks, the higher cost of debt servicing, and the pressing need for increasing new external and domestic borrowing. Moreover, the structure of MPs' public debt highlights the extent of vulnerability of their debt burden to abrupt movements in capital flows and in exchange rates, as was the case during the current financial crisis. The sustainability of debt that is denominated in

Table 10. MPs Public Debt: 2004-2009 (USD Million)

	2004	2005	2006	2007	2008	2009
Egypt	83791.9	90844.6	98041.8	110268.1	121159.4	140123.3
Israel	120705.5	123225.7	120741.3	127553.5	152451.8	151665.4
Jordan	10129.8	10569.8	10366.7	11565.6	11880.2	13394.2
Lebanon	34800	38500	40600	42060	47000	50900
Morocco	33182.3	36948	37646.5	40254.5	42037.7	42614.5
Tunisia	16788.8	16917.3	16711.2	17947.3	19656.9	18067.5
Turkey	232327.2	252237.5	243258.2	254317.9	282784.9	287656.3

Source: Euromonitor International from National Statistical Offices/Eurostat/International Monetary Fund/OECD.

Notes: Algeria and West Bank and Gaza have been excluded due to lack of data.

foreign currency goes beyond the domestic conduct of fiscal and monetary policy mix per se to become dependent as well on the outcomes of exchange rate policies, and the extent of capital flows (exports, remittances, FDI, and Portfolio flows) to the individual MP. MPs need to closely coordinate the optimality of the fiscal and monetary policy mix, which will have important implications on the existent exchange rate arrangements, and on how those countries can in the future be more resilient to potential external financial crises similar to the 2008 financial crisis.

Table 10 indicates that with the exception of Tunisia, MPs' public debt has continued to increase over the last five years. Moreover, it is clear that the debt burden in Egypt, Jordan, Lebanon, and Turkey has been adversely affected as a result of the financial crisis and the subsequent drying up of capital flows to the MPs. In Egypt, total public debt has increased from USD 121 billion in 2007

to reach USD 140 billion in 2009, constituting a near 15 percent increase in just 2 years. Similar scenarios are observed in each of Jordan, Lebanon, Israel and Turkey where debt has increased from USD 11.5, 47, 127.5 and 254.3 billion in 2007, to USD 13.3, 50.9, 151.6, and 287.6 billion in 2009, respectively. Both Tunisia and Morocco's public debt burden appear to have been contained over the period under consideration, and despite the current financial crisis.

However, increases in the rates of growth of real GDP have dampened the effects of increased public debt on the respective MPs' economies as follows. In Egypt and even though debt has increased in absolute terms, it is on a declining trend in relative terms to GDP (see Table 11). In between 2007-2009, the debt to GDP ratio has declined from 83.5 percent to 74.9 percent. Similarly in Lebanon and Jordan where the debt to GDP ratios have also declined from 168 and 68 percent in 2007 to 158.5 and 58.5 percent, res-

Table 11. MPs Public Debt to GDP Ratios: 2004-2009 (%)

	2004	2005	2006	2007	2008	2009
Egypt	107	97.5	91	83.5	73.6	74.9
Israel	95.2	91.8	82.8	76.4	75.4	77.9
Jordan	88.9	84	70.8	68	56	58.5
Lebanon	162.1	176.1	180.9	167.9	160.9	158.5
Morocco	58.3	62.1	57.4	53.5	47.3	46.9
Tunisia	59.4	58.1	53.7	50.4	48	45.7
Turkey	59.2	52.3	46.1	39.4	38.8	46.9

Source: Euromonitor International from National Statistical Offices/Eurostat/International Monetary Fund/OECD.

Notes: Algeria and West Bank and Gaza have been excluded due to lack of data.

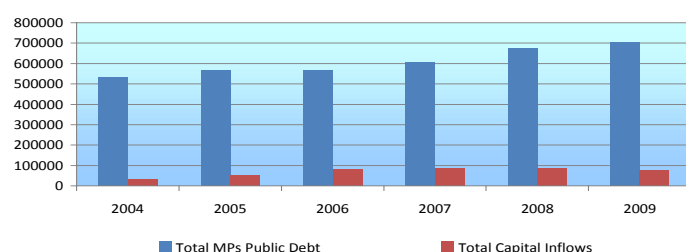
pectively in 2009. These noted improvements in the debt to GDP ratios of several MPs are however expected to be adversely affected during the next two years when real GDP growth rates starts to decrease again as a result of the financial crisis impact on the MPs' real sector. Turkey stands alone with increasing debt to GDP ratios with an increase from 38.8 percent in 2008 to 46.9 percent in 2009 (Table 11).

Figure 14 highlights the contribution of capital flows (mainly remittances, FDI and portfolio flows) to the MPs' total public debt and its service. For the eight MPs under consideration total capital inflows have remained way below the USD 100 billion level over the 2004-2009 period, when total public debt has been hovering between the USD 500-700 billion level. While it is clear that these capital flows have been rather insignificant when considered in relative terms to total public debt, they are in some cases (e.g., Lebanon, Egypt, and Jordan) crucial in covering the service of the respective debt. With further expected declines in capital inflows to the MPs coupled with further expected declines in GDP growth rates, MPs will have a tough road ahead not only in paying back their debt but also in meeting their debt service obligations. This may threaten their respective economies and may perhaps trigger a debt and balance of payment crisis in those MPs that are still pursuing a fixed exchange rate regime, such as Lebanon, Jordan.

On the other hand, the Euro-MED Trade agreements are likely to increase trade flows with EU countries, and this is likely to increase the balance sheet effect of exchange rate misalignment. Specifically, consider the case of a firm that is located in a MPC that pegs to the dollar, given the structure of the current financial system, the USD constitutes the major portion of the firm, as well as the MP's debt denomination, while revenues will be increasingly linked to the euro. If the euro depreciates vis-à-vis the dollar-as it did during the past 6 months- the firm will experience deterioration in its balance sheet that may reduce its investment, and in the aggregate negatively affect the MP's economic growth, and possibly generate a chain of defaults. The same is true for a MP that has a debt denominated in USD and exports in euros. It is therefore expected that further exchange rate volatility and the Euro-MED agreements will amplify the risk of balance sheet effects linked to exchange rate movements.

The theoretical literature (see Aghion, et al., 2001) on how currency mismatches affect firms' and individual countries' balance sheets, and the overall level of economic activity makes the point that a real devaluation increases the domestic currency value of foreign debt, and weakens therefore a country's debt position. By weakening countries and firms' balance sheets, any real devaluation prevents domestic firms from increasing production or investment. If this is the case, the expansionary effect of a devaluation that is generated within the standard Mundell-Fleming models is either attenuated or completely eliminated, yielding to a situation in which a devaluation is contractionary. While some authors show that the standard Mundell-Fleming result holds even in the presence of currency mismatches, others (Aghion et al., 2001) point out that if the balance-sheet effect is large enough, devaluation can be contractionary. This

Figure 14. Contribution of Capital Flows to MPs' Public Debt: 2004-2009 (USD Million)



Source: Euromonitor International from National Statistical Offices/Eurostat/International Monetary Fund/OECD, World Bank, World Development Indicators, and UNCTAD, World Investment Report, Various Issues.

Notes: Total capital flows are the sum of FDI, portfolio, and remittances inflows. Algeria and West Bank and Gaza have been excluded due to lack of data.

is a serious issue in the Euro-MED agreement in which firms may end up borrowing in one currency (the US dollar) and exporting to the Euro area in another (the euro), the proceeds of which being in euros.

In fact, in 1994, the government of Mexico undertook a devaluation that had been recommended to it by the IMF, in part to correct a real exchange rate overvaluation that appeared to be stifling growth in the country. A similar correction of the exchange rate had, in fact resulted in an acceleration of economic growth a few years before in the United Kingdom and Italy, when these countries opted out of the ERM (exchange rate mechanism of the European Monetary System) and allowed their exchange rate to depreciate. Surprisingly, in Mexico, the devaluation was followed not by an acceleration of growth, but by a debt crisis (a refusal of creditors to roll over existing debt or extend new loans) that resulted in a sharp contraction of economic activity.

As a result of the exchange rate peg to the US dollar and the fact that a major portion of MPs' external debt is denominated in USD, a typical balance sheet of a MP or a firm operating in the MED region is characterized in general by similar features i.e., a dollar debt on the liability side, while revenues are being increasingly denominated in euros. The major portion of debt at the firm and country levels is in US dollar. For the past decades, interest rates and exchange rates volatilities have had negative impacts on firms operating in MPs, on one hand, and on the fiscal position of nearly all MPs on the other. MPs with dollar liabilities have suffered considerably due to exchange rates and interest rates volatilities. For instance, the average composition of a typical balance sheet of a Moroccan, Egyptian or Israeli firm is 80-90 per cent dollar dominated, and most of its liabilities originate from creditors in the US. The story is quite similar for Jordanian firms where one sees that the liability structure is highly dollarized. Similar liability and average leverage ratios are observed in Lebanon, Algeria, Tunisia and Syria.

Also, the composition of Lebanon's public debt has been in 2009 half in local currency and the other half in USD. The figures are quite similar in Jordan and Egypt. In addition, and after the establishment of the Euro-MED Free Trade Area (FTA), the share of tradables in the production structures of MPs' firms is expected to increase considerably. This will amplify even further the balance sheet effect of exchange rate volatility. Subsequently, the negative impact will be on the firm in terms of investment, production and employment.

The enhancement of local capital markets, especially stock markets is also another way to dampen the effects of the crisis, and will help reduce the exposure of private corporations to currency mismatches due to foreign borrowings. Those corporations will be able to raise funds locally and reduce their exposure to external financial shocks. They will also reduce any currency mismatch (exchange rate risk) in their balance sheets, and dampen the implications of any sudden outflows of capital emanating from the current crisis or from other financial shocks.

III.3. Volatility of Capital Flows

There are a number of factors which may influence the volatility of capital flows in general, and FDI inflows in particular to the MPs [3]. First it is well known that FDI constitutes the single largest source of capital inflows for developing countries in general, accounting for about two-thirds of capital flows to LDCs in 2007 and 2008, and about 85 per cent of capital flows to Latin America. The impact of exchange rate volatility on investment decisions by international firms is one important factor. Devereux and Engel (2000) consider the welfare impact of fixed and floating exchange rate regimes in the presence of a stylized form of FDI. They argue that exchange rate uncertainty emanating from a floating regime represents two potential risks for a foreign firm investing in the home country plant. First, it faces the direct risk that a depreciation of the home currency will cause a net loss if the fixed

cost is paid before the exchange rate shock occurs. Second, an appreciation of the exchange rate might cause a negative shock to sales in the home market, also causing a net loss.

Another important factor is the overall unstable political environment in the MED region—whether the on-going Arab–Israeli conflict, or the internal political conflicts in some MPs— which has not been conducive to the attraction of FDI and other forms of capital investments to the MED region. In addition, the MED region still lags behind other emerging regions in terms of economic and financial integration, despite some efforts pushing in that direction, such as the establishment of the GCC, and the Greater Arab Free trade Agreements (GAFTA). Moreover, the bilateral association agreements might lead to a hub-and-spoke trading system (Wonacott 1996). Under a hub-and-spoke trading system, the hub country (the EU) liberalizes trade with each of the spoke countries (the MPs), however, the spokes only liberalize trade with one country, the EU hub. Producers in the EU hub can obtain least cost inputs from any of the MPs spokes, while competing producers in the spoke countries only experience falling costs on imports from the hub. Therefore, producers in the EU hub will gain a competitive advantage over producers in each of the MPs spokes upon implementation of the bilateral association agreements. Producers in the EU hub face lower barriers for selling their products in each of the Mediterranean markets than MPs’ producers, who gain improved access to the EU market but not relative to one another.

The result of the hub-and-spoke trading system of the EU-Mediterranean Association Agreements is that international investors will divert some foreign direct investment into the EU hub, to take advantage of its exclusive access to all MPs’ markets, in preference to investment in MPs. Once new industrial clusters are established in the EU, economic forces will hinder their relocation to the spokes when the bilateral agreements are expanded into the proposed

Euro-Mediterranean FTA. These economic forces include economies of scale, location of input supplying industries, labor pooling, and information pooling. Unfortunately, many MPs have limited resources for negotiating and implementing multiple trade agreements. This has resulted in MPs’ governments concentrating resources on implementing the new generation of association agreements with the EU, while devoting fewer of their limited resources towards intra-regional integration. It is imperative that MPs’ governments rapidly implement trade and financial liberalization and standardization between their regional neighbors, to prevent the artificial diversion of FDI from MPs to the EU industrial clusters. Only a full Euro-Mediterranean FTA will insure maximum economic gains and equal access to markets and FDI for all partners. It is imperative for MPs to move swiftly to liberalize intra-regional trade and FDI flows, and enhance south-south financial and monetary integration.

Another factor that may influence the volatility of MPs’ capital flows is the existence of real exchange rate misalignments. There exists ample empirical evidence suggesting that exchange rate movements do affect the volatility of capital flows, mainly FDI flows (see Froot and Stein (1991), Blonigen, (1997), and Klein and Rosengreen, (1994)). This has been particularly damaging for the inflow of FDI during the 1990s when several MPs experienced several episodes of exchange rate volatility. Moreover, Froot and Stein (1991) relate the flows of FDI to the existence of imperfections in capital markets. These capital market imperfections continue to prevail in all MPs. In particular, informational asymmetries regarding the value of an investment will limit the leverage of firms, making it costly or impossible to fully finance the investment through borrowing. Changes in real exchange rate affect wealth, and thus borrowing constraints. If foreigners tend to hold relatively more non-dollar assets, a depreciation of the dollar increases their relative wealth, and relaxes their borrowing constraints. This, in turn, will allow them to acquire more investments abroad.

Blonigen (1997) proposes an alternative channel for exchange rates to matter. He notes that the acquisition of a firm allows knowledge transfers from the parent company to the subsidiary, and also from the subsidiary to the parent company. This knowledge may take the form of a product or process development. If this technology can be applied by the parent company in its own market, this would lead to a stream of profits in the home market, in domestic currency. If this is so, a depreciation in the target host country will decrease the cost of this stream of revenues.

This last channel seems like a plausible scenario for FDI between EU countries. However, it does not relate well to EU-MED FDI. EU Firms have rarely acquired a MED firm hoping to obtain a new technology to apply in the home country. They have usually engaged in MED production activity for one of two reasons: either to take advantage of the difference in relative factor endowments and comparative advantage, in order to reduce overall costs of production (as in the vertical models of FDI), or to serve a protected market that would be too expensive to serve through trade (as in the horizontal models of FDI). In the case of vertical FDI, firms that produce for the world market locate different stages of production in different countries in order to reduce costs. A depreciation of the exchange rate will attract FDI in projects which are labor and land intensive, since the cost of land and labor is now relatively lower.

In the case of horizontal tariff-jumping FDI, firms have multiple production facilities producing the same good, with each facility supplying the domestic market. Whether a firm engages in FDI in a particular country will depend on the relative cost of serving this market via trade, or via domestic production. An exchange rate depreciation in the host country will reduce the cost of producing the good through local production, relative to serving this market through trade.

So far, we have discussed a number of channels through which exchange rate depreciation might increase incoming FDI. These channels suggest that

movements in the bilateral exchange rate between two countries will affect the relative amounts of FDI these two countries receive. In the case of vertical FDI, in which a firm produces for the world market, a depreciation may favor location in the depreciating country at the expense of all other potential hosts. A depreciation in Tunisia or Israel, will make Morocco relatively less attractive as a location of FDI. In the purest case of horizontal FDI, in which each production plant produces for the domestic market, in principle a depreciation should increase FDI inflows, but this would not necessarily come at the expense of other potential hosts. To the extent that production plants produce only for the domestic market, Israel or Tunisia would receive more FDI if their currency depreciates, but Morocco should in principle not be affected.

The problem with this last argument is that it does not take into account the existence of the Euro-MED regional integration agreement, which will create an enlarged market protected from the outside world. Provided there are economies of scale, the elimination of trade barriers implicit in the regional integration agreement will induce firms to produce in just one location within the bloc, and serve the extended market from this location. The Euro-MED regional trade arrangements may thus create a space of intense competition for the location of investment. Under these conditions, swings in the bilateral real exchange rates among countries in the Euro-MED bloc, which affect relative costs of production, may have important consequences for the location of new FDI, and in many cases may shift the location of existing investments as well. This argument suggests that swings in the real bilateral exchange rate of Morocco vis-a-vis Tunisia should have a larger effect on investment in Morocco than similar swings in the exchange rate vis-à-vis a country outside the Euro-MED RIA. In other words, we expect the elasticity of relative FDI to relative exchange rates to be higher in the case of countries belonging to the Euro-MED RIA.

Consider the case of horizontal FDI, in which each production plant produces for the domestic market. If the key reason for producing in local markets

is tariff-jumping, a trade agreement that creates an enlarged market protected from the outside world will induce firms to produce in just one location within the bloc and serve the extended market from this location. This may create a space of intense competition for the location of investment in which real exchange misalignments may have important consequences for the location of foreign direct investment. This is also true for vertical FDI where a depreciation of the exchange rate of the host country may attract FDI at the expense of all the remaining EU-MED countries.

With the above in mind, if MPs continue with their dollar peg, and the US dollar appreciates against the euro as it did in between 1999-2002, and which meant a real appreciation of MPs' currencies of about 30 percent against the euro, then FDI will certainly relocate to the EU countries. Upon the establishment of the euro-MED FTA and to prevent this scenario from repeating itself in the future, a peg to the euro should replace MPs' peg to the dollar. Such peg would eliminate any artificial appreciation of MPs' currencies against their major trading partner: The EU, due to the appreciation of the US dollar. Once a large market is created within the Euro-MED region, exchange rate policies should be altered to take into account any future negative impacts of real exchange rate appreciations. One way to get around this problem is greater fixity to the euro, or even better a Euro-Mediterranean currency union with the euro as its sole currency.

IV. Policy Recommendations

MPs have exhibited in general insufficient growth performances since the early 1990s. FDI and other forms of capital flows are still relatively very limited into the region. The unstable political environment, the Euro-Mediterranean Partnership agreements, and the aftermath of the global financial crisis are not helping at all in attracting capital, and in enhancing and improving growth performances of MPs. In addition, conditions in the labor market are still deteriorating with alarming performances

since the early 2000s. Capital accumulation and all sorts of investment whether FDI or portfolio investments are not yet bringing any significant growth benefits to the region. The unstable political environment that has plagued MPs has not been conducive in enhancing investment and capital accumulation in the region. Governance, corruption and other bureaucratic impediments to the inflow of capital have also been a hindering factor for the region's attractiveness to all sorts of capital flows. In addition, the lack of economic integration in the MED region is still a main factor behind the low level of FDI. Intra-regional capital flows are primarily in the form of workers' remittances and foreign assistance—which are highly correlated with the donor's economic circumstances, and thus with fluctuations in world market prices of oil and other macroeconomic factors.

The development of the MPs' financial sector should be a top priority on the reform agenda. The role of the banking sector has been crucial to economic growth, because it has constituted the main source of financing the private sector's activity. Stock and bond market are sometime virtually absent and firms cannot raise funds domestically. Increased financial integration within the MED region is expected to bring considerable benefits to MED investors by rendering capital more mobile across borders. As a result, a more liquid capital market would offer lower borrowing costs for MED firms wishing to raise funds locally. Moreover, international financial institutions will be willing to diversify their portfolios by tapping the MPs' financial markets which will benefit from portfolio capital inflows, if the convergence of asset returns in the world markets leads international investors to increase their MED markets holdings in order to diversify across countries with a wide range of risk and returns.

Increased financial liberalization within the MED region is expected to enhance regional intermediation of financial resources through close integration of financial markets and increased access

of MPs residents to the world financial markets to finance investment. In addition, MED investors will have access to a variety of risks adjusted rates of return to enhance the efficiency of portfolio allocation and diversification, which will foster the efficiency of MENA's financial markets. Increased liberalization within the MENA region is expected to attract important portfolio investments to the region for diversification purposes.

The enhancement of local capital markets, especially stock markets is also another way to dampen the effects of the crisis, and will help reduce the exposure of private corporations to currency mismatches due to foreign borrowings. Those corporations will be able to raise funds locally and reduce their exposure to external financial shocks. They will also reduce any currency mismatch (exchange rate risk) in their balance sheets, and dampen the implications of any sudden outflows of capital emanating from the current crisis or from other financial shocks.

On the other hand, an important part of financial integration is the increase in cross border trade through the lifting of trade and capital barriers as provided for in the Euro-MED trade agreements, the GCC and the GAFTA agreements, and other MED trade agreements. However, given the unstable financial environment in certain parts of the MED region, the pursued financial policies may not provide the required stability for increasing financial integration on a regional scale. It is well known that financial instability has in fact been so far a detriment to further integration in the MED region. As regional and global liberalization proceeds, policies formed under former macroeconomic conditions will become increasingly under pressure for not providing the stability needed for sound economic development in the new context of regional integration. Macroeconomic policy coordination, as an integral part of multilateral free trade agreements in the MED region, may therefore prove indispensable for successful economic integration in the region.

Flexible exchange rate regimes in MPs may not be a viable alternative for the majority of the MPs, given the virtual absence of independent monetary policies and well-developed capital markets. Another consideration is that underdeveloped monetary, political and policy-making institutions tend to undermine the effectiveness of discretionary monetary policy. For now, some type of fixed arrangement may be the safest option for most of these countries. For MPs engaged in a significant amount of trade with the EU, a euro peg may be more appropriate than a dollar peg. In all cases, those countries maintaining fixed exchange rate arrangements must implement crisis-prevention measures, namely by exercising fiscal discipline, managing their debts and foreign reserves, and avoiding real exchange rate appreciation. As countries in the MED region improve their monetary and fiscal infrastructures and become more integrated with global capital markets, they should opt for a currency union.

MED central banks should improve financial and monetary policy coordination to allow them to deal more effectively with financial and monetary imbalances. One way this may be achieved is through enhanced regional financial integration. The formation of an integrated MED capital market, for instance, would lower the region's interest rates, benefiting those MPs burdened with high levels of debt. Specifically, a larger and more integrated regional capital market would reduce the huge costs associated with servicing the accumulated public debt, and would lower the cost of raising capital, allowing companies in the region to rely increasingly on the local market rather than the world market for economic development resources; lower capital-raising costs translate into higher investment and GDP growth rates.

In the wake of the global financial crisis, MCs will need to strengthen the orderly workout of financial/corporate balance sheet effects of asset price falls on one hand, and promote financial market developments on the other. It is clear however

that low financial integration with the advanced stock markets has contained the fallout, coupled with effective monetary and fiscal policy responses. In the long run, focus will need to shift towards raising MPs productive capacity. Addressing unemployment calls for greater private sector-led growth. Low integration with the EU's economies means losing out on the upside potential. As the recovery takes place, MPs government policy focus will need to shift towards enhancing private sector's productivity.

Potential risks for MPs in 2011 are as follows: Weaker exports, tourism, and remittances revenues, and sudden stops or reversal in capital flows, mainly FDI and portfolio flows. Moreover, slowdown in EU countries will continue to impact the MPC of Egypt, Morocco, and Tunisia, while slowdown in GCC countries will continue to impact the whole region. In 2010, All MPs are likely to suffer the impact of slower growth (which will hamper «growing out of debt»), lower receipts from oil-producing countries, and further increases in government debt due to spending in the context of fiscal stimuli packages.

Even though some MPs have undertaken recently some financial reforms and pursued sound macroeconomic policies, the current financial crisis-which is not of their making-is disproportionately penalizing them and putting an additional hurdle that will have to be overcome in the near future, as financial capital is leaving their markets and flowing back to the epicentre of the crisis which has opened a floodgate of bond issuing to finance gigantic stimulus packages. Nonetheless, it should be noted that a minority of MPs was spared by the FDI transmission channel, countries such as Algeria and Lebanon registered an increase in FDI inflows for 2009 while Syria only registered a small decrease. Even so, the amount of inward investment in the latter economies, especially Lebanon and Syria, is not that important to begin with. MPs need therefore to exert intensive efforts to raise their share in global FDI inflows which has remained relatively

low. The measures that could be taken include-in addition to adequate macroeconomic policies to respond the current financial crisis- the acceleration of south-south economic, financial, and trade integration efforts, coupled with enhanced reform programs, and stressing the institutional and governance aspects in particular. Moreover, these countries need to accelerate the implementation of the privatization process, which represents an important factor in promoting the inflows of FDI at the global level, particularly the privatization of the services sector. MPs would also have to fight financial and administration corruption and eliminate bureaucracy, which represent strong impediments to the inflow of FDI. The political instability the region has been facing as a result of failure to achieve comprehensive peace continues to exert a negative influence on the ability of the MPs to attract FDI. Even so, in some MPs, the evolution of FDI inflows in the first part of 2010 allows for some optimism.

With the further integration of the MED region with the EU's economy, the increased regional and inter-regional monetary and financial economic integration, and the fast liberalization of the respective capital account, Jordan and Lebanon's central banks should consider shifting to more flexible exchange rates regimes, if they wish to render their monetary policy more independent, and deal at the same time more effectively and swiftly with any future potential financial or monetary shock. By and large, the EU has long been involved in cooperation initiatives in favor of the MPs' economies within the framework of the Euro Mediterranean Partnership Agreements launched in 1995, and different instruments have been put in place to support modernization and financial market reforms (recent examples are: MEDA, Neighborhood Policy Instrument, FEMIP, and the 2008 transition conference held in Brussels). However, the limited results obtained so far in bridging the gap between the shores of the Mediterranean have stimulated a reflection on the interventions necessary to make the EU's action more effective, especially in light

of the current financial crisis, and the consequent drying out of capital inflows into MPs.

Between 1995 and 2006, the European Commission allocated euros 9 billion to support modernization and economic reforms in MPCs. New capital of about euros 3.2 billion has been allocated to the region for 2007-2010, before the crisis. The sizeable credit interventions of the European Investment Bank (EIB), channeled, since 2002, through FEMIP have recently registered a further increase, with euros 10.7 billion allocated for the period 2007-2013, against euros 6 billion invested between 2002 and 2006 in the nine MPs. Moreover, it is believed that weaknesses in the MPs' financial sector are also behind the poor results achieved so far, and the current financial crisis has worsened the current problems even more. Among future priorities, the need is particularly felt to better coordinate the use of funds allocated by different EU sources, and strengthen the relationship among various international institutions operating in the region (e.g., European Commission, EIB, EBRD). In addition, the various stimulus packages introduced during the crisis in EU countries will need to account for the current financial imbalances in some MPs to prevent a further fallout in those economies, and revert all the gains that have been achieved so far through the various above funding programs.

built up prior to the crisis during the oil boom period 2003-2008.

3. Although this has not been the case for most of the MPs.

Endnotes

1. The sharp decline in oil prices has had a ripple effect on foreign reserves, coupled with declining capital inflows and shrinking export markets in all GCC countries. This is mainly due to having a low export base, concentrated in a few commodities, and great reliance on oil export revenues for debt servicing and government expenditures.

2. GCC countries have been directly hit by the financial crisis through a sharp decline in oil prices and revenues. But the impact has been mitigated to a great extent by countercyclical monetary and fiscal policies coupled with substantial reserves

Chapter 3. Mobility of Labour in the EU-Med: Potentials vs Constraints?

Introduction

Migration is one of the most complicated and sensitive aspects of today's integrated and globalised world. It is an inevitable and irreversible phenomenon that is expected to continue to increase for at least the coming 50 years. There are 214 million international migrants in the world representing 3.1% of the world population; half of those migrants are women. There is a 40% increase in the number of migrants compared to last decade. World Remittances reached \$414 billion in 2009 with more than 75% sent to developing countries and top migrations destinations remain to be the more developed and richer countries (OECD, American continents, Gulf, ..etc)[1].

The complexity of the migration issue is the reason behind its sensitivities and vulnerabilities to external shocks. According to a recent OECD report on migration, a decline of migration flows into the OECD countries was noticed in 2008 (a decrease by about 6%) reversing a steady increase of 11% per year for the previous 5 years, following the economic crisis that hit the OECD countries, and caused disruptions in their economies which had negative effects on their labour markets.

Migration within the EU-Med region is considered an even more complicated phenomenon that has been ongoing for more than 4 decades but that has received a lot of controversial attention recently. After more than a decade of a complete focus on trade and capital liberalization followed by a rather controversial services liberalization, it is inevitable to now focus on the fourth factor of production: the human capital.

From an economic point of view, as in the case of capital, goods and services, efficient movement of humans, as a factor of production, means better allocation of resources where there is a relative com-

parative advantage and relative strengths. It comes as a natural development of the liberalization and integration process in the EU-Med region. A great share of the expected positive impact from migration either on the receiving or the sending countries depends on the form of this migration, the types of skills and education and the types of policies that are put in place to benefit from this migration and address any possible negative impacts.

Some of these positive gains for sending countries could be quite clear: workers' remittances and easing unemployment pressures, some other gains could be expected from positive externalities in the long term (such as better education and training and transfer of knowledge); however, problems of loss of human capital (brain drain) could represent threats to those countries. Potential gains or losses in the receiving countries are more ambiguous and depend on many variables related to those domestic markets of the countries in question. Migrants could fill employment gaps in the receiving countries, but how does this translate into gains for those economies is not clear. Also, potential adverse impacts could be argued, such as imbalances in receiving labour markets and disintegrated societies. The net result for the receiving countries depends very much on the approach and policies that are involved. In a study done by the HDR about the economic effect of migration on receiving countries, it was suggested that destination countries would capture about one-fifth of the gains from a 5% increase in the number of migrants, amounting to \$190 billion[2].

It is clear that so far countries of the EU-Med have not reached the optimal benefits of the migration phenomenon and the migration net 'outcomes' are balancing in a case-by case basis between limited gains for some countries and large losses for others. It is believed that benefits from migration can surpass by far those expected from trade and capital liberalization, through its long-term effects on human capital. According to Rodrik (2002) free labour mobility can increase the world benefits by

almost 25 times larger than those from free capital and goods.

The 1995 Barcelona process is criticized for not adopting the right approaches in its fourth chapter on migration; the Neighbourhood Policies favoured the neighbouring European countries over the neighbouring Mediterranean partner countries; and finally the Union for the Mediterranean, which was originally designed to address the issues that have fallen off the cracks of the Partnership and push the focus away from the sensitive political issues, has so far not paid much attention to Migration issues. Therefore, it is quite understandable why the Mediterranean Partners (MPs) consider migration as the missing factor that limits the effects of this partnership.

The reasons behind migration flows from the MPs, either to the EU or to other regions of the world, seem to persist for at least the coming 5 decades, implying that these flows will not decrease or cease for years to come. However, there are a host of factors that have limited the full maximization of its potential benefits. Therefore, whether the region manages to take the most benefits out of it or bear its potentially negative consequences entirely depends on how successful these countries are in managing this process in a way that maximizes those benefits. There is no straightforward way to bring about the benefits of migration and it would take an exhaustive multidimensional approach from all parties involved to reach this objective.

This chapter addresses different aspects of human capital mobility from the MPs towards the EU, in the context of the EU-Med integration with the aim of highlighting the benefits, looking into the real obstacles and giving recommendations on how to overcome those obstacles to reach the potential benefits of this mobility.

The chapter is composed of three main parts. The first part will address the magnitude of migration from the MPs, this will address the

trends and destinations with a focus on migration to the EU. It will also address the reverse flow of remittances sent by those migrants from the EU to their MPs home countries. Also, some facts about the MPs as migrant receiving countries will be addressed. Finally, this part looks into the reasons behind (or determinants of) this migration from the EU-Med point of view. This part investigates the idea of the demographic tension on both shores of the Mediterranean that has created and will still create more flows of migration over the decades. Also the idea of the income differential and development gap as push factors of migration is considered.

The second part of the chapter looks into the impediments that prevent the EU-Med region from getting the most benefits out of migration and is divided into three parts reflecting three types of obstacles. The first section addresses two obstacles that have been subjects to many debates and discussions about their real effects on migration: the potential imbalances in the EU labour markets due to migration and the issues related to the EU enlargement. The second and third parts address obstacles that are believed to constitute the real challenges for achieving the benefits of migration. These obstacles are related to both the MPs and the EU. From the MPs' side these obstacles include the quality of the migrants from the MPs and whether they match the needs of the EU labour markets. It addresses the problem of matching the skills of migrants in asymmetric information conditions and looks into the status of the second-generation migrants. Finally the issue of Brain Drain is addressed and the possible net effects on the MPs economies. From the EU side these obstacles include the EU migration policies, integration policies and the role of the informal sector in absorbing migrants who are not able to find the right jobs in the formal sector.

The third and final part looks into how can the EU-Med region achieve those potential benefits of migration. It includes recommendations on how to

overcome these obstacles from both shores. The first section focuses on the role of the MPs and what they need to do to make migration a beneficiary process for their development, including investment in human capital, matching the skills and the role of the MPs policies towards migration. The second section highlights recommendations on what the EU countries need to do to make this migration work for their benefits this includes revisiting EU policies of migration and integration. The third section gives general recommendations at the regional level that should be taken into account from both shores. The final part acts as a conclusion.

I. Mobility across the Mediterranean: Labour and Remittances

I.1. Migration Trends from the MPs to the EU

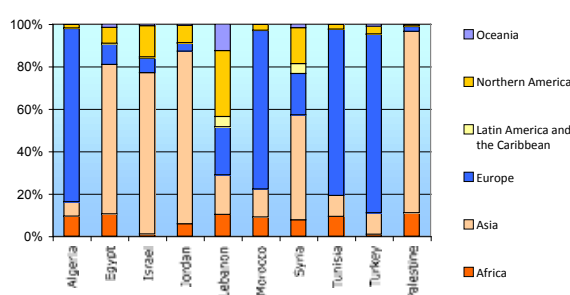
Migration from the MPs is a long-term phenomenon that goes back to the early 50s. There are more than 9% of the MPs population that live outside their home countries with a high concentration for those migrants in three particular regions: Asia, more specifically in the Gulf countries, Europe, more precisely in the EU countries and North America [3].

Destinations of migrants from the MPs depend on their country of origin. Migrants from the Mashrek countries (Egypt, Jordan, Palestine and Syria) have long term historical flows towards other Arab States country, namely the Gulf (fig 1) The flows increased with the oil boom of 1970s, as migrants found hundreds of thousands of open opportunities to work in these rapidly progressing and rich economies. Migrants from the MPs, and more precisely from the Mashrek represented about 55% of foreign labour in the GCC. After the gulf crisis of 1990 and following the GCC government plans for nationalisation, these migrants' flows have substantially decreased. However, this region is still considered the top destination of countries from the

Mashrek. In 2001, 75% of Egyptian migrants were living in the Gulf with temporary contracts.

Migrants from the Maghreb countries are concentrated in the EU countries, with a share of 82% of total migrants from the Maghreb countries. Turkish migrants represent 40% of migrants from the MPs to the EU, followed by Morocco with 33%. The highest number of Turkish migrant resides in Germany (90% of Turkish migrants to the EU). This massive migration towards Germany followed the bilateral agreement signed in 1991, which allowed firms (with Turkish partners) to employ Turkish

Figure 1. Flows of migrants from MPs to the EU27

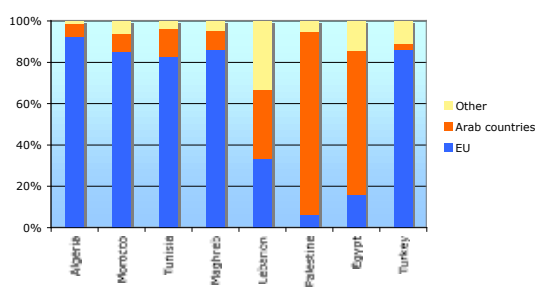


Source: UNDP, HR 2009

workers. Other migration concentration goes back to previous colonial ties, such as the Maghreb migrants in France.

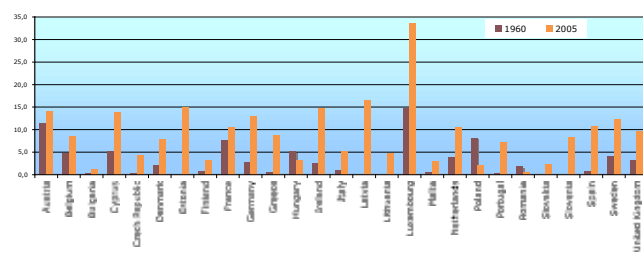
It is to note that, the European countries, especially those on the west, have been destinations countries of migrants for more than 4 decades. In the 50s and 60s, European countries, such as France, West Germany and Belgium were falling

Figure 2. Selected MPs according to countries of destination (%)



Source: Carim, 2005, based on national statistics of sending countries and for most recent years).

Figure 3. Share of international Migrants (% of population)

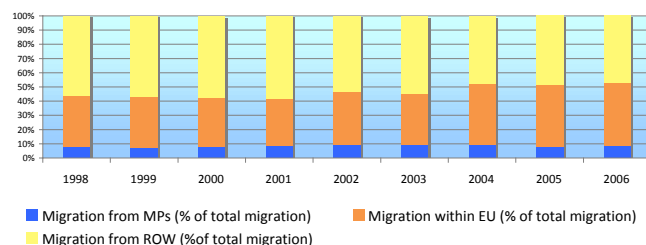


Source: WBI, 2010

out of meeting their labour demands, especially during this era of reconstruction. Migrants from both southern European countries, such as Spain, Portugal, Italy and Greece and to some extent from North African countries (Algeria, Mo-

place to limit migration, the flows continued for reasons such as family reunification or asylum-seeking. But as those countries from southern Europe started their own structural transformation and convergence in the 80s their migratory outflows declined, giving room to other migrants from both East Europe and the MPs. (Morocco, Tunisia, Algeria and Turkey). Between this era and today, migrants' share in some EU countries' population has more than tripled. (e.g. UK, Luxembourg and Germany (fig 3).

Figure 4. Distribution of International Migration to the EU-27 (MPs, EU and RoW)



Source: Eurostat, 2010

Migrants from MPs represent an average share of 9% of international migration to the EU-27 countries, amounting to about 272 thousand persons in 2006 (Fig 4) [4]. France, Spain and Belgium are hosting the highest concentration of Maghreb migrants whereas Italy, Greece and Cyprus host most of the migrants from the Mashrek countries. (Fig 5)

rocco and Tunisia) and from Turkey, migrated to the Northern Europe to fill in those needs. At the same time, Mediterranean countries were seeking to ease the pressure of unemployment and benefit from already progressing flows of remittances. The increase of oil prices in the 70s marked a reversed attitude towards migration with a progressive economic recession and unemployment in Europe. Despite policies that were put in

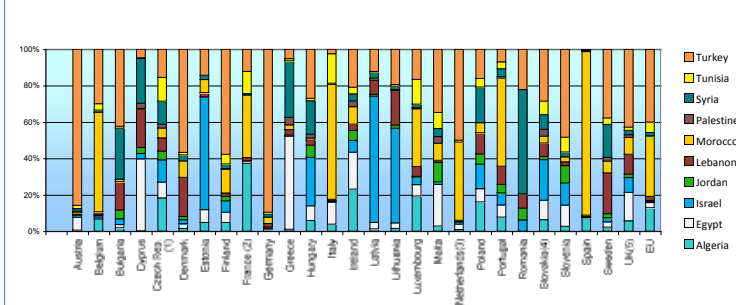
I.2. Remittances Trends from the EU to the MPs

Remittances flows are considered an essential aspect of migration. For many MPs, these flows are the main source of foreign exchange revenues that finances deficits in the balance of payments: Remittances towards the MPs region amount from \$30 million to \$35 millions for 2006-2009, this amount is enough to cover more than half of the

trade deficit and almost equivalent those of FDI and Aid [5]. Remittances are amounting to 15% of the exports revenues of the MPs and accounts for more than the private investment in some countries such as, Jordan, Egypt and Lebanon.

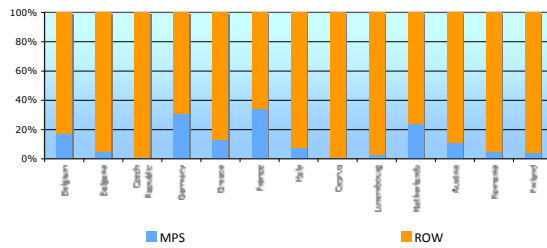
Remittances can have a long-term developmental impact

Figure 5. Share of Migrants from MPs in the EU countries



Source: Eurostat data sets, 2010

Figure 6. Remittances outflows by Origin from the EU-27: 2004-2009 (USD Million)



Source: Calculations from Eurostat, 2010

are relatively high. The MPs receive the share of 34% of total remittances outflows from France, 30% of those from Germany and about 23% of those from the Netherlands.

The distribution of those remittances in the Mediterranean region is very different. The Maghreb countries receive the majority of remittances from Europe (about 95% of remittances inflows to the MPs) [6].

if they are channelled to contribute towards investments in either agriculture or SMEs; or contribute to the education of other family members and not only spent on consumption or real estate investments. It is also believed that even in the most common case of spending remittances on consumption, this contributes to alleviating poverty, satisfying some basic needs and consequently help moving domestic markets.

The origin of remittances inflows to MPs is a diversified one, with the bulk originating from the Gulf countries, followed by inflows from Europe then from Canada and the US. Egypt is the highest receiver of remittances among the MPs, reflecting the high concentration of its migration in the Gulf countries. Lebanon comes second with remittances flowing from different sources: America, Gulf and Latin America. Morocco comes in the third place in terms of remittances flows, but exceeds by far its neighbour countries in the Maghreb area.

As we have seen in the second chapter, despite its benefits on the individual and national levels, remittances are vulnerable to any changes in the global financial status. The 2008-09 financial crisis has negatively affected the remittances inflows to the MPs (except for Lebanon), which is one of the indirect but serious effects of the crisis on the region. Being the high receiver, Egypt was the most severely hit with remittances falling by more than \$2 billion between 2008 and 2009.

In the EU-Med region, remittances flowing out of Europe across the Mediterranean towards the MPs

Remittances inflows from France represent 84% of the total remittances inflows towards Algeria and 68% of those entering Tunisia. Morocco remittances inflows are almost equally originating from France (31%) and Spain (29%). 64% of remittances inflows of Turkey are from Germany.

The Mashrek countries receive a small share of remittances flows from Europe (about 5%). The bulk of remittances originates from the Gulf States. In Egypt, 50% of remittances inflows are from Saudi Arabia, while for Jordan, Saudi remittances represent 28% of its total remittances inflows. This evidently reflects migration patterns of MPs workers.

Measuring the impact of remittances is not a straightforward exercise. Remittances have a direct financial impact, as mentioned on the balance of payments and foreign currency revenues of the receiving countries. It has a direct impact on individuals, as an extra source of funding that would alleviate poverty. However, it creates a certain dependency on the source of finance, and in case these flows are exaggerated they can lead to pressures on sources of foreign exchange and affect domestic policies through effects of inflation.

A study (Glytos, 2002) was conducted on selected EU-Med countries to estimate the structural impact of remittances on growth and poverty reduction in these countries in addition to the time distribution of these effects [7]. The study highlighted the fact that remittances from oil-

rich economies might be large in magnitude but suffer from a high degree of volatility to external shocks, special oil prices. A dynamic macroeconomic Keynesian model was constructed based on three behavioural equations for consumption, investment and imports, in addition to an income equations based on GDP and the volume of remittances. The model found more good cases where remittances boosted growth or moderated recession than bad cases: positive and very often high rates of induced investment during the period investigated for Jordan and Morocco and Portugal (in the 70s'). In terms of timing of impact, it was found that in Egypt and Jordan, the short-run effects of an increase in remittances on consumption is more delayed than in other countries like Greece and Morocco because of higher uncertainties.

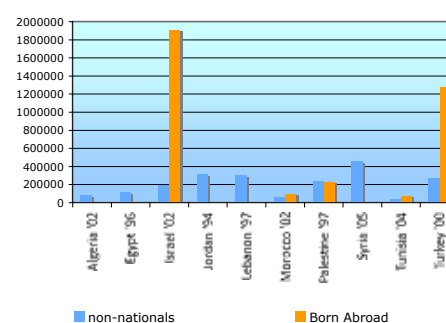
Despite the possibly negative or delayed effects of the impact of remittances on the development of countries of the Mediterranean region, remittances remain an important source of income at the individual and household level. Moreover, there are indirect benefits to remittances inflows that go beyond those direct financial benefits. Remittances could be used to contribute to the cost of education of other members of the families of the migrants in the home country. It could be argued that remittances could serve as a sort of compensation to migrants' departure from their home labour markets, but given the instability and volatility of these flows (evidenced by the negative effect due to the economic crisis of 2008/09), it could be a source of structural vulnerability facing external factors.

1.3. The MPs as destinations for Migrants

It is important to note, that as Mediterranean migrants are looking towards the North for better opportunities, so do other migrants towards the MPs. According to different estimates, between 65,000 and 120,000 sub-Saharan Africans enter the Maghreb (Mauritania, Morocco, Tunisia, Al-

geria, and Libya) yearly, of which 70 to 80 percent are believed to migrate through Libya and 20 to 30 percent through Algeria and Morocco. The majority of those migrants are either refugees or illegal migrants. Given the nature of their stay, it is difficult to keep track of the number of those migrants in the North African countries, however various sources estimates that at least 100,000 sub-Saharan migrants are now residing in both Mauritania and Algeria, 1 to 1.5 million in Libya, and a number ranging from 2.2 to 4 million mainly Sudanese in Egypt [8]. Tunisia and Morocco host smaller but a growing number of sub-Saharan immigrants' communities amounting to several tens of thousands. Hundreds of thousands of sub-Saharan Africans try to cross the Mediterranean each year. Often looked upon as poorly educated or desperate, those migrants are often relatively well educated and originating from moderate socio-economic families. Many of those migrants arrived in the Mediter-

Figure 7. Immigration towards the MPs



Source: Fargues, P. 2005

anean territory in a transit migration reaching out to Europe, but a lot of those, could not get through and just stayed in those countries.

Other than the illegal migrants, the MPs host more than 2 million legal migrants in their territories. Despite the fact that Israel and Turkey are statistically considered as hosting the highest number of migrants, it is believed that those migrants are rather returnees to their countries of origin (i.e. children born abroad from Israeli or Turkish emigrants who are now returning to

their original countries). Jordan is hosting a large number of migrants relatively to its population of national residents, mostly originating from Egypt and Lebanon.

I.4. Labour mobility across the Mediterranean towards the EU: Why?

The decision to migrate, is not an easy one, but there are several factors that push people to leave their home countries search for opportunities elsewhere and pull factors that attract those persons to a certain direction. Push and pull factors known in the migration literature can be difficult to enumerate as they vary from political, security, economical environmental factors to more social, individual factors. These general factors can be applicable to most of the migratory flows across regions. In our analysis however, we only focus on those factors that are very specific to the EU-Med and that relate very much to the characteristics of this region.

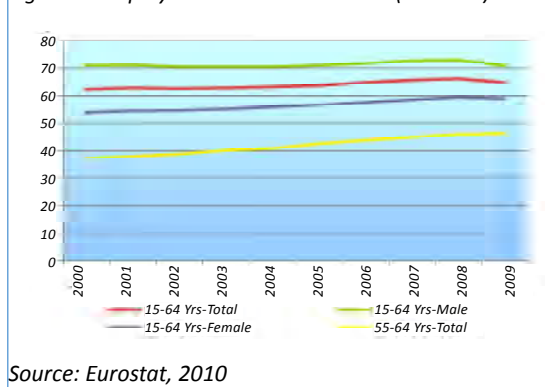
More precisely, this section will focus on the reasons behind migration flows from the MPs towards the EU by addressing the region specific push and pull factors. The push factors will be those drivers that push individuals to migrate from the MPs to search for opportunities outside their home country, whereas the pull factors are those elements that make the EU markets potentially attractive to those migrants. Here we focus on two particular factors: the demographic tension in the region, including the status of the labour markets of both shores; and the development gaps and income differentials between the two including the expected social benefits from migration.

1. EU-Med Demographic Tension and Impact on the Region's labour markets

The population in the EU-27 countries is aging and the number of new comers joining the labour markets is decreasing, and hence will not be meeting the needs of the EU economies in kee-

ping the pace and dynamics of their growth. At the same time, the MPs need to feed their development process by increasing the participation rates and creating new jobs, which seems to be difficult to reach given the high population growth and the increasing number of entrants into their labour markets. These opposite trends cause a demographic tension in the region. A quick look on the labour markets of the two shores will help explain the situation in more details.

Figure 8. Employment rate in the EU-27 (2000-09)

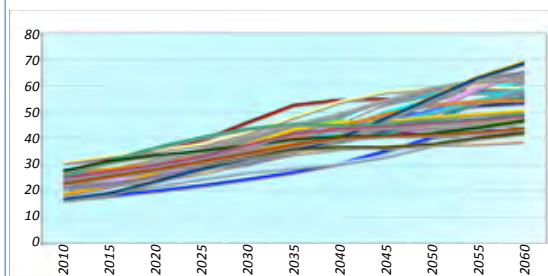


Source: Eurostat, 2010

In the EU, the challenges on the labour markets are as follows:

1. There are great disparities in the status of the labour markets of the EU-27 countries, especially for some indicators such as unemployment rates that are raging from 3.4% in the Netherlands to 18% in Spain in 2009. There is a widespread concern about the EU labour markets imbalances constituting a major challenge for their societies.
2. Employment rate in the EU fell in 2009 for the first time in a decade to 64.6%, with the rate of women employment also falling to 58.6% after steady increases in the past decade. This is the result of decreasing employment rate of the population age 15-55 years, coupled with the effect of the financial crisis that has affected all labour markets in the EU (Fig 8).
3. The situation in Europe gets more complicated when looking at the dependency ratio that is rising at a faster rate (due to increasing number of people over 65 and the decreasing

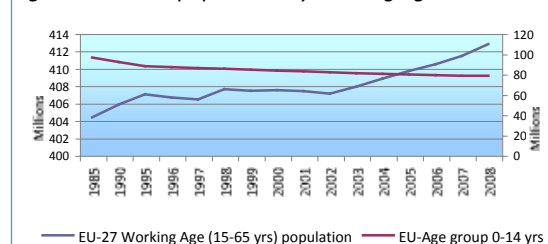
Figure 9. Projected Old-age dependency ratio



Source: Calculations from Eurostat, 2010

number of people in working population)[9]. In Italy for example, the number of workers aged 15-59 is expected to fall from 35mn to 21.6mn in 2050. This will lead to a higher dependency ratio. For the EU-27 countries an old-age dependency ratio is expected to be 53.5% in 2060. This

Figure 10. EU-27 population by working age



Source: Eurostat, 2010.

constitutes a major pressure on retirement and social protection systems in these countries, especially that any attempts from the governments to increase the retirement age to overcome, at least temporary, this problem is faced with refusal and strikes from civil societies and labour syndicates.

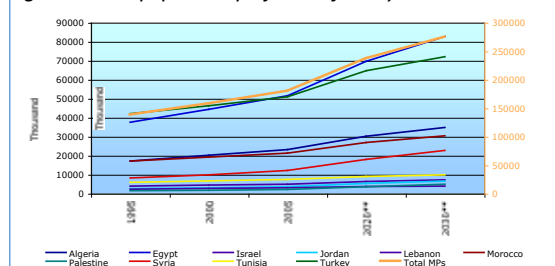
The opposite trend is taking place in the MPs, with more than 30% of the population under 15 years of age (81.5 million for a total population of 269 million): for every 4 persons from the Mediterranean at least one has less than 15 years of age. Moreover, more than 35% of the population are between the age of 15 and 30 years. This means that the proportion of working age population will increase steadily until 2035-2045 to reach 65%. This could be a gift for the development of those countries if governments are

able to create more jobs to absorb this labour force.

Unfortunately, so far MPs are facing the following challenges in their labour markets:

1. So far there is a gap between the number of persons that could request jobs and the number of formal jobs offered: 187 millions of persons of more than 15 years of age including 173 millions of potentially active between 15 and 65 years of age, compared to only 74 millions of jobs actually offered.
2. This is due to the low participation rates for those 15 years old and more estimated at less

Figure 11. MPs population projections for 15 years old and more



Source: Blanc F. 2010.

than 50%. Less than 5 MPs persons in 10 persons are actively participating in the labour markets. Therefore, 96 millions of persons in the working age population are not in the labour markets. A large number of those persons joined the informal sector as a strategy of survival, and hence are marginalized from any possible support or protections that the societies might be able to offer them (see Fig 11)

3. At the same time, labour markets are suffering from a long-lasting high unemployment rates estimated at around 11.6%, this rate does not include disguised unemployment and under-employment. In absolute terms, there are 8.5 million persons in the MPs that are currently unemployed.

4. It is important to note that a general characteristic of the labour markets of the Mediterranean economies is that the dynamics of employ-

Table 1. Share of active population in total population, participate rate, employment s unemployment rate in selected MPs

	Share of active population to total population (%)	Participation rate (%)	Employment rate (%)	Unemployment rate (%)
Algeria (2007)	29.45	41.07	86	13.79
Egypt (2007)	29.80	44.31	91	8.95
Israel (2008)	40.30	55.82	93	7.32
Jordan (2007)	24.32	38.80	87	13.10
Lebanon (2007)	29.99	40.61	91	8.98
Morocco (2008)	36.12	50.99	90	9.80
Palestine (2008)	23.51	42.90	76	23.65
Syria (2007)	26.34	41.03	92	8.42
Tunisia (2008)	35.07	46.33	86	14.20
Turkey (2008)	31.66	43.64	90	10.28
Total PM	29.45	44.47	90	11.57

(Source: Blanc F. 2010)

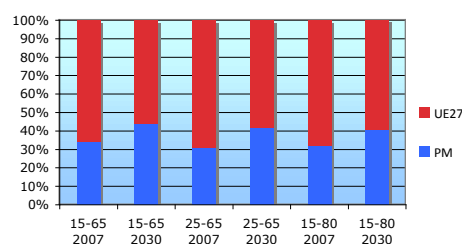
ment does not translate into growth this is due to the low total factor productivity (TFP) and the expanded informal sector.

80 years, which puts on strong pressures on the legal age of retirement in almost all European Countries. (Fig 12).

Bringing those two actual situations together in the Euromed context reveals the following facts about the future trends (in 2030)[10]:

Between 2007 and 2030, the Euromed working age population (more than 15 years old) will reach more than 700 millions persons and 102 millions of those will add-up to the potentially active population in the euromed labour market, keeping in mind that 84% of those will be from the MPs. (see Table 2)

Figure 12. Working age population of the Euromed Region by age brackets



Source: FEMISE calculations

Europe will be possibly losing more than 20 millions of its potentially active population in 2030 (where 13 million are in the age bracket of 25-65). The only way where the EU will not suffer from an absolute decline of the active population is to push the age bracket to be from 15 to

With a growth path similar to the 2004-2007, the EU would be able to create 78 million jobs (increasing the number of jobs to 297 million). But to fill in these jobs, the participation rate will have to reach a record level of 72,7% (non of the EU countries, except Luxembourg, have surpassed 65%)

Table 2 : Population of 15+ years old 2000-2030 in the Euromed

	2000	2007	2020	2030	Additional Potential Actives in labour markets in 2030
MPs	157,652,462	187,675,086	236,451,924	274,362,500	86,687,414
UE27	398,814,493	416,512,633	428,570,690	432,427,178	15,914,545
Total	556,466,955	604,187,719	665,022,614	706,789,678	102,601,959

Source : Blanc, F. 2010

and the unemployment level to be as low as 5.5%. Even with these unprecedented figures, 17 of the 27 EU countries will still have shortages in workers that would fill these necessary jobs.

On the other side of the Mediterranean, MPs will have to create at least 34 million jobs in the coming 20 years (1.5 million jobs per year), just to absorb the new entrants to the markets in 2030. However this scenario, which is achievable to most of the MPs, will not improve the situation especially the participation rate (150 million persons will still be inactive). It may be possible for MPs to create 62 millions jobs (2.7 million per year), if the 2005/2007 growth path is maintained for a long period, but even in this case, this will only reduce the number of inactive by 30 millions. In order to absorb the new entrants and keep the number of people without jobs at the 2005 level, the MPs have to create 95 million jobs in 2030, i.e. about 1.4 millions of more new jobs than what they achieved between 2005 and 2007[11].

Though the objective of the two shores of the Mediterranean is the same, that is to increase the participation rates in the coming 20 years, the way to achieve this objective could be complementary: the EU can fill their gaps with the active population that won't be able to find jobs in the MPs.

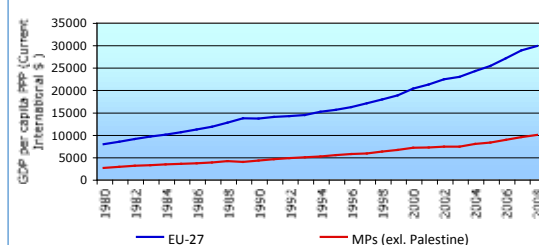
From this section we could conclude that, demographic tensions represent a major challenges for both shores, however overcoming this challenge could be achieved with complementary actions from the those shores: labour force that are unemployed from the MPs can fill the shortages in the EU markets. This very particular push/ pull factor plays a major role in the decision to migrate from the MPs (push) and the need to receive from the EU (pull). However, it is not that simple, when looking into the details of the types of jobs that the EU will create to keep the pace of its dynamic growth and the type of migrant that the MPs will provide. Matching the skills and the

categorical supply with the demand is an important issue that will be further discussed.

2. Development and Income Differential Gaps

Development and income differentials gaps between neighbouring nations are considered major push factors for migrants to mobilize where better opportunities and quality of life are offered. The two shores of the Mediterranean are very close geographically, historically and culturally but yet so far in terms of level of de-

Figure 13. GDP per capita (PPP US\$ current prices) for the EU-27 vs MPs



Source : WDI, 2010

velopment and standards of living. It is enough to say that the straits of Gibraltar dividing Spain from Morocco are enough to reduce or increase life expectancy by over 10 years, bridge a 45% of literacy rates for adults and more than \$20,000 (PPP US\$) of GDP per capita per year[12]. As long as countries of the MPs are achieving slow progress on these aspects, than crossing the Mediterranean would be present a better quality of life who ever is offered the chance.

From this point of view of closing the development gap, emerges the idea of convergence of the MPs to the EU: the core of the EU-Med partnership and the FTA that has been established. The expected consequence of this convergence, theoretically at least, is a decrease of migration flows from the MPs to the EU. Trade liberalization has been seen as an instrument to enhance the development of the Mediterranean countries: creating jobs that would ease unemployment tensions, increasing exports from the South to

the North and leading incomes and standards of living to converge towards Europe.

Despite the good will and efforts that has been put in this process of liberalization, results have falling out on expectation. Development of the MPs is progressing slowly, job creations is far from closing the gap of unemployment, as previously mentions, and income convergence remains to be wished for. Average real wages of the MPs are less than 1/6 of those of EU (in PPP)[13]. In fact average yearly wages of some MPs such as Morocco, Algeria, Tunisia, Syria and Jordan have slightly diverted from the EU levels. Figure 15 illustrates the trend at which GDP per capita of both shores are heading and the convergence is far from being close to achieving.

It is important to add here that despite the importance of closing the gap of development and converging of incomes as objectives on their own rights, it does not necessarily translate into a decrease in migration flows. A study tested the significance of the impact of wage differentials in explaining migration patterns[14]. The study considered the data of the Central and East European Countries (CEE) after the enlargement in 2004, where borders were open freely to migrants from these new members' states, towards two particular EU15 countries: UK and Ireland[15][16]. Cross-country data showed that there was no significant relation between wage differentials and migration flows from those countries to Ireland and the UK, even when the model was corrected for specific country effects. However, the model found that unemployment differentials had a significant effect in migration flows. These differentials reflect the labour market difficulties in home countries. These findings question the hypothesis of the neoclassical approach about the linear relation between wage differentials and migration flows and that migration would decrease with increasing living standards.

Hence, the decision to migrate is a mix of several factors including low incomes or high unemployment in home countries. Many migrants, specially the young, feel social and economic pressures in their home

countries and unclear and uncertain future. They look for better opportunities elsewhere, either to overcome unemployment, or following the trend of globalization and liberalization of trade and services, specially in ICT, or to find new channels of training or education that would create better job opportunities, or to find a more open societies with more freedom and better governance[17].

3. Social remittances and Circular Migration

In addition to those direct benefits migrants acquire indirect social benefits such as training, education, improving competences and acquiring knowledge and technological experiences. These benefits can be transferred to the migrants' home countries in what can be called "social remittances". Such as the case of financial remittances flows, social remittances can have enormous long-term effects on the development of the home country. This wide range of non-quantifiable externalities would translate into tangible revenues on the social and economic fronts in the medium or long run. These externalities include but not limited to:

First, it ensures a transfer of knowledge and technology through social ties between migrants and their families at home which could be a potential long term gain to the receiving countries.

Second, it could provide incentives to a better education in the home country with the hope of migration in the future. In fact a study undertaken revolving around this issue found that higher returns to skills on the receiving country induced even higher skill formation in the home country. The study had also shown that the proportion of workers acquiring education in their home country in the presence of an opportunity of migration is higher than that in the absence of this opportunity[18].

Third, returnees from migrations could be another important source of benefits to the sending countries. Depending on the reasons of their return and their potentials in their home countries,

those returnees could bring not only financial benefits to their home economies but also transfer of knowledge, skills, job creation and social openness, as long as they are properly employed in a way to benefit their home economies (such as the case of Taiwan and India). Returnees are normally better educated and they acquire higher skills. In a study done on Egyptian migrants returnees[19], it was found that by increasing the time the literate migrant spent abroad, it increases his/her probability of becoming an entrepreneur (employer or self-employed) on his return, it also increases his education and skills.

Fourth, circular migration is however a more controversial issue, from one hand it is beneficiary to the individual migrant as it exposes him/her to new markets where opportunities of better income, acquiring knowledge and new skills are available, without disrupting the social ties with families at home; it could be also beneficiary for the sending country in a way as it avoids problems of brain drain and at the same time ease pressures on the labour markets though temporary. However, from the other hand, circular migration is characterised by the instability of the status of migrants in the receiving countries and could have disruptive effects on flows of remittances towards the MPs. From the European side, benefits are more pronounced, as temporary migrant will fill in the gap in the labour markets while not adding burden on the welfare, or compete with existent workers markets. In its recent communication on migration and development, the Commission highlighted the importance of encouraging circular migration, and discussed the possibility of allowing returning migrant not retain this status for longer than the one year status provided[20].

The real benefits for circular migration for the individual depends very much on the income that will be received abroad as opposed to the consumption of local domestic goods at home. This is based on the principal that in general, people pre-

fers to stay home rather than migrate. An empirical study showed that richer countries are close to the turning point where the individual demand for higher income that could be obtained abroad is set-off by the disutility of consumption abroad. This encourages migrants to take some temporary jobs abroad to boost their incomes but not permanently[21]. Example of this is the Egyptian migrants in the Gulf that work with temporary contracts that are renewed annually.

It is clear that migration has brought some benefits to the region, bringing remittances to home countries; creating jobs for unemployed abroad (according to a World Bank report jobs created in OECD and Gulf countries from MENA migrants are equivalent to 6% of total employment at home)[22]; transferring other social benefits to the home countries such as technology transfers, innovation, education externalities, ..etc, but potentials of what migration can really achieve have not been yet 'revealed'. Many obstacles stand in the way of these benefits.

II. Impediments to a beneficiary migration process in the EU-Med region

Looking into all the benefits that can be drawn from migration it is clear that for the EU-Med region, within the context of integration and geographical, historical and cultural rapprochements, the outcomes are still falling away from the potential benefits.

The following section will look into some of the reasons that could be behind this non-optimal situation. Two types of factors are considered. The first type relates to factors that have been considered as threats either to the receiving or sending economies while their effect is believed to be controversial. These relate to the questionable negative impacts of MPs migration on the EU labour market and the impact of the EU enlargement to the Centre and Eastern Europe on migration from the MPs. These two factors are argued

to be non-threatening the benefits of migration. The set of factors are those that are believed to present real threats or obstacles in achieving the benefits of migration. These factors relate to both the MPs and EU markets. From the MPs side the following obstacles are considered the quality of migrants from the MPs to the EU, the problem of matching the skills in an asymmetric information environment, the problems of integration in the EU societies and finally the very debatable issue of the brain drain. From the MPs side, the obstacles include issues related to the EU migration and integration policies and the impact of the informal sector.

II.1. The Controversial Obstacles to Migration in the EU-Med

1. Migrants vs Nationals in the EU Labour Markets: the controversy

For the migrants' receiving countries in the EU, there are little doubts about the benefits that those migrants can bring in filling the gaps of the labour markets and in the better usage of the capital available. However, doubts about the effect of migration on labour markets imbalances and specially on lowering wages among skilled workers or increase unemployment rates are much more pronounced. This is fed by the voices from local syndicates and civil societies and highlighted negatively by the Media. This stereotype negative impact is strongly argued in this section.

The most direct benefit of migration for the receiving countries are, as mentioned earlier, filling the gaps of available jobs in the EU labour markets, either jobs that the nationals do not want to fulfil or seasonable jobs, such as in the agriculture sector, or jobs that requires skills that are scarce, such as doctors and nurses for example. Migration benefits for the receiving countries, in our case the EU, can surpass this basic one.

In a study made for the HDR, a database of migration flows and stocks, including data on nature of

employment, hours worked capital accumulation and changes in immigration laws for 14 OECD destination countries and 74 origin countries for the period of 1980-2005 has been constructed. The results of this study showed the following interesting outputs: (1) immigration increased employment in the receiving countries; (2) no evidence of crowding out national employment; (3) a 'vigorous' increase in investment was reported; more precisely and according to this report " ..a 1% population growth due to migration increases GDP by 1%"[23].

In fact it was shown in the same study that migration has only 'little impact' or 'no impact at all' on the level of wages of the nationals in the receiving countries[24]. This widely depends on the type of skill that the migrant brings, whether it is complementary to the national existent skills, this is a clear win-win situation, or it is an exact match and in this case it is a substitute or competing skill that could create some local tensions. But those two extreme cases are not commonly found; often the results are a mix of the two cases. One could see the competition as beneficiary for the overall markets, as it gives incentives to better education and better training.

Moreover, migration can bring other larger positive impacts on the receiving countries, namely: higher rates of innovations boosted by the number of skilled migrants that move to the EU countries. In Ireland and the UK, where entries are more flexible and better long-term opportunities are offered 30% of migrants are highly skilled with tertiary education, whereas in Austria, Italy and Poland this percent is below 15%[25]. Having this additional amount of skilled labour is evidently contributing to the innovation and developments of these countries.

It is clear that the potential threat that migration towards EU labour market can distort those markets balances is not evidently true. In fact, migration can bring benefits to those EU labour markets, not only by filling gaps and jobs that the nationals are either reluctant to take or do not have enough

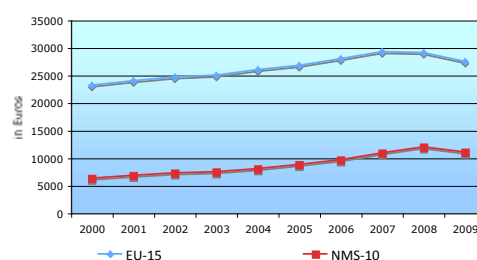
number of workers to fill, such as bringing innovation, increasing competition and hence quality, stimulating domestic EU markets and businesses, and finally migrants can open new trade channels between their host and home countries through connections and networks.

2. Impact of EU enlargement: is it a real threat?

At the early stage of the EU enlargement process there were great concerns amongst the MPs economies about the impact of this enlargement and the effects of preferential treatments that these countries will have on the MPs relation with the EU. One of the major concerns was related to migration. Though migration flows from Central and Eastern Europe (CEE) increased with these countries joining the EU, it is argued that this does not constitute a real threat or obstacle to migration flows from the MPs. First because this migration is believed to be a temporary one that followed automatically the opening of barriers between EU states; second, that by joining the EU better opportunities in those economies will be offered given their convergence and third because the CEE demographic characteristics are very similar to that of the EU-15, which implies that in the medium and long term, these economies will be themselves immigrants countries rather than emigrants.

As the 10 New Members States (NMS-10) from Central and East European (CEE) countries joined the EU in 2004, migration flows towards the West EU countries substantially increased despite the restricting transitional policies put in place by the EU-15, except for Denmark, Sweden, Ireland and the UK who opened their frontiers to the migrants from the NMS-10[26]. The instant migration following enlargement was pushed by factors such as: (i) relatively lower per capita GDP (in some NMS-10 it was almost half the EU-15 average) (fig 16); and (ii) relatively higher unemployment rates (surpassing those of the EU-15 reaching in some NMS-10 18 and 17%) (fig 17). These high unemployment rates were caused by two parti-

Figure 14. GDP per capita - EU-15 & NMS-10



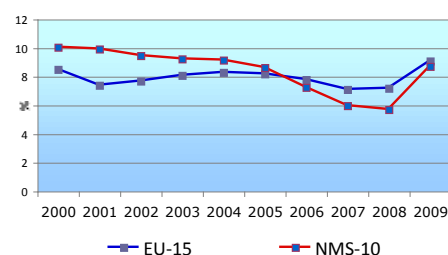
Source : Eurostat, 2010

cular reasons related to the structure of NMS-10 labour markets: the high concentration of employment in agriculture (reaching about 40% of the labour force in Romania and more than 25% in Bulgaria for ex.) and in newly privatized heavy industry. These sectors have caused an increase in the unemployment rate in the process of modernization and restructuring [27]. The highest EEC sender is Poland, whereas the highest receiver of intra-regional EU migrants in the West Europe is Germany followed by the UK.

In terms of migration flows from the NMs to the EU-15 (or EU), it is hard to generalise due to the non-availability of data on some of those countries for a time series. However, it is expected that this increasing trend would slow down for the following reasons: 1. The NMs economies are expected to pick-up in the medium term this would translate into better income level and better job opportunities (i.e. convergence); and 2. The NMs population are, such as that of the EU-15, aging and hence the demographic pressures will soon challenge their markets.

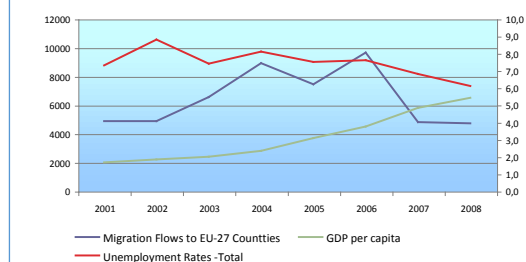
Though convergence of the NMs is still considered slow, but it will eventually take place, this is

Figure 15. Unemployment rates EU-15 & NMS10



Source : Eurostat, 2010

Figure 16 (a). Romania: Migration flows to the EU-27, unemployment and GDP per capita

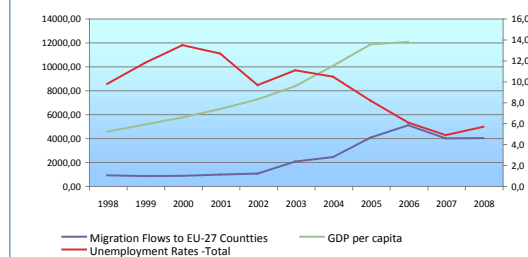


Source : Eurostat, 2010

evidenced by the progress achieved by countries like Spain, Greece and Portugal when they joined the Union (their economies are clearly still vulnerable to external shocks). Though the GDP per capita is picking up slowing, unemployment rates have achieved enormous progress, despite the recent effect of the crisis on job availability in the whole region. The more opportunities are offered to those countries' labour force the less migration in search for employment elsewhere. (Fig 16 A & B). In the case of Romania, migration flows are decreasing together with unemployment rates and increasing GDP per capita income. The contrasting picture is seen in Estonia, where migration flows are increasing, while unemployment rates has taken an increasing trend after dramatic increase; the GDP per capita has slowed down after a period of steady increase.

It is argued that the real driver that would take down migration flows is the progress achieved in the labour markets of the home countries and more precisely when unemployment rates of the NMS-10 start converging towards the average EU level. This convergence is eventually taking

Figure 16 (b). Estonia: Migration flows to the EU-27, unemployment and GDP per capita



Source : Eurostat, 2010

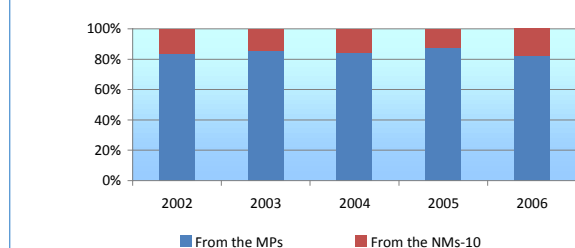
place so is the convergence of per capital income. Given this, migration flows from the NMs to the EU do not constitute a real threat to migration from the MPs to the EU-27, in fact, according to recent Eurostat statistics, migration from the MPs is at least three times that of the NMs 10 and the trend is increasingly higher. In 2008 there were about 89.7 thousand migrants from the NMs towards the EU-27 and there was more than 250 thousands migrants from the MPs to the EU-27[29].

II.2. The Real Obstacles to Migration from the MPs Side

1. Quality of Migrants from the MPs to EU

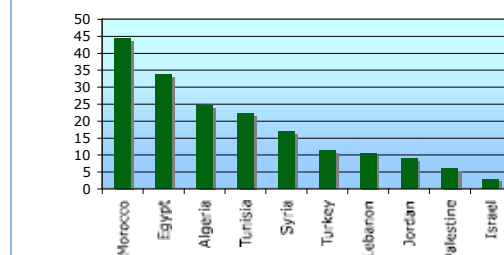
The MPs demography is characterized by the large number of its working age population (more than 15 years old) accounting for about 190 million persons in 2008 and which is expected to reach more than 270 millions by 2030[30]. This could be a blessing for those countries and their development if this population received the proper amount of education and training that would enhance their participation in the labour mar-

Figure 17. Migration Towards Eu-27 from NMs and MPs



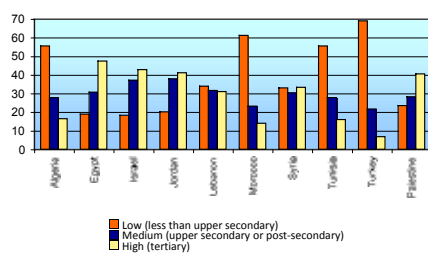
Source : Calculations from Eurostat, 2010

Figure 18. Adult illiteracy rates in MPs (1997-2005)



Source : Eurostat, 2010

Figure 19. Educational Attainment of migrants by country of origin



Source : UNDP, 2009

kets, either in their home countries or elsewhere. Unfortunately, this is not the case in those countries where illiteracy rates are one of the highest among the regions of the world, reaching almost half of the populations in some countries (fig 20). In fact these high rates of illiteracy is the main impediment to any development plans and is obviously a major barrier to any success of the migration process.

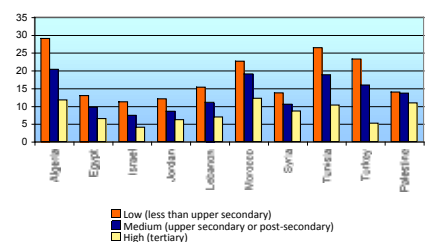
Looking into the quality of the migrants from the MPs, we find a great heterogeneity in the quality of those migrants' education. While 40% of migrants from the Mashrek countries (Egypt, Israel, Jordan, Lebanon and Palestine) tends to highly educated individuals (who received tertiary education) ; most of migrants from the Maghreb countries (57% of total migrants from Algeria, Morocco and Tunisia) have received low education (less than upper secondary) (fig 21). Also, Turkey has the highest percentage of low educated migrants (close to 70%) among the MPs.

As the same time, it is clear that for all MPs, unemployment rates are highest among migrants with low education. The Mashrek coun-

tries have the lowest average unemployment rate of 6.4% against their migrants who received highest education. Those with medium education (secondary or post-secondary) represent about 34% of total migrants and they have 9.4% of unemployment rate. And finally those with the lowest level of education represent only 25% of migrants and they have about 13% of unemployment rate. Egypt has the highest proportion of skilled workers in total emigration, followed by Jordan, Israel and Palestine. Moreover, the majority of the highly skilled migrants from the Mashrek live in the North American Continent (USA and Canada) and dominated by Egyptians and Lebanese migrants. It has been shown in a study that the Arab community in North American are both richer and better educated than the average national population[31].

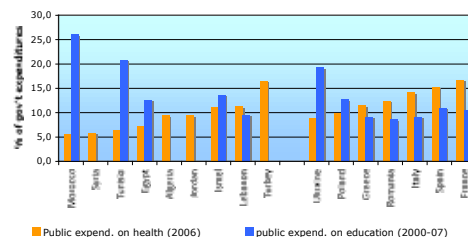
In the case of the Maghreb migrants whose majority are residing in Europe, figures show that the highest average unemployment rate (25% of unemployed) in migrants is among those with lowest education level (fig 20). It could be argued of course, that some migrants of this category seek employment in the informal sector, but again, these types of survival jobs have very negative effects on their social stability. It is clear however, that the profile of the migrants from the MPs to the EU (particularly those from the Maghreb) is much less impressive than those that live in the North American continents. In fact, their educational attainment, unemployment rates and income levels are much lower than the national standards in the EU countries.

Figure 20. Unemployment rate of MPs' migrants by country of origin and education attainment (% of labour force)



Source : UNDP, 2009

Figure 21. Public Expenditures on human capital investment in selected EU-Med countries



Source : UNDP, 2009

Hence, if most of migrants from the Maghreb countries to Europe are those who received the lowest education and consequently have the highest rates of unemployment, this gives an indication of the type of social conditions they might be living in. It is true that a large number of those migrants could be working in the informal sector, but these jobs are highly unstable, risky and they don't provide any kind of protection for their workers

One puzzling case when looking into the case of Egypt, which has one of the highest illiteracy rates among the MPs (after Morocco), the country has the highest proportion of skilled migrants among its migrants. Looking into the status of employment, Egypt has one of the highest unemployment rates in the region, but its migrants have one of the lowest unemployment rates on the different educational level. This reflects two important facts: 1. Education and skills matter in finding jobs either in home country or abroad; 2. Being offered the right opportunity to fill in the appropriate job is also crucial.

It is clear that the MPs need to do more in terms of investment in their human capital to increase the opportunities for those workers either home or abroad. Data from Docquier and Marfouk (2006) shows that emigration potentials are five to ten times higher for workers with more than twelve year of education than for workers with less[32]. It is not an increase in the public spending on education or health that the MPs really need. Currently the share of public expenditures on those two sectors is considered relatively high compared to other EU countries. In Morocco for example, more than 25% of the public spending is on education but the illiteracy rate in Morocco is one of the highest in the region (following that of Egypt), reaching about 45% of the adults' population (Fig 23). What this region really needs is revisiting the education and health schemes, targeting illiteracy and putting plans for complete reforms of those essential sectors in the societies.

Benefits of human capital investment are enormous for any country in phase of development; but for the migration process in particular these benefits could include but not limited to:

1. It creates a large pool of educated highly skilled persons that would have better chances and opportunities in their home labour markets and could compensate any potential losses of brain drain caused by migrants;
2. It creates better opportunities in labour markets' abroad, better matches for their skills, encourages legal migration, better incomes, and better social life and hence better rewards in the home countries.
3. Investment in human capital will strengthen the cooperation between the MPs and the EU in managing in the best way legal migration flows and fighting illegal migration.
4. It will put the MPs, in a better position that would allow them to create new mechanisms to promote opportunities for legal migration and benefit the most out of it and hence give incentives to the development of those countries.

One argument could be made that migration could cause loss of benefits of the investment that the country has put in the education and training of the individual, especially in countries like the MPs, where the resources are rather limited (brain drain). There are numerous studies that addressed this issue and tried to measure the social losses/benefits and the returns on education in case of migration. Many of them has found that despite migration, there is a positive social return on investment in human capital even if those skilled educated people choose to migrate[33].

From this section, we can conclude that one serious impediment to the benefits of migration is the low education attainment of the migrants that affect their opportunities to find jobs in the receiving countries. This leads to the non-matching between the supply and demand of labour between the two shores of the

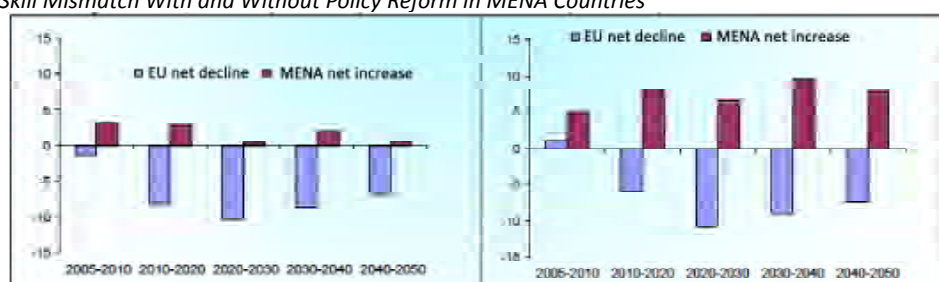
Mediterranean. In terms of quantity, migrants from the MPs could fill the gaps in the EU markets, but in terms of quality of labour and required education, skills and competences, it is clearly not satisfied.

2. Matching the skills and Asymmetric information issue

It is clear from the above analysis that the skills needed to fill in jobs in the EU (or other receiving countries) markets are poorly matched by MPs migrants. A study by the World Bank showed

peak demand for labour from the EU markets). According to the study, the gaps that will need to be filled will be in the mid-level skills and if the current education and participation rates continue at the same level, the potential migrants at that time (15-39 years old) will be a poor match to those needs. Panel A Figure 24 shows the net changes in the Labour force of both the EU and MENA in this case. However, if governments of the MPs take serious steps to reform the education level and increase participation rates (inclu-

Figure 22. Skill Mismatch With and Without Policy Reform in MENA Countries



Source : World Bank, 2009

that without any policy reforms from the MENA Countries in either improving education attainment, training and investment in human capital or increasing the participation rates, migrants from MENA would not be able to match the needs of the EU markets in 2020 (the period of

ding women participant rates), better opportunities will be offered to MPs potential migrants (Panel B Fig 22).

In order to match the needs of the EU labour markets, it is important to be aware of types of jobs

are needed, which is unfortunately not always the case in the EU-Med region, as the supply and demand international labour markets suffer from an asymmetry of information. This, coupled with poor intermediary organization have contributed to this poor match between the migrants' skills and the jobs they are doing. The migrant (here the employee) doesn't have the needed information about job opportunities offered to him outside his home country to choose the best fitting with his qualifications, nor is he fully aware of the corresponding

Table 3: Comparison between numbers of migrants counted by origin and sending countries

Origin country	Migrants counted at		Difference (origin-destination)	
	Destination	Origin	Absolute	Relative
Algeria 1995	807051	1058202	251151	31%
Egypt 2000	429428	1050850	621422	145%
Morocco 2004	1721892	2887319	1165427	68%
Tunisia 2003	362988	691771	328783	91%
Turkey 2002	2835665	3378000	542335	19%
Total	6157024	9066142	2909118	47%

Note: Only 5 Med-MENA countries publish statistics of their expatriates by single country of residence, and only few countries of destination publish statistics of migrants originating from Med-MENA by single country of origin. Figures in Table 3 thus refer only to part of migrant populations, i.e. those covered at the same time by statistics of origin and of destination countries. Source: Table 3-ALG-EGY-MORTUN- TUR below.

Source: Fargues, 2005

regulations, responsibilities or rights. Similarly, the employer in the receiving country who is imperfectly informed about the skills levels and the potential qualifications of the migrants that are seeking employment in his country to select the most convenient candidates. This leads to imperfect contracts and a quality mismatch.

Just to give an illustrative example about the asymmetry of information between the two shores, the following table 3 shows the numbers of migrants as counted from the sending countries as opposed to those counted from the receiving countries. The discrepancy is enormous in some cases (reaching more than 145%). In the case of Egypt for example, a gap of about 621 thousands Egyptian migrants between the recorded figures in home country and those recorded in the receiving country. This could partly reflect illegal migration but in any case it evidences that those migrants will not receive the right jobs for their skills, the right social integration and protection in the receiving countries since simply for these countries they do not exist.

To summarize this section, the second real obstacles to a beneficiary migration process is about matching the skills needed from the EU markets with the skills offered by the MPs. It is about finding the 'right' worker to fill-in the 'right' job. Here the issue of the asymmetry of information and exchange of knowledge between the demand and supply markets is crucial and if countries of the EU and the MPs are not 'agreeing' to the number of migrants either received or sent, how can they be able to match their skills, to educate them, to integrate them and to protect their rights? Unless measures are taken from both sides about issues of information and matching skills, migration can't be beneficiary to any of the involved parties.

3. Status of second generation/Social Integration

Another important factor that in a way is linked to the previous issue of matching the skills is the status of the migrants in the receiving country. This factor is

considered the real third factor that affects the benefits of migration. It has been proven evidently that the more the migrant is better integrated in the receiving country the more productive he/she will be.

How well integrated are the migrants of the MPs in the EU societies is a difficult question to answer. Studies to assess the status of the migrants in the EU countries and the degree of their integration are scarce. Also, a review of integration policies in the EU countries either is non-existent or does not explicit the plans and strategies of integration. Some sporadic programs however are made, but not based on fundamental national policies.

The Migrant Integration Policy Index (MIPEX) created by a group of researchers with funding from the European Commission, measures how well the host countries' policies are integrating the migrants in 25 EU members states, using 140 indicators and covering six main areas: labour markets access, family reunion, long-term residence, political participation, access to nationality and anti-discrimination[34]. Only Sweden scored high enough to be considerable 'Favourable' for promoting integration. Nine countries had policies that put them as 'partially' favourable for integration. From the EU-15 countries, Portugal, Belgium and the UK scored the highest while France and Germany, which have high proportion of migrants, scored relatively low.

It is not hence surprising to see migrants that are suffering poor working and living conditions, low wages, unsafe working environment, absence of social protection and denial of basic workers' rights associated with labour trade unions and other rights[35].

Integration is a two-sided coin issue where both the migrant and the receiving society play a major role. The migrants have to take steps from their side to ensure this integration.

This brings the issue of the 'identity' of the migrants and how close they are tied to their home countries' cultures, values and believes and willingness to accept those of the host countries and the effect of this

on their integration and hence productivity. A study that addressed this issue had looked at the association between home and host country identities and their relation to four labour market outcomes: wages, labour participation, employment and unemployment for both migrants and their children[36]. Involving the second generation here assessed the impact of the transmission of the parents' identity to the second generation of migrants[37]. The country under study was Germany and was based on a sample of migrants that lived in the country and their children. The findings of the model can be summarized as follows: (i) there is some evidence of a modest association between the identity and economic outcomes for migrants of females but not for males; (ii) for the second generation of females, there was no significant association between either home or German identity and the outcome of the labour markets; (iii) for second generation of males, there was some evidence of positive relation between home identity and participation rates and employment and a negative relation with unemployment. This rather surprising result could be justified by the fact that connections with home country's identity can bring ethnicity-based networks that play a major role in bring labour market opportunities. In other words, being more German than Turkish (for instance) will not affect the migrant's willingness or the ability to work in Germany.

To conclude, the status of the migrants in the host countries of the EU, is a crucial element of success of the migration process. Given the status of many migrants from the MPs in those countries, there is an urgent need to revisit the policies of integration in those countries and more serious interference of those governments to protect the migrants that left their home countries to live and work in their economies.

Taken those obstacles into consideration and reforming the policies and strategies to overcome them, specially achieving progress on education and enhancing the skills of the MPs' workers, a serious challenge imposes on the sending the

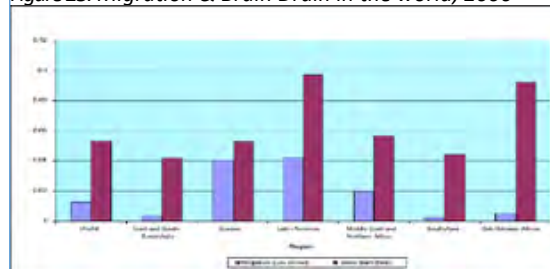
countries: the Brain drain of its highly skilled workers.

4. Brain Drain or Brain Gain: the case of the EU-Med

The issue of Brain Drain, or migration of the highly skilled is the most controversial issue related to the migration. There is no doubt that migration of those highly skilled workers would lead to human capital depletion in the home country and it could be argued that those migrants could have contributed to the development of their home country and increase the per capita output, if they didn't migrate. Moreover, the investment on education of those workers might be considered a loss. In this section it is argued that the Brain drain is not an evident consequence of migrations, but it depends very much on a mix of factors including: the amount of remittances flows, the status of the labour markets in the home countries especially that of the highly skilled.

Many studies and models have tried to assess the net effect of brain drain on the sending countries[38]. Some has highlighted its negative impact on Total Factors Productivity and hence on output growth. Others found some net gains from the brain drain in terms of incentives to better education, if investments at home county are channelled towards this direction. It is clear that no consensus has been made to that effect given the many variables and aspects involved. If one looks at finding this effect by considering the benefits and losses in terms of revenues and expenses only, the effect would be definitely a net negative. Mathematically, if we look into the net benefits of migration by comparing the outcomes or

Figure 23. Migration & Brain Drain in the world, 2000



Source :Doquier and Sekkat. 2006

revenues from migration (i.e. remittances) to the expenses encountered from this process, this includes the value of the foregone output (if any) and the expenses on human capital investment (education and health) received in the home country, the deficit will be large[39]. However, it is strongly argued that benefits from migration are not all quantifiable and that brain drain could be a gain or a drain depending on how the sending and receiving countries are handling the migration process and on the status of their labour markets. This section will try to shed some light on these issues from an EU-Med perspective.

The Middle East and North Africa region has a relatively high proportion of brain drain, it comes third after Latin America and Sub-Saharan African country (fig 23). Looking into previous section, it is clear that the Mashrek countries migrants have relatively higher education/skills. Most migrants from the Mashrek (excluding Lebanon) mainly travel to GCC countries for temporary migration and hence, the problem of brain drain could be considered minimal, especially if we consider that most of those migrants either with low and middle level education. On the other hand, those migrating to Europe and OECD countries are normally with higher level of education. But given the high unemployment levels in those countries among the highly skilled, chances that they become unemployed in their home country surpass that in the receiving country (unemployment rates among the highly educated in these countries is high reaching 21% in Morocco and Turkey and around 16% in Egypt).

For the Maghreb countries, the situation is different, as most migrants travel to the EU countries permanently. But despite the relatively low percentage of highly skilled migrants in total migrants, the troubling fact is that the ratio of those migrants to those with the same level of education at the home country is high, which makes them vulnerable to brain drain[40]. Lebanon also has the same alarming fact of high proportion of its highly skilled migrants compared to those in home country. One could argue for instance that the flows of remittances from Lebanese migrants to

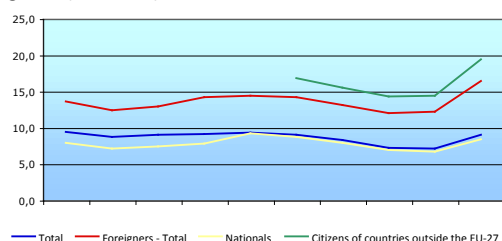
their home country could contribute more to its development in a way that would compensate the loss of human capital.

On a positive note, the migration of such a relatively high number of highly skilled educated individuals could be reversed with contributions of these migrants to the technological development of their economies. According to a study by Noland and Pack, economies of the Middle east today share common characteristics with that of south Korea and Taiwan in the 60s and 70s. In these two countries, the returnees from migration played a major role on the industrial development of their home economies. This followed a national government policy to encourage those migrants to return to their countries, offering them highly competitive packages, such as tax and financial inducements for returnees to Taiwan for instance. In this national plan the governments of those countries were targeting emigrants engineers and scientists [41].

Returns on education could be much higher abroad than in the home country and hence migration prospects can raise the expected return to human capital and give incentives to people to invest in education at home. This is supported by the strong assumption that skilled workers have much higher probability to emigrate than unskilled[42].

In summary, looking at the global picture of MPs, there are no specific trend or rule for all the countries when it comes to brain drain, each countries should be considered individually according to the above mentioned factors. It is to mention however, that migration of highly skilled could bring some positive externalities that we called 'social remittances' and these include: knowledge and technology transfers, and incentives for better education with the increasing hope of migration. "Brains circulation" or circular migration could bring benefits to both sides, as long as the migrants' social and protection rights are ensured. This could be a potential step to consider when it comes to the migrants from the MPs.

Figure 24. Unemployment rates in EU-27 nationals vs foreigners (2000-09)



Source : Eurostat, 2000

II.3. The Real Obstacles to migration from the EU Side

1. The Issue of EU Migration and Integration Policies

Due to increasing migration flows, many EU countries have adopted policies that reinforce the state control over entries and added restrictions on the behaviours of the new entrants. After a decade of negotiations and an oscillating position of the migration issues on the priorities agenda and realizing that migration is becoming a 'need' to fill gaps in the labour markets of the European members states, governments started to take some steps towards the foundation of a common legal framework on immigration and asylum, based on the basics of the Tampere conclusions of 1999, confirmed by The Hague Programme of 2004.

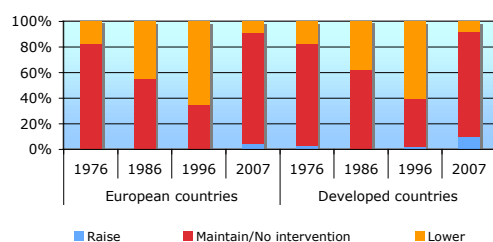
According to the European commission the immigration policy should be based on: 1) the development of partnerships with countries of origin and of transit (Global approach); 2) a common European asylum system, in full respect of the terms of the Geneva Convention and Member States' obligations under international treaties; 3) fair treatment for third country nationals, aiming to give them comparable rights and obligations to those of nationals of the Member State

in which they live; 4) a comprehensive approach to the management of migration flows "[43].

However, despite restrictive policies that have been placed since 1970s, large numbers of legal and illegal migrants have crossed the borders and entered the EU States. According to the European Commission's communication "Policy Plan on Legal Migration", EU members' states need to fill their employment gaps by call for other EU members' citizens and legally resident migrants to fill-in those gaps. In fact it is set in the list of priorities of this communication and we quote: "For reasons of labour market policies, Member States may give priority to EU citizens and nationals of States parties to the Agreement on the European Economic Area". This of course places a new migrant from an MP's country arriving in an EU member state in a fourth -best level in getting a job in the hosting country. The result of this policy is translated in the fig 26, where the unemployment rate among citizens of non-EU origin is the highest in the EU labour markets. These kinds of restrictions gave some opposite reactions from migrants in the EU. In this regard and concerning the working conditions of third-country nationals, the charter of the fundamental rights of the EU is clear. "Nationals of third countries who are authorised to work in the territories of the Member States are entitled to working conditions equivalent to those of citizens of the Union"[44]. This includes, working in a safely conditions, with dignity and be equally treated to nationals from the EU is also mentioned.

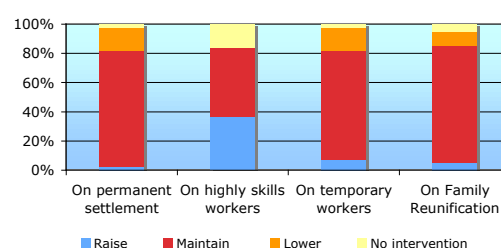
In a worldwide study undertaken by the UN population division in 2007, where a large survey of different government policies towards population in ge-

Figure 25. Worldwide General Policies on Migration



Source : UN, 2008

Figure 26. EU Governments Policies on Migration



Source : UN, 2008

neral was made, the results related to international migration policies were interesting:

1. On a positive note, and despite the general feeling about migration being tighter worldwide, the UN survey found that the percentage of countries with policies that restricts migration have fell from 60% in 1996 to only 8% in 2007 (Fig 25). It is interesting to see that among those 8%, there are 4 EU countries, namely: Denmark, Estonia, France and the Netherlands.

2. It was found that European government policies towards migration are becoming more and more selective of the types of migrants that enter their borders. Policies raising migration of highly skilled migrants were reported in about 37% of the countries in Europe (in this question a total of 38 European countries responded). Temporary migration has proved to be another type of migration that European Governments are promoting (7% of European countries in this question), followed by family reunification (only 4% of European countries). It is however interesting to see that only one country in the European region has policies to raise the permanent settlement of migrants (Fig 26).

One of the proposed ideas that would facilitate the entry of the legal highly skilled migrants to the EU countries is the European Blue Card[45]. This aimed at identifying the migrants that are permanently resident and working in the country. This is proposed as an instrument to attract highly skilled migrants to the EU. To apply for this card, the migrant has to have a university degree and work contract in the member state. As much of the benefits of this card in ensuring the migrant's rights, it is somewhat limiting, especially if a pre-available contract needs to be put in place before applying for this card.

Therefore, it can be deduced that the EU migration policies have taken a new turn in the past 2-3 years. Or at least, that the EU governments are starting to feel a pressure either from their societies, from their neighbouring countries, or from their own labour

markets needs that more efforts need to be done on the question of migration. It becomes more and more clear to the EU that the best way to deal with migration is by positively managing the flow of migrants, rather than controlling it.

2. The Role of the Informal Sector

The informal sector provides an opportunity of work for migrants, either temporarily or permanently. This sector is not necessarily related to illegal migrants, as advocated by public opinions and media. Migrants with certain skills, but are unable to match these skills in the receiving country, might seek the informal sector as a survival method. The informal sector, such as migration, is a transitional way to cushion a difficult and non-productive life for a better and productive one. Seeking the informal sector could be a transitional step that would help many migrants in their settling process. It is to note that migrants working in the informal sector might be providing a specific kind of labour services that is not necessarily attractive for nationals but that they needed.

One has to admit that the existence of such a sector in the EU countries, even if somewhat limited, opens the door to a type of migrant that might not have the required skills and capacities to work in the formal market. It is considered by the European Commission as a 'pull' factor for migrants towards Europe, especially illegal migrants. Therefore the EU is calling for "...intensifying its efforts to reduce the informal economy, a clear 'pull factor' for Illegal immigration, ..." [46]. Informal markets in the Southern EU countries have social and historical roots and some migrants find them as a survival method. In Greece for instance, there are thousands of family businesses that contribute up to third of the country's GDP. The informal sector is also quite large in Spain where thousands of seasonal workers are hired in the agriculture sector. In Italy, many Italians work informally in several sectors and is becoming part of the Italian culture and social aspects. The efforts of the government to formalise these business are somewhat far from being reached [47].

Clearly, eliminating this sector will be difficult. A better way to approach the informal sector is to incorporate this sector as part of the wealth of the economy; this could be done by first formalizing the experience acquired by workers in this sector, and providing them with some support and modernization.

III. Achieving the Potential benefits of Migration in the EU-Med: How?

As explained throughout this chapter, migration could be a beneficiary phenomenon for both the MPs and the EU, but there are a host of controversial and inter-related factors that are preventing the region from reaching those benefits. The solution lies on how the EU-Med countries handle the issue of migration as part of the overall Partnership and as the missing factor of liberalization that naturally follows that of trade in goods, services and capital. In fact, in a large survey commissioned by the European Commission about the successes and failures of the EU-Med Partnership, 83% of surveyed experts and actors revealed that cooperation in migration among the two shores and facilitating mobility of persons is considered one of the failures of the partnership[48]. It is clear that a well-defined and managed migration process is considered by, at least, the MPs as the missing factor that limits the effects of this partnership.

There is a preliminary general recognition of the positive impacts that this migration could bring to those economies and hence some basic positive steps have started to take place, either from the MPs or the EU side. However there are still much more steps that are still under negotiations, plans on papers or simply not at all addressed.

In this last part of the chapter, it seems crucial to highlight some useful recommendations on how to overcome these obstacles based on the previous analysis. This part is not inclusive by all means to what needs to be done, it should be taken as an attempt to contribute to the enormous amount of suggestions and ideas in this important subject for the region. This part is divided into three sections, the first

address some issues related to MPs that could help them achieve benefits from migration, this includes investing more in human capital, doing more efforts in recognizing and matching the skills of this human capital and frame the migration with a set of policies that are comprehensive and clear. The second section looks at the recommendations from the EU side and the essential role played by their migration and integration policies to make migration work for both shores. The last section will include some general recommendations for the whole region and the importance of dialogue and cooperation. This will be followed by the conclusion.

III.1. MPs: How to Make Migration Work for their Economies and Societies?

The main obstacles to a more efficient and beneficiary migration process from the MPs' side lie to a large extent within the quality of migrants themselves from one hand and the controversial issue of the Brain drain from another. Adding to this the inability of migrants to match their skills because of asymmetric information. This of course is topped by the unclear migration policies from the MPs' governments. The recommendations made to the MPs are presented in three groups: 1. Investment in human capital; 2. Recognizing and matching the skills; and 3. Reforming MPs migration policies.

1. Investment in Human Capital: What the MPs really need?

Basically, MPs governments will have to make tangible efforts to fight illiteracy and increasing skills of their populations. They have to invest further in strategising and planning to increase the quality of their human capital. If migrants from the MPs are better employed abroad than in their home economies (less unemployment rates), this is because that those who manage to migrate are those with a minimum requirement of education. With this amount of youth in those countries, unlimited potentials for development can be achieved, creating an abundant pool of highly educated and highly skilled human capital. In the EU-

Med migration context, these types of human capital can bring enormous benefits for their countries. In order to achieve this, MPs governments need to:

1. Basically, governments have to reform the education system to target the high illiteracy rates by focusing on rural poor areas where illiteracy rates are exceptionally high and by target females.
2. Focus on increasing the outcome of education, including fostering the enrolment of tertiary education in scientific branches. At this stage of development, countries of the MPs need to produce scientists and engineers that would be injected in the industrial structural sector and generate jobs that would have high returns on the economies, such as done in the case of India and Korea.
3. Also technical and vocational training needs to be encouraged, education methods to be modernised and the knowledge-based education methods to be included in the system.
4. Special attention should be made to developing skills with the aim of improving quality and relevance of post basic education to offer opportunities for the youth to have access to jobs, through development of a EU-Med regional qualifications system
5. Investment in acquiring skills is also essential in improving the quality and relevance of basic

education and can offer better opportunities in the labour markets.

At the same time, those that are highly skilled highly educated become potential migrants if their home countries fail to match their skills and knowledge with the right job, this is an avoidable feature of the MPs economies where the number of workers is surpassing the jobs that their economies can create. Even if those highly skilled decide to migrate, there are several ways and suggested policies that can help economies benefit from this migration.

2. Reforming the MPs' Migration Policies

There is a great disparity with regards to migration policies of the MPs and despite the increasing flows of migrants to and from those countries, it is difficult, and in some cases almost impossible, to have a clear vision on the position of some countries towards migration. Fundamentally, MPs' migration policies should include ways to benefit the most out of this process, this include policies to get the most out of migrants, in terms of facilitating remittances, encouraging returnees, transfer of knowledge and circular migration. Also there must be more rigours policies

Table 4: Nature of migration policies in the Mediterranean Partners countries

MPs	Immigration policy		Emigration policy		
	Overall level	Highly skilled workers	Integration of non-citizens	Overall level	Encouraging return
Algeria	Maintain	..	..	No intervention	Yes
Egypt	Lower	Maintain	Yes	Maintain	Yes
Morocco	Lower	Maintain	Yes	Maintain	Yes
Tunisia	No intervention	No intervention	No	Raise	No
Israel	Raise	Maintain	Yes	Lower	Yes
Jordan	Lower	Lower	No	Raise	No
Lebanon	Lower	No intervention	No	Lower	Yes
Palestine	-	-	-	-	-
Syria	Maintain	..	..	Lower	..
Turkey	Lower	Raise	No	Maintain	No

Notes: Governments policy on immigration: Overall level: Governments policies regarding the current overall level of immigration into the country. It is coded into four categories: to raise the level of immigration; to maintain the level of immigration; to lower the level of immigration; and no intervention

Source: UN, department of Economic and Social Affairs, population division, 2006

that protect the nationals abroad, encouraging ties and promoting networks.

Two countries of the 10 MPs, Tunisia and Jordan, have policies that encourage migration of their nationals to work abroad. It is to note that Jordan's population hardly exceeds the 6 millions in 2010, with more than 1.9 millions of refugees from Palestine. Most of the migrants from Jordan are those with high skilled professionals whereas most of those that emigrate to Jordan are low-skilled that work in agriculture (75% of those are Egyptians) or other low-skilled jobs. Only recently, the Jordanian government started to implement selective policies for those who enter their borders. In Morocco and Turkey, the highest contributors to migration from the MPs, migration policies call for maintaining the existent levels of migration. In Lebanon, and despite the relatively high number of Lebanese migrants relative to their population, the government policies is clearly to lower the level of migration, which is understandable at this stage when the country need to conserve its labour force to serve its most needed development process. In Egypt, where unemployment rate is the highest in the region and specially among the young and educated, maintaining the current migration level can only be beneficiary if the economy will be able to generate the needed jobs that would absorb not only those currently unemployment but also the forthcoming ones for the three or four decades to come.

In general, the MPs need to adopt a more pronounced approach towards the migration of its labour market, more precisely the need to:

1. The MPs need to help settle their legal migrants abroad including protecting their rights and well-being, this would have enormous effect on maintaining their ties with their home countries which would bring enormous benefits to the country.
2. the MPs have to have policies that would encourage highly skilled and educated migrants to return to their home countries and contribute to their developments. These policies could include attractive packages of job offers with competitive salaries and

other incentives and facilities such security of property rights and social stability[49].

3. It is crucially important to ensure a better transmission of information about the potential migrants and their skills in the home countries and at the same time the availability of potential demands from markets abroad.

4. The MPs have to establish policies that would benefit the most out of remittances of migration, which is clearly one clear benefit of migration to the sending countries. These policies could include fiscal incentives (such as tax exemption) if the remittances are used in a productive investment.

5. In order to get the maximum out of migration, government of the MPs have to be aware of those benefits, that go beyond the flow of remittances from migrants, but extends, as explained, to a wider social and economic benefits that would have an enormous impact on their long-term development.

6. Policies that are implemented on immigration towards MPs are even more ambiguous than those for emigrants. It is true that these flows could be an extra burden on the already pressured markets of MPs, but it is important to have a clear vision and planning on how these flows will be managed.

In general, it is important to set-up migration policies that would complement the policies that will be implemented in the EU countries, so as to complete the picture of the EU-med migration.

III.2. Essential Role of the EU policies towards Migration and Integration

Finding the right balance between controlling its borders against unwanted migratory flows, their needs of foreign workers and those workers' need to be integrated in their labour markets and their societies is one of the most complicated and sensitive challenges of the EU countries today. It is clear that migration flows to the EU, especially from MPs will continue for at least the coming 50 years due to several unavoidable reasons such as the demographic pressures, income differentials and labour markets pressures.

Opening the Migration file has become a pressuring issue that can no longer be avoided or simply ignored. It is clear that migration is becoming the 'new' topic of negotiations between the EU and the MPs. This is considered an important step in the right direction that should be taken further. Revisiting the EU migration and integration policies is essential in benefiting the most out of migration.

In that report we shall insist on what it has to be done at the regional level.

III.3. Recommendations at the Regional Level

At the EU-Med level, strategies oriented towards mobility of human capital have not been successful so far. One fundamental issue that needs to be implemented by both shores is to integrate the migration policies within the development strategies. Migration is an asset either to the EU: bringing the scarce human capital factor or to MPs, bringing the scarce capital flows in an interdependent maximizing way.

The following represent a set of recommendations that are far from being exclusive but that would constitute some basic steps towards reaching this maximisation at the regional level:

1. If bilateral trade agreements are made among countries of the EU-Med, it is more of a reason that the countries of the two shores of the Mediterranean could negotiate and settle a common bilateral agreement regarding this sensitive issue that involves human beings and their lives. A successful bilateral project between Egypt and Italy (the Integrated Migration Information System Project (IMIS)), aims to match potential Egyptian migrants according to their skills with job opportunities in Italy.
2. Recognition of qualifications and skills is a crucial element of making migration a success. Both shores have to work together for a common definition and agree on the qualifications and skills required for different professions that are highly demanded and have highest potentials to migration.
3. Addressing the issue of irregular migration has to be from both sides of the Mediterranean with the common vision to protect the migrant himself as

a human being and to regulate the flows of migrants across the borders. This could be done by looking into the causes of illegal migration and to work together to eliminate those causes, including expanding opportunities to the low-skilled workers either in home countries or abroad, invest in more rigorous programs of education and training and ensure that those migrants are aware of the threats and instability that come along with illegal migration, either in the process itself or in the difficulty of settling in the host countries.

4. Better statistical tools are needed and better cooperation between countries of the two shores that allow a clear and quantified assessment of the labour market needs in the receiving countries and an efficient identification of potential labour supply in sending countries.

5. The issue of information asymmetry has to be addressed from both sides, given its importance in matching the skills of the MPs migrants to the EU labour markets needs. This also related to the question of recognition of diplomas and other qualifications to insure that immigrants are working at their competence level, to avoid loss in terms of income and skills.

Endnotes

1. These figures are from the UN migration report, the IOM and the World Bank.
2. UNDP, 2009
3. Figure for 2000-2002 from UNDP, 2009
4. This figure is calculated with a very rough estimate to the number of migrants that entered the EU-27 countries in 2006, based on available data published by the Eurostat, 2010
5. Excluding Algeria and Turkey.
6. These figures exclude major provider of remittances in the EU, such as Spain and the UK, due to data unavailability.
7. including Egypt, Greece, Jordan, Morocco and Portugal.
8. It is believed that the capital, Cairo, hosts the largest number of refugees population living in urban cities in the world (Fargues, 2009).

9. Inverted dependency ratio is the ratio of population in the working age group (15-64) to those in non-working age (<14 years and >65)
10. This section relies on Contribution of Blanc F., 2010 to be published.
11. Cf. F. Blanc, Perspectives d'emploi en Méditerranée, Med2030, to be published in 2011.
12. CENSIS, 2003 (FEM21-30)
13. Fargues, P. 2009
14. Kurekova, Lucia. 2010
15. The CEE countries are referred to for : the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.
16. Borders of other EU 15 countries were going through a transitional openness to CEE.
17. Fargues, P. 2009
18. Stark & Chau, 1999.
19. McCornick & Wahba, 2001
20. Communication from the Commission, 2005
21. Venturini, A. 2008
22. World Bank. 2009. "Shaping the future: A Long-term perspective of people and job mobility of the MENA"
23. UNDP, 2009
24. based on the background study done by the UNDP, 2009
25. *ibid.* 10
26. NMS -10 include : Poland, Czech Republic, Slovakia, Hungary, Slovenia, Estonia, Latvia, Lithuania, Cyprus and Malta.
27. CEFMR, 2004.
28. These calculations are very estimate, given the discontinuity of the data either on the MPs or NMs. While the 10 MPs are included, the NMs are missing: Cyprus, Hungary, Malta and Slovakia
29. These figures include all 10 countries of both the NMs and the MPs, but the latter is underestimated due to incomplete data for some countries in 2008 and is based on estimations from previous years.
30. UN Pop. Div. quinquennial estimates and projections (Medium Variant Scenario)
31. Noland and Pack, 2008
32. Docquier and Marfouk, 2006
33. Stark, 1999
34. Niessen et al. 2007 on the Migrants Integration Policy Index. 2007.
35. ILO, 2010
36. Casey T. and C. Dustmann, 2010
37. The identity variable was calculated from the questionnaire, when the foreign born individual and their children were asked to scale on a five-point scale on how strongly 'German' they feel and how strongly they feel connected to their original country.
38. For a list of this literature check: Commander S. et al. "The Brain Drain: Curse or Boon? A Survey of the Literature". Paper prepared for CEPR/NBER/SNS International Seminar on International Trade Stockholm, 24-25 May, 2002
39. Just to try it out, this was calculated for Egypt and Morocco: mathematically, we subtracted the quantifiable expenses that the home country bears from one person migrating (average GDP per capita to express the foregone output, public expenses on education per capita and public expenses on health per capita to express the human capital investment) from the only quantifiable revenue of this migrant (remittances per capita), we found the deficit almost half the per capita GDP of that country.
40. World Bank, 2008. 'The road not travelled: Education Reform in the Middle East And North Africa' . MENA Development Report. Washington. »
41. Noland & Pack, 2008
42. This idea is strongly supported by Docquier and Marfouk's 2006 data on migration
43. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/402>
44. Article 15 (3) of the Charter of Fundamental Rights to the to the European UN, 2008
45. Somewhat similar to the US Green Card
46. EC. 2006. "Communication From the Commission : policy plan on Legal Migration"
47. Karlsson. S. 2009.
48. IEmed, 2010, "Assessment of the Euro-Mediterranean Partnerships : perceptions and realities"
49. Noland and Pack, 2008

Chapter 4: Review of poverty in the MPCs

Openness to the trade of goods, services and capital and the mobility of persons definitely contribute to convergence among countries. This convergence pertains to average product per capita and the components thereof, mainly income driven by production factors, labour in particular. It is also generally acknowledged, and confirmed by simulation models, that openness produces net income gains for all partners.

Within countries, however, one may find both an increase in average per capita income and an increase in the dispersion of incomes and living conditions according to whether the persons concerned are in sectors with a comparative advantage (where factor prices and hence income from factors used increase), in sectors with a comparative disadvantage (where factor prices and hence income from factors concerned decrease) or in sectors not directly concerned by openness, which produce non-tradable goods whose prices, as well as income revenues are directly linked to the competitiveness of the economy as a whole (the real exchange rate, in, particular). In addition, openness entails major adjustments that social policies take a long time to absorb, even with significant net gains, and that even, when applied incorrectly, may not offset the adjustments.

Contrary to the major tradition in economic thought, the subject of dual social policies, aimed at optimising a country's international position, is seldom covered in the current literature. The winners are not explicitly named, nor are the losers, and even less so the policies that are supposed to enable a portion of the winners' gains to be redistributed to the losers in order to avoid further distension of the social territory.

Identification of these policies is a major task that extends beyond the framework of this report. However, there is one indisputable indicator which, to a certain extent, measures the results of

the entire process: the evolution of poverty. Some countries, such as Brazil, have now crossed an important threshold. Growth has enabled the development of a middle class and of the lower deciles of income distribution, whereas the upper deciles now represent fewer individuals. Growth in this case is said to be «pro poor» in that it is accompanied by a reduction of inequalities. The question here is to determine the status of the MPs in this respect and to attempt to link the issue to the effects of international openness.

Given that, for cultural reasons, the MPs belong to the region the least subjected to the development of extreme poverty in the world (the percentage of persons below the extreme poverty line is the lowest among developing societies), this is a key issue in order for these countries, without facing a major crisis, to be able to continue their integration in the world economy.

In more operational terms, the question consists of examining whether it is more effective to turn to development policies aimed at promoting growth, in line with the trickle-down analysis, postulating that openness to trade and financial flows reduces inequalities and poverty (with offset policies presumed to compensate the possible losers); or whether it would be better to give preference, at least in some countries, to growth that is directly favourable to the poor with policies that promote equity.

Since the majority of the poor in the Mediterranean do not live in «poor» countries per se, it is legitimate to question whether the implementation of measures aimed at reducing the dispersion of incomes can actually have a significant impact on reducing poverty. A more precise examination of the relationship among growth, income distribution and poverty will provide a better understanding of the issues relating to arbitration or complementarity between growth and redistribution. This chapter therefore aims to ascertain the inequality factors in the region and to propose ideas on how

to combat poverty factors specific to the Mediterranean countries. More specifically, the roles of the different sources of household income and of commercial openness in the process will be studied.

I. Survey of poverty and human development in the Mediterranean region

I.1 Poverty in the Mediterranean countries: the issue of chronic vulnerability to poverty

Whereas data coverage is improving throughout the world, the Middle East and North Africa are still lagging behind this overall progress. This makes the task of researchers all the more difficult, especially since among the available data, there are sources that are not comparable among the countries (incomes vs consumer expenditures, harmonisation regarding household size and income sharing among members, etc.).

It may nevertheless be noted that in the MPs, the Millennium Development Goal (MDG1), which is to cut extreme poverty by a half by 2015, will likely be achieved and there is also an unquestionable emergence of a middle class. However, when the poverty line is raised, the number of vulnerable people is especially high.

Poverty in emerging regions: the particular case of the Mediterranean countries

Using the extreme poverty assessment level at 2005 PPP, one observes, first of all, the low percentage of persons living below the absolute monetary poverty line (\$1.25 per day per person) in comparison to the other emerging regions (Figure 1).

Whereas the poverty index has decreased in Southern Asia and sub-Saharan Africa, population growth in those countries is such that, in the end, the number of poor people at the \$1.25 per day level actually increased between 1981 and 2005. The number raised from 548 million persons

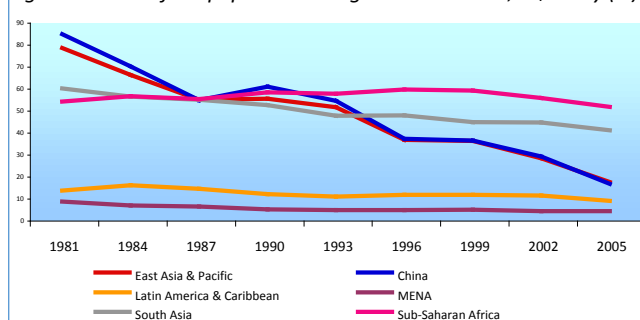
below the poverty line to 596 million in South Asia, and from 211 million to 388 million in sub-Saharan Africa. On the other hand, due to the demographic transition that has begun in the Mediterranean region, the reduction of the numerical poverty index conveys a real decrease in the number of poor persons. In 1981, there were 14 million, and in 2005, only 11 million.

In the Mediterranean countries, at the \$1.25 per day per capita level according to 2005 PPP, the numerical poverty index was 3.6% in 2005, which represents an excellent performance compared to that of the other developing regions (Latin America: 8.2%; South Asia: 16.8%; sub-Saharan Africa: 50.9%).

Kharas (2010) defines the global middle class as comprising households whose daily expenditures per person are between \$10 and \$100 purchasing power parity. In the Mediterranean countries, he estimates that the middle class includes about 108 million persons, which represents 6% of the global middle class (as opposed to 10% for the Latin America and Caribbean region (LAC) and 28% in Asia).

According to the proportion of the population per income category (table 1), 86% of the population of the Mediterranean countries was in the \$2-\$20 PPP expenditure category in 2008, an encouraging result compared to other regions of the world. The progress made between 1990 and 2008 is less spectacular than that of Latin America for which the third category comprised 13% of the popula-

Figure 1. Share of the population living with less than 1,25\$ a day (%)



Source: Povcalnet

Table 1. Share of the population by income categories (%)								
Region	1990			2008				
	Pop (millions)	Cat. 1	Cat. 2	Cat. 3	Pop (millions)	Cat. 1	Cat. 2	Cat. 3
Asia	2,692.2	79	21	0	3,383.7	43	56	1
Latin America & Caribbean	352.5	20	71	9	454.2	10	77	13
Mediterranean countries	162.3	18	80	2	212.8	12	86	3
SubSaharan Africa	274.8	75	24	1	393.5	66	33	1
OECD	639.0	0	24	76	685.4	0	16	84

Source : Povcalnet. Cat. 1 : <2\$ PPA 2005 per capita and per day. Cat. 2 : 2\$-20\$ PPA 2005 per capita and per day
Cat. 3 : <20\$ PPA 2005 per capita and per day

tion, whereas it only included 3% of the population in the Mediterranean countries in 2008.

However, looking more closely at the evolution of poverty at the \$2 per day per person level (i.e. the vulnerability level), unlike in the other emerging regions, there was no marked decrease in the numerical poverty index during the 90s. The proportion of the population with less than \$1.25 per day decreased from 4.3% to 3.6% between 1990 and 2005, whereas, over the same period, the proportion of the population with less than \$2 per day went down from 19.7% to 16.9%. For comparison purposes, at the \$1.25 per day level, the Latin America and Caribbean region had higher poverty levels, but at the \$2 per day level, those countries had levels and evolutions relatively similar to those of the Mediterranean countries (MPs), decreasing from 21.9% to 17.1% over the same period (Figure 2).

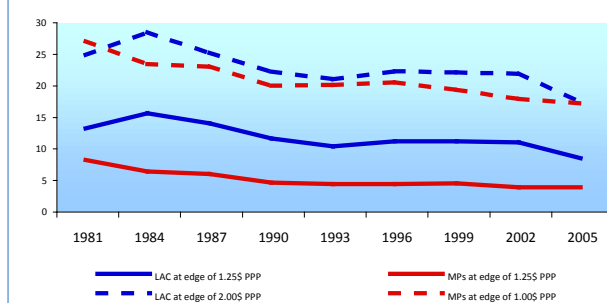
Poverty in the Mediterranean countries: case study

Figure 3 shows the progress made in reducing poverty by three Mediterranean countries. These countries all made it under the mark of 3% of the population with less than \$1.25 PPP per day.

However,

√ In Egypt, apart from the 23% of the poor at the \$2 per day level, another 37% live with in-

Figure 2. Share of the population at the edge of poverty (%)



Source: Povcalnet

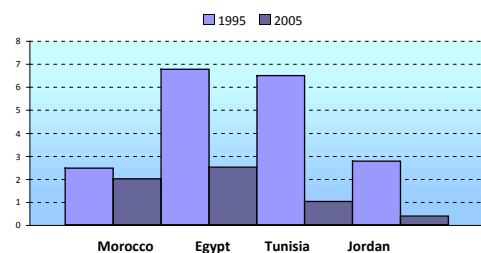
come levels of no more than 30% above the poverty level (World Bank, 2005).

√ Apart from the 19% of the Moroccan population considered poor, the World Bank (2007) found that at least 25% of the population was «economically vulnerable», i.e. their level of consumer expenditures less than 50% above the poverty level. Accordingly, relative poverty is much greater than absolute poverty in this country. Between 2001 and 2008, absolute poverty decreased from 6.7% to 3.6%, and relative poverty (viewed as starting from the poverty line) dropped from 15.3% to 8.8%. Although, during this period, 1.7 million persons went out of poverty, there are still 1.2 million persons considered vulnerable and 2.8 million persons still living below the relative poverty line. As for the situation of the middle class, it shows signs of decline.

I.2 The human development paradox in the region:

Information relative to human development indicators provides an understanding of the evolutions of poverty from a multidimensional viewpoint. In par-

Figure 3. Numerical index of poverty at the edge of \$1.25 per day (PPA) (% of the population)



Source: WDI (2010)

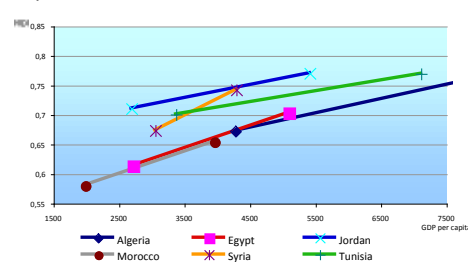
ticular, the trends show how changes in income have a tangible impact on matters such as infant mortality and schooling. The different reports on human development in the region (Arab human development reports) show the existence of major insufficiencies in the different aspects of human development. These insufficiencies are mainly linked to access to healthcare (Ayodeji Akala and El-Saharty, 2006) and knowledge (Iqbal, 2006).

Despite a similarity in performance regarding the reduction of poverty, clear differences are observed among the MPs in the transformation of GDP growth results into human development (Figure 4). This transformation has worked better in Morocco, Syria and Egypt than it has in Algeria, Tunisia and Jordan. There is obviously a difference in the effectiveness of poverty offsetting actions and amounts mobilized.

I.3 Inequality in the MPs

Although there has been a constant increase in equality in most emerging countries since the 80s,

Figure 4. Capacity of MPs to transform GDP in human development



Source: WDI (2010), Human Development Reports (1998, 2010).

the increase has been more limited in the Mediterranean region, and Tunisia and Jordan have even reversed the trend.

Since the reference years are not the same, it is difficult to compare countries on this basis. However, if we consider that the evolution of inequalities is relatively slow, the Gini index shows to what extent the inequality levels in the Mediterranean countries differ. Table 3 shows that Turkey had the highest inequality index in the region (41.2 in 2006) whereas Egypt was the least unequal country (32.1 in 2004). In each of the MPs, the richest 10% of the population owns more than a quarter of the national wealth (even up to nearly a third in Morocco).

II. Link between growth, inequalities and poverty in the region

If we are to postulate that redistribution policies hinder growth, then a form of arbitration is needed between long term poverty mitigation and immediate reduction of inequalities. If the political decision makers decide to “sacrifice” part of the growth through the implementation of policies that tend to achieve a fairer distribution of revenues, growth could be slowed down and, for a period of time, the absolute standard of living of the poor could be degraded.

Table 2. Inequality in Mediterranean countries

Country (year of survey)	Gini Index	Share of income detained by first decile of the distribution	Share of income detained by last decile of the distribution
Algeria (1995)	35.3	2.8	26.9
Egypt (2004)	32.1	3.9	27.6
Israel (2001)	39.2	2.1	28.8
Jordan (2006)	37.7	3.0	30.7
Morocco (2007)	40.9	2.7	33.2
Tunisia (2000)	40.81	2.4	31.6
Turkey (2006)	41.2	2.0	31.3

Source : WDI 2010.

The real stake, that is to conceive an efficient development policy, therefore consists in understanding the interactions between growth and revenues distribution. In this process, two alternative approaches are competing: the trickle-down development theory and the pro-poor growth theory. The question is certainly an interesting one in the region since some of the countries are oil-rich and many an analyst considers that the issue of poverty will resolve itself.

II. 1 The trickle- down hypothesis

The question that arises in the present section is to know if the economic growth process is compatible with the reduction of inequalities. The complexity of this relationship leads to qualifying the principle according to which «growth – whatever form it takes – is good for the poor» (Dollar & Kray, 2002).

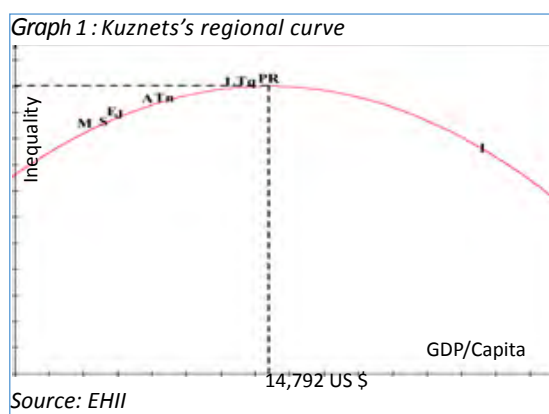
According to the trickle-down hypothesis, arbitration must be made between the promotion of growth and the reduction of inequalities. Indeed, if we are to consider that growth is fuelled by savings and investment, and that high income individuals tend to save more than the rest of the population, inequality then becomes a prerequisite necessary to accumulate capital and stimulate economic growth. Indeed, due to the high saving propensity of the deciles with the highest capital, the initial inequality is then the key for economic take off (Kaldor, 1957). Within this analysis framework, any redistribution of revenues leads to growth losses due to the lesser portion of national income available for saving and accumulation, which is detrimental to poverty mitigation.

This hypothesis has been developed by Kuznets according to whom the level of inequality results naturally from the growth process itself and public policies have little influence on this process.

When Kuznets's hypothesis is tested in MED countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia, Turkey, Syria), the tip over point corresponds to a GDP level of \$14,792 per capita.

All the countries studied are identified on the curves by their initials (Tn for Tunisia and Tq for Turkey), and PR represents the tip-over point. A rapid analysis of this graph makes it possible to conclude that in 2009, the countries of the Mediterranean region – except Israel (I), are in the rising part of the curve that is where inequalities are aggravated by the increase of the GDP per capita.

This graph shows that the countries studied are still too far from the tip-over point to expect inequalities to be significantly reduced by the growth effect alone. Even in an economy characterized by a rapid growth which results from the market mechanisms only, growth is more favourable to the individuals best endowed with production factors. If they conform to this process, the countries of the region will reach even higher inequality levels during their de-



velopment process, thus enabling capital owners to clear profits which eventually will help the poorest segments of the population owing to a trickle down effect.

This theory raises the question of the acceptance of a high inequality level that could cause significant political and social imbalances, in turn leading to lower growth induced by less investment and inappropriate resource allocation. The time necessary to significantly reduce absolute poverty can be extremely long, and this transition period is neither humanly acceptable (since it sacrifices the mitigation of immediate poverty)

nor politically responsible in view of the regional socio-political stakes.

Besides, unlike what theory predicts, in recent years inequalities have increased in countries such as Israel. Therefore the explanatory potential of this model is rather limited which tends to demonstrate that the relationship between inequalities and development in these countries is somewhat more complex. Research works on the growth-inequality relationship resemble a «Holy Grail quest». The validation of the existence of a reversed U curve would be the key of a universal law on development, the deviations relative to the curve being explained by public interventions. Yet, within a historical perspective the only countries where this «natural dynamics of inequalities» takes place are the Western countries in which the importance of the intersectorial migration is minimal in the explanation of the drop of inequalities. In fact, the gaps in labour salaries have been narrowed owing to a strong trade union action and the implementation of the welfare state – especially progressive taxes.

Hence this is not a «natural» process and the issue is to know if this model can really be transposed to Mediterranean countries. It would then be interesting to see to what extent growth can benefit more directly to the poor populations by studying the position of these countries vis-à-vis an alternative theory: that of pro-poor growth. As per this approach, poverty mitigation is no longer indirect but instead places the poor in the core of the growth process.

II.2 Pro-poor growth

The 2008-2009 FEMISE report takes stock of the situation in the Euromed region from a pro-poor growth viewpoint, and the FEMISE working paper from Bé-ranger et al. (2007) provides an in-depth non-monetary analysis of this issue. The following main results are as follows:

✓ Growth has helped the poor only in Algeria, Tunisia and Turkey namely with the emer-

gence of a large middle class in the last two countries.

✓ On the contrary, in Morocco and Egypt, growth was «anti-poor» in monetary terms i.e. the growth in income of the first deciles was lower than the national income mean growth rate. The reason why growth in these two countries cannot be considered as «pro-poor», is that the redistribution effect has not allowed to proportionally compensate for growth in the incomes of the most favoured deciles.

The aim of the next section is to determine the factors of such a failure in order to provide leads for analysis that would enable elaborating recommendations in terms of political actions against inequalities.

III. The determining factors of inequalities in MPs: study of the role of sources of income, employment and commercial opening.

The concept of social exclusion refers to groups, which cannot gain access to material and immaterial assets (Zupi et al., 2009). Social vulnerability is contingent on structural socioeconomic transformations (massive layoffs, loss of social status, disease) which can lead to social exclusion. Below the authors try to briefly put forward the determining factors of inequalities in the region:

Below the authors try to briefly put forward the determining factors of inequalities in the region:

- by studying the ways by which households receive their incomes;
- by analyzing the importance of education in the access to employment;
- then by studying the influence of the opening of this process. The pressures induced by the market globalization seem to be able to change the rules of the game, which leads to wondering if the current aspect of globalization creates a real structural transformation process capable of generating a fairer distribution of wealth.

III.1. Income sources as a factor of inequalities

In Egypt and Morocco, where growth has been referred to as anti-poor, the poverty profile is fairly identical: most of the poor live in rural areas, they form large households with a higher number of young children and a relatively low education level. Very much in keeping with the intuitions the main determining factors of the inequalities of incomes in both countries are the demographic structure of the households, the education and employment characteristics, as well as the geographical factor. It is nevertheless difficult to generalise the policies to be implemented in as much as the hierarchy of these determining factors is different for each country, but also within the countries as a function of the region and income category. In order to better grasp the stakes in these two countries, the study of the household income sources makes it possible to report on the household remuneration conditions. The study of the way these different income sources are distributed sheds additional light on the way the question of poverty mitigation in MPs should be addressed.

In that respect a difference is made between the functional and personal inequalities. Indeed, the incomes of households are structured as follows:

- on the one hand they are attributable to the productive endowments which generate work-related incomes. This concerns salaries, business incomes, farming incomes. They represent the largest income source in these two countries (64.9% of the incomes of Egyptian households and 69.9% of incomes in Morocco).
- the other part of income is linked to individual features and the social environment of the households. This income is from the transfer of income from private assets and miscellaneous income (Annex 1).

Functional inequalities

A breakdown of household income (Table 4) indicates that in the two countries the income from

employment is the main contributor to household income (65% and 70% of mean annual income per capita in Egypt and Morocco).

The salaries

On a national level, salaries represent the primary source of income in the two countries (44% in Egypt against 39.2% in Morocco). The best mean for tackling poverty would therefore seem to be access to paid employment. This is especially interesting since this source of income presents the least unequal distribution (Gini coefficient of 0.463 in Egypt, 0.557 in Morocco) (Table 4).

However, the breakdown of the Gini coefficient associated with the distribution of total income indicates that salaried income represents the first source of inequality among Egyptian and Moroccan households, thus contributing respectively by 35.6% and 37.5% of the inequality nationally.

On a regional level, salaries represent the most important source of income in urban areas (46.6% in Egypt and 47.3% in Morocco), but they also make a bigger contribution to inequality (34.2% in Egypt against 28.5% among rural households. The same phenomenon can be found in Morocco cf. Table A).

This large contribution to inequality may be explained by the much greater weight of salaries in the determination of total income.

The factor explaining the inequality in the distribution of salaries in these two countries depends on the sector in which the head of the household works and hence the sectoral distribution of the income sources which play a predominant role on the salary of the households and its distribution. In fact, in Egypt if the sector of activity of the head of the household is considered, it can be seen that poor households are essentially concentrated in the private sector on jobs with low remuneration.

Table 3. Sources of income per quintile of distribution in Egypt and in Morocco (as a % of the mean annual per capita income).

Quintiles	Share of different sources of income in Egypt (%)								Share of different sources of income in Morocco (%)							
	Total average per capita income (a)	Salaries	Independent income	Agriculture income	Transfers	Rents	Various incomes	No. obs	Total average per capita income (a)	Salaries	Independent income	Agriculture income	Transfers	Rents	Various incomes	No. obs
National																
Q1	293,7	47,7	6,1	9,8	14,8	20,5	1,1	537	1042,89	29,4	4,2	24,8	9,4	29,1	3,1	885
Q2	601,26	53,5	6,1	9,8	16,1	13,4	1	506	2508,94	37,2	5,9	22,1	13,3	19,7	1,7	938
Q3	939,87	55,4	8,1	6,8	14,9	13,2	1,5	474	4205,03	44,7	7,7	16	13,4	16,5	1,7	951
Q4	1405,72	51,8	8,9	6,8	18,6	12,4	1,6	454	6862,26	45,3	8,8	15,1	13,6	15,8	1,4	1022
Q5	3606,05	36	14,7	10,9	21,3	13,1	4	443	22360,76	37	18	16,6	9,1	14,4	5	1290
Total	1368,25	44	11,5	9,3	19,1	13,3	2,8	2414	7392,97	39,2	13,9	16,8	10,7	15,6	3,7	5086
Urban																
Q1	423,77	57,9	8	2,2	17,3	13,6	1,2	225	1688,71	42,6	10	2	14,6	29,3	1,4	511
Q2	868,74	62,9	5,7	1,3	17,1	12	0,9	221	3697,01	50,6	9,7	1,4	14,4	22,8	1,1	507
Q3	1202,34	56,9	10	2,1	19	11,4	0,7	210	5686,97	53,6	8,9	1,9	16,3	18,2	0,9	535
Q4	1783,76	55,4	10,1	1,8	19,2	11,4	2,2	219	8868,29	53,6	8,6	1,7	13,8	21	1,2	621
Q5	4510,09	36,2	17	4,4	24,3	13,5	4,5	217	27595,55	43,7	20,9	3,7	9,5	16,5	5,7	762
Total	1756,05	46,6	13,1	3,2	21,5	12,6	3	1092	9499,06	47,3	15,9	2,9	11,7	18,5	3,8	2936
Rural																
Q1	233,05	42,5	3,2	13,5	15,8	24,5	0,5	268	746,4	21,4	2,6	34,4	6,6	31,7	3,4	392
Q2	451	50,2	6,5	14	12,2	15,8	1,3	266	1698,33	29,4	2,9	34,9	10,1	19,7	3	408
Q3	654,26	49	4,6	13,9	15,5	15,5	1,4	264	2826,63	31,9	3,1	36,8	11,3	14,4	2,4	441
Q4	987,81	45,6	7,6	15,9	13,3	15,3	2,2	262	4605,05	33,6	6,5	35,6	11	10,7	2,6	445
Q5	2292,65	29,1	9,7	31,2	13,9	13,3	2,8	262	14858,39	14,3	12,7	56,2	7,4	5,5	4	464
Total	922,439	38,2	7,9	22,9	13,9	14,9	2,2	1322	4943,28	21,1	9,4	48,1	8,7	9,2	3,5	2150

Source : adapted from Niquin (2009).

(a) In 1997, 1 Egyptian Pound (LE) = 0,295 \$ US (Sources IFS, FMI).

(b) In 1998, 1 Moroccan Dirham (DH) = 0,108 \$ US (Sources IFS, FMI).

Explaining as they do 69.10% and 70.42% of salary inequalities in Egypt and Morocco, the status of the head of the household on the employment market, his sector of activity when he is working, as well as the sectoral distribution of the workforce, represent the main factors of the variances of salaried income between households within the two populations (Niquin, 2009).

Independent incomes

As far as these incomes are concerned, discrimination takes place more in access to the income sources: having the capital to be able to undertake an independent activity or farming, etc. In both countries, income from a business (independent income) represents the fourth source of income at the national level (11.5% of the in-

come of the average households in Egypt and 13.9% in Morocco) (Table 4). While this contribution is low for households from the first quintiles (6.1% and 4.2% for the first Egyptian and Moroccan quintile), the phenomenon is accentuated for poor households in rural areas (3.2% in Egypt and 2.6% in Morocco).

Agricultural incomes

Regarding the last component of labour income, the importance of agricultural income within household income differs widely from one country to another, which illustrates the specific features of the sectoral distribution of these economies.

Hence, the weight of agricultural income in household income is representative of the dependen-

Table 4. Gini coefficient associated with the different sources of income

Sources of income	Egypt			Morocco		
	National	Urban	Rural	National	Urban	Rural
Salaries	0,463	0,413	0,439	0,557	0,523	0,489
Independent income	0,595	0,569	0,566	0,749	0,745	0,74
Agricultural income	0,745	0,838	0,714	0,748	0,833	0,733
Transfers	0,651	0,619	0,622	0,716	0,689	0,717
Rents	0,582	0,553	0,524	0,633	0,569	0,448
Various incomes	0,663	0,681	0,593	0,83	0,832	0,764

Source : adapted from Niquin (2009).

ce of the Moroccan economy on the agricultural sector. In fact, in Morocco, where more than 45% of the population is employed in the agricultural sector, agricultural income represents 16.8% of average annual income (second most important source of income) whereas it represents the fifth source of income in Egypt (9.3%). Even among the rural Egyptian households, this income only represents 22.9% of resources, with the salary remaining there as well the primary source of income (38.2%). One exception remains. These are the most favoured households for which farming and breeding represent the primary source of income (31.2%) (Table 3).

The organisation of the agricultural sector therefore differs considerably between these two countries and the question of agricultural policy may not be dealt with in the same way.

Yet, this sector presents a major stake in Egypt, and despite the signing in 1990 of the International Convention on the Rights of the Child, the number of children working in Egypt increases constantly. Thus, while the legal working age rose to 15 in 2008, a study published by the Egyptian National Centre for Social and Criminological Research (CNRSC) estimates that three million children are working in the agricultural sector in Egypt, and more than one quarter of them are less than 7 years of age. The question is even more worrying in that in Egypt, whatever the region, the distribution of agricultural income is the most unequal distribution per source of in-

come (Gini of 0.838 in urban areas and 0.714 in rural areas according to Table 4).

The large disparities in agricultural income among rural households may be explained to a large extent by the marked heterogeneity of the farms, both in quantitative (surface cultivated, number of livestock) and qualitative terms (the quality of the land) which leads to large variances in terms of yield and productivity. Indeed, this category of variables, comprising the number of head of livestock of all sizes as well as the landed property contributes 37.94% and 57.56% of the inequality of agricultural income in Egypt and Morocco. Therefore the fact that a household has capital has a large influence on its agricultural income.

For the wealthier households, the essential point of income inequality seen in the agricultural sector is linked to livestock breeding. Even if a considerable proportion of the rural population possesses cattle (more than 80% of rural households), the size of the livestock population (all categories included) is found to be twice as large among the wealthier households. On the contrary, it is those activities linked to the cultivation of the land which generate the largest contribution to the inequality of agricultural incomes for the least well-off (Niquin, 2009). This may be explained by a certain specialisation of the poor households which are concentrated in this type of activity due to the fact that the operating costs are relatively lower than those linked to cattle breeding.

Personal inequalities

Transfers

The size of the transfers differs between these two countries as a result of the structural differences in their economies: in Morocco, with 10.7% of average annual income per inhabitant, transfers represent the fifth most important source of income and their role is that much more negligible for rural households which on average only receive an average of 429.03DH compared with 1106.70DH for urban households (Table 4).

In Egypt, however, the social protection system and the social transfer programmes are more developed and the country is heavily dependent on the transfers of private funds from abroad. It is for that reason that the income from transfers represents the second source of household income (19% of the average annual per capita income). However, these transfers profit essentially the wealthiest households (21.3%), and it is therefore no surprise that these transfers explain nearly 22% of the total inequality (Table A).

Even if the wealthier quintiles receive a larger share of the private transfers, it is nevertheless necessary to improve on targeting the populations who take advantage of public transfers. In fact, the inequality in incomes resulting from public transfers is not solely due to the effectiveness of social protection programmes, for their evaluation often shows that in Egypt the non-poor population profits just as much from the social transfers as the most deprived households. Targeting populations who benefit from the different transfer programmes is nevertheless relatively more effective in rural areas. The difficulties in targeting populations in urban areas are more particularly the results of a greater proximity between the different categories of population (poor and non-poor).

Private income

Private income in both countries represents the third source of income, with greater weight in Morocco (15.6% at the national level) than in Egypt (13.3% at the national level), and this is true whatever the geographical area. This private income occupies a relatively larger share of household income of the more deprived (20.5% in Egypt and 29.1% in Morocco for the first quintile). Nevertheless, some vigilance is required in the analysis of these figures for the estimation of this source of income may be truncated insofar as the bulk of this income does not derive from rental income but from the estimation of fictitious rents. This presents a problem for the measurement method for these rents consist in asking the property owners to estimate the amount of the rent which they might hope to receive if they were to rent out their accommodation. Hence, in Morocco, 17.7% of private income comes from rental income and dividends received against 82.2% from fictitious rents (Niquin, 2009).

In absolute terms, private income is larger for the households from the upper quintile. However, the share concerning the fictitious rents allocated to households which own their accommodation has greater weight in the income of the households from the lower quintile than in that of the upper quintile (Table 5). Yet, that fact that these rents which are not effectively received puts a strain on the real income of the poorest households. A poor estimation of this item therefore leads to an over-estimation of the living standards of the poorest households which is a curb on inequality. Yet, since the main part of income inequality comes from private income is the result of these fictitious rents: while private income accounts for 12.4% of inequality in Egypt and 13.4% in Morocco, this is essentially linked to that of the fictitious rents (8.8% in Egypt, and 9.9% in Morocco) (Table A).

III.2 Impact of trade liberalisation on inequality in MPs

The gains from liberalisation are in fact distributed to those who possess the factors of production which have contributed to growth. Therefore, the primary distribution of the product of growth may prove to be extremely unequal.

The impact of trade liberalisation differs, however, depending on the region:

- in Latin America, it accentuated both income inequality (Milanovic, 2005; Sanchez-Paramo and Schady, 2003) and salary inequality (Daymon, 2009);
- the case of the countries of the Mediterranean Region is atypical when compared with the Latin-American case, simply because while the development of trade flows (Graphic 5) accentuates the inequality aspect of the spread of salary costs, it also reduces income inequality (see Daymon, 2010).

In explaining this phenomenon, it has to be remembered that the total labour supply is not fixed. Indeed, the elasticity of labour supply of the poor in the informal sector is high in emerging countries. In a majority of Mediterranean countries, the informal sector represents a mine of workers which enable the labour supply to adjust in relation to the evolution of the market situation for formal work. From that moment on, any gains linked to trade liberalisation lead to an increase in employment and hence the remuneration of the households rather than by an increase in salaries. The increase in salary inequality corroborates this hypothesis and can be explained by the fact that a large part of non-qualified employment is to be found in sectors competing with Asian economies, whereas demand for qualified labour has increased as a result of the increase in both capital and technology intensive imports (see Goldberg and Pavcnik, 2004; Milanovic, 2005).

Similarly, this phenomenon explains that liberalisation has such a great impact on the income of

the poor that it has produced an increase in the level of employment in the formal sector. Indeed, while trade liberalisation is unequal from the point of view of resulting growth, the fact remains that in Mediterranean countries labour represents the main source of income of the poor. In the end, the low level of their income is more than compensated by the fact that liberalisation generates a real «reservoir» of jobs in these countries which have been seriously affected by unemployment and this quantitative phenomenon enables poor households to improve their income. Finally, while the liberalisation phenomenon generates an increase in salary inequality, it nevertheless helps to reduce inequality in the distribution of income at the national level by providing means of subsistence to the poorest.

It is interesting to note that in the MPs the tariff restrictions and other barriers to imports systematically have an unequal impact (Gourdon et al., 2008; Daymon, 2010). Trade restrictions contribute to the monopolisation of the economic rent (rent) from international trade by a «nomenclatura». The beneficiaries of these rents are generally the largest producers of the national market, who profit from the advantages of the protection and the failings of the small producers who are threatened by imports. These rents may also derive from an increase in the differentials of productivity in the context of an enlargement of the markets. This phenomenon thus contributes to the inequality of commercial trade.

The quantitative restrictions on imports also lead to the appearance of rents for importers and local producers as a result of the increase of selling prices. Indeed, only those who possess an import licence are in a position to corner a share of this rent and the system for the allocation of these licences is problematic and may be unequal, even illegal, if it involves the corruption of government agents, especially in those countries made fragile by the lack of institutional governance.

Contrary to what could be expected, while the rent phenomenon explains the unequal impact of trade barriers, on the other hand, the growth of trade flows would seem to contribute to a more egalitarian distribution of incomes. The direct effect of liberalisation on the income of the poor nevertheless needs qualification for when the specific effect of liberalisation is examined, it appears that in the MPs, the improvement in the income of the poor is mainly attributed to active social policies (Nathanson et al.).

IV. Conclusion

The test of the Kuznets hypothesis provided insight into the fact that MPs are too far from the point of return to be able to hope that the trickle-over process will rapidly reduce inequality. These results are much more decisive than the fact that growth dynamism provides no way of forecasting a significant improvement in average income. Furthermore, experience has shown that the change of direction of Kuznets' curve can only be caused by an external factor, such as education policy, which has an impact as much on inequalities as on growth.

When placed in the perspective of growth which concerns the poor, there is no incompatibility between pro-poor and pro-growth policies. By placing the poor at the heart of the growth process, a more equitable distribution of income would guarantee a better allocation of resources, which would facilitate the deployment of entrepreneurial energies. The reduction of poverty is therefore contingent on the process of growth, which provides much easier access to an improvement of the living conditions of the poorest.

The policies of growth in favour of the poor aim at reinforcing the aptitude of the poor to contribute to economic activity and take advantage of it. To do that, it is a question of instilling confidence which is likely to enable two things:

- to directly increase the income of the poor, by favouring the sectors and regions where the poor are to be found;

- to utilise the factors of production they possess (poorly qualified work) or can acquire (the land).

The creation of jobs that the poor are likely to occupy and the improvement in their access to productive resources will have an even larger impact on the reduction of poverty given that growth depends on two sectors which employ poor and little qualified labour.

In the context of the implementation of policies tackling poverty, the development of the participation of the beneficiaries of programmes to the surveillance of public services (parents of children in school involved in the surveillance of the quality of the education system, ...) is a token of the improvement in their effectiveness, but the lack of information limits the coverage of this type of programme. Yet, the introduction of information programmes cannot but have an incidence, as was the case of the participation of the community in state schools, and no impact of the effort of the teachers or on the results of learning in these schools (Banerjee et al., 2010). In the same way, a reduction in the ratio of pupils per teacher, in the absence of any other reform, leads to a reduction in the efforts of the teachers, which in the end limits the improvement of the results of the tests (Duflo et al., 2007).

The constraints do not, however, encroach on the determination of the citizens to participate in the improvement in public services. From this moment on, it would appear that the measures aimed at improving the quality of education, as well health (Banerjee et al., 2007), and agricultural productivity (Duflo et al., 2008), cannot be effective without an analysis adapted to the national context where they are applied. These different remarks plead for a direct and well organised strategy of transparent social action aimed at the sectors under the greatest threat from foreign competition. They also plead for Europe to be opened up to the agricultural production of the MPs for it is in this sector that poverty is most present. Finally, the improve-

ment in the effectiveness of training and education is without doubt the most obvious solution to the constraints of competitiveness, and a reduction in inequalities and poverty.

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Chapter 4

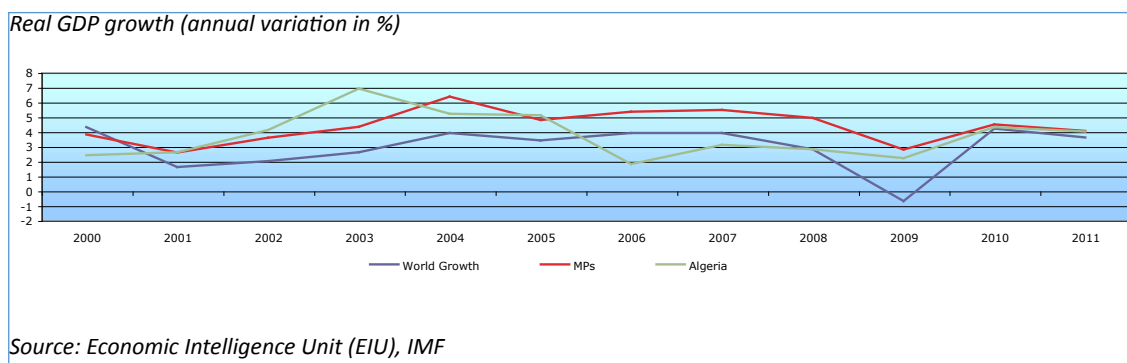
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Algeria : Crisis mitigation and reinforcement of structural policies

The Algerian economy was hit by the international crisis but the effects of the latter on growth seem to have been mitigated. The country recorded a slight decline in its growth rate (2,2% in 2009 versus 2,8% in 2008), despite initial assessments pointing towards a larger decline, partly

A major issue that will be key to the Algerian growth sustainability will be the one of its economic relations with developed partners, mostly the European Union (EU), that have been severely impacted by the falldown. Thus, the domestic economy must bring an efficient response to combat the international crisis effects while simultaneously honoring its economic agreements, sustaining growth and ensuring social



due to fluctuations in oil prices and the international crisis. Nonetheless, Algerian growth remains well below the 2000-2007 annual average of 5,5% as well as under the regional growth average.

It seems Algeria undergoes the effects of the lack of diversification in its productive structure which could have ensured a higher productivity and would thus have attenuated the repercussions of the international crisis on the real economy. The marked reduction in oil prices contributed to a 44.4% exports decrease in 2009. Moreover, the crisis has had limited direct effects, nonetheless, the country could be affected by a delayed impact originating from oil-revenues in 2010. Moreover, oil-led growth contributes to maintaining frail structural foundations. Algeria is a remarkably import oriented economy, knowledge development is hampered, and thus both agriculture and industrial production remain below potential. It appears that Algeria is becoming aware that the wealth of its hydrocarbon economy will not be able to support growth eternally.

equilibrium by fighting unemployment (which reached 10,2% of the active population in the year 2009). The adopted solution can potentially rely on foreign exchange obtained by marketing activities of the hydrocarbons sector which also allow the financing of great projects, a major agricultural reform, public consumption as well as regular imports.

Currently, Algeria has chosen to pursue economic recovery by maintaining several large projects registered in the government's five-year program and by considering an investment spending increase of 7%. However, certain projects which were to be launched in 2009-early 2010 were cancelled or postponed. Such fact was foreseeable since foreign debts have been piling up following the crisis.

As FEMISE has already pointed-out, the focal point should reside on structural policies to support employment, infrastructures and perhaps most importantly ensure the link between employment formation and the job market. Currently, growth forecasts for 2010 point towards the 4.5% mark.

As for the country's macroeconomic position the following elements should be noted :

✓ Trade perspectives for 2009 were all but optimal, after a record surplus of 40,6 billion US\$ in 2008, the trade balance fell by 88.7% due to marked reduction in oil prices and a high imports invoice. The over-dependency on oil is, once more, apparent.

✓ In a similar fashion, the service balance kept declining (deficit increase of 12.4% in 2009) with an important contribution of imported non-factor services (transport, construction and technical services to firms). This highlights more than ever the need to progressively lessen imports of service products and gradually focus on upscale production intensive in domestic service factors.

✓ The tourism volume increased by 9,5% in 2009 while receipts remained stable. This is impressive since Algeria is lacking competitiveness in the sector compared to its neighbours. Tourists were mostly Algerians, thus, attracting more non-Algerians through reform could contribute to diversification of sources of growth.

✓ Algeria is among the least vulnerable with regards to workers' remittances, remittances from Algerian migrants were only mildly affected and provisional figures for 2009 point towards a -0,4% decrease.

✓ In order to sustain an almost full-potential GDP growth level public consumption still has an important role to play, it marked a real increase of expenditure on GDP by 10.4% in 2009, well above prior growth rates and expected to grow even further in 2010.

✓ Budget policy needs reorienting to protect internal demand from the fall in oil prices. If the latter are lower than the 40\$ mark then the budget deficit will increase and the government will be obliged to use its Regulation fund, thus, limiting possibilities for recovery strategies.

✓ Algeria has recorded negative productivity rates throughout the 70s and 80s, nonetheless, total factor productivity could be on the verge of becoming a stimulus to growth. In that case, authorities would need to target specific sectors that appear to

better embody « growth potential » and define a coherent industrial strategy.

✓ Algeria intensively pursues its strategy of structural voluntarist policies. Sectors that were exclusively dependent on public initiative are given a make-over, spatial restructuring appears to evolve, and pilot urban development projects have the potential to make use of local materials and alternative energy sources. But, perhaps for the first time in decades, Algeria will have to closely monitor the profitability of its structural policies, focus on sectors that have the biggest potential to carry growth, since the budget does not allow for any irrational spending as it might used to. Again, Algeria should not be afraid to "drop" sectors and adopt a flexible stance towards resource reallocation towards industries with greater productivity potential.

✓ Whether or not 2010 translates into a year of economic recovery for Algerian trading partners could contribute to Algerian welfare. The purchasing power of the EU could stagnate, while European investors could prove reluctant. Potential trading and investment partnerships with Asian economies that bode well in the current context ought to be considered. Also, potential exists for Algeria to deepen economic ties with neighbouring African countries where logistics are simpler and trade agreements can be implemented.

✓ Algeria needs to take advantage of foreign know-how and FDI if it wishes to develop high-value added products. But to do so it should perhaps be less restrictive regarding foreign investors. Possibilities for financing by local banks and fiscal incentives are welcome measures.

✓ Algerian banks shall review current credit processes, expand their functions but also bring their Information Technology systems up-to-date. As for the proper functioning of the financial system, domestic authorities could solicit expertise, for instance from the EU, to further develop their financial system. Since Algeria has a protected capital account, and a non-rigid exchange rate, authorities can proceed to financial reform without the risk of the financial crisis looming. Financial reforms could in the medium-run allow, among others, for better

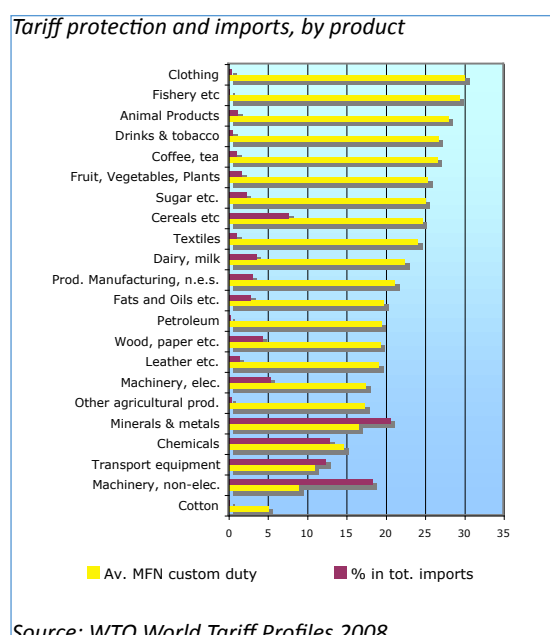
allocation of funds to productive projects that would foster the new growth model and more access to finance which is essential for SMEs development.

I. A shock on the real economy with little repercussions on the financial sector

I.1. The context

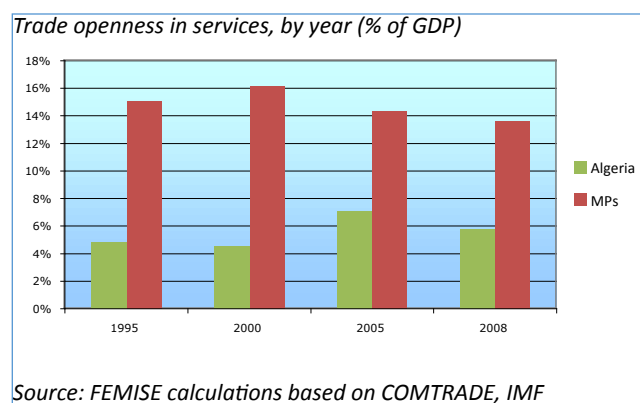
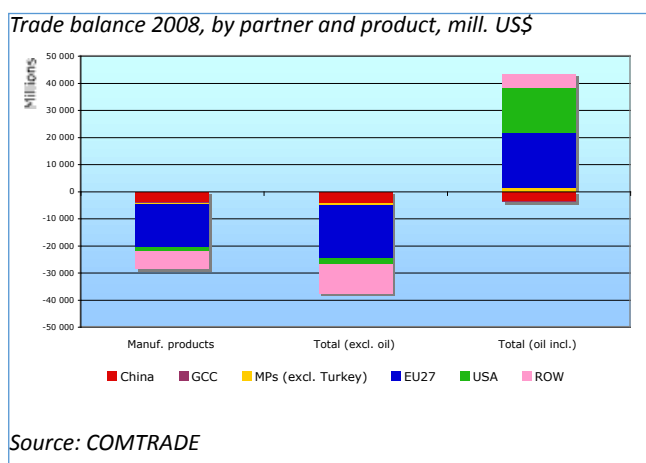
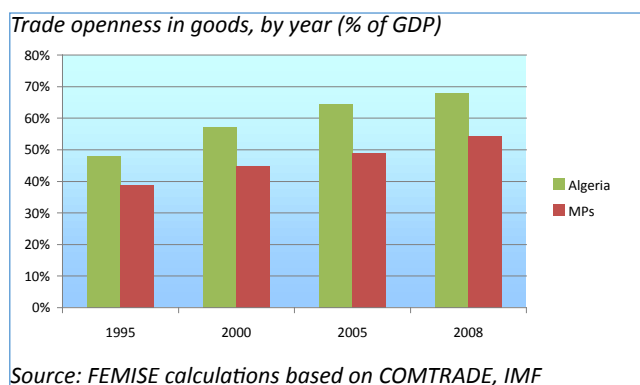
1.1 Increased openness for trade in goods, lack of dynamism in trade in services

Economic reform initiated in the mid 1980s was successful in sustaining economic growth. However, it did not solve all structural problems of the economy namely agricultural dependence from foreign sources and a lack of diversification in the production structure.



In recent years, privatization and investment have led to the opening of certain sectors and gradual tariff reform. The average MFN tariff equivalent has dropped below the 20% mark, though it remains higher than the regional average. Algeria mainly imports consumer goods, agricultural and industrial equipments and semi finished goods. Overall, it still is relatively closed on the import side for certain products and it remains to be seen if recent efforts to simplify trade procedures will be materialized.

Integration efforts through enhanced trade agreements have paid off on the export side; EU tariffs on Algerian exports have dropped and remain well below the average world tariff on Algerian trade, most specifically on non-agricultural produce. In that respect, Algerian endeavors towards more bilateral trade are reflected in an increasing openness-trend of goods trade to GDP as shown in the following graph. Goods trade, primarily through petroleum exports, has steadily increased since the Barcelona process and still outshines the regional trend.



On the flipside, the lack of diversification in the production structure and limited openness in services has clearly impacted the evolution of services trade that remains well below the regional average. Moreover, service openness has almost scaled back to the levels recorded in 1995. As noticed in the report, Mediterranean countries that have pursued trade liberalization in services have generally been among the most resilient in times of crisis; a luxury that Algeria has unfortunately partly disregarded.

Despite relative shortcomings, Algeria's reliance to oil-revenues makes it the sole country in the Mediterranean region with an export surplus towards all major trading partners (with the exception of China). In terms of value, major export destinations are the EU and the US while regional trade is of marginal importance. In the current conjuncture, Algeria should perhaps consider a strategy for a more diversified and open economy, especially since high oil prices might not last while a share of international reserves could be deviated to cover the budget deficit instead of softening the cost of restructuring.

1.2 A closed capital account and a relatively flexible exchange rate regime

Capital flows to the Mediterranean countries have been low relative to other developing countries and Algeria is no exception. Limiting capital flows, makes it more difficult to correct for accumulated imbalances accumulated and constitute a barrier in the much needed effort to stimulate diversification towards non-oil sectors. Nonetheless, in times of crisis Algeria has benefited from its limited financial integration and the lack of exposure to toxic assets and portfolio outflows.

Algeria also has the luxury of maintaining its ample foreign currency reserves for its financing needs

and thus be less dependent on external funding from international markets. Its current exchange rate regime, with a domestic floating currency peg allows Algeria to be even less exposed than neighbouring MP's.

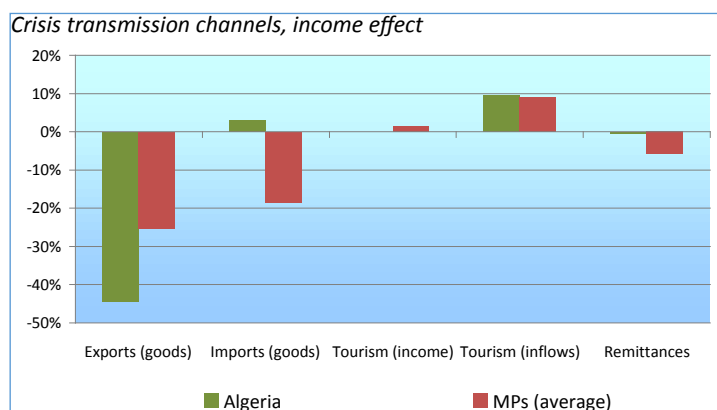
1.2. Crisis transmission channels

In Algeria, as in the majority of MP's, the crisis transmission channels are mostly to be found in the real-sector. Exports are the main source of loss, while the tourism sector and remittances have been hit less harshly compared to the region as a whole.

2.1 A real shock that originates from a fall in exports

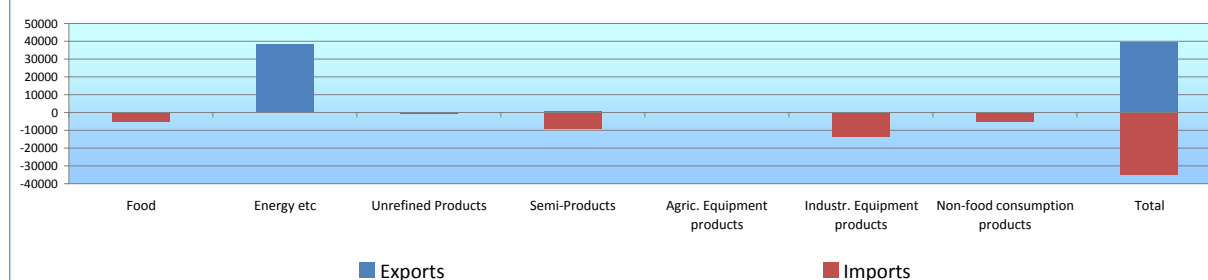
The crisis impact on Algeria in 2009 can be felt at varying degrees through main aggregates summarized below:

- ✓ A massive reduction in goods exports by 44.4% (43,69 bn US\$ in 2009 VS 78,6bn US\$ in 2008),
- ✓ A 2.9% increase in the value of imports (39,1 bn US\$ in 2009 VS 38 bn US\$ in 2008),
- ✓ A trade balance in surplus for 2009 that dropped annually by 35 billion US\$ (88.7%),
- ✓ A further deterioration in the service balance (deficit increase of 12.4% in 2009) with a deficit of 5.3% of GDP (from 4.4% in 2008),
- ✓ Resilient tourism receipts that remain at 2008 levels but despite a rise in tourism volume by 9,5%,



Source: FEMISE calculations based on EIU, Econostrum, WB Remittances database, Senego.COM

Trade balance, first 11 months, provisional data (million US\$)

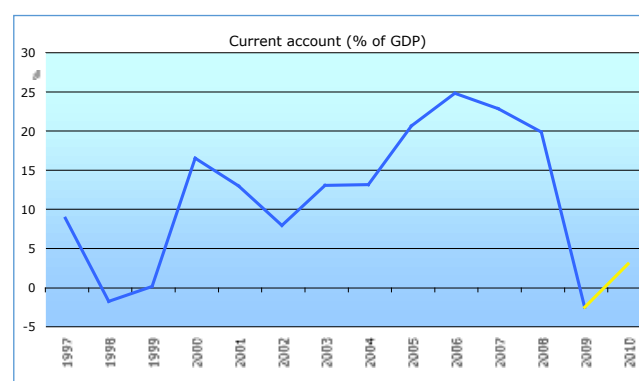
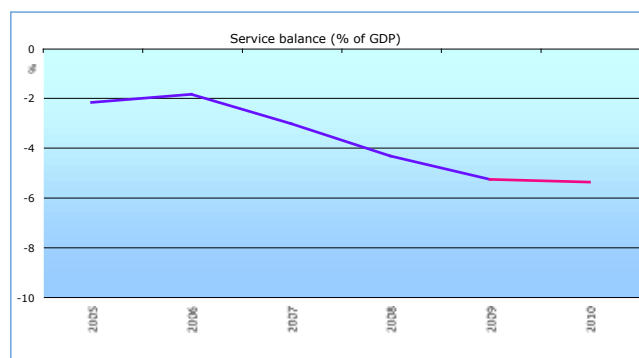
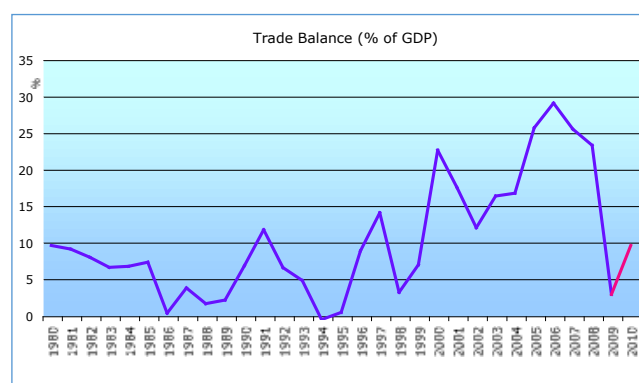


Source: Algex.DZ

- ✓ A slight decrease in workers remittances by 0,4%,
- ✓ A deficitary current account, for the first time in decades, at -4.26 billion US\$,
- ✓ An increase in FDI from 2,6 bn US\$ in 2008 to 2,8 bn US\$ in 2009.

Exports, traditionally of hydrocarbons and fuel represent the near-total of overseas income. The 2008 boom in oil-prices was the main source of export sustainability which led to a 2,3% increase in export revenues. However, last year marked a turning point for Algeria. The high volatility in oil-prices and decreased external demand translated in export revenues plummeting, with exports of goods recording an annual fall of 44.4% in 2009.

At the same time, the value of **imports** registered a 2.9% increase, which did not help attenuate the deficit. A more vigorous domestic demand and higher food prices in the year to come are expected to put additional pressures on the import side. The **trade balance** remained in surplus through 2009 at 4,59 billion dollars. However, this represents an 88.7% decrease compared to the 40,6 billion surplus of 2008. The marked reduction in oil prices contributed to that trend and Algeria is starting to realize that the wealth of its hydrocarbon economy is not a panacea. Moreover, Algeria is a net importer of industrial equipments which in the first 11 months of 2009 represent a trade deficit equivalent to 1/3 of the energy sector revenues. Semi-products, food



products and the non-food consumer goods sector constitute a source of considerable import demand, hence, additional pressure on the trade balance.

The **service balance** also pursued a downward trend through 2009 (deficit increase of 12.4%) with a deficit of 5.3% of GDP, though this phenomenon has been existant prior to the crisis as well. Imported services went from 4.78 bn \$ in 2006 to 6.93 bn \$ in 2007 and 10.97 bn \$ in 2008. The majority of imported non-factor services is composed of transport services (3.126 bn \$ in 2008 versus 2.15 bn in 2007), construction services (2.656 bn \$ for 2008 versus 1.54 bn \$ in 2007) and technical services to firms (3.387 bn \$ in 2008 versus 1.69 bn \$ in 2007). The Algerian economy has uptil now missed the opportunity of becoming increasingly specialized in activities other than energy exports and low skilled production. This is in great part due to issues of market regulation and structure, the country tends to directly import service products instead of focusing on upscale production through the creation and use of an efficient network of domestic service factors.

In 2008, **tourism receipts** increased despite the crisis context by 37% compared to the prior year at 300m\$. Furthermore, the tourism volume increased by 1,6% in 2008 while in 2009 it reached a remarkable 9,5% increase. Such figures seem encouraging since Algeria did not always have the tourism competitiveness levels of its neighbours. Nonetheless, we should note that two-thirds of incoming tourists are Algerians living abroad (65,9% of total tourists in 2009). From January to November 2009 the number of foreign tourists increased by almost 20% compared to 2008 (618,215 in 2009 versus 516,621 in 2008) with the largest share coming from France (170,583 in 2008), distantly followed by China (20,488) and Spain (20,000). Meanwhile, flows of tourists from major developed countries such as Germany, Italy and Belgium showed a marked decline (respectively by 7.7%, 6.5% and 20,9%). Additionally, neighbouring countries such as Tunisia and Morocco only represented marginal contribution to Algerian tourism. Attracting more non-Algerians through reform of the tou-

risms space could provide a useful response tool to the crisis through diversification of sources of growth.

Workers' Remittances represent a feeble share of GDP compared to neighbouring economies (2,2% of GDP in 2007 and 1,3% in 2008). Algeria is thus one of the least vulnerable with regards to this transmission channel. Despite a rise in unemployment in the EU, remittances from Algerian migrants were mildly affected and provisional figures for 2009 point towards a -0,4% decrease of remittances towards Algeria.

As a result of the globally negative performance of the country's external sector, the prior record surpluses achieved yearly by Algeria's current account balance have given place to a dramatic fall and -4.26 billion US\$ deficit in 2009.

Finally, the economy mitigated the crisis consequences on **FDI** which surprisingly increased in 2009. Algeria received 2,8bn US\$ worth of FDI which marks a 7.6% increase compared to the prior year. This occurred despite the adoption of restrictive measures relative to FDI in 2008, more precisely the obligation for foreigners to associate with domestic residents that keep 51% of capital and new bureaucratic constraints.

The energy sector remained one of the less affected sectors primarily due to the GDF Suez oil-field project in Touat; the sector represents by itself 9 of the 10 largest projects of the entire year. On the opposite side, the real estate and infrastructure sectors endured a massive investment contraction. Several projects have been either postponed or canceled, examples include the investment halt of the Emaar group in Algeria, which postpones the creation of a tourist complex at Colonel Abbès in the west of Algiers, as well as project associations by Mubadala and Dubal which were expected to associate with Sonatrach and Sonelgaz in the Aïn Témouchent aluminium project. Let it also be noted that foreign investors estimate the country

still imposes considerable taxation on exceptional profits of private hydrocarbon companies, in both current and future agreements, which constitutes an implicit barrier to overseas foreign investment. Other sectors attracted FDI, except perhaps banking due to the new 2008 ruling through which the minimum capital of banks would be multiplied by quadrupled.

2.2 A financial shock that remains very limited

The international crisis had a limited impact on the financial sector of Algeria. This comes as no surprise since Algeria remains a rather closed market, with low capital account liberalization and a medium financial liberalization. The domestic authorities avoided external borrowing, limiting contagion, focusing on domestic liquidity to finance investment.

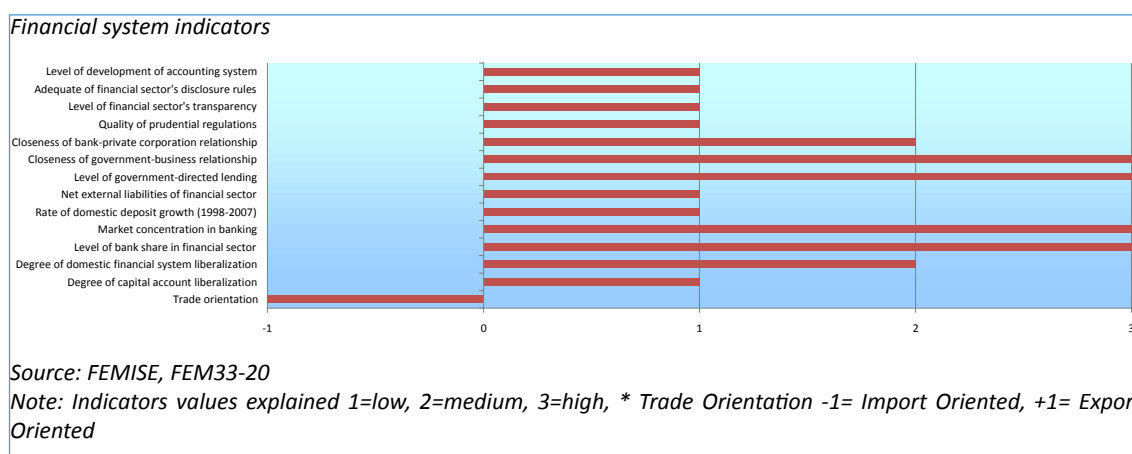
Due to Algeria's limited financial integration we shall only consider :

- ✓ The evolution of the stock-exchange,
- ✓ Foreign reserves,
- ✓ External public debt.

1) Small outfall on an undersized Algerian Stock-exchange

The degree of the crisis fallout on Algeria's financial system has been very limited. Public banks hold more than 85% of assets and receipts from the petroleum industry which translates into valuable protection. The feeble degree of financial integration has been often a source of criticism for Algeria, however it should be noted that this reticence has allowed to cushion the effects of the crisis and further transmission to the real economy.

The Algiers Stock Exchange market remains small in size and seven companies are currently listed. Trading volume reached 223,000 euros in 2008 and will only increase if an efficient system is put in place. The volume traded in millions of shares was of 0.04 in 1999, and was of 0.18 million in 2008 which is very small compared to the regional average. Market capitalisation has been steadily decreasing from \$ 0.26 billion in 1999 to \$ 0.09 billion in 2008, even if it grew by 0.62% to 68million euros over 2008. Therefore, Algiers is the least performant stock-exchange in the Maghreb world.



	1999	2008	MP 6* (2008)
Capitalization (bn US\$)	0,26	0,09	34,34
Traded volume (million shares)	0,04	0,18	5415,64
Turn-over ratio (%)	12	10	n.d

Source: FEMISE calculations, FEM33-20 research report, * MP6 (Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia)

Furthermore, equity trading remains minimal. State-owned corporations and private companies have raised funds by issuing bonds, however, such instruments have been globally underused. A possible reverse in trend could occur since three new corporate bond issues were held in 2008 for a total of 375million euros. Furthermore, an action plan to upgrade the stockmarket has been ongoing, focusing on privatisations and the financing of SMEs in a 2011 horizon. Algeria will have to provide great efforts in accountability, transparency and gain investors' confidence if it wishes for its action plan to succeed.

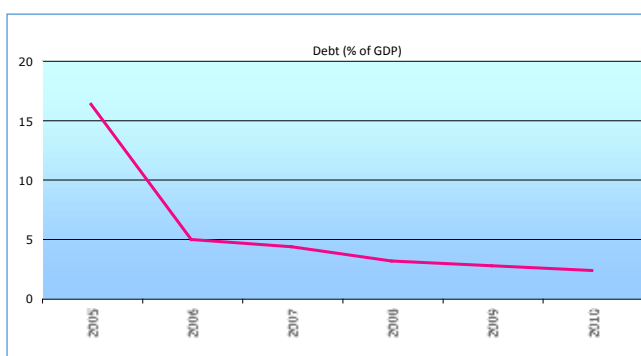
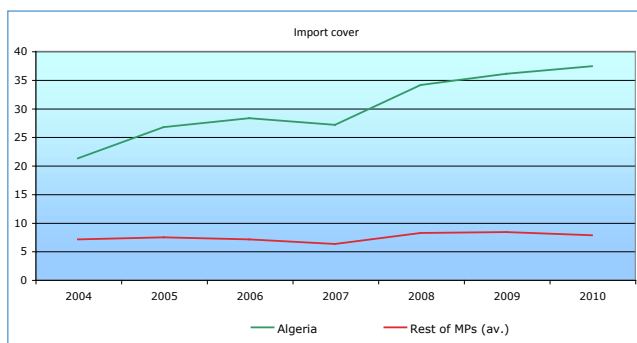
2) Foreign currency reserves maintained at prosperous levels

On the aftermath of the crisis Algeria still exhibits considerable foreign exchange reserves due to oil; they reached 149.3 billion US\$ in 2009 and should provide for approximately 3 years of imports (IFS, EIU). Thus, Algeria is certain to avoid borrowing on international markets and can continue using its oil-stabilization fund reserves to cover public deficits. The possibility for a lack of liquidities appears improbable, in the medium term at least, even if Algeria's over-dependency to oil could bring a decline in reserves in the case of a fall in oil-prices.

Nonetheless, we shall note that Algeria lost between 15% and 20% of its purchasing power in international markets between 2007 and 2009 due to foreign reserves mismanagement and a weakening US dollar. The majority of Algerian

reserves were invested on US bonds, more specifically on financial products with a 2-year maturity span. The decline in the US treasury bond yields (from 5% in 2007 to less than 0,88 in January 2010) means the 146 billion US\$ of Algerian reserves would bring 1.2 bn US\$ per year. However, inflation and the relative low of the US dollar make this a no-profit investment. Such loss of purchasing power can have dramatic effects since the domestic currency has already lost about 30% of its value relative to the euro, which presently is the main source of currency for Algerian imports. Such facts translate into soaring prices for imported foodstuffs and materialize into an untenable situation for a large share of Algerian residents.

Unfortunately, in the current international context Algeria cannot redistribute its reserves with the same ease to lessen the cost of restructuring. Nonetheless, the current level of reserves allows for investment efforts in activities where Algeria could thrive competitively. Moreover, the fall in exports is a reminder that high-oil prices, hence reserves, could gradually disappear, making it even more difficult to finance the import bill.



3) External public debt

As for Algeria's external debt, it remained close to pre-crisis levels and below its peaks in the early 2000s. Thus, government bonds have not been solicited, as in the case of most Mediterranean economies and the trend should continue through 2010 as well. As with recent years, the value of foreign debt is

covered by the amount of international reserves making the cost of servicing more sustainable.

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

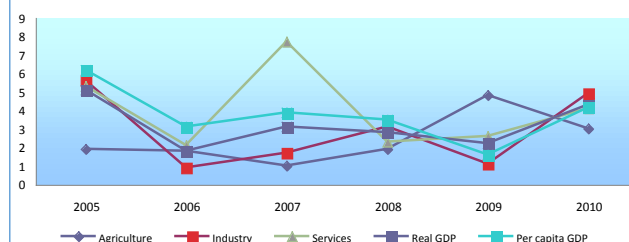
Growth in Algeria is greatly interrelated with the development of the industry and service sectors. The industrial sector alone accounts for approximately 61.2% of value added in 2009 followed by 30.4% for services and 8.4% for agriculture. Stale gas developments and production cuts in oil production in 2009 translated into real GDP growth standing at 2.1% marking a slow down from previous year's 2.8%. It is expected that this slow down will give place to more dynamic growth in 2010 estimated at 4.5%.

The past year has provided an excellent harvest and thus unparalleled growth in agriculture in recent years. Given the fact that the country has been following a particular model of growth which makes it strongly vulnerable to oil-prices volatility, the agricultural sector was the one representing the highest rate of growth in 2009 at 4.8% followed by services at 3.9% and the industry sector at 1.1%.

Let it be noted that agricultural production has come a long way since the Barcelona process. In 1995 about 2/3 of the agricultural product was the result of 20 commodities, 12 years later Algeria has diversified its agricultural production and the 20 most important commodities only represent 2% of GDP, that is about 1/4 of the total agricultural share in GDP. A similar approach within the industry and service sectors could perhaps yield the much needed production diversification and prepare the country for the post-oil era.

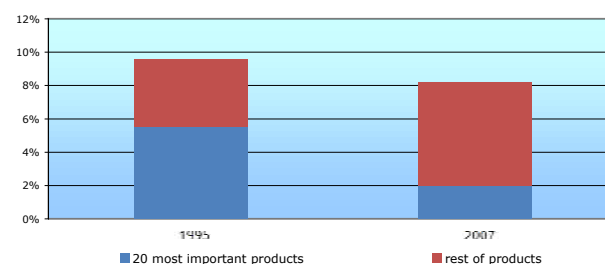
In the medium-run, if Algeria seeks to maintain its oil-producing status and use it as a mechanism of economic stimulus it should be accumulating a larger share of oil-revenues in order to increase investment in non-oil sectors that have a high potential of growth. Moreover, expansion in construction and utilities within the public programme to upgrade infrastructure

GDP growth decomposed



Source: EIU

Evolution in agricultural production composition (% of GDP)



Source: Agrostat

and housing is seen as an example of non-hydrocarbon growth which could efficiently allow for diversifying Algeria sources of GDP.

The public plan for expenditure announced in 2008, while welcome, is mainly destined for infrastructure projects, which might not be always well managed. Furthermore, economists still point to the shortcomings of the country in terms of support for business creation, monitoring SMEs and the establishment of a real industrial base. Despite credit constraints, there are several infrastructural investment programmes in various sectors that have been maintained, a fact for which Algerian authorities should take credit.

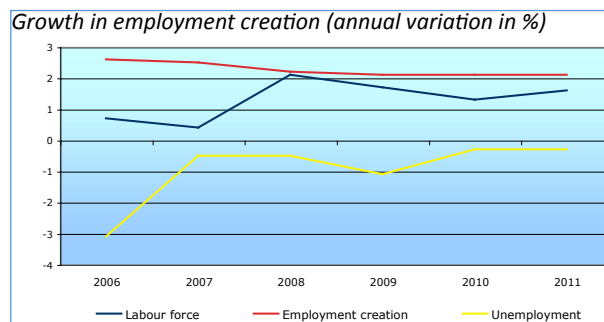
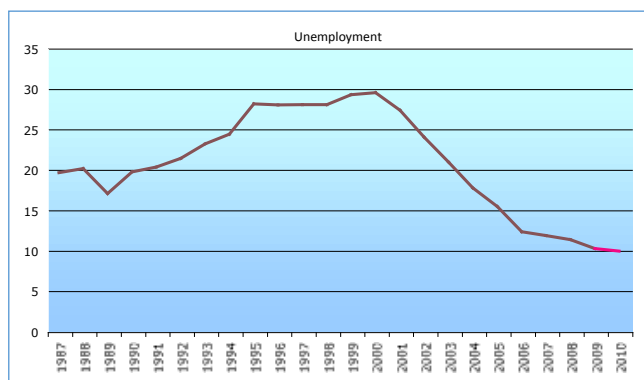
2. Employment

The unemployment rate in Algeria appears to have continued its downward trend falling from 11.3 in 2008 to 10.2% in 2009. Nonetheless, the labour force is expected to grow at a faster pace in the coming years and the current rate of employment creation could turn to be both insufficient and difficult to sustain following the crisis. Let it be noted that 73.4% of

the unemployed are 30 years old or younger, while 86.7% are 35 years old or younger. The country remains plagued by youth unemployment over the 25% mark while female unemployment has surpassed its 2005 level of 17.5% to reach 18.1% in 2009, despite initial decline in mid-period. As for male unemployment, it reached 8.6% in 2009, a figure in marked decline compared to its level of 14.9% in 2005. Knowing that on average women represent the largest share of students in universities, and keeping in mind that education and the job market are not well intertwined domestically, the corresponding unemployment figures could mark further gaps in the coming years.

The issue is even more serious than it first seems from a societal point of view if we consider that 40% of Algerians are under 15 while 70% are under 30. The government has tried creating jobs for young Algerians, for instance through the East-West Highway contracts. However, several foreign affiliates tend to bring their own qualified staff. Moreover, public employment programs often create temporary jobs and the retention rate at the end of the qualification-period is weak. Currently, 33.1% of workers are permanent ones, while the non-permanent share represents 32.5% followed by independent workers and employers at 29.2%.

The government has undertaken the challenge of creating 3 million jobs in the 2010-2014 span. The ANSEJ and CNAC initiatives allowed creating approximately 76 000 employment positions in 2009. At the firm level, the ANEM plan contributed to 170000 young people finding a position as was the case with the « Dispositif d'aide à l'insertion professionnelle »



Source: FEMISE calculations, various sources

(DAIP) which inserted 280 000 young individuals in the job market in 2009. The « Chambre de l'artisanat et des métiers » of Tipaza (CAM) also promoted employment creation through the emergence of 980 new positions in 2009, most notably in services which represent 60.61 %. Women, more specifically housewives and from rural regions, have gone from the 8-10% mark to 27%. Meanwhile, the « Direction de l'action sociale » (DAS) in Tipaza created 9 000 positions in 2009. We should note however that employment initiatives cost more than originally planned (25 % to over 100% more according to the IMF).

3. Inflation

In spite of the objective of fighting against inflation by limiting monetary creation, the rise in domestic prices persisted in 2008 through the joint effect of increasing wages, higher raw materials and cereals prices and an inflow of liquidities in the financial system. In 2009, inflation averaged 5.7% up from 4.4% the prior year and due primarily to rising food prices up by 8.23% (more importantly a 20.54 % rise in prices of agricultural goods). Prices of manufactured goods increased by 3.54%, and services met a price increase of 4.14%. As in prior years, the government will be forced to subsidise many food products and even introduce price controls on certain products, thus maintaining artificially low inflation. It is worth noting that the vast majority of foodstuffs recorded major price increases, as in the case of mutton (26.96%), fresh vegetables (20.14%), fresh fish (19.81%), beef (19 %), eggs (18.36 %), potatoes (16.61 %), chicken (15.99 %) and fruits (12.13 %).

Thus, inflationary pressures will most probably remain high throughout 2010 due to :

- ✓ strong domestic demand and high prices,
- ✓ high public spending,
- ✓ possible increases in energy prices,
- ✓ government restrictions on imports.

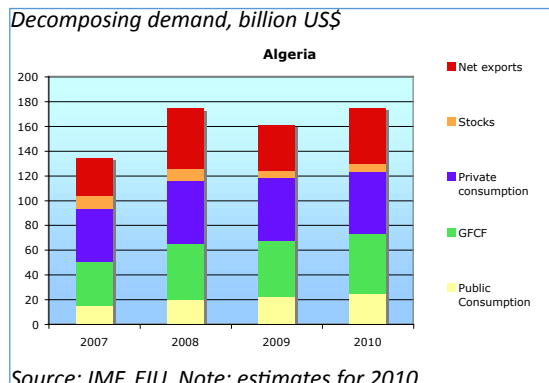
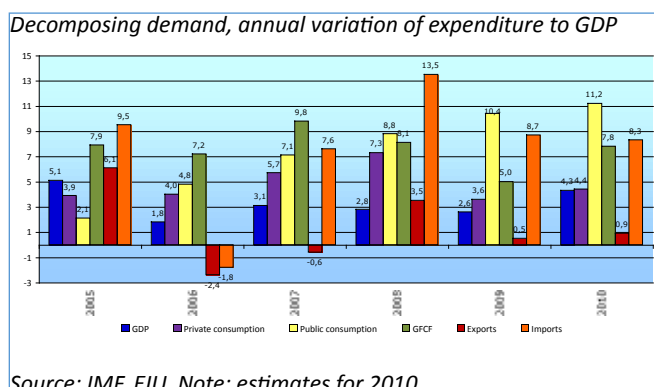
II.1 A necessary macroeconomic reaction that has nonetheless brought the public budget in deficit for the first time in years

1) Slower economic activity that remains solid due to private consumption and the GFCF

While solid, private consumption through 2009 grew at a slower pace (real increase of expenditure on GDP by 3,6% in 2009 versus 7,3% in 2008). Meanwhile, estimates for 2010 point towards a recovery to its pre-crisis levels of growth.

Government spending has supported the economy while increases in public-sector wages are expected to continue. Strengthening oil prices could support further large-scale investment projects, demand and government consumption, and will help to counteract slower expansion in exports—mainly hydrocarbons—resulting from sluggish European growth. Thus, GDP growth could reach 4.5% in 2010.

In order to sustain an almost full-potential GDP growth level public consumption also has an important role to play. Algeria marks no-exception, public consumption marked a real increase of expenditure on GDP by 10.4% in 2009, well above prior growth rates and expected to grow even fur-



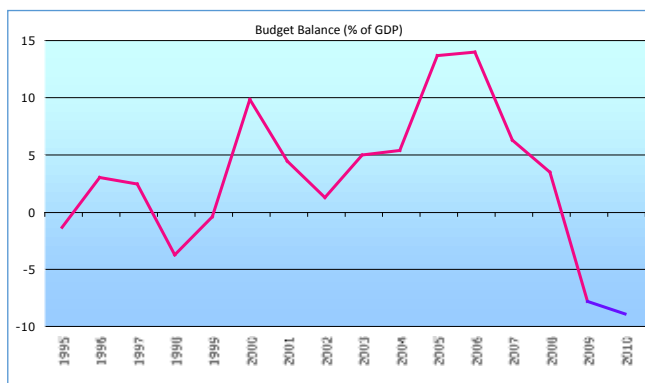
ther in 2010. As for investment, it kept growing, though slower, as the GFCF 5% real increase on GDP for 2009 suggests.

Moreover, estimates for 2010 indicate investment growth resilience which would be remarkable and constitute an exception within the South Mediterranean.

2) Massive deterioration of the public deficit in the short-run

Algeria managed to keep a remarkable surplus of its fiscal balance in 2008 despite the crisis (+3.4 % of GDP) by benefiting from a high oil-price. As expected, the trend did not repeat itself in 2009 and oil-price assumptions when drafting the budget did not suffice, figures for 2009 show a massive deficit of about 7.9% of GDP. This evolution comes in stark contract with the annual average surplus of 7.4% registered in the 2000-2007 pre-crisis period.

Nonetheless, government revenue is expected to enter a recovery track in 2010, though the balance could still remain deficitary (estimated at -4.8% in 2010). The draft budget considers a 13% increase in spending in 2010 while estimated revenue is based on a very conservative oil price of 37 US\$ per barrel. A reason for which the balance could remain in deficit is found in the government's tendency of pursuing a rather expansionary fiscal policy, most notably driven by the 150bn five-year infrastructure programme for economic activity, as well as due to the need for considerable social assistance to combat prevailing unemployment. Drawing on the reserves of the "Fonds de



régulation des recettes” would still allow for the expenditure programme to subsist in the current year.

3) A monetary/exchange-rate policy that has proven adequate in times of crisis

As noted in the report, MPs difficulties following the crisis will be threefold : i) slower growth that negatively affects the fiscal balance and unemployment, ii) less capital inflows and iii) exports deterioration and rising complications in debt-servicing. Algeria appears less concerned from the triptyque above for two reasons : first, its budget is less threatened due to future oil-revenues and second, its exchange rate policy is flexible enough.

Simply put, Algeria’s still ample foreign-exchange reserves allow for the Central Bank to focus on the management of the domestic currency, with less preoccupations on eventual need for protection of the dinar. The Algerian Central Bank follows a managed float policy of the domestic currency in order to ensure exchange-rate stability with regards to the US \$ and the euro. However, most imports are priced in euros while Algerian exports are in US dollars, there-

fore, the CBA has the delicate task of finding an equilibrated exchange rate, while also taking into account evolution in valuations between its trading partners currencies.

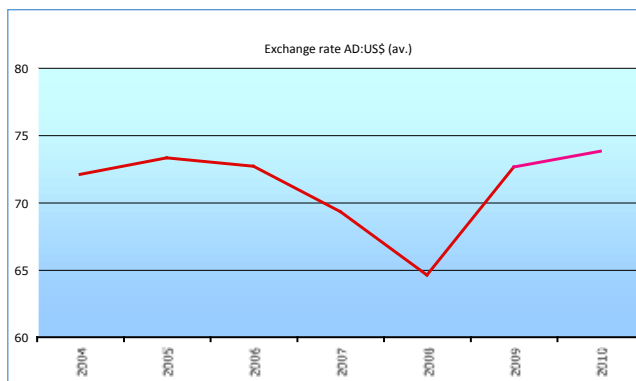
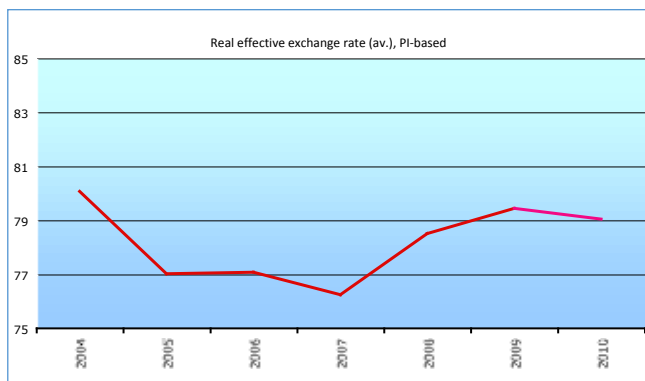
Moreover, Algeria always faces the risk of exchange rate appreciation which usually has negative externalities in the non-oil sector and has been ongoing for several years. Between 2002 and 2006 the Algerian dinar had appreciated by 7% in nominal terms against the US \$, after an important depreciation prior to 2002. Even so, in 2009 the currency was allowed to depreciate as a means of reducing import demand going from 65AD for 1US\$ in 2008 to 72.6AD for 1US\$ in 2009. In the last months of 2009 the Central Bank of Algeria intervened in the money market through a multilateral liquidity auction (reprise de liquidité), liquidity absorption by the CBA (maturity of 7 days and 3 months) mounted up to 1 100 bn dinars.

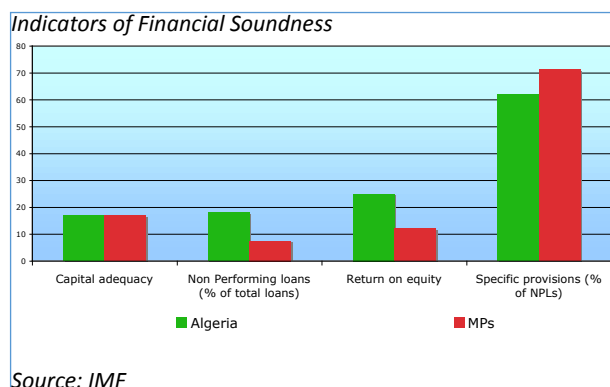
Overall, contrary to other PMFs with a fixed exchange rate system Algeria will not sacrifice its reserves to protect its exchange rate and counter-cyclical monetary policy could be used as a means of economic stimulus.

II.2 Banks remain solid but insufficiently integrated

The banking sector in Algeria had little to worry about in the short-term following the crisis. Banks remained profitable but limited credit to the private sector will be source of concern in the coming years if it does not increase. More specifically :

√ Non-performing loans in Algeria are remarkably high, even if they have not increased further





since the crisis erupted. They represent 18% of total credit, thus more than twice the average ratio found in Mediterranean economies.

✓ Specific provisions to NPLs remain ample and not far from the Mediterranean average.

✓ The capital adequacy ratio is at 17%, practically equal to the regional average and is considered to be sufficient.

✓ Return on equity is at 25%, well above the Mediterranean average which could indicate that, contrary to the average of Mediterranean banks, Algerian banks have not had significant losses in profitability.

One of the major sources of concern is the lack of credit to the private sector. Currently, private sector loans represent 15,6% of GDP which places Algeria last among Mediterranean economies (IMF, IFS). This could be interpreted as an aversion to risk from Algerian banks coupled with complex procedures that obstruct access to capital and a lack of dynamism in private sector projects.

At the end of December 2009, banks had deposited 1 022 bn dinars as a remunerated deposit. Meanwhile, the supply in lendable funds on the interbank market marked a 5,398 billion DA decrease in December 2009, which corresponds to a drastic 27.5% decrease. Furthermore, the average weighted interest rate of forward transactions in the interbank market declined in December 2009. Along with reserves, lending by Algerian banks remains the major source of finance for investment projects. Six public banks account for over 90% of total bank assets and frequently lend to public companies with little credit-risk assessments.

Recipients of such funds are often found to be offering little profit or even record losses.

A possible financial sector reform could strengthen and improve the efficiency of financial institutions, more importantly by strengthening the role of public banks. Privatization of major public banks has been suggested as a possibility by IMF officials, in order to increase the efficiency of the banking sector. In that respect a reduction in non-performing loans (NPLs) should be of imminent necessity.

Finally, it should be noted that the decision was made by the Algerian government to eliminate credit for consumption (*crédit à la consommation*) as a means to reduce import demand that weighs down on the trade balance. Nonetheless, such move could affect sales, most notably in the auto sector where estimations point towards a 25%-35% decrease, and also initiate further social unrest.

We shall note however, that credit to the private sector increased by almost 3% compared to 2008 while it has decreased in most Mediterranean economies. « Specific corridors » by public banks have been put in place to facilitate credit access (*Credoc*) for SMEs. The latter should find it easier to obtain the necessary funds to pay for imports of raw materials and semi-products that are essential inputs to the production process. Such measures are welcome and should be accompanied by further facilitation and alleviation of bureaucracy in all sectors of the economy.

III. Revisiting engines of growth : Implementation of new structural policies

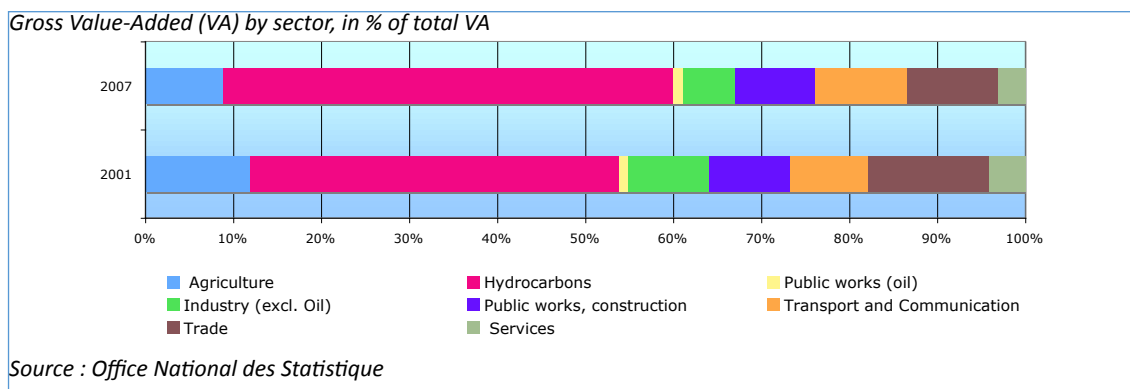
III.1 Firm productivity as an indicator of growth-potential

Perhaps for the first time in decades, Algeria will have to build its growth strategy and focus solely on sectors that have the biggest potential to carry growth, since the budget does not allow for any irrational spending as it might used to in prior years. Thus, there is a clear need to identify sectors that are possible « winners » and can be

driving engines for the Algerian economy in the coming decade.

The key to achieving a 4.1% rate of growth in the 2000-2007 period was based on the following : Algeria benefited from the hydrocarbons sector

tributor whatever the assumptions on the relative share of physical capital to production while physical capital appears to have had a negative contribution. This can be explained by the fact that Algeria is an oil-driven economy, the annual average of gdp growth in Algeria was negative in



which has provided sufficient growth momentum in the largest part of the decade. Contrary to several MP's, growth did not originate from the innovative activity of new sectors nor from increased specialization in new products.

But there are elements that hint towards an evolution in the Algerian growth regime, one based on productivity that could better serve the economy in the coming years.

In the right-hand graph below Y/L shows the rate of growth of GDP per worker throughout the 1970-2008 period. It also contains an estimate of the contribution of physical capital per worker to production, the contribution of human capital per worker to production and the average growth rate of the total factor productivity TFP. Finally, two scenarios are taken into account regarding the relative share of physical capital to production (equal to 0.74 in the first case and of 0.30 in the second case).

One would expect physical capital to be the key factor of economic growth in Algeria. But this appears to not have been the case, instead human capital appears to have been the main con-

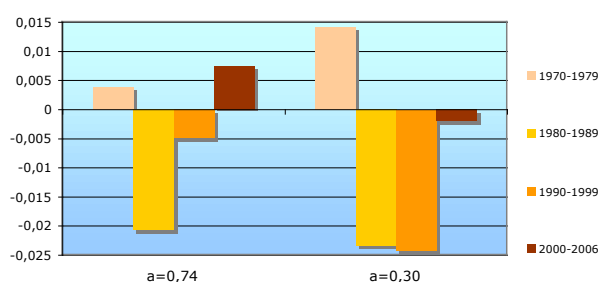
tributor whatever the assumptions on the relative share of physical capital to production while physical capital appears to have had a negative contribution.

As noted by Pipitone (2009) during the 70s Algeria had one of the highest average growth rates of GDP giving place to a lengthy period of recession before falling back to positive growth figures in recent years, always in conjunction with the evolution of international demand for oil and less apparent in investment efforts.

The left-hand graph also suggests that Algeria has recorded negative productivity rates throughout the 70s and 80s, nonetheless, depending on assumptions on the relative share of physical capital to production, TFP could have started, or be close to, growing at a positive rate in the 2000-2006 period.

In the case where the relative share of physical capital to production is equal to 0.74 the growth rate of TFP appears to have been positive in the recent years. In the case where the relative share of physical capital to production is assumed equal to 0.30 the growth rate of TFP is still negative in recent years, though to a much lesser extent than in prior decades.

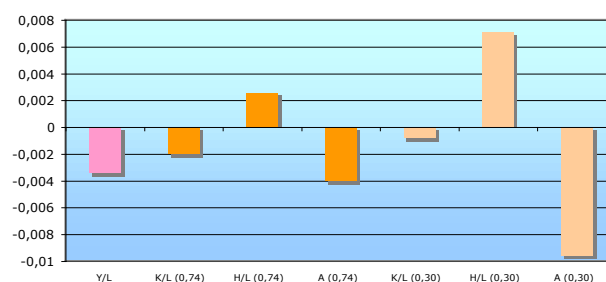
Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Table 2. Total Factor Productivity (TFP) and Capital Intensity, Median by Sector.

Sector/Country (2002)		TFP	TFP1	TFP2	TFP3	K/L	K/L1	K/L2	K/L3
Agro-industry	Algeria	2,46	2,49	2,52	2,46	5,05	7,95	3,94	12,91
Agro-industry	MENA	3,09	2,81	3,06	3,08	10,58	4,68	12,09	10,38
Chemicals, Pharmaceuticals	Algeria	4,12	4,23	3,62		2,41	2,41	2,29	
Chemicals, Pharmaceuticals	MENA	3,66	3,55	4,04	3,48	6,61	2,81	5,93	8,6
Plastic and non-metallic materials	Algeria	3,87	2,88	4,43	5,17	1,85	0,53	2,52	4,03
Plastic and non-metallic materials	MENA	3,03	2,9	3,29	3,49	4,66	4,47	6,91	4,96
Metals & machinery	Algeria	3,81	3,54	3,81	5,07	2,5	2,53	2,5	1,33
Metals & machinery	MENA	3,56	2,82	3,5	4,62	8,98	25,43	10,46	5,71
Textiles	Algeria	3,06	3,78	2,4	1,65	1,84	0,47	5,01	3,02
Textiles	MENA	2,87	3,13	2,76	2,73	4,91	5,39	5,87	4,25

Source : FEMISE report FEM33-09.

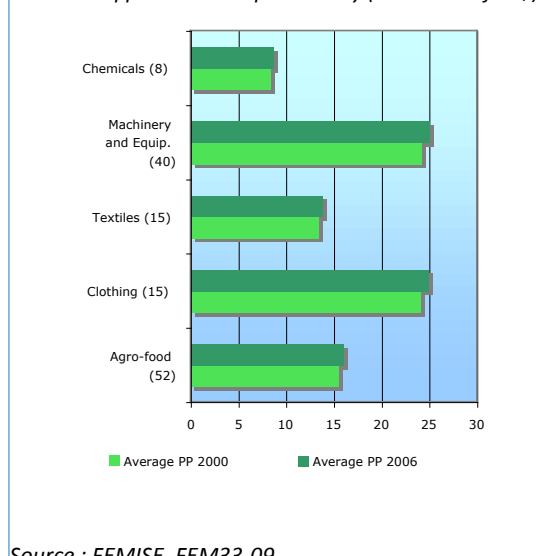
Note : Firms are classified by the number of workers they employ : less than 20, between 20 and 99, more than 100, expressed by 1, 2, 3 respectively..

But even so, in the second case, human capital appears to contribute even more to Algerian growth. As noted by Aiyar, S. and J. Feyrer (2002) human capital plays a crucial role in determining the dynamic path of TFP. International technology spillovers from countries at the frontier to Algeria could be facilitated by human capital stocks while the composition of trade partners and the level of technology-enhancing FDI may also affect the ability of a country to implement new technologies. They conclude that, while productivity is traditionally the most important determinant of per capita income, human capital accumulation is the key to changes in productivity, something that could initiate thoughts among authorities if they were to embrace a TFP regime in the coming decade. Inevitably, authorities would need to target specific

sectors that appear to better embody « growth potential » and define a coherent industrial strategy.

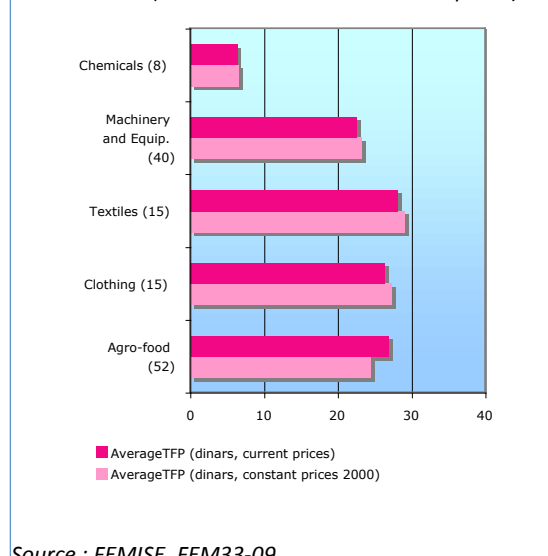
A recent FEMISE study offers valuable insights into the productive performances of Mediterranean partners, among which Algeria. Firm productivity can be used as an indicator of both, competitiveness, international insertion and growth dynamic. The capacity of producers to materialize resources in an output can thus show which sectors are more productive and therefore are trustworthy engines of growth. A quick look on Algerian median sector-TFP (Total Factor Productivity) shows that the country bodes quite well compared to regional productivity, for all sectors but the food industry. Moreover, firm-size appears to play an interesting role in each sub-sector and might

Firms and apparent labour productivity (thousands of US\$)



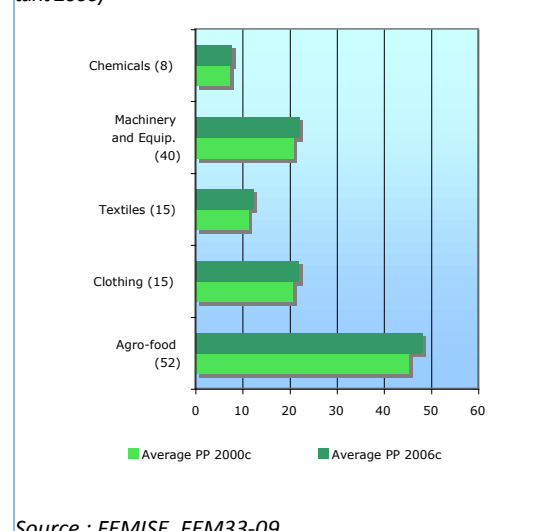
Source : FEMISE, FEM33-09.

Firms and TFP (dinars in current and constant prices)



Source : FEMISE, FEM33-09.

Firms and apparent labour productivity (thousands of US\$, constant 2000)



Source : FEMISE, FEM33-09.

in the food industry. In other terms, the latter sector has more capital available per unit of labor. While Algeria is known for following a regime of capital accumulation its capital intensity in all sectors remains lower than the MENA average. However, different measures of productivity can produce different results. A measure of labour productivity (partial productivity) suggests machinery and clothing (confection) sectors could be the most productive in terms of labour units in Algeria. Meanwhile, the chemical industry appears less productive contrary to prior TFP results. Alternatively, when labour productivity is measured in constant dollars, the food sector gains in competitiveness compared to both machinery and clothing.

be defining in the construction of an industrial policy that allocates resources optimally. For instance, in the chemicals sector the TFP is higher in firms with less than 20 employees while larger firms are less productive. This comes in contrast with the regional trend where firms of 20 to 99 employees appear to be more productive than their smaller counterparts. Larger firms also appear to be less productive in the textile sector which is also the case at the regional level as well. As for the rest of the economy, larger firms are usually synonyms of greater productivity.

Measuring unit-value TFP confirms the lack of competitiveness in the chemicals sector and comes in contrast with the results highlighted by median-TFP. As the study notes, in the chemicals sector about 50% of value-added is imputable to wages which explains how median-TFP might give a biased look on economic performance. Thus, Algeria might have more to gain by defining a strategy of picking sectors where it has a stronger potential for comparative advantage (ex. textiles, food-industry).

Let it also be noted that the capital intensity (intensité capitaliste) among Algerian sectors appears higher

In the end, public investment projects ought to be at least related to productivity measures and profit,

they should focus less on strictly political criteria that are burdensome for both economic recovery and the country's long-term growth.

III.2 Structural policies and measures following the crisis

To better adapt to the evolving international context, Algeria initiated a series of measures that fall within its strategy of structural voluntarist policies. These measures that characterize the country's response to the crisis and are included in the 2010 Finance Law could allow cushioning the crisis effects through 2010 and beyond. Equipment budget is expected to augment by 7.4% (3 022,9 bn DZD- 28,2bn€) and will be used for the development of Algerian infrastructures (East-West highway, railroads, ports etc). Moreover, the health sector, housing construction and electricity are among the sectors to benefit the most from the increased funds.

The Ministry for Industry and Investment Promotion uses the main highlights of the "Strategy and policies for industrial relaunching and development" document as its basis for the development of the new industrial strategy. The latter has a series of explicit or implicit objectives that reside on i) selection of sectors for promotion (picking sectors that are identified as winners), ii) industrial sectional restructuring (which includes dropping sectors defined as « losers »), iii) spatial/urban restructuring of the industry, iv) industrial development policies. The sectors to be promoted and thus labelled as potential winners for growth development are selected on the basis of their developmental potential but also the level of competitiveness of the branches identified.

1) Sustaining national production and sectional restructuring

Currently, about 75% of consumer goods in Algeria are made of imports. Meanwhile, manufacturing goods and semi-processed goods represent less than 1.5% of Algerian exports. This means that the potential for developing a domestic market producing such

commodities is immense. Thus, boosting national production in such branches has become a priority for Algerian authorities, the government plans on accompanying and supporting firms in order to ensure that they become more competitive and that their capacity of absorbing FDI is optimal.

The second scale of Algeria's structural policy implies densifying the industrial base and promoting new sectors. Thus, the authorities announced their will to go forward and focus on products that are more ICT intensive and produce higher added value. Petro-chemistry, synthetic fibres and steel were among the sectors expected to benefit from natural resources development. Fiscal incentives are also part of the finance law, for example the assembly industry is exonerated by 7% on customs duties for automobile parts that are used in the local industry as intermediates. The exonerated also applies to the sector of renewable energies.

Thus, it comes as no surprise that an array of sectors that were exclusively dependent on public initiative (advanced mechanics, equipment manufacturing, crude steel production) are given a make-over through an infrastructure program worth 107 billion euros. Six enterprises have already been created such as GICA in the cement sector and more are expected especially in hydraulics.

2) Spatial restructuring and urban development

The spatial restructuring of the Algerian industry could evolve and become more dynamic. This can be achieved through the creation of integrated industrial development (ZDII), ICT zones and high-value added specialized parks. Algeria has already been efficient in creating 5 industrial ZDII zones, 50 to 60 million euros were put into the mechanical sector, while the « Groupement industriel des ciments d'Algérie » was created incorporating Algerian cement industries in a single block. Such initiatives should foster synergies and attract much needed investment.

Moreover, urban development is becoming a reality through the pilot MED-ENEC project of Soudania conceived to make intense use of local materials and alternative energy sources. The project was rewarded with 100,000 Euros under the EU-funded MED-ENEC program as an example of best practice and development potential. Construction is already viewed by authorities as a priority and the government plans on reaching one million housing units in the 2010-2014 horizon. Such initiatives show that energy concerns in construction are taking root and renewable energy development could become a potential source of growth for the Algerian economy. Algeria's involvement in renewable energy is also apparent in the private sector, the largest domestic private company has launched a plan to attract foreign investment in order to build a solar power complex worth 8 bn US\$ which would allow the country to become an exporter of electricity, mainly to the European Union.

Finally, Algeria plans on bringing its infrastructure up-to date as recent initiatives such as the US\$588.5mn upgrading of the Mediterranean port of Béjaïa show. While the plans for upgrading will take years (2009-2025 timeframe), the port capacity would eventually triple, overland transport access including railways and motorways will facilitate access for goods to and off the port and the business environment will be ameliorated.

Overall, we shall highlight that :

✓ Algeria is heavily invested in its structural policy strategy to get out of the crisis, the difference compared to other MPFs being that the public sector appears more present,

✓ The authorities seek to dynamize new sectors of growth that could place the country in a position of comparative advantage, a welcome approach that could prepare the post-oil economy,

✓ Private-public partnerships, currently relatively lacking in the Algerian economy, should be fostered to sustain such programs,

✓ Capital needs to be mobilized for measures to be materialized, the current finance law will need support from the oil-fund while FDI is of the most importance most notably in the energy sector,

✓ Overall, Algeria should not be afraid to "drop" sectors and adopt a flexible stance towards resource reallocation towards industries with greater productivity potential.

IV. Conclusions and recommendations

Algeria was exposed to the slow-down in its developed partners and high volatility in oil-prices which translated into exports of goods recording an annual fall of 45% in 2009.

Both the economic recovery in developed partners and the level of oil-prices are uncertain in 2010, meanwhile counter-cyclical measures will be limited by the budget deficit (-5,2% of GDP). Nonetheless, authorities have the luxury of sufficient foreign reserves and the oil-stabilization fund to promote an efficient crisis-exit strategy.

IV. 1 Crisis perpetuated VS recovery : trade and investment opportunities from Algerian partners

Growth is expected to bounce-back to 4.6% fueled by strong structural policy measures that take the role of economic stimulus. But, whether or not 2010 translates into a year of economic recovery for main Algerian trading partners could contribute to Algerian welfare. The EU countries face worrying budget deficits and debts while unemployment is still an issue. The purchasing power of European residents could stagnate or diminish, while investors could prove reluctant to foreign investment opportunities. Other economies are in the opposite situation, such as in the case of China where convergence has been accelerated and production has been back on track in less than a year. Thus, potential trading and investment partnerships with emerging Asian economies ought to be considered by Algeria in an effort of diversifying both its sectors of growth and strategic partners.

Furthermore, Algeria represents a very low volume in regional trade. The African continent only stands for 1% of total Algerian trade which is below export potential. In the same manner that Algeria has fostered economic ties and dependencies with Europe it could do the same with neighbouring countries where transport logistics are much simpler and preferential trade agreements can be implemented. Market studies have shown that Algerian manufacturing products have an attractive price-quality ratio and could potentially enter competition in sub-Saharan African markets.

IV. 2 The need to re-evaluate some elements in the industrial strategy

Algeria needs to take advantage of foreign know-how and FDI if it wishes to develop high-value added products. But to do so it should perhaps be less restrictive regarding foreign investors. Possibilities for financing by local banks and fiscal incentives are welcome measures. The clause that 51% of capital be detained by Algerian residents in investment projects (Supplementary Finance Act of 2009) appears nonetheless as a constraint.

Introducing administrative constraints has rarely fostered economic growth, meanwhile the private sectors' participation in growth is below potential. To accomplish a 10%-15% growth rate in the industry sector and an 8% in the non-oil economy, a possible target cited by the Algerian ministry of Industry, authorities should perhaps re-evaluate their economic approach through innovative par-

tnerships with foreign participants that will help go from a regime of accumulation of capital to a dynamic model based on human capital and knowledge. It would then be easier for Algeria to familiarize itself with advanced technology and progressively increase local production of high-value added products. The current scheme of limiting the private sector in the « easy-industrie » (industrie facile) might not be the wisest approach to what the post-oil economy should look like.

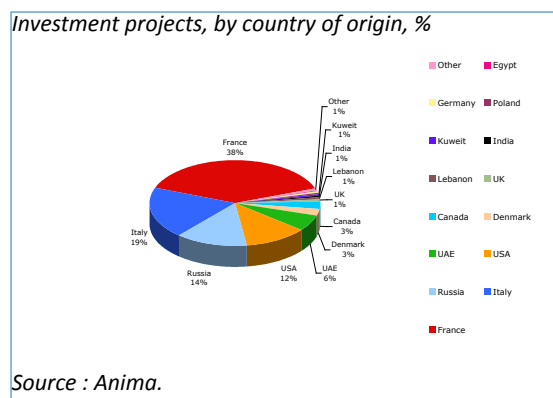
IV. 3 Upgrading the banking and financial systems

FEMISE has shown that considerable preparation is required by banks in both Algeria and the broader region before they can benefit from the Basel II agreement.

Overall, Algeria faces a small increase in deposits and credits which means that banks will have to increase financing to SMEs, while they also need to improve risk management, accountability and transparency and regulation. We shall note that as in the rest of the region, the banking system in Algeria needs to introduce new financial products to better develop credit markets. For instance, an important aspect of credit expansion is the development of risk management tools that reduce credit and default risks.

The Basel II agreement underlines that banking supervision in Algeria should be strengthened while the operational framework should be modernized. Simply put, banks shall review current credit processes, expand their functions but also bring their Information Technology systems up-to-date. However, this should be done with a long-term strategy in mind, such measures can be costly to implement and the gains of this new capital regime might take some time to surface.

With regards to the financial sector, net external liabilities in Algeria are low which can be explained by the existence of considerable restrictions on capital flows. Relaxation of restrictions on capital flows in East-Asian economies contributed to the inflow of capital and new investment opportunities, a possibility



Algeria should perhaps consider in preparing its post-oil economy. As for the proper functioning of the financial system, domestic authorities could solicit expertise, for instance from the EU, to further develop their financial system.

FEMISE has shown that financial depth contributes significantly to growth in the Mediterranean and Algeria has great potential for further financial development. Since Algeria has a protected capital account, and a non-rigid exchange rate, authorities can proceed to financial reform without the risk of the financial crisis looming. Furthermore, barriers to capital can be removed at a pre-defined pace with the presence of necessary financial regulation to avoid the nefarious effects of over-liberalizing.

Financial reforms could in the medium-run allow, among others, for:

- ✓ better allocation of funds to productive projects that would foster the new growth model,
- ✓ more access to finance which is essential for the development of SMEs,
- ✓ A reform in the regulatory, legal and jurisdictional framework which would entice FDI in long-term projects and contribute to the creation of dynamic growth.

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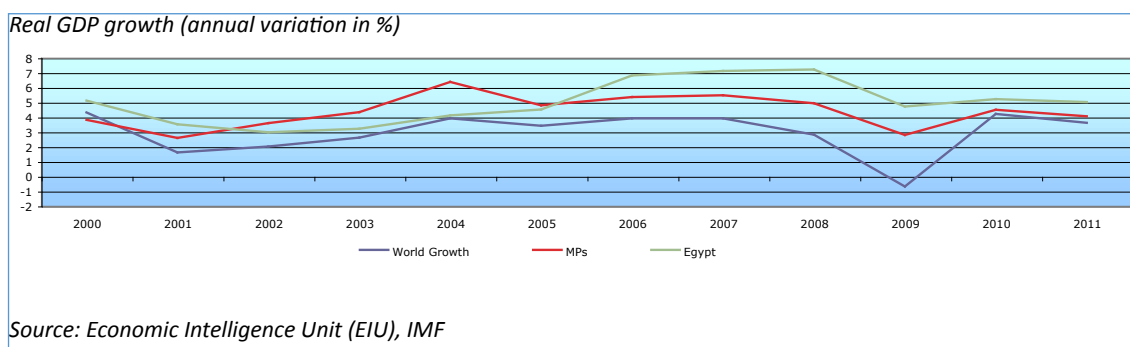
Egypt: Impressive growth in times of crisis and a development strategy to carry it in the new decade

The country not only avoided recession in 2009, it also managed to attain a real GDP growth rate of 4.7% which is the second highest among MP's. It managed to do that due to a well-diversified economic structure that is service-based, with both the public and private sectors being implicated in the process. Structural reforms and a cohesive investment plan also limited the crisis outfall, despite the fall in FDI and exports, and activity in most sectors of the economy was robust.

Capital and financial account openness could have been extremely dangerous, by increasing contagion through the financial channel. But the external exposure of Egyptian finance is low given that net external

ongoing though it appears to have decelerated during the recent decade. The country also appears to be below the regional productivity level in a number of industries, hence, enforcement of competition policy might be needed in struggling sectors. The otherwise effective growth strategy will need some alterations for productivity-led growth to keep emerging in the years to come. This shall require reform measures and adapting economic policymaking into the new economic realities.

Moreover, Egypt will have to focus on adopting a medium term budget strategy that allows for better resource allocation and does not bring the deficit to untenable heights. A major challenge shall also reside in reducing unemployment, especially among the qualified population. The exceptional growth



liabilities are low as well. The higher level of financial integration compared to other Mediterranean economies did bring an outflow of volatile capital, but Egyptian authorities were efficient in ensuring financial resilience. The necessary resources were mobilized through the dollar interbank market and international reserves have been relatively safe. Additionally, the banking sector was relatively healthy, Egyptian banks were reticent in acquiring toxic securities which proved to be of valuable help in cushioning the crisis impact. Specific provisions in percentage of non-performing loans are quite high and provide confidence for the resilience of banking in Egypt.

Overall, the economy has been steadily following a path of productivity, it registered its largest productivity gains in the 90s and productivity growth is still

performance has not offset the rise in the labour force and more shall be done to bring female unemployment closer to the male average.

Authorities appear to be invested in developing both old and new sectors to render the economic fabric more sophisticated and provide more job opportunities. A series of investments shall also shield the economy from the remaining outfall of the crisis, which leaves one optimistic.

Overall, a series of elements are worth mentioning:

✓ Egypt registered a decline in goods exports in 2009 by 22.7% due to the massive contraction of fuel exports in the second quarter of 2008/2009. Nonetheless, imports in 2009

decreased by 19.5% as commodity prices fell, which was of considerable aid to the domestic trade balance which fell from 16.2% of GDP in 2008 to 12% in 2009.

✓ The decline in tourism revenues was slower than anticipated, in 2009 they declined by only 2 percent to \$10.76bn, after initial falls of 17% and 9.5% year-on-year in Q109 and H109 respectively.

✓ Remittances are an important source of currency and a massive 24,5% drop for 2009 has been estimated. Even so, private transfers from abroad, which mainly include remittances, increased to 4.19 billion US\$ in the April-June 2010 quarter from \$1.78 billion in the prior year.

✓ FDI declined by approximately 30%, to 6.7bnUS\$ in 2009 from 9.5bn US\$ in 2008. Foreign investment from the US shrank by half in the first nine months of 2009 which would be a result of a frail US economy ; the effects on foreign investment were partly unavoidable on the Egyptian economy. Nevertheless, short-term prospects point towards a recovery in FDI inflows to Egypt in 2010.

✓ Despite the initial shock, Egyptian authorities were efficient in ensuring financial resilience. Net portfolio investment in 2009/2010 appears to have increased to 7.88 billion US\$, including 5 billion US\$ in foreign purchases of Egyptian Treasury bills.

✓ Prospects are positive for the Egyptian economy, manufacturing was extremely affected by the fall in external demand but has entered a period of recovery assisted by a public program of the Industrial Modernisation Centre. Meanwhile, prospects for services are also positive and the country is expanding strong contributors to growth such as financial services and ICT related services.

✓ The main determinant of economic growth through the last 40 years in Egypt appears to be the accumulation of physical capital. Still, one cannot say with certainty if Egypt has definitely moved away from such regime. A look on Egyptian median sector-TFP shows how the

country ameliorated its productive performance during 2004-2006 in the food industry and chemicals and metals & machinery sectors while it has done the opposite in the rest of the economy. Egypt is systematically below the regional productivity level, since competition traditionally affects productivity, enforcement of competition policy might be needed in struggling sectors.

✓ Meanwhile, developing new industries such as electronics and biotechnologies could provide for a solid base to carry growth in the decade to come.

✓ A joint project by Bank of Alexandria and the Central Bank of Egypt should allow monitoring all SMEs projects by the end of 2011. This considerable initiative could provide much needed information on all project related aspects to potential investors and thus attract more FDI to existing and future projects.

✓ Authorities should find those elements that create persistence in productivity levels, such elements define the “intangible capital” that provides positive externalities to firms and plants nonetheless. Furthermore, potential misallocation of capital shall be considered by Egyptian authorities. Implementing a coherent framework could correct a series of wrongdoings that impede the country from reaching its full economic potential.

I. A shock on the real economy greatly handled

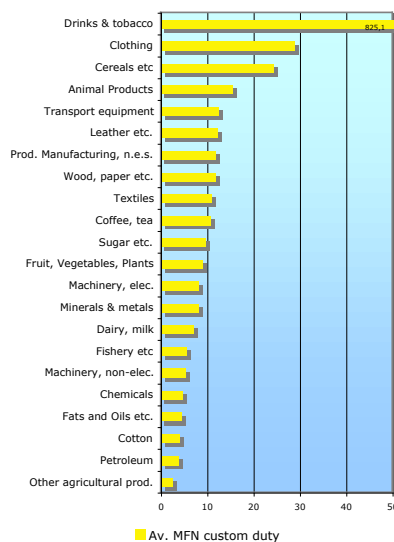
I.1. The context

1.1 Increased openness in trade, highly open capital account

Egyptian trade has gradually opened-up, after long periods of protectionism and government intervention, moving towards a market-driven economy. The association agreement with the EU played a vital part, contributing to progressively phasing out barriers to trade, most particularly in barriers on manufactured imports from the EU.

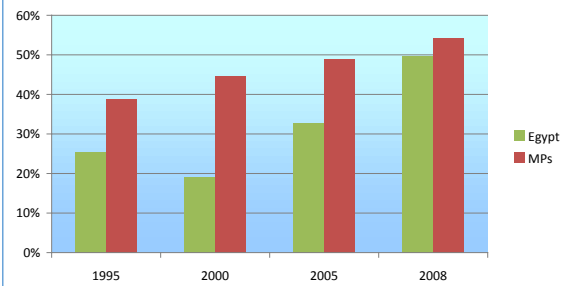
Imports face very low custom duties in a variety of goods compared to other MP's. The average

Tariff protection and imports, by product



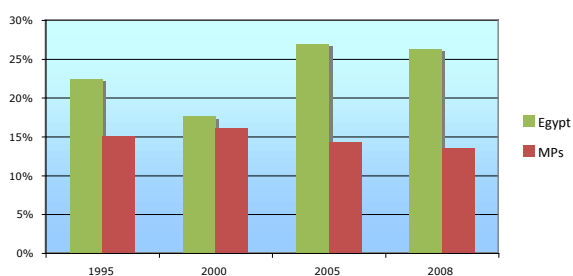
Source: WTO World Tariff Profiles 2008

Trade openness in goods, by year (% of GDP)



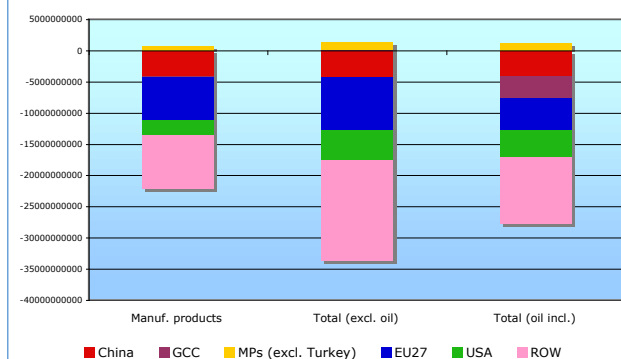
Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Trade balance 2008, by partner and product, mill. US\$



Source: COMTRADE

MFN duty is below the 10% mark in sectors such as electrical machinery, chemicals but also agrofood related products. Nonetheless, in few sectors (ex. tobacco and drinks) import barriers are still considerably high. However, the volume of goods traded remains small in terms of GDP and despite recent increases. A more in depth look of Egyptian trade suggests the country has been characterized by low trade opening in goods, especially in the early 2000s. In the recent decade trade activity picked up drastically, bringing the rate of openness in goods trade to the 50% mark in 2008 (up from about 20% in 2000) however still below the MP's average.

Meanwhile, Egypt registers increased openness in services trade, though this time results appear to

be well above the Mediterranean average. This comes as no surprise since there are many important service sub-sectors which greatly contribute to Egyptian growth such as tourism and transportation through Suez canal receipts.

Finally, when looking at the value of trade, Egypt is clearly a net importer. Furthermore, Egypt has a trade deficit with all major partners except neighbouring Mediterranean economies with which it has a trade surplus in both non-oil and oil-trade. In total trade, the EU27, China and the USA appear to have an equally large share of the Egyptian deficit followed by the Gulf countries. Thus, the tariff reform on most imports has contributed to Egypt becoming a more open yet import dependent economy.

1.2 A highly open capital account along with a managed float exchange rate

The Egyptian capital account has reached a degree of high openness. Meanwhile, after being pegged to the US dollar, Egypt has been following a ma-

naged float exchange rate regime. Following the adoption of a crawling peg in 2001 the domestic currency continuously depreciated, even after a flexible exchange rate was adopted in 2003. Since 2004 and until the appearance of the current crisis the exchange rate has been stabilized. Meanwhile, in the mid 90s Egyptian authorities followed a strategy of capital and financial account liberalization which naturally resulted into increasing FDI and portfolio investment flows. Therefore, the financial sector became market oriented and since then it has shown levels of depth above those in neighbouring MP's.

Considering the recent international crisis one would argue that capital and financial account openness could harm the domestic economy, in the short-run at least, by increasing contagion through the financial channel. However, the external exposure of Egyptian finance remains relatively low given that net external liabilities are not too high. Thus, banking sector contagion could very well be limited. Additionally, domestic banks have provided valuable stimulus to economic activity by increasing lending to the private sector. Nonetheless, needed efforts are still ongoing to ensure lack of transparency ceases to impede on banking sector development. Overall, Egypt is among the most market-oriented economies in the Mediterranean region and after a small short-term shock its relatively sound financial system could grow even stronger in the coming years.

I.2. Crisis transmission channels

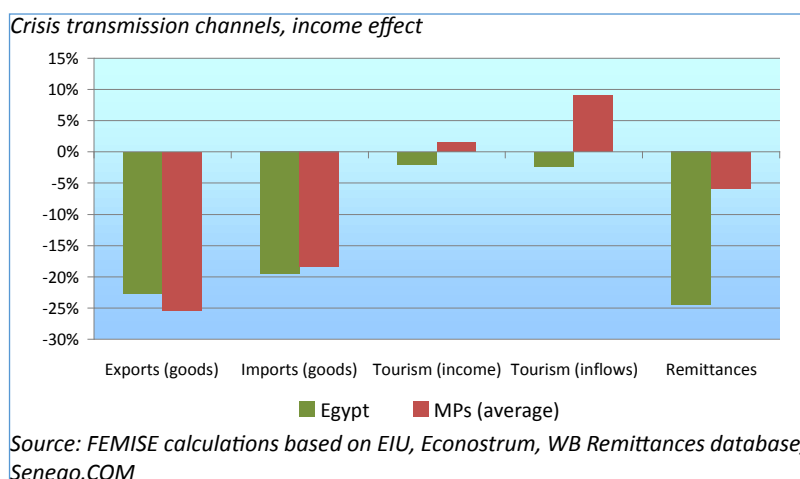
As known, the crisis transmission channels are essentially to be found in the real-sector. Nonetheless, in the case of Egypt the financial sector was also expected to be exposed.

2.1 A real shock expressed through a fall in exports and FDI

The crisis impact on Egypt in 2009 can be felt through main aggregates summarized below:

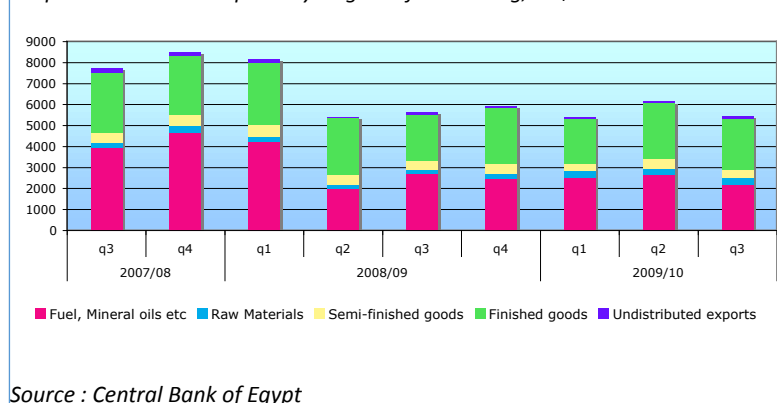
- ✓ A reduction in goods exports by 22.7%,
- ✓ A 19.5% decrease in the value of goods imports,
- ✓ A trade balance deficit for 2009 that largely fell to 12% of GDP,
- ✓ A resilient service balance in surplus at 7.1% of GDP,
- ✓ A decrease in workers remittances estimated at 24.5%.
- ✓ A decrease in FDI close to 30%, to 6.7bnUS\$ in 2009 from 9.5bn US\$ in 2008

Not surprisingly, Egypt registered a decline in goods **exports** in 2009 by 22.7%. The largest share of exports comes from fuel and related products followed by finished goods. It was the massive contraction of fuel exports in the second quarter of 2008/2009 that initiated the fall in exports that remained to similar levels ever since. Moreover, in January-March 2010 fuel exports had marked a 17.7% year-on-year decline.



Hence, while the rest of exports have shown relative resilience in a crisis context, the strong dependency on oil-related exports and on variations of international prices has been a drawback for Egypt. Nonetheless, imports in 2009 decreased by 19.5% as commodity prices fell, which was of considerable

Graph. Merchandise Exports by Degree of Processing, US\$ million



able aid to the domestic **trade balance**. The latter fell from 16.2% of GDP in 2008 to 12% in 2009 (at 22.5 bn US\$) and could fall below the 10% mark in 2010 since exports are expected to grow faster than imports.

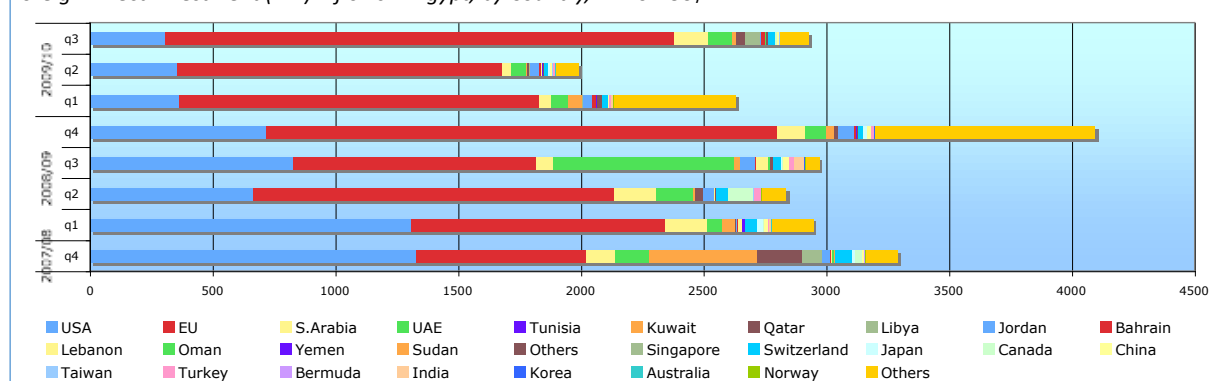
The **service balance** decreased from 8.7% of GDP in the year 2009 to 7.1% of GDP. The sectors resilience is due to the better than expected performance of tourism. The decline in tourism income was slower than expected, in 2009 it declined by 2% to \$10.76bn, after initial falls of 17% and 9.5% year-on-year in Q109 and H109 respectively. Meanwhile, tourist arrivals declined by 2.3% year-on-year in 2009 to an estimated 12.4mn. Prospects for the year 2010 are rather optimistic with a number of measures by the Ministry of Tourism being taken to assist the sector in question.

Remittances are an important source of currency but they only represent 5.3% of the GDP, thus

an expected decline would have limited effects on the economy. Estimations point towards a 24,5% decrease in 2009 but only a 6.17% drop in the first half of 2009/2010 at 4.362 bn US\$ was reported. Moreover, private transfers from abroad, which mainly include remittances, increased to 4.19 billion US\$ in the April-June 2010 quarter from \$1.78 billion in the prior year. Private transfers for all 2009/2010 rose to 9.51 billion US\$ which is a 24.6% increase from the 7.63 billion US\$ in the year 2008/09.

Finally, **FDI growth** figures in 2009 are on the negative side, the latter declined by approximately 30%, to 6.7bnUS\$ in 2009 from 9.5bn US\$ in 2008. One would ask if Egypt could do anything to avert such fall in such a difficult economic environment. The country was the first Arab economy to sign the OECD Declaration on International Investment and Multinational Enterprises while inward FDI multiplied by twelve in the 2001-2006 timespan. Decomposing FDI inflows by country of origin allows seeing that, as in the case of other MP's, domestic attractiveness to foreign capital did not suffice. Foreign investment from the US shrank by half in the first nine months of 2009 which would be a result of a frail US economy. In the EU case, FDI to Egypt mostly originates from the UK and goes to the oil-economy, it fell by about 20% since

Foreign Direct Investment (FDI) inflows in Egypt, by Country, million US\$



the UK economy was regressing in the beginning of 2009. Also impressive is the massive fall in FDI from Kuwait which saw its share in the fourth quarter of 2007/2008 practically disappear due to lack of liquidities and turbulations in the oil-economy.

Hence, the effects on foreign investment were partly unavoidable on the Egyptian economy. A reverse in the worldwide 2009 trend of deterioration in economic conditions will be needed for FDI to bounce back. Nevertheless, short-term prospects already point towards a recovery in FDI inflows to Egypt and exemplary macroeconomic and political stability shall keep attracting foreign capital.

2.2 An initial financial shock that was handled relatively well

As noted in the report exposure to the crisis varies along with the degree of financial integration of selected economies. Additionally, relatively ample foreign reserves and a contained budget deficit are essential in limiting an additional fall-out.

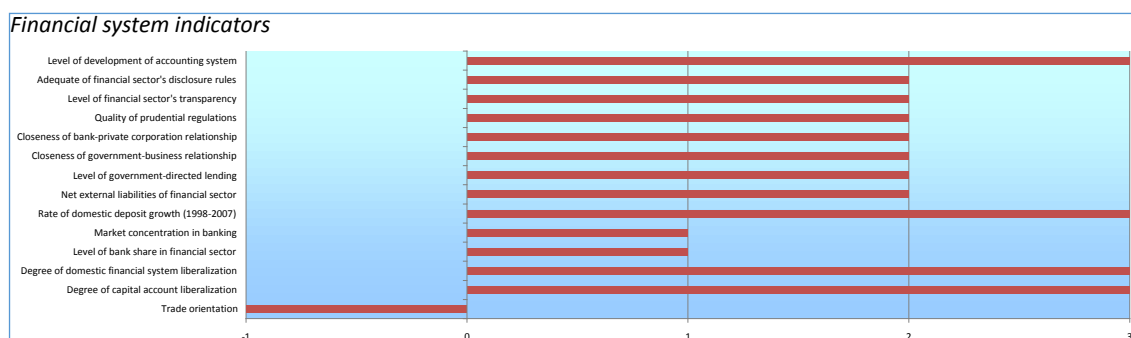
The case of Egypt is a special one, the country has an open financial market, with high capital account liberalization, a high degree of financial liberalization and net external liabilities of the financial sector are at a medium level. Thus, contrary to most Mediterranean countries, the crisis had an additional impact through the financial sector transmission channel.

1) Outfall on portfolio investment and foreign reserves

The higher level of financial integration can be translated into a massive outflow of volatile capital in times of crisis. This is exactly what happened in the case of portfolio investments in Egypt which massively flew away from the domestic economy in the 2008/2009 year to mark a net outflow of 9.21 billion US\$.

This would naturally bring heavy implications for the level of foreign exchange reserves. The Central Bank would have to mobilize the necessary resources through the dollar interbank market in order to cover portfolio outflows and it did with relative success. The depreciation in the Egyptian Pound was also a logical consequence, especially considering the recent strengthening of the US Dollar. This brought the level of reserves to 33.9 bn US\$, slightly above the 33.8bn US\$ in 2008, close to seven months of imports.

Hence, despite the initial shock, Egyptian authorities were efficient in ensuring financial resilience. This has brought back some confidence since recent developments point towards recovery. Net portfolio investment in 2009/2010 appears to have increased to 7.88 billion US\$, including 5 billion US\$ in foreign purchases of Egyptian Treasury bills, suggesting its negative leap the prior year might end-up being an ephemeral one. Thus, international reserves are partly safe in the short-run and the growth outlook shall provide for increased attractiveness.



Source: FEMISE, FEM33-20

Note: Indicators values explained 1=low, 2=medium, 3=high, * Trade Orientation -1= Import Oriented, +1= Export Oriented

2) A Stock-exchange on the rebound

Contrary to most Mediterranean economies, Egypt has a relatively modern and sophisticated stock-exchange. As a logical consequence, traded volumes are also more important but contagion in times of crisis is also more probable. A sharp drop in prices during the last quarter of 2008 brought the stock-market in difficulty, nevertheless, the Egyptian Exchange has been on the rebound throughout 2009 resulting from healthy performance in equity.

The Egyptian Stock Exchange grew to be the third best performer in the entire MENA region in the year 2009, according to Bank Audi the EGX 30 index grew by 35.1% to 6,209 points at end-2009 after achieving a year high of 7,280 points in October. The sectors that contributed to such a rebound are to be found in construction and materials which surged by 71.4%, followed by real estate (+66.9%), banking (+47.9%), basic resources (+38.7%), financial services excluding banks (+37.2%) and healthcare and pharmaceuticals (+31.0%).

The rise in prices through 2009 along with a decline in the number of listed companies brought a slight increase in market capitalization from 86 billion US\$ in 2008 to 91 billion US\$ in 2009. Meanwhile, trading activity declined by 15.3% in 2009 which combined with the market capitalization increase brought down the turnover ratio from 100.5% in the year 2008 to 66.7% the following year.

Thus, after the slump in end 2008 the market has been in the rebound, though it remains to be seen if performance in the coming year will be able to match the levels attained in the pre-crisis period.

3) Outfall on external public debt

The total government debt grew by 12% in 2008/2009 at 139 billion US\$ which corresponds to 73.8% of GDP. Nonetheless, debt as a GDP share has been on the decline since the 2005 fiscal year when it was at the 112.8% mark. In April 2010 1.5bn US\$ of Eurobonds were issued, one-third of which with a 30-year maturity span which suggests confidence in the long-run.

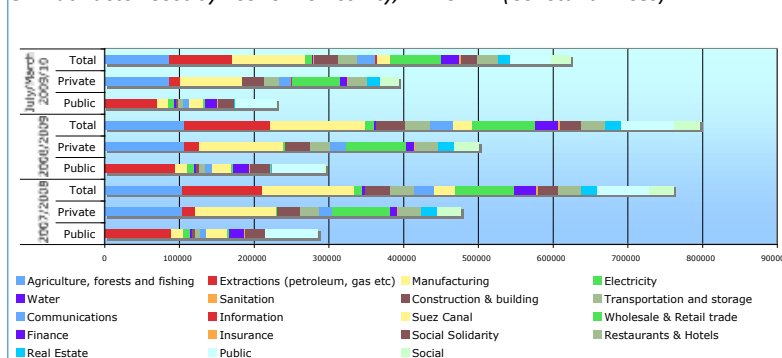
As for external debt, the latter fell to 29.5bn US\$ in 2009, from 32,6bn in 2008, it has also been constantly falling in terms of GDP, going from 29.5% of GDP in 2005 to 18.7% in 2008 and 14,2% in 2009. According to EIU external debt is mostly contracted at below-market interest rates and the effective interest rate on fixed-rate debt shall remain low. Moreover, the debt-service ratio shall remain manageable, between the 5% and 7% mark.

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

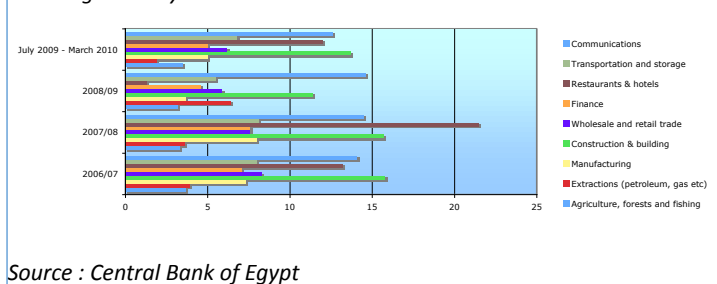
Contrary to world trends, Egypt achieved 4.7% growth in 2009 which is among the highest in the region. When looking at the composition of GDP by economic activity one is immediately hit by the fact that Egypt is a well diversified economy with a rate of growth dependent on an array of sub-sectors such as manufacturing, extractions, wholesale trade, agriculture and a variety of ser-

GDP at Factor Cost by Economic Activity, million LE (Constant Prices)



Source : Central Bank of Egypt

Annual growth by sectors



vices. This explains in great part why Egypt has attained such high levels of GDP growth since a potential drop in production in a given sector would be compensated to great degree by the rest of the economy. It also explains how the country managed to diffuse in great part the external shock and register such a high level of growth contrary to most of its Mediterranean neighbours.

Overall, prospects are positive for the Egyptian economy. The oil-sector and Suez Canal services have been the ones that received the largest crisis-induced burden, while the rest of the economy has been performing quite impressively. While the manufacturing sector was extremely affected by the fall in external demand, the sector has entered a period of recovery assisted by a public program of the Industrial Modernisation Centre to increase competitiveness. Prospects for services are also positive, the country is expanding strong contributors to growth such as financial services and ICT related services, while investment initiatives in these sectors are expected to follow an upward trend. Finally, tourism prospects are also looking bright for the coming years.

2. Employment: Unemployment up in 2009, mixed signals for 2010

According to the annual report of the CBE, the number of new work opportunities fell by 13% percent during the 2008/2009 fiscal year which means unemployment grew to 9.4% up from 8.4% at end of the previous year. Unemployment among the female population grew to 23.2% up from 18.8%

while it slightly diminished for men to 5.2%. Hence, the female population has been the immediate target of the crisis outfall and considerable efforts shall be needed to fall back to a rate below the 20% mark.

A major challenge resides in reducing the high unemployment rate among the qualified population. The distribution of the unemployed shows a high concentration in qualified technicians which represent an estimated 43.7% of total unemployment closely followed by university graduates at 36.6%. Qualified technicians are the most hit in rural Egypt, representing more than 50% of the jobless while in the case of women the rate attains 65.4%.

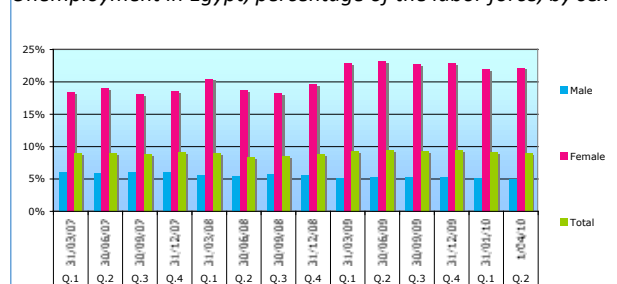
Meanwhile, underemployment has been rapidly growing and has become a characteristic of the Egyptian market. The ever-growing youth has been inefficiently trying to find formal employment, while jobs in the private sector are not growing at a satisfactory pace to cover for the fall in produc-

Labor Force, employed and unemployed, by thousand



Source : CAPMAS Quarterly Labor Force Sample Survey

Unemployment in Egypt, percentage of the labor force, by sex



Source : CAPMAS Quarterly Labor Force Sample Survey

Table 1, Distribution of Unemployed (15-64 years) According To Education, Geographical Regions And Sex, %

Total	Average qualified technician %	University Higher %	Above intermed. & Under Bachelor %	Under Mediate %	Illiterate %	General Mediate %	Read and write %	Sex	Educational Status/ Geographical Regions
1116	43,7	36,6	5,9	5,6	3,4	1,5	3,2	Males	Total Republic
1541	51,3	34,4	8	1,6	2,6	1,8	0,3	Females	
2657	48,1	35,3	7,1	3,3	2,9	1,7	1,5	Total	
321	34,3	39,9	7,2	7,8	3,4	2,5	5	Males	Urban Governorates
297	37,4	44,1	10,1	5,1	2	1	0,3	Females	
618	35,8	41,9	8,6	6,5	2,8	1,8	2,8	Total	
209	39,2	45,9	5,3	5,3	1	1,4	1,9	Males	Urban Lower Egypt
317	42	42,6	9,5	0,9	4,1	0,6	0,3	Females	
526	40,9	43,9	7,8	2,7	2,9	1	1	Total	
304	51,3	31,6	5,3	4,9	3,6	1,3	2	Males	Rural Lower Egypt
500	59,6	29	7,2	0,8	1,2	1,8	0,4	Females	
804	56,5	30	6,5	2,4	2,1	1,6	1	Total	
143	44,8	37,1	4,9	3,5	6,3	1,4	2,1	Males	Urban Upper Egypt
200	39	40	9	1	7	3,5	0,5	Females	
343	41,4	38,8	7,3	2	6,7	2,6	1,2	Total	
128	56,3	25	7	3,9	3,1	0	4,7	Males	Rural Upper Egypt
203	78,8	14,3	3,9	0	0	3	0	Females	
331	70,1	18,4	5,1	1,5	1,2	1,8	1,8	Total	
7	57,1	28,6	0	14,3	0	0	0	Males	Urban Forntier Governorates
14	21,4	64,3	7,1	0	7,1	0	0	Females	
21	33,3	52,4	4,8	4,8	4,8	0	0	Total	
4	0	25	0	25	25	0	25	Males	Rural Forntier Governorates
10	80	10	0	0	0	10	0	Females	
14	57,1	14,3	0	7,1	7,1	7,1	7,1	Total	
680	38,2	41	6	6,2	3,2	1,9	3,4	Males	Total Urban
828	39,3	42,9	9,5	2,4	4,1	1,4	0,4	Females	
1508	38,8	42	8	4,1	3,7	1,7	1,7	Total	
436	52,3	29,6	5,7	4,8	3,7	0,9	3	Males	Total Rural
713	65,4	24,5	6,2	0,6	0,8	2,2	0,3	Females	
1149	60,4	26,5	6	2,2	1,9	1,7	1,3	Total	

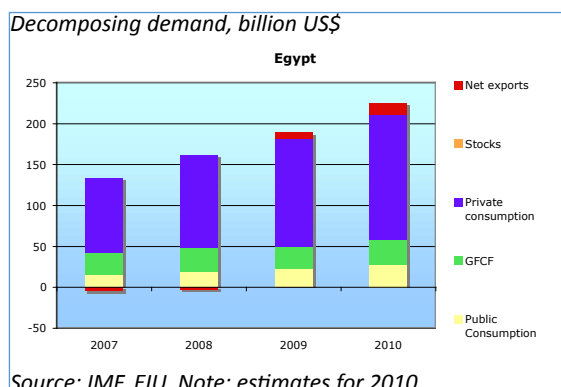
Source : CAPMAS Quarterly Labor Force Sample Survey

tive public sector jobs. Thus, the transformation of Egypt to a market economy has brought a serious drawback that is for young people to find an underpaid position in the informal market, something that does not appear in a country's conventional statistics.

One would logically ask if the exceptionnal growth performance and the bright prospects for 2010 could partly offset the rise in the labour force and contribute to unemployment reduction in the years that come. Recent figures allow for some optimism, female unemployment

had fell to 22.2% in end March-2010 while male unemployment was at 4.9% bringing the total rate to an estimated 8.96%.

Nevertheless, the possibility for an extended out-fall on unemployment must not be eliminated especially if the activity of export-driven industries does not manage to bounce back. If employment promotion on the supply side does not become vigorous enough in the current year, the needs of rising demand will be left unsatisfied and the proportion of the non-working population could grow dangerously.



3. Inflation

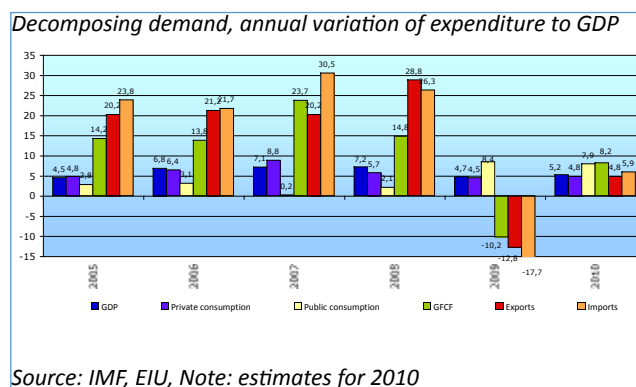
In the early 1990s Egypt adopted an economic reform to address, among others, a double-digit inflation rate. Monetary reforms were successfully applied and the inflation rate declined, in the 2000-2007 period the rate was near the 5.7 mark. Nonetheless, the rise in the prices of oil and foodstuffs proved to be too much to handle for the Egyptian economy. Inflation rose at an average of 18.3% in the year 2008 something that had not been experienced in approximately 15 years. Nevertheless, a tight monetary policy allowed for the annual rate to fall to 11.8% in 2009.

Current estimates suggest inflation will remain at its 2009 levels, while it attained 10.5% in May 2010 it is anticipated to increase slightly until the end of the year.

II.1 A macro-reaction that has not brought unattainable pressures on the budget

1) Economic activity that is exceptional for such times

Exports expenditure on GDP fell through 2009 by 12.8%, a first in recent history. Even so, the massive fall in imports brought net exports on the surplus side. It was essentially consumption, both private and public, that fueled growth. In the former the rate remained not too distant to its pre-crisis level (real increase of expenditure on GDP by 4.5% in 2009) while expenditure growth on GDP



in the latter grew by 8.4%, at an unprecedented pace compared to recent years. As for the FBCF, it marked a decline through 2009 (real decline of expenditure on GDP by 10.2% in 2009).

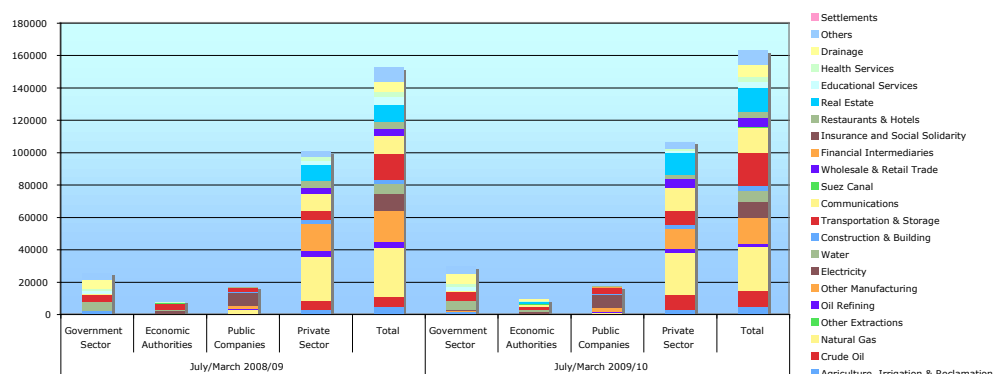
Estimates for 2010 suggest a higher rate of growth at 5.2% which is close to the rates achieved in the 2005 and 2006, though below growth in the last two years before the crisis. Exports could start picking-up, though increasing pressures on import prices shall increase imports as well. Investment shall be a major contributor to growth in 2010 and provide the necessary economic stimulus.

Investment opportunities are expected to augment while the authorities allow the private sector to increase its presence throughout the economic fabric, in sectors such as construction & buildings, tourism, transport & logistics and the oil-economy.

2) An increased budget deficit that remains not far from the MP'S average

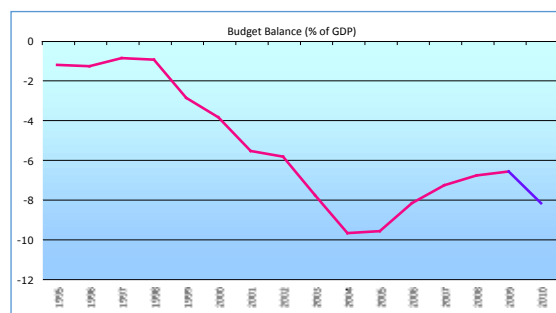
The high rate of growth despite the crisis allowed for the budget deficit to attain 6.6% of GDP in the 2008/09 fiscal year. However, the deficit has been on the rise in 2010. The 2.7 billion US\$ package of 2008/09 managed to boost growth without becoming an untenable burden, however, additional measures have been undertaken such as the 2009/10 fiscal stimulus worth 1.25 billion US\$ to dynamize the domestic infrastructure and promote exports.

Implemented Investments, LE million



Source : Central Bank of Egypt

Hence, total budget expenditures are expected to increase while tax receipts fall due to slower trade performance, thus, limiting budget revenue. While authorities plan to reduce the deficit position, 2010



shall be a year where the balance attains a negative 8.2% before declining in the coming years.

To sum up, Egypt is in a delicate position, while budgetary maneuvering is still feasible, the authorities shall be cautious in not letting it grow too much in a context of elections where increased spending is usually the norm.

3) A loose monetary policy characterized by interest rate cuts

As noted earlier, Egypt is following a managed float exchange rate regime. The pound was depreciated in 2009, following the strengthening of the US dollar and the outflow of short term capital, and the exchange rate reached 5.55 LP per 1US\$ (versus 5.43 LP per 1US\$ in 2008).

Meanwhile the Central Bank proceeded to several cuts in its interest rates throughout 2009, the latter were cut by a total of 3.25% and 3.75% respectively for deposit rates and lending rates, in an effort of dynamizing growth in a context of lower inflation.

After these cuts, the priority shall be on preventing another increase in the inflation rate. For this reason the Central Bank might pursue an inflation-targeting strategy maintaining inflation within a « confort zone » while rising interest rates in 2010.

But whether inflation targeting is the right way to go remains to be seen. As highlighted by Tarek Ghalwash (2010), the inflation forecast is crucial to inflation-targeting and requires a developed technical infrastructure for any Central Bank to predict future inflation. In that case, the author suggests that quality of data remains a major issue for the reliability of modeling and estimation in Egypt concluding that the country might not yet be ready for the implementation of the framework.

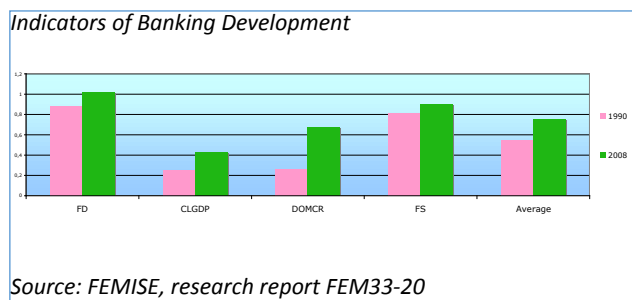
II.2 A banking system free of toxic assets

Developments in Egyptian banking have been ongoing following the domestic reform strategy.

According to FEMISE (FEM33-20) :

✓ Financial depth increased from 88% in 1990 to 102% in 2008,

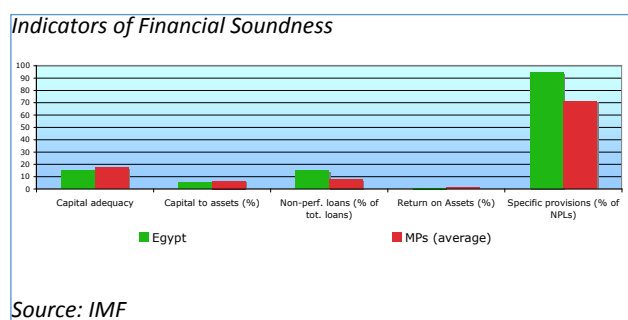
✓ The FS ratio increased from 81% in 1990 to 90% in 2008,



✓ The DOMCR ratio increased from 26% in 1990 to 67% in 2007.

✓ The CLGDP increased from 25% in 1990, to 43% in 2008.

The positive economic performance in 2009 allowed Egypt to maintain a healthy banking relatively free of toxic fundamentals and supported by authorities. On the whole, Egyptian banks



were reticent in acquiring toxic securities which proved to be of valuable help in cushioning the crisis impact. Specific provisions in percentage of non-performing loans are quite high which means that the relatively high rate of NPLs does not stand as a considerable threat to the system in the short-run.

Nonetheless, banking developments shall take place to further modernize the sector. Retail banking is at 9% of GDP currently, which is low to neighboring economies. Developing micro-finance, through an efficient legal framework shall also contribute to the diversification of banking products, the lack of which might have helped Egypt when the crisis stroke by avoiding contagion, but shall be necessary for its future solidity.

III. Growth engines and Total Factor Productivity (TFP)

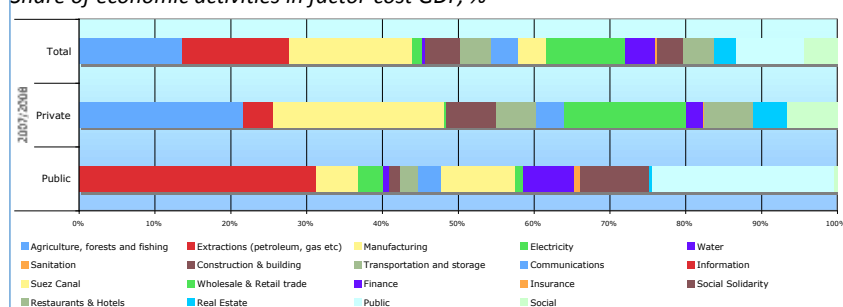
III.1 Egypt : A diversified and competitive structure with further potential to unlock in manufacturing

In the early 90s Egypt launched its stabilization program which led to remarkable growth. In the latter half of the decade the annualized rate of growth was above the 5% mark (5.4% for the 1995-2000 period) a fact that would normally inspire confidence for economic activity in the years to come. Nonetheless, in the early 2000s the Egyptian economy showcased a downward trend partly because of its exposure to exogenous shocks. In the 2001-2003 period growth was barely above the 3% rate, below the MP's average, while inflation and unemployment were becoming a larger menace. Finally, in the latter years growth not only went back on track but also attained remarkable heights and the domestic economy became an example of dynamism.

Thus one should ask if the structure of the Egyptian economy has finally evolved towards a model of sustainability and if the country has the capacity to cope with recent shocks in an effective manner. While macroeconomic and growth performance depends on external shocks it also relies on careful domestic management. Simply put, poor levels of competitiveness that persist in given sectors could become impediments to the country's capacity of creating new growth, meanwhile increased levels of productivity could produce the opposite effects.

As mentioned earlier, Egypt is a well-diversified economy with limited agricultural dependency and is service-based. Moreover, both the public and private sector are active ones, albeit the latter appears to be the one that has been the most responsible in economic diversification. The private economy is mostly spread in sectors such as agriculture, manufacturing, wholesale and retail trade while it also has a respectable contribution to tourism and transportation services. As for the public sector it mostly focuses on hydrocarbons which represent more than 30%.

Share of economic activities in factor-cost GDP, %



Source : Central Bank of Egypt

strategy focuses more on chemicals and petroleum derivatives. Growth results in recent years suggest that the plan has paid-off.

As the left-hand graph (see page 122) the economy registered its largest productivity gains during the 90s whatever the assumptions on the rela-

Furthermore, a first look at the structure of the manufacturing value added (VAM) shows a clear evolution towards « heavier » industries. Chemicals (24.3%) and non-metallic mineral products (17.6%) represented more than 40% of the VAM in 2008 and when coke & petroleum products are added the share is close to 55%. Meanwhile, the share of food products and textiles markedly diminished between 2000 and 2008. The food sector saw its share decrease from 16.1% in 2000 to 7.4% in 2008 while textiles registered a similar trend going from 11.8% in 2000 to 6.3% in 2008.

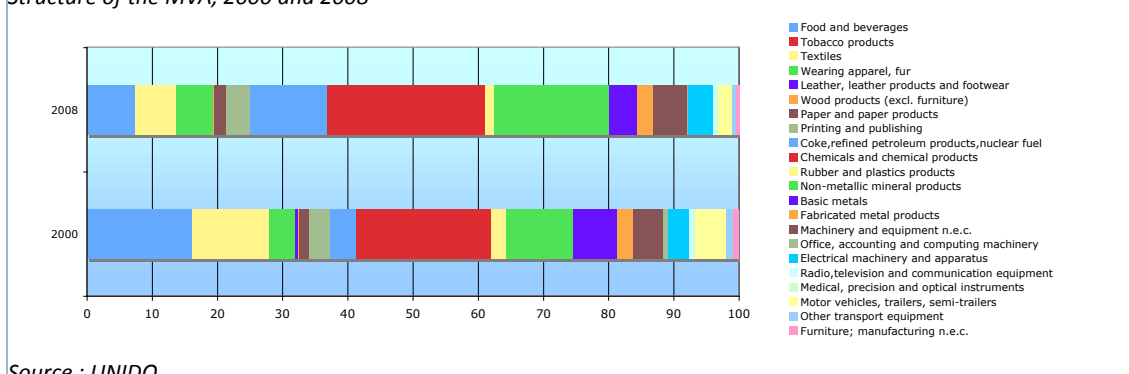
In terms of sub-sector growth in the 2000-2008 period one should note the astonishing evolution of the coke & refined petroleum products sector which grew by 23.8% followed by printing which grew by 13.9% and non-metallic mineral products by 13.2%. Meanwhile, leather products have contracted by 15.8% followed by motor vehicles (-4.8%) and other transport equipment sectors (4.8%). Hence, the Egyptian manufacturing

tive share of physical capital to production. However, annual productivity growth appears to have decelerated during 2000-2006 and could even have had a negative sign.

Measures of physical and human capital shed more light on Egyptian growth determinants; in the right-side graph growth rates of the aggregate product are broken into contributions of factors of accumulation and productivity. The main determinant of economic growth through the last 40 years in Egypt appears to be the accumulation of physical capital (0.0308 when the relative share of physical capital to production is assumed to be maximum, 0.0125 when the relative share of physical capital to production is equal to the conventionnal value) while human capital appears to have played a lesser role.

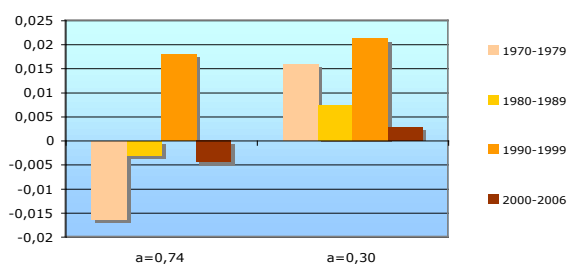
Still, one cannot say with certainty if the Egyptian economy has definitely moved away from a capital-accumulation regime. In a related study FEMISE decomposes the productive performances of Egypt and other MP's to acquire a better

Structure of the MVA, 2000 and 2008



Source : UNIDO

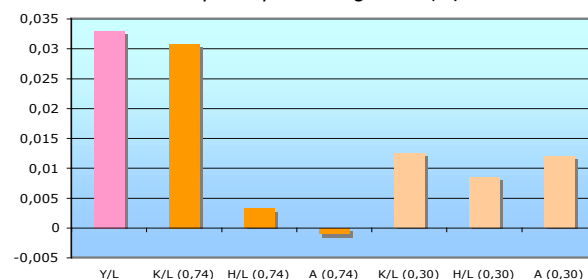
Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

view of the hidden potential in the region. A look on Egyptian median sector-TFP shows how the country ameliorated its productive performance during 2004-2006 in the food industry and chemicals and metals & machinery sectors while it has done the opposite in the rest of the economy. Firm-size is also of importance and a smaller structure appears on the whole as detrimental to the productive base ; Egyptian firms with more than 100 employees appear to be more productive than smaller ones in all sectors but leather products.

When productivity is compared to the average MENA regional value results show that the Egyptian economy is systematically below the regional productivity level with the exception of the chemicals sector. Meanwhile the capital to labour ratio is above the regional value in the sectors of chemicals, non-metallic products and textiles while it is below the MENA regional average in the remaining sectors. Since competition traditionally affects productivity, enforcement of competition policy might be needed in struggling sectors.

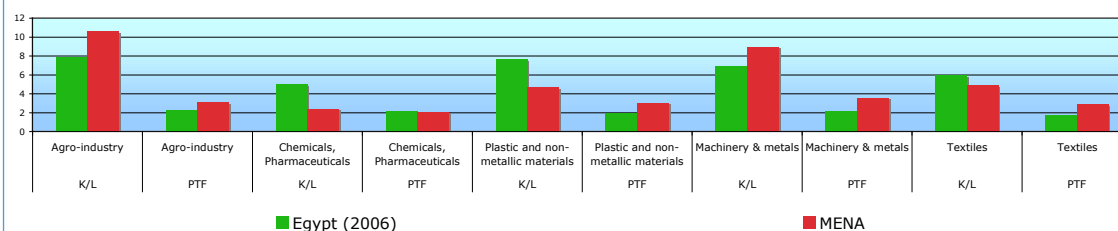
Table 2. TFP and Capital Intensity, Median, by firm size

	TFP	TFP1	TFP2	TFP3	K/L	K/L1	K/L2	K/L3
Agro-industry (2004)	2,17	2,16	2,18	2,22	6,57	3,54	7,31	7,93
Agro-industry (2006)	2,32	2,12	1,97	2,59	7,94	4,61	9,73	8,37
Wood & furniture (2004)	2,2	2,19	2,21	2,41	3,63	2,48	4,39	4,44
Wood & furniture (2006)	1,92	1,89	1,82	2,66	3,81	3,27	9,89	3,25
Chemicals, Pharmaceuticals (2004)	2,08	1,84	2,81	2,35	3,99	3,52	6,49	3,71
Chemicals, Pharmaceuticals (2006)	2,16	2,28	1,69	2,38	4,99	4,8	15,29	4,42
Leather (2004)	2,07	2,44	1,91		2,39	2,48	2,39	
Leather (2006)	1,71	1,71	2,12	1,41	2,36	1,73	5,32	6,05
Clothing (2004)	2,04	1,96	2,07	2,66	1,71	1,77	1,54	1,73
Clothing (2006)	1,93	1,96	1,79	2,16	2,24	1,23	5,3	2,06
Plastic and non-metallic materials (2004)	2,2	2,1	2,5	2,81	3,66	3,07	8,54	2,28
Plastic and non-metallic materials (2006)	1,94	1,69	1,81	2,62	7,64	5,03	13,41	7,9
Metals & machinery (2004)	2,18	2,13	2,2	2,63	5,13	4,27	4,42	6,95
Metals & machinery (2006)	2,21	1,86	1,94	3,05	6,92	5,93	7,22	7,04
Textiles (2004)	1,94	1,82	1,93	2,06	4,14	4,27	5,47	3,92
Textiles (2006)	1,76	1,64	1,62	1,91	5,96	8,38	6,79	5,15

Source : FEMISE report FEM33-09.

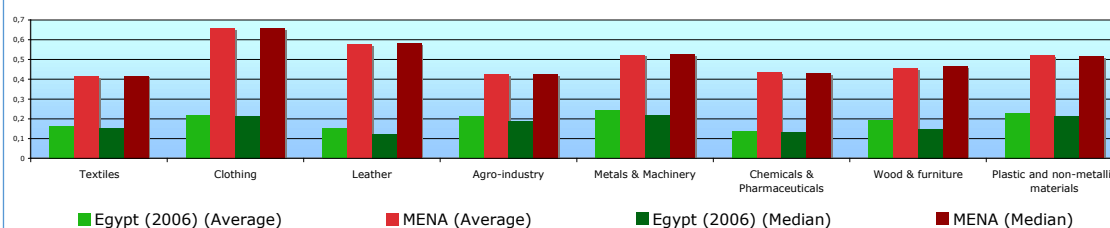
Note : Firms are classified by the number of workers they employ : less than 20, between 20 and 99, more than 100, expressed by 1, 2, 3 respectively..

TFP and Capital Intensity, Median, comparison to the MENA average



Source : FEMISE report FEM33-09.

Technical Efficiencies estimated from stochastic frontiers



Source : FEMISE report FEM33-09.

As for the technical efficiency of Egyptian production it appears being well below the MENA average and according to the study in most sectors it represents 20 % to 25% of the technical efficiency found in countries such as Brazil and South Africa.

Overall, Egypt might need to adapt its otherwise effective growth strategy for the emergence of a productivity-led growth in the years to come. This requires taking reform measures and adapting economic policymaking into the new realities with further fiscal reforms and public-private partnerships. The authorities seem to understand how this is vital and have initiated a series of structural policy measures which could prove essential in providing economic stimulus in the medium-term.

III.2 An industrial policy that shall maintain medium term economic growth

As noticed earlier Egypt appears in need of adding some elements to its growth strategy to foster productivity-led growth. The crisis outfall will

still impede on growth in the short-run, especially if the EU market does not take off, constraining on Egyptian exports. Nonetheless, medium term prospects cannot be anything that bright, the country appears to be following a strategy that boosts investment and has identified a number of emerging sectors that could foster new growth and improve its export competitiveness in the decade to come.

1) A Development Plan that could offer much needed diversification

The Egyptian industrial policy appears to be striking a balance between fostering new growth and building upon existing potential. More specifically, one notices that:

✓ Focusing on sectors such as construction, electricity and chemicals ensures that Egypt maintains its comparative advantage. An increase in related projects could foster new synergies and allow for positive externalities which in turn could in the medium-run enhance Egyptian technical efficiency.

Table 3. Main points of the Egyptian Industrial Policy (2007-2012 Plan)

Strategy	Approach/Measure	Sectors	Objectives
Concentrate on promising sectors	Focus on industries where Egypt has a comparative advantage	Construction, electricity, food processing, chemicals, pharmaceuticals, textiles, wood, construction materials	
Develop new industries	Develop Industrial Zones	Motors, electronics, medical equipment, biotechnology.	
New industrial development approach	Simplifying licensing and operation procedures		a) Go from 28300 projects in 2007 to 31200 in 2011 and 34400 in 2015. b) A growth rate of the manufacturing industry of 8,8%. c) Supply 530 000 employments (total of 2.87 million positions in 2011 and 3.17 million in 2015 versus 2.6 million in 2007. d) Increase industrial exports at a 20% annual rate until 2015. e) Obtain an equilibrated development of industrial planning
Spatial redistribution of industries towards new cities	Increasing information dissemination on the subject of external markets		
Increasing export-competitiveness	Facilitating financial aid and support to SMEs		
Restructuring the domestic industry	Expanding industrial compounds with integrated services		
Developing vocational training adapted to the needs of the market.	Improve qualifications of the Egyptian laborforce	Intermediate industries	

√ Meanwhile, developing new industries such as electronics and biotechnologies could provide for a solid base to carry growth in the decade to come. Let it be noted that during the 2000s Egyptian authorities had already started developing the knowledge economy through the ICT sector which gained in momentum. The sector expanded by 14.6% in the 2008-09 financial year despite the crisis, while FDI in the sector went over 1bn US\$. Since May 2010, Egypt became one of the first three countries in the world to receive an internet domain name in non-Latin script ; introducing an Arabic domain name should pave the way for boosting the number of online users and also allow for internet services to enter new market segments with language barriers being eliminated.

√ Authorities also appear to be thinking ahead in terms of sources of energy. The government seeks to generate 20% of its energy from renewable sources by 2020 especially through wind and solar energy. The Electricity Ministry plans to build a 700 million US\$ solar power plant in 2012-2017, with the assistance of international institutions, in order to make the country a leading force in solar energy.

√ As noted earlier, smaller firms in Egypt appear to have been less productive than bigger ones

in the past. This could very well be about to change since Nilex, a stock-exchange for SMEs, saw the light in mid 2010. Such measure could provide SMEs with the necessary tools to obtain more funding, hence expand, position themselves strategically and create more employment. Meanwhile, a joint project by Bank of Alexandria and the Central Bank of Egypt should allow monitoring all SMEs projects by the end of 2011. This considerable initiative could provide much needed information on all project related aspects to potential investors and thus attract more FDI to existing and future projects.

2) Promoting Investment through various projects

From what was noted earlier we conclude that, while one could say that several initiatives are in a preparatory phase, modernization appears to be a main concern of the authorities and optimism for the future of Egyptian GDP is well founded.

A series of investments in strategic sectors are shown in the table below. They give a better look as to how productivity improvement and growth can be achieved throughout the economic base.

Again, we immediately see the authorities' concerns for developing both old and new sectors and render the economic fabric more sophisticated.

This series of investments shall also provide the necessary stimulus to mitigate the remaining outfall of the crisis in the short run. For instance :

✓ Enticing domestic and foreign investment in the agribusiness sector could be of great assistance to Egyptian productivity ; the country has the largest agribusiness workforce in the region (about 6 million, more than 30% of the domestic labor force) and there are plans to create labor communities close to cultivation areas. Meanwhile, teaching centers are expected to see the light, allowing for a more sophisticated know-how to enter the production process in a sector with immense export potential.

✓ Investment projects in renewable energy should contribute to the government's efforts to become less dependent on « traditional » energy sources, create synergies and the capacity for energy production will augment.

✓ Investment initiatives in transport and logistics could yield great returns. Updating railway and port structures shall be beneficial to trade in the longer while new logistical areas should allow for greater facility something that is needed to improve the country's export competitiveness.

Overall, we shall stress that :

✓ Egypt is actively pursuing an industrial strategy that allows for more private participation and FDI attraction, a positive evolution in light of recent international developments,

✓ The authorities have balanced development in new “winners” sectors that could carry growth and in more traditional ones as well to maintain comparative advantage.

Conclusion

In times of crisis, Egypt registered a real GDP growth rate of 4.7% which is an outstanding accomplishment. It owes that to a healthy growth strategy, one that nonetheless necessitates some adjustments.

We shall note that:

✓ Egypt succeeded in the first phase, which is mitigating the crisis outfall on the domestic economy. If international conjuncture keeps hinting towards global recovery in the coming years, Egypt will have to focus on the second phase which will be adopting a medium

Table 4. Selected projects that could dynamize the economy and attract FDI

Sector	Project/Initiative	Objectives	What is done
Agribusiness	MegaFarm project	5 billion US\$ of investment, create some 45,000 jobs.	Once a final location is chosen, it will be suitable for the industrialized cultivation of various vegetables allocated to large-scale products. Authorities will continue the land reclamation process and ensure safety and quality standards are met.
ICT	Talent initiatives.	40,000 new workers trained by 2012	Under a new program, 80% of training costs for the first two years are reimbursed to employers.
Healthcare	Medical city Project - Alexandria	8bn EGP of investment	Establishing an integrated medical city containing hospitals and clinics, recovery centers, five star hotels, R&D centers and laboratories, and a center for medical education
Logistics & Transport	Rod El Farag - 6 of October Highway	Pave a 34 km free Road to link Cairo with km 39 Cairo- Alexandria desert road. Project worth 3bn EGP.	The Project promoter has been assigned (KPMG)
	Relocating Matrouh Railway Line to the South of International Road	Relocating the Matrouh Railway line for better investment utilization. Initial approval. cost for relocating is 360 Million EGP	In the process of obtaining Ministry of Transportation
	Railway (Cairo line – 10th of Ramadan)	Various renewals and establishment of lines. Worth 4 billion EGP	The project Advisor has been assigned and initial studies shall be submitted.
	East Port Said Flagship Project	Create cargo terminal and various facilities (storage etc). 3bn EGP.	

Petrochemicals	Phase two (2009-15) of the 20-year master plan	Displacing imports by providing investors with financial and technical assistance to support domestic project construction and operation. Worth 6 billion US\$.	5 projects underway (3 due on stream in 2010, one in 2011 and one in 2014)
Renewable Energy	Incentives Given to Renewable Energy Projects.	Develop the renewable energy sector especially the wind market.	Concluding long-term agreements (20-25 years) with private sector to cover cost of production and return on investments. Exempting renewable energy equipments from customs and tariffs.
Tourism	Integrated tourism project in the City of Luxor	Establishing an integrated tourism model that has several hotels, entertainment and commercial areas.	A Committee has been established to manage the developer selection process
	Ras El Hekma project in Marsa Matruh	The target is to establish 3000 different levels of hotel rooms	A SPV for the project has been established to acquire the project land manage the development process
	Integrated Touristic Project in the Northern Coast (Marsa Matruh Governorate)	Establish an investment zone to design, build and operate an entertainment city with international standards. Worth 10 bn EGP.	
Source: General Authority for Investment (2010)			

term budget strategy that allows for better resource allocation and does not bring the deficit to untenable heights.

✓ Through this budget, the country shall combat unemployment, and perhaps most importantly the informal one, allowing for the private sector to thrive and create the necessary positions for the qualified youth and unemployed women.

✓ Economic reform through the increase of the tax base and reduction of energy-subsidies, while needed, could elevate social tensions. In that respect authorities could adopt a more gradual approach.

The question is the following : what can Egypt do to gain in productivity and competitiveness in order not to lose the accumulated gains from the dynamism of recent years ? As noted earlier, a large series of investments shall contribute to the country's modernization efforts, strengthen the economic fabric and also improve export competitiveness.

But the authorities should find those elements that create persistence in productivity levels. Learning-by-doing activities, innovation, investment in higher inputs are among them. As noted

by Syverson (2010) such elements define the "intangible capital", one that is difficult to quantify but that provides positive externalities to firms and plants nonetheless.

Furthermore, the author highlights that countries can become more productive by simply rearranging the inputs they have at their disposal. There can always be an issue of misallocation of capital, a fact that shall be considered by authorities. Implementing a framework with the support of private partners could provide valuable insights on how the economy operates and could correct wrong-doings that impede the country from reaching its full economic potential.

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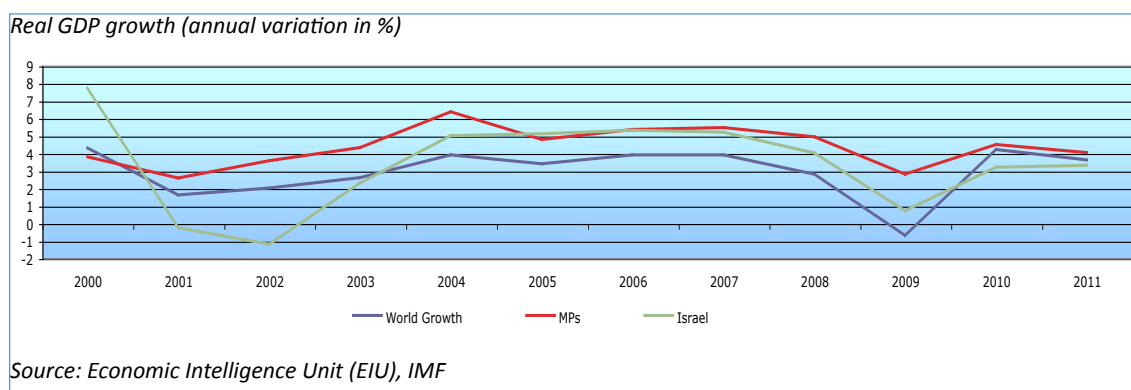
Israel: Massive activity slowdown in 2009, expected rebound in 2010

Israel's economy was the worst hit among MP countries, despite recovery in the latter half of the year, GDP only grew by 0.7 percent in 2009. While the country showcases an exemplary economic fabric, its high level of development and dependency to international evolutions made it less resilient to the crisis outfall, putting the economy in a situation similar to the one of developed EU countries. Nonetheless, while the rate of growth in 2009 was well below the MP average, it was still above the rate of contraction of the global economy.

knowledge based innovation strategy throughout the economic fabric and find new sectors of potential competitive advantage, especially regarding those linked to ICT. But this shall be done in a way that allows the country to be more independent on international happenings. For the time being, Israeli growth in the coming shall still rely on the degree of recovery at the international level.

The following elements merit attention :

✓ The dependance to developed partners demand resulted in a 19.7% decline in goods exports for 2009 at 45.9 bn US\$. However, imports



Also, in its 2008/2009 report FEMISE had underlined that the Israeli regime is a self-limited one since it over-relies on the confidence and anticipations of investors. Moreover, the Israeli openness regime translated into a source of crisis contagion for the economy. But, while growth performance left much to be desired compared to the rest of the region one should not forget that moving towards a knowledge-based economy allowed Israel to record the lowest unemployment rate among MP countries, despite a rise to 7.6% in 2009. Moreover, banks proved to be resilient, contrary to other developed economies the regulatory framework was conservative and the tendency of Israeli banks was to avoid toxic products and speculative actions.

After a spectacular economic performance demonstrated throughout the 2000s the challenge will become to sustain growth, pursue the

fell as well, by 28.6% reaching a value of 46 bn US\$ which restored equilibrium to the trade balance.

✓ FDI marked a major 64.2% decline in 2009, falling to 3.9 bn US\$ from 10 bn US\$ in 2008, especially due to a fall in technology investment. Even so, FDI could pick-up and allow for the sector to be back-on track in the short-run.

✓ The crisis fallout brought the unemployment figure to 7.6% in 2009, the rise resulting more particularly from the first two quarters of the year. Even so, the trend appears to have been ephemeral, since the third quarter of 2009 unemployment has been continuously declining being close to 6.2% in mid 2010. However, let it be noted that while unemployment is contained, Israel has an issue of non-employment which is more serious than in other developed economies.

✓ The budget deficit increased in 2009 near the -5.1% mark, after reaching -2.1% in 2008. But

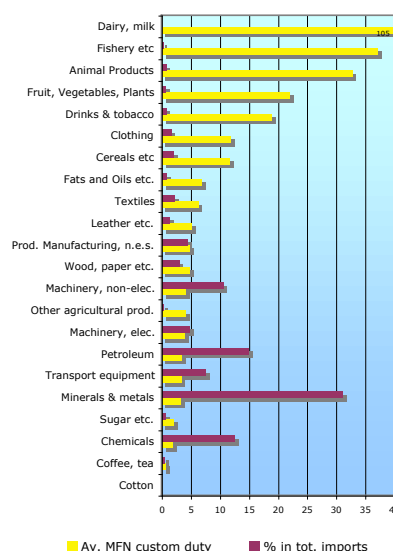
the deficit is expected to be reduced to 3.9% of GDP in 2010 which remains below the official target of 5.5%.

✓ Since the crisis erupted, the Bank of Israel sought to simultaneously increase liquidity and support domestic exports. But discretionary interventions to help build-up foreign currency reserves could end-up bringing a series of negative effects to the Israeli economy. The current international environment and concerns regarding potential currency-appreciation pressures could thus favor a relatively loose policy stance.

✓ Productivity appears to have had a distinctively positive contribution to growth in Israel's economic history. Part of the rise in TFP in the industrial countries emanates from R&D investment. In the 1970–91 period, GDP rose by 137%, TFP contributing by approximately 30% to the rise. Moreover, Israel followed a strategy based on innovation that can have important effects on firm performance. Finally, in the case of Israel increased openness throughout the 1980s-2000 era has been positively related to the increase in TFP ; international openness probably contributed to the reallocation of production factors towards more competitive sectors and industries and modified the products in which the economy specialized.

✓ In the end, Israel must find ways in keeping its economy grow. This can be done by developing industries such as Water, Biotechnology and Energy through the creation of clusters and infrastructural upgrading all the while offering giving tax incentives to IT companies that look promising.

Tariff protection and imports, by product



Source: WTO World Tariff Profiles 2008

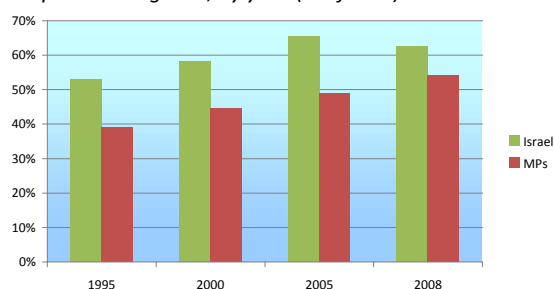
I. A considerable shock on the real economy led by a fall in FDI

I.1. The context

1.1 Great openness in trade and a liberalized capital account

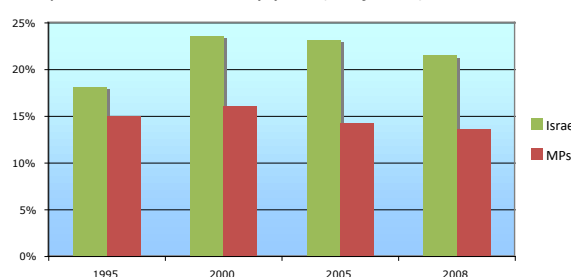
The Israeli economy is considered as one of the most open in the world. Its trade regime is a liberal one and it has greatly contributed to the country's economic development. Israel has made great efforts in opening the economy to imports, with the exception of food-related and agricultural goods, trade barriers across all sectors are very low. This is especially the case for sectors that represent a high percentage in total Israeli imports as in the case of minerals & materials, chemical products and non-electrical machinery where the average MFN custom duty is below 5%.

Trade openness in goods, by year (% of GDP)

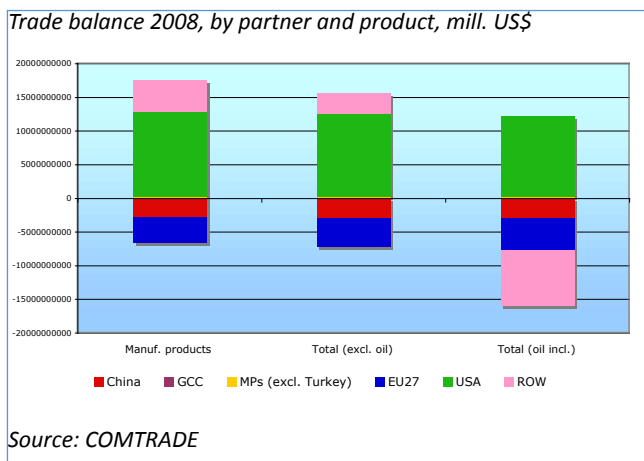


Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF



As already noted by FEMISE (2005), the Israeli trade policy emphasizes free trade as a means of increasing competition within the local market, improving resource allocation and finally augmenting the efficiency of local industries. Thus, vast reforms in trade policy were implemented (reducing tariff rates industrial products, MFN and free trade agreements) making Israel a modern, market-driven economy.

As a result, with regards to both goods and services trade the country has been characterized by considerable trade openness; as the graphs below indicate in the 1995-2005 period Israel maintained a trade openness ratio above the MP average in both instances. Nonetheless, both ratios for 2008 show a decline in the openness level, but still remain above the average Mediterranean rates of trade openness which suggests that the Israeli trade regime could also facilitate the transmission of the external shock as is the case in most developed economies.

The continuous efforts to liberalise its economy have allowed for greater integration in the world market. However, they also allowed for greater dependency to foreign partners and hence greater trade volatility in the case of fluctuations in international demand.

When looking at the value of trade in 2008, Israel appears to be a net importer only when oil-trade is included. In the case of non-oil trade the country is a net-exporter, a rare phenomenon in the region. This is due to the massive trade surplus that Israel

appears to be running with the USA which more than compensates for the trade deficit it runs with the EU and China. Finally, in the service sector the country is also a net exporter and the service balance was equal to 4.26 billion US\$ in 2008.

Source : COMTRADE

1.2 A liberalized capital account

Capital controls in Israel have been removed, the country follows a floating exchange rate system and inflation targeting. However, despite being put in place for more than 15 years, inflation targeting has not entered the legislation which still cites the exchange rate as an objective of monetary policy. Efforts for the liberalization of capital inflows and outflows were crowned with success in the early 2000s, they allow for a combination of large inflow and outflows reducing eventual pressures on the exchange rate. The floating exchange rate regime is in line with the domestic openness strategy which by definition requires monetary flexibility.

But, capital and financial liberalization can bring exposure to foreign markets, the financial sector of Israel has more depth than the one of neighbouring MP economies which means that in times of crisis the economy can be hit by an additional transmission channel. Overall, the case of Israel resembles more the one of a developed economy and less the one of a Mediterranean country with limited financial intégration.

1.2. Crisis transmission channels

The crisis outfall was felt from both the real-sector and the financial sector.

2.1 A shock that was greatly felt through a fall in FDI

The crisis impact was felt through:

- ✓ A reduction in goods exports by 19.7%,
- ✓ A 28.6% decrease in goods imports,
- ✓ A trade balance in equilibrium for the year 2009 at about -0.05% of GDP,

- ✓ A resilient service balance at 2.43% of GDP,
- ✓ A decrease in workers remittances by 7.7%.
- ✓ A current account at 3.9% of GDP (7.5 bn).
- ✓ A massive FDI decrease by 64.2% in 2009.

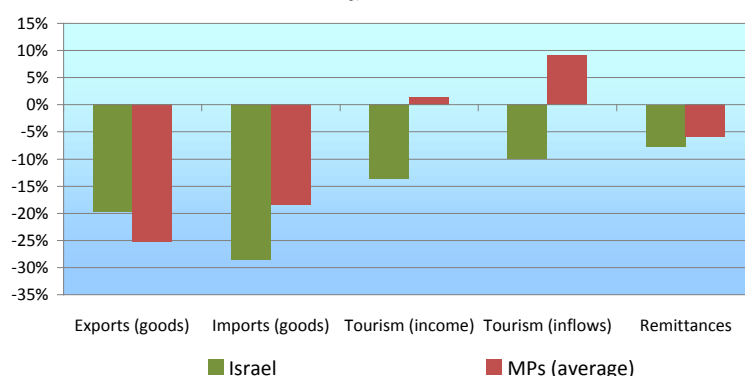
a year-on-year increase of 23.9% while in the same period total exports increased by 22.7%. However, the import bill is also expected to follow an upward path placing the trade balance for 2010 at an estimated -1.37% of GDP (EIU).

The Israeli openness regime translated into a source of crisis contagion for the domestic economy. The dependance to developed partners demand resulted in a 19.7% decline in goods exports for 2009 at 45.9 bn US\$. The largest sha-

The service balance followed an upward trend, going from a 2.1% surplus on GDP in 2008 to 2.4% in 2009. This corresponds to a value of 4.7 bn US\$ in 2009 versus 4.3bn US\$ in 2008 and despite a fall in tou-

rism performance. Tourism to Israel was down which is no surprise, 2008 was a record year and hard to repeat, meanwhile, 2009 started with a war which could have caused damage to Israeli tourism. In the end, about 2.7 million tourists went to Israel in 2009 which represents an 10%-11% annual fall, while receipts are estimated to have fallen by approximately 13.7%.

Crisis transmission channels, income effect



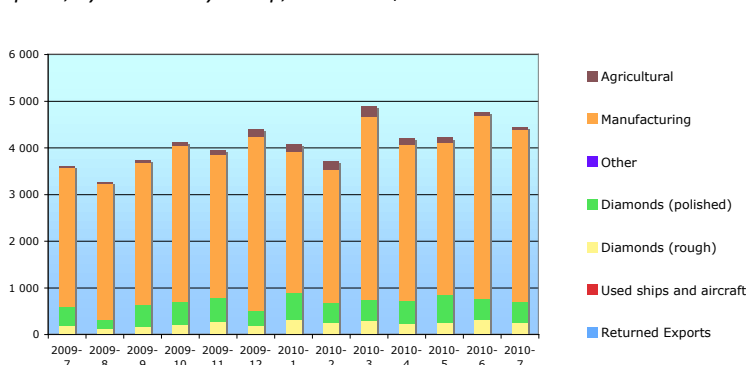
Source: FEMISE calculations based on EIU, Econostrum, WB Remittances database, Senego.COM

re of exports traditionally originates from the manufacturing sector distancing diamonds and agriculture. However, imports fell as well, they decreased by 28.6% reaching a value of 46 bn US\$ which restored equilibrium to the trade balance which reached -0.05% of GDP in 2009.

Regarding the remittances channel, Israel is among the lowest recipients in the Mediterranean region along with Syria. Remittances as a share of GDP represented approximately 0.7% in 2008 and a decline would have little impact on the economy. Israeli migrants abroad sent less earnings throughout 2009 which translated into a remittances decline of 7.7% (1.31 bn US\$ in 2009 versus 1.42 bn in 2008).

Early figures for 2010 show a rebound on the export side, the manufacturing sector in July 2010 recorded

Exports, by Commodity Group, million US\$



Source : Central Bureau of Statistics

Finally, FDI marked a major 64.2% decline in 2009, falling to 3.9 bn US\$ from 10 bn US\$ in 2008. The amount from mergers and acquisitions of Israeli companies totaled 2.54 billion US\$, a 7% fall compared to the 2.74bn US\$ recorded in 2008 and 33% lower than in 2007. Meanwhile, only 63 Israeli companies were ac-

quired or merged in 2009 compared to 87 companies on average in the 2006-2008 period. Thus, the international investment tightening following the crisis had a major repercussion on the Israeli economy.

More precisely, the high-tech sector appears to have been responsible for a large share of the investment collapse. High-tech investments reached 5.1 bn US\$ in 2007 followed by 3.2 bn US\$ in 2008 but then plunged to barely 1.4 billion in 2009.

Even so, FDI could pick-up and allow for the sector to be back-on track in the short-run. It is believed firms have the tendency to postpone high-tech investments during a crisis period which explains the, perhaps ephemeral, drop in FDI in Israel.

2.2 A financial exposure which had repercussions on portfolio investment

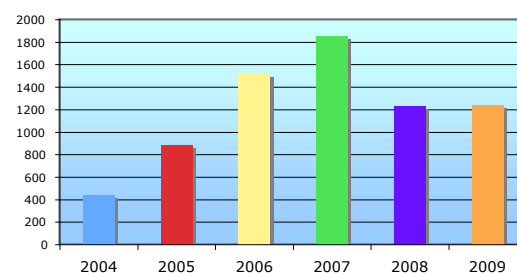
Israel has a relatively advanced financial system especially compared to most MP economies. Therefore, the degree of exposure to the crisis would logically be increased due to its financial integration within developed markets.

1) Outfall on portfolio investment

Portfolio investment had been rising since 2004, with inflows consecutively attaining 0.88bn US\$ in 2005, 1.1516bn US\$ in 2006 and 1.85 bn US\$ in 2007.

The trend appeared to be reversed in 2008, with the eruption of the crisis limiting inflows and favoring outflows instead. Nonetheless, inflows in 2009 have remained close to their 2008 levels but the same cannot be said regarding the exit of short-term capital. The openness of the capital account translated into massive deterioration of portfolio investment in 2009. Net portfolio investment in 2008 was of -1bn US\$ before degrading to -5bn US\$ in 2009.

Portfolio Inflows to Israel: 2004-2009, USD Million



Source: IMF/IFS

2) Outfall on the Stock-exchange and reserves

The initial shock led to a deterioration of the Israeli stock market index. Nonetheless, the stock-exchange has been on the rebound since then.

The spillover effects of the crisis on the stock-exchange were quickly mitigated. This can be explained in part due to the domestic resilience with respect to past crises due to the built up of adequate foreign exchange reserves as well as a robust fiscal stance.

Foreign reserves increased by 42.5% providing a comfortable 60.6bn US\$ up from 42.5bn US\$ in 2008 and 28.5bn US\$ in 2007. They are expected to remain to similar levels in 2010 despite the expected rise in the import bill; tourism is expected to bounce back and provide additional currency inflows rendering the risk of a lack of liquidities quasi-null.

3) Outfall on external public debt

Finally, regarding external debt, Israel saw a rise to 86.8bn US\$ up from 86.1 bn US\$ in the year 2008. Gross external debt kept increasing in the second quarter of 2010, reaching 94 billion US\$ in June, due to a 2 billion US\$ increase in gross public debt, purchases of government bonds by nonresidents, partially offset by the effect on the dollar debt of the strengthening of the dollar against the domestic currency (Bank of Israel). External debt to GDP at the end of the second quarter was close to 47.5% which is an increase of approximately 2.5% from the average in the last four quarters.

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

The service-based Israeli economy marked a considerable growth slowdown in 2009. While finance & business services and government services grew respectively by 2.8% and 3.8%, transport and communications services fell by roughly 4%. Meanwhile, manufacturing activity appears to have marked a 6.4% decline while construction also fell by approximately 1%.

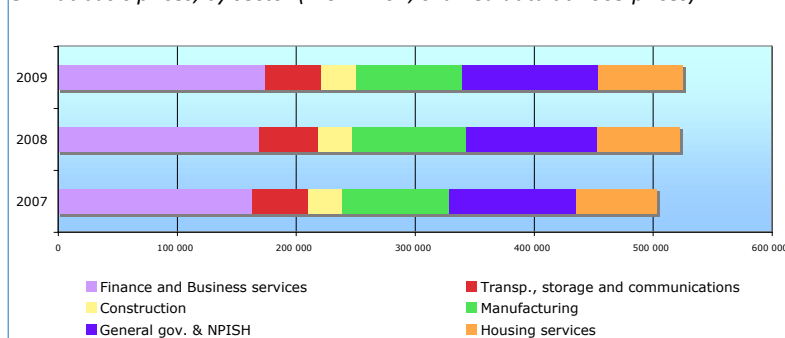
But expectations for 2010 allow for optimism. Growth in the first half of 2010 shows an annualised positive rate of 4.1%, after a 3.3% rate in the second half and a -1.5% rate in the first half of 2009. As for the second quarter of 2010 estimates place the annualised rate of GDP growth to the 4.7% mark. There is also evidence for an upswing in the construction sector ; the number of new building starts for the first half of 2010 reached 18400 marking a 17% year-on-year increase.

2. Initial rise in unemployment that gave place to a fall near pre-crisis levels in 2010

The modernized economic fabric of Israel have allowed for low levels of unemployment. The country has traditionally been frontrunner in unemployment reduction, with a jobless rate of 6.1% in 2008 which was the lowest among MP countries.

Nevertheless, the crisis fallout brought the unemployment figure to 7.6% in the year 2009, the rise resulting more particularly from the first two quarters of the year. Even so, the trend appears to have been ephemeral, since the third quarter of 2009 unemployment has been continuously declining being close to 6.2% in mid 2010. By the second quarter of the year 2009, unemployment in Israel was below the OECD le-

GDP at basic prices, by sector (NIS million, chained data at 2005 prices)



Source : Central Bureau of Statistics

vel which has rarely happened in recent history. It averaged 7.7% in Israel versus 7.9 percent for the OECD countries. Claims for unemployment benefit have followed the same path, falling back to their pre-crisis levels as shown by early 2010 figures.

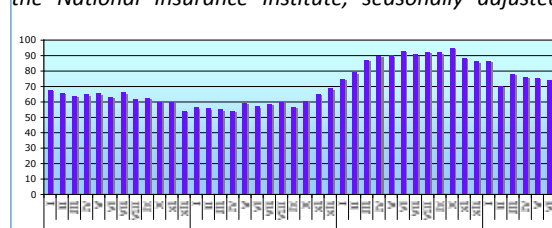
For the population aged between 25-64 years, the rate fell from 6% in the first quarter of 2010 to 5.6% in the second quarter. Meanwhile, unemployed men are back at work with a participation rate rising in the second quarter by 1% to 62.2%, while women slightly fell in participation to 51.8%.

Rate of Unemployment, seasonally adjusted



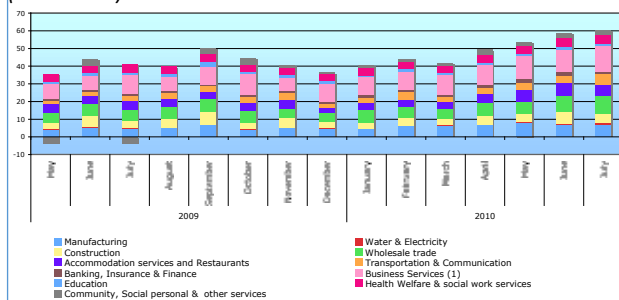
Source : Central Bureau of Statistics

Total Claims for Unemployment Benefit Submitted to the National Insurance Institute, seasonally adjusted



Source : Central Bureau of Statistics

Number of job vacancies by Industry, May 2009 - July 2010 (thousands)



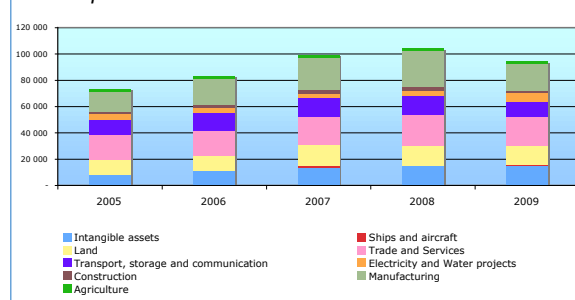
Source : Central Bureau of Statistics

However, the otherwise remarkable performance in reducing unemployment should be put in context. Let it be noted that while unemployment is contained, Israel has an issue of non-employment which is more serious than in other developed economies. The working age population in Israel is composed of people participating in the labor force and people which do not participate in it. It appears the latter group is relatively important in size, which translates into a biased unemployment figure.

While non-employment in the OECD economies is close to 11.9%, the corresponding rate in Israel is close to 18.9% which is even above the non-employment rate of Spain, a leader in unemployment. While the ultra-Orthodox Jewish population and Israeli Arabs could be responsible for elevating the non-employment rate, it is believed the Israeli economy has had some difficulties in coping successfully with its labor market while modernizing.

The number of job vacancies shows that among the most affected branches were business services going from 10.3 thousand in July 2009 to 14.7 thousand a

Gross Fixed Capital Formation, by Industry, NIS million, chained at 2005 prices



Source : Central Bureau of Statistics

year later. Meanwhile, wholesale trade and manufacturing showed an increase in vacancies of 63.5% and 52.4% respectively (reaching 10.3 thousand and 7.2 thousand in July 2010). On the contrary, education saw the figure go from 1.6 thousand in July 2009 to about 0.6 thousand (-62.5%) in July 2010.

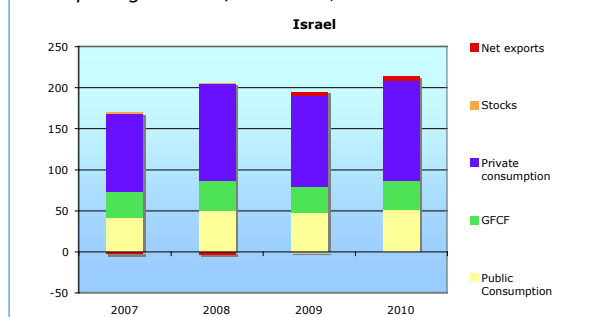
II.1 A macro-reaction

1) A stale economic activity in 2009, rebound expected in 2010

Exports expenditure on GDP fell through the year 2009 by approximately 11.4%. It was accompanied by a real decline in the gross fixed capital formation on GDP by 6.7% while private and public consumption on GDP grew respectively by 1.5% and 1.6% at pace below the average of recent years.

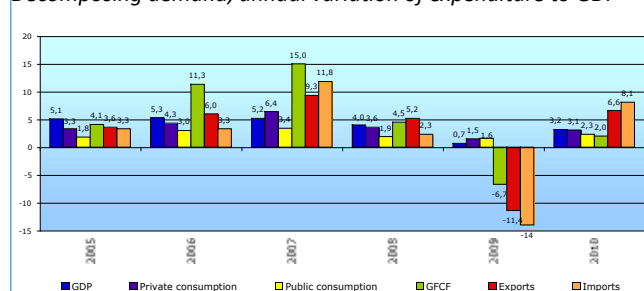
Estimates for 2010 suggest Israeli growth will enter a path of recovery, with an estimated rate of growth at 3.2% according to EIU, which is slightly below pre-crisis growth levels. Exports are timidly

Decomposing demand, billion US\$



Source: IMF, EIU, Note: estimates for 2010

Decomposing demand, annual variation of expenditure to GDP



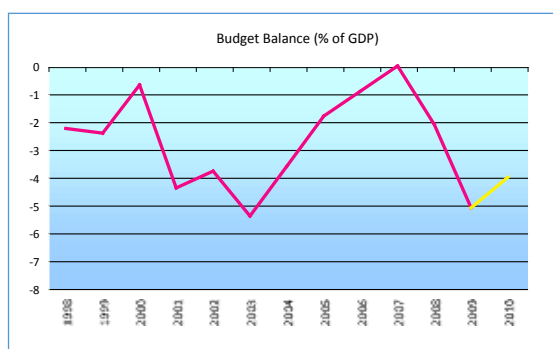
Source: IMF, EIU, Note: estimates for 2010

expected to pick-up which shall clearly contribute to growth, meanwhile, investment is also expected to bounce back in order to play once again an active role to stimulate the economy.

However, let it be noted that growth during the second quarter grew at an annualised 4.7% boosted by a marked exports increase. Meanwhile, the increase in business productivity shall further sustain consumption. Thus, real growth could also end up being near or even above the 4% mark (CBS).

2) Increased pressures on the budget that should be gradually relieved

The increase in spending lead to an increase in the budget deficit in 2009 near the -5.1% mark, after reaching -2.1% in 2008 and being equilibrated in 2007. However, the deficit appears to have fallen due to



high contribution on the revenue side. In the January-July 2010 period it went to 9bn NIS down from NIS 15.5bn in the same period of 2009. Thus, the deficit is expected to be reduced to 3.9% of GDP in 2010 which remains below the official target of 5.5% (EIU).

Even so, a high-rate of growth and a context of regional stability are the necessary prerequisites for authorities to succeed in bringing down the deficit to 3% and 2% of GDP for 2011 and 2012 respectively.

3) Monetary/exchange-rate policy

As noted earlier, Israel is pursuing a floating exchange rate system along with inflation targeting. Since the

crisis erupted, the Bank of Israel (BOI) sought to simultaneously increase liquidity and support domestic exports. It did so by cutting interest rates and by buying foreign currencies and long-term bonds. Interest rates were then cumulatively raised by 125 basis points since August 2009. Real rates, based on forecast 12-month inflation, remained negative.

Let it be noted that discretionary interventions to help build-up foreign currency reserves could end-up bringing a series of negative effects to the Israeli economy. As noted by Moeser (2010), a "clean float" should be re-adopted as soon as possible since a growth pick-up along with monetary interventions could materialize into inflation that goes against the recent monetary tightening. If the intervention seeks at providing a floor to the Shekel, then international markets could prevent this from happening. Meanwhile, credibility in monetary policy could be hit while costs from the interest differential can reach considerable heights.

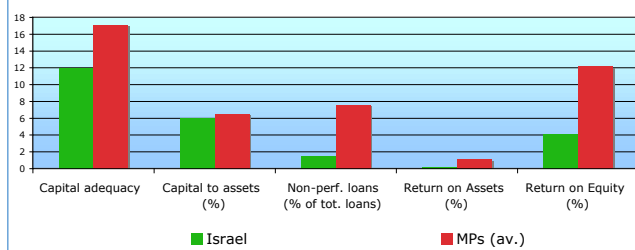
The current international environment and concerns regarding potential currency-appreciation pressures could thus favor a relatively loose policy stance (EIU).

II.2 A banking system that was stable enough due to a conservative framework

When the crisis erupted, the Israeli banking system had reached a record level of capital adequacy at 12%, even if it were below the one of other Mediterranean economies, it thus had the necessary means to ensure its viability as well as its resilience.

This was especially the case since non-performing loans have been negligible in size compared to the Mediterranean average, representing less than 2% of total loans in Israel. Meanwhile, the equity/assets ratio also improved during the year also shown improvement. It should be noted that contrary to other developed economies, the regulatory regime in Israel does not easily allow taking assets off the balance sheet

Indicators of Financial Soundness



Source: IMF

to improve capital ratios. The capital standards in place provided stability during the crisis. But one should note that Israeli banks had also avoided toxic products and speculative actions adding to the sector's resilience.

Even so, the conservative framework needs to evolve. Granted, capital ratios were sufficient but their increase could provide for additional shielding in case of a longer lasting shock. Moreover, the market remains concentrated, principally dominated by two banks (Hapoalim and Leumi) due to their profound linkages and control over deposits, various funds, credit companies or even secondary market trading.

The financial profile of banks has improved in asset quality and profitability despite the crisis. But, the banking system should approach international standards, going towards a more competitive structure.

III. Growth engines and Total Factor Productivity

III.1 A TFP-driven growth regime based on innovation and the Knowledge Economy

The structure of the domestic economy evolved in an impressive manner ; once relying to great extent on the agricultural produce, Israel saw the share of agriculture dropping to 4.5% in the early 1990s while the share of manufacturing and services had risen to 30% and 40% respectively. Moreover, internal structural change occurred

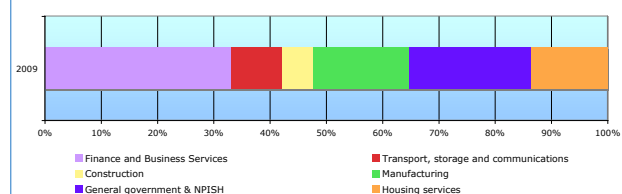
within the sectors themselves ; in the manufacturing sector, labor-intensive industries such as textiles contracted, while ICT industries intensive in human capital thrived (Helpman, 2003).

Then followed a spectacular economic performance demonstrated by Israel throughout the 2000s. It could be attributed to the presence of structural policies which along with a strategy based on innovation transformed Israel into a technology-based economy. While it was greatly responsible for the productivity boom in the 1990s, the manufacturing sector would now represent roughly 15% of domestic GDP, while the country would greatly rely on financial and business services.

Reforms have allowed for sustained growth throughout the decade, while massive investments in R&D have firmly set the premises for future economic growth. As the left-hand graph (page10) indicates, the Israeli economy has maintained a positive rate of productivity growth throughout the 80s, 90s and the 2000-2006 period as well.

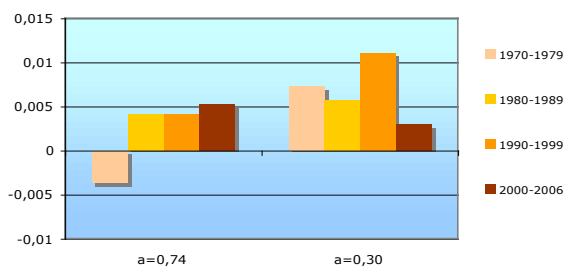
In the right-side graph growth rates of the aggregate product are broken into contributions of factors of accumulation and productivity (average annual growth rate of gdp per worker and contributions of each component to GDP). The breakdown of GDP per worker is done twice, assuming a value of the relative share of physical capital to production equal to 0.74 in the first case and of 0.30 in the second case. In the first

Sectoral contribution to GDP, in %



Source: Central Bureau of Statistics

Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

case, the main determinant of economic growth through the last 40 years in Israel appears to have been the accumulation of physical capital followed by productivity. In the second case the growth share attributed to physical capital is reduced and the driving engine of Israeli growth appears to reside more on productivity. This results are logical since a largest share of physical capital to production would attribute less weight to the contribution of productivity to the growth process.

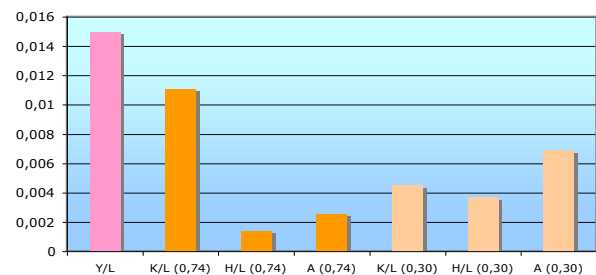
Whatever case is closer to reality, productivity appears to have had a distinctively positive contribution to growth in Israel's economic history. Part of the rise in TFP in the industrial countries emanates from R&D investment. Using estimates of the elasticity of productivity with respect to the R&D capital stock in small economies Helpman (2003) finds that R&D contributed by 17% to the productivity increase in the 1970–91 period. More precisely, GDP rose by 137% in the period

Table 1. Contribution of Productivity to Growth, and its Components; Israel, 1971-90

Business-sector product	137
Total Factor Productivity	41
Contribution of :	
Education	12
Domestic R&D	17
Foreign R&D	8

Source : Helpman (2003)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

in question, TFP contributing by approximately 30% to the rise (41% TFP increase in 1971-90 percent). A decomposition of TFP shows that education contributed 12%, domestic R&D 17%, and foreign R&D 8%.

Overall, in the 1971-90 era, the economy grew relatively fast. About 70% of the rise in GDP appears to have been the result of an increase in hours worked and investment in physical capital, nonetheless, the increase in productivity had already started to play a vital part fueled by improved schooling, R&D investment and knowledge spillovers from foreign R&D. Entering the 1990s, GDP growth increased, led by the manufacturing sector in terms of both per capita output and TFP. Simply put, the manufacturing sector experienced a skill upgrading phenomenon throughout the 1990s. The share of workers with high education went from 26% in 1990 to 43% in 1999, while the share of immigrants in manufacturing became nearly double the one of locals. The high education level of immigrants might have been a determinant of the Israeli productivity boom, though Paserman (2008) suggests that Israel did not succesfully exploit the human capital windfall represented by Russian immigration.

Moreover, Israel followed a strategy based on innovation that can have important effects on firm performance. As noted by Norris et Al. (2010), new

products, improvements in production processes and technological adoption can enhance the productive performance of firms. Furthermore, the authors find that the positive effect of innovation on productivity is significantly larger in countries with well-developed financial markets. Thus, the case of Israel is a perfect fit for this theory, it corroborates to the finding that financial development could influence growth by facilitating technological innovations and low-cost production methods that are productivity enhancing.

Finally, Cecchini and Lai-Tong (2008) identify a clear link between openness and productivity in Mediterranean countries. In the case of Israel they show that increased openness throughout the 1980s-2000 era has been positively related to the increase in TFP. This finding is in line with what has been said in the report, international openness contributes to the reallocation of production factors towards more competitive sectors and industries and modifies the products in which an economy specializes.

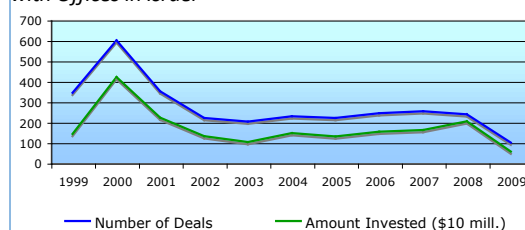
To sum up, the productivity resilience shown by Israel could be explained by the following elements :

- ✓ Development of high technology industries which had a great share in the Israeli growth performance, absorbing an impressive number of highly educated immigrants,
- ✓ Increased openness which brought allocative efficiency of production factors and an increase in TFP,
- ✓ A strategy based on innovation that augmented the productive performance of Israeli firms.

III.2 Can innovation policy mitigate economic downturns?

The country has become an innovation leader due to a productive private sector with the initial support of the public sector. It thus comes as no surprise that Israel is focusing once again on innovation to foster new growth and bounce back from a mediocre year.

Deals and Amount Invested in Venture-Backed Companies with Offices in Israel



Source: Dow Jones VentureSource , SeekingAlpha, * provisional figures for 2009

As the graph above indicates Israel faced a shortage of investment in R&D and innovation as well as in technological infrastructure in 2009. This could be explained by the fact that response from the authorities was not imminent due to the government transition in March 2009. Furthermore, most of the crisis measures undertaken were not of concern to the real economy and were essentially directed towards the financial sector. The need for additional funding in innovation was thus of vital need and authorities seem to have responded by proposing a plan to revitalize the High-Tech industry.

III.2.1 A High-Tech Support Plan that was greatly needed to dynamize the economy

Authorities provide a wide array of incentives to investors in sectors such as industry, tourism and real estate, while hi-tech companies and R&D activities are given a special treatment with additional focus. The new Law for the Encouragement of Capital Investment has added an automatic path for investment incentives. Once a series of criteria are met the enterprise can now obtain the « Preferred Enterprise » status by the Tax Authority (or Approved Enterprise status from the IIC) and becomes eligible for reduced tax rates, tax exemptions and a series of other benefits.

Recently, domestic authorities revealed their High Tech Plan, the latter was designed to stimulate the Technology Sector in Israel and could help boosting the domestic economy in the coming years. The Israeli high-tech support plan consists of a series of elements.

✓ Renewing capital inflows to the high-tech industry. This should be done by encouraging Israeli investors to invest in domestic venture capital funds.

✓ Providing tax incentives for investors in Israeli high-tech start-ups. This could be done through a government scheme that provides tax exemptions for investors in qualifying companies.

✓ Taking advantage of the potential of Technology for Financial Services, by offering incentives to international financial-services companies that plan on establishing R&D activities abroad.

✓ Expanding the contribution of ethnic minorities in high-tech, by training the Orthodox Jews and Israeli Arabs in high-tech professions.

The potential benefits to be drawn from such plan are of great magnitude. More specifically, providing incentives for high-tech start-ups could ensure Israel remains competitive in the market for the coming decade as well. Relying on a grand array of small companies reduces the vulnerability of Israel's high-technology sector to potential mishaps of individual firms and markets. Taking into account that the technology industry is a rapidly evolving one, Israel should keep promoting adequate measures for the creation and sustainability of start-ups.

Granted, the contribution of high-technology start-ups to GDP cannot be measured since they do not seek at generating revenue but focus on R&D. But their valuations by investors often surpass those of publicly traded companies which means that they are potential generators of a great value-added share.

III.2.2 Turning Brain-Drain into Brain-Gain

Israel has started implementing a plan destined at reversing the brain drain phenomenon and bring back its qualified workforce from abroad. The 350 million US\$ plan should create in a 5-year span 30 Centers of Research Excellence, which would attract the Israeli scientists in question, four of which are expected for January 2011.

The centers of excellence will provide research grants and employ 15 to 30 Israeli returnees. The plan would also be attracting foreign students in the medium-run and provide specialization in four areas of expertise (molecular basis of diseases, cognitive processes, computer science, and renewable and sustainable energy sources).

This initiative is in line with the country's innovation-driven strategy since it consists of a forward looking measure, providing the necessary groundwork to create growth from new sectors in the decade(s) to come.

III.2.3 Other initiatives to mitigate the crisis outfall

The Israeli water technology sector has been a prosperous one in times of economic crisis. The authorities plan on developing it even more and export the Israeli know-how and technology. Plans are to develop drip irrigation, desalination, conservation, wastewater and every activity related to water technology, the objective being to export 2.5 billion US\$ in water technology in 2011.

The industry in question is an export-oriented one and should thus help weather the short-term effects of the international crisis. Global stimulus packages were put in place by the authorities which contributed to the sectors resilience in 2009. Moreover, for the first time Israel's fastest growing technology company was from water recycling in 2009. The structure of the Israeli water-technology sector is not surprisingly one comprised of high-tech start-ups which have started in Israel and then proceeded to exporting in the EU and USA markets. It marks a great example of how a country with little resources has managed to thrive through technological and environmental innovation.

Finally, let it also be noted that Israel has assumed the presidency of Eureka which is one of the biggest collaborative research and development programs in Europe and worldwide. Israeli com-

panies have already been participating in Eureka projects and the Israeli presidency should provide a chance for orienting research towards sectors and projects that are in line with Israel's industrial interests.

Overall, we shall stress that :

✓ Israel is actively pursuing an innovation-driven policy offering opportunities for the private sector and is following an aggressive strategy of FDI attraction,

✓ The authorities focus on high-tech sectors such as water technology that could simultaneously carry growth in the coming years and counter the short-term effects of the international crisis,

✓ The government appears to be laying the ground for future innovation and growth by trying to reverse the brain-drain phenomenon and attract a qualified base of researchers.

Conclusions and Recommendations

Israel has been a knowledge based economy, following a TFP regime that focuses on innovation activity. The crisis affected on innovation through the decline in investment, both domestic and foreign, leading to a very small rate of growth for 2009. Nonetheless, prospects for 2010 are positive and a number of elements could allow Israel to bounce back sooner rather than later.

✓ Exports diversification can have a determining impact on growth in MP's and thus Israel. More specifically, a larger palette in the export structure and larger FDI inflows both allow for higher growth, even if export diversification may reduce the impact of FDI on the growth rate (Nicet-Chenaf and Rougier, 2009). Authorities could think of a means of combining the advantages of the current innovation-driven and investment-heavy regime along with those of one that allows of a wider array of exports that could contribute to the creation of new sources of competitive advantage and growth. This appears to be happen-

ing already with the development of the water technology industry.

✓ All developed economies worldwide have seen their banking system affected in their economic history with only a handful of exceptions, the one of them being Israel which did not face a bank failure in its entire history. Conservative policies such as lending policies leveraged at 5 to 1, versus 26 to 1 for some US banks and 61 to 1 for some EU banks, has contributed to perpetuating the trend even during the recent crisis. Meanwhile, this lead small businesses that could not obtain credit to be redirected to the technology sector, where tax incentives are present and capital is available.

✓ In the end, Israel must find ways in keeping its economy grow. It must keep stimulating innovation all the while restructuring its economy. This can be done by developing industries such as Water, Biotechnology and Energy through the creation of clusters and infrastructural upgrading all the while offering giving tax incentives to IT companies that look promising. Investing in retraining can also be of valuable assistance in « new-sectors » where Israel needs to be more competitive. The authorities should identify key-sectors where training is more needed, offer tax exemptions to the firms undertaking the initiatives and in the end gain from both an economic and societal point-of-view. In the end, authorities should provide incentives for those that « export » their knowledge, meaning, those that put their expertise to use internationally.

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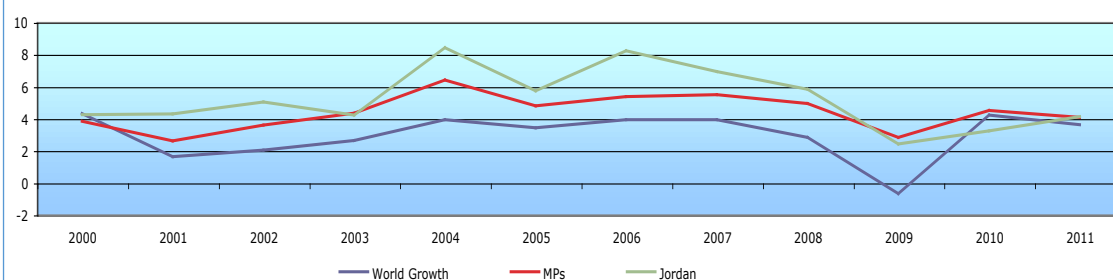
Jordan: A deceleration in 2009 that shall nonetheless give place to new growth carriers in coming years

The Jordanian economy slowed down in 2009, registering a real growth rate estimated at 2.4%, below the average MP growth and far from the levels of growth attained throughout the 2000s. Even so, the country was far from the worldwide trend, it avoided recession relying on an array of sources of growth throughout the year. Undeniably, Jordan's economic performance has been impressive in the latest deca-

Banking has been left relatively unaffected by the crisis effects, with healthy indicators and a system among the less affected in the region. However, with regards to the financial sector, the stock-exchange has not been able to rebound, in part due to a lack of confidence among investors and a shortage of liquidity.

Perhaps most importantly, authorities appear to be well aware of what needs to be done to ensure future growth and shield the economy from any negative international developments that could rise. The country

Real GDP growth (annual variation in %)



Source: Economic Intelligence Unit (EIU), IMF

de and its strategy has allowed the economy to move away from capital accumulation towards a path of total factor productivity.

However, the recent growth weakening, while understandable due to the nature and amplitude of the crisis, has brought to light certain elements of the economic structure that could be worked upon to ensure even better sustainability in the coming decade.

First of all, the transmission channels of the crisis were primarily linked to external developments, something that was expected since the country has strong economic ties with developed economies and has perhaps become overdependent in a number of instances. Moreover, authorities have to face increasing pressures on the budget balance, the latter representing the largest deficit in terms of GDP across MP economies in 2009. Finally, the unemployment issue is still a major one that has to be dealt with to avoid rising tensions especially among the younger segments of the working population.

is pursuing structural adjustments that should reduce public expenditure all the while targeting potential growth carriers by a series of investment projects. Building tourism capacity, modernizing domestic transport infrastructure and liberalization initiatives are all part of Jordan's plan, while potential for FDI inflows is considerable and should allow for an escalating number of public-private partnerships in the near future.

Regarding the economic developments in the kingdom of Jordan, the following elements should be accentuated:

✓ Goods exports marked a 19.8% decline (to 6.36 bn US\$) which is less than in the rest of the region. Fortunately, this development did not make the trade deficit any wider, since the import bill decreased by 17.2% to 12.5 bn US\$, primarily due to the 30.2% fall in the mineral sector which represented the largest share (18.2%) of total imports in 2009.

√ Meanwhile, the service balance saw its surplus double in one year to 3.55% of GDP in 2009 in great part due to a resilient tourism sector which managed to attain surprisingly high levels of inflows (1.6% increase in 2009).

√ Meanwhile, remittances decreased by only 3.6% and the country was less affected than some neighbouring MP economies.

√ FDI marked a 15.7% decrease in 2009 to 2.38 bn US but prospects are looking bright for 2010 since investments are expected due to new incentives provided by the Investment Promotion Law.

√ It was essentially growth in private consumption (+2.7%) followed by public consumption (+2.5%) that mostly contributed to the rise in Jordan's GDP. In 2010 they are expected to be supplemented by the GFCF which is expected to return to positive trends (+2%) while exports are also expected to slowly bounce back.

√ The increase in spending lead to a massive deterioration of the budget deficit which grew to 11.9% after reaching 9.6% of GDP in 2008. Hence, austerity measures have been undertaken and recent figures show that budget deficit fell to 280.9 million JD in the first seven months of 2010 contrasting with the 640.5 million deficit for the same period in 2009.

√ Unemployment rose to 12.9% in 2009 a gap remains between employment needs of the Jordanian market and the qualifications obtained by university degrees. The unemployment rate was high among university graduates at 16.2% in 2009 while the migration phenomenon of Jordanians from rural to urban regions eventually created a disequilibrium between related employment opportunities.

√ The country has been in a fixed exchange rate regime and the peg has provided for stability and increased confidence vis-a-vis the dinar. But, since authorities plan on maintaining a fixed exchange rate, they could be harmed by any unfavorable speculations which could cause considerable amounts of capital to flee in exceptional situations.

√ The main determinant of economic growth through the last 40 years in Jordan was the accumulation of physical capital. However, the domestic eco-

nomy gained in efficiency achieving a positive annual productivity rate of growth through the 2000-2006 period and has become TFP-driven. Moreover, firms entry and exit appears to have played a defining role. Firms that « survived » liberalization initiatives bode well in sectors such as iron and steel, electrical machinery and other chemical products while it appears that forced exit of least efficient firms increases productivity.

√ Potential « winners » sectors that Jordan could rely on are logistics, tourism and the health sector. Tourism shall remain the fastest growing sector globally for the next 20 years (10%-12% sustained annual growth) and various infrastructure projects shall provide positive externalities to the tourism economy. Investment projects in logistics should allow for easier transport of merchandise and a greater variety of proposed services while projects in the railway network and road transport also offer similar benefits. Finally, developing sectors such as health shall allow for a new type of growth to emerge through health tourism. `

√ Jordan could benefit from studying the limited but nonetheless very real success stories in some of its neighbours and draw its conclusions as to what type of reform measure are most effective for each of its markets. The implementation of a process that allows detailed monitoring of SMEs performance could also be promoted. This could take place with the support of international organizations and private partners that could provide both funds and the necessary expertise in areas such as SMEs financing, entrepreneurship and the business environment.

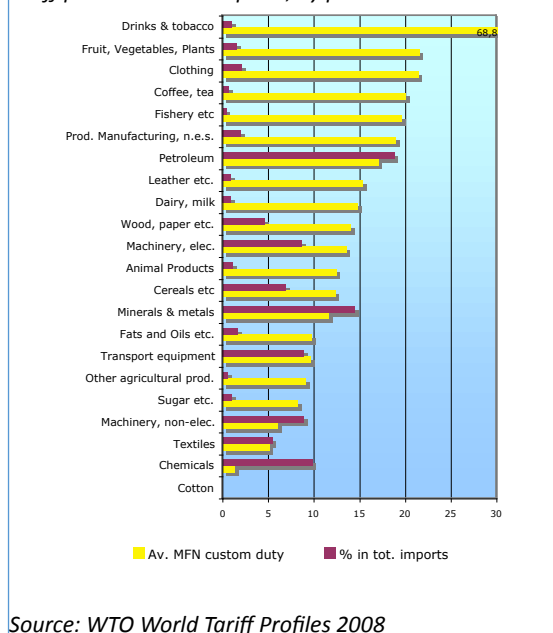
I. A shock on the real economy that led to a short-term deceleration of growth

I.1. The context

1.1 Increased openness in trade and in the capital account

Throughout the 2000s Jordan made a clear choice in its trade policy orientation by implementing the non-discriminatory principle of the WTO, all the while continuing to be engaged in an array of bilateral agreements.

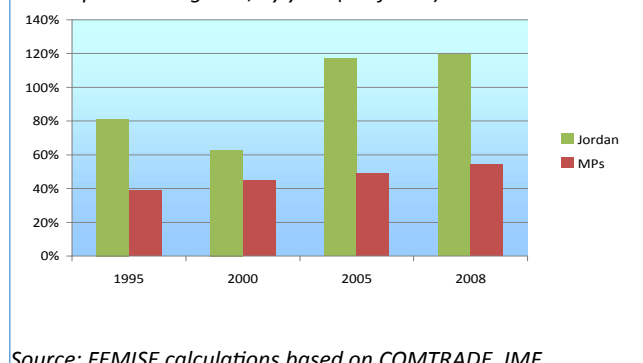
Tariff protection and imports, by product



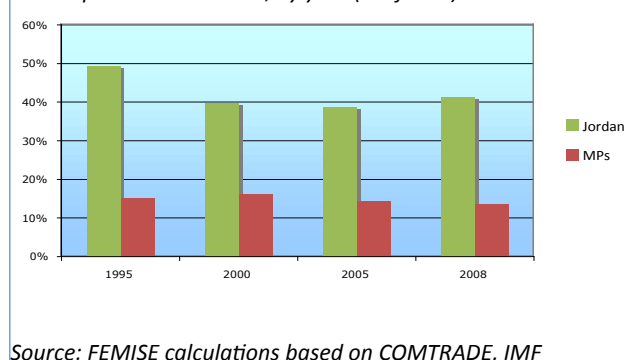
Domestic authorities have made considerable efforts in reducing tariff barriers to imports, therefore, the simple average tariff went from 19% in the start of the decade to 11.5% in 2006, but imports are still constrained by high custom duties in certain sectors, especially in agricultural and food-related goods as well as in the clothing sector. The most constrained sector is by far the one of beverages & tobacco products which faces a 68.8% average MFN customs tariff, distantly followed by the fruit and vegetables sector (21.5%) and clothing goods (21.4%). The cotton sector is barrier-free, while chemicals, textiles and non-electrical machinery are among the least constrained sectors. Overall, while impediments to imports are not very high in Jordan, the tariff structure is a dispersed one.

With regards to trade, the country has been characterized by considerable trade openness ; as the graphs below indicate Jordan has maintained a trade openness ratio well above the MP average. In the case of goods trade, the ratio has shown a remarkable increase since the early 2000s and achieved great heights in 2008. Furthermore, Jordan registers increased openness in services trade, again well above the MP average, though the ratio suggests the country was

Trade openness in goods, by year (% of GDP)



Trade openness in services, by year (% of GDP)

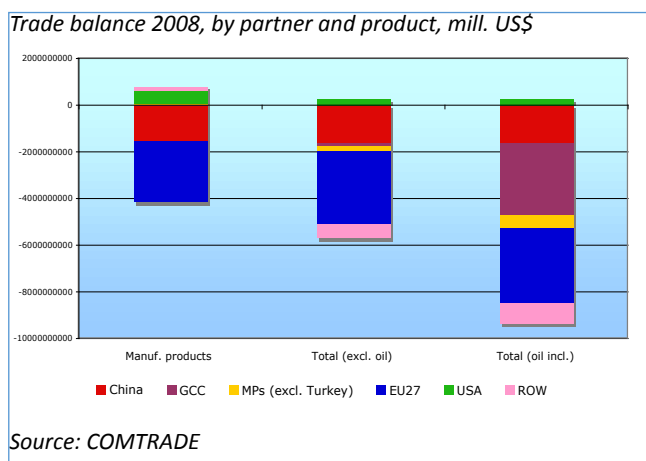


slightly more open to services trade in the middle of the 1990s.

Finally, when looking at the value of trade in 2008, Jordan appears to be a net importer, both with and without the inclusion of oil-trade. Moreover, Jordan appears to be running a trade deficit with all major partners except the USA with whom it has a trade surplus. In manufacturing trade, the EU27 has the largest trade surplus on Jordan, followed by China. Meanwhile, when oil is included, Jordan appears to be running a considerable trade deficit vis-à-vis oil producing economies of the Gulf.

Finally, in the service sector the country is a net exporter, total exports were equal to 2.9 billion euros in 2008 (versus 2.6 billion euros of imports), mainly due to the travel sector which represented 68.8% of service exports.

Overall, Jordan pursued and is still following a strategy of openness which has helped its integration in the world economy and contributed to high rates of growth throughout the 2000s.



1.2 A capital account at an advanced openness stage along with a fixed exchange rate

The liberalization of the capital account in Jordan is at an advanced stage (high degree) and the country has a regime with no restrictions on capital inflows and outflows. Meanwhile, the country has chosen to follow a fixed exchange rate regime. A number of measures have allowed instauring an open capital account that is not incompatible with the exchange rate system. As for the financial sector it has achieved an intermediate level of deregulation remaining still far from levels attained in the most advanced developing economies' financial systems.

Following the evolution of the crisis one could note that the strategy followed by Jordan has been relatively adapted to the country's needs. The fixed exchange rate is there to maintain investors' confidence in the currency, domestic saving and investment are encouraged while capital outflows are partially prevented. Fixity of the exchange rate also reduced inflation while the Dinar has been shielded from speculation. But, even if the financial sector has improved, further deepening is needed to improve transparency, disclosure

rules and meet the needs of the private sector in the coming years.

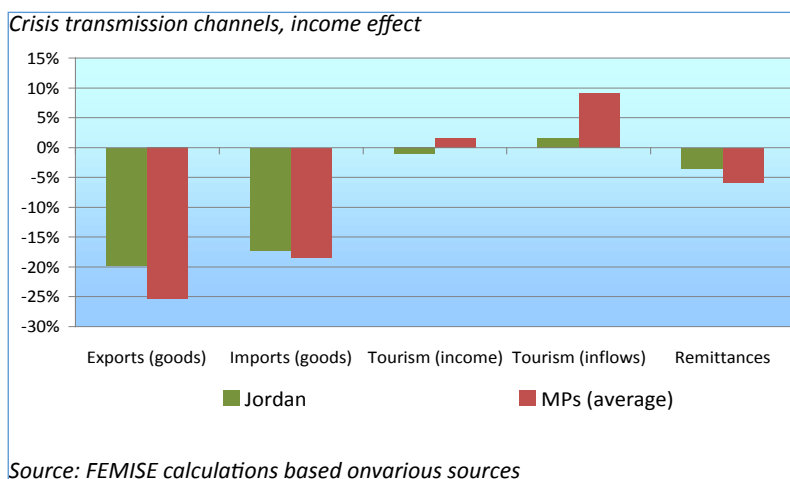
1.2. Crisis transmission channels

2.1 An economy affected primarily by a fall in exports and FDI but with resilient tourism and remittances

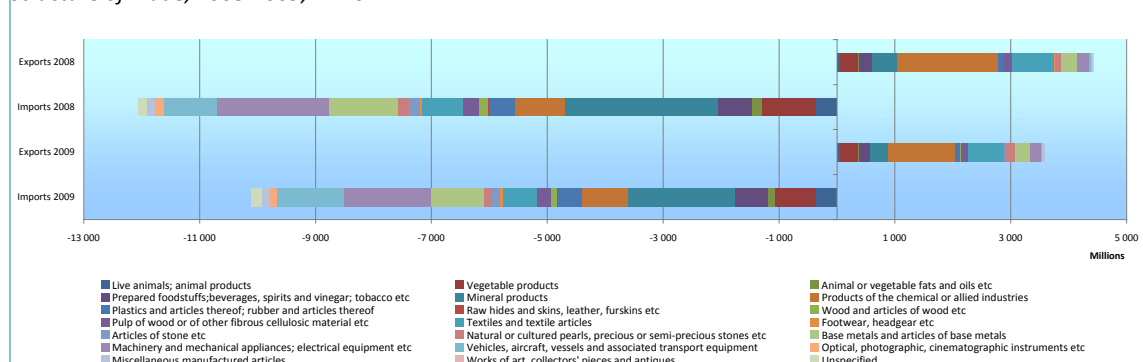
The crisis impact on Jordan in 2009 was felt less than in other Mediterranean economies. The following evolutions are worth mentioning:

- ✓ A reduction in goods exports by 19.8% to 6.36 bn US\$ in 2009,
- ✓ A 17.2% decrease in the value of goods imports to 12.5 bn US\$ in 2009,
- ✓ A trade deficit for the year 2009 that declined by an impressive 13.7% in real terms, as well as in terms of GDP from 34.5% in 2008 to 29.2% in 2009,
- ✓ A service balance which saw its surplus double in one year to 3.55% of GDP in 2009,
- ✓ An slight decrease in workers remittances of 3.6%,
- ✓ A deficitary current account at 1.29 bn US \$ which decreased by 39.9%,
- ✓ A decrease in FDI by 15.7% in 2009 to 2.38 bn US\$.

Due to a high rate of openness, trade in Jordan declined throughout 2009, hence, goods exports marked a 19.8% decline to 6.36 bn US\$. The



Structure of Trade, 2008-2009, million JD



Source : The Hashemite Kingdom of Jordan Department of Statistics (DOS)

largest share of exports comes from chemicals products (32.4% of exports), which declined by 33.8% in 2009, followed by textiles (17.1% of exports) which fell by 17.7% and vegetable products (8.9% of exports) which were left practically unchanged.

However, goods exports declined less than in the rest of the region. Furthermore, the import bill decreased even more, thus, offering the possibility for a more equilibrated trade balance. Imports fell by 17.2% to 12.5 bn US\$ primarily due to the 30.2% fall in the mineral sector which represented the largest share (18.2%) of total imports in 2009, followed by the machinery sector (14.8% of imports) which also marked a considerable decline (-22.2%).

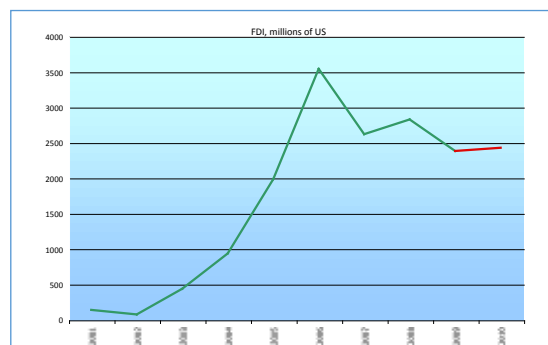
As a result, the trade balance saw its deficit decrease by an impressive 13.7% in real terms, as well as in terms of GDP from 34.5% in 2008 to 29.2% in 2009. In the first half of 2010 however, the trade balance deficit rose by 18.1%, with an exports increase of 16.6% and an imports increase of 11.7% but could still decline in terms of GDP by the end of the year.

Meanwhile, the service balance saw its surplus double in one year to 3.55% of GDP in 2009 which could reach 4.5% of GDP by the end of 2010. This is in great part due to a resilient tourism sector which managed to attain surprisingly high levels of tourist inflows (1.6% increase in 2009) while

receipts were only marginally affected (-1.1% in 2009). Furthermore, signs are very optimistic for the sector in 2010, tourism revenues in the first seven months of the year attained 1.414 billion JD which corresponds to a 26% year-on-year increase while the number of tourists rose by 23% to 4.8 million. Around 80% of receipts came from the region of Petra which rose to 9.9m JD by a 45% year-on-year rate. The major share of tourists was traditionally made of the Jordanian diaspora which are the largest contributors to the national tourism space (740,375) followed by non-Gulf Arab tourists (682,587), tourists from Arab Gulf countries (555,865), European visitors (415,525) and finally tourists from Asia (151,122).

Regarding the remittances channel, Jordan is along with Lebanon one of the largest recipients among MP economies. Remittances as a share of GDP represent roughly 19% and there were fears that the exogenous shock would limit the capacity of Jordanian expatriates to send funds back home. It should be noted that about 600 000 Jordanians are working abroad, among which 260 000 in Saudi Arabia, 250 000 in the UAE, 42 000 in Kuwait and 27 000 in Qatar. However, remittances finally decreased by only 3.6% and the country was less affected by the remittances channel than some neighbouring MP's. Gulf countries are on the look for a qualified labour-force which means a great number of Jordanians move abroad, leading to a possible rise in their number throughout the Gulf region which has entered a period of recovery.

Finally, FDI marked 15.7% decrease in 2009 to 2.38 bn US\$. The continuing global recession led to increased reticence in investment projects, though again the situation did not appear to be as dramatic as in most MP's. On the contrary, prospects are looking bright for 2010, 5.4 bn US\$ of investments are expected due to new incentives provided by the Investment Promotion Law. In the first two months of 2010 FDI inflows escalated to 900 million US\$, which corresponds to a massive 235% year-on-year increase, with great contribution by Saudi Arabia, followed by Yemen, the US and Spain. Initial forecasts point towards a timid increase to 2.43bn US\$ of FDI in 2010, however it should not be a surprise if Jordan manages to attract an even larger sum.



of the financial sector at a low level. Thus, one would expect a present yet relatively limited financial impact especially compared to neighbouring countries with more developed financial systems.

1) Outfall on the Stock-exchange

Overall, the Jordanian economy endured the crisis outfall but it managed to mitigate most of its effects, allowing to reduce the current account deficit to at 1.29 bn US \$ (-39.9%).

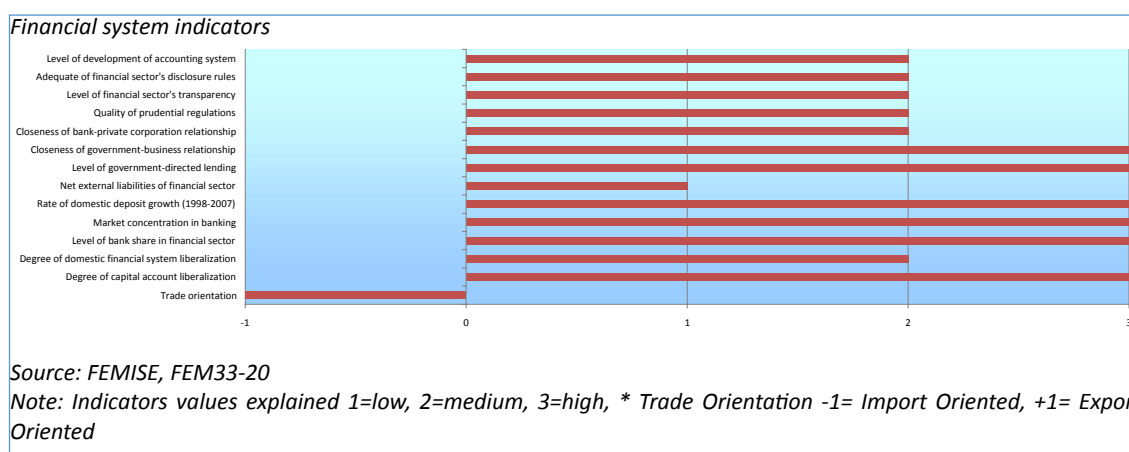
The Amman Stock Exchange (ASE) was initiated in 1999 as a non-profit financially autonomous institution and now includes stocks of more than 150 companies from various sectors such as banking, insurance, services and industry.

2.2 A financial shock that has nonetheless not affected reserves negatively

The stock market took a considerable hit following the crisis in late 2008 and has not been able to rebound ever since. There appears to be a lack of confidence among investors as well as a shortage of liquidity which has naturally brought a marked decline in trading volumes that remain very low.

In the case of Jordan, the country is relatively open, with a high degree of financial liberalization but with a capital account at an intermediate openness level and net external liabilities

There appears to be a need for banks with ample liquidities to provide investors the necessary



lending to inject funds in the bourse and reverse the negative trend. Moreover, shares of real estate companies are expected to improve in the second half of 2010 which might partially invigorate new growth.

Overall, the contribution of Arab and foreign investments has remained stable, in March 2010 they represented 44.86% of total investment in the stock exchange compared to 45.55% at the end of 2009, primarily driven by investors from Kuwait (3,252 investors) which constitute the largest volume of investors and the second largest share of investment at 1.77 billion US\$.

Undeniably, the stock market has room for development and 2010 can still be a stepping stone for its evolution. For instance, the Dubai Islamic Bank entered the Amman stock exchange after having bought 52% of the Industrial Development Bank of Jordan.

2) Increase of foreign reserves

Despite the crisis, foreign reserves increased to 10.88 bn US\$, a 40.5% increase compared to the level observed in 2008 and the equivalent of more than 7 months of imports. Thus, the fall in exports was amply compensated by lower imports which reduced pressures on international reserves, meanwhile, the increase was in great part due to the net purchase of foreign currencies from licensed banks and an increase in foreign currency denominated transfers.

The current level of foreign reserves is thus more than double the on three years ago. A better interest rate in dinars could be the major cause, increasingly attracting liquidities of foreign depositors.

Perspectives for 2010 point towards a stabilization of reserves, the latter dropped by an annualized rate of 2.6% at the end of the first five months of 2010 at 10,6 bn US\$. However, a

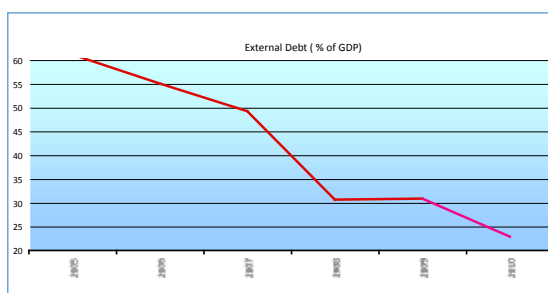
potential increase should not be ruled-out especially since tourism has performed remarkably well until now.

3) Outfall on external debt

Finally, regarding external debt, Jordan managed to stabilize it at 6.5 bn US\$ in 2009, slightly up from the 6.3 bn US\$ the prior year. In terms of GDP this is equal to a 0.2% rise, from 30,6% in 2008 to 30,8% in 2009. The debt service ratio massively fell from 25.8% in 2008 to 4.4% in 2009. As for net public debt, the latter grew to 9.66 billion JD which corresponds to 59.4% of GDP versus 8.55 billion JD in 2008 (56.8% of GDP). The rise in the budget deficit resulted into authorities issuing government securities which as a consequence put rising pressures on public indebtedness.

In its effort to contain its budget deficit Jordan has been proceeding to issuing bonds. Since the beginning of 2010 and until end-August, the volume of government securities reached 2.85 billion JD compared to 2.316 billion JD during the same period of 2009. Meanwhile, the net of new government securities amounted to 534 million JD, compared with 978 million JD for the same in 2009.

Careful management is needed for 2010 to avoid an exponential increase in government borrowing. Total debt rose by an annualized 2.4% percent in end-May 2010 compared to the end of last year, with public debt back to its 2008 levels at 56.2% projected GDP due to a lower budget. External debt dropped to 3.81 billion JD in May 2010 which is a positive evolution. Overall,



public finances could find some breathing space, though a limited one, since tourism and exports appear to be performing well for the time being.

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

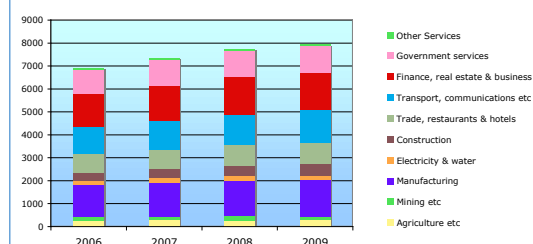
The performance of the domestic economy was not unaffected by the crisis outfall. The economy grew at a 2.4% pace in 2009, below the MP average rate, yet far from the rate of most developed partners. The kingdom had recorded exceptional progress in its GDP figures throughout the 2000s, with a 6.4% annual average rate of growth in the 2000-2007 period before the decline in international demand started affecting the domestic economy in late 2008.

Let it be noted that most of the economy's sectors registered a positive, though slower, rate of growth in 2009. The construction sector led the way with a 14% growth rate and after it had already grown by 12.6% in 2008, it was followed by agriculture & fishery which grew by 12.9% in 2009 and the transport and communications sector that grew by 7.1%. Among the minority of sectors with negative growth, mining and quarrying fell by 28.6% after growing by more than 13% in both 2007 and 2008.

The service economy, traditionally contributing roughly two-thirds of Jordanian GDP, appears to have grown more than the commodities sector, their respective rates being of 3.9% and 3.2% in 2009 according to the Central Bank of Jordan.

Meanwhile, according to the Central Bank of Jordan GDP at both market and basic prices, respectively grew by 2% and 3.5% in the first quarter of the year 2010, which is slightly lower than in 2009 when it grew by 2.3% and 3.2%. While it is highly doubtful Jordan manages to attain pre-crisis levels of growth in 2010 there are a series of elements that allow for some optimism. For instance, the Jordanian real estate market registered its first quarterly growth since the crisis (1%-3% increase in sales for the second

The Relative Importance of Economic Sectors to GDP at Constant Prices, 2006-2009



Source : FEMISE calculations, CBJ, EIU

quarter of 2010, 4% increase in rentals), in great part due to better access to financing being ensured. Furthermore, strategic trade partners could re-enter a growth path in 2010 thus offering the possibility of a trend reversal in the demand for Jordanian exports.

2. Employment: Slight increase in unemployment for 2009 that remains considerably high

Unemployment in 2009 rose to 12.9%, a moderate increase compared to the rate of 12.7% in 2008. Men appear to have been the most affected by the outfall, unemployment among the male population increased from 10.1% in 2008 to 10.3% in 2009 while among females it declined to 24% percent in 2009 from 24.4% the prior year. Additionally, unemployment among those aged 15-19 years old and 20-24 years old are the highest at 31.2% and 25.7%, confirming the difficult situation the younger segments of the population face.

But the unemployment issue in Jordan is not a recent one. Demographic growth greatly contributed to a rise in the supply of labour that could not be met with. Additionally, a gap remains between employment needs of the Jordanian market and the qualifications obtained by university degrees. The unemployment rate was high among university graduates at 16.2% in 2009 which corresponds to a 4.5% annual increase. Finally, the migration phenomenon of Jordanians from rural to urban regions eventually created a disequilibrium between related employment opportunities. In 2009, the lowest unemployment

rate was found in Amman at 11.2%, while the highest was in the southern governorate of Maan at 17.6%.

As for 2010, according to the Department of Statistics unemployment in the first quarter rose to 12.4% which is higher than the corresponding period in 2008 (12,1%). Thus, the need for adapted measures to alleviate unemployment is greatly felt. We shall note that throughout 2009, the Vocational Training Corporation (VTC), in collaboration with employers and the civil society, implemented a series of programs to ensure a qualified labour force emerges from the process of training, one that would be adapted to the needs of the market. A total of 20 453 individuals were trained in various fields while 7 785 workers were classified according to certified standards. It is this kind of logic that Jordan needs to build upon to progressively build its vocational training sector and adapt the graduating population to the market's needs.

3) Inflation

The astonishing 9.4% rate of inflation in the year 2008 gave place to a much lower rate of 2.7% in 2009 according to EIU. Meanwhile, the Consumer Price Index (CPI) contracted in 2009 to 13.2% down from the 13.9% rate of 2008 according to the Central Bank of Jordan. International evolutions had much to do with the reduced rate, the prices of energy and foodstuffs massively declined during the year 2009 which was a very welcome event for an import-driven eco-

nomy such as Jordan. Thus, domestic production costs fell and so did the prices of commodities in the domestic market.

Let it also be noted that 2008 had been a special year, prices in the manufacturing and trade, restaurants and hotels sectors had gone up by 25% and 16.4% respectively which was something not expected to last in the coming year. Indeed, in the latter sectors prices went up by 1.3% and 3.9% respectively in 2009.

However, close attention should be given to inflationary pressures in 2010, in the first quarter it already grew by 4.9% primarily due to a rise in the price of energy. Furthermore, in June the rate increased by an annualized 5.3% from 5.2% the prior month, meanwhile, the June consumer price index was up 0.3% due to price rises in essential foodstuffs and other consumer products.

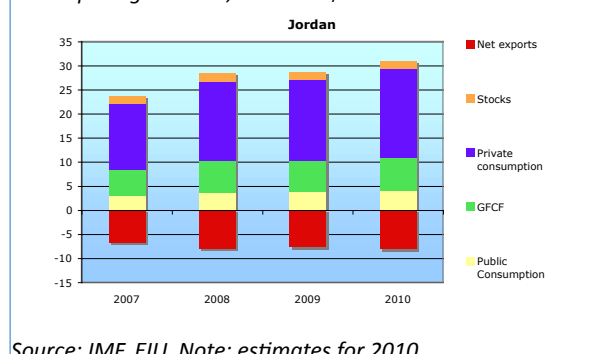
II.1 A macro-reaction

1) Economic activity mainly sustained by private consumption growth

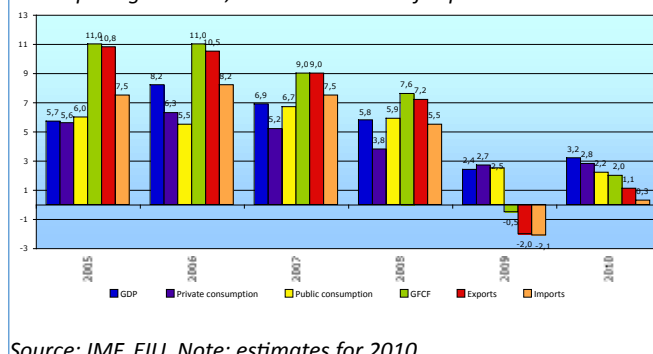
For the first time in years, exports expenditure on GDP marked a negative rate at -2% in 2009 while investment also marked a -0.5% rate in 2009. It was essentially growth in private consumption (+2.7%) followed by the one in public consumption (+2.5%) that mostly contributed to the rise in Jordan's GDP.

As mentioned earlier, estimates for 2010 suggest a higher rate of growth, mainly due to the current engines being supplemented by the GFCF

Decomposing demand, billion US\$



Decomposing demand, annual variation of expenditure to GDP



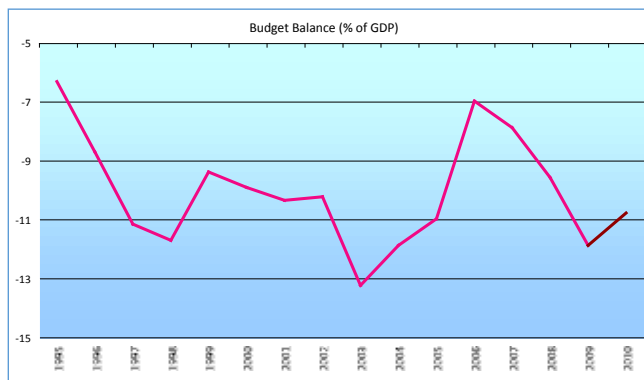
which is expected to return to positive trends in 2010 (+2%). Investment opportunities in key sectors should be provided as the government tries to entice both domestic and foreign investors within its national strategy.

Exports are also expected to slowly bounce back, though the economy should perhaps make even more efforts in ensuring the maximization of export diversification to mitigate the effects of the decline in international demand. One should also keep in mind that increasing prices could render the value of imports untenable in the medium-run and aggravate the current account which makes the need for a well-thought growth strategy all the more important.

2) A budget that has to be constrained to avoid further escalation

In 2009 Jordan had the largest budget deficit to GDP ratio among MP economies. The increase in spending lead to a massive deterioration of the budget deficit which has been exponentially increasing since 2006. In 2009, the budget deficit grew to 11.9% after reaching 9.6% of GDP in 2008. Jordan's budget deficit in 2009 amounted to 1.449 billion JD (2 billion US\$), including foreign assistance, which is more than double than in 2008, while without foreign assistance the deficit reached 1.783 billion JD versus 1.056 billion JD the prior year.

Thus, there appears to be imminent need to contain further increases in public spending. Authorities appear to have realized the importance of the matter, austerity measures have been undertaken



and recent figures show that budget deficit fell to 280.9 million JD in the first seven months of 2010 contrasting with the 640.5 million deficit for the same period in 2009. In order to control spending authorities reduced the government inventory of cars by 25% while expenses on travel and transport for public employees are expected to be reduced by at least 30%.

3) A monetary/exchange-rate policy that has maintained stability

One should keep in mind that, in general, fixed exchange rates are unlikely to provide macroeconomic discipline. As noted by Chiu et al (2010), this is especially true in the case of "soft-fixes", pegged exchange rates that allow for a certain degree of flexibility. Soft pegs can provide incentives for political business cycles since costs of expansionary policies can be reduced if the devaluation route is chosen instead of monetary tightening. Monetary expansion and inflation would thus be higher than in the case of hard fixes since the latter provide better monetary discipline.

The dinar has been in a fixed exchange rate regime, pegged to the US\$ since the mid 1990s and is still following the same strategy. While institutions such as the IMF have raised concerns as to the efficiency of this policy, the current crisis has shown that the peg, which resembles a "hard-fix" one, did provide for stability and increased confidence vis-a-vis the dinar. Monetary conditions were favorable throughout 2009, depositors chose to convert their currencies into dinars to profit from the interest rate with dollar deposits which led to the increase in foreign exchange reserves as described earlier.

However, the capital account is highly open in Jordan and 2009 marked a year where foreign capital was reduced. Meanwhile, as noted by EIU with the current level of import-cover from foreign reserves the peg is vulnerable to prolonged market

speculation, which means Jordan might have to seek financial aid at some point. Since authorities plan on maintaining a fixed exchange rate, perhaps they should consider introducing limited capital controls to avoid considerable amounts of capital to flee in exceptional situations.

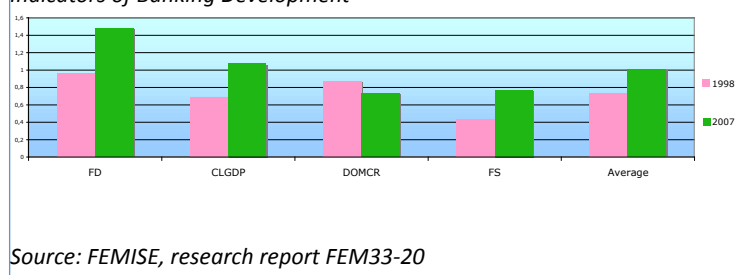
II.2 A banking system that was relatively unaffected

The banking system in Jordan has seen a remarkable evolution in the recent decade. In recent years, banks lowered interest rates on deposits and increased interest rates on credit facilities which resulted into a high rate of growth in domestic deposits. The banking sector is also expected to expand in the next decade since the Jordanian industry is evolving and becoming progressively linked to banking activities (ex. retail banking etc).

More precisely :

- ✓ Financial depth increased from 96% in 1998 to 148% in 2007, hence, the role of financial institutions in GDP growth has been increasing.
- ✓ The FS ratio increased from 43% to 77%,
- ✓ The DOMCR ratio decreased from 87% in 1998 to 73% in 2007 suggesting increased accessibility of the non financial sector to banking.

Indicators of Banking Development



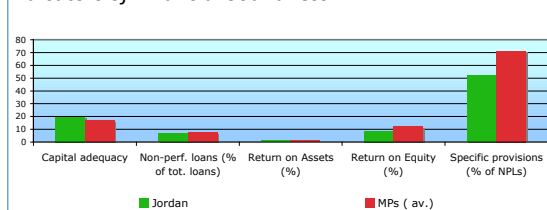
- ✓ The CLGDP increased from 69% in 1998, to 107% in 2007, a sign of growing linkages between domestic banks and non financial agents.

Aggregate net earnings of Jordanian banks fell by about 28% during the first nine months of 2009. Nonetheless, the banking sector in Jordan performed well overall despite the international crisis.

More specifically :

- ✓ Non-performing loans remain well below the Mediterranean average, while the capital adequacy ratio is above the Mediterranean average.
- ✓ Return on assets is at 1.1%, equal to the Mediterranean average, meanwhile, return on equity dropped from 11.5% to 8.8%, below the MP average.

Indicators of Financial Soundness



Source: IMF

According to Bank Audi, consolidated assets of domestic banks grew by 7.3% in 2009, due to the 12.1% increase of customer deposits. Deposits increased in 2009 by 18.9% while those denominated in foreign currencies recorded fell by 6.7%. As for credit facilities, they went up by 2.1% in 2009, in a context of global deleveraging.

To sum up, banks performed rather well and the banking system has been among the less affected among Mediterranean countries. Still, banks have been well equipped and could consider credit extensions which could also be beneficial for the economy in 2010.

III. Growth engines and Total Factor Productivity

III.1 Jordan's story : Moving towards productivity after a long period of capital accumulation

Approximately two decades ago Jordan initiated considerable structural adjustments and liberalization of its economy within its new economic strategy. Reforms were undertaken as part of an

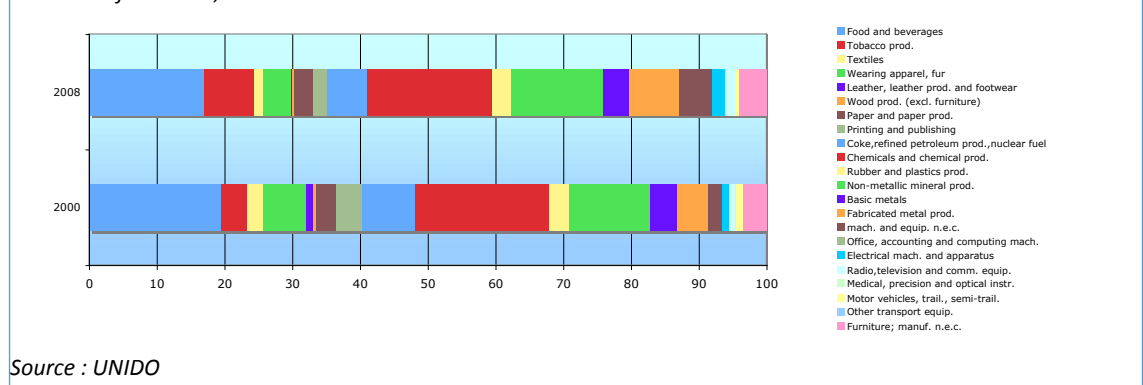
agreement with the IMF in order to turn the page on frail public finances and balance of payments as well as economic growth declining severely. Reduction of public debt and government deficit, more investment incentives, privatization and trade opening resulted into a 6.4% annual rate of growth in the 2000-2007 period, more than double than the 3.1% annual rate of the 1995-2000 era. Economic fundamentals benefited clearly from reforms, the private sector gained in importance and the composition of the Jordanian production structure clearly evolved.

But one would ask the following : would such improvement be sufficient to counteract the recent crisis fallout ? The growth slowdown in 2009 brought the domestic rate of growth slightly below the Medi-

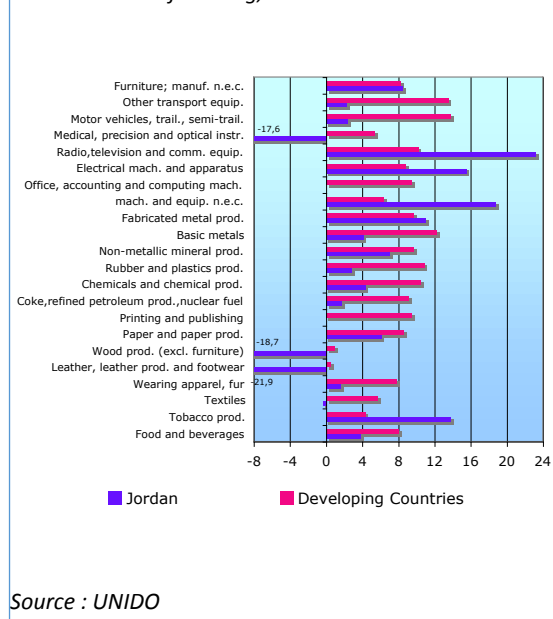
terranean average something that is also expected for 2010. But perspectives for 2011 are more than positive and growth is expected to be brought back on track. There are elements that point towards optimism for the country's capacity to cope with shocks and hints of an emerging growth regime that could foster more economic activity in the coming decade.

As in the case of a few developing economies, Jordan succeeded in diversifying its domestic economy all the while pursuing structural adjustments. Granted, certain sectors could benefit more from growth, and dependency on certain sectors could be further reduced, but on the whole Jordan has been oriented towards producing more higher-value added products. This performance is impressive especially consi-

Structure of the MVA, 2000 and 2008



Growth in Manufacturing, 2000-2008



dering that Jordan is a small economy with fairly limited natural resources.

The food and beverages sector saw its share in the manufacturing value-added (VAM) drop from 19.4% in 2000 to 16.9% in 2008, the chemical industries' share contracted from 19.9% in 2000 to 18.6% in 2008 while the wearing apparel sector also saw a diminishing share in the VAM. On the opposite side, non-metallic mineral products increased their share from 11.9% in 2000 to 13.6% in 2008, fabricated metal products went from 4.5% to 7.4% while the machinery sector went from 2.1% in 2000 to 4.8% in 2008.

In terms of sub-sector growth in the 2000-2008 period one should note the impressive evol-

ution of both the communication equipment sector and the machinery sector which respectively grew by 23.2% and 18.7% followed by the electrical machinery sector (15.5% growth). The over-reliance of Jordan on the food and chemicals industry (about 40% of the VAM in 2000) appears to have given place to a new strategy that focuses more on mechanical and equipment related industries as new growth-carriers, setting the necessary foundations for increased growth and productivity in the next decade.

As seen in the right-hand graph below, the main determinant of economic growth through the last 40 years in Jordan appears to have been the accumulation of physical capital (0.0128) when the relative share of physical capital to production is assumed to be equal to 0.74. In the alternative scenario, where the relative share of physical capital to production is assumed to be equal to 0.30, both physical capital and human capital appear to have been the driving engines of domestic growth. In both assumptions on the relative share of physical capital to production it appears evident that productivity has been on the negative side in the 1970-2008 period.

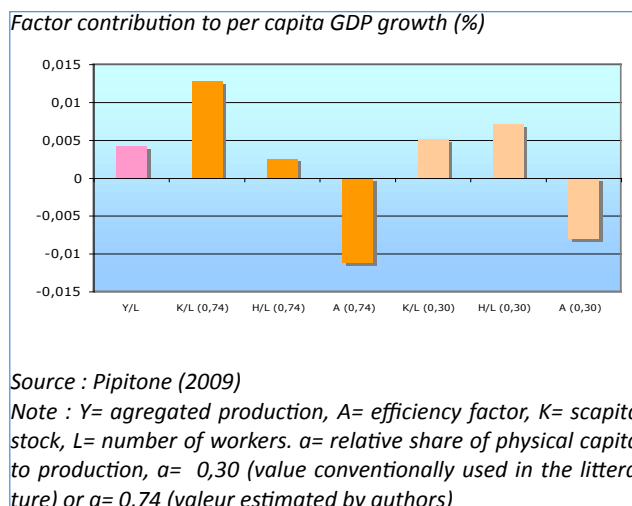
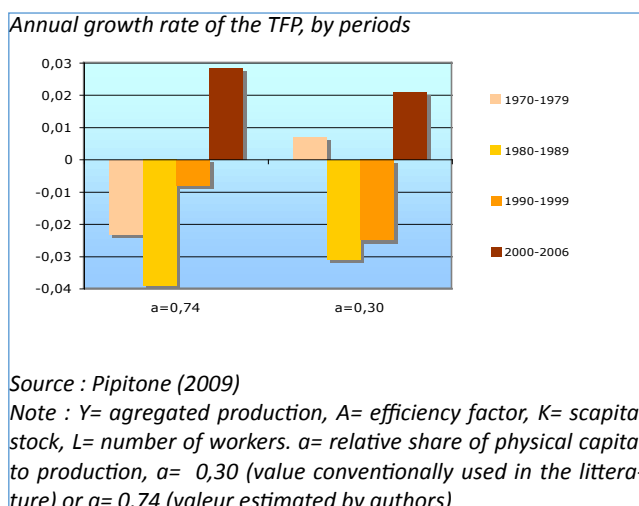
However, in the recent decade Jordan is far from being an unproductive country that resides on capital-accumulation. The domestic economy gained in efficiency throughout recent years achieving a positive annual productivity rate of growth throu-

gh the 2000-2006 period (valid for both assumptions on the relative share of physical capital to production) as seen in the left hand graph.

Thus, Jordan's economic performance has been impressive and its strategy has allowed for the internal economic system to move forward towards a path of productivity.

In manufacturing, the development in average productivity appears to have varied across sub-sectors (Sekkat, 2009). On the whole, the sectors of paper products, printing and publishing and iron and steel showcase the highest average productivity rates. Moreover, firms entry and exit appears to have played a defining role. New firms that have entered the market in sectors such as wood products (22.46), printing (21.07) and fabricated metal products (18.35) exhibit the highest rates of average productivity per employee. Firms that « survived » liberalization initiatives also bode well in sectors such as iron and steel (18.58), electrical machinery (16.83) and other chemical products (14.53). Finally, it appears that forced exit of least efficient firms (through liberalization), increases productivity since average productivity among exitors is lower than in the rest of the firms.

Agricultural productivity also seems to have increased (Galanopoulos et al., 2006), now above the MP average, after remaining at low levels in the end of the 1960s. Total factor productivity in agriculture marked a considerable leap forward in



<i>Table 1. Average Labour Productivity in Jordan 1999-2004, by sector (ISIC2-4d)</i>			
	<i>Entrants</i>	<i>Exiters</i>	<i>Survivors</i>
<i>Food manufacturing</i>	5,91	7,95	9,49
<i>Food manufacturing (other)</i>	2,57	n.a	11,54
<i>Beverage industries</i>	n.a	5,59	11,4
<i>Tobacco manufactures</i>	5,73	12,73	12,03
<i>Textiles</i>	4,61	9,38	9,62
<i>Wearing apparel, except footwear</i>	2,48	5,7	7,11
<i>Leather and products of leather etc</i>	n.a	16,38	8,96
<i>Footwear, except vulcanized or moulded rubber or plastic footwear</i>	2,07	8,95	5,06
<i>Wood and wood and cork products, except furniture</i>	22,46	11,31	9,46
<i>Furniture and fixtures, except primarily of metal</i>	9,66	4,58	7,15
<i>Paper and paper products</i>	8,5	21,48	11,64
<i>Printing, publishing and allied industries</i>	21,07	7,22	9,91
<i>Industrial chemicals</i>	12,48	9,61	12,01
<i>Other chemical products</i>	7,36	5,83	14,93
<i>Rubber products</i>	3,02	n.a	n.a
<i>Pottery, china and earthenware</i>	n.a	4,93	11,18
<i>Glass and glass products</i>	n.a	21,62	9,56
<i>Other non-metallic mineral products</i>	11,5	7,58	10,66
<i>Iron and steel basic industries</i>	n.a	27,58	18,58
<i>Non-ferrous metal basic industries</i>	n.a	9,56	10,79
<i>Fabricated metal products, except machinery and equipment</i>	18,35	7,32	11,58
<i>Machinery except electrical</i>	n.a	4,25	13,77
<i>Electrical machinery apparatus, appliances and supplies</i>	8,59	n.a	16,83
<i>Transport equipment</i>	8,63	n.a	8,93
<i>Professional and scientific, and measuring and controlling equipment nec, etc</i>	n.a	7,8	8,38
<i>Other Manufacturing Industries</i>	3,35	5,76	9,23
<i>Source : Sekkat (2009)</i>			

the 70s and has remained to those levels until the start of the 00s. A decomposition of TFP in technical change (TNCh) and technical efficiency change (TECh) shows that the latter has been responsible for the gains, thus, domestic know-how through learning by doing activities was of vital help.

Overall, Jordan appears to have set the foundations for the emergence of a productivity-led growth regime in the years to come. The international crisis appears to have occurred when Jordan had already started to move away from a capital-accumulation strategy towards productivity. To what extent the new strategy will succeed will depend on the capacity of selecting «

winners » sectors continuously and on the structural policy measures to be undertaken in the coming years.

III.2 Structural policies and further opening

Jordan appears to be moving towards a path of productivity, one that is compatible with international opening and that allows for new engines of growth to emerge. But perhaps most importantly, in the midst of the international crisis, Jordan has been pursuing structural adjustment measures that also allow for reduced public expenditure.

1) A series of structural measures that suggest more opening and consolidate integration

The government has proven its determination by undertaking an array of measures that should enhance domestic resilience to exogenous shocks all the while planting the seeds for the economy of the 2010s. Among the recent developments in Jordan's structural policy one should find :

✓ The new national tourism strategy of 2010-15. The latter plans on building tourism capacity, while the Ministry of Tourism launched a new hotel ratings system to ensure quality standards are met. The government is also targeting the development of high-yield niche tourism and health tourism.

✓ The restructuring of the Ministry of Transport as part of the 2009-2011 national strategy. Modernization of the domestic transport infrastructure is considered of strategic importance, meanwhile, the recently signed liberalization agreement of air transport with the EU should open-up the domestic market to competition and contribute to the development of the tourism sector.

✓ Similarly, the cement sector has been opened up to competition with the objective of increasing demand starting from 2011.

✓ A new renewable energy law since January 2010 which simplifies the establishment of

Table 2. Selected Infrastructure Projects to attract investment and modernize the industrial base

Sector	Project	Investment cost	Objective	Current Phase
Mining (uranium)	AREVA obtained exploitation rights for the next 25 years		Develop the domestic nuclear program.	Ongoing
Air transport	Construction of new terminal at Queen Alia International Airport in Amman	750 million US\$	Increase the airport's capacity from 3.2 to 9 million passengers by 2012. Become a major hub for the Mediterranean region	Expected completion in 2012.
Rail transport	light rail project between Amman and Zarqa	333 million US\$	Construction of 28 kilometers dual track railway that will run from Raghadan station in Amman to Zarqa. Expected to reduce highway traffic.	Project expected to be tendered in late 2010
Maritime transport & logistics	New port in Aqaba	700 million US\$	Transform Aqaba into a leading logistics gateway.	Expected completion in end 2012
Water	Construction of the « mer Rouge-mer Morte » canal	2 to 4 billion US\$	Provide 850 million m3 of drinking water annually	Evaluation phase, 10 years might be needed until completion
	Agreement with turkish firm Gama in 2009, to pump water in Disi	600 million US\$	Provide 170 million m3 of drinking water annually until 2010.	Project is being stalled due to funding issues.
Health	Health Systems Strengthening project	45million US\$ (first phase)	Improve quality of health care in all public institutions, improve public access to health information	First phase completed in mid 2010

renewable energy projects. Meanwhile, the domestic Water Strategy has been ongoing, targeting a reduction in water shortage by bringing the dependency ratio to underground water down from 32% to 17% in 2022. The 8.2 bn US\$ initiative also plans on increasing desalination dependency from 1% to 31%.

Finally, in early 2010 the Insurance Commission passed a new regulation on motor insurance, allowing insurance companies to raise premiums up to 25% in an effort to consolidate the market.

The most striking fact is that such measures are clearly oriented towards making Jordan more self-sustained, something the country has been evidently in need of for years. Liberalization initiatives along with domestic political stability should also entice more foreign investors and attract capital in promising projects. Let it be noted that Jordan was already the first country in the Arab world to fully liberalize the telecommunication market and modernize more than 70% of its ICT related laws. As

a result, the ICT industry is since 2002 one of the 3 highest recipients of FDI and both telecommunication and IT revenues have more than doubled in half a decade. Finally, as hinted previously, more opening appears to increase average productivity which means that domestic know-how and technical efficiency shall keep following an upward path.

2) Investment projects that favor export-competitiveness and build-upon competitive advantage

Investment projects undertaken by domestic authorities are also expected to act as a shield to the crisis outfall, while they could foster private-public partnerships and create more employment opportunities for the domestic labor-force. A series of investments in strategic sectors are shown in the table below.

Potential « winners » that Jordan could rely on are logistics, tourism and the health sector. Their potential for FDI inflows is considerable and they should allow for active public-private partnerships in the near future.

✓ According to the Jordan Investment Board, tourism shall remain the fastest growing sector globally for the next 20 years (10%-12% sustained annual growth). Various infrastructure projects shall provide positive externalities to the tourism economy while the national tourism strategy should keep strengthening tourism marketing, create job opportunities and offer a well-suited framework.

✓ Investment projects in logistics such as in Aqaba should allow for easier transport of merchandise and a greater variety of proposed services. Such projects are of vital necessity, keeping in mind that Jordan ranked only 81st among 155 countries in terms of logistics infrastructure according to a World Bank report, outperformed by MP economies such as Lebanon, Tunisia and Syria.

✓ Projects in the railway network and road transport also offer similar benefits by connecting Jordan to neighbouring markets, meanwhile, the recent creation of a «trade facilitation committee» should speed up trade and accompany the efforts done in the transport infrastructure. Increasing competition in trade-related services should also provide opportunities for growth sustainability.

✓ Developing sectors such as health shall allow for a new type of growth to emerge. The health systems strengthening project will not only serve domestic residents with improved quality services but shall also provide incentives for further development of the lucrative health tourism market, keeping in mind that about 220 000 tourists already came to Jordan for treatment in 2009. Renovation of the King Hussein Medical city is expected within the 2011-2018 timeframe, several hospitals for the military and the Ministry of Health and are expected to be renovated or constructed in 2010 and 2011 while a 200 million US\$ anti-cancer and biotechnologies center is expected in the south-west of Amman.

Overall, we shall stress that :

✓ Jordan is pursuing openness efforts which should allow for much needed private participation, private-public partnerships and attract more FDI,

✓ The country succeeded in diversifying its economy while pursuing structural adjustments

and it seems authorities are ready to pursue such approach for the coming decade. The difference is that Jordan has now entered a path of productivity led growth and can build upon its present knowledge capital.

Conclusions and Recommendations

The economy slowed down in 2009 at a rate of growth of 2.4%, below the average MP's growth rate. But future prospects allow for optimism:

✓ The government adopted countercyclical policies and has addressed the issue of fiscal consolidation.

✓ With a highly skilled and young population along with opening-up of its markets, Jordan should provide sufficient investment incentives that ensure future growth and tackle the unemployment issue in the near future.

✓ In order to reduce the current budget deficit, a new legislation is expected to promote further public-private partnerships providing even more incentives to attract foreign investors.

✓ Meanwhile, the Jordan Investment Board has targeted a number of sectors to lead the country into the new decade. The ambitious infrastructural projects underway (new airport, Aqaba project etc) should create significant investment opportunities.

We noted earlier that the crisis hit when Jordan was entering a turning point towards productivity-led growth. But growth in the short-run shall not attain pre-crisis levels, the country depending on recovery of major trading partners and the impact of new fiscal measures. Perhaps Jordan could do more thinking regarding the necessary policy reforms that ensure the recent surge in productivity is not ephemeral.

As noted by Syverson (2010), many productivity drivers can be influenced by government policies. However, a policy change, even one that appears right, may not necessarily be the optimal one for a given economy and reform alternatives reforms shall always be considered. Jordan can draw its

conclusions as to what type of reform measures are most effective for each of its markets.

Finally, the implementation of a process that allows detailed monitoring of SMEs performance could be promoted. This could take place with the support of international organizations and private partners that could provide both funds and the necessary expertise in areas such as SMEs financing, entrepreneurship and the business environment. This way there could be more certainty as to the sustainability of Jordanian growth in the decade to come.

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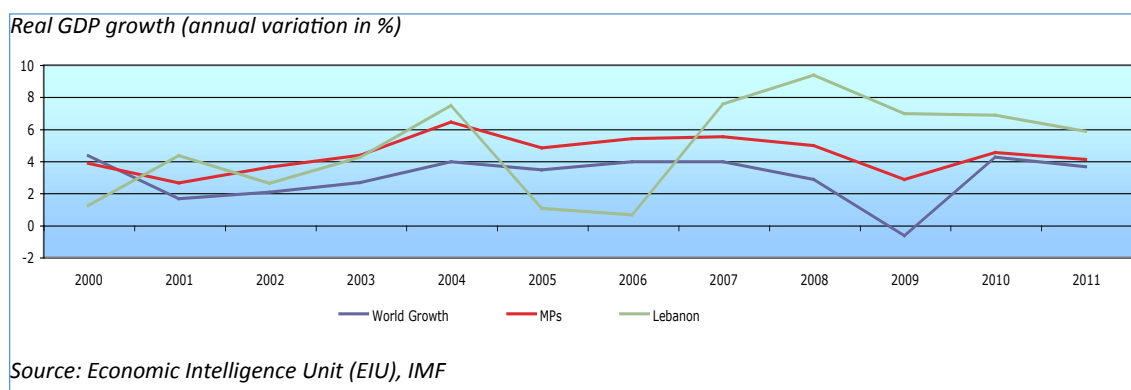
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Lebanon: Impressive resilience but a need to prepare the post-reconstruction growth regime

The Lebanese economy has been consistently maintaining a high rate of growth despite the crisis. In 2009, GDP grew by an impressive 6.9% while in 2010 it is expected to grow by a further 6.8%. Thus, the country appears to be entering a more sustainable path, annual growth has been above 6% since 2007 and revenue effects resulting from the international crisis have globally been small in size. Naturally, such performance cannot mask the fact that the Lebanese case is a special one, the country's economy is largely stimulated by recons-

in Lebanese growth throughout the last 40 years. Meanwhile, the replacement of destroyed capital stock contributed to stimulating economic growth after periods of tensions. But after long periods of capital dissaccumulation prospects look brighter and the country is at crossroads. While Lebanon is less productive than other MP's, the promotion of an industrial policy that allocates Lebanese resources in a more optimal way could allow for the domestic industry to progressively get away from stagnation.

As for financial liberalization, it has been at an intermediate level while the capital account has been



truction efforts that will have to give place at some point to a more comprehensive regime that will carry future growth.

The considerable Lebanese performance in the real sector can be attributed to a limited dependency on exports, one of the major crisis transmission channels of open-economies, as well as to the renewed trust shown by investors who kept FDI growing. Furthermore, the domestic service-based economy benefited from strong tourism activity which was unaffected by recent political tensions. The limited crisis outfall can be seen through the reduction in goods exports of approximately 10% and a slight estimated decrease in remittances by 2.5%.

Contrary to a number of Mediterranean economies, the contribution of human capital prevailed

highly open. The lack of financial speculation and bubbles has allowed for additional shielding to the crisis outfall. Meanwhile, the banking sector has shown relative resilience since it does not allow for toxic assets, liquidities are ample and interest rates are particularly attractive. Hence a banking crisis appears improbable, provided political stability is maintained and the sovereign risk remains stable.

Implementing a comprehensive growth policy that allows for continuous reduction of the Lebanese debt and unemployment should be one of the main challenges in the coming decade. The reconstruction cost is naturally immense and directly linked to ample government deficits. A budgetary reform would surely aggravate the social climate and be politically costful, but the lack of it could mean that Lebanon becomes increasingly dependent on foreign-aid and less on its own means.

Regarding Lebanon's macroeconomic position the following elements should be noted :

✓ Despite an openness rate above the MP average goods exports only marked a 10.2% decline in 2009 and did not materialize into a major source of exposure. Furthermore, the trend for 2010 shows considerable growth in exports, in the first half of 2010 they grew by 25.1% fueled by a 25.2% increase in industrial exports.

✓ Meanwhile, the service balance was in surplus at 7.8% of GDP in 2009 and could rise to 11.2% of GDP in 2010 due to strong performance of the tourism sector. The latter has been performing remarkably well in early 2010, in the first half of the year tourist inflows grew year-on-year by 27% while they had already increased by more than 60% in 2009.

✓ As a result the trade balance is still deficit but the latter decreased in terms of GDP to 33.9% in 2009. However, the rise of the import bill in 2010 shall bring the deficit above the 35% mark.

✓ Regarding remittances, they are estimated to have increased by 16.7% in 2009 allowing for the public debt burden to be partially offset within a period of crisis.

✓ Contrary to MP trends, FDI marked an impressive 11% increase, inflows reached 4.8 billion and equalled 14.3% of GDP in 2009, in great part due to a real-estate sector in full expansion.

✓ The exchange rate peg has maintained monetary stability and reduced inflation. Nevertheless, it might be a long-term burden for the economy. The issue is that if Lebanon were to adopt a lower interest rate (world rate) then capital flows could greatly fall due to capital mobility and debt repayment would be harder. But one could state that Lebanon should adopt both a growth strategy that uses investment in a productive way and a flexible system which provides more discipline and makes repayment of the sovereign debt easier.

✓ The financial profile of banks has improved in quality and showcases remarkable profitability. Nonetheless, the banking system must keep improving its indicators towards international standards.

✓ The lack of efficiency in past economic reforms and the unstable geopolitical climate did not allow for diversification in the country's engines of growth. Contrary to a number of Mediterranean countries, the accumulation process of physical capital does not seem to have been driving growth in Lebanon. Instead, the contribution of human capital has been prevailing. Also, while Lebanon is relatively less productive than other MP countries, it appears that smaller sized have productivity levels that are even above the MENA average. Hence, supplying to smaller companies the necessary incentives could allow the Lebanese industry to progressively get away from stagnation.

✓ Political stability could allow for the much needed reform in the energy sector, Since this is the first time since the Paris III initiative that a reform is officially implemented there are hopes as to authorities moving towards a modernized infrastructure in the coming decade.

I. Undergoing the crisis effects in a period of reconstruction

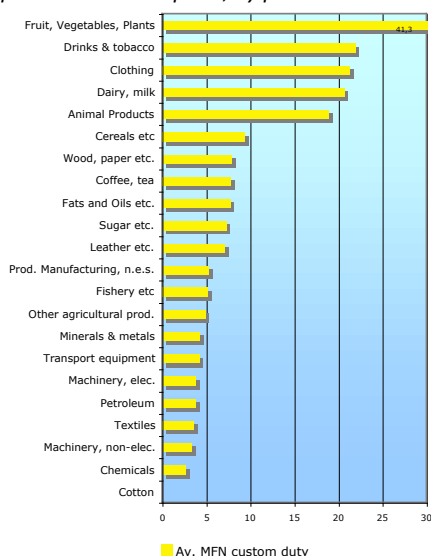
I.1. The context

1.1 Increased openness in trade and a highly open capital account

Despite its small size, the Lebanese economy is a very open one and has been considered one of the freest economies among MP countries. For years, Lebanon was a major trading hub in the Mediterranean region and restrictions on trade have reached considerably low levels ; the average MFN duty is below the 5% mark in a variety of sectors such as chemicals, non-electrical and electrical machinery, textiles and petroleum. Thus, custom duties constraining imports are globally low even if they remain traditionally high in the agricultural and food sectors.

When looking at the evolution of openness ratios in Lebanese trade one immediately sees how trade opening has been an element of the country's economic strategy.

Tariff protection and imports, by product



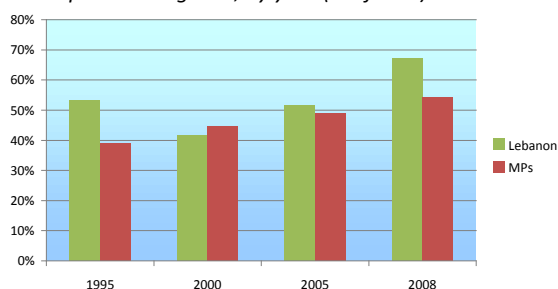
Source: WTO World Tariff Profiles 2008

The evolution of trade has been directly linked to external shocks, oil-price variations and the necessary adjustments resulting from reconstruction efforts. Since the period of the early 2000s goods trade has progressively increased and grown more rapidly than Lebanese GDP. As a result, the openness ratio of Lebanese goods trade even surpassed the MP average rate by the year 2008.

As for the service sector, a major engine of growth of the Lebanese economy, the openness ratio in 2008 was above the 100% mark, which is about five times the average MP rate.

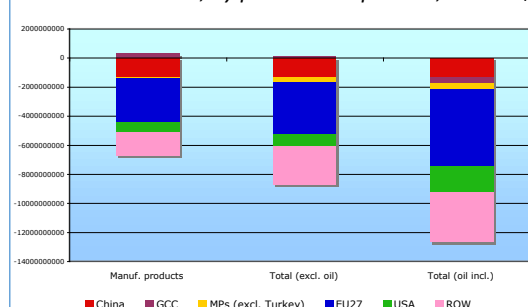
Over the years Lebanon has shown a marked increase on the import side, even if the share of imports has diminished in latter years, making it a

Trade openness in goods, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Trade balance 2008, by partner and product, mill. US\$



Source: COMTRADE

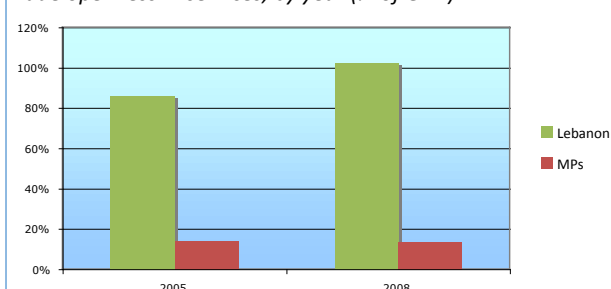
country with an import-driven regime. As a result, the Lebanese commercial balance faces a considerable deficit.

Decomposing trade by partner shows Lebanon is a net importer both with and without the inclusion of oil-trade. Furthermore, the country has a trade deficit with all major trading partners except Gulf countries in manufacturing where it records a slight surplus. In non-oil trade, the EU27 benefits from the largest surplus on Lebanon, representing about half of the Lebanese deficit, followed by China and the USA. Overall, the Lebanese strategy has helped its position internationally, contributed to higher growth but also brought more dependency to external price shocks.

1.2 A highly open capital account along with an exchange rate that remains pegged to the US dollar

The Lebanese exchange rate regime remains pegged to the US dollar since the mid 1990s. Meanwhile, the capital account is highly open, the country largely

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

relies on capital inflows to account for the current account deficits. Foreign direct investment, portfolio investments and bank borrowing practically face no impediments while financial liberalization in Lebanon is at a medium stage. Thus, finance is relatively market oriented even if the levels of depth are still below those of other developing countries due to the small size of the Lebanese market.

The Lebanese strategy, while not flawless, has helped the country in a number of ways. The pegged regime did maintain monetary stability to a relative extent, helped control for inflationary pressures in the 1990s and brought inflation below the 3% mark in the 2000-2007 period. With the crisis outbreak making its presence felt worldwide the capital account openness could have increased short-run repercussions on the Lebanese economy. But let it be noted that net external liabilities are low since Lebanese households and firms tend to trust their earnings to domestic-owned institutions. Nonetheless, efforts are still needed to improve prudential regulations and transparency in the financial sector for the latter to efficiently provide stimulus to the economy.

I.2. Crisis transmission channels

2.1 A Lebanese economy that was less affected by the real shock

The crisis impact on Lebanon in 2009 was less felt less than in neighbouring Mediterranean economies. We shall note:

- ✓ A reduction in goods exports by 10.2%,
- ✓ A 2.25% decrease in the value of goods imports,
- ✓ A trade deficit for 2009 that grew by 1.5% in real terms but decreased in terms of GDP to 33.9%,
- ✓ A service balance still in surplus at 7.8% of GDP in the year 2009,

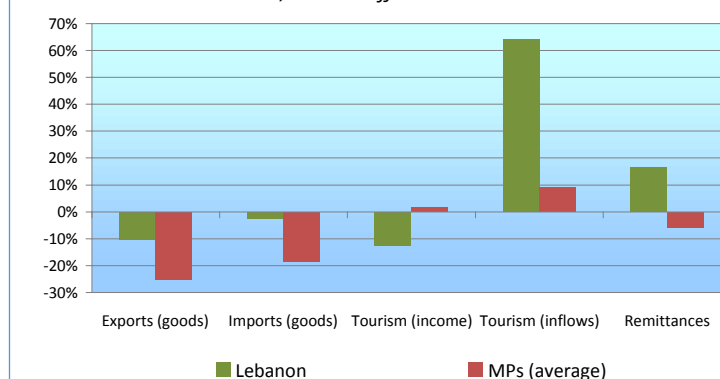
- ✓ An estimated increase in workers remittances of 16.7%,
- ✓ A deficitary current account at 7.6bn US \$ which grew by 84.1%,
- ✓ An increase in FDI by 11% in 2009.

Despite an openness rate above the MP average, Lebanese trade did not appear to be severely hit by the crisis. Goods exports marked a 10.2% decline in 2009 at 4.7 bn US\$. The largest share of exports comes from pearls and stones, a sector which greatly maintained domestic exports to its prior levels followed by machinery, foodstuffs and base metals.

Thus exports did not materialize into a major source of exposure. Furthermore, growth in exports in the first half of 2010 has been considerable at 25.1% fueled by a 25.2% increase in industrial exports. Exports of agricultural products also recorded double digit growth, hence, perspectives for exports appear promising with an estimated 9.8% increase in 2010 especially since regional prospects also look brighter.

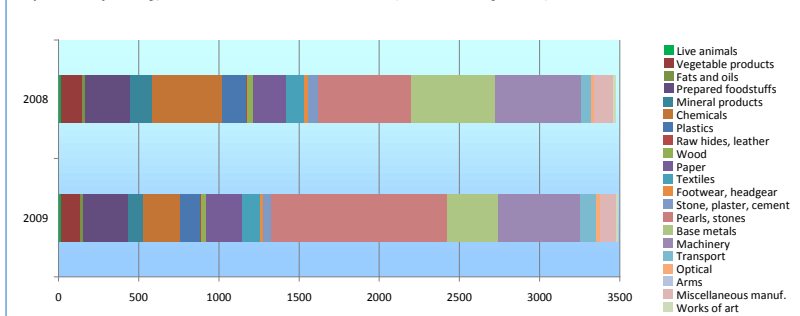
As for the side of imports, they decreased only by 2.25% in 2009, less affected by the fall in commodity prices, Lebanon overly relying on imported products. As for 2010, a rise is expected as early figures suggest. The country still imports a great share of agricultural products which increased by 12% in the first six months of 2010 compared to the same period of 2009. Industrial

Crisis transmission channels, income effect



Source: FEMISE calculations based on various sources

Exports by tariff sections, 2008 et 2009 (millions of US\$)



Source : Lebanese Customs

2010. During the first half of 2010 the number of tourists visiting Lebanon registered a year-on-year increase of 27% from the first half of 2009, noting that tourist inflows for the whole of 2009 had already increased by more than 60% compared to 2008.

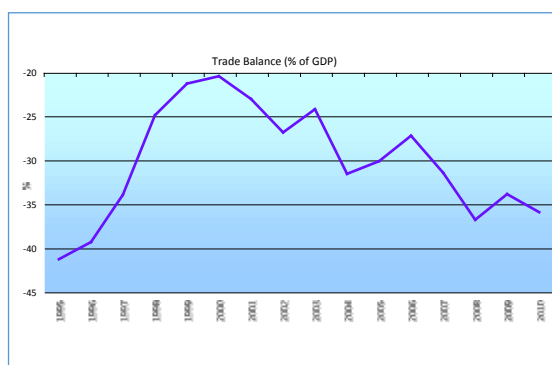
machinery imports also increased in the same period by approximately 8% to 113.2 million US\$ and total imports are expected to increase by 13.5% in 2010 (EIU).

The Lebanese trade balance is still in great deficit and the latter grew by 1.5% in real terms, partly due to the resilience in imports. However, the deficit decreased in terms of GDP to 33.9% in the year 2009. Despite a massive growth in exports in early 2010, the expected rise of the import bill shall bring the deficit above the 35% mark in 2010, the latter already registering a year-on-year increase of 5.3% in the first six months of 2010.

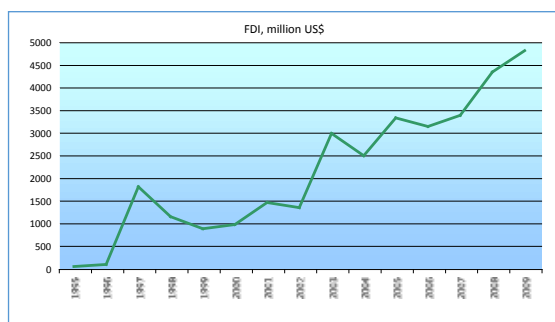
Meanwhile, the service balance remained in surplus at 7.8% of GDP in 2009 and is expected to rise to 11.2% of GDP in 2010. This fact is primarily due to a strong performance of the tourism sector which managed to attain surprisingly high levels of tourist inflows. The latter appeared to spend less during their stay which translated into a loss of tourism revenue in 2009 but the sector has been performing remarkably well in early

The main source of tourists traditionally originates from Arab countries and so was the case in the first half of 2010 where 40% of visitors came from the Arab world, especially from Jordan and Iran (respectively 14% and 12% of total tourists). Meanwhile European (24%) and Asian tourists (19%) also contributed to increasing the national tourist space. Thus, tourism revenue already rose by 36% in the first half of 2010 to 1.1 billion JDD and could further increase substantially by the end of the year. (Zawya) Hence, it can safely be said that tensions between Lebanon and Israel have not had the least negative impact on the tourism industry in Lebanon.

Regarding the remittances channel, Lebanon is one of the largest recipients among MP economies. Remittances as a share of GDP represent more than 20% and potential decrease due to an exogenous shock could have severe repercussions on the economy. Thankfully, remittances are estimated to have increased by 16.7% in 2009 since the Lebanese diaspora, about twice the size of the population of Lebanese residents, has been sending continuous support. Hence, Lebanon appears to also be unaffected by the remittances channel compared to the Mediterranean region on average. It allows for the immense public debt burden to be partially offset within a period of crisis and as noted by the IMF the inclusion of remittances in debt sustainability analysis could modify the amount of fiscal adjustment needed for debt to begin a sustainability path.



Finally, contrary to regional trends FDI marked an impressive 11% increase continuing the upward trend initiated in 2006. FDI inflows to Lebanon reached 4.8 billion and equalled 14.3% of GDP in 2009, the highest percentage among MP economies. If Lebanon fares so well this is in great part due to a



real-estate sector in full expansion, with a total of 2.1 bn US\$ worth of transactions in the first quarter of 2010 which represents a 41% annualized growth. The Lebanese authorities should build on such welcome evolution and promote new investment opportunities in infrastructure that could benefit construction, real estate activity and tourism.

According to ANIMA a series of foreign investment projects to Lebanon in 2009 took place in sectors such as tourism, distribution and business services. In the first sector one could note the project of the Four Seasons hotel group which shall open an 80 million euro hotel that would spawn 300 employment positions. In distribution, investors from the Gulf countries are opening shopping centers in Beirut, while in the engineering and business services sector

subsidiaries (American advertising agency Saatchi and Saatchi) and calling centers (Téléperformance and Aéroports de Paris) are being implemented.

Overall, the Lebanese economy appears to bode well with capital inflows allowing for a balance of payments surplus in the first semester of 2010 at 1,314 million US\$ though below the 2,101 million US\$ surplus in the first two quarters of 2009.

2.2 A limited financial shock

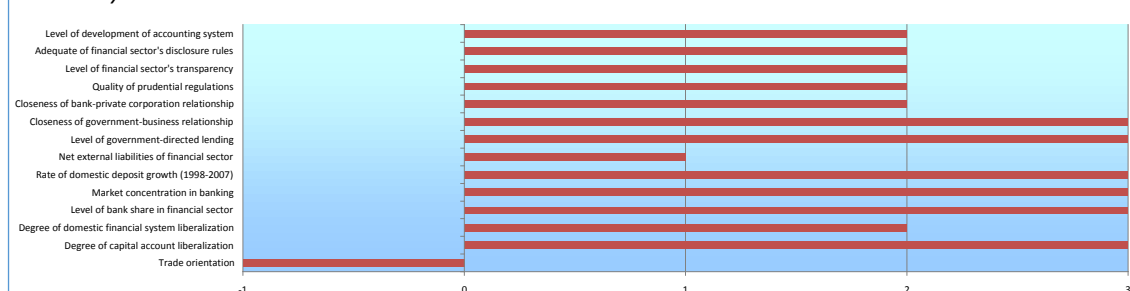
Financial openness is closely linked to the transmission of the crisis outfall in both the developed and developing world. Moreover, for countries with a relatively high budget deficit the financial repercussions can be harder to avoid.

In the case of Lebanon, financial liberalization has been at an intermediate level, the capital account has been highly open and net external liabilities of the financial sector are at a low level. One would expect for the size of the crisis outfall to be aggravated through the financial channel, though efficient use of ample foreign currency reserves could limit repercussions.

1) Consolidation of gains on the domestic stock-exchange and debt-swapping

The Lebanese stock-exchange market consolidated its gains over the first half of 2010. In 2009, market capitalization increased by 34% and the

Financial system indicators



Source: FEMISE, FEM33-20

Note: Indicators values explained 1=low, 2=medium, 3=high, * Trade Orientation -1= Import Oriented, +1= Export Oriented

liquidity ratio was of 8.1% down from 18.8% the prior year. The market is mainly concentrated on government debt and eurobonds with limited speculation due to limited liquidity and a small number of shares since most Lebanese firms are family owned that have limited trust for financial markets. The Beirut index dropped by 3.2% in the first half of 2010 and the average spread on Eurobonds contracted by 18 basis points.

As for Lebanon's public debt, it marked a further increase in 2009 reaching 51.1 bn US\$ versus 47 bn US\$ in 2008 and is expected to remain practically unchanged in 2010. Lebanon's debt-to-GDP ratio is below the 150% mark due to high economic growth figures but authorities still need to make sure that borrowing does not translate into an unmountable impact on public debt.

Lebanon, along with Israel, marks an exception among the Mediterranean countries since it is globally active in the debt-market in order to provide for its reconstruction. The country could swap a part of its debt maturing in 2010 and 2011 worth respectively 1.5 and 3.3 billion US\$, in order to benefit from interest rates being relatively low. The premium that will have to be paid if Lebanon proceeds to the rolling over of debt will be a decisive factor.

2) Foreign currency reserves at new heights

The inflow of foreign money increased foreign currency reserve levels to 39.2 billion US\$ in 2009 which is more than the equivalent of 10 months of imports. Foreign reserves were drawn from attractive interest rates on savings and deposits while the rest of the world feared the crisis repercussions. Interest rates on deposits in US dollars were over 3% versus practically 0% in the US, meanwhile, rates on accounts labeled in Lebanese pounds were close to 7% in 2009 attracting further non-residents to Lebanese banks.

The possibility for a lack of liquidities thus appears limited for Lebanon in the short-run. The

current level of reserves, along with the ample funding to be obtained by the Paris III aid initiative, could allow for more efforts in restructuring the Lebanese economy and promote activities in which Lebanon could base its post-conflict economic fabric. Such fact could happen provided naturally that the Lebanese economy starts to progressively lessen its current over-dependency to imports.

II. Developments on macroeconomic aggregates

1. GDP growth

The core of Lebanese growth usually relies on the service sector which represents about two thirds of the GDP. Figures for 2008 by the IMF show a 7.2 % growth in the service economy with trade, transport and communication, and financial services being the largest contributors.

Furthermore, the construction sector followed with a 1.9% rate of growth in 2008. Contrary to most MP economies, the construction sector in Lebanon has been continuously growing and it also did so in the first four months of 2010 by 56.5%.^[22] Thus, a construction boom could be in sight, the sector presently accounts for 13% of Lebanese GDP remaining untouched by the crisis outfall in terms of investment.

On the whole, the Lebanese industry marked an upsurge and the increasing industrial machinery imports could hint towards the premises of a strategy that focuses more on industrial activity. Meanwhile, the agricultural performance has been stable, production contributed by roughly 7% to total GDP

2. Employment

The unemployment phenomenon in Lebanon is a very serious one, the unemployment rate was unofficially estimated at 10% in 2009 and was expected to follow an upward trend close to 15% in 2010. The issue is aggravated for young segments of the population,

the largest share of the labor force, where unemployment is estimated being above the 20% mark. Non-official estimates suggest the Lebanese youth constitutes 71,3% of the unemployed, meanwhile, aid and employment assistance remains virtually inexistant and the national employment policy of the Ministry of Youth has yet to be finalized. Furthermore, the lack of an official employment survey is indicative of the governments stance.

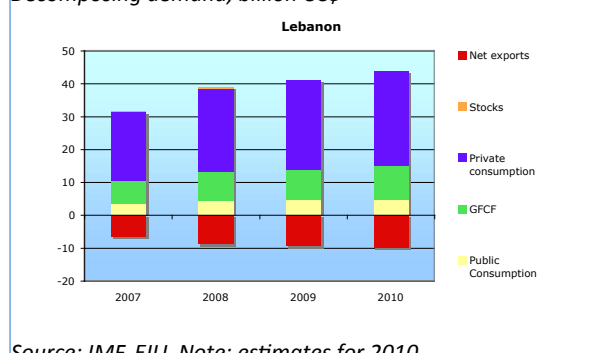
There are multiples problems to be delt with, most importantly the one of employment creation which is virtually inexistent due to political instability and the brain-drain phenomenon which is massive since the more qualified job seekers flee to international markets. Improved stability, a legislation that revitalizes employment in key sectors such as tourism and the segmentation of the job-market could be initial steps towards sustainable employment and a trend reverse for the brain-drain phenomenon.

II.1 Macro-economic evolutions

1) Economic activity carried by private consumption and the GFCF

Private consumption remained a pillar of Lebanese growth with its expenditure increasing by 7.1% of GDP in 2009. Meanwhile, gross fixed capital investment remained solid, with a 6% expenditure increase on GDP in 2009. Both aggregates are expected to sustain growth in 2010 as well, private consumption is expected to grow by 6.5% while investment is anticipated to grow by an impressive 9.3%.

Decomposing demand, billion US\$



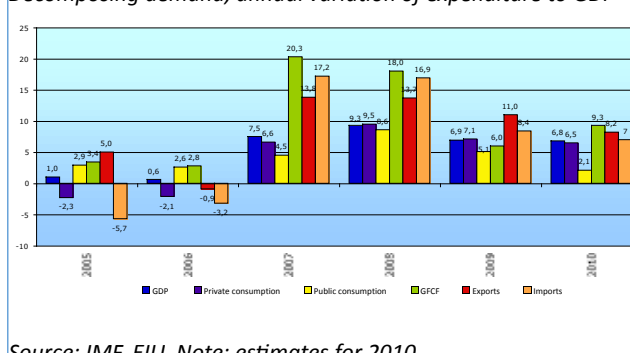
The growth momentum is thus guaranteed to stay, in the short-run at least. Investment opportunities are emerging and could contribute to strengthening the private sector and ameliorate existing infrastructures. For instance, the tourism sector should benefit from 3 billion US\$ worth of investment, with plans to expand ecotourism, health and business tourism.

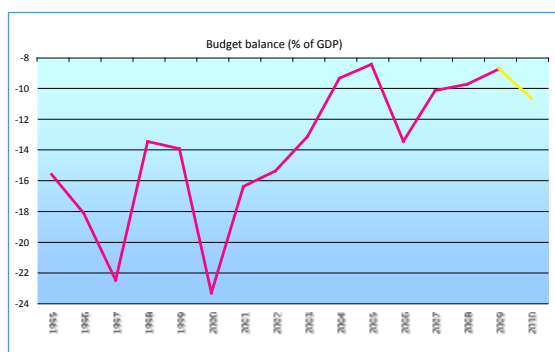
But one should note that public consumption remains low which partially impedes on the Lebanese growth potential. Overall, the aggregate's expenditure grew by 2.5% in 2009 and is expected to increase by 2.2% in 2010 with a contribution that remains marginal. Structural reforms that allow for public-investment to thrive without hampering the economy in the short-term should be taking into consideration. The electricity sector reform plan adopted in June 2010 appears to be a step in the right direction.

2) Increased pressures on the budget that falls short on the revenue side

In 2009, the budget deficit was brought to the 8.8% mark, among the lowest levels the country registered in the latest decade. However, authorities expect the deficit to deteriorate in 2010 to 10.7%. The budget deficit is expected to reach 6.515 billion LP including an increase of the tax on customer deposit's rates of interest, a plan to increase property registration for properties valued over 750 million LP and an initiative for Lebanese students which shall cease paying registration fees in public schools.

Decomposing demand, annual variation of expenditure to GDP





Overall, the draft budget plans on increasing public investment to ameliorate the Lebanese infrastructure but revenues appear to be lacking relative to the domestic ambitions. Public revenues increased by only 2% in the first half of 2010 due to a decrease of treasury revenues, meanwhile the 16.2% increase in tax revenues led to budget revenues increasing by 2.2% to 6,2 billion LP.

Thus, budgetary maneuvering for Lebanon appears limited, the anticipated budget deficit for 2010 is the highest among MP countries along with the one in Jordan, thus, an increase in the primary surplus could be of assistance in such delicate policy making.

3) Exchange-rate policy: relative stability but is it the best option for debt?

The Central Bank of Lebanon followed its strategy of an exchange rate peg which has proven to be efficient for the Lebanese economy, maintaining monetary stability and reducing inflation. Nevertheless, one could ask if such fixity in the regime does not represent a long-term burden for the Lebanese economy. Capital flows are ample but are dependent on the relative safety vis-à-vis the interest rate of Lebanese banks, a rate that is well above the world rate.

Currently, the central bank absorbs excess liquidity through issuing CD's at a high interest rate. In short, excess liquidity is bought from the commercial banks at high rates so that the

latter pay-off the high interest on deposits.

Authorities need to foster growth in order to borrow more to service sovereign debt. The issue for Lebanon is that if it were to adopt the world interest rate then capital flows could greatly fall since the country allows for capital mobility. But one could also state that Lebanon should service debt with its own resources. An adequate growth strategy, one that uses investment in a productive way would eventually bring the necessary revenue to service debt.

In the medium run, Lebanon should at least consider moving away from the fixed exchange system and move towards a flexible system which provides more discipline, making repayment of the current sovereign debt easier and rationalizing capital inflows.

II.2 A healthy banking system with ample liquidities

The banking system has evolved since the 1990s.

✓ Financial depth increased from 22% in 1990 to 139% in 2008 and the role of financial institutions in GDP growth has been growing.

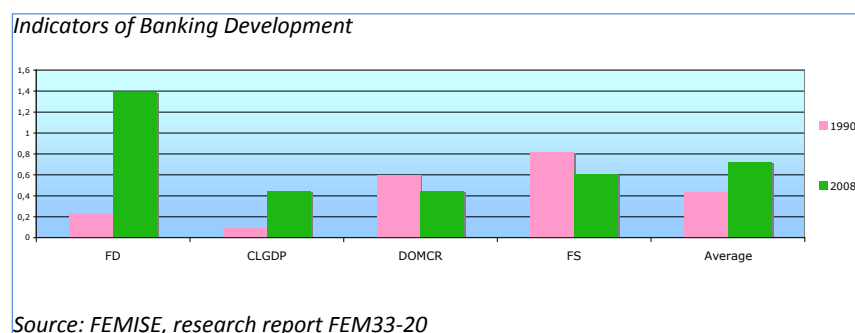
✓ The FS ratio decreased from 82% to 61%,

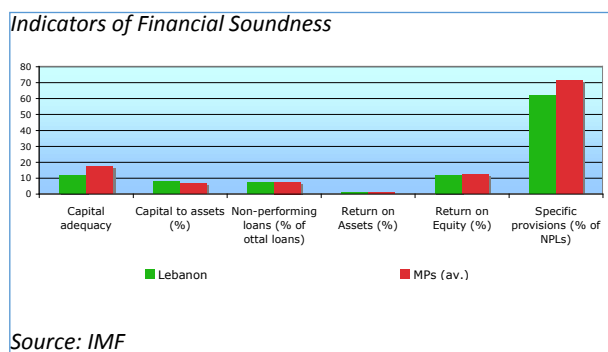
✓ The DOMCR ratio decreased from 60% in 1990 to 44% in 2008 suggesting increased accessibility of the non financial sector to banking.

✓ Finally, the CLGDP increased from 9% in 1990, to 44% in 2007.

However, banking and finance in Lebanon still need to be improved, more specifically :

✓ Non-performing loans remain below the Mediterranean average, at a 7.2% ratio.





- ✓ Specific provisions to NPLs are below the Mediterranean average at 61.8%.
- ✓ The capital adequacy ratio is at 11.8%, below the MP average and could be insufficient.
- ✓ Return on assets is at 0.9% and return on equity is at 11.9%, both close to MPs average.

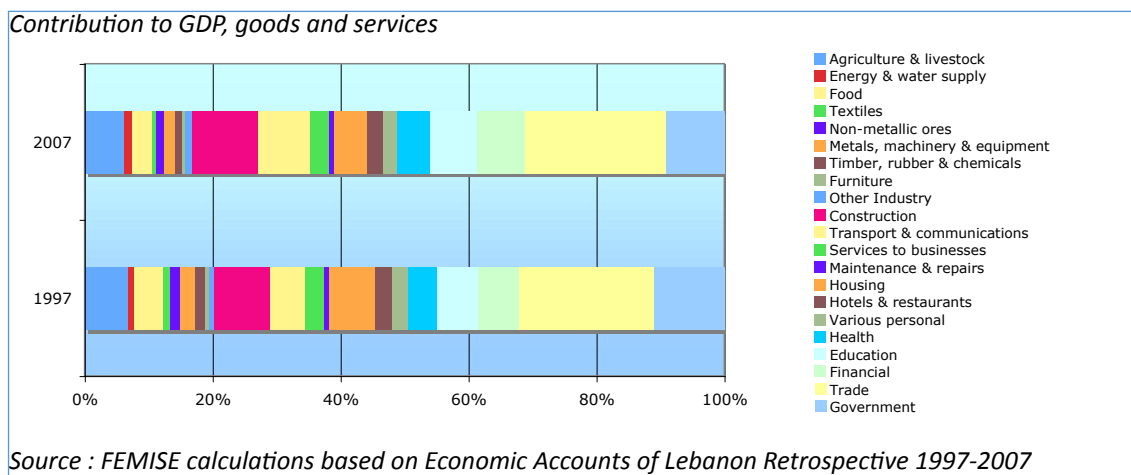
Overall, the domestic banking sector has shown healthy signs during the first half of 2010, assets rose by 5.6% annually (versus 9.9% in the first half of 2009) which means that banking activity growth was rela-

must keep improving its indicators towards international standards.

III. Growth engines and Total Factor Productivity (TFP)

III.1 Lebanon : Growth in a context of reconstruction

Studying patterns and composition of growth in Lebanon has to be done keeping in mind the delicate situation the country has been into throughout its recent history. Lebanon initiated a long-series of measures in the early 90s as part of its reconstruction program after long periods of war, tensions and the lack of institutions. During the 1995-2000 period the economy grew at an annual 2.3% pace facing considerable debt-issues. Entering the new millenium, with the help of the Paris II donors conference, Lebanon appeared to be willing to pursue reforms that would support fiscal adjustment and initiate various economic development projects. Nonethe-

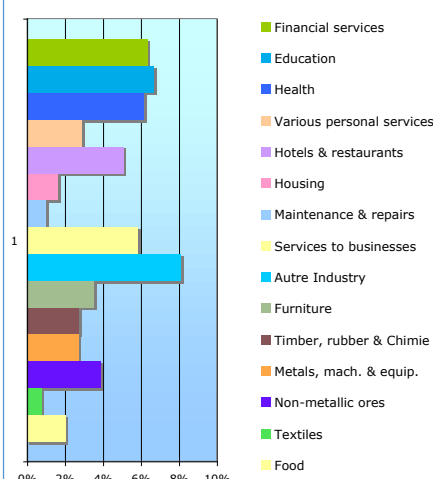


tively lower. According to Bank Audi domestic loans grew by 3.3 billion US\$ in the first half of 2010 which is as much as the growth in entire 2009. Resident deposits represented an astonishing 96.4% of total deposit growth, while the share of non-resident deposits had reached a record high of 28.2% of total deposits in the year 2009.

To sum up, the financial profile of banks has improved in quality and showcases remarkable profitability. Nonetheless, the banking system

less, reforms did not advance as planned, the economy was growing each year at an heterogeneous pace and the 2006 war made matters worse for the Lebanese economic development. The Paris III aid initiative agreed in 2007 will provide assistance to Lebanon provided that a five-year socio-economic reform program is applied. In that respect one should ask what type of growth regime would be more fitting for a country that faces both reconstruction and the outfall of the financial crisis.

Real growth, industries and tradable services, 97-07



Source: Economic Accounts of Lebanon Retrospective 1997-2007

Lebanon is a small economy that heavily relies on services. The latter sector has been one of the main contributors to domestic GDP which often came to the detriment of the manufacturing industry. The Lebanese tertiary sector represents about two-thirds of the economy while the domestic industry has contracted following the loss of a share of the qualified labourforce due to migration and the lack of incentives for Lebanese firms.

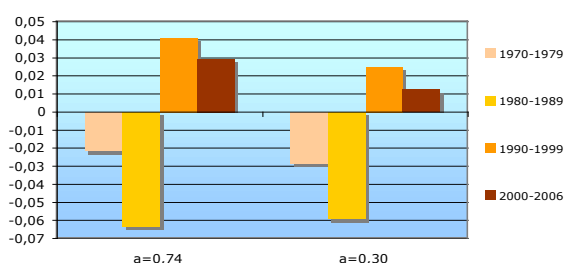
The lack of efficiency in past reforms and the unstable geopolitical climate did not allow for diversification in the country's engines of growth. However, within the service sector sources of value-added have varied. Transport and communications services increased their share from 5.4% of GDP in 1997 to 8.3% in 2007

, financial services went from 6.5% in 1997 to 7.6% in 2007 while health and education also marked a similar trend. Lebanon being a very open economy, trade still represented more than 20% of GDP in 2007 while the contribution of the agricultural sector has remained below potential at 6.2% of GDP in 2007.

In terms of sub-sector growth in the 1997-2007 period a number of observations are to be underscored. Lebanon registered a substantial growth in the other industry sub-sector (8% annually, by more than 100% in 10 years) even if its contribution to GDP was only equal to 1% of GDP in 2007. But other than that the rest of the industry grew at a much lower pace especially compared to the rates found in the service sector. Financial services, health and education services all grew by more than 6% annually while tourism and business services both grew at an annualized rate of 5.1% and 5.8% respectively.

Contrary to a number of countries in the Mediterranean region, the accumulation process of physical capital does not seem to have been driving growth in Lebanon. As seen in the right-hand graph above, the share of production attributable to physical capital per worker has been negative while productivity has also been on the same side. Meanwhile, the contribution of human capital has been prevailing whatever the assumption on the share of physical capital to production.

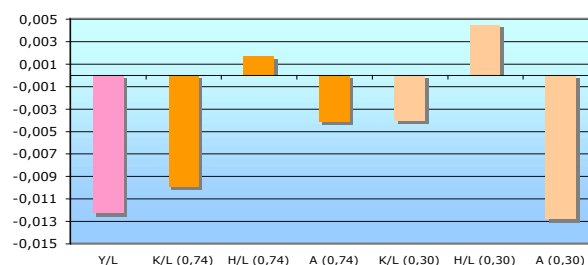
Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= agregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= agregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Table 1. Total Factor Productivity (TFP) and Capital Intensity, Median by Sector and comparison to the regional MENA value

Industries		TFP	TFP1	TFP2	TFP3	K/L	K/L1	K/L2	K/L3
Agro-industry	Lebanon (2006)	2,24	2,42	2,24	2,23	2,54	3,02	2,07	4,18
	MENA	3,09	2,81	3,06	3,08	10,58	4,68	12,09	10,38
Wood & furniture	Lebanon (2006)	2,26	3,19	2,06	1,79	2,99	3,18	2,49	3,25
	MENA	3,48	4,03	3,43	3,56	7,66	5,19	9,71	6,45
Clothing	Lebanon (2006)	2,29	3,1	2,29		1,05	0,74	1,82	
	MENA	3,97	3,91	3,9	4,17	1,54	2,75	1,42	1,56
Textiles	Lebanon (2006)	1,66	4,96	1,18		0,56	0,17	10,74	
	MENA	2,87	3,13	2,76	2,73	4,91	5,39	5,87	4,25

Source : FEMISE, research report FEM33-09.

Note : Firms are classified into 3 employment categories : those with less than 20 employees, those with 20 to 99 employee, those with more than 100 employees, respectively represented by numbers 1, 2, 3 associated to the observation variable.

A possible interpretation would be that the long periods of uncertainty and conflict brought to Lebanon a process of disaccumulation of physical capital. In periods of reconstruction economic growth was sustained without any additions to the capital stock and in direct relation with declining net investment. Simply put, the replacement of the capital stock that was destroyed contributed to stimulating economic growth which reached considerable heights at irregular intervals in the latter years.

In that respect consumption would be sustaining growth on the demand side, indeed, the latter cumulatively grew by 33.7% in the 1998-2008 period becoming the largest contributor to growth distancing investment (IMF).

An indication of the productive performance of Lebanon can be seen in the table above. The first thing to note is that Lebanon appears less productive than the MENA average in all sectors studied. Secondly, with the exception of the textile sector where the country appears to lack in productive efficiency, Lebanon appears equally productive in all sectors as suggested by the level of the PTF. Thirdly, the extremely low level of physical capital in most sectors corroborates to the occurrence of a capital disaccumulation process.

However, studying productivity patterns according to firm-size could help in promoting an industrial policy that allocates Lebanese resources in a more optimal way. For instance, while Lebanon is relatively less productive in the textiles sector, it appears that small-sized firms in the sector (with less than 20 employees) have productivity levels that are even above the MENA average. It appears small firms are more productive in Lebanon in the rest of the economy and contrary to regional trends where firms of 20 to 99 employees appear to be more productive. Hence, supplying to smaller companies the necessary tools to sustain or increase their return is something that should be considered. Credit to firms, adequate interest rate policy and an efficient structural policy are the necessary prerequisites that would allow the Lebanese industry to progressively get away from stagnation.

III.2 The energy sector: premises for a new structural reform strategy?

In the case of Lebanon the issues at stake are simple; the country is in drastic need of structural reforms to be able to carry growth in the coming decade in conjunction with healthier public finances. A series of measures allow for hope as to the authorities determination though it remains to be seen if reform procedures will take place at a reasonably rapid pace.

Lebanon finally approved a plan to reform the costly and inefficient domestic electricity sector focusing also on gas and renewable energy. The plan could mark a first step in the Lebanese structural policy and would cover the establishment of the necessary infrastructure for liquefied petroleum gas and the construction of a pipeline.

But one should note that reform plans in Lebanon have been greatly discussed since the early 90s with little real progress being made due to political reasons. Privatisation of telecommunications has been discussed for years and could bring an estimated 7 billion US\$ which would considerably reduce public debt.

Yet the recently acquired political stability could allow for the 5-year energy plan to thrive, and the private-public partnership could make the difference onto the distribution of electricity which has been a considerable source of concerns due to frequent power failures. Since this is the first time since the Paris III initiative that a reform is officially implemented there are hopes as to authorities moving towards a modernized infrastructure in the decade to come.

Overall, we shall stress that :

✓ Lebanon needs to pursue a coherent structural reform strategy based on private-public partnerships and privatization to render its economy more viable and its sectors less financially burdensome,

✓ The authorities ought to put more focus on sectors that can be future growth carriers and also ensure the qualified Lebanese find the employment opportunities they deserve. Meanwhile, if small firms are indeed more productive in Lebanon then more credit facilitation and other incentives could be considered within the strategy.

✓ Finally, let it be noted that the country achieved great rates of growth without substantial reforms until recently. The Lebanese potential is immense, provided stability prevails and the country's interests are put in front of any sectarian preferences.

III.3 Conclusions

The Lebanese economy appears to be entering a more sustainable growth path with an economy fueled by reconstruction efforts. The economy was well shielded and the crisis had little effect on macroeconomic aggregates.

But the country is in need of a new growth policy that allows for continuous reduction of the huge debt; within the Paris-III agenda authorities must pursue a wide array of reforms to restructure the domestic economy. More specifically potential reforms include reductions in red-tape and business barriers, streamlining of tax procedures, budget accountability, income tax legislation and privatisation efforts in key infrastructure sectors such as telecommunication, electricity and transport services.

Until now Lebanon only approved a plan to reform the electricity sector but this must be used as a stepping stone for further measures to ensure the economy remains viable.

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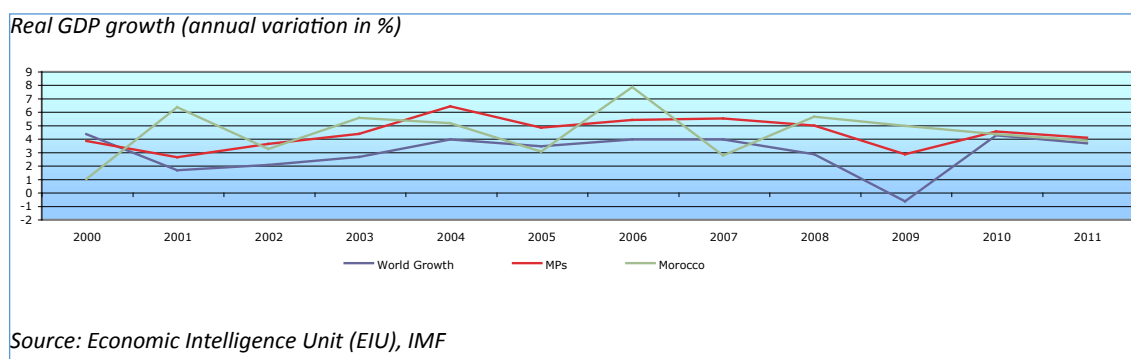
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Morocco : Resilience despite outfall on real sector

An example of growth sustainability in the year that went-by, Morocco was able to showcase a strong rate of real GDP growth at 4.9%, thus practically eliminating the repercussions of the international crisis on the domestic economy. The remarkable dynamism and most importantly the content of growth (domestic consumption, investment on infrastructure projects) explain why Morocco remains an economy with great potential that has also been efficient in developing its service industry, both in added-value and employment terms. The series of macroeco-

Overall, Morocco managed to enter a path of higher productivity and is marching towards an evolved growth model that relies greatly on the knowledge economy. The sustainability of economic growth has also brought an exemplary decline in unemployment while managing inflation has become considerably easier due to adequate monetary supervision measures put in place along the reform period.

Nevertheless, unemployment remains an issue since it is expected to rise in 2010 fueled primarily by a large proportion of the youth in search for work. Femise has already noted the necessity



conomic and infrastructure reforms appear to have contributed to the country's resilience ; the crisis failed to affect Morocco as much as in other economies, even if there were initial concerns as to the amplitude of the outfall on the domestic real sector.

Nonetheless, despite limited impact on growth, the Moroccan economy was affected through the traditionnal channels of crisis transmission, namely, exports, remittances and FDI which all declined compared to the prior year. This was expected since, while Morocco endorses a TFP regime of growth, the country is also dependent on evolutions in the economies of developed partners and on the strategies followed by foreign firms. On the other side, financial soundness and limited opening of the domestic capital account allowed for less exposure to the financial outfall.

of converging towards a more diversified content of growth for Morocco, one that englobes employment creation staretgies, business climate amelioration and further development of the current network of SMEs. One should note that, while Morocco succeeded in terms of total growth, the country's full-potential in diversifying production is yet to be reached. Also, a challenge in the short-run will be to sustain economic activity ito its current levels without over-relying on external developments.

In the aftermath of the crisis, Morocco's preoccu-pations should lean towards finding a way to rein-vigorate growth in the commercial balance, handle the structural deficit that has affected trade and remittances and also confort its foreign currency reserves position. As already showcased in the recent past, Morocco should be able to follow new vectors of growth that are compatible with

total factor productivity and sustainable development.

The following points merit to be mentioned :

√ The dependance to the situation of developed partners resulted in a 31.6% decline in goods exports for 2009 at 13.9 bn US\$. The largest share of exports comes from semi-products, the most important sector of Moroccan exports in volume for 2008, which recorded a 43.2% decrease in 2009. Meanwhile, imports decreased by 23.3% partly due to the fall in commodity prices which was a welcome evolution for the trade balance.

√ The service balance continued its downward trend in 2009, in part due to the decline in tourism revenue. Morocco was able to attract an increasing number of tourists (6.5% increase in volume) but the latter spent less during their stay.

√ Regarding the remittances channel, Moroccan migrants abroad sent less earnings throughout 2009 which translated into a remittances decline of 6.9% (6,26 bn US\$ in 2009 versus 6,73 bn in 2008). The fall in remittances, as in the case of tourism revenue, is linked to the EU recession and rising fears for unemployment in the foreign labour-force.

√ FDI marked a major 46% decline continuing the downward trend initiated in 2008. Authorities will need to make considerable efforts to render the Moroccan space more attractive to foreign capital if they wish for investment to bounce back in 2010.

√ Moroccan growth continues to rely greatly on sectors such as other services, agriculture & fishery and commerce. The country has made steps in modernizing its production structure and going towards a growth regime based on total factor productivity but more remains to be done.

√ Despite great efforts, the current employment promotion on the supply side might not be enough. The number of unemployed in

recent period has been increasingly comprised of people who have already been working before.

√ The main determinants of economic growth through the last 40 years in Morocco appear to have been productivity along with the accumulation of physical capital. Moreover, firm-size is related to varying productive efficiency across sub-sectors. For instance, in both the textile and plastic & non-metallurgical materials sectors the TFP is higher in firms with less than 20 employees. Meanwhile the domestic clothing sector has recorded a considerable productivity gain, especially in smaller firms that saw their TFP level rise. On the contrary, in the leather and chemicals sectors productivity of smaller firms has been declining. Therefore, favouring the development of firms of specific size in a given sector might offer better efficiency for Moroccan production.

√ Morocco is actively pursuing its industrial strategy allowing for considerable private-public partnerships, potential for FDI inflows and dynamic positioning of the Moroccan economy internationally. The new Emergence Plan (2009-2015) encapsulates the Moroccan will for further growth, sustainability and employment in the decade to come. The Plan should create new engines of growth, initiate jobs compatible with the international context and upgrade Moroccan firms, especially SME's.

√ The development of the « new economy » is also at the center of attention and authorities seem to have understood that technology is a pre-requisite to upgrading the infrastructure and go towards a new growth regime. Plans such as Digital Morocco 2013 would also allow for the Moroccan IT market to flourish and enjoy its « boom » in the coming years.

√ But, the country needs to foster trade with more partners to exploit a dormant commercial potential. If the economic downturn in Europe persists, Morocco should consider diversifying more its trading partner agreements to reduce its overdependence to the EU and avoid further negative impact on its trade.

I. A shock on the real economy handled well

I.1. The context

1.1 Increased openness in goods trade, relatively closed capital account

In the early 2000's, after a period of structural adjustments and reforms, Moroccan authorities were still recording a structural trade deficit and production was still exposed to potential exogenous shocks. Hence, additional efforts had to be implemented for the production structure to remain viable and for export-oriented firms to survive in a new environment that required openness.

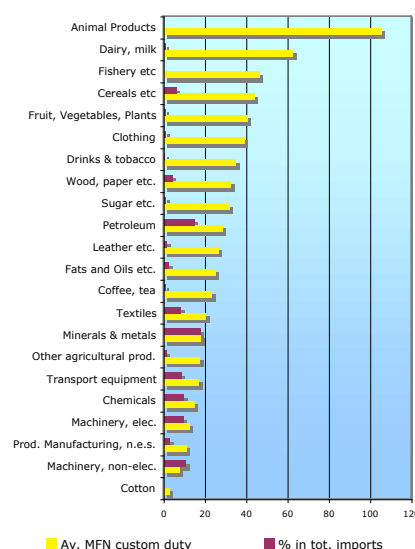
Hence, one would ask if Morocco was successful in the recent decade, especially the later half, in going towards a more open regime.

While agricultural and food related sectors are undeniably bound by high custom duties (especially in the case of animal products and dairy products), tariff barriers appear to be lower than in neighbouring MPs for a great number of sectors. In manufactured goods the average custom duty is relatively low at 10.9% while in non-electrical machinery it falls at 7.5% which is lower than countries such as Tunisia.

Overall, a closer look of Moroccan trade hints at the following : after a stale performance in the mid 2000s the country showed great opening in the later half of the decade.

The openness rate of Morocco in goods trade is now above the MP average, a considerable im-

Tariff protection and imports, by product

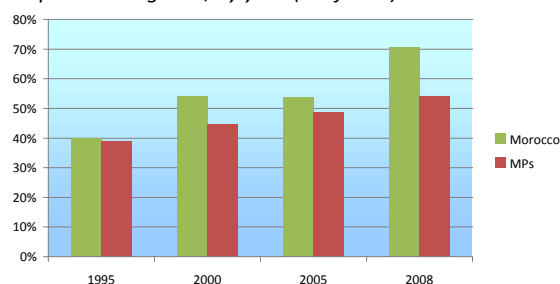


Source: WTO World Tariff Profiles 2008

provement over its feeble performance in 2005. Meanwhile, openness in services has been evolving and is above the MP average. Thus, the process of economic reforms has had an impact on Moroccan services trade even if it remains less important in magnitude than the one in manufactured and other goods.

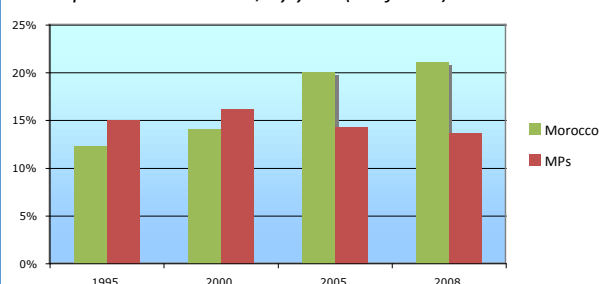
One should also note that while barriers to services trade have been partially dismantled, and are less present than in other Mediterranean economies in sectors such as telecommunications, they remain overly present in segments of the Moroccan economy. For instance, in the banking and insurance sectors the domestic trade restrictiveness index (TRI) is well above the level found in neighbouring MPs. Similarly, maritime transport appears more constrained than in countries such as Egypt and

Trade openness in goods, by year (% of GDP)

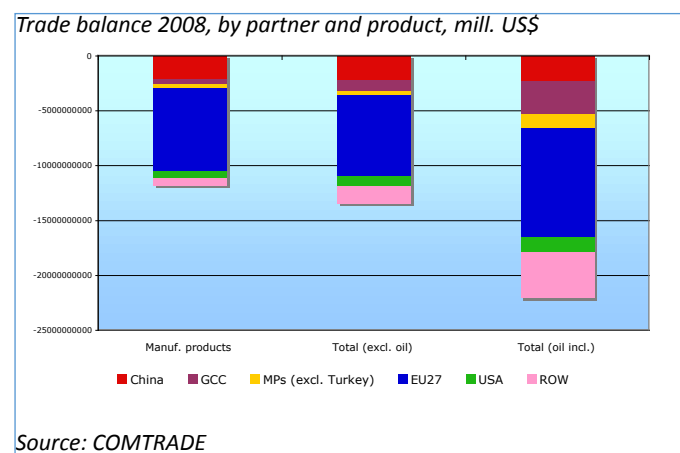
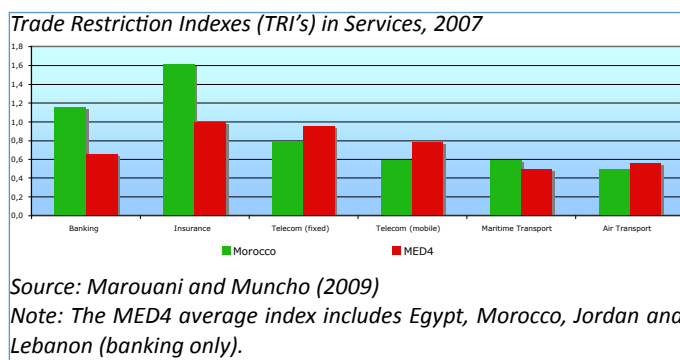


Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF



Jordan. Hence, the service economy has not yet reached its full openness potential.

Last but not least, a decomposition of trade patterns shows that Morocco is above all a net importer, with almost two-thirds of the trade deficit attributed to the EU27. While the presence of Gulf countries and China is also felt, the EU shows an unparalleled trade surplus with Morocco and benefits the most from the increased openness domestic strategy. This also means that Morocco would be dependent on exogenous shocks affecting European economies.

1.2 A capital account at a low openness stage along with a managed float exchange rate

The liberalization of the Moroccan capital account is still low. That is not to say that efforts for further opening have not been made but significant restrictions persist on both current account convertibility and capital movements. Meanwhile, the country follows a managed float exchange rate regime which was put in place along with the domestic openness strategy which by definition required more mone-

tary flexibility. On the whole, opting for more flexibility appears to have been the right move to solidify investment and create growth, the modification in the exchange rate regime brought less volatility than was the case prior to reforms.

Financial liberalization did bring some exposure to foreign markets but the sector is still a rather regulated one, though with healthy supervision standards, and is far from the depths of financial systems of other developing economies. However, in times of crisis this stance has shielded the economy from unwanted repercussions. This is valid for the capital account as well which allowed limiting the transmission effects, at least partially, and protect growth.

Overall, as in other MP capital markets, some positive signs in terms of growth and transparency are shown thus bringing more investment from abroad. Granted, much can be done to reach a full-liberalization potential but the cautious step-by-step approach that domestic authorities applied was finally more adapted to their needs than one would initially think.

1.3 Poverty reduction, but the rural-poor remain

Did increased openness bring poverty alleviation through increased growth ? During the 1990s the poverty headcount ratio increased massively in Morocco, contrary to the trend of the MENA region where poverty appeared to be lessened compared to the prior decade. The poverty ratio in Morocco in the latter half of the 90s was at 6.25% of the population while it was at 4.1% in the MENA region. As already noted by FEMISE domestic social policies did not yield distributional shifts in favor of the poor ; the poorest decile only recorded an annual growth rate of less than 2% while per capita GDP growth was more than double at that time. Nonetheless, a shift appears to

Table 1. Poverty ratio (Headcount Ratio) per capita at 1.25\$ per day PPP, % of the population					
	1985	1985-90	1990-95	1995-00	2000-05
Morocco	8,42%	2,45%	6,76%	6,25%	2,50%
MENA	6,10%	4,31%	4,07%	4,10%	3,60%
Source : FEMISE (2009), FEM33-02					

have occurred in the first half of the 2000s where the poverty rate fell to 2.5%, this time below the average MENA rate of 3.6%. One could argue that this measure of poverty is insufficient and underestimates the total number of poor, nonetheless, progress appears to have occurred.

However, the crisis could have an impact on social conditions. The Human Development Index places Morocco 130th (0.654 value) worldwide a rank that could further deteriorate in case people at the brink of poverty are pushed towards worsening situations. The most vulnerable would be smallholders, unemployed young, women and rural populations while fishing communities are among the poorest. In 2008, the number of poor in rural areas rose to 3.7 million that is more than 25% of the rural population. The latter often do not have land-ownership which renders their situation extremely difficult since they are unable to obtain credit to boost their productive activity and revenues. Thus, such facts should not be neglected and authorities ought to keep dealing with potential social repercussions in light of the recent crisis.

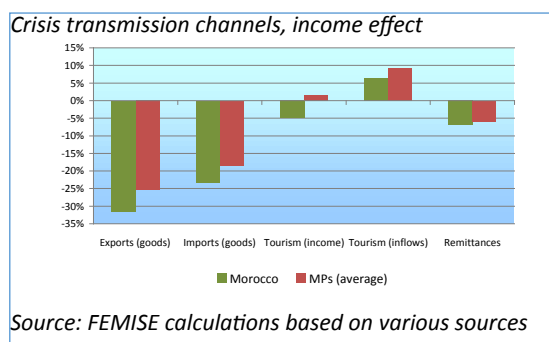
1.2. Crisis transmission channels

Due to limited opening of the capital account the crisis transmission came mostly from the real-sector.

2.1 A shock originating from a fall in exports, FDI and remittances

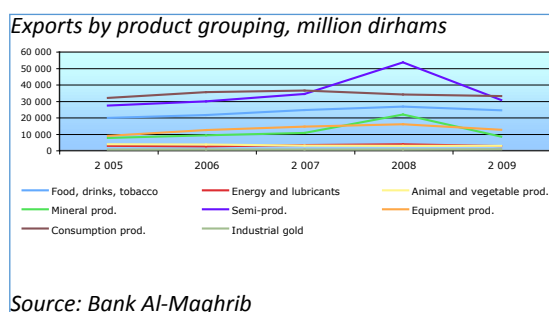
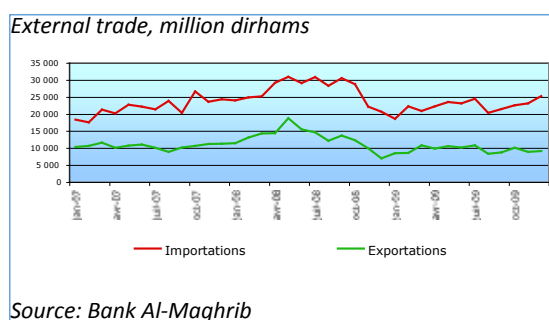
The crisis impact was felt through:

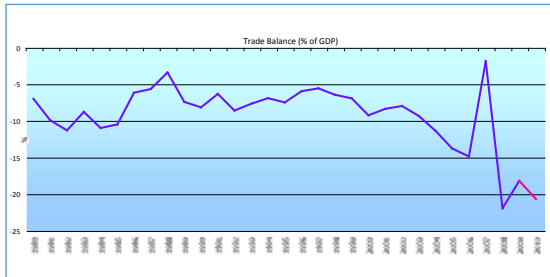
- ✓ A reduction in goods exports by 31.6%,
- ✓ A 23.3% decrease in the value of goods imports,
- ✓ A trade balance in deficit for 2009, though diminishing at 18.2% of GDP,
- ✓ A resilient service balance at 6.2%,
- ✓ A decrease in workers remittances by 6.9%.
- ✓ A deficitary current account at 5.4% of GDP (4,96 bn).
- ✓ A large decrease in FDI by 46% in 2009.



The openness rate of Morocco in goods trade being above the MP average, it comes as no surprise seeing that Moroccan trade was particularly affected by the crisis. The dependence to developed partners demand such as the EU resulted in a 31.6% decline in goods exports for 2009 at 13.9 bn US\$. The largest share of exports comes from semi-products, the most important sector of Moroccan exports in volume for 2008, which recorded a 43.2% decrease in 2009. As for mineral products they recorded a 62.6% fall in 2009 primarily due to the massive contraction of phosphates exports (by 70.8%).

Whether Morocco manages to fall-back to pre-crisis levels of trade remains to be seen. For the time being it is hardly doubtful the country achieves the export-peak of mid-2008, currently exports have stabilized slightly below their levels of 2007 and the export per-





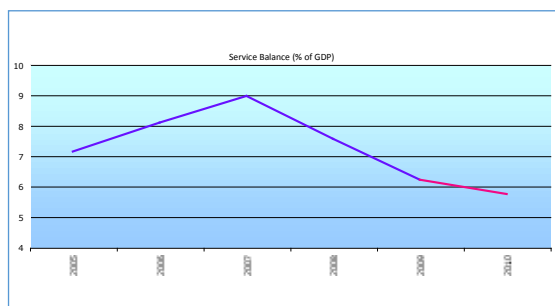
formance in the latter half of 2009 was slightly below total exports in the first half.

As for imports, they decreased by 23.3% partly due to the fall in commodity prices which was a welcome evolution. However, figures for the later half of 2009 show a trend reversal which increases the possibility for an increase in the import burden in 2010.

The trade balance was, as expected, in deficit for 2009 at -18.2% of GDP. However, the fall in imports brought a deficit reduction in absolute terms, the latter fell to 16,6 billion US\$ in 2009 from 19.4 billion in 2008 (Morocco's imports being more than twice the size of exports). However, if Morocco does not manage to efficiently boost its exports, the expected rise in the import bill shall bring the trade deficit above the 20% mark in 2010.

The service balance continued its downward trend in 2009, in part due to the decline in tourism revenue. Granted, Morocco was able to attract an increasing number of tourists (6.5% increase in volume) but the latter spent less during their stay.

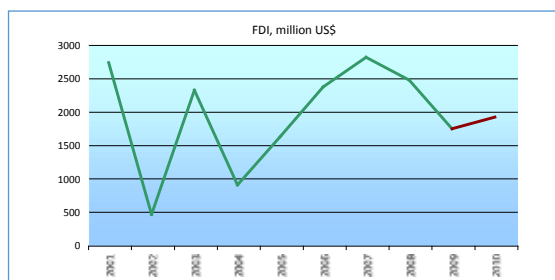
The main source of tourists is traditionally Europe, and 2009 marked no difference, arrivals from France were first with 3.1 million tourists (4% increase), followed by Spain with 1.8 million tourists (increase of 10%), Belgium with 469.000 tourists



(12% increase) and the Netherlands with 443.000 tourists (increase of 12%). Tourism receipts declined nonetheless which can be easily explained by the fact that overnight stays decreased by 1% in 2009 resulting from the fall posted in Marrakech (-1%), Agadir (-4%) and Casablanca (-1%). (Source : map.ma) Moreover, Moroccan expatriates, responsible for a greater share of total visitors in 2009, traditionally spend less than foreign tourists (EIU). Since the number of higher-spending tourists from the UK and Scandinavia has fallen the overall fall in receipts now appears less enigmatic. The sector accounted for 9% of GDP employing about 420 000 people and with an investment total of 10,8 billion dirhams. (Source : menafn)

Prospects for the coming years could be positive, new resorts will be launched while cheaper flights and a wider array of Moroccan destinations becomes possible. Diversification of the tourism economy appears to be among the plans of domestic authorities bringing Morocco on the path of sustainable tourism and a quality-based approach that differentiates the country from its neighbours. Hence, revenue per tourist could soon mark an increase though it remains to be seen if they materialize in 2010 or 2011.

Regarding the remittances channel, Morocco is among the largest recipients in the Mediterranean region behind Lebanon and Jordan. Remittances as a share of GDP represented approximately 8% in 2008 and a decline would have tangible effects on the economy. Also, remittances are an important contribution to public financing for several projects while at the same time they are a welcome addition to per capita income and poverty alleviation aid especially in rural areas. Moroccan migrants abroad sent less earnings throughout 2009 which translated into a remittances decline of 6.9% (6,26 bn US\$ in 2009 versus 6,73 bn in 2008). The fall in remittances, as in the case of tourism revenue, is directly linked to the EU recession as well as to rising fears for unemployment in the foreign labour-force.

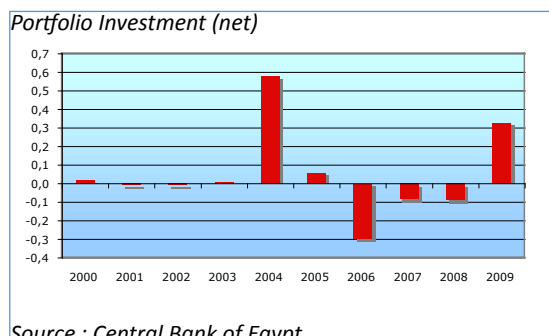


Finally, FDI marked a major 46% decline continuing the downward trend initiated in 2008. Authorities will need to make considerable efforts to render the Moroccan space more attractive to foreign capital if they wish for investment to bounce back in 2010. Sectors of Moroccan comparative advantage (ex. textiles), potential new-growth carriers (ex. ICT related sectors) and the tourism sector could provide for opportunities and also ensure the Moroccan labour-force is better shielded.

We shall note that since both remittances and FDI did not perform well neither, the balance of invisibles has lost a great share of its capacity of equilibrating the deficitary trade balance and authorities should thus be pre-occupied as to finding ways of rapidly reducing the 5.4% current account deficit.

2.2 A limited exposure on the stock exchange, a slight decrease in reserves

Morocco has a financial system that is still in early to middle stages of liberalization while its capital account is not completely open yet. Hence, the degree of exposure to the crisis would logically be lessened



Source : Central Bank of Egypt

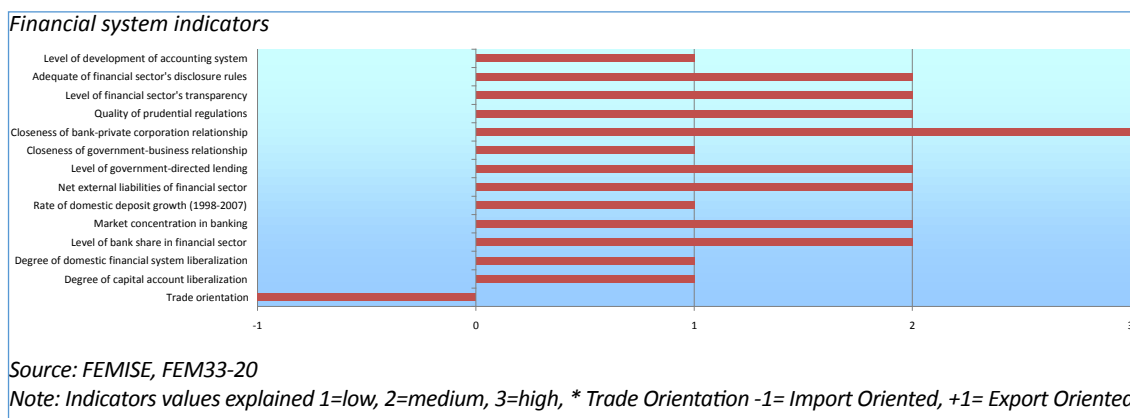
due to limited financial integration within developed markets. However, the country is partly dependent on the US and EU banking sectors while it borrows on international markets. Morocco did avert a financial crisis in part due to its cautious approach of financial liberalization.

1) Outfall on portfolio investment

Though limited, portfolio investment in Morocco attained a five year peak which is remarkable in times of crisis. This could be perceived as a very positive sign as to the healthiness of the domestic market. Liberalization of the capital account is still at an early stage which also explains why portfolio investment remains at rather low levels. Overall, the fact that financial development has advanced at a slow pace but with reforms adapted to the country's needs has brought much needed stability.

2) Outfall on the Stock-exchange

The Moroccan CSE stock-market is a relatively dynamic one. Since 1993, reforms were put in place



Source: FEMISE, FEM33-20

Note: Indicators values explained 1=low, 2=medium, 3=high, * Trade Orientation -1= Import Oriented, +1= Export Oriented

to modernize it and the number of listed companies went to 77 in 2008. Market capitalization increased from 0.62 Billion US\$ in 1989 to 65.85 billion in 2008, meanwhile, the real estate stock market index increased considerably in recent years over the last couple of years representing 16% of total capitalization in 2007. The turnover ratio decreased by more than 20% since 1989 to 16.55% in 2008 which signifies the limited presence of a secondary market.

Following the crisis the Moroccan stock-exchange was hit and the stock-index was particularly affected. As in other MP economies this was a short-term hit and the market quickly started to recover. For a brief period in 2009 the domestic stock exchange even surpassed the Egyptian market to become the second largest stock-exchange in all Africa. Nonetheless, performance in the latter half of 2009 suggests that Morocco might need more time to attain its pre-crisis levels and more specifically its peak during the March-May 2008 period.

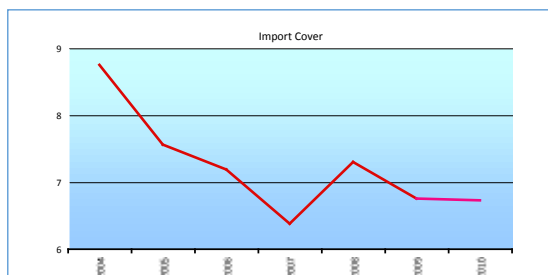
On the whole, prospects are globally positive and the stock-market is expected to grow. There are plans to double the size of the market by adding 75 new companies by 2015 establishing Morocco as a financial destination of choice in the continent. The new strategy seeks to increase the investor base to 500 000 investors by 2015 versus 120 000 currently all the while setting up a modern derivatives market for trading which could potentially be operational in late 2011.

3) Outfall on foreign reserves

Within a crisis context, foreign currency reserves were affected and fell below the mark of seven months of imports, though still above 2007 levels. The decrease in exports was not of particular help in maintaining reserves since remittances and tourism were incapable of doing it as well. Thankfully, the considerable reduction in imports did partly alleviate pressure on reserves and allowed for the

import cover ratio to remain two times above the IMF-recommended benchmark.

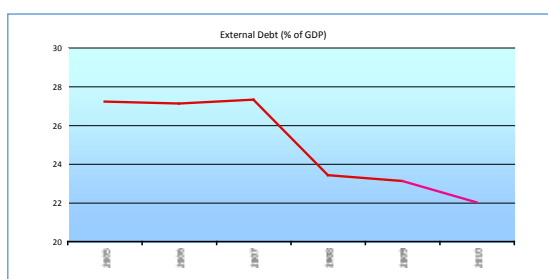
In 2010, imports are expected to rise which means that compensation will have to be provided in an



alternative way. Tourism could take-off and provide enough currency inflows but Morocco will be highly dependent on exports recovery provided that the EU market behaves accordingly. For the moment, estimations point towards exports bouncing back, though timidly, by 4.5% in 2010 (EIU). The risk of a lack of liquidities is thus eliminated in the short-run at least.

4) Outfall on external public debt

Finally, regarding government debt, Morocco managed to slightly reduce it in GDP terms, from 23.4% in 2008 to 23.1% in 2009. The debt service ratio also fell from 10.1% in 2008 to 8.6% in 2009. Careful management should allow bringing government debt to 22% of GDP in 2010 while the debt-service ratio could decline even further to 7.9%. Overall, the level of debt is among the lowest among MP countries and has been continuously decreasing, thus, there are reasons to believe Morocco has low chances for emitting debt obligations throughout 2010.



II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

Morocco's economy has been in a path of sustainable growth and the crisis has not changed that, in the short run at least. The economy has never contracted and economic growth has been strong throughout the entire decade. Contrary to international trends, Morocco achieved a 4.9% rate of growth which is more than surprising in such a context.

Moroccan growth continued to rely greatly on sectors such as other services, agriculture & fishery and commerce. Surprisingly, only two sub-sectors of activity marked a year-on-year decline in the last quarter of 2009 (transformation industry and postal & telecommunication services) and even those fell marginally (by 1.6% and 1.8% respectively). As we will discuss later on the country has made steps in modernizing its production structure and going towards a growth regime based on total factor productivity. However, diversifying its engines of growth and becoming less dependent on a given number of sectors is still an issue but the country seems to have plans for a new type of growth for the new decade.

Domestic growth still relies in part on agriculture which is itself dependable on unreliable meteorological conditions. Moroccan agriculture often follows an erratic behavior since it is affected from

year to year by considerable rainfalls that reduce harvest potential.

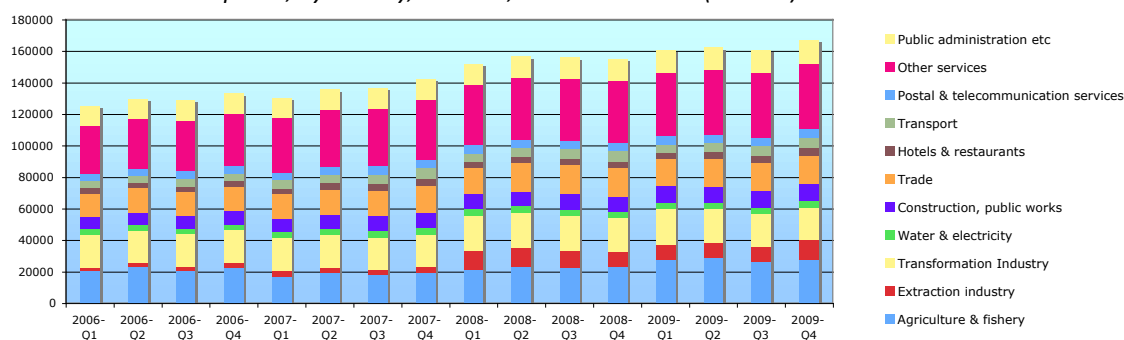
Expectations for the coming year are rather optimistic and a 4.3% rate of growth is expected, though recessions in foreign trading partners might continue to affect demand for exports and partially reduce production in sectors of Moroccan advantage such as textiles and the automotive industry.

2. Employment: Increase in unemployment for 2009, mixed signals for 2010

Economic growth sustainability has led to a significant drop in unemployment in recent years, from 11% in 2005 to 9.1% in 2009 and the Moroccan growth regime has been a pro-employment one. Nonetheless, it remains to be seen if authorities can maintain unemployment below the 10% mark in 2010. Sectors linked to export promotion could feel increasing pressures if export do not bounce back significantly while the uneven performance of agriculture might also have effects on the jobless.

As seen in the graph above unemployment reached its lowest level (below 8%) during the second quarter of 2009. However, it has been on an upward trend since then and initial figures for the first quarter of 2010 indicate it has risen close to the 10% mark. Traditionally, rural areas have been the ones with the highest rates of joblessness among their populations and the crisis has marked no exception. Early figures for 2010 point

Value Added at basic prices, by activity, basis 98, millions dirhams (current)



Source : Bank Al-Maghrib



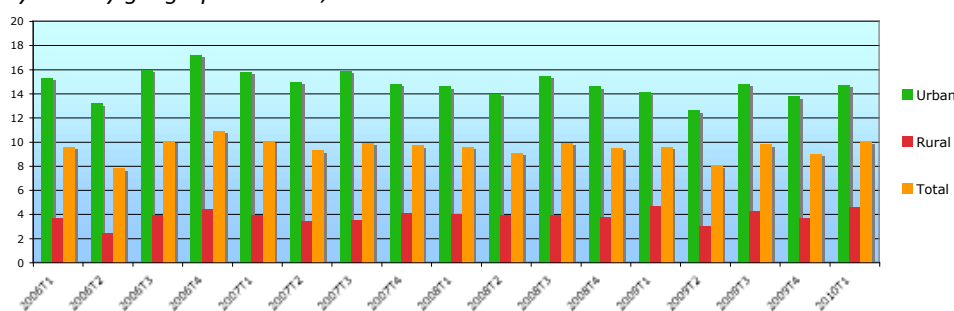
towards a rate close to 15% of the rural population which is higher by more than 1% of what was recorded in mid 2009. Thus, an extended outfall on unemployment in 2010 should not be eliminated as a possibility.

While signs have not been particularly worrisome regarding unqualified labour (unemployment rate below 5%) the same cannot be said on the qualified population that faces the highest rates of unemployment. The highest qualified have been the ones with a rate of approximately 21%

appears to again be on the rise at 18.2% in early 2010. A major challenge still resides in reducing the high unemployment rate among university graduates and especially young ones. One should note that total unemployment among the 15-24 youth reached an alarming 18.5% in the first quarter of 2010. On the whole, the current employment promotion on the supply side might not be enough. As seen in the graph above the number of unemployed in recent period has been increasingly comprised of people who have already been working before. Meanwhile, new entrants represent a slightly decreasing share which means that supply may not suffice to cover for both parties.

Morocco has made great efforts in employment promotion in recent years that have paid-off and these efforts should not vanish. The much nee-

Unemployment by geographical zone, %

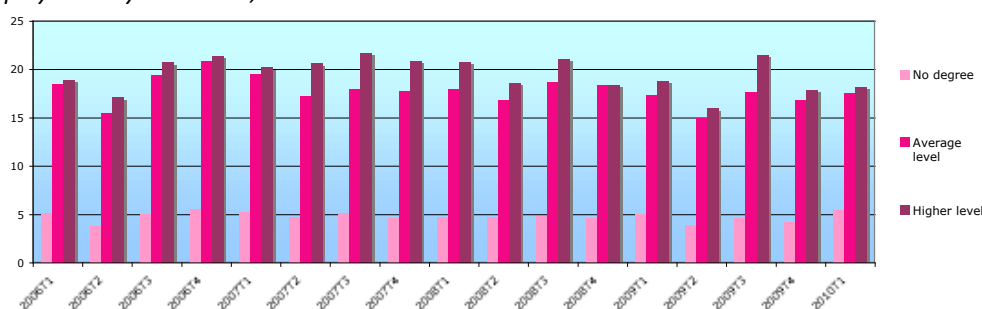


Source : Haut Commissariat au Plan

in 2007. The crisis outfall has had an impact on the authorities efforts to reduce the educated unemployed and after initial decline their share

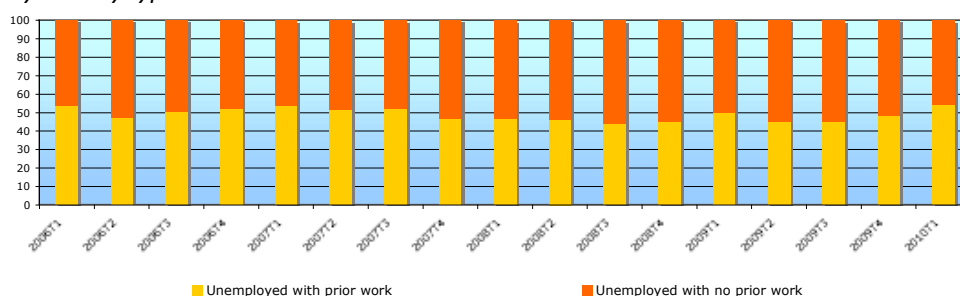
ded diversification could develop skill-intensive sectors and create the much needed opportunities for the qualified population. In that respect,

Unemployment by education, %



Source : Haut Commissariat au Plan

Unemployment by type %



Source : Haut Commissariat au Plan

authorities appears to have taken considerable measures within their structural strategy to give the necessary stimulus.

II.1 A macro-reaction supported by public expenditure that has put pressures on the budget deficit

1) Economic activity that remains solid

Exports expenditure on GDP fell through the year 2009 by more than 13%. It was above all public consumption that helped maintain growth in Morocco despite the crisis, it registered a real increase of expenditure on GDP by 11.2% in the year 2009 while private expenditure growth on GDP grew by approximately 4%, at a pace close to the average recorded in recent years.

Estimates for 2010 suggest a higher rate of growth at 4.3% which is above what is achieved in several neighbouring countries. But for Moroccan growth to achieve new heights one should wait for exports to pick-up which clearly depends on developments in the developed world but also to the domestic ca-

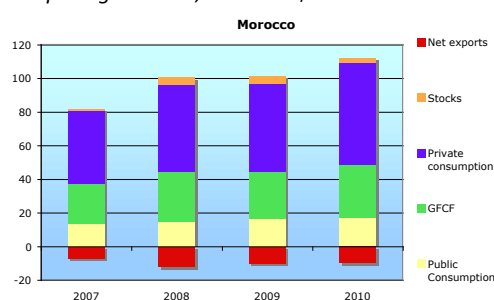
capacity in selecting new trade partners. Investment is also expected to play a more important part in 2010 while private consumption slightly decelerates.

Public works spending should grow by 20% in 2010 and state investment should also rise by the same figure. The expansion of the Jorf Lasfar power station, wind farms in Tangier and Tarfaya are among the projects that will benefit from that increase.

2) Increased pressures on the budget

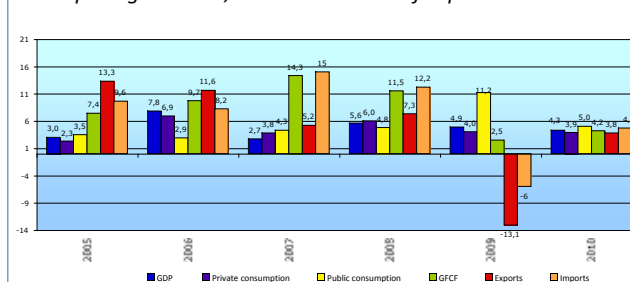
The increase in spending has lead to a budget deficit in 2009 after two years of surpluses. The budget deficit was close to 2.1% in 2009 and could be rising to 4.4% in 2010. Subsidies are expected to reach more than 23 billion dirhams which is almost the double of what was recorded in 2009. The fall in subsidies in 2009 was due to lower commodity prices but was replaced by higher public-sector wages and infrastructure spending. In an effort of stimulating growth the authorities have reduced taxes and increased public wages, thus, cost-cuts are expected to partially offset the rise.

Decomposing demand, billion US\$

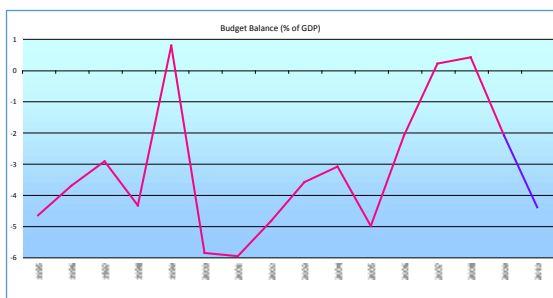


Source: IMF, EIU, Note: estimates for 2010

Decomposing demand, annual variation of expenditure to GDP



Source: IMF, EIU, Note: estimates for 2010



Tax penetration could increase but receipts are expected to rise by less than authorities project since private consumption, customs duties and corporate profits grow slowly. A reform of the subsidy system while welcome for the budget balance, does not seem appropriate in such times from a social point of view (EIU)

3) A monetary/exchange-rate policy that closely follows macroeconomic evolutions

Morocco has a managed float exchange rate regime (dirham pegged to a basket of currencies), hence with more flexibility, after it initiated opening-up to international trade and foreign capital. Opting for greater flexibility as markets were progressively liberalized was a necessary evolution in monetary policy and adapted to the country's needs bringing more price stability.

Implicit inflation targeting has already been efficient in ensuring medium-term price stability and the Central Bank appears to have the necessary tools to conduct such exercise. The possibility for an explicit inflation targeting regime has been discussed and its implementation could bring more benefits provided inflation remains at its current levels and does not follow an upward path.

In early 2010 the central bank initiated the necessary measures to improve liquidity primarily through lowering reserve requirements to 6%. Overall, low prices, close

monitoring of monetary and macroeconomic aggregates and a healthy financial base should ensure monetary policy responds to the Moroccan development strategy.

II.2 A more integrated banking system that was partially affected

The banking sector in Morocco has met welcome developments in the last two decades, it now has a diversified structure with a high level of financial development.

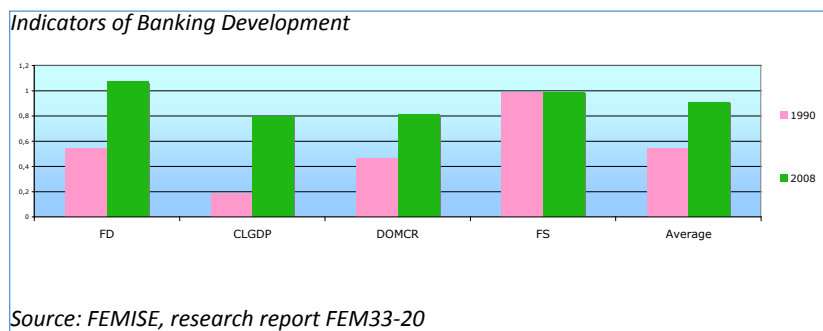
More specifically :

- ✓ Financial depth increased in between 1990 to 2008 from 54% to 107%,
- ✓ The FS ratio has not evolved, hence, service provision has not developed sufficiently,
- ✓ The DOMCR ratio went from 46% in 1990 to 81% in 2008, suggesting that the financial sector provides more advanced services,
- ✓ The CLGDP ratio increased from 19% in 1990 to 80% in 2008, suggesting a regime of growth and stability.

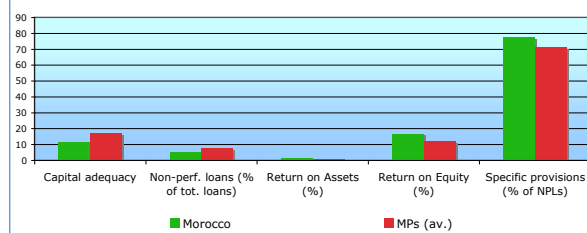
However, the crisis reveals that the banking sector in Morocco does need for some additional improvements regarding capital adequacy.

More specifically :

- ✓ Non-performing loans remain below the Mediterranean average, at a 5.5% ratio which is relatively low.
- ✓ Specific provisions to NPLs are close to 80%, above the Mediterranean average.



Indicators of Financial Soundness



Source: IMF

✓ However, the capital adequacy ratio is at 11.7%, below the MP average and could be insufficient.

✓ Return on assets is at 1.3%, slightly above the Mediterranean average, meanwhile, return on equity is at 17% well above the MP average.

To sum up, the financial profile of banks has improved in asset quality and profitability despite the crisis. The banking system should continue improving its indicators of banking credit and approach international standards, in a context of more transparency and credibility.

III. Growth engines and Total Factor Productivity (TFP)

III.1 Morocco's story towards more productivity

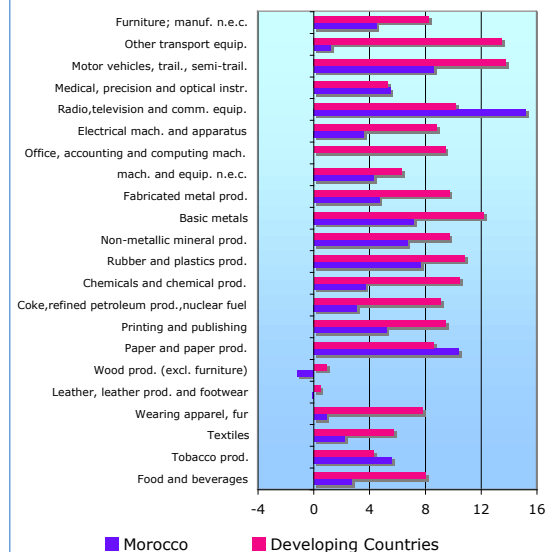
In their efforts to progressively establish a well functioning market-driven economy, Moroccan authorities actively pursued economic reforms with the objective of fostering new growth. Thus, measures were actively undertaken since the 1990s to warranty increased competition and productivity of the Moroccan economy. Two decades later one should logically ask if Morocco

succeeded in becoming a more diversified and viable economy.

The 5% average rate of growth in the 2000-2007 period, followed by a 6.2% rate in 2008 prior to the crisis, allowed for drastic reduction in unemployment which fell below the 10% mark in recent years. This case shows a resemblance with that of Tunisia, nonetheless, Morocco appears to have had more success in employment creation. In that respect one should ask what is the new regime of growth that has allowed for more employment and how does it bode in both the regional and world level.

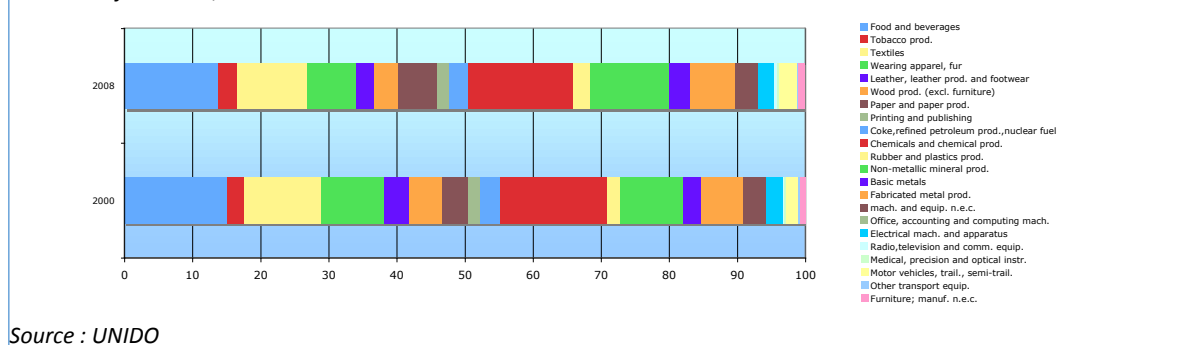
Surprisingly, while economic reforms undeniably brought more diversification in engines of growth, Morocco remains more specialized than one would expect in a limited number of sectors even if this

Growth in Manufacturing, 2000-2008



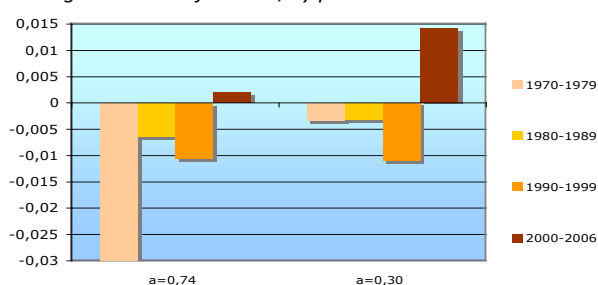
Source : UNIDO

Structure of the MVA, 2000 and 2008



Source : UNIDO

Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

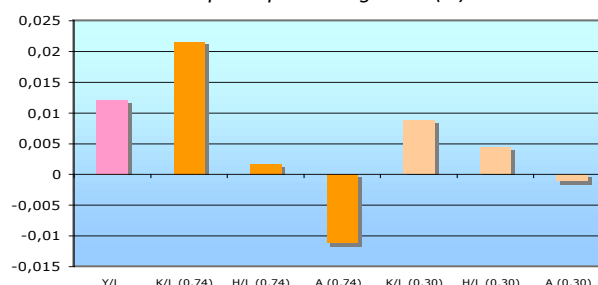
Note : Y= agregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

specialization has slightly decreased in the recent decade. Morocco did succeed in grasping the fruits of its reform strategy in terms of global growth, but reforms might have partially hampered the country's full-potential to diversify its production.

The food & beverages sector saw its share in the manufacturing value-added (VAM) decline from 15% in 2000 to 13.7% in 2008, textiles went from 11.4% to 10.2% while the wearing apparels' share also contracted from 9.2% in 2000 to 7.8% in 2008. On the opposite side, non-metallic mineral products increased their share in the value added, from 9.3% in 2000 to 11.6% in 2008, while paper products also followed a similar trend. Finally, the reliance to the chemicals sectors remained practically unchanged, going from 15.6% in the VAM in 2000 to 15.4% in 2008.

In terms of sub-sector growth in 2000-2008 some elements are worth noting. Morocco registered a substantial growth in the radio, television and communications equipment sector which showcased a rate of growth close to 15%. But other than that, and despite marked growth in sectors such as paper products, motor vehicles, rubber & plastic products and basic metals, the growth rate of all sub-sectors was below the developing countries average. Naturally, certain sectors of the Moroccan economy were already considerably developed in the 1990s, however, this trend could hint there is a need for introducing new elements in the Moroccan growth strategy to ensure growth remains ample in the coming decade as well.

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= agregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

But one would still logically asks the following : how can Morocco be recording such rates of GDP growth without attaining its full potential of diversification ? The answer might be found on the side of Total Factor Productivity (TFP) and determinants of growth.

As shown in the graph above, following an extremely unproductive period during the 70's, the Moroccan economy gradually became more efficient to reach a positive productivity growth through recent years (2000-2006 period). Depending on assumptions on the relative share of physical capital to production, there are elements that suggest productivity has grown rapidly. Meanwhile, measures of physical and human capital bring more answers as to the elements that carry Moroccan growth.

The right-hand graph shows the rate of growth of GDP per worker, the contribution of physical capital per worker to production, the contribution of human capital per worker to production and the average growth rate of the TFP in the 1970-2008 period (assuming a value of the relative share of physical capital to production equal to 0.74 in the first scenario and of 0.30 in the second scenario). In both scenarios regarding the relative share of physical capital to production the same conclusion is drawn which is that the main determinants of economic growth through the last 40 years in Morocco appears to have been productivity along with the accumulation of physical capital. In the first scenario physical capital is the ma-

Table 2. Apparent Productivity and Unit Labor Cost in Morocco

Industries	Year	Average Labour Productivity	Median Labour Productivity	Average Unit Cost	Median Unit Cost	Observations
Textiles	2001	9,7	5,32	0,77	0,51	125
Textiles	2002	8,4	6,3	0,5	0,48	142
Textiles	2003	10,61	7,11	0,6	0,49	148
Textiles	2005	11,76	7,67	0,52	0,46	41
Leather	2001	4,94	3,8	0,76	0,53	65
Leather	2002	7,68	3,99	0,61	0,55	72
Leather	2003	6,13	4,69	0,69	0,59	76
Leather	2005	8,76	7,55	0,58	0,58	14
Clothing	2001	5,48	3,52	0,6	0,61	266
Clothing	2002	4,99	3,65	0,59	0,61	295
Clothing	2003	6,45	4,18	0,6	0,6	313
Clothing	2005	7,51	4,45	0,63	0,62	110
Agro-food	2001	22,33	13,3	0,39	0,34	53
Agro-food	2002	20,41	13,71	0,6	0,34	56
Agro-food	2003	29,25	18,87	0,73	0,3	58
Agro-food	2005	31,17	10,8	0,4	0,36	106
Chemicals & Pharmaceuticals	2001	54	16,12	0,36	0,34	48
Chemicals & Pharmaceuticals	2002	32,07	17,35	0,38	0,34	56
Chemicals & Pharmaceuticals	2003	39,06	25,49	0,4	0,31	56
Chemicals & Pharmaceuticals	2005	42,88	25,97	0,52	0,32	86
Plastic & non-metallic materials	2001	10,04	7,59	0,46	0,36	62
Plastic & non-metallic materials	2002	10,8	8,24	0,46	0,43	66
Plastic & non-metallic materials	2003	14,83	10,35	0,43	0,36	70
Plastic & non-metallic materials	2005	2,78	2,78	0,59	0,59	1

Source : FEMISE, research report FEM33-09

for determinant (0.0216) while in the second one it is relatively less important (0.0088). The study thus eliminates human capital as a main driving force of the Moroccan economy during the last four decades.

That is not to say that labour is unproductive in Morocco. On the contrary, a recent FEMISE study on TFP in the Mediterranean region clearly shows that the average (and median) labour productivity growth rate has increased in a variety of sectors during the mid 2000's. As shown in the table below, labour productivity in textiles industries has increased (from an average value of 9.7 in 2001 to 11.76 in 2005) while this is also the case for the leather products sector (average productivity of 4.94 in 2001 almost doubling to 8.76 in 2005), wearing apparel (average productivity of 5.48 in 2001 to 7.51 in 2005) and in the agro-industry (average productivity of 22.33 in 2001 to 31.17 in 2005). Furthermore, while the productivity increase is at-

tributable to a decline in unit-costs of labor in both textiles and leather products the same cannot be said about the other two sectors where unit costs have actually increased in recent years.

Granted, as noted earlier few industries (Textile, wearing apparel etc) represent the largest share of the added value and of total manufacturing employment. But one should also note that Moroccan labour gains in efficiency which offsets, at least partially, the still intermediate level of economic diversification.

Similarly, a look on Moroccan median sector-TFP suggests that the country has made progress in the 2001-2005 period for all sectors but the plastic & non-metallic materials sector.

Furthermore, firm-size is related to varying productive efficiency across sub-sectors. For instance, in

Table 3. TFP level in Moroccan firms : Influence of firm size on the median of each category

Industries	Year	TFP	TFP1	TFP2	TFP3
Textiles	2001	3,13	3,71	3,05	3,18
Textiles	2002	3,19	3,03	3,23	3,22
Textiles	2003	3,45	3,77	3,39	3,34
Textiles	2005	3,57	4,59	3,29	4,08
Leather	2001	3,54	3,28	3,52	3,9
Leather	2002	3,78	3,97	3,85	3,7
Leather	2003	3,61	3,21	3,75	4,16
Leather	2005	3,73	2,95	3,75	4,82
Clothing	2001	4,35	3,14	4,68	4,39
Clothing	2002	4,63	3,76	4,6	4,74
Clothing	2003	4,57	4,93	4,44	4,59
Clothing	2005	5,37	5,36	5,24	5,39
Agro-food	2001	3,91	3,91	3,98	3,7
Agro-food	2002	3,91	3,95	4,03	3,6
Agro-food	2003	4,25	4,31	4,62	3,85
Agro-food	2005	4,18	4,03	4,17	4,29
Chemicals & Pharmaceuticals	2001	4,57	5,37	4,69	3,77
Chemicals & Pharmaceuticals	2002	4,85	5,05	4,93	4,28
Chemicals & Pharmaceuticals	2003	4,93	4,83	5,38	4,54
Chemicals & Pharmaceuticals	2005	4,83	4,3	4,86	5,27
Plastic & non-metallic materials	2001	3,65	3,7	3,7	3,53
Plastic & non-metallic materials	2002	3,76	4,17	3,73	3,77
Plastic & non-metallic materials	2003	4,04	4,36	4,03	3,73
Plastic & non-metallic materials	2005	2,71	2,78	2,64	

Source : FEMISE, FEM33-09.

Note : Firms are classified by number of employees: those with less than 20, between 20 and 99, more than 100, respectively receive the number 1, 2, 3 next to the observation variable

both the textile and plastic & non-metallic materials sectors the TFP is higher in firms with less than 20 employees in 2005. Meanwhile the clothing sector has recorded a considerable productivity gain, especially in smaller firms that saw their TFP level rise from 3.14 in 2001 to 5.36 in 2005. On the contrary, in the leather and chemicals sectors productivity of smaller firms in the same period has been steadily declining (from 3.28 to 2.95 for the leather sector and from 5.37 to 4.3 for chemicals) while the productivity of medium-sized and big firms has been following the opposite route (for medium-sized firms the PTF went from 3.52 to 3.75 in the leather sector and from 4.69 to 4.86 in chemicals ; for big firms the PTF went from 3.9 to 4.82 in the leather sector and from 3.77 to 5.27 in chemicals).

Therefore, favouring the development of firms of specific size in a given sector might offer better efficiency for Moroccan production. For instance, inciting firms in the leather sector to diversify and grow would seem a better choice. Meanwhile, offering more incentives to small-sized firms in the textiles sector could optimize the sector's efficiency.

The business environment can also provide valuable insights on the origin of differences in the performance of Moroccan firms. In a recent study supported by FEMISE, Augier et al. (2010) shed more light on major linkages between the firms' business environment in Morocco and their TFP performance. The paper provides evidence that misallocation of financial resources in Morocco might be an issue since the amount of loans is negatively linked to the productivity estimate. This finding stands essentially for low debt firms, without being correlated to differences in profitability. The authors also identify the absence of an homogeneous taxation treatment across the sample firms and the number of permissions needed annually to operate as the main elements that impact upon productivity, especially in the case of small-sized, non-exporting firms.

In the case of Mediterranean countries in general, Cecchini and Lai-Tong (2008) show that while the transfer of technology has a clear impact on TFP, the impact is positive only when the labour force is skilled beyond a certain threshold. Therefore, making more efforts to entice foreign capital and following an international openness route, while useful, might not have the desired impact if the labour-force is not sufficiently qualified. Regarding Morocco, productivity gains appear limited and the average yearly growth rate is estimated at only 0.23% in the 1980-2000 period. The authors found that FDI has positive impacts for all Mediterranean countries with a secondary schooling rate above 55%. All countries within the sample were above that threshold, with the exception of Morocco. Thus, the importance of reducing the high unemployment rate among the qualified youth is not only necessary from a social point of view but from an economic one as well.

Overall, these are all elements that should be acknowledged in the continuous upgrading of the country's industrial policy. Whether certain sectors should be progressively dropped would also be an important, yet naturally difficult, decision to make.

III.2 Structural policies and new measures following the crisis

Morocco has been leaning towards a TFP driven model of growth despite been specialized on a small number of sectors. But a series of measures that are an integral part of the Moroccan strategy of structural voluntarist policies shows the country's willingness to ensure growth stays in the coming decade. These measures, that are also a sort of response to the recent crisis, are well expressed through the government's 2009-2015 extension of the "Plan Emergence" which constitutes an exemplary initiative to foster growth and employment opportunities.

Even if the industrial policy of Morocco appears massive, the country has also adopted an attitude of cooperation with neighbouring countries to promote trade. Authorities realize that they have to rely on FDI inflows to foster new growth, while exports competitiveness will remain of crucial importance.

1) Emergence Plan II of the Moroccan industry : creating employment and growth of the 2010's

The new Emergence Plan (2009-2015) encapsulates the Moroccan will for further growth, sustainability

20 modern industrial complexes are expected to be built by 2015 while existing ones will be given a makeover. The Plan was adopted in early 2009 and among its objectives one could identify:

✓ The development of jobs compatible with the international context. New employment in FDI oriented sectors (aeronautics, ICT, automobile) as well as more jobs in traditional sectors are a priority.

✓ The upgrading of Moroccan firms competitiveness, especially in SME's. Rating platforms are to be introduced by partner banks to improve the access to credit, the SME's fund « Fonds d'amorçage » is expected, meanwhile, 4 SME's parks are expected to foster the creation of new firms.

✓ Adapting vocational training to the ever evolving needs of the industry. Plans for the creation of a school for aeronautics have been undertaken while a similar initiative is underway for the creation of a school of engineering in association with the Ecole Centrale de Paris.

It becomes obvious that the Plan can bring enormous gains in the coming years. First, by focusing on sectors such as biotechnologies, aeronautics and other ICT-related, it could introduce the necessary elements for creating the new growth model based on the knowledge economy. Second, by still caring about existing sectors of comparative advantage, it would ensure maximum productivity gains through increased

Table 4. Characteristics of «Plan Emergence II»	
Targeted sectors	Expected results (quantitative and qualitative)
Offshoring (francophone and hispanophone)	100 000 jobs, 15 bn DH in VA.
Automobile : Creation of industrial basis.	70-80 000 jobs, 10 bn DH in VA.
Electronics : Specialization and integration	10 000 jobs, 5 bn DH in VA
Transformation of sea products : development of frozen products etc	35 000 jobs 3 bn DH in VA.
Aeronautics : Integrated offer	10 000 jobs, 3 bn DH in VA.
Textiles and leather : Fast fashion and co-processing	50 000 jobs, 5 bn DH in VA.
Agro-food : Development of integrated projects	6 000 jobs, 5 bn DH in VA.
Microelectronics, biotechnologies and nanotechnologies	220.000 jobs, 50 bn DH in VA

and employment in the decade to come. More than ¹⁹¹⁻

intra-branch specialization (ex. focusing on fast-fashion in the textile sector). This would also bring a quality-based element to the infrastructure that would help revitalize current engines of growth.

As for employment, potential in new-sectors of growth such as microelectronics and biotechnologies would bring an estimated 220 000 positions by 2015, while the offshoring and automobile sectors would also elevate employment opportunities considerably. In that respect, we could hypothesize that employment promotion on the supply side could become even more present while unemployment fears would progressively diminish, thus, establishing Morocco as a regional example other MP's should follow.

The industrial development strategy was reinforced through the signing of the « Pacte national pour l'émergence industrielle ». Thus, despite the current context following the crisis, Morocco is actively pursuing efforts to guarantee FDI inflows, a stable business environment and public-private partnerships that could allow for an unprecedented take-off.

2) A diversity of other projects to accompany development

Along with its Emergence Plan Morocco has launched a series of other measures to boost the economy in the years to come. Most importantly, one may find the following:

✓ Green Morocco Plan : The plan in question is a public-private partnership effort that has the objective of attracting 10 billion DH worth of investment annually, create an additional 100 billion DH in 2020 and put in place approximately 1 million agricultural companies.

✓ Halieutis Plan : The Halieutis Plan seeks to upgrade the fishing industry with a 2020 horizon. As with the Green Morocco Plan the objective is to double the GDP of the activity (an

additional 21 billion DH) but also increase the market share of Morocco at the worldwide level (from a current level of 3.3% to 5.4% in 2020).

✓ Vision 2015 for Handicrafts : Vision 2015 plans to increase the total turnover to 24 billion DH and exports to 7 billion DH while creating a total of 117 000 jobs.

✓ Digital Morocco 2013 : This ambitious plan has a variety of objectives. More specifically, to provide high-speed Internet to all, implement e-administration (converting all paper-information into digital information), encourage computerization of SMEs all the while creating 26,000 additional employment positions.

✓ Rawaj Plan 2020 : The plan should allow for the upgrading of commerce and distribution sectors contributing at 15% of GDP and fostering 450,000 jobs by 2020.

✓ Biladi Plan 2012 : The objective of this public-private partnership is, among others, to create a total of 15 000 jobs related to tourism activity while increasing the tourist accommodation capacities of the country.

✓ Logistics 2010-2015 Plan : The objective of the plan is to further develop Moroccan logistics, reducing logistics costs to 15% of GDP (currently at 20%), bringing an additional 0.5% of GDP annually while creating 36 000 new jobs.

Overall, the Moroccan projects appear complementary, a lot of effort has been put on fostering new engines of growth while more traditional sectors are also given assistance. The strategy appears to be a very dynamic one since it has enormous potential for positive spill-overs across activities.

For example, putting in place the Green Morocco Plan and the Halieutis Plan is logical since the country has already proven to be successful in exporting food products to EU partners. Moroccan agriculture has made considerable improvements, production methods have improved and yield the necessary certification while new growing techniques are constantly adopted yielding a better quality of foodstuffs. Moreover, improving logistics through the 2010-2015 Plan shall

bring positive externalities as the whole production process becomes integrated.

Then, the development of the « new economy » is at the center of attention and authorities seem to have understood that technology is a pre-requisite to upgrading the infrastructure and go towards a new growth regime. Plans such as Digital Morocco 2013 would also allow for the Moroccan IT market to flourish and enjoy its « boom » in the coming years. The PC-business market has already grown by 10-12% due to the consolidation of two of the biggest public-firms (Matel PC and Distrisoft) bringing considerable economies. The creation of an offshoring platform to attract FDI has been tested worldwide (ex. in the South-Korean case) and could allow for growth carriers to emerge in Morocco. Meanwhile SMEs would become more efficient, handling their resources better. (4)

3) Increased intra-regional cooperation in sectors of comparative advantage to boost trade

Morocco engages more actively in regional cooperation to develop both South-South and South-North trade. Along with Tunisia, Egypt and Jordan, the country has agreed on signing free trade agreements in both the textile and automotive sectors. (5)

As seen earlier, both export-oriented sectors are key to the Moroccan economy, as much in terms of employment than of industrial activity, but they are also vital to other Agadir partners. In the case of Morocco, the country could gain through cooperation as industrialists seek to foster synergies and increase the pool of gains instead of directly competing against each other for a smaller market-share. Moreover, such initiative could allow for the South to acquire a better position internationally, allowing MPs such as Morocco to better compete against emerging economies. For example, despite great efforts in the automotive sector, competition from Asia has grown and necessitates even more than what is available at the national level. Similarly, in textiles China is the direct and very present competitor.

Thus, the regional cooperation strategy is not only healthy but also imposed by logic. Other sectors such as leather and transport would logically follow allowing for more regional integration. Last but not least, in order to further develop good relations with the North the « Union for the Mediterranean » could and should have a decisive role to play within the N-S strategy of integrated development.

Overall, we shall stress that :

✓ Morocco is actively pursuing its industrial strategy allowing for considerable private-public partnerships, potential for FDI inflows and dynamic positioning of the Moroccan economy internationally,

✓ The authorities have selected ICT related sectors that can be future growth carriers but have not neglected the more traditional ones perhaps in an effort to avoid the downfall of the crisis on employment,

✓ Finally, the country has not only achieved great rates of growth but appears to still have enormous potential in terms of production and employment. Regional cooperation is also useful, allowing for the authorities not to adopt an over-protectionist stance.

IV. Conclusions and Recommendations

Morocco achieved a 5% rate of growth in 2009 which is an achievement by itself in such context. Overall, reforms have benefited growth, but the economy's full-potential has not yet been reached. Thus, prospects for the coming years are positive. Certain elements could make the difference as to how much Morocco could maximize its gains in the not so distant future:

✓ As noted earlier Morocco needs to be even more diversified. Its new development strategy appears promising in that regard. However, there is an element authorities should pay closer attention to, the country needs to foster trade with more partners to exploit a dormant commercial potential. It appears that the top three countries to which Morocco exports merchandise, are Spain

(19.2% of exports), France (17.6%) and Brazil (7.1%). Meanwhile, the top three countries which import merchandise to Morocco are France (16.1%), Spain (13.5%) and Italy (6.5%). It is thus obvious that if the economic downturn in Europe persists, Morocco should consider diversifying more its trading partner agreements to reduce its overdependence to the EU and avoid further negative impact on its trade. FEMISE has already noted that since the EU is the main trading partner of Morocco this makes the country more vulnerable to external demand shocks and this was confirmed in the recent crisis. Further deterioration in the terms of trade could occur from a potential increase in oil prices or a decline in phosphate prices, hence, regional cooperation and trade agreements need to expand to more sectors of interest. (Afribiz)

✓ The authorities appear to understand that moving up the value chain is key to increasing productivity. Developing activities such as aeronautics and nanotechnologies is a bet that could pay-off if the country manages to attract international investment to set-up both the necessary production structure and expertise. Regarding the latter, the country could be further invested in setting-up vocational training and education initiatives that would offer opportunities for the youth to become the qualified labor-force of the later-half of the decade.

✓ Morocco could orient its investment policy in a way that offers more territorial homogeneity in growth patterns for the years to come. There appears to be a concentration of value-added in central Morocco while southern areas are among the poorest in terms of regional GDP.

✓ The Grand Casablanca region has been the one contributing the most in GDP terms in the recent years (19% of GDP in 2000-2007), followed by Souss-Massa-Drâa (12,2%) and Rabat-Salé-Zemmour-Zaer (9,8%). Hence, regional GDP appears overly concentrated. This is also the case for per capita GDP which mostly emanates from the same 3 regions. Granted, there has been some catching up recently by the south while the Grand Casablanca region has known demographic pressures. But

overall, there is still ample room for reform of the Moroccan space, for the country to succeed in exploiting new branches of activity it should consider orienting reforms towards rural areas in need of more economic development initiatives (Source: DEPF)

✓ The cautious approach in the liberalization of the Moroccan capital and financial accounts shall be pursued. As noted by Gouider and Trabelsi (2009), in the case of emerging economies, the liberalization of the capital account is associated with higher output fluctuations. This is especially the case for countries that experienced banking crises in prior decades, in which relaxing controls would not contribute significantly to smooth out fluctuations in the rate of GDP growth, as opposed to countries that did not experience a banking crisis. In 1983 the banking sector in Morocco met some difficulties, therefore, authorities appear to understand that a solid institutional framework is needed before the actual opening.

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Syria : Lack of any severe crisis outfall, but need to further adapt its growth regime to the new decade

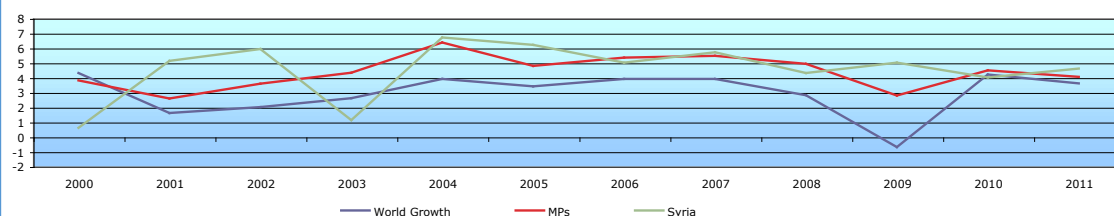
In Syria, the domestic production was for long a matter of the state. With the increase in international competition, the economy started to progressively open-up to the private sector and authorities showed some signs of will-power to position Syria within the euro-mediterranean economic space. The liberalization process has thus been slow but ongoing nonetheless.

The still limited economic integration might explain why the international crisis had little effect on the Syrian economy. The rate of growth even

First, the Syrian model is based on the development of SMEs which is a suited approach, however, FEMISE has already noted how the competitive advantage of firms is below potential due to a still limited institutional framework.

Second, even by ameliorating business environment to attract FDI there is no guarantee that growth will fully profit. It has been shown that growth can benefit from foreign capital only when the financial sector has grown to a certain level where credit to the private sector is above a given threshold ; Syria has for long been below that threshold. The case is simple, financial development must be intensified in order to foster growth in the new decade. Only then can

Real GDP growth (annual variation in %)



Source: Economic Intelligence Unit (EIU), IMF

increased by 5% in 2009 versus 4.3% in 2008 and is expected to be close to the 4% mark in 2010. However, one should not ignore the efforts for strong output growth and the recently introduced exchange rate flexibility that shielded the economy from an unwanted transmission channel.

Syria clearly represents the case of a country in a transitory phase ; efforts are being made to go towards an open-driven economy and there is development of the financial and business environment but the country is yet far from the levels of productivity found in the developing world, even those in neighbouring MPs. The transition is also a difficult one, keeping in mind that crises have a worldwide history of negatively affecting the process of opening.

There are a number of elements that have to be dealt with in the current regime.

FDI exert a positive impact on GDP growth as in some neighbouring MPs.

Third, the country has yet to deal efficiently with the highest proportion of unemployed youth in the Mediterranean region. Unemployment in Syria has become structural, with the incapacity of the national economy to create new jobs. The creation of industrial zones can provide for additional employment opportunities, but the 11th development plan should consider which sectors carry the most employment potential for the next generation.

Regarding recent macroeconomic trends, the following points should be noted :

✓ Syria registered a reduction in goods exports by 23.3% to 11.76 bn US\$ in 2009. On the import side, the value traded also decreased, by

21.6% to 12.6bn US\$. Thus, the trade deficit, remained close to the prior year's levels, at -1.6% of GDP.

√ Tourism attained two-digit growth, meanwhile, the income generated by tourists reached 5.2bn US\$ in 2009 which marks an astonishing 48.6% increase compared to the 3.5bn US\$ of 2008.

√ Only a small decrease was registered for FDI of 2.7%, to 1.43bnUS\$ in 2009, from 1.47bn US\$ in 2008. Even so, one should note that the amount of inward investment in Syria is not that important to begin with.

√ After a 4.3% rate of growth in 2008, the economy grew by 5% in 2009 which makes Syria the fastest growing MP in 2009 behind Lebanon. Furthermore, prospects for 2010 suggest a remarkable, yet reduced, rate of growth at 4%.

√ Contrary to other MP's, the crisis did not have a negative effect on employment figures. Unemployment in Syria appears to have decreased by an estimated 2.4 points, from 10.9% in 2008 to 8.5% in 2009.

√ The impressive performance of private consumption (4.3% rise in GDP expenditure), along with the equally impressive increase of public consumption expenditure on GDP (8%) are the main variables that explain the 5% GDP rise in 2009.

√ But after three years of consecutive decline in the budget deficit, 2009 catapulted the government deficit to an estimated 8.3% of GDP, from 2.5% in 2008. While spending in 2010 has been relatively stable due to economic recovery (at an estimated 26.8% of GDP), the deficit is not expected to fall back to pre-crisis levels so quickly.

√ It appears that the composition of GDP is evolving, in the 1990's, agriculture contributed to 23-28% of total GDP, in 2004, the share of agriculture fell to 21.6% of GDP and in 2007 it had reached 20.2%. The highest shift comes from the service economy which appears to be gaining in importance in recent years. In the 2004-2007 period wholesale & retail trade has increased

its share by roughly 3%, social, government and personal services by the same amount, followed by financial and transport services which both increased by 1%-2% of GDP.

√ Even so, the contribution of TFP has been negative and the Syrian economy needs to render its regime more efficient. For a 1% increase of GDP per capita the capital per labor would have to grow by even more. The country needs to do what is necessary to remove implicit barriers and inefficiencies and allow for capital investment, both domestic and foreign, to materialize into full growth. For FDI to have a marked positive impact on growth sustainability, Syria should simultaneously consider upgrading its international trade, infrastructure and financial positions.

√ The Syrian authorities appear to be boosting investment within the five year development plan. Various irrigation projects and expansion of arable land are also among the efforts undertaken to modernize the agricultural base. The Ministry of Electricity is also expected to build new plants and modernize its current power stations and connecting lines. Modernizing the Syrian infrastructure shall allow the country to take center stage in international trade since it could provide for better logistics services and position Syria as a regional hub.

√ Also, Syria is seeking to diversify its energy sources by focusing on renewable energies which shall allow to provide for its increasing needs. This shows a clear interest towards the sector and the possibility for developing new branches of qualified employment.

√ Finally, legislative reforms, for activities of the banking sector to meet specific standards, are ongoing. Imminent reforms include completing amendments to the Law on Syria's Central Bank and the Basic Currency Law as well as to Law 28 on the creation of private banks in Syria. Also, Syria now allows foreign investors to acquire up to 60% of domestic banks in an effort of attracting more FDI and also for private banks to raise their capital.

I. A lack of shock on the real economy

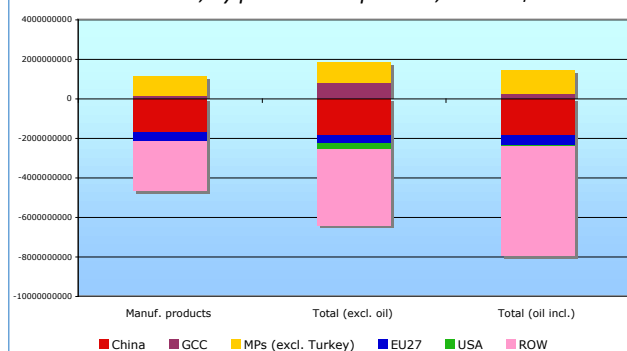
I.1. The context

1.1 Increased openness in goods trade, limited results in services

As already noted by FEMISE (2006), for more than four decades the government trade sector played a crucial role in external trade, by controlling trade operations through public ad hoc companies. Since the 1950's, the Minister of Economy could ban or allow exporting and importing products, as well as decide on restricting their amounts. A series of customs tariffs were put in place to protect domestic products from competition, indirect taxes on imports were multiplied and the private sector contributed to tax evasion with customs taxes, by falsifying the amounts of imports supported by the administrative red-tape.

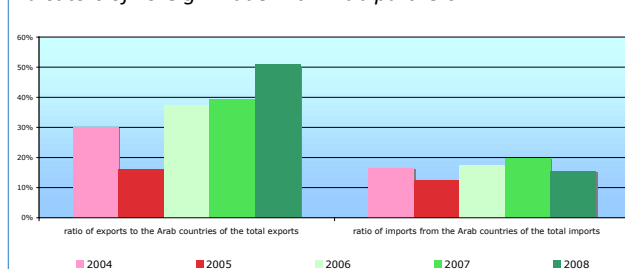
In recent years however, Syria signed free trade agreements with a series of MP's such as Turkey, within the context of foreign external relationships. Furthermore, the European-Syrian Partnership Agreement is advancing in its conception,

Trade balance 2008, by partner and product, mill. US\$



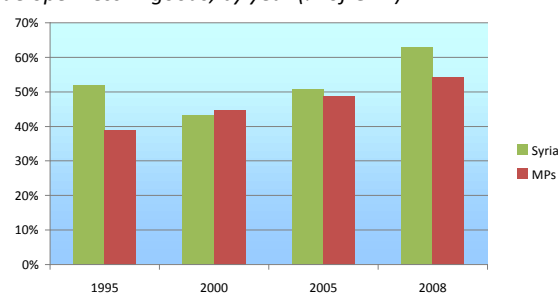
Source: COMTRADE

Indicators of Foreign Trade with Arab partners



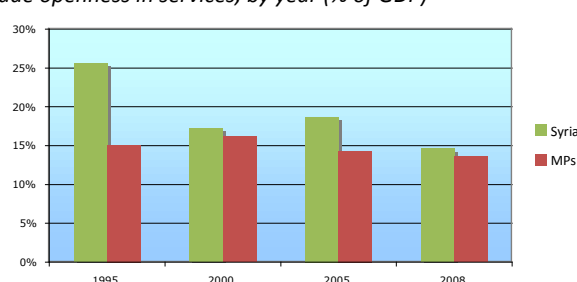
Source: Central Bureau of Statistics

Trade openness in goods, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

it has the potential to significantly improve trade between the two parties. Syria also applied for membership to the WTO in the early 2000's and its request is currently pending. Tariffs have also been reduced, the highest customs used to reach 255 % while they are now closer to 60 %. Additionally, the customs on basic materials and production requirements were reduced to only 1%.

Thus, one could argue that the last decade marked the beginning of a relative shift in the domestic economic strategy, which apparently started to implement elements of openness towards the rest of the world. Most importantly, this policy shift appears to have brought tangible results as expressed through the increased rate of goods trade openness in recent years. The ratio of goods trade (exports and imports) to GDP has not only been consistently on the rise since 2000, it has also surpassed the 60% mark, thus slightly surpassing the average rate of openness of MP's.

Even so, openness in services trade could be characterized by an unstable path. It used to be well

above the Mediterranean average during the mid 90's, on par with the rest of MP's during 2000, slightly increasing in the mid 2000's and then falling close to the Mediterranean average. Therefore, there is still great potential for free trade agreements for services provision. One should also note that possible accession to the WTO could trigger benefits for the service sector by accepting the principles of the GATS.

With regards to the geographical destination and origin of Syrian trade, one should note that the country has considerably increased its share of exports to Arab partners in recent years. Syrian exports to the Arab economies represented 30% of total exports in 2004, they stood at more than half of the total in 2008. As for the import side, the share of imports from the Arab economies has remained stable, slightly above the 15% mark.

By increasing its share of exports to Arab partners in recent years and with imports from Arab economies remaining stable, Syria has maintained a trade surplus with both Mediterranean and Gulf economies. This is true in the case of manufacturing trade as well as with and without the inclusion of oil-trade. However, Syria runs a trade deficit with the rest of the world, most notably with China, while both the EU and the USA register a surplus on Syria of far less commercial value.

1.2 A capital account at an intermediate openness stage along a floating exchange rate

For long, substantial government controls on the Syrian financial system have been maintained. Financial services were restricted to the Commercial Bank of Syria due to the prohibition of private banks until the late 1990s. Even so, high growth rates were constantly achieved and despite recent opening efforts the capital account and financial account channel would be relatively inexistant in case of crisis.

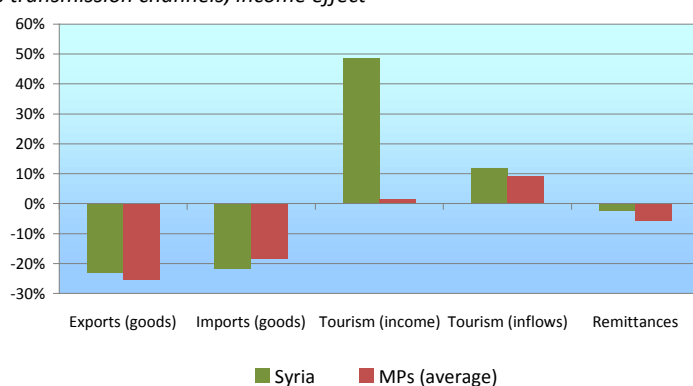
Regarding the exchange rate regime, the Syrian pound was pegged to a basket of currencies in 2007. Hence, a year before the crisis, Syria chose to pursue a less rigid regime (compared to the prio peg to the US dollar) even if the pound would not float completely freely since authorities place a high importance on exchange-rate stability (EIU).

In the end, the timely adoption of a freer exchange rate regime and the limited extent of financial liberalization would prove helpful in late 2008.

1.2. Crisis transmission channels: A limited shock on the real economy

The limited effects of the crisis were felt through the real sector in Syria. Financial integration is still at an early, though ongoing, stage. Thus, due to its limited size and the lack of recent data, the financial shock in Syria will not be presented.

Crisis transmission channels, income effect



Source: FEMISE calculations based on EIU, Econostrum, WB Remittances database, Senego.COM

The crisis impact on Syria in 2009 was felt through the following main aggregates:

- ✓ A reduction in goods exports by 23.3% to 11.76 bn US\$,
- ✓ A 21.6% decrease in the value of goods imports to a total of 12.61 bn US\$,
- ✓ A trade balance deficit practically unchanged for 2009 at - 1.6% of GDP,

- ✓ A service balance in surplus at 2.1% of GDP in 2009, up from 1.7% in 2008,
- ✓ A small decrease in workers remittances estimated at -2.6% in 2009 to 828 million US\$,
- ✓ An equally small decrease in FDI of 2.7%, to 1.43bnUS\$ in 2009 from 1.47bn US\$ in 2008

As in other MP's, the trade channel was one of the principal ones to be affected following the crisis. Syria registered a reduction in goods exports by 23.3% to 11.76 bn US\$ in 2009. On the import side, the value traded also decreased, by 21.6% to 12.6bn US\$. Thus, the trade deficit, remained close to the prior year's levels, at -1.6% of GDP.

As for the service balance, it remained in slight surplus at 2.1% of GDP in 2009, up from 1.7% in 2008. Contrary to world trends, tourism was not negatively affected. Moreover, while the sector was relatively performant in most MP's, only registering a slight decline in generated income for some, in the case of Syria it attained two-digit growth. The total number of tourists grew by 12%, standing at 6 091 889 in 2009, primarily due to the large wave of Arab tourists which amounted to 3 590 273. Tourists from Gulf countries amounted to 764 309 increasing by 16% compared to 2008. Meanwhile, the income generated by tourists reached 5.2bn US\$ in 2009 which marks an astonishing 48.6% increase compared to the 3.5bn US\$ of 2008. Meanwhile, the number of visitors to Syria for the first seven months of 2010 allows for further optimism since it grew by 55% year-on-year (total of 5.1 million tourists). Granted, authorities categorize practically all foreigners who enter Syria to be tourists in their industry's statistics which can be partly misleading as to the exact growth of the sector (ETN, 2010). But even so, one cannot ignore that the active tourism promotion strategy followed by Syria, the cancellation of visas for foreign citizens (ex. From Turkey) and other related initiatives have been paying off.

Remittances are a relatively small source of income (they represented about 1.5% of GDP in 2009), thus a decline would not have significant effects. Estimations point towards a decrease of 2.6% in 2009 to 828 million US\$.

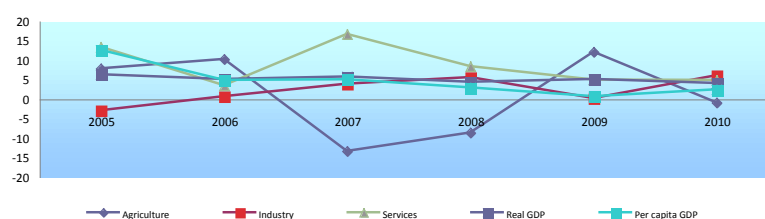
Finally, contrary to regional trends, only a small decrease was registered for FDI of 2.7%, to 1.43bnUS\$ in 2009, from 1.47bn US\$ in 2008. Even so, one should note that the amount of inward investment in Syria is not that important to begin with. In 2008, Syria was last as a recipient of FDI among MP's, while in 2009 it was second to last after Lebanon. Hence, while it is extremely positive that FDI did not massively decline as in neighbouring economies, Syria still needs to take care of poor investment climate issues, regulatory barriers and persistent red-tape. Recent initiatives to increase investment, both domestic and foreign, such as offering the possibility for infrastructure investment to the private sector, increasing lending and financial reform, show the government's willingness to go forward.

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

The Syrian economy has been in a path of high growth, close to 5.1% on average in the 2000-2007 period, and the crisis has not put this remarkable performance on hold. After a 4.3% rate of growth in 2008, the economy grew by 5% in 2009 which makes Syria the fastest growing MP in 2009 behind Lebanon. Furthermore, prospects for 2010 suggest a remarkable, yet reduced, rate of growth at 4%.

GDP growth and origin of GDP



Source : EIU

Table 1. Contribution to production by Main sectors, (current prices, millions of Syrian Pounds)			
years	2008	2009	Variation
Agriculture	446254	530588,5	18,90%
Mining & manufacturing	782740	789043,5	0,81%
Building & construction	78174	86506,5	10,66%
Wholesale&retail trade	378718	427122,5	12,78%
Transport & Communications	223899	253685	13,30%
Finance & insurance	129811	151973	17,07%
Social & Personal services	52137	57331,5	9,96%
Government services	224304	245478,5	9,44%
Source : The Central Bureau of Statistics			

Syrian growth relies to great extent on the industry sector which roughly represents a third of both output and employment. But the economy relies even more on service activity which accounts for approximately 40% of both production and employment. The stellar GDP performance in 2009 is attributable to an annual 4.9% increase in service activity but also to a surprisingly performant agricultural sector which, after two consecutive years of negative growth, marked a 12% increase in 2009. Figures from the Central Bureau of Statistics (in Syrian pounds) also suggest similar trends but allow for further decomposition. Within the service economy, it appears that finance&insurance has grown by an expected 17.1%, while transport & communications, social services and Wholesale&retail trade increased respectively by 13.3%, 10% and 12.8%. As for the industry sector, the latter remained close to the levels of the prior year, with a marginal 0.1% increase in activity (EIU).

Expectations for the coming year point towards a 4% rate of growth, as agriculture is expected to underperform, with the industry sector reporting an anticipated growth rate of 6%.

2. Employment: Decrease in unemployment for the year 2009

Contrary to other MP's, the crisis did not have a negative effect on employment figures. Unemployment in Syria appears to have decreased by an estimated 2.4 points, from 10.9% in 2008 to 8.5% in 2009.

However, cautiousness in interpreting these figures is needed. As noted by FEMISE (2006), underemployment is an issue in Syria. In 2003, the unemployment estimates (standard International Labor Organization definition) only counted those who did not work even one hour during the week prior to the survey. Counting the population who worked two days or less in the week prior as "underemployed", the rate would stand at 16.2% in 2003 (versus 11.7% officially).

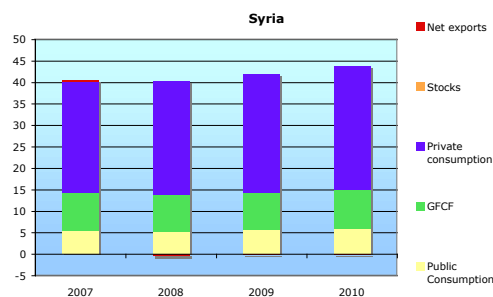
Finally, Syria has yet to deal efficiently with the highest share of unemployed youth in the region. Unemployment in Syria has become structural, with the incapacity of the national economy to create new jobs. Syria thus has to face its increasing « youth bubble », in the past decade, the number of young people going in schools has doubled and more than so in universities (NPR, 2010). There is need for better utilizing the youth, to move away from a central-planning culture that pushes people to the public sector, to modify the education system so that it teaches the necessary to enter and stay within the private sector.

II.1 Macro-reaction

1) Economic growth sustained by private and public consumption

The impressive performance of private consumption (4.3% rise in GDP expenditure), which represents the largest share of GDP on the demand side, along with the equally impressive increase

Decomposing demand, billion US\$



Source: IMF, EIU, Note: estimates for 2010

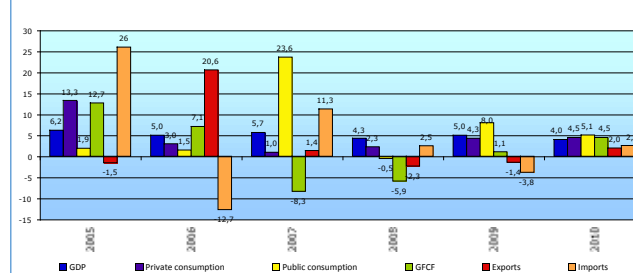
of public consumption expenditure on GDP (8%), as authorities made sure the crisis would not impact on Syrian growth, are the main variables that explain the 5% GDP rise in 2009. One should also note that, after two consecutive years of negative growth in expenditure, gross fixed investment also contributed through a frail, yet real, 1.1% growth in GDP expenditure. Exports expenditure (-1.4%) was the only variable pulling GDP downwards, but was largely compensated by the evolution on the import expenditure side (-3.8%).

Estimates for 2010 suggest a rate of growth close to 2008 levels, predicted at 4%. Economic performance during the first months of 2010 suggests that private consumption will keep fueling growth, joined by investment which is expected to rise even more, while public consumption expenditure should keep growing though at a slower pace. The deceleration in the rate of growth could be attributed to an expected rise on the import bill, as international trade picks up from its recent slump.

2) Increased pressures on the budget in 2009 that need to be contained

The impressive increase of public consumption expenditure on GDP would naturally put additional pressures on the national budget. Indeed, after three years of consecutive decline in the budget deficit, 2009 catapulted the government deficit to an estimated 8.3% of GDP, from 2.5% in 2008. Central government revenue was not enough to cover the expenditure rise, revenue

Decomposing demand, annual variation of expenditure to GDP

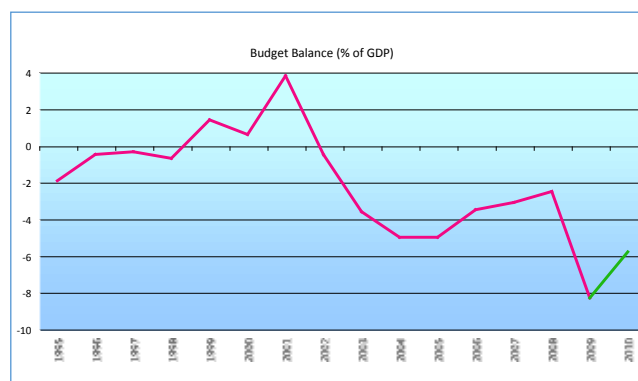


Source: IMF, EIU, Note: estimates for 2010

was on the decrease in relative terms reaching 18.3% of GDP in 2009, down from 21.4% in 2008 and 22.7% in 2007. While spending in 2010 has been relatively stable due to economic recovery (at an estimated 26.8% of GDP), the deficit is not expected to fall back to pre-crisis levels so quickly. Revenue is expected to increase to an anticipated 21% of GDP in 2010, hence, the budget balance shall remain close to the -5.8% mark, before further dropping in 2011 along with further increases expected on the revenue side.

3) Monetary/exchange-rate policy

The Central Bank has made considerable efforts on the foreign exchange market and has stabilized the exchange rate of the Syrian Lira which in turn has provided for more credibility towards the domestic regime. Unifying the exchange rate and freeing it from the US\$ brought more flexibility, dollar while tying it to a basket of currencies within the framework of providing bigger flexibility for the exchange rate, introducing centers for foreign currency in banks has offered more protection from exchange rate fluctuations and removal of restric-



tions on the current account in a gradual way have paid off.

Since 2007, the Syrian pound has been pegged to a basket of currencies, following a freer floating-type regime. Also, inflation was relatively contained, with 2008 only being a parenthesis to an otherwise stable path. The Syrian Lira appreciated slightly in 2010 due to the weakening US\$ and shall remain level as the Central Bank seeks exchange-rate stability (EIU). The ample reserves accumulated (17.4bn US\$, 13 months of import cover in 2009) in 2009 shall facilitate the task of authorities.

II.2 A limited impact on banking

The Syrian banking sector was relatively strong during the crisis due in great part to its still limited size and degree of exposure.

- Return on equity fell to 14.7% in September 2009, from 19.1% the prior year, meanwhile, return on assets also decreased, from 1.8 percent in 2008 to 1.3 percent in 2009. Finally, capital adequacy reached the 20% mark which signifies that a moderate profit was achieved along with excess liquidity.
- The ratio of non-performing loans to total loans in September 2009 was low, at 5.1% for consolidated loans, 1.4% for private loans, 2.8% for Islamic loans and at 5.9% mark for public loans. But as noted by the IMF, the NPL of public banks could be understated as they do not classify many of their loans as bad loans since they are implicitly guaranteed by the government.

Developing the banking in financial sector appears to be among the priorities of Syrian authorities. The government acknowledges that there is need to manage public debt by issuing governmental bonds after the marked budget deficit. In that respect, legislative Decree No 60 for 2007 was promulgated for the emergence of Government bonds and the issuance of treasury bills shall happen soon which will also alleviate some pressures on the banks that finance the government.

Furthermore, private banks and micro credit institutions are being implemented, the share of private banks has increased ; in September 2009 there were 12 private banks with assets equal to 24% of total banking sector assets. In the years to come additional efforts will have to be made on issues of transparency, liquidity and government interference. While banking intermediation remains below Mediterranean standards, it has still shown exemplary dynamic.

III. Growth engines in Syria

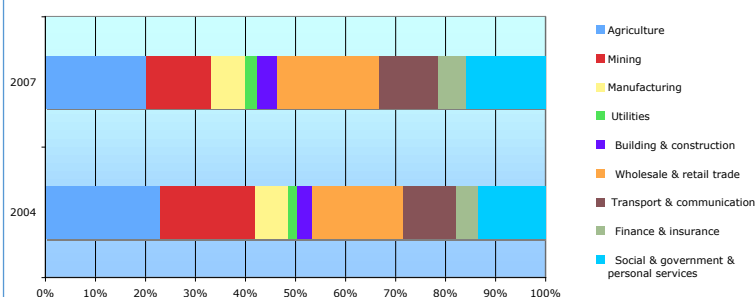
III.1 A production structure evolving in a regime of capital accumulation

The Syrian economy during the 80's and 90's was a relatively frail one, with irregular growth, limited sustainability and over-dependency to oil-price fluctuations. In view of overcoming the exchange crisis of the first half of the eighties, Syria followed an economic reform which sought to reduce both the budget deficit and public expenditures. This had a net effect on growth and contributed to its deceleration. Meanwhile, Syrian manufacturing suffered from limited productivity due to the lack of any technological progress.

However, during the 2000's growth rates appear to have been relatively stable and high. Thus one should ask if the structure of the Syrian economy has finally evolved towards a model of sustainability. Has the value-added structure evolved and is Syria starting to become more competitive?

It appears that the composition of GDP is evolving, the modification is even apparent in a small amount of time which suggests the Syrian economy is transforming at a more rapid pace. For example, in the 1990's, agriculture contributed to 23-28% of total GDP, growing at an annual rate of 6.7% in the first half of the decade and by 5% in the second half. However, in 2004, the share of agriculture fell to 21.6% of GDP and in 2007 it had reached 20.2%. Thus, while the sector still represents a considerable amount of wealth, Sy-

GDP by sectors (Constant Prices)



Source : Central Bureau of Statistics

to be proven. As the left-hand graph below suggests, the Syrian productivity has been un-sustainable and has mostly shown negative growth. Furthermore, annual productivity growth appears to have fallen below zero during the 2000-2006 period after a productive decade during the 90's.

ria appears to be limiting its agricultural dependency in favour of other sectors. Similarly, mining activities, a traditional engine of Syrian growth, have been receding.

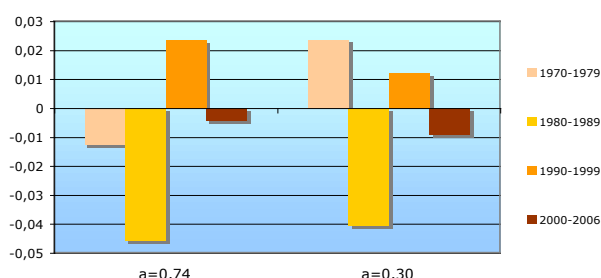
Manufacturing has slightly grown, from 6.1% of GDP in 2004 to 6.9% in 2007 while construction has followed an upward trend as well from 2.9% of GDP in 2004 to 4.1% in 2007. But the highest shift comes from the service economy which appears to be gaining in importance in recent years. In the 2004-2007 period wholesale & retail trade has increased its share by roughly 3%, social, government and personal services by the same amount, followed by financial and transport services which both increased by 1%-2% of GDP.

The increased presence of the private sector is certainly responsible for such signs of economic diversification. But whether Syria has been able to increase the productivity of its industries remains

In the right-side graph growth rates of the aggregate product are broken into contributions of factors of accumulation and productivity. The main determinant of economic growth through the last 40 years in Syria clearly appears to be the accumulation of physical capital when the relative share of physical capital to production is assumed to be maximum (0.74). When the relative share of physical capital to production is equal to the conventional value (0.30), human capital appears to have played a positive role as well. In both cases the contribution of TFP has been negative.

What can be said is that Syria needs to render its regime more efficient. For a 1% increase of GDP per capita the capital per labor would have to grow by even more. The country needs to do what is necessary to remove implicit barriers and inefficiencies and allow for capital investment, both domestic and foreign, to materialize into full growth. The

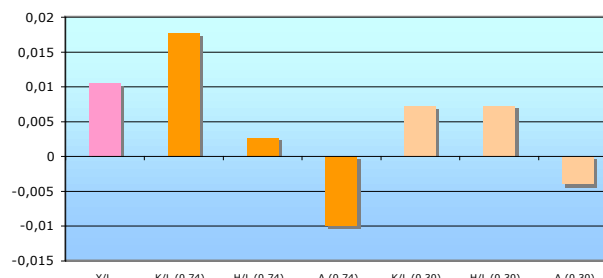
Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

issue of financial liberalization comes into mind which could ameliorate the Syrian investment-growth nexus. As noted, by Bazzoni et al (2002), in the Mediterranean, a positive effect of FDI on growth can be obtained only when the financial sector allows for credit to the private sector to be above a certain threshold (46% of GDP according to the authors). While this condition was met by several MP's, Syria was below it at the time. Hence, for FDI to have a marked positive impact on growth sustainability, Syria should simultaneously consider upgrading its international trade, infrastructure and financial positions.

As discussed in the following section, it appears authorities have been recently on the right track.

III.2 Measures to ensure growth sustainability and employment

1) Investment promotion in the Five-Year Plan (2011-2015)

The Syrian authorities appear to be boosting investment within the five year development plan. The latter covers a vast array of sectors going from health and retail, to infrastructure and tourism and should contribute to strengthening growth all the while enticing more FDI and improving Syrian productivity. A major project that is underway is the one of the Khams Shamat on the Damascus-Beirut highway, meanwhile notable mention should be made to projects such as the construction of a five-star hotel in Damascus. Various irrigation projects and expansion of arable land are also among the efforts undertaken to modernize the agricultural base. The Ministry of Electricity is also expected to build new plants and modernize its current power stations and connecting lines.

The five-year plan for 2011-15 plans for real GDP to grow by at least 5.5% annually with the purpose for Syria to become among the strongest in the region by 2015. Investment could reach 87bn US\$ throughout the period and should be financed by

the private and public sectors as well. Indeed, the plan shall also provide incentives for public-private partnerships by encouraging those capable of managing projects to achieve partnerships between the public sector and investors. The creation of a positive business and investment climate, a prerequisite to maximizing growth potential and employment, also appears to be among the authorities concerns.

Finally, modernizing the Syrian infrastructure shall allow the country to take center stage in international trade. Existing airports are expected to be upgraded (ex. a new terminal at Damascus airport) and the construction of new ones could see the light of day since it was approved by the council of ministers. Let it also be noted that there are proposals to expand the Latakia and Tartous ports which could provide for better logistics services and position Syria as a regional hub.

2) Developing Plans for Renewable Energies

As done in neighbouring MP's, Syria is seeking to diversify its energy sources by focusing on renewable energies which shall allow to provide for its increasing needs. Several plans, often in cooperation with international energy leaders, are either ongoing or in a preparatory phase. A strategic partnership to develop wind energy in Syria was recently signed with MARAFEQ and VESTAS with a project that includes the construction and operation of a wind farm with a generation capacity of 50-100 MW at two sites south of Damascus, with a construction time span expected not to exceed 2 years.

Furthermore, projects for the installation of solar roofs on kindergartens attached to public buildings, the installation of solar water heaters in private and public buildings and the implementation of photovoltaic panels in rural Syria are also expected.

The objectives of the domestic plan for energy are to achieve by 2030 roughly 1000–1500 MW of

wind power, 250 MW of biomass based plant, 250 MW of PV plant, 1 MTOE per year of solar heat. Meanwhile, the National Energy Research Council is also expected to undertake 8 million US\$ worth of projects within its five-year plan.

The energy sector carries potential for future growth but it does for employment as well. The Ministry of Higher Education launched a series of programs for study on renewable energy at the faculties of electrical, mechanic and technical engineering and in the institutes and postgraduate programs. This shows a clear interest towards the sector and the possibility for developing new branches of qualified employment. Research and training energy centers have been established in some universities (Damascus, Aleppo, Tishreen and al-Baath) while studies on new types of energies and potential investments are conducted.

3) Legislative Reforms for the Banking Sector

Let it also be noted that legislative reforms, for activities of the banking sector to meet specific standards, are ongoing. Imminent reforms include completing amendments to the Law on Syria's Central Bank and the Basic Currency Law as well as to Law 28 on the creation of private banks in Syria. Furthermore, additional work on the legislative framework for the creation of a society of banks, the establishment to underwrite risks on loans, on guarantee deposits.

Furthermore, since January 2010, Syria allows foreign investors to acquire up to 60% of domestic banks versus 49% until now. This is done in an effort of attracting more FDI and also for private banks to raise their capital to about 220 million US\$ versus 30 million US\$, while the limit for private Islamic banks would be of 330 million US\$.

Conclusions

The Syrian economy started to progressively open-up to the private sector and liberalization has been

ongoing. It appears that a new, more efficient and competitive, economic process is replacing the former, more protective one, through a series of initiatives and reforms.

A series of structural reforms have included the establishment of private banks, opening up of insurance companies to private capital, reduction of tariffs, new industrial cities etc. But Syria is a country in a transitory phase, hence, it is also logical for the country to be far from the levels of productivity found in the developing world.

To remedy that, authorities are making efforts to ameliorate the business climate, attract more FDI and develop the financial sector to foster growth in the new decade. Moreover, some efforts to combat youth unemployment are underway which should be intensified.

Overall :

√ The Syrian economic structure is becoming more outward oriented. Exports are expected to recover in the short-run, though they will probably remain below prior levels when oil-prices were thriving.

√ As judged by the cooperative efforts in the energy sector and joint private-public sector investment in the five-year plan, the private sector is finally growing, government interference is somewhat lessened and all benefits the domestic economic infrastructure. Furthermore, as was suggested by FEMISE (2006), the government is trying to consolidate the Syrian economy and to develop integrated relations.

√ Within the framework of increased cooperation, Syria could seek support from foreign partners as consultants for policy management processes. Domestic capacities in monitoring and evaluating industrial policy could be strengthened, along with Syrian expertise, for a transformation towards an horizontal approach and the domestic potential for innovation and the knowledge economy.

√ Continuous efforts such as those already undertaken could, in the long-run, develop more

competitive advantages and contribute to the emergence of Syrian productivity.

In the end the following observation shall be made. As noted by Glick (2010), « maintaining real GDP growth and limiting real overvaluation are critical factors preventing currency crises, not capital controls » which is something that Syria appears to be understanding right now. Certainly, if Syria succeeded in weathering the recent crisis so efficiently it was also in part due to its still limited integration. However, one should not ignore the authorities' efforts for strong output growth and the recently introduced exchange rate flexibility that limited overvaluation of the Lira and hence shielded the economy from an unwanted transmission channel.

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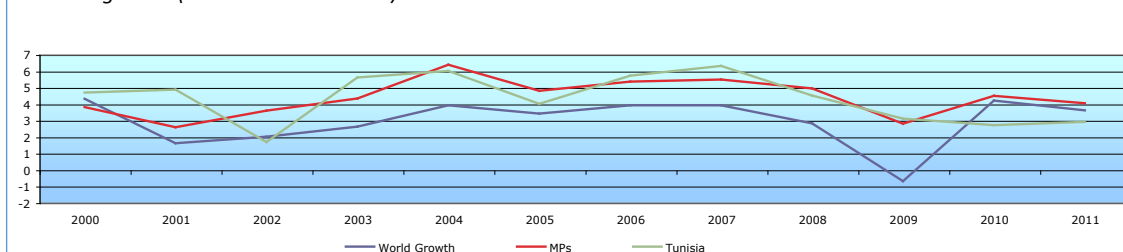
Tunisia: Great sustainability and growth regime despite considerable shock on exports

Contrary to trends found in open economies, Tunisia managed to register a positive rate of growth in 2009 despite exogenous shocks. The 3% rate of growth showcases how the country remains an example of dynamism and sustainability in the region ; growth is obtained through total factor productivity which allows distribution of income without hampering the country's competitiveness. It appears that the country is reaping the fruits of its reform policy while crisis prevention measures have proven to be relatively efficient. In spite of the world crisis, Tun-

(34.3% annual decrease in 2009). Tunisia is to a large extent dependent of the international context and the prospects for increased demand from major trading partners look uncertain. Additionally, the country still faces major challenges, most notably regarding employment of the qualified youth. Tunisia still has to face the issue of inefficiency in systems of vocational training, insufficient development in firm creation and initiate more tax incentives to further boost investment opportunities.

Banking and financial sectors have shown relative resilience to the crisis effects and prospects for their future show promise since the 2009-2014

Real GDP growth (annual variation in %)



Source: Economic Intelligence Unit (EIU), IMF

sia managed to maintain and even decrease its debt (to 17,6bn US\$ in 2009), increase its currency reserves to approximately 6 months of imports while following a strategy of FDI promotion.

Tunisia's relative solidity in the real sector is related to the government's ongoing economic upgrade programme, established 15 years ago to improve business productivity and performance. With the use of credit lines and technical support, government aid provided a 2.7bn euro investment to help 4 500 companies. This has had positive spill-over effects yielding more professional management techniques and adequate preparation for the crisis outfall on economic growth and increased competitiveness.

Nonetheless, the country has not been completely spared by the crisis outfall, whose impact can be best measured in considerable fall in goods exports

presidential programme has introduced reforms to improve their efficiency. Tunisia has been exempt from both "poisonous" products in portfolios of domestic banks and from speculative investment funds. Instead, the country has focused on favouring productive investments and using foreign participation in the capital of local banks.

In regards to Tunisia's capital account, it appears gradual opening followed domestically has been a pertinent strategy. One of the most important points should be to increase FDI opening without exposing the domestic economy to uncontrollable risks. In that respect, the strategy of gradual opening remains compatible with the country's sector-specific interests.

It should be noted that despite the crisis Tunisia has not followed the example of several deve-

loping countries and has not adopted protectionist measures. Nonetheless, the challenge for Tunisia in the coming years will be to manage the fall in international demand (partly compensating by internal demand), maintain investment at high levels while solidifying its structure and coping with limited ease in macroeconomic management due to the international context.

Regarding Tunisia's macroeconomic position the following elements should be noticed :

√ The dependance to developed partners demand brought a 34.3% decline in merchandise exports in 2009 causing the trade deficit to considerably widen compared to 2008 and reach 12.5%.

√ The service balance increased in 2009, but at a much slower rate than in 2008. The sectors resilience is attributable to remarkable performance in the tourism sector, tourism revenues achieved a 2.1% year-on-year increase in 2009, while an expected large fall in tourism receipts during the summer had been averted in part due to the influx of Maghreb tourists which rose by 7.9%.

√ FDI appears to have fallen by 38.8% during 2009, however, it allowed for the creation of 13 600 new jobs of which 12 000 originated from manufacturing, the largest recipient representing approximately 25% of total FDI.

√ The banking measures have globally helped the sector markedly improve its indicators, nonetheless, additional efforts should be undertaken to solidify its structure.

√ It was investment and public consumption that helped shape Tunisian growth despite the crisis fallout, growth in the former remained close to its pre-crisis level in 2008 (real increase of expenditure on GDP by 6.6% in 2009) while expenditure growth on GDP in the latter grew by 5.2%, at a higher pace than in any of recent years. A recovery to pre-crisis levels of growth appears improbable in 2010 due to diminished potential for exports.

√ A major challenge resides in reducing the high unemployment rate among young university graduates. Figures for the first 5 months of 2010 show

that job-placing of new graduates has already met a year-on-year decrease of 19,2% while the number of job-seekers originating from vocational training has also increased.

√ The Tunisian economy gained in efficiency throughout the 90s and has maintained its annual productivity growth persistently high through the 2000-2006 period as well. We could say that TFP grows at a faster pace in recent years which underlines that past choices have shielded Tunisia to a great share of the current crisis outfall.

√ There are reasons to believe that human capital has been the main contributor to total factor productivity (TFP) in Tunisia. A main reason for the rise in TFP since the late 80's was unqualified labour, while capital appears to have had a negative impact on productivity. This would mark a considerable achievement since it is very seldom for human capital to have a higher contribution compared to physical capital. In optimal allocation of resources, Tunisia could favor more « winners » sectors such as construction materials, textiles, water and energy and import goods in which it possesses a comparative disadvantage.

√ Tunisia pursues its strategy of openness which can be best seen through the initiation of several investment projects that rely in great part on foreign capital. A series of investment projects in strategic sectors provide a good example of the dynamic Tunisia wishes to achieve both in the short-run to mitigate the effects of the crisis and in the long-run to carry growth. Potential « winners » that Tunisia could rely on are energy, environment, infrastructure, logistics and tourism. They are the sectors in which concessions are planned and should allow for active public-private partnerships and the introduction of vast amounts of FDI.

√ But, Tunisia will need to use its qualified human resources more efficiently in order to make further improvements in its economic fabric. The country should consider maintaining its qualified labour-force by modernizing the effectiveness of public administration and adapt it to the evolution of current needs.

√ Moreover, regulatory barriers in certain services are still considerable, further opening could

augment the export competitiveness and potential of Tunisian services and position Tunisia as an outsourcing location for services (ex. in ICT or business services) of developed partners.

I. A considerable initial shock on the real economy handled relatively efficiently

I.1. The context

1.1 Increased openness in trade, gradual opening of the capital account

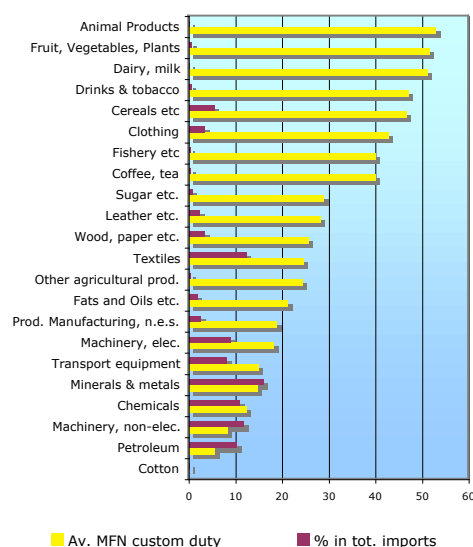
The last decade was a challenge for Tunisia, trade liberalization marked a considerable increase worldwide and competition in sectors of Tunisian comparative advantage (ex. textiles) grew rapidly. Hence, authorities had to ensure production and firms would allow for competitive exports.

Thus, the question one should ask is if Tunisia managed to become more open within the international context. Is Tunisia more open than it was when the Barcelona process was launched ?

At first sight, imports are still constrained by high custom duties in a variety of goods, traditionally from the agricultural and food sector. Naturally, there are ongoing efforts in dismantling such barriers and Tunisia has pursued tariff reform since it joined the WTO but it remains to be seen if all procedures will materialize in the short-run.

Nonetheless, in other sectors (ex.cotton, oil, non-electrical machinery) import barriers are considerable

Tariff protection and imports, by product



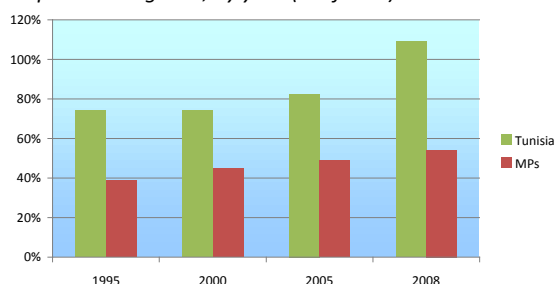
Source: WTO World Tariff Profiles 2008

rably lower and are even below the levels found in neighbouring MPs.

A more in depth look of Tunisian trade suggests that the country has been characterized by considerable trade opening in recent years following a strategy of export promotion, destined in great part to EU countries.

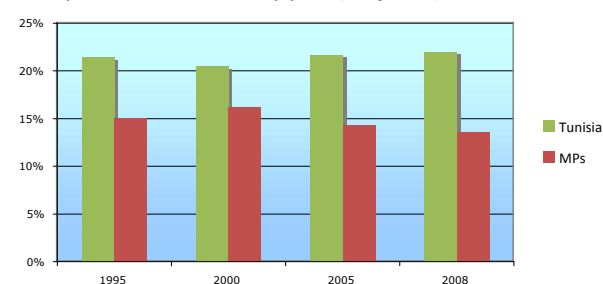
As a consequence, Tunisia has been very trade-oriented as shown by the evolution of its openness ratio. The latter, represented through the sum of goods exports and imports relative to GDP, has shown a remarkable increase since the early 2000s and has achieved unparalleled heights since 2005. Furthermore, Tunisia registers increased openness in services trade, though results are not as impressive as in the goods sector.

Trade openness in goods, by year (% of GDP)



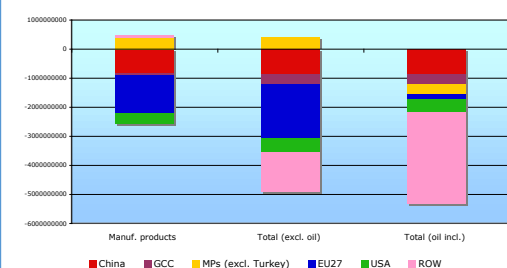
Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Trade balance 2008, by partner and product, mill. US\$



Source: COMTRADE

Finally, when looking at the value of trade, it becomes obvious Tunisia is a net importer, both with and without the inclusion of oil-trade. Furthermore, Tunisia has a trade deficit with all major partners except neighbouring MPs with whom it has a trade surplus in manufacturing. In non-oil trade, the EU27 has the largest surplus on Tunisia, followed by China. Overall, Tunisia pursued a strategy of openness which, as we'll see later, has helped its position on international markets and ensured high rates of growth.

1.2 A capital account at an intermediate openness stage along with flexibility of the exchange rate

The liberalization of the Tunisian capital account is at an intermediary stage (medium degree). Meanwhile, Tunisia has a flexible exchange rate regime. Structural reforms combined with progressive opening since the mid 80's have progressively allowed the instauration of the convertibility of the Tunisian current account and the total convertibility of the Tunisian dinar. During the 80's, Tunisia initiated a considerable economic reform program, hence, the degree of capital account liberalization has relatively advanced and is compatible with the flexible exchange rate system. The increased financial openness resulted from the adoption of a new economic development strategy. Thus, the financial sector became more deregulated and market oriented even if it has not achieved the depth of financial systems found in the most advanced developing economies.

Following the evolution of the crisis outfall on economies worldwide, in regards to Tunisia's capital

account, it appears the strategy followed domestically (gradual opening) has been the most pertinent. The performance potential induced by capital account liberalisation on sectoral investment is conditioned by contraction of monetary policy through the interest rate to avoid inflationary pressures that could persist through capital inflows. As highlighted by FEMISE, the strategy of gradual opening remains compatible with the country's sector-specific interests since given sectors can be the object of favorable tax-exemptions that favor investment attraction. Moreover, financial sophistication and banking resilience can be ensured.

1.3 Poverty reduction has been ongoing

In the 1980s, poorest deciles in Tunisia witnessed pro-poor growth reducing inequalities among deciles. In recent years, average wages have increased, poverty has decreased and just redistribution of income is an objective of the current economic and social development plan. Per capita income in Tunisia has also been on the rise reaching 8 223 PPP \$, up by 1.3% compared to 2008. According to the Human Development Report, life expectancy went from 65 years in 1985 to 73.8 years in 2007. It should also be noted that Tunisia was ranked on the top of Arab countries in matters of quality life in 2009 by the International Living Association.

Openness to trade affects the income of the poor directly and indirectly through its impact on growth. This might explain the exemplary reduction in poverty ratios since the beginning of the 1990s. When the 1.25\$ a day mark is taken as a poverty benchmark, Tunisia appears to have reduced its poverty ratio from 6.5% of the total population

Table 1. Poverty ratio (Headcount Ratio) per capita at 1.25\$ per day PPP, % of the population

	1985	1985-90	1990-95	1995-00	2000-05
Tunisia	8,65%	5,87%	6,48%	2,55%	1,01%
MENA	6,10%	4,31%	4,07%	4,10%	3,60%

FEMISE (2009), FEM33-02

in the 1990-95 period to only 1% in the 2000-05 period. This comes as stark contrast with the average poverty ratio found in the Middle East and North Africa region where poverty appears to have remained stale, recording a marginal reduction in a time span of 15 years.

Overall, the poverty rate stabilized and is unlikely to fall much further especially due to high food and fuel prices (EIU). On the contrary, there is a possibility for worsening social conditions as an indirect effect of the crisis. Simply put, Tunisia has the largest middle class in the North African region and after decades of improving living standards it now faces the issue of rising prices of imports.

1.2. Crisis transmission channels

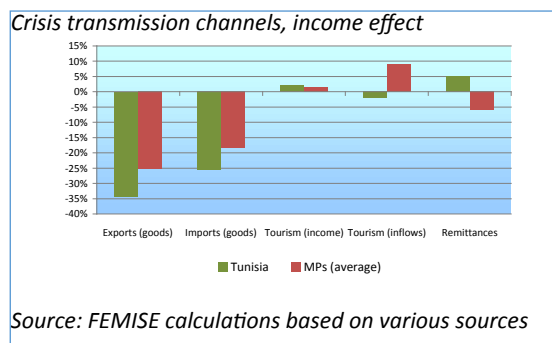
As in most MP economies, the crisis transmission channels are essentially to be found in the real-sector.

2.1 A real shock that originates from a fall in exports and FDI

The crisis impact on Tunisia in 2009 can be felt at varying degrees through main aggregates summarized below:

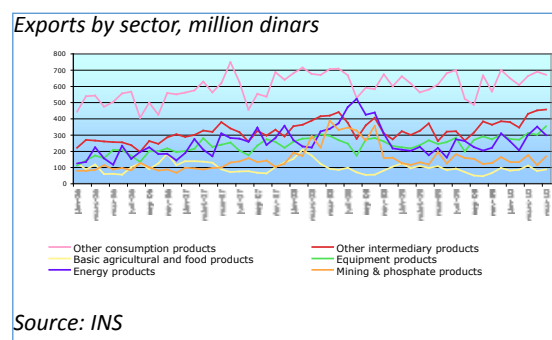
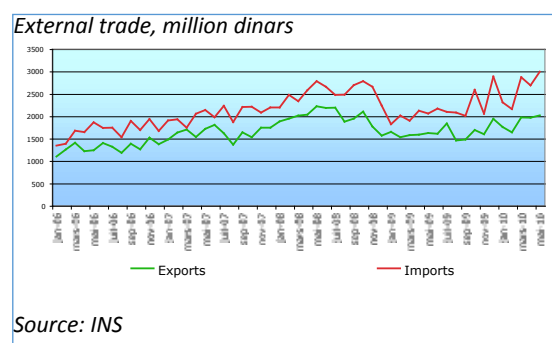
- ✓ A reduction in goods exports by 34.3%,
- ✓ A 25.6% decrease in the value of goods imports,
- ✓ A trade balance in deficit for 2009 that escalated to 12.5% of GDP,
- ✓ A resilient service balance due to a 2.1% increase in tourism receipts in 2009 (volume increase of 9,5%),
- ✓ An increase in workers remittances by 5.1%.
- ✓ A deficitary current account at 5.9%.
- ✓ A large decrease in FDI by 38.8% in 2009.

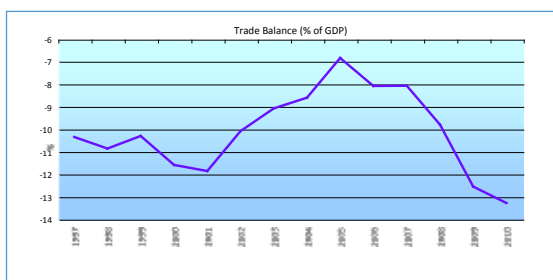
A driving force of Tunisian growth translated into a source of exposure. The dependance to developed partners demand brought a 34.3% decline in goods exports in 2009. The largest share of exports comes



from other consumer products which recorded a 5.8% decrease, however, the largest percentage fall is recorded in mining and phosphates (-47.3%) followed by energy (-35.3%) and basic agricultural products (-20.9%).

Despite such negative effects, a trend reversal could occur in 2010. The poor export performance compared to 2008 is mostly attributable to the first semester of 2009. In the second semester of 2009, more specifically since October, an attenuation of the effects on trade are to be seen, leading to a year-on-year increase of total exports in December 2009 compared to the same period in 2008. Furthermore, early figures for 2010 suggest this phenomenon is all but ephemeral due to the recovery in several sector-



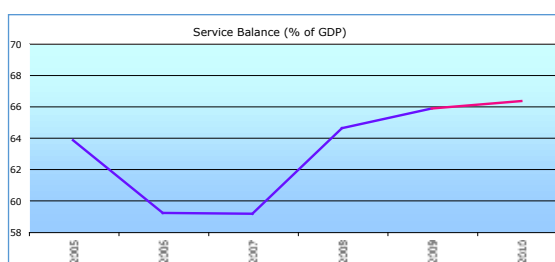


groupings such as other intermediate products, equipment products and energy products. Thus, exports have shown relative resilience in a crisis context which could be attributed in part to the still ongoing export promotion strategies lead by the government as a means of ensuring domestic sustainable economic development.

Meanwhile, imports in 2009 decreased by 25.6% as commodity prices fell and domestic demand decreased. That being said, recent figures point to an import increase in the coming months following successive year-on-year increases starting from December 2009.

The overall merchandise trade performance in 2009 caused the trade deficit to widen compared to 2008 and reach a 12.5% deficit. The fall in the import bill did not suffice and it remains to be seen if the reprise in exports will be sufficient to signal to potential recovery and allow for a more equilibrated trade balance in 2010.

The service balance increased in 2009, but at a much slower rate than in 2008. The sectors resilience is attributable to remarkable performance in the tourism sector. The latter sector is one of the country's main sources of GDP growth and employing approximately 1/7th of the Labour force. Tourism revenues, the country's main source of foreign currency, managed to achieve



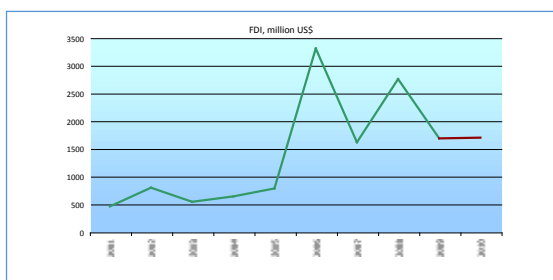
a 2.1% year-on-year increase in 2009, while an expected large fall in tourism receipts during the summer had been averted. European tourists' arrivals might have dropped by 8,8% (a decrease of 13.9% from spanish tourists followed by a 13.7% decrease from Italy and a 7.2% decrease from Germany), nonetheless, Maghreb tourists rose by 7,9%, primarily because of a 12,9% increase in Libyan tourists' arrivals.

A favorable exchange rate has been key to Tunisian export attractiveness, while the foreign exchange earnings increased reaching 3 460,3 million dinars, they record a decline of 1,9% in Euros at 1 842 million Euros. Indications for the sectors' short-term and mid-term development are encouraging ;150 hotels have already been placed on an upgrade program which corresponds to ameliorating 31% of the overall host capacity.

With regards to the remittances channel, they represent 5% of the GDP in Tunisia, thus an expected decline would have real, yet limited, effects on the economy. Tunisian workers' abroad are, as all workers, facing increased unemployment waves in EU countries, however, estimations point towards an increase of 5.1% in 2009.

Finally, FDI figures in 2009 are on the negative side. Foreign investment appears to have fallen by 38.8% during 2009. However, despite the global decrease, foreign investment allowed for the creation of 13 600 new jobs of which 12 000 originated from manufacturing. In end-november 2009 the manufacturing sector had been the largest recipient representing approximately 25% of total FDI, in other words, a 2.3% increase compared to 2008.

Nonetheless, it should be noted that investment inflows in 2008 had increased considerably due to extraordinary privatization efforts which were unlikely to be reproduced in any context. Thus, despite possible delays in current investment projects, foreign investors could progressively



attain pre-crisis levels of commitment and further boost FDI inflows. Such thing could naturally occur with even more certainty if administrative barriers to foreign investment were completely dismantled.

2.2 A rather moderate financial shock

The degree of exposure to the crisis effects largely depends on the degree of financial integration within developed markets. Moreover, a country that has the capacity to efficiently handle its foreign reserves in conjunction with a relatively equilibrated budget is more prone to avert disastrous financial repercussions.

Such appears to be the case of Tunisia, the country is characterized by intermediate openness in its financial market, with medium capital account liberalization, a high degree of financial liberalization and net external liabilities of the financial sector at a low level. Thus, the crisis had a relatively moderate impact on the financial sector, especially compared to more open developing economies.

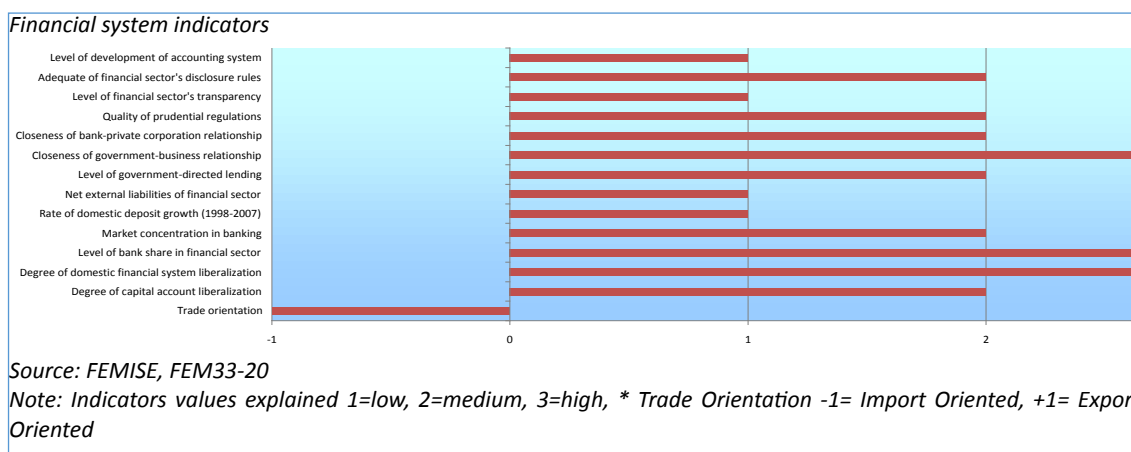
1) Outfall on portfolio investment

Portfolio investment in Tunisia remained rather low compared to FDI inflows. Traditionally, foreign portfolio investment is subdued to Tunisian regulation, non-residents have to pursue domestic guidelines even if net real proceeds and gains can be moved freely. As noted earlier, liberalization of the capital account is still at an intermediate change and authorities have remained prudent. Thus, the value of portfolio investment remains at moderate levels and the estimated 60.6% decrease in portfolio inflows for 2009 is of less importance than one would think. Additionally, recent developments show that the fall is essentially attributable to the first half of 2009, thus the months following the crisis, while figures for late 2009 and early 2010 point towards recovery.

2) Outfall on the Stock-exchange

Since the inauguration of the stock-exchange in 1969, the number of companies listed has not stopped increasing going from 17 in 1990 to 51 listed in 2008. This can be explained by the increased accessibility to foreign investors, technical developments in the capital market sector, but also trade gains with developed EU partners, an evolving service economy especially in tourism and a healthy banking sector.

Regarding recent developments in the domestic stock-market, the latter appears in good health



and does not show worrisome signs of any speculative attacks in the short-run. A recent report on the MENA region places Tunisia as the best performing regional stock-market in 2009 with a 48.4% growth, distancing Egypt at (35.1%) and Saudi Arabia (27.5%). Only in December of 2009, the Tunis stock exchange index grew by 3.16% while in October 2009, the index had recorded an outstanding 12% growth. The fact that the market has grown in a period of international recession may be a sign of coming of age. Price-earnings ratios in the tunisian market tend to be low, while dividend yields are high. The stock exchange has modernized its platform to the NSC V900 system allowing for an array of additional online trading services.

Furthermore, the “Bespoke Investment” report on the countries’ capacity to resist the international financial crisis, ranked Tunisia 6th place out of 82 countries. Among others, the report praises the Tunis Stock Market by the lack of poisonous products in domestic banks portfolios as well as by the lack of speculative investment trends. Instead, Tunisia has supported strategic productive investments, foreign presence in the capital of local banks (BNP Paribas - Union Bancaire pour le Commerce et l’Industrie (UBCI), Société Générale - Union Internationale des Banques (UIB) etc.

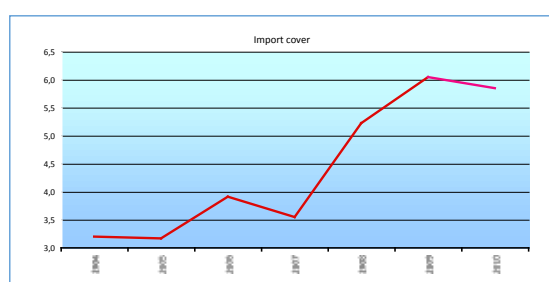
✓ After ongoing strong performance, the stock-market, small of size until know, is expected to grow since new issues are expected in 2010 that will further boost liquidity and thus attract an increasing number of foreign participants and capital.

✓ More and more companies such as Tunisia’s Navigation Company (CTN Tunisia Ferries) are about to enter the Tunis Stock Exchange. In the case of CTN its capital practically tripled from 42 500 000 dinars to 119 000 000 dinars and should enter the market through a public offering subscription.

3) Outfall on foreign reserves

Despite the crisis context, foreign currency reserves doubled to more than 5 months of imports in 2009. The reduction in the value of exports did not bring any peril to currency reserves since receipts from tourism partially cushioned potential danger while remittances had a marginal effect. On the opposite side, lower imports contributed to reducing pressure on reserves and allowed for the import cover ratio to go beyond the IMF-recommended minimum of 3months.

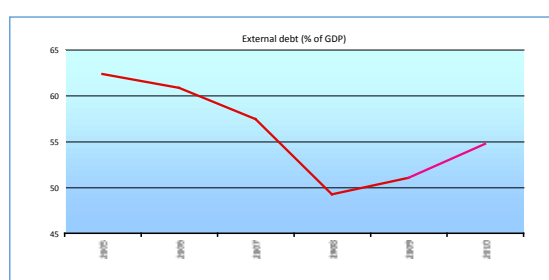
As seen before, imports appear to have ceased contracting, nonetheless, there are no clear indications as to the possibility of increased pressures on the import cover ratio in the me-



dium-term. Thus, Tunisia seems to experience a reverse in recent trends, where the growth of foreign reserves was not enough to compensate for the increase in imports, which had led to declining import cover ratios, hence, growing sources of concern.

4) Outfall on external public debt

As for government debt, initial forecasts pointed towards a rise in 2009 which would continue in 2010



before falling slowly within 2011. However, Tunisia managed to exceed expectations and reduce its debt to 17,6 bn US\$ in 2009 (51% of GDP) from 19,9 bn US\$. Tunisia's debt ratio to GDP had been on an improving track until 2008. Nonetheless, external debt stock has been increasing since the crisis erupted and is expected to further increase to almost 55% by 2010. Debt service ratio stood at 12.3% in 2009, up from 10.5% in 2008, a high ratio compared to developing countries with similar sovereign credit ratings. This means that careful management in the coming years should be considered for the ratio to decline near the 10% mark and hence improve fiscal and current-account balances (EIU).

II. Developments on macroeconomic aggregates

1. GDP growth and decomposition

As hinted earlier, the decline in international demand contributed to a downward effect on final demand since internal demand did not suffice. Even so, contrary to trends found in open economies, Tunisia achieved a 3% rate of growth showcasing exemplary dynamism and sustainability in such a context.

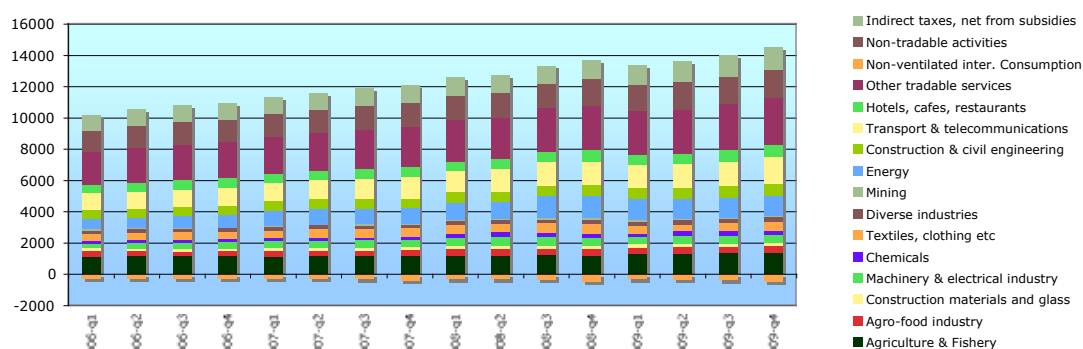
The core of Tunisian growth relies on sectors such as other tradable services, non-tradable activity, transport and telecommunications services, agriculture, energy and tourism. The country has made significant steps in modernizing its productive base and diversifying its engines of growth, it has become

less dependent on agriculture and more invested in solidifying the service sector and developing energy. Granted, the latter sectors were among the worst hit in the months following the crisis eruption, energy registered a 105 million dinar contraction in the first quarter of 2009 compared to the previous quarter, while hotel and related services followed a 55,7 million dinar decrease in the same time-frame. Similarly, the textile sector endured the largest hit with a 156,4 million dinar fall. Nevertheless, activity picked up quite rapidly starting from April 2009 showcasing Tunisia's remarkable capacity for rebound.

However, the tunisian economy still suffers from some structural problems, primarily in the industry sector, which could be approached with greater determination. Granted, electronic components, textiles and the tourism economy bode relatively well compared to other other sectors. But Tunisia could focus even more on high value-added products if it wishes to keep its competitiveness in the long-run especially versus Asian economies. In 2009, growth in the industry sector (34.4% of GDP in 2009) has marked a sharp decline towards the negative side (-5.9% real change) while the services sector which represented 53.9% of GDP grew at 2.8% (versus 7.7% in 2008).

Signs point towards optimism for the future, since the handicrafts Minister has stressed that in 2010 efforts would be made to diversify national exports, in part through the development of high added-value products and services. Furthermore,

GDP decomposition, million dinars



Source : INS

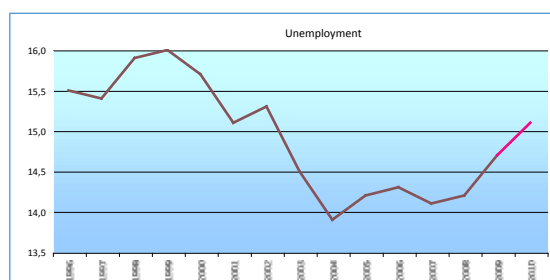
efforts towards the diversification of socio-economic partners are expected to be undertaken.

As for agriculture, the sector always remains dependable on weather conditions but its contribution was favorable in 2009 and represented approximately 11.7% of GDP. An expected drought could however cut agricultural production, thus, lower private consumption in 2010.

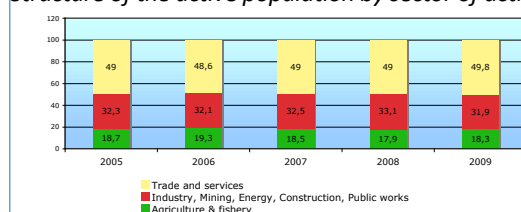
2. Employment: Increase in unemployment for 2009, mixed signals for 2010

The economic slump that hit Tunisian trading partners, such as Europe, brought fears for Tunisian unemployment figures, especially in sectors dedicated to export promotion. The government tried to sustain employment at its prior levels but an unemployment increase by 0.5 points finally occurred bringing the jobless rate around the 14.7% mark. A series of social protests in 2008 over unemployment may be the cause for pursuing policies alleviating social tensions. Possibilities for further unemployment were also partly circumvented by the exceptional performance of agriculture in 2009 which employs around 18% of tunisians.

Nevertheless, the possibility for an extended out-fall on unemployment in 2010 is looming. If export-led industries do not manage to respond to the fall



Structure of the active population by sector of activity



Source : INS

in international demand, then a series of job losses could become a reality.

Signs have been globally positive regarding employment offers in the first five months of 2010 ; they have increased by almost 18% compared to the first 5 months of 2009. There is a clear tendency towards favoring permanent employment in that period (32,1% year-on-year rise) while non-permanent positions are less privileged than in the prior year (-10,2% year-on-year decrease).

However, despite generous employment promotion on the supply side, it is still doubtful if the needs of rising demand will be entirely met with. Job placing

by employment agencies has declined as a whole, despite a slight rise in permanent work positioning. Furthermore, the newly inscribed in search for a job have increased by 10,4% in May 2010 compared to May 2009, while their number has annually increased by 25,2% in the first five months of 2010 standing at 53143. The total number of job-seekers in end-May of 2010 reached 111726 which remains a challenge to tackle when compared to the current figures on the supply side.

Table 2. Labour Market Indicators in Tunisia

	Mai-09	Mai-10	variation (%)	5 first months of 2009	5 first months of 2010	variation (%)
Employment Permanent (>6 months)						
Supply	12769	13031	2,05%	44225	58440	32,14%
Non permanent	5060	3350	-33,79%	23059	20716	-10,16%
Total	17829	16381	-8,12%	67284	79156	17,64%
Employment Permanent (>6 months)						
Placement	8483	8089	-4,64%	35776	36875	3,07%
Non permanent	4099	2831	-30,93%	20712	17433	-15,83%
Total	12582	10920	-13,21%	56488	54308	-3,86%
Employment Demand Newly Inscribed	8029	8863	10,39%	42455	53143	25,17%
Employment demand, end-month	100114	111726	11,60%	100114	111726	11,60%

Source: Ministère de la Formation Professionnelle et de l'Emploi, Observatoire National de l'Emploi et des Qualifications

Table 3. Employment among graduates (higher education and vocational training)

		Mai-09	Mai-10	variation (%)	5 first months of 2009	5 first months of 2010	variation (%)
Employment placement (higher education)		2264	1625	-28,22%	12292	9938	-19,15%
Employment demand (higher education)	Newly inscripted	1121	1283	14,45%	8212	9105	10,87%
	Employment demand in end- month	45643	49851	9,22%	45643	49851	9,22%
Employment demand (voc. tr. graduates)	Newly inscripted	588	703	19,56%	3923	4480	14,20%
	Employment demand in end- month	10501	11254	7,17%	10501	11254	7,17%

Source: Ministère de la Formation Professionnelle et de l'Emploi, Observatoire National de l'Emploi et des Qualifications

A major challenge resides in reducing the high unemployment rate among young university graduates. High rates of unemployment in the graduate market are a chronic issue since not enough jobs are being created for these new entrants. Figures for the first 5 months of 2010 show that job-placing of new graduates has already met a year-on-year decrease of 19,2%, even if the 9938 placements at least cover for the number of new entrants (9105 in the first five months of 2010). Finally, the number of job-seekers originating from vocational training has also increased meeting an annual increase of 7.2% in end-May 2010.

Overall, Tunisia has the luxury of being endowed with an important share of human capital, important qualification and there are premises for going towards a Knowledge Economy. What is needed is continuous support towards the transition, with such an export potential Tunisia needs to further diversify its exports by seeking new markets, creating new products and thus employing more people, especially qualified,

to fill in the necessary positions.

Structural change is thus a necessity to broaden the economic base into more skill-intensive sectors and create opportunities for the qualified youth. In that respect, the government appears to conduct efforts recently to allow for greater labour market flexibility so as labour can be allocated efficiently. The new budget seeks to increase employment in the next five-year period cutting

unemployment by 1.5% by 2014 and pushing the number of new job opportunities from 57 000 in 2009 to 70 000 in 2010.

Tunisia and the Phillips curve relationship

The idea that nominal wages are downward rigid at a low inflation regime persists. Therefore, in the case of a country such as Tunisia that targets low inflation (even in a non-formal manner), such wage rigidity might bring a high rate of unemployment. The question that matters is : Is there a long run unemployment inflation relationship in Tunisia ?

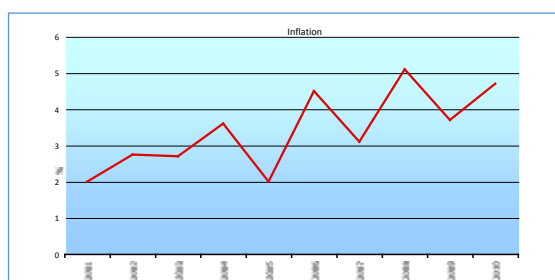
Boujelbene and Boujelbène (2009) show that the unemployment inflation trade off is permanent in case the predicted inflation is at its actual rate of inflation lagged by 1 period.

As known, total unemployment includes youth unemployment whose rate lies between 30% and 40% as well as unemployment of first timers. Furthermore, young unemployed graduates have to face devaluation and declassification phenomena. This shows that the downward nominal wage rigidity hypothesis can have a positive sign imposed and a considerable impact on the long run unemployment inflation trade off.

Employment programmes are expected, targeting 16 000 people for a public-sector job, among whom more than two-thirds are university graduates. However, the public sector already represents about half of jobs, being the traditional employer of university graduates. Thus, as hinted earlier more efforts need to be done regarding private sector opportunities, keeping in mind that Tunisia needs to create 425 000 jobs in a five year span to reduce the rate of unemployment by 1.5%.

3. Inflation

The average rate of inflation in Tunisia fell below the 4% mark (to 3.7%) in 2009. Consumer and producer price inflation both marked a decrease in growth for 2009 (at 3.7% and 2.2% respectively), mostly due to steadier food and energy prices and lower international prices. Commodity prices globally fell in 2009 and consumer



price inflation remained below 2008 levels. The government has also maintained crucial subsidies to ensure avoiding social unrest, thus keeping prices artificially low. However, the prices of basic products, notably oil, started fluctuating during late 2009 and appear to be doing so in early 2010 as well. Nonetheless, despite the rise in wages, consumer price inflation is expected to further decrease following a good harvest year in 2009. Furthermore, relative stability of the dinar against the euro is expected to help maintaining import prices at a relative steady figure. Also, upward price pressures are generally limited by efficient fiscal and monetary policies and thus prospects for 2010 are optimistic.

II.1 A macro-reaction that has increased budget deficit though less than in other MPs

1) Economic activity that remains solid, though below pre-crisis levels

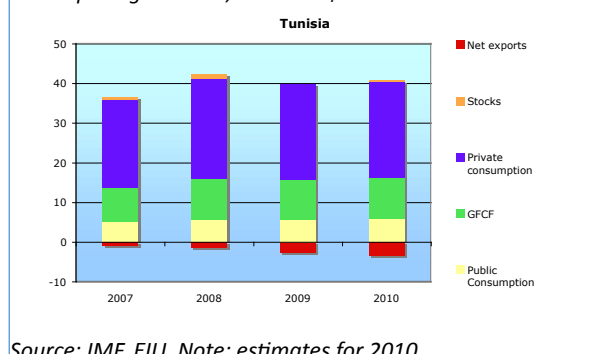
For the first time in years, exports expenditure on GDP fell through 2009 by 6.7%. It was investment and public consumption that helped shape Tunisian growth despite the crisis fallout, growth in the former remained close to its pre-crisis level in 2008 (real increase of expenditure on GDP by 6.6% in 2009) while expenditure growth on GDP in the latter grew by 5.2%, at a higher pace than in any of recent years.

Estimates for the year 2010 suggest a higher rate of growth a 3.3% which is still below what Tunisia has achieved in the latest half of the decade. Therefore, a recovery to pre-crisis levels of growth appears improbable, for the short-run at least. For Tunisian growth to be able to attain full-potential one should wait for foreign demand to pick-up and thus for Tunisian exports to once more play their role as dynamic economic protagonists.

The country needs for its export driven growth to become active once more since investment is expected to play a less active part in the coming year while private consumption could become even less relevant with an anticipated 1,1% growth of its expenditure on GDP. Moreover, the probability of increasing prices could probably augment pressures on the import bill rendering the need for a more efficient growth strategy imminent.

Overall, investment opportunities should be provided while the government's five-year plan expects the private sector to increase its share of GDP from 73% to 80% and its share of investment from 57% to 70% in sectors such as telecommunications, power generation, port and airport construction (EIU).

Decomposing demand, billion US\$



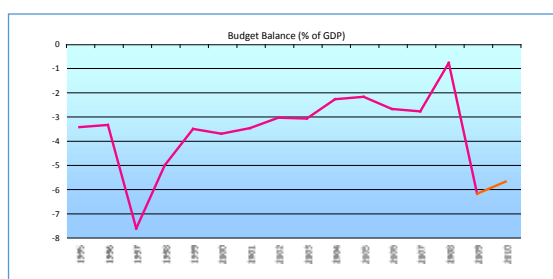
Source: IMF, EIU, Note: estimates for 2010

2) Increased pressures on the budget that remain « reasonable »

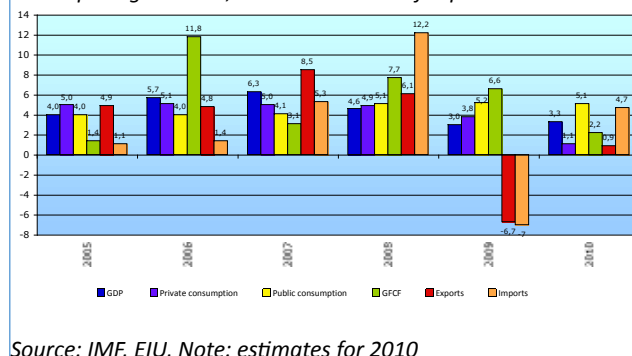
In 2008, the budget deficit was brought to quasi-equilibrium with a 0.8% deficit. Nonetheless, 2009 was not a return to complete equilibrium, instead, the deficit escalated to 6.2%. This was partly expected since the budget had to keep promoting employment opportunities, which it did with some success. Moreover, consumption and investment had to be sustained, while the lower inflation rate through 2009 did not suffice since receipts took a hit in light of the export decline.

Prospects for the budget evolution could be characterized by cautiousness, while the deficit could decrease, this should be difficult with oil and foodstuffs prices expected to rise. Furthermore, the government has been providing financial support for struggling export firms, a trend expected to continue in 2010.

An additional aid-initiative through the « Fonds d'accès aux marchés extérieurs » (Famex III) could be implemented to help 1 000 firms and 80 professional structures in adapting their products to external markets requirements. Furthermore,



Decomposing demand, annual variation of expenditure to GDP



Source: IMF, EIU, Note: estimates for 2010

the Fonds could see its credit supply increase further by 5 million dinars. Such initiatives, while more than welcome, render the probability of a deficit below 3% in 2010 implausible.

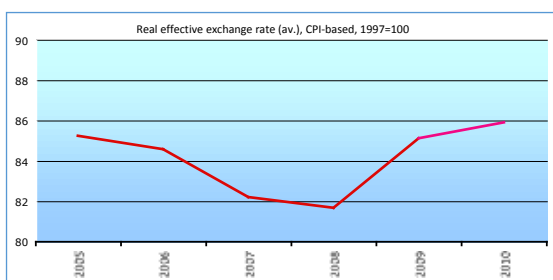
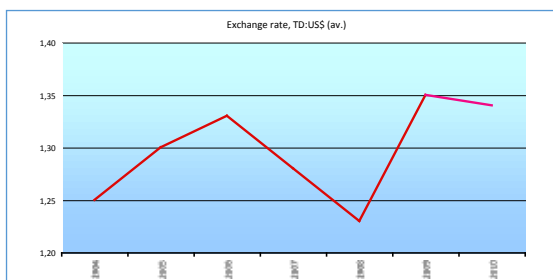
The budget deficit for the year 2010 is expected to slightly diminish to 5.7% of GDP. Nonetheless, the share of the budget allocated to wages should increase by 8%. As far as expenditure on development goes, the latter should attain 4 600 million dinars in 2010, a marked increase (18%) compared to the 3 900 millions in the 2009 finance law.

To sum up, Tunisia has a slight, yet real, additional margin for budgetary maneuvering compared to most of its MP neighbours. This should allow maintaining essential public spending and help cushioning the crisis effects on poorer segments of the population.

3) A well-thought monetary/exchange-rate policy

The Central Bank of Tunisia is going towards a floating exchange rate regime. The monetary crises in the 90s stressed the incompatibility of the intermediary exchange rate regimes with the increased volatility of international capital account mobility.

The crisis eruption constitutes a short-term obstacle to the move towards a fully floating exchange rate, one that should eventually be surpassed in the coming years. For the time being, the dinar is pegged against a basket of currencies (primarily comprised of the Euro) of major trading partners



as a means of sustaining export competitiveness in the EU (EIU).

The dinar briefly weakened against the dollar and the euro, between the second semester of 2008 and the first of 2009, mostly due to risk-aversion by foreign investors. From there on, a complete trend reversal occurred, following glimpses of economic recovery worldwide. Overall, the domestic currency strengthened against the US dollar in 2009 but weakened against the euro to correct the current account deficit and the inflation differential with Europe. Such fluctuations generally occur in response to shifts in the exchange rate between the US dollar and the euro.

Plans for liberalisation of the exchange-rate regime are not expected to destabilise the exchange rate because its value appears in line with underlying fundamentals. It should be noted that the domestic dependence on the euro area could strengthen the correlation between the dinar and the euro. A series of reforms is also expected to be undertaken before full convertibility of the dinar such as the development of a fo-

reign-exchange market and additional banking sector reforms.

II.2 A more integrated banking system partially affected

A series of banking reforms in recent years has allowed for the Tunisian banking system to enter a path of continuous expansion.

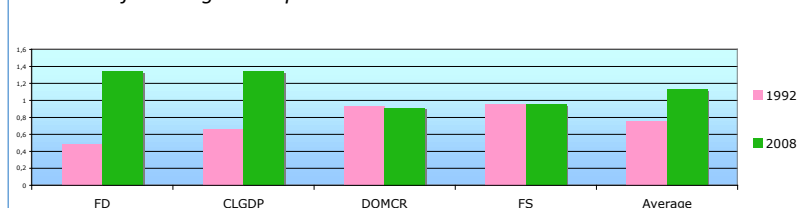
More precisely :

- ✓ Financial depth increased in between 1990 to 2008 from 49% to 134%, thus, financial institutions play a greater part in contributing to GDP growth.
- ✓ The FS ratio decreased by only 1%, hence, banks offer a wider range of products and services.
- ✓ The DOMCR ratio decreased by 2% (from 93% in 1990 to 91% in 2008), suggesting that banking is becoming more accessible to the non financial sector. In that respect, banks' deposits went from \$ 2.76 billion in 1986, to approximately \$ 25.27 billion in 2007.
- ✓ The CLGDP increased by 15% from 0.55% in 1990, to 0.70% in 2008, which underscores how operations between banks and non financial agents are increasingly present.

The banking measures undertaken to mitigate the crisis outfall have globally helped the banking sector markedly improve its indicators, as expressed by the clean-up of bank portfolio, reduction of non-performing loans and of deadlines for examining credit requests.

Nonetheless, the banking sector in Tunisia was partly affected by the international crisis fall-out

Indicators of Banking Development

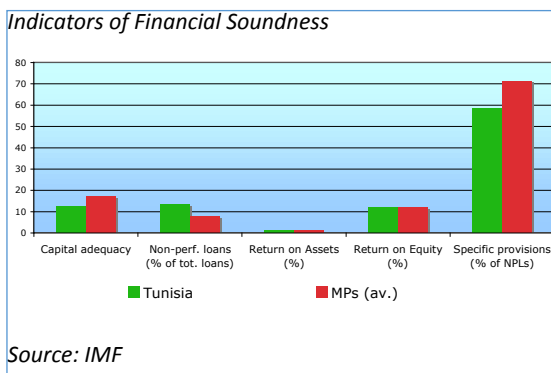


Source: FEMISE, research report FEM33-20

and additional efforts should be done to solidify its structure.

More specifically :

✓ Despite their reduction, non-performing loans in Tunisia remain well above the Mediterranean average, they represent 13.2% of total credit which is the second highest ratio of the entire region.



✓ Specific provisions to NPLs are still among the lowest, though not too far from the Mediterranean average.

✓ The capital adequacy ratio is at 12.4%, about 5 points below the MP average and could prove to be insufficient.

✓ Return on assets is at 1%, slightly below the MPs average, meanwhile, return on equity is at 11.7%, below the Mediterranean average, but not too low to suggest significant losses in profitability.

To sum up, the financial profile of banks has improved in asset quality and profitability despite the crisis. The banking system should continue improving its indicators of banking credit and approach international

standards, in a context of more transparency and credibility.

III. Growth engines and Total Factor Productivity (TFP)

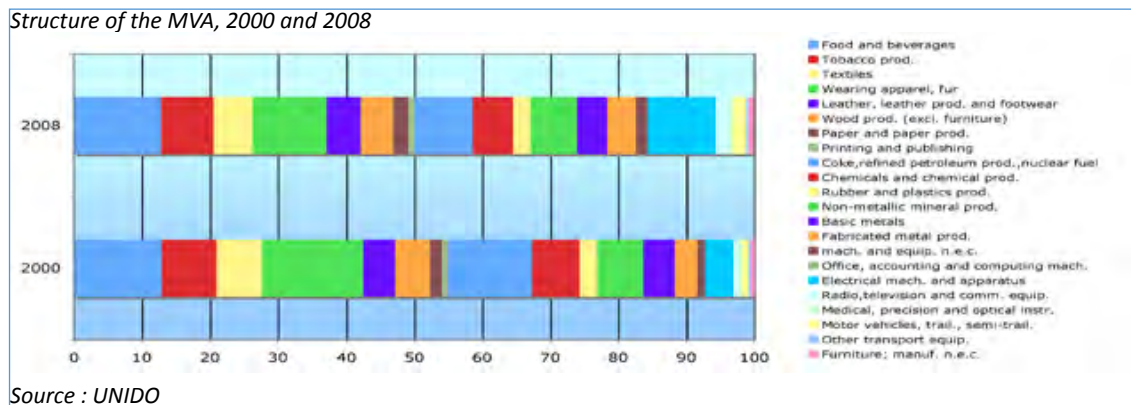
III.1 Tunisia's success : achieving diversification in a period of structural adjustments

In the early 70s and until the mid80s Tunisia followed a « mixed economy » strategy, where the private sector was put in the spotlight and manufacturing registered considerable growth. Nonetheless, macroeconomic imbalances persisted due to limited structural adjustment initiatives. Thus, considerable structural adjustment efforts were undertaken starting from the later half of the 80s, trade and finance witnessed considerable opening and Tunisia showed a remarkable ability to maintain solid economic performance through the last two decades.

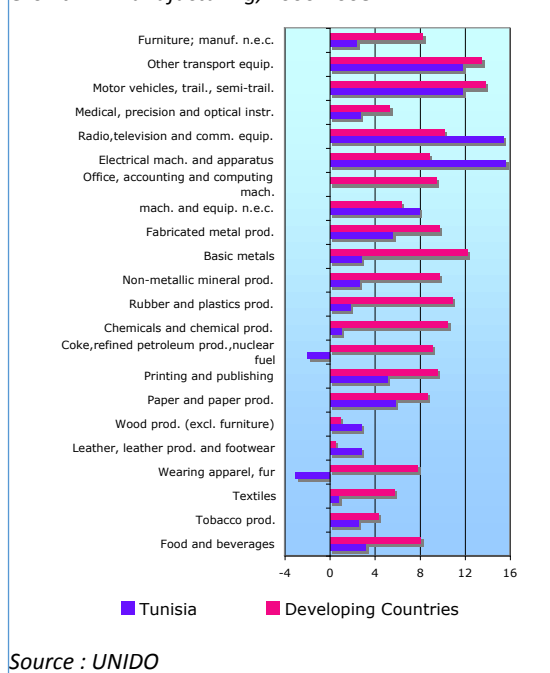
The persistently high rate of growth allowed for more employment opportunities and a reduction in unemployment throughout the second half of the 2000s. But this comes in stark contrast with prior years where growth was not accompanied by sufficient decrease in the jobless rate. The question is the following : Was there a radical shift in the sources of growth that allowed for more employment ? Moreover, what are the pros and cons of this new regime and how does it hold within the current international context ?

The key to success is based on the following : Tunisia succeeded in its diversification process within a structural adjustments period. In other terms, reforms did not constrain the country's short-run

Structure of the MVA, 2000 and 2008



Growth in Manufacturing, 2000-2008



ability to diversify its production. This strategy came into full fruition in recent years, where the innovative activity of manufacturing firms further strengthened the Tunisian success story. The country increasingly specialized in more complex products and gradually lessened its dependency on the oil-economy and sectors that require a less sophisticated know-how.

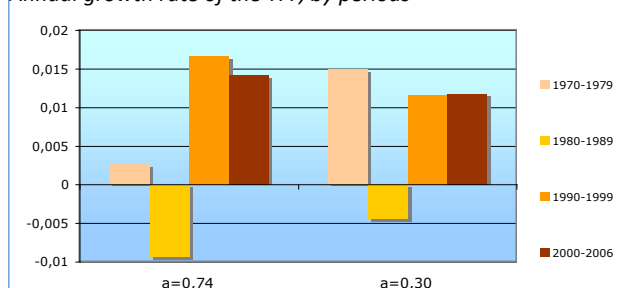
Thus, the wearing apparel sector saw its share in the manufacturing value-added (VAM) drop from 14.8% in 2000 to 10.8% in 2008, coke and petroleum derivatives went from 12.4% to 8.6% while the chemical industries' share also contracted. On the opposite side, the electrical machinery sector increased its share in

the value added substantially, from 4.2% in 2000 to 10% in 2008, while the machinery and communications equipment sectors similarly followed a route of growth.

In terms of sub-sector growth in the 2000-2008 period results are spectacular in electrical machinery and related sectors. For years, Tunisian manufacturing focused mainly on the triptyque of food, wearing apparel and textiles. But the later period is indicative of the will to further diversify the economy by adding sectors such as mechanical, electric, and electronic equipment. Such strategy is a healthy one since it allows gradually replacing products/sectors that are no-longer « growth-carriers », preserving and extending Tunisian market share, rendering production more efficient, creating positive externalities in terms of quality and naturally increasing productivity.

As the graph below indicates, following an unproductive decade, the Tunisian economy gained in efficiency throughout the 90s and has maintained its annual productivity growth persistently high through the 2000-2006 period as well. Depending on assumptions on the relative share of physical capital to production used in the empirical exercise we could say that TFP grows at an even faster pace in recent years. The TFP estimate combined with measures of physical and human capital shed more light on Tunisian growth determinants; in the right-side graph growth rates of the aggregate product are broken into contributions of factors of accumulation and productivity (average annual growth

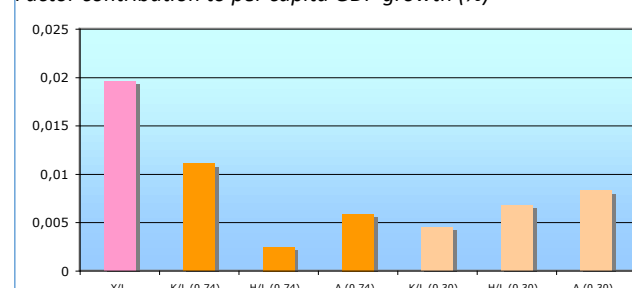
Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

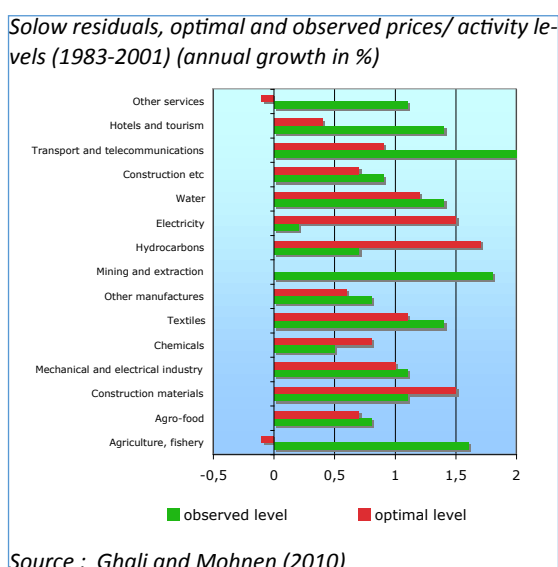
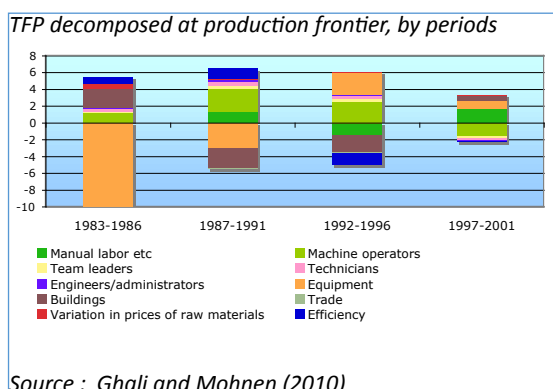
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rate of gdp per worker and contributions of each component to GDP).

In the graph Y/L shows the rate of growth of GDP per worker throughout the 1970-2008 period. Additionally, the contribution of physical capital per worker to production (product of the average annual growth rate of physical capital per worker and the relative share of physical capital to production), the contribution of human capital per worker to production and the average growth rate of the TFP are shown. The breakdown of GDP per worker is done twice, assuming a value of the relative share of physical capital to production equal to 0.74 in the first case and of 0.30 in the second case. In

which is higher than corresponding shares of human capital (0.0025) and productivity (0.0059). However, in the second case the growth share attributed to physical capital is reduced (0,0045) and the driving engines of Tunisian growth appear to reside on human capital (0,0068) and productivity (0,0083). If the second case were to be the closest to reality then it would mark a considerable achievement since it is very seldom for human capital to have a higher contribution compared to physical capital.

There are reasons to believe that human capital has been the main contributor to TFP in Tunisia. Another recent study on TFP growth in the Tunisian economy revisits the various drivers of productivity growth and studies if structural reforms had any positive incidence on domestic growth potential. After a poor growth performance and a decline in economic potential (estimated by frontier TFP) economic potential started growing from 1987 and on at approximately 1% annually. The primary reason for such rise in TFP was unqualified labour, as shown in the graph below only manual workers and machine operators were the ones with a significant contribution overall (less so in the 1997-2001 period).



the first case, the main determinant of economic growth through the last 40 years in Tunisia appears to be the accumulation of physical capital (0.0111)

On the opposite side, capital appears to have had a negative impact. Authorities appear to have channelled considerable amounts of funding towards capital accumulation in the early 80s and it was only until after the early 90s were TFP growth benefited from capital (especially equipment).

A sector decomposition allows observing how technological change (Solow residual) carried TFP growth. Technological change grew by 1% annually over the 1983-2001 period mainly due to the structural adjustment program. As seen in the graph, in optimal allocation of resources, agriculture, mining and other services could be less active. Tunisia could partially « drop » these sectors in favor of « winners » such as construction materials, textiles, water and energy and import goods in which it has a comparative disadvantage.

Table. Solow residuals observed, comparison between agriculture and services sectors, by period (annual growth rates in %)

	1983-1986	1987-1991	1992-1996	1997-2001
Agriculture, fishery	1,7	1,4	-0,9	0
Transport & telecommunications	0,2	0,1	4,1	2
Hotels, Tourism	1	-2	1,7	1,7
Other Services	-2,7	1,4	1,6	2,5

Source : Ghali and Mohnen (2010)

But, in the case of what is actually observed, « losers » sectors represent a considerable share of activity and hence technological change. But what about traditional sectors of Tunisian comparative advantage ? Where they negatively affected? It appears not, since sectors such as textiles maintain a high Solow residual throughout the period and hence have efficiently adapted to international competitiveness.

Last but not least, Tunisia appears to be more service oriented in later years and less dependent on agriculture. This welcome evolution towards a tertiary economy is an additional element in the diversification strategy that has been pursued. Thus, all results suggest the obvious : Tunisia is following a fruitful and efficient growth path based on productivity, one that allows for stronger foundations and increased resilience towards the crisis.

III.2 More opening and refusing protectionism following the crisis

Tunisia has been efficient in modifying its domestic growth regime and adopting a dynamic model based on TFP. This was achieved by i) opening up to trade, especially with the EU and also by ii) incorporating the knowledge economy within its strategy.

It should be noted that despite the crisis Tunisia has not followed the example of several developing countries and has not adopted protectionist measures. On the contrary, authorities keep pursuing a strategy of openness which appears more suitable to the Tunisian economy and its needs.

The objective is twofold : (i) to strengthen Tunisian exports in the current international context and ensure Tunisian competitiveness is maintained (ii) to boost investment through a series of measures that allow for growth carriers to emerge or to be sustained.

1) A new Development Plan for effective global integration

The draft of the 12th Development Plan (2010-2014) establishes a new method of planning to adjust to the emergence of new trends and contexts, both domestically and internationally.

Among the objectives for the five-year development plan one should find:

- ✓ achieving a GDP growth of 5.5% at constant prices with increased diversification of growth engines and raising the share of activities with high knowledge-contents from 25% in 2009 to 30% in 2014,
- ✓ covering all additional job applications bringing down the unemployment rate by one percentage point and a half, focusing more on university-graduates whose share in additional demands will increase from 60% in 2009 to 70% in 2014,
- ✓ reducing foreign debt to less than 30% of GDP in 2014, lowering the public debt rate to 40.4% of the GDP and controlling the national economy's funding needs.
- ✓ increasing the share of private-sector investment (by 13.8% annually) and attract more FDI in high added-value activities to nearly 29% of the private sector's total investment,
- ✓ increasing the share of exports in growth to above 40% through enhanced integration by developing partnerships with the EU and fostering free-trade agreements with new partners,
- ✓ creating sectoral innovation networks comprised of research and higher-education structures in areas such as energy, biotechnology, ICT and nano-technologies.

Furthermore, the PACAM 2010-2013 initiative for enhanced competitiveness of Tunisian firms (Programme d'Appui à la Compétitivité et à l'Accès aux Marchés) is also being put in place to further boost Tunisian productivity in firms.

Focusing on sectors such as electricity, mechanics and construction materials, the initiative's objective is two-fold : First, to upgrade and modernize industrial firms within the premises of the « Programme de modernisation industrielle » (PMI). Second, adopt a quality-related approach to Tunisian infrastructure that would allow fostering a mutual recognition agreement with the EU on industrial conformity.

This would allow for increased facilitation in trade procedures with the EU, thus, a gain for export oriented firms. Meanwhile, construction of laboratories as well as of technological sites in industrial zones could rise (currently there are plans for one site in El Agba).

2) Strengthening international cooperation and export promotion

Tunisian efforts have been considerable towards sustaining export-oriented firms which ultimately allowed preserving an estimated 70 000 jobs and about 1% of its GDP growth. The country appears to be seeking to foster cooperation particularly with Maghreb countries, finishing off talks on the free-trade zone while also maximizing positive spill-overs of the Agadir Agreement. Furthermore, ongoing efforts for exports diversification are expressed through the intensification of businessmen's missions abroad. Additional external trade liberalisation is expected while talks with the EU will be pursued in order to ensure liberalisation of services and agriculture. As noted by FEMISE in its 2008/2009 report, Tunisian exporters have benefited from the dinar depreciation vis-a-vis the euro and from marked improvement in competitiveness due to the wage/productivity ratio. However, such price-competitiveness needs to be complemented

by additional incentives. The objective for 2010 is to increase total exports and imports by 8.2% and 8.9%, respectively. This can be achieved through a series of concrete measures that have been initiated by the Tunisian government :

✓ a law on trade is underway, a third programme for export promotion (FAMEX 3) is being incepted, while the implementation of the export promotion programme FAMEX 2 continues to facilitate procedures and reduce transactions costs. FAMEX 3 is putting the accent on quality, traceability, easing of procedures and exports guarantee.

✓ The government is reforming the equalisation system to ensure market supply as well as domestic trade.

✓ A series of measures is being undertaken to solidify the textile sector vis-a-vis its competitors.

✓ Apart from current measures, a series of decisions were initiated in order to render customs procedures more flexible.

We shall also note that the 2010 Finance Law allows for increased competitiveness in a number of strategic sectors. A new tax regime for SMEs should be implemented allowing among others for :

✓ Handling and maintenance services in airports, plans for vocational training of pilots, SMEs in the construction sector that would win a bid on a foreign market (of a 5 MD minimum) would be relieved of the VAT. This is expected to further incite tunisian SMEs in exporting domestic production.

✓ The mechanism of aid to institutions regarding losses from firms in payment and reimbursement difficulties should be generalized to all financial actors. The objective would be to consolidate competitiveness while avoiding the destruction of a precious share of the tunisian growth engine.

✓ Last but not least, in order to incite the creation of SMEs in the high value-added ICT sector, the current régime of incentives is expected to

be ameliorated. Simply put, a study bonus should be given to promoters and an additional one to material and immaterial investment. This is confirmed by the announcement of the creation of the « Fonds spécifique aux investissements immatériels » to accompany the banking sector in an effort of financing ICT intensive projects.

3. Boosting investment projects to enhance growth and employment

Tunisia's openness strategy can be best seen through the initiation of several investment projects that rely in great part on foreign capital. A series of points are worth mentioning :

✓ Several industrial projects have been pursued in Tunisia, such as the implementation of an aeronautical unit for Aerolia (Airbus) in the El-Mghira industrial zone (in proximity to Tunis), allowing for the creation of 1 500 jobs. The development of such sector appears a safe-bet for employment and growth.

✓ The year 2009 saw the creation of 6 470 handicrafts enterprises with a total investment of 16.5 million dinars that contributed to the creation of 7 830 jobs. Handicrafts villages were instated and 2010 should see the inception of studies on 7 new villages in Gafsa and 5 others (Zaghuan, Kebili, Kasserine, Gabes and Kairouan). Moreover, the first part of the Sejnene project and implementation of the handicrafts development strategy will be ongoing with a 2016 horizon.

✓ Moreover, approximately 1500 European investors participated in 2009 to manifestations held within the 2016 promotion strategy of Tunisia's industry. Moreover, the strategy plans on attracting Asian and American destinations as well, in an effort of solidifying the Tunisian industrial base.

✓ Private-public partnerships have been strengthened in the promotion of innovation and research in the industry sector. The government programme «Ensemble, relevons les défis» has the objective of ensuring national firms spend 1% of their earnings to financing R&D efforts.

✓ Privatisation of domestic firms has also allowed to increase financial benefits and also create new employment opportunities.

✓ Furthermore, the minister of industry announced 10 industrial projects in 2009 that have entered a production phase, allowing for 7 500 new jobs with a potential employment capacity of 17 000 in 2010.

Overall, despite reduced FDI inflows in 2009, Tunisia has earned positive ratings in matters of competitiveness and resistance to the crisis. The annual report of the World Economic Forum on Global Competitiveness (2009-2010) ranked Tunisia 40th out of 133 countries, on the basis of twelve quantitative and qualitative pillars (institutional environment, macro-economic stability, infrastructure, market efficiency business sophistication etc), well above Egypt (70th), Morocco (73rd) and Algeria (83rd). Tunisia's rank even surpassed the one of developed European members such as Portugal (43rd), Poland (46th), Italy (48th) and Greece (71st).

A series of investments in strategic sectors are shown in the table below. They provide a good example of the dynamic Tunisia wishes to achieve both in the short-run to mitigate crisis effects and in the long-run to carry growth.

Potential « winners » that Tunisia could rely on are energy, environment, infrastructure, logistics and tourism. They are the sectors in which concessions are planned and should allow for active public-private partnerships and the introduction of vast amounts of FDI.

Once more, diversification is the key word in the Tunisian approach :

✓ Investment projects in energy are expected to allow setting up facilities and plants and augment Tunisian capacity for energy production (ex. in electricity) and foster synergies in the field of energy. Furthermore development of the oil-industry is expected to create more opportunities for qualified labour and ameliorate supply of oil-related products,

Table 5. Projects to boost FDI and growth in a crisis period
(concession projects programmed for 2009)

Sector	Project	Cost	Delay of execution	Duration of concession	State of the project
Energy	Electricity plant at Al-Haouaria	Between 3000 and 4000 MTND (1700 to 2200 Millions euros)	..	20 years	i) Creation of a Tunisian-Italian development study firm (Newco1), capital of 2.7MD (50% for each associate), call for tender pre-qualification in June 2009, ii) Launch of restrained call for tender for rights to production in Tunisia, early 2010.
	Oil refinery in Skhira	Between 2 000 and 2 500 millions USD	..	30 years, renewable	i) Letter of agreement signed with Petrofac to prepare a development and operating plan ii) Participation of public firms up to 51%.
	Electricity plant in Bizerte	Between 600 and 750 MTND	..	20 years	i) Launch of pre-qualification call for tender in January 2009, five offers selected ii) Launch of restrained call for tender for rights to production in Tunisia
Environment	Dessalination station in Djerba	73 millions TND	..	20 years, with possibility of extension	Launch of call for tender, three spanish firms preselected Last delay for offers is 30 november 2009.
	Dessalination station in Al-Zarrat	70 millions TND approximately	Three years (2010-2012)	20 years, with possibility of extension	i) Completion of studies : 2009 ii) choice of dealer : 2010 iii) initiation of the station before 2012
	Rehabilitation and development of the sebkha of Ben Ghayadha	..	..	..	Rehabilitation is ongoing.
	Development of Taparurain the north of Sfax	..	..	..	..
Infrastructure	New port in waters at Enfidha	1400 millions euros	..	..	i) The first phase (study phase) has been completed. ii) The call for interest manifestation has been launched, pre-selection phase.
Logistics	Logistics zone at Djebel Oust	25 MD	..	..	Land rehabilitation will be launched in 2010 as well as for the feasibility study.
	Logistics zone in proximity to the port of Radès	200 millions TND.	..	30 years, with possibility of extension to 50 years	Call for tenders will follow the call for interest.
Tourism	Health tourism complex at Khabayat à Gabès	400 millions TND	..	..	i) Land rehabilitation at 100%, ii) The three study phases have been conducted, to be validated, iii) Planning and impact studies have been completed.
	Tourism zone at Lella Hadrria in Djerba	500 millions TND approximately	..	..	Spread on the two development plans (2007-2011) and (2012-2016)
	Port plaisance El Kessour 'Hergla'	1,5 milliards dollars	..	..	Realization of the project will occur within a 5-year span.
	Grand Korbous'	10 milliards US dollars	Estimated at 15 years.	..	..
	Diar El Ouerd at 'Ariana	10 milliards koweit dinars. The cost of the first phase is estimated at 3 billion US dollars.	First phase estimated at 5 years approximately.	..	..

Source : Agence Promotion l'Investissement Extérieur (FIPA Tunisie)

hence, better position Tunisia in the local market,

√ Environmental investment initiatives such as the desalination project in Al-Zarrat would (i) increase water resources and (ii) improve living conditions and quality in a series of Tunisian governorates.

√ Benefits drawn from investment on infrastructure can be immense. Updating port structures for instance will undeniably provide positive externalities for Tunisian trade.

√ Similarly, investment projects in logistics provide great benefits. Construction of logistical areas act as trade facilitators ; transport of imports is handled with relative ease and at low-cost since transport services firms are grouped, hence, providing a larger array of logistical services by the best providers. There is also great scope for positive externalities from such projects since investment attractiveness is boosted and foreign investors find a business environment suited to their needs.

√ Finally, tourism is already a sector Tunisia relies on for growth but great potential remains that needs to be capitalized upon. Recent projects will allow creating more tourist zones diversifying tourism options and providing better quality services.

Overall, we shall stress that :

√ Tunisia is actively pursuing openness allowing for private participation, private-public partnerships and FDI attraction, more so than in several of its Mediterranean neighbours,

√ The authorities have carefully selected “winners” sectors that could carry growth in the coming years, while also countering the current effects of the crisis,

√ Overall, Tunisia has been efficient in its growth strategy, its priorities should perhaps rely more from now on creating more employment and work upon its recent success on unemployment reduction.

IV. Conclusions and Recommendations

Tunisia kept a 3% rate of growth in 2009 which shows the country is more than ever an example

of competitiveness, dynamism and sustainability. Overall, in spite of the global slowdown and recession in its biggest export markets, Tunisia appears to have a solid set of macroeconomic and financial fundamentals. In that respect prospects for growth past the 2010 mark remain optimistic. Nevertheless, let us note a series of elements that could be decisive in future perspectives :

√ One of the main challenges Tunisia will have to face is the need to efficiently use its qualified human resources in order to make further improvements in its economic fabric. As stressed before by FEMISE, the country should consider maintaining its qualified labour-force by modernizing the effectiveness of public administration and adapt it to the evolution of current needs. Furthermore, pursuing efforts such as the recent public-private partnerships appears being a win-win approach.

√ Tunisia has been competitive for years and its strategy has potential to evolve. A key to the evolution would be to move up the value chain instead of overly relying on reducing costs. Further use of international investment could dynamize the local production structure through a more vigorous policy adapted to the Tunisian state of affairs. Also, a strong development in high-performance SMEs could have great benefits for youth employment which remains a major issue.

√ Let it be noted that investment in 2010 will be influenced by a 206m euro loan from the World Bank. Such initiatives, while weighing on budget constraints, allow better employability of university graduates, focus on developing renewable energies and have the purpose of upgrading social services. Thus, they provide stimulus that could be ongoing past the 2010 mark and constitute an investment for the well-being of future generations. In the long-run, domestic investment could further increase but bureaucratic barriers should be completely dismantled.

√ Although Tunisia was well prepared to circumvent the crisis outfall and profit from renewed confidence, its future growth also de-

depends on EU recovery. In that respect, and in an effort of prevention for the future, international economic evolution must be closely followed by all accounts. Tunisian efforts already appear promising, a national commission has been placed by the government within the Central Bank (Commission nationale chargée du suivi de la conjoncture internationale) in order to anticipate further crisis eruptions and propose suitable scenarios to resistance and recovery.

✓ Export earnings should increase in the 2010-11 span following timid recovery of EU markets (EIU). Similarly, the services surplus should increase slightly in 2010-11 as the tourism sector meets increased demand.

✓ Tunisia could gain by further reforming the services sector. Regulatory barriers in certain services are still considerable in Tunisia, compared with those in similar developing countries. Further opening could augment the export competitiveness and potential of its services and position Tunisia as an outsourcing location for services (ex. in ICT or business services) of developed partners. For example, in the telecommunications sector, numerical restrictions on the number of carriers could be eliminated, in order to increase market contestability. Furthermore, Tunisia could remove the discretion associated with the granting of new bank licenses in banking services while it could also lift restrictions faced by foreign banks in lending and raising funds domestically. Moreover, liberalizing key backbone service-sectors (ex. banking, air transport) could stimulate investment and allow for the emergence of new growth-carriers. In a recent study, Dee and Diop (2010) find that partial regulatory reform would bring gains approximately equal to full unilateral reform of manufacturing tariffs. More importantly, if Tunisia undertook wider reforms gains could be a lot more substantial and benefit new entrants in the local market.

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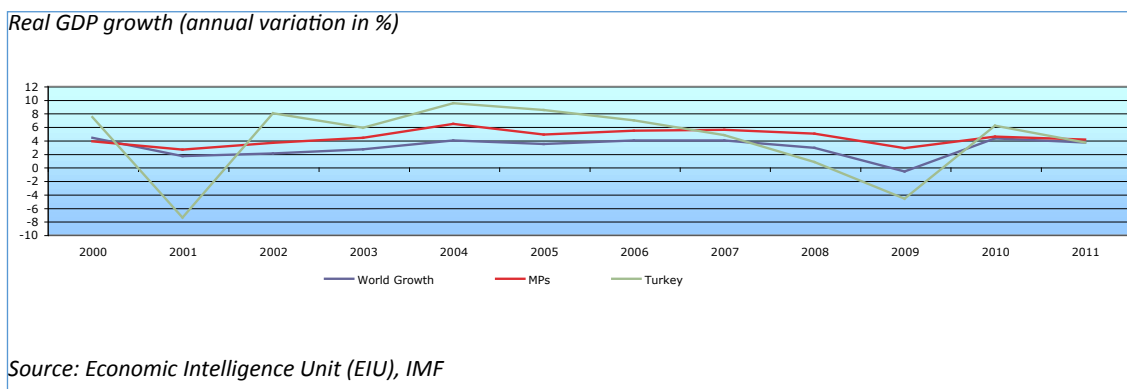
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Turkey: Considerable rebound capacity and growth potential despite massive crisis outfall in 2009

In the 1980s, Turkey shifted its policy to an outward-oriented model with the purpose of progressively integrating the European Union. This resulted into gradual trade opening, negotiations for accession candidacy and culminated into formal membership talks which started in the year 2005. One should note that Turkey has made progress on the economic front with important reforms across the economic fabric (agriculture, services etc) while stabilization policies were implemented to shield the economy from

augmented » customs union being suggested by a share of EU members as a more politically realistic alternative, Turkey needs to keep following its openness strategy and not fall back to an inward-oriented protectionist stance. After decades of capital accumulation the country now has the potential for the emergence of a TFP-driven growth regime. The economy has already gained in efficiency throughout the last decade and has maintained its annual productivity growth at a positive rate, it is up to authorities to come up with a plan that allows for TFP to grow at an even faster pace in the coming years.



past economic crises. As a result, real growth in the 2000-2007 period was solid, close to the 4.4% mark.

However, the recent crisis had an unprecedented outfall on the Turkish economy, especially when comparing it to the one of its neighbouring MP's. The economy is at an advanced stage of integration with world markets, it is thus vulnerable to the crisis outfall. After falling to 0.7% in 2008, growth registered a negative rate estimated at -4.7% in 2009. While prospects for 2010 suggest the economy will be back on track and growth could even go beyond the 6% mark, the country will have to focus on an efficient strategy that can sustain growth throughout the 2010's.

The facts are simple, whatever the result of negotiations with the EU, the possibility for an «

Continuous relaxation of anti-competitive regulations could boost productivity and also provide potential benefits to employment, by offering more flexibility. Reduction of cumbersome administrative barriers to business, of the government's share in operations and of FDI impediments shall result into productive efficiency and positive externalities.

At this point, two remarks merit attention.

First, employment will be a great challenge, one that should not be taken lightly considering how the rate of unemployment escalated from 11% in 2008 to 14.1% in 2009. Thus, it is imperative for Turkey to ensure its growth regime also allows for sufficient employment creation, something that was partially dealt with in the 2000-2007 period where unemployment in Turkey averaged 9.6% versus 12.4% for all MP's.

Second, the government budget in Turkey is in a healthier position than in most MPs. This comes in stark contrast with the overall weak fiscal management of the 2000-2007 period where the deficit averaged 7.4% versus 4.7% for all MPs. Provided that debt is efficiently handled, Turkish authorities should have the opportunity to provide growth boosting incentives all the while respecting budgetary limits.

Regarding recent trends, the following points should be considered :

✓ Turkey registered a decline in goods exports in 2009 of 22.1% to 109.6 bn US\$. Even so, provisional data for 2010 allow for more optimism, in August 2010, exports increased year-on-year by 9.1% to 8.6bn US\$, in great part due to exports towards Germany.

✓ Tourism was slightly affected, total tourist revenue in 2009 was over 21.1 bn US\$, a 3.2% decrease compared to 2008. Meanwhile, the number of tourists increased by 3% to 27.3 million in 2009.

✓ The 2009 decrease in FDI was massive, close to 58.1% to 7.6bnUS\$. Foreign investment has been following a downward path since the crisis, the EU-driven has investment marked a considerable decline throughout 2009 and the lack of other players in the investment front has brought the inevitable fall.

✓ Turkish growth appears to be back on track judging from the solid performance in the first half of 2010. Turkey has made considerable steps in modernizing its production structure, towards a growth regime based on total factor productivity. Constant diversification in its engines of growth also contributes to its rebound capacity after the crisis.

✓ The crisis had a considerable negative effect on Turkish employment figures. The unemployment rate was catapulted at 14.1 % in 2009 which marks an annual increase of more than 3%. Moreover, unemployment in urban Turkey even reached the 16,6 % mark with a 3.8 percentage points increase. Even so, recent employment figures sug-

gest the unemployed fell to 2.78m in July, thus, an unemployment rate of 10.6%, versus 12.8% in July 2009.

✓ What appears clearly is that TFP has been on the positive side in the 2000-2006 period. Even so, there might be a deterioration of the relative efficiency component of productivity. Turkey is found to be efficient in labor and capital allocation in production relative to CEE countries, meanwhile, it appears lacking in innovation and in implementation and use of new technologies. Countries such as Turkey have a high TFP output that is however irregular and often unsustainable. Thus, authorities should locate sectors that have potential for productivity gains in the future. There is evidence to support the thesis that productivity gains are largest in import competing industries, compared to export-oriented and non-traded sectors.

✓ Logically, authorities are adapting the Ninth Development Plan to the post-crisis realities. Among other things, the plan will warrant that monetary, financial and revenues policies are coordinated to sustain growth and lead to economic recovery. Furthermore, policies that boost employment creation, raise employment capacities and quality, and allow for flexibility of the labor market will be pursued.

✓ Finally, developing new sectors of growth has been at the center of attention of domestic authorities. The strategic energy plan for 2010-2014 was announced and shall entice more foreign investors since Turkey is seeking to foster partnerships in the energy sector. Moreover, privatization of the electricity distribution networks is ongoing. Overall, Turkey appears to have the will-power to become a major energy corridor.

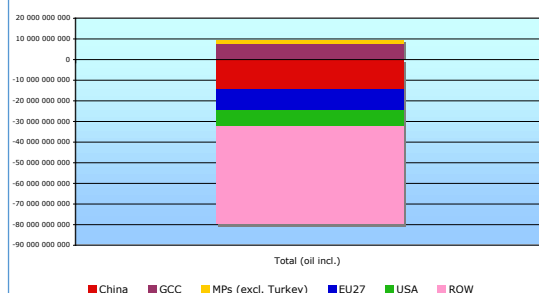
I. A considerable shock on the real economy

I.1. The context

1.1 Increased openness in services trade, less openness in goods

Until the beginning of 1980s, Turkey was a relatively closed economy, before shifting its policy to an outward-oriented model to integrate the European

Trade balance 2008, by partner and product, mill. US\$



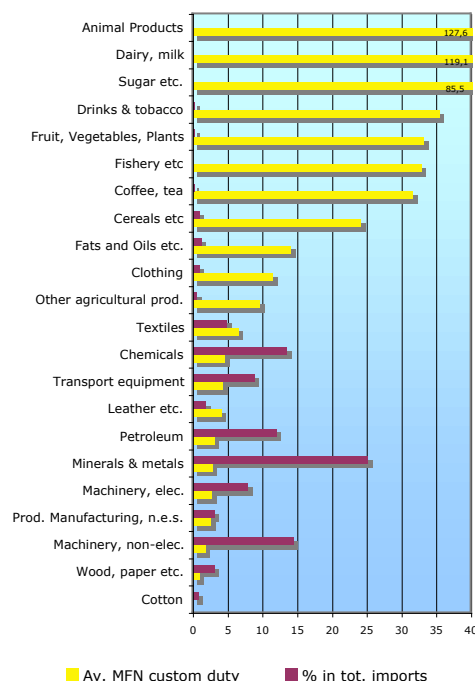
Source: COMTRADE

Union. Since then, tariff protection and import substitution was replaced by a trade regime of gradual openness, increasing trade volumes in both goods and services in a very remarkable way.

Imports are less constrained, custom duties have been decreased in a variety of goods, especially those that are heavily traded. For instance, textiles and cotton both have had an average MFN duty that is negligible, which has boosted the comparative advantage of Turkey in the sector for many years, meanwhile, minerals and metals, machinery and manufactured goods all have MFN average duties below the 5% mark. However, dairy and animal products, sugar and tobacco products remain heavily regulated, while agriculture in general is still very much constrained with average MFN duties that are above 30% (for example, in the case of corn a duty of 130% is applied).

It comes as no surprise that the European Parliament has asked Turkey to substantially reduce the average tariff applied on imported agricultural

Tariff protection and imports, by product



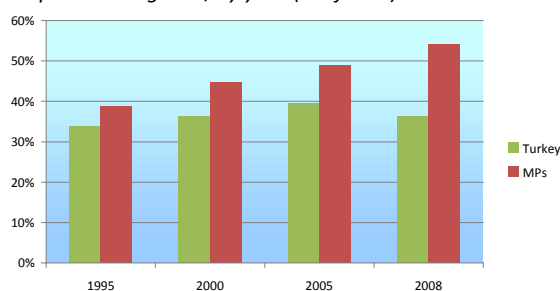
Source: WTO World Tariff Profiles 2008

goods. Meanwhile, Turkey has also been asked to withdraw its import authorisation procedures which are considered particularly burdensome.

Despite trade opening efforts, especially in the 1990's, the openness ratio of Turkish trade not only remains below the one found in neighbouring MP economies, it has also receded during the recent decade. The openness ratio of goods trade on GDP was close to 35% in 2008 versus more than 50% for the MP average.

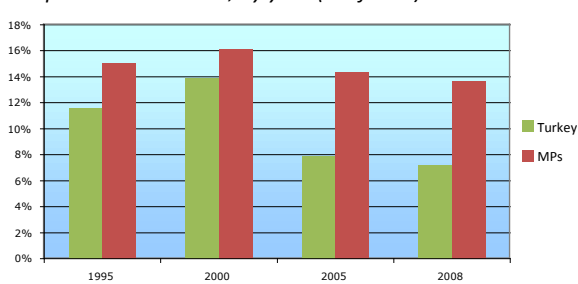
Meanwhile, the country appears to register lesser openness in services trade, with results well below the MP average.

Trade openness in goods, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Trade openness in services, by year (% of GDP)



Source: FEMISE calculations based on COMTRADE, IMF

Finally, when looking at the value of trade, it becomes obvious Turkey is a net importer. The country has a trade deficit with most its trading partners except neighbouring MPs with whom it has a slight trade surplus and Gulf countries with whom it has a non-negligible surplus. A large share of the trade deficit comes from China, while the EU27 and the USA also appear to be exporting more to the Turkish market than import from it.

Overall, Turkey has undeniably pursued a strategy of openness which has helped it ensure high rates of growth. But, efforts still have to be conducted if the country wishes for further international integration.

1.2 A capital account at an intermediate openness stage along a floating exchange rate

The liberalization of the Turkish capital account is at an intermediary stage (medium degree) accompanied by a floating exchange rate regime. Progressive opening through the outward trade regime contributed to the increased convertibility of the current account and convertibility of the Turkish lira. However, despite recent efforts, restrictions on capital flows still exist. Finance has reached a high degree of openness and the financial sector was progressively deregulated. Stock market capitalization increased and the Stock Exchange became an attractive market for foreign capital. The full convertibility of the Lira meant for the disappearance of exchange rate risk.

Following the crisis, one could say that the Turkish capital and financial account was relatively well prepared. It must be noted that the country had already dealt with a financial crisis, hence, prior experience helped partly mitigate the adverse effects of the recent international crisis which mostly concentrated on the real economy.

Prudential regulations and standards have been implemented in the banking sector with the assistance of the Banking Regulatory and Supervisory Autho-

rity (BRSA). The regulatory framework has been strengthened, by improving transparency as well as risk management.

1.3 Poverty reduction

Efforts were undertaken from a social standpoint to provide for more equality among the Turkish population as well as an amelioration of living conditions for the underprivileged.

As already noted in the report, openness to trade affects the income of the poor, both directly and indirectly, through its impact on economic growth. In that respect, while the proportion of the poor in Turkey (earning less than one dollar a day) stood at 1.1% in the mid 90s, it declined to 0.2% in 2002 and equal to zero prior to the crisis. Meanwhile, cases of extreme poverty are no longer existant.

The shift in the growth regime definitely has a share in this success though one should note that social policies still need to evolve to better target those in need.

Meanwhile, per capita GDP considerably improved, at purchasing power parity values it stood at 12700 PPP in 2008, which is the double of the level in 2002. This remarkable increase made Turkey the country with one of the highest levels of income per capita in the region, distancing most of its neighbouring MPs.

Table 1. Poverty ratio (Headcount Ratio) per capita at 1.25\$ per day PPP, % of the population

	1985	1985-90	1990-95	1995-00	2000-05
Morocco	8,42%	2,45%	6,76%	6,25%	2,50%
MENA	6,10%	4,31%	4,07%	4,10%	3,60%

Source : FEMISE (2009), FEM33-02

Finally, Turkey has been on track towards reaching the Millenium Development Goals, though structural inequalities always stand as an issue to be dealt with.

I.2. Crisis transmission channels

In the case of Turkey, as in the majority of MPs, the real sector was the one which was found being responsible for crisis transmission.

2.1 A real shock expressed primarily through a massive fall in goods exports and FDI

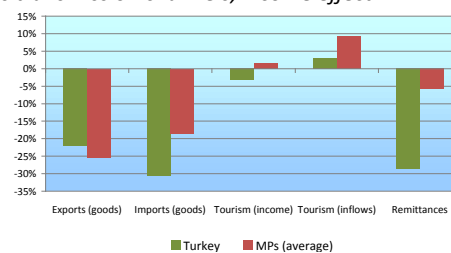
The crisis impact on Turkey in 2009 was felt through the following main aggregates:

- ✓ A reduction in goods exports by 22.1% to 109.6 bn US\$,
- ✓ A 30.6% decrease in the value of goods imports to 13.5 bn US\$,
- ✓ A trade balance deficit for 2009 that largely fell to 4% of GDP from 7.3% in 2008,
- ✓ An exceptionally resilient service balance in surplus at 26.5% of GDP,
- ✓ A decrease in workers remittances estimated at 28.7% in 2009 to 970 million US\$,
- ✓ A massive decrease in FDI of 58.1%, to 7.6bnUS\$ in 2009 from 18.1bn US\$ in 2008

Due to its integration within the world economy, Turkey logically registered a decline in goods exports in 2009 of 22.1% to 109.6 bn US\$. The largest share of exports traditionally comes from manufacturing, distantly followed by agriculture. Manufacturing exports saw a decrease of 23.7% to 95.5 bn US\$ as the result of a diminishing demand, meanwhile all sectors followed a similar trend with the exception of agriculture which increased by 10.4% to 4.3bn US\$.

Even so, provisional data for 2010 allow for more optimism regarding Turkish exports. In August 2010,

Crisis transmission channels, income effect

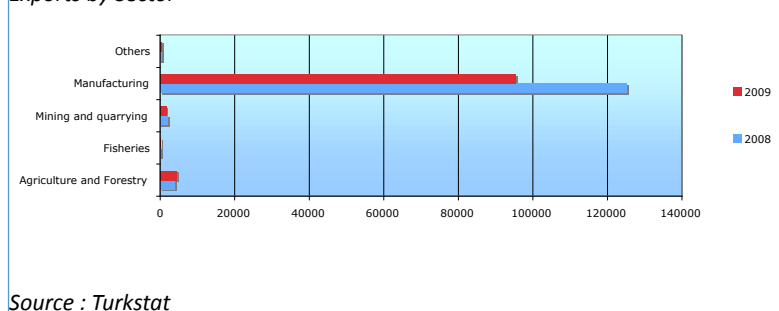


Source: FEMISE calculations based on various sources

exports increased year-on-year by 9.1% to 8.6bn US\$, in great part due to exports towards Germany which were worth 914 Million US\$, representing a 12.2% year-on-year increase, followed by the United Kingdom (574 Million US\$), Iraq (565 Million US\$) and Russia (388 Million US\$). Regarding the sector-specific origin of the exports increase, for August 2010, “boilers, machinery and mechanical appliances” registered the highest value exported at 757 Million US\$, followed closely by “vehicle other than railway or tramway rolling stock, parts thereof” (732 Million Dollars), “iron and steel” (681 Million Dollars), “knitted and crocheted goods and articles thereof” (600 Million Dollars) and “electrical machinery and equipment” (541 Million Dollars) according to Turkstat.

On the import side, the year 2009 was also one of decrease, by 30.6% in the value of goods imports to 13.5 bn US\$. However, imports increased by 20,5% year-on-year in August 2010 to 15.4 bn US\$. Therefore, the trade deficit, which managed to fall to 4% of GDP in 2009 from 7.3% in 2008, is expected to increase in 2010. In August 2010, the foreign trade deficit had attained 6.9bn US\$ which is a 37.8% degradation compared to the 5bn US\$ deficit in August 2009.

Exports by Sector



Source : Turkstat

As for the service balance, it remains as healthy as ever, in surplus at 26.5% of GDP in 2009. Tourism was only slightly affected, total tourist revenue in 2009 was over 21.1 bn US\$, a 3.2% decrease compared to 2008. Meanwhile, the number of tourists in-

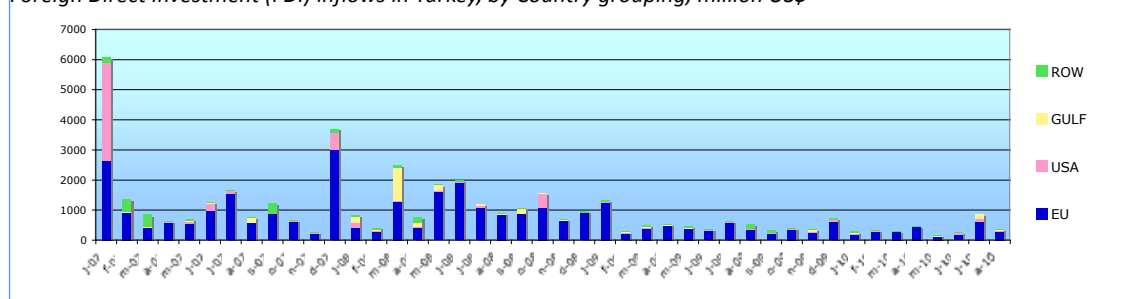
creased by 3% to 27.3 million in 2009. It shall be noted that despite the crisis, Turkey had its most lucrative year in tourism in 2008. The tourism encouragement law has strengthened the sector, allowing for the share of tourist arrivals in Turkey to go from 1.1% in 1990 to 2.7% in 2008. Prospects for the coming year are also positive, in the second quarter of 2010, revenue from the sector marked an annual increase of 7.4 % to 4.56bn US\$.

Remittances are an infinitely small source of income (they only represented about 0.2% of GDP in 2009), thus a decline would not have significant effects on

ment, distancing investors from both the Gulf and the USA. However, the EU-driven investment marked a considerable decline throughout 2009 and the lack of other players in the investment front brought the inevitable fall. FDI in 2010 does not suggest any possible takeoff, though investors from the Gulf appeared to have manifested themselves in July 2010, bringing the total value of inflows in that period at a total of 856 million US\$, a record high since January 2009.

Financial intermediation services have traditionally been the recipient sector of the largest share of FDI, that was until late 2008 before collapsing to

Foreign Direct Investment (FDI) inflows in Turkey, by Country grouping, million US\$



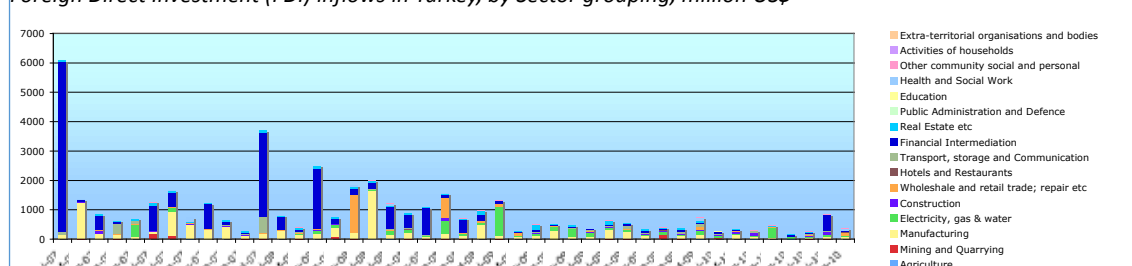
Source: Central Bank of Turkey

the Turkish economy. Estimations point towards a 28.7% decrease in 2009 at 970 million US\$.

Finally, the massive decrease in FDI of 58.1%, to 7.6bnUS\$ in 2009 from 18.1bn US\$ in 2008 cannot go unnoticed. Foreign investment has been following a downward path since the crisis, more precisely, since January 2009, FDI inflows have never surpassed the 1bn US\$ mark. One should note the impressive presence of EU countries in FDI projects, steadily representing more than three quarters of foreign invest-

a marginal percentage over total FDI. Similarly, the wholesale and retail trade sector also saw its share disappear throughout 2009. Projects in manufacturing and the electricity, gas & water sector were not enough to circumvent the outfall of the crisis in a period of great uncertainty regarding investment. Hence, the effects on foreign investment were unavoidable but the authorities will need to do whatever necessary to reverse a trend that could become persistent. Short-term prospects do not yet point towards a recovery in FDI inflows to Turkey

Foreign Direct Investment (FDI) inflows in Turkey, by Sector grouping, million US\$



Source: Central Bank of Turkey

and both macroeconomic and political stability are going to be needed to entice new capital.

2.2 Financial shock

Exposure to the crisis varies along with the degree of financial integration of given countries, as well as with the level of foreign reserves accumulated and the budget balance. In the case of Turkey, the country had reached a high degree of financial system liberalization, with capital account openness at an intermediate level and net external liabilities of the financial sector at a low level.

1) Negative outfall on portfolio investment, solidity in foreign reserves

As in the case of FDI, Turkey is the largest recipient of portfolio investment among MP's, representing roughly 60% of total portfolio inflows to the MP's on average in the 2004-2009 period. One would note that the reliance on portfolio investment in Turkey remains too high when compared to that on FDI, the ratio of portfolio investment to FDI in 2008 was of 24.8% versus 8% for the other MP's on average, in 2009 it decreased to 18.6% versus 7.3% for the other MP's. This adds to the economy's external vulnerabilities since short term capital can flee and is unreliable to finance the current account deficit. Portfolio inflows decreased to 3.26bn US\$ in 2009 from 4.5bn US\$ the prior year which marks a real yet not catastrophic decline.

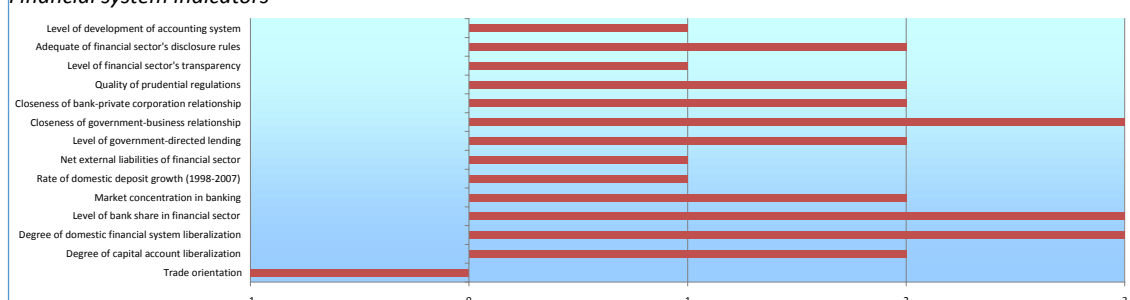
As for international reserves, the Central Bank had suspended foreign exchange buying auctions on October 16th 2008 to better strengthen bank's position. However, the overall improvement in liquidity conditions and in the foreign exchange market led to resuming of auctions. In 2009, foreign reserves reached 75bn US\$, up from 73.7bn US\$ in 2008. Hence, the increase in foreign reserves contributed to partly offsetting exposure to the crisis through the financial channel.

2) Stock-exchange performing surprisingly well

The stock exchange had a positive year despite the international crisis. The total value of shares transacted in 2009 reached 236 bn US\$, which is practically double the value transacted in 2008, that is 120 bn US\$. The transaction volume also increased, by an annual 21% in 2009, reaching 316 bn US\$.

The Turkish stock market not only avoided the crisis, it was one of the top performers worldwide. Nevertheless, expectations play a great role in such performance, a fact authorities shall always keep in mind. A reason for Turkey's healthy stock market is that foreign investors are convinced the country seeks to implement strong fiscal policy. This is of crucial importance since trends can be reversed with relative ease as was recently suggested. In August 2010 turkish shares fell to a three-week low while bond yields rose after an announcement that fiscal reforms would not be implemented in the expected time-frame. Thus, Turkey should keep

Financial system indicators



Source: FEMISE, FEM33-20

Note: Indicators values explained 1=low, 2=medium, 3=high, * Trade Orientation -1= Import Oriented, +1= Export Oriented

building upon the confidence capital it managed to restore after the 2001 financial crisis.

3) An increasing external debt in GDP terms

As for external debt, the latter fell to 268.3bn US\$ in 2009, from 277.3bn in 2008. Total external debt has been nonetheless increasing in terms of GDP, going from 34.9% of GDP in 2005 to 38% in 2008 and 43.7% in 2009. Meanwhile, the debt-service ratio increased from 29.6% in 2008 to 45.1% in 2009. The large fiscal deficits in 2009 and 2010 could also bring the debt to GDP ratio beyond 50% in the coming years.

II. Developments on macroeconomic aggregates

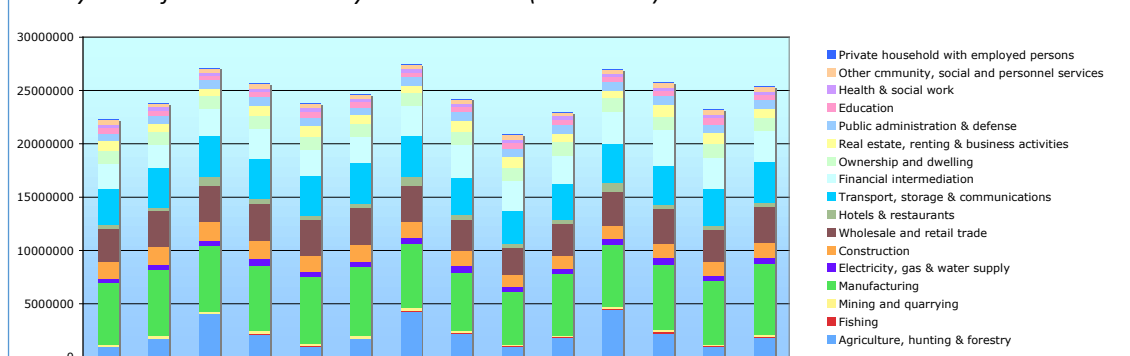
1. GDP growth and decomposition

The Turkish economy has been in a path of sustainable growth, close to 4% on average in 1995-2000 and constantly above that mark in 2000-2007, but

Turkish growth relies to great extent on manufacturing, followed by service activities such as wholesale and retail trade, transport & communications and financial intermediation. The GDP fall in 2009 is attributable in part to an annual 7% decrease in manufacturing activity, a 10.2% fall in wholesale and retail trade and a 7% fall in transport & communications. Meanwhile, construction also marked a 16.1% decrease, while Mining and quarrying fell by 6.7%. Nonetheless, financial services, agriculture and forestry both marked an increase respectively of 8.5% and 3.7%. Turkey has made considerable steps in modernizing its production structure, towards a growth regime based on total factor productivity. Constant diversification in its engines of growth also contributes to its rebound capacity after the crisis.

Expectations for the coming year are optimistic and a 6.1% rate of growth is expected, though the amplitude of the rebound will always depend in part on foreign demand for Turkish exports.

GDP-By Kind of Economic Activity in Basic Prices (Fixed 1998)



Source : Turkstat

the crisis appears to have put this remarkable performance on hold, in the short run at least. After a 0.7% rate of growth in 2008, the economy contracted at -4.7% in 2009 which makes Turkey the only economy with negative growth among MP's. Nonetheless, Turkish growth appears to be back on track judging from the solid performance in the first half of 2010.

2. Employment: Massive increase in unemployment for 2009, potential fall in 2010

The crisis had a considerable negative effect on Turkish employment. The number of employed persons increased by 83 000 in 2009, employment in agriculture by approximately +1%, in services it increased by 0.5% while in the industry it decreased by 1.6%.

Table 1. Labour force, employment and unemployment

	Total		Urban		Rural	
	2008	2009	2008	2009	2008	2009
Labour force (000)	23 805	24 748	16 063	16 585	7 742	8 163
Employed (000)	21 194	21 277	14 010	13 839	7 184	7 438
Unemployed (000)	2 611	3 471	2 053	2 746	558	724
Labour force participation rate (%)	46,9	47,9	45	45,8	51,4	52,7
Employment rate (%)	41,7	41,2	39,2	38,2	47,7	48
Unemployment rate (%)	11	14	12,8	16,6	7,2	8,9
Non-agricultural unemployment rate (%)	13,6	17,4	13,1	17	15,4	19,1
Youth unemployment rate(1)(%)	20,5	25,3	22,6	28,2	15,5	18,9

Source : Turkstat, Annual Results of Household Labour Force Survey, 2009

However, unemployment in Turkey was augmented by an additional 860 000 for a total of 3.47 million unemployed. The unemployment rate was catapulted at 14.1 % which marks an annual increase of more than 3%. Moreover, unemployment in urban Turkey even reached the 16,6 % mark with a 3.8 percentage points increase while it was near the 8.9 % mark in rural areas.

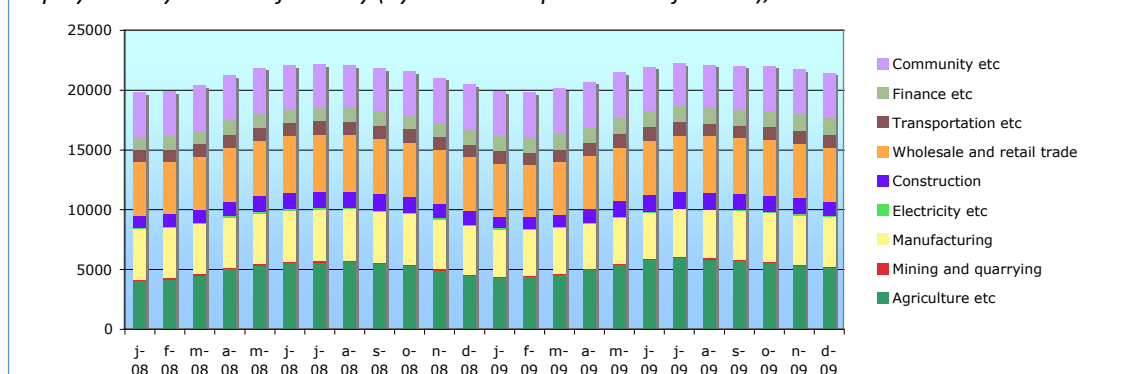
A further decomposition shows that non-agricultural unemployment grew even more, at 17.4%, meanwhile unemployment among the youth went above the symbolic mark of 25% in 2009, up by more than 5 percentage points.

There is no need to highlight how dramatic the issue of unemployment is for any given country and especially in the case of Turkey which, along with Tunisia, has recorded the highest jobless rate among MP's in 2009. Nonetheless, while unem-

ployment in 2010 is expected to grow even more in several MP's, in the case of Turkey recent figures suggest a reverse of trend. Recent employment figures suggest 23.5m persons were in employment in June, versus 21.9m in the same period of 2009. Meanwhile, the unemployed fell to 2.78m in July which suggests an unemployment rate of 10.6%, versus 12.8% in July 2009. Unemployment in urban areas decreased by almost 3% to 13,2 % in July 2010 while it fell back to 5.5 % in rural Turkey.

One could say that the expected rebound in growth shall also be accompanied by an unemployment reduction. The service sector, a traditional engine of growth, also appears to be at the forefront of employment creation. Indeed, among those who recently began to work (or changed their job) in July 2010, 34 % started in the service sector, followed by 25% in agriculture, 21.7% in construction and 19.3 % in industry. Nonetheless, it remains

Employment by Branch of Activity (By the New Population Projections), thousand



Source : Turkstat

doubtful that the government will manage to attain an unemployment rate close to the one of the 2000-2007 period (9.6%) in such a short period of time. Early figures for 2010 point towards a rate close to 12.6%. Thus, the unemployment reduction to pre-crisis levels is expected to be a gradual one.

II.1 Macro-reaction

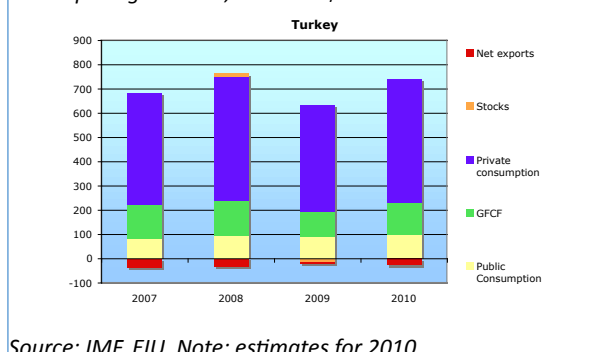
1) Economic activity that follows the path led by the investment and private consumption fall

The massive fall of gross fixed investment expenditure on GDP (by -19.1%) and the decrease of private consumption expenditure on GDP (-2.2%) are the main variables that explain the 4.7% GDP fall in 2009.

It was above all public consumption expenditure (+7.8%) that prevented growth from further falling combined with a considerable reduction of the import bill.

Estimates for 2010 suggest an impressive rate of growth at 6.5% which is close to what was attained in 2006. Economic performance during the first half of 2010 suggests that private consumption will finally bounce back and along with investment will continue to stimulate the Turkish growth engine. Uptil now, public spending has decelerated in 2010, thus government consumption is expected to fall to 2% in 2010. Moreover, one should wait for exports to also pick-up, provided trade partners show more willingness on the demand side.

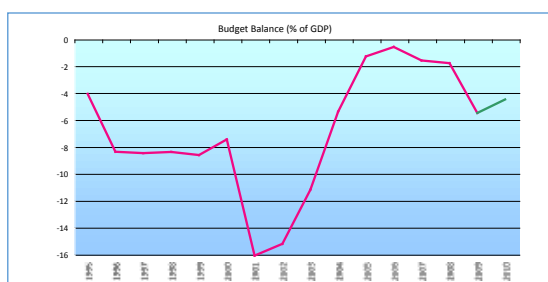
Decomposing demand, billion US\$



For growth to remain at a sustainable level, authorities will always have to keep an eye on external demand. Thus, potential reduction of the growth rate in the years to come might have to be offset by carefully selected initiatives (ex. public construction, joint public-private initiatives, industry upgrading) that will stimulate income creation.

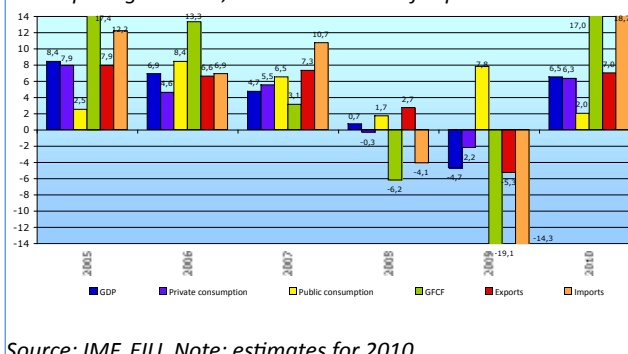
2) Increased pressures on the budget in 2009 that shall be lessened in 2010

The increased spending that followed the crisis eruption brought the budget deficit at 5.5% of GDP in 2009, far from the levels of 2007 and 2008 when the balance had registered a deficit above the 2% mark. Even so, recent spending has been



limited due to economic recovery, adjustments in tax rates and receipts and lower interest payments on public debt (EIU). The deficit in September 2010 was 6.9 billion liras, a considerable fall compared to the 9.5 billion liras 12 months before. Meanwhile, the primary deficit also fell markedly to 2.9 billion liras from 4.5 billion in September 2009. With recent growth attaining spectacular levels, it comes as no surprise that Turkey

Decomposing demand, annual variation of expenditure to GDP



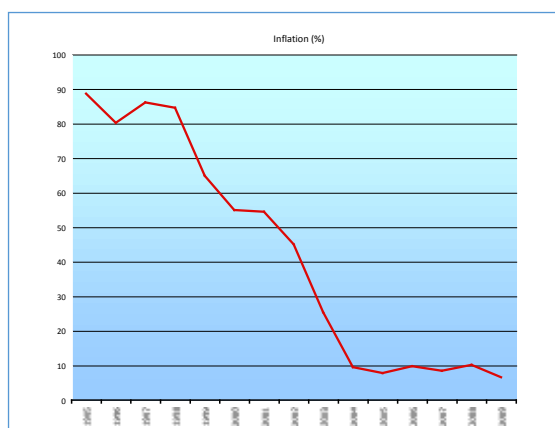
revised its deficit forecast to 44.2 billion liras for 2010 down from 50 billion liras. Budget revenues increased by 20% to September which contributes to making the latest forecast a realistic one.

3) Monetary/exchange-rate policy

As noted earlier Turkey follows a floating exchange rate regime, thus, the country has more flexibility than certain MP's. From 2002 to 2005, implicit inflation targeting regime was adopted, before moving to an explicit regime in 2006 until nowadays.

Anticipating that inflation would decrease following the crisis, authorities put all their efforts on shielding the economy through important cuts in policy rates and sufficient liquidities to keep credit markets from any dysfunctionements. Interest rates were kept low since liquidity measures after the crisis appeared and the foreign currency purchases were reintroduced. With the rebound materializing, interest rates are now picking up. Nonetheless, as noted by the IMF, a broad-based monetary tightening should be accelerated in case the anticipated fiscal consolidation does not come in the near-future.

Moreover, some might argue that the Turkish lira is over-evaluated, which explains the increased cost of production compared to foreign products and consequently the increase in imports, of both raw materials and intermediate goods.



Thus, authorities should perhaps partly rethink their policy, in order to avoid orders of Turkish products shifting to other markets due to the currency imbalance.

II.2 A banking system with strong fundamentals

The Turkish banking sector was relatively strong due to experience from prior crises and the reforms implemented during the post-2001 era. Liquidity measures and policy rate cuts brought a gradual recovery in loans, meanwhile, non-performing loans kept growing but at a smaller rate since the last quarter of 2009. Furthermore, liquidity conditions have been improving and the exchange rate risk has been persistent. Banking profitability increased throughout 2009 and during the first quarter of 2010. Net profits increased by 50.4% to 20.2 billion TL, meanwhile, annual net profits attained the 21.3 billion TL mark by March 2010. The net profits were up 10.1% percent in the first half of 2010 (to 12.1 billion TL) compared to the same period of the previous year. Net income in the first five months of the year reached 10.3 billion TL, a year-on-year increase of 13.9%.

Contrary to other MP's, the recent crisis did not reveal any marked deficiencies in the Turkish banking sector.

✓ Return on equity reached 18.2% in 2009, up from 15.5% 2008, remaining at that level in March 2010.

✓ Return on assets also increased, from 1.8 percent in 2008 to 2.4 percent in 2009 and then 2.5% in March 2010, well above the average of neighbouring MP economies.

✓ The capital adequacy ratio reached 20.6% in December 2009, up from 19.5% in May 2009, before falling back to 19.3% in May 2010 and 19.2% at end-June. In the first 5 months of 2010, deposits gained 5.2% from end-2010 to 541.2 TL.

✓ In May 2010 and compared to late 2009, credits increased by 11.9 percent and securities by 5.5 percent. Furthermore, the increased rate

of growth had an impact on non-performing loans which declined by 1.9 percent to 21.4 billion TL. In the first half of 2010, non-performing loans fell to 2.5 percent of the loan book. They were close to the 4.6% mark in early 2010.

To sum up, the financial profile of Turkish banks was a healthy one, in both asset quality and profitability and despite the crisis, it also appears to be growing even healthier through 2010.

III. Growth engines and Total Factor Productivity (TFP)

III.1 Turkish success : Diversification and emergence of a TFP regime

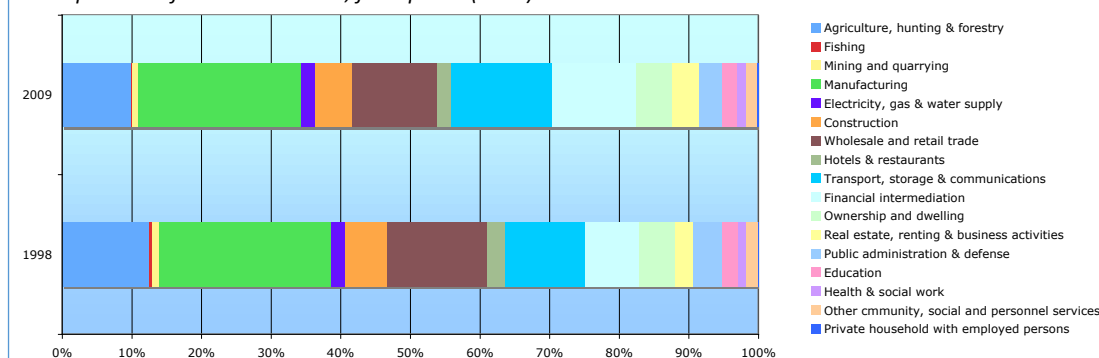
In the 1960's and 1970's Turkey followed a strategy of « import-substituting industrialization ». After the payment crisis of the late 70's the country mo-

promotion (currency devaluation, credit subsidies etc) and an import program was launched considerably reducing quantity restrictions and tariffs. Meanwhile, wages were cut in order to provide cheaper inputs for the industry and again, contribute to an increase in exports. (Alpay FILIZTEKIN) Followed two decades of progressive opening which ultimately led to the accession negotiations with the EU.

The question is the following : Did the composition of growth benefit from the strategy-shift ? If so, how does this regime hold nowadays and what can be done to sustain growth in the new decade ?

The first thing one could note by decomposing turkish value-added is that the country reduced its dependency on the agricultural sector, the

Decomposition of the Value-Added, fixed prices (1998)

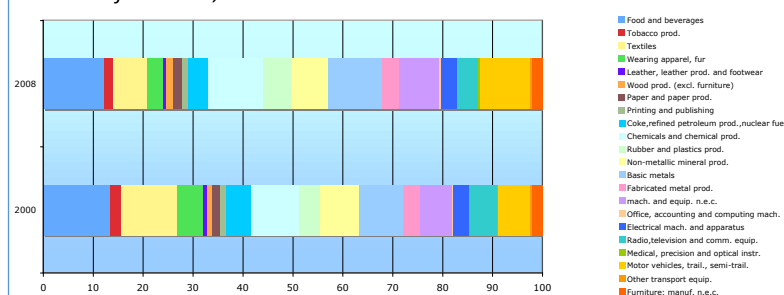


Source : Turkstat

ved to an outward-oriented model the strategy of which was twofold : first, liberalize trade and second, open-up the financial system. As a result, during the 80's there was an ongoing effort of exports

latter represented a share of 9.8% in 2009 versus 12.5% in the year 1998. Similarly, wholesale and retail trade went from a share of 14.5% in 1998 to 12.3% in 2009. On the other hand, the

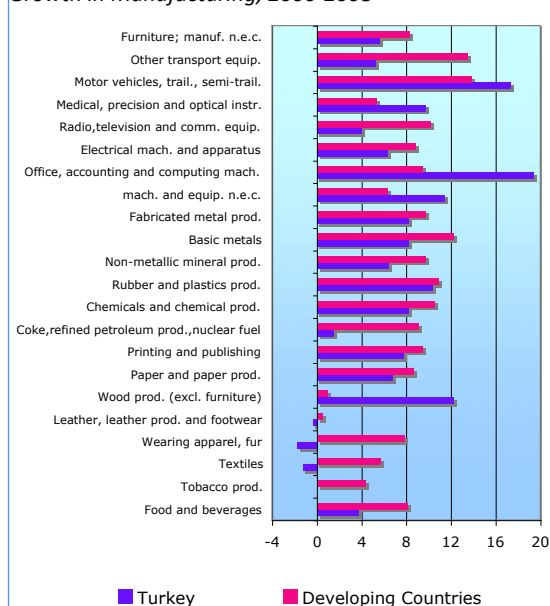
Structure of the MVA, 2000 and 2008



Source : UNIDO

services sector appears to have been one of the major benefitors in the past decade. The transport sub-sector grew considerably with a share of approximately 14.5% of the value added in 2009 versus 11.4% in 1998. Moreover, the development of financial intermediation is

Growth in Manufacturing, 2000-2008



Source : UNIDO

more than apparent with a share of 12.1% of the value-added in the year 2009 versus only 7.9% in 1998.

Undeniably, manufacturing clearly benefited from opening-up as indicated by the rapid export growth after the 80's. As noted by Filiztekin, the export-output ratio rose from 4% until 1980 to over 20% in the next twenty years ; textiles, food and clothing represented the leading sectors later joined by iron and steel, rubber, fabricated metal and electrical machinery industries. In 1998 the sector represented approximately a quarter of the value-added, 11 years latter it roughly stands at the same spot, though slightly less, at 23.4% of the value-added.

Decomposing manufacturing shows that while the sector as a whole has a stable share in total value-added, its components have clearly evolved. First, the share of textiles has clearly contracted, they represented 11.1% of the MVA in 2000, they were at 6.9% in 2008. The situation in the wearing apparel sector is clearly intertwined to that of textiles, the sector also saw its share diminish from 5.4% of the VAM in 2000 to 3.2% in 2008. On the flip-side, the motor-vehicles sector saw its share grow

from 6.5% in 2000 to 10% in 2008, machinery and equipment grew from 6.4% of the VAM in 2000 to 8.2% in 2008 while basic metals, non-metallic mineral products, rubber and plastics products and chemicals all saw their share grow by more than 1% in the 2000-2008 timeframe.

When comparing the turkish manufacturing rate of growth in the 2000-2008 period to the one of developing countries it becomes evident that the « heavy » industry in Turkey (motor vehicles, machinery related sectors) was the one that grew substantially. The driving sectors of domestic growth in prior decades (textiles, clothing etc) appear to be running out of steam and new sources of competitive advantage ought to be found to carry growth in the 2010's.

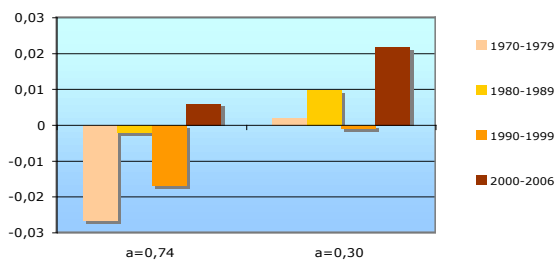
Hence, the high growth rates of the Turkish economy (4.4% average growth in the 2000-2007 period) can be explained by :

- ✓ Development in the service economy,
- ✓ new production systems (imported from developed countries after the opening) that triggered domestic industrial production and diversified the economic fabric.

There are reasons to believe that production diversification brought productivity gains since new production units were more productive than old ones (M. Adak, 2009).

The graphs below offers a first, though partially unclear, picture as to the main engines of turkish growth since 1970. Depending on assumptions on the relative share of physical capital to production (a) we could say that TFP has had a positive (when $a=0,30$) or negative (when $a=0,74$) effect on GDP growth in the 1970-2006 period. The TFP estimate combined with measures of physical and human capital shed more light on Turkey's growth determinants; in the right-side graph growth rates of the aggregate product are broken into contributions of factors of accumulation and productivity (average annual growth

Annual growth rate of the TFP, by periods



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

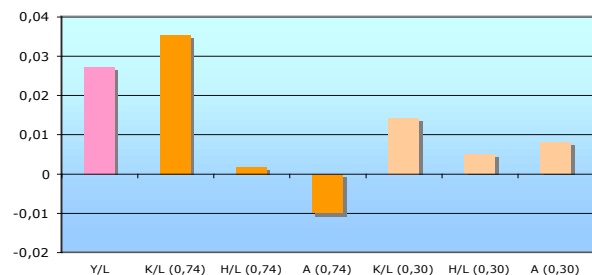
rate of gdp per worker and contributions of each component to GDP).

When the higher estimate of physical capital to production is considered, physical capital appears as a major determinant of growth and suggests the accumulation process has been the one carrying domestic growth in almost 40 years, distantly followed by the accumulation of human capital. When the lower estimate of physical capital to production is considered, physical capital logically appears as a less important, though still principal, determinant of growth. In this case it is suggested that the physical capital accumulation process was closely followed by TFP and human capital accumulation in sustaining growth.

What appears clearly in the left-hand graph, whatever the share of physical capital to production, is that TFP has been on the positive side in the 2000-2006 period. The question one should ask is the following : can TFP-growth be sustained in the coming years ?

Regarding labour productivity, Togan (2003) had already stressed that the country reached an annual labour productivity growth of 3.12% between 1950 and 1999 (of which 38.1% from capital deepening), 25.15% from improvements in labor quality, 36.75% percent from total factor productivity growth). To achieve higher growth rates the author stressed that the country needed to increase the productivity growth rate through capital deepening,

Factor contribution to per capita GDP growth (%)



Source : Pipitone (2009)

Note : Y= aggregated production, A= efficiency factor, K= scapital stock, L= number of workers. a= relative share of physical capital to production, a= 0,30 (value conventionally used in the litterature) or a= 0,74 (valeur estimated by authors)

ing, improvements in labor quality, and increases in the growth rate of the TFP and employment.

Despite being apparently positive in recent years, a recent study suggests that the TFP growth of the Turkish economy is decelerating since 2004, being almost equal to zero in 2006. Canga et al. (2010) calculate the technical change, technology process and efficiency change for Turkey, CEE countries and the EU-15 for the 1995-2006 period. The authors suggest that the reason for the declining performance in turkish TFP is principally to be found on the deterioration of the relative efficiency component of productivity. Turkey is found to be efficient in labor and capital allocation in production relative to CEE countries, meanwhile, it appears lacking in innovation and in implementation and use of new technologies.

This finding is in line with the opinion of Adak (2009) who states that « developing countries such as Turkey, have a high TFP output which correlates with positive and sharp economic growth, however it is not regular and sustainable ». Thus, authorities should find a way for TFP to become sustainable in the long run as in developed nations. Moreover, they should focus on sectors that have potential for productivity gains in the future. Perhaps most importantly, protectionist measures should not be considered.

Focusing on the evolution of the manufacturing sector between 1970 and 1990, Filiztekin shows

that the shift to an outward-oriented strategy led to a productivity increase which is responsible for almost half of value added growth. He concludes that the increasing share of trade contributed significantly and positively to the performance of the economy especially through imports.

In another study, Taymaz and Yilmaz (2007) estimate plant-level productivities in the manufacturing industry between 1984 and 2000. They find that productivity gains are largest in import competing industries, compared to export-oriented and non-traded sectors.

III.2 Measures for sustainable growth

Ongoing Ninth Development Plan (2007-2013)

The Ninth Development Plan, basic strategy document contributing to the EU accession process, identified the following five national strategic objectives: (i) Increasing Competitiveness; (ii) Increasing Employment; (iii) Strengthening Human Development and Social Solidarity; (iv) Ensuring Regional Development; and (v) Increasing Quality and Effectiveness in Public Services.

As recognized by the Plan, developing countries such as Turkey need « to base their growth dynamics on productivity increases and on creating new comparative advantages...to this end, placing an emphasis on innovativeness, increasing scientific and technological capacity, improving human capital, and effective usage of information and communication technologies constitute importance ». However, the crisis outfall suggests that coordination will be crucial to achieve sustainable growth, especially since budget cuts could become a reality.

Thus, authorities are currently working within the framework of the Medium-Term Economic Program (MTEP), which covers the 2011-2013 period, adapting the Ninth Development Plan to the post-crisis realities. The MTEP, also in line with the 2011

Investment Program, prioritizes 50 cities for development and shall act as a coordinator between macroeconomic policies, development programs and investment initiatives.

More specifically :

- ✓ The plan will warrant that monetary, financial and revenues policies are coordinated to sustain growth and lead to economic recovery,
- ✓ Policies that boost employment creation, raise employment capacities and quality, and allow for flexibility of the labor market will be pursued,
- ✓ The Public sector shall cut expenditures, terminate inefficient projects and initiatives,
- ✓ Economic and social infrastructure projects leading to regional convergence will be prioritized (ex. Southeastern Anatolia Project, Eastern Anatolia Project and Konya Plain Project),
- ✓ The public sector shall withdraw from electricity distribution and sugar production, while reducing its share in electricity generation, telecommunication, port-highway and bridge management.

A new energy plan for 2010-2014

Developing new sectors of growth has been at the center of attention of domestic authorities and the energy sector marks no exception. Energy is critical for fostering and sustaining economic growth but it is also a sector of many challenges. Electricity demand in Turkey grew at an annualized average of 7–8% percent in the 2002-2008, it has fallen following the crisis but is expected to progressively pick-up. The strategic energy plan for 2010-2014 was announced, its primary objectives being :

- ✓ to ensure that energy supply meets growing demand needs, currently, Turkey's gas reserves are estimated to only suffice for covering the needs of one sixth of its consumption for a year,
- ✓ to make greater use of domestic natural resources, thus, make the country less dependent on imported fuels,

√ to restructure the legal-institutional infrastructure of the domestic market since prior governments have failed to do so, thus hampering investment potential in alternative energy.

The plan shall entice more foreign investors since Turkey is seeking to foster partnerships in the energy sector. For instance, it is negotiating with South Korea in building a power plant in the Sinop province, it has signed a contract with Russia to construct a plant in the Mersin province, while there has been interest from Japan as well.

Moreover, privatization of the electricity distribution networks is ongoing. If it succeeds it should help attract further investors (domestic and foreign) and improve gas supply conditions. Presently, the country aims to increase its renewable energy resources in electricity 30% by 2023.

The energy plan should provide for a variety of other benefits to the economy :

√ It urges the exploitation of coal in order to boost revenues from mining,

√ It aims to provide the country with the capability of providing nuclear energy, by the year 2023 expectations point to 5% of electricity production originating from nuclear power plants,

√ It highlights Turkey's will of becoming a major energy corridor, most notably through the creation of a series of pipeline projects with strategic partners.

Health sector Reform

In 2003, Turkey adopted the ten-year « Health Transformation Program » in cooperation with the International Bank for Reconstruction and Development (IBRD).

Since then :

√ The government gave Green Cards for free treatment to more than 9 million underprivileged (only 2.5 million had a green card in 2003),

√ the three social insurance schemes were integrated into a single one, in 2008, 82% of the population were insured,

√ people reporting difficulty in meeting the cost of health expenses dropped to 19% in 2008 from 50 percent in 2003,

√ major reforms occurred in the hospital sector regarding budget flexibility and the introduction of a performance based pay system.

Overall, improving health had a positive effect on Turkish social conditions but one could state that it did on an economic front as well. Indeed, Turkish authorities put an end on restrictions on the pharmaceuticals market which was enticing to foreign investors. For instance, the Carlyle Group bought 40% of Medical Park Saglik Grubu AS while Abraaj Capital Ltd (Dubai) acquired 54% of hospital chain Acibadem Saglik Hizmetleri & Ticaret AS (at 606 million US\$)

Even so, sustainability of the Health Ministry budget is an important issue (24% expected increase to 17.2 billion liras).

Conclusions and recommendations

Turkey has made progress on the economic front with important reforms across the economic fabric. Let it also be noted that Turkey recently voted by referendum in favor of changes to its constitution. While counterarguments regarding the implications of those changes have been expressed, it is believed that such changes would bring the country closer to the standards demanded by the European Union and thus help Turkey in its accession efforts.

But, the recent crisis had an unprecedented outfall in 2009. While prospects for the year 2010 suggest the economy will be back on track, an efficient strategy that can sustain growth throughout the 2010's is needed. Thus, a series of points must be noted that could help Turkey achieve such goals.

✓ Continuous relaxation of anti-competitive regulations could boost productivity and also provide potential benefits to employment, by offering more flexibility. Reduction of cumbersome administrative barriers to business, of the government's share in operations and of FDI impediments shall result into productive efficiency and positive externalities (OECD).

✓ Export trends are rather positive in early 2010. Even so, there are economists familiar with the Turkish economy that are more cautious. Some argue that, in early 2010, Turkish exports remained stagnant vis-a-vis world trends suggesting Turkey is having difficulties catching up. It has been acknowledged that the country is in need of a more effective export-oriented growth strategy, one that reduces dependency on low-technology exports and that develops more profitable ones.

✓ In order to render the budget easier to sustain, authorities should also start collecting taxes from the informal sector. Firms from the latter also have little incentive to invest in the formal sector which means there is a need for a more sustainable growth model that takes into account of domestic specificities.

✓ FEMISE has already noted that Turkey must accelerate the transformation of its employment structure due to demographical pressures. Meanwhile, more efforts are needed to better target the poorer segments of the population.

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Annexes

Regarding the following tables :

- Since Egypt, Lebanon, Syria and Palestine did not provide data for 2009 to the WTO, data has been recomposed by applying to the year 2008 the average rate of growth of MPs trade
- The Mediterranean region is composed of –Algeria, Egypt, Israel, Jordan, Morocco, Palestine, Syria, Tunisia, Turkey
- The EU is composed of the EU15 countries until the year 2000 and of the EU27 countries for the remaining years.

Annex 1: Relative shares of MPs partners										
EXPORTS						IMPORTS				
Trade excluding oil										
	1995	2000	2005	2008	2009	1995	2000	2005	2008	2009
EU27	49%	47%	48%	43%	41%	57%	54%	48%	43%	45%
EU 15	46%	44%	43%	37%	36%	55%	51%	44%	38%	41%
EU 12	3%	3%	5%	6%	5%	2%	2%	4%	4%	4%
RoW	46%	48%	46%	49%	50%	41%	42%	47%	52%	49%
China	0%	1%	1%	1%	2%	1%	3%	6%	9%	10%
GCC	2%	3%	3%	8%	5%	1%	1%	1%	2%	2%
USA	14%	20%	15%	10%	11%	13%	12%	7%	8%	8%
MPs	5%	5%	6%	8%	9%	2%	4%	5%	5%	5%
Turkey	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Manufacturing Trade ¹										
EU 27	49%	47%	50%	45%	44%	61%	59%	55%	49%	54%
EU 15	46%	44%	45%	38%	38%	59%	57%	50%	45%	49%
EU12	3%	3%	5%	6%	6%	2%	2%	4%	4%	5%
RoW	46%	49%	45%	48%	48%	37%	38%	41%	46%	41%
China	0%	1%	1%	1%	1%	1%	3%	8%	12%	14%
GCC	2%	2%	3%	7%	4%	1%	1%	1%	2%	2%
USA	16%	23%	16%	12%	13%	11%	11%	6%	7%	7%
MPs	4%	5%	6%	7%	9%	2%	3%	4%	4%	5%
Turkey	1%	1%	1%	1%	1%	1%	1%	2%	2%	3%
(1) Products 5 to 8 of sitc rev3 ; Source: Comtrade, FEMISE calculations										

Annex 2: Annual average rate of growth of trade										
	Exports					Imports				
Partner	1995-2000	2001-2005	2006-2009	2008-2009	1995-2008	1995-2000	2001-2005	2006-2009	2008-2009	1995-2008
TOTAL										
China	10%	22%	24%	4%	20%	19%	39%	15%	-15%	22%
World	7%	15%	0%	-30%	8%	4%	15%	3%	-28%	6%
GCC	8%	20%	6%	-54%	13%	7%	28%	-5%	-48%	9%
MPs	12%	15%	14%	-16%	12%	14%	14%	8%	-24%	11%
Turkey	27%	14%	4%	-36%	12%	1%	14%	13%	-18%	12%
EU 15	7%	14%	-4%	-32%	6%	2%	12%	3%	-21%	4%
EU 27	6%	15%	-3%	-32%	6%	2%	13%	3%	-22%	4%
USA	13%	14%	-9%	-31%	7%	1%	1%	9%	-26%	2%
ROW	7%	16%	2%	-29%	8%	4%	18%	3%	-32%	7%
Manufacturing										
China	17%	9%	22%	-15%	16%	21%	41%	16%	-14%	23%
World	7%	12%	3%	-25%	8%	3%	15%	2%	-27%	5%
GCC	4%	28%	3%	-61%	13%	15%	20%	11%	-30%	14%
MPs	7%	16%	17%	-9%	13%	12%	17%	10%	-16%	13%
Turkey	13%	14%	13%	-48%	12%	1%	19%	13%	-15%	13%
EU 15	6%	13%	-1%	-26%	6%	3%	12%	2%	-20%	4%
EU 27	6%	14%	0%	-27%	7%	3%	12%	2%	-19%	4%
USA	15%	5%	-5%	-18%	6%	3%	0%	8%	-17%	2%
ROW	8%	10%	5%	-25%	8%	4%	17%	0%	-35%	6%
Total excluding oil										
China	10%	20%	12%	-8%	17%	19%	39%	15%	-14%	22%
World	5%	14%	3%	-23%	7%	3%	14%	4%	-25%	5%
GCC	8%	20%	7%	-53%	13%	13%	19%	12%	-37%	13%
MPs	7%	16%	15%	-12%	12%	15%	14%	8%	-20%	13%
Turkey	14%	27%	6%	-41%	12%	1%	14%	13%	-15%	11%
EU 15	4%	13%	-2%	-25%	5%	2%	11%	2%	-20%	3%
EU 27	4%	15%	-1%	-27%	6%	2%	12%	3%	-21%	4%
USA	13%	7%	-6%	-18%	5%	1%	0%	7%	-25%	2%
ROW	6%	12%	5%	-22%	8%	3%	17%	4%	-30%	7%
Source: Comtrade										

Annex 3: MPs trade balances with the 3 partner groups (current US\$, millions)									
	World			EU			ROW		
	Total	oil excluded	Manufacturing	Total	oil excluded	Manufacturing	Total	oil excluded	Manufacturing
1995	-46520	-50778	-38075	-24960	-18049	-28607	-21472	-18,049	-9923
1996	-50136	-56480	-42498	-28828	-19246	-34175	-21595	-19,246	-8857
1997	-47428	-54289	-41720	-27075	-16888	-33704	-19794	-16,888	-8504
1998	-51883	-55237	-41994	-28278	-20223	-31909	-23163	-20,223	-10570
1999	-41794	-47091	-36116	-21137	-17008	-28315	-20725	-17,008	-8473
2000	-43631	-55206	-39333	-19261	-19293	-31541	-23639	-19,293	-7906
2001	-30534	-40767	-25016	-10123	-14377	-21961	-19267	-14,377	-2928
2002	-33694	-44116	-27604	-12541	-15102	-24852	-19856	-15,102	-2626
2003	-35632	-49635	-30881	-13090	-18327	-26761	-21491	-18,327	-3979
2004	-54987	-70315	-45471	-18820	-31122	-34523	-35072	-31,122	-11083
2005	-58785	-81403	-58451	-9388	-41159	-37732	-47789	-41,159	-20306
2006	-59273	-82723	-57343	-6738	-43204	-37096	-51542	-43,204	-20848
2007	-87159	-110370	-74831	-14059	-67833	-40488	-71984	-67,833	-35313
2008	-116870	-143533	-81007	-17230	-85177	-48764	-99431	-83,891	-34229
2009	-92077	-102591	-70682	-31078	-50729	-46948	-63194	-49,792	-12308
Source: Comtrade, FEMISE calculations									

Annex 4: Relative shares (in%) of agricultural exports to total MPs exports								
	World		ROW		EU15		PM	
	1995	2009	1995	2009	1995	2009	1995	2009
Algeria	1%	0%	3%	0%	0%	0%	1%	0%
Egypt	9%	12%	8%	14%	9%	8%	14%	15%
Israël	5%	4%	3%	2%	10%	8%	2%	3%
Jordan	10%	15%	9%	14%	8%	9%	15%	22%
Lebanon		11%		12%		6%		12%
Morocco	31%	19%	33%	17%	30%	19%	17%	29%
Syria	31%	36%	57%	66%	4%	3%	11%	53%
Tunisia	5%	6%	7%	13%	4%	3%	5%	11%
Turkey	16%	10%	17%	12%	15%	8%	18%	8%
MP9	10%	9%	10%	10%	11%	7%	12%	15%
Syria, 2007 and 2008 Egypt, Lebanon, 2008 : valEUs estimated from average rates of growth of MPs trade.								
Source : Comtrade, FEMISE calculations								

Annex 5: Decomposition of agricultural products exported by MPs, by trading partner								
	World		ROW		EU		PM	
	1995	2009	1995	2009	1995	2009	1995	2009
Live animals	3%	7%	4%	7%	0%	0%	10%	22%
Meat & prép.	1%	2%	1%	3%	1%	1%	0%	0%
Milk, dairy	1%	6%	2%	8%	0%	0%	1%	7%
Fish	14%	7%	16%	4%	15%	15%	4%	3%
Cereals	9%	12%	15%	14%	1%	4%	24%	21%
Fruit & vegetables	59%	51%	40%	46%	79%	70%	36%	30%
Sugar, honey	4%	4%	7%	5%	1%	3%	2%	3%
Coffee, tea, cocoa, spices	4%	5%	6%	6%	1%	2%	4%	8%
Animal food	1%	2%	1%	1%	0%	1%	3%	3%
Various prod.	5%	5%	7%	5%	1%	5%	16%	3%
Source : Comtrade, FEMISE calculations								

Annex 6: Shares (in%) of manufacturing in MPs exports				
	1995		2009	
	EU	ROW	EU	ROW
Algeria	3%	3%	1%	1%
Morocco	54%	47%	70%	52%
Tunisia	80%	74%	77%	71%
Egypt	42%	42%	43%	35%
Jordan	44%	55%	54%	73%
Lebanon	65%	62%	65%	64%
Palestine			71%	32%
Syria	6%	11%	10%	55%
Turkey	77%	71%	85%	67%
Israël	83%	93%	88%	96%
MP10	58%	68%	61%	62%
Source : Comtrade, FEMISE calculations				

Annex 7.1: MPs exports by technological intensity (*)					
	1995	2000	2005	2008	2009
<i>World</i>					
<i>High tech. Intensity</i>	14.9%	18.7%	12.5%	14.0%	15.0%
<i>Av. tech. Intensity</i>	9.4%	10.1%	14.5%	15.8%	17.5%
<i>Low tech. Intensity</i>	5.8%	3.4	5.3%	9.5%	8.4%
<i>Labour and ressources</i>	33.9%	30.4%	28.0%	21.5%	23.8%
<i>Energy+primary</i>	34.6%	36.0%	38.4%	38.1%	34.0%
<i>ROW</i>					
<i>High tech. Intensity</i>	19.9%	25.9%	15.9%	17.7%	19.6%
<i>Av. tech. Intensity</i>	9.7%	10.1%	13.2%	13.9%	15.2%
<i>Low tech. Intensity</i>	7.0%	3.1%	6.1%	12.6%	10.3%
<i>Labour and ressources</i>	33.0%	30.9%	30.4%	21.5%	22.6%
<i>Energy+primary</i>	28.3%	27.9%	32.3%	32.5%	30.5%
<i>EU15</i>					
<i>High tech. Intensity</i>	10.0%	12.6%	9.4%	9.7%	10.0%
<i>Av. tech. Intensity</i>	8.8%	10.0%	15.6%	18.7%	20.9%
<i>Low tech. Intensity</i>	3.6%	3.4%	3.9%	5.3%	4.3%
<i>Labour and ressources</i>	36.8%	31.4%	27.2%	22.8%	27.1%
<i>Energy+primary</i>	40.0%	41.7%	43.3%	42.8%	37.0%
<i>PM</i>					
<i>High tech. Intensity</i>	14.1%	13.3%	13.4%	15.3%	12.5%
<i>Av. tech. Intensity</i>	12.1%	10.2%	14.8%	14.1%	15.4%
<i>Low tech. Intensity</i>	15.1%	5.5%	11.8%	14.4%	18.9%
<i>Labour and ressources</i>	15.8%	16.5%	15.0%	15.6%	18.2%
<i>Energy+primary</i>	42.5%	53.5%	43.8%	39.7%	33.7%
Source : Comtrade, FEMISE calculations					

Annexe 7-2: Share of average and high tech exports				
	1995		2009	
	<i>ROW</i>	<i>EU15</i>	<i>ROW</i>	<i>EU15</i>
<i>Algeria</i>	2%	1%	0%	1%
<i>Egypt</i>	9%	5%	21%	27%
<i>Israël</i>	46%	47%	55%	58%
<i>Jordan</i>	44%	32%	46%	38%
<i>Lebanon</i>			42%	27%
<i>Morocco</i>	36%	17%	50%	29%
<i>Syria</i>			25%	2%
<i>Tunisia</i>	31%	17%	47%	29%
<i>Turkey</i>	16%	15%	32%	43%
<i>MP9</i>	30%	19%	35%	31%
<i>MPs excl. Oil rich (*)</i>	32%	23%	41%	41%
(*)PM Hors Algeria et Syria				
Source Comtrade, FEMISE calculations				
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Annex 8 Trade concentration and diversification indexes in MPs

	Concentration index*		Diversification index**	
	1995	2008	1995	2008
<i>Algeria</i>	0.53	0.60	0.81	0.79
<i>Égypte</i>	0.25	0.21	0.66	0.59
<i>Israël</i>	0.28	0.30	0.55	0.60
<i>Jordan</i>	0.21	0.19	0.64	0.57
<i>Lebanon</i>	0.10	0.12	0.59	0.64
<i>Morocco</i>	0.18	0.21	0.75	0.70
<i>Syria</i>	0.54	0.37	0.69	0.66
<i>Tunisia</i>	0.22	0.18	0.66	0.56
<i>Turkey</i>	0.11	0.10	0.63	0.47
<i>Average MPs ***</i>	0.27	0.25	0.67	0.62

**This index evaluates the degree of exports concentration. The closer to 1, the stronger the concentration of exports on a small number of products.*

*** his index evaluates the deviation of the country's export structure relative to the world structure. It varies from 0 to 1, a value closer to 1 stands for a more important divergence.*

**** arithmetical average*

Annex 9 Indicators of intra-branch trade (*)								
MPs	Partner	95-00	38960	1995	2000	2005	2008	2009
Algeria								
	World	4.41	2.69	3.08	3.33	1.64	1.74	1.40
	ROW	6.38	3.68	3.35	3.95	2.10	1.74	1.17
	EU15	2.81	2.08	1.97	3.39	1.24	1.73	1.11
Egypt								
	World	8.79	18.28	9.44	8.56	17.36	17.87	.
	ROW	11.07	17.56	11.05	10.37	12.37	16.01	.
	EU15	5.25	9.99	6.02	3.63	.	12.69	.
Israël								
	World	37.06	44.24	33.28	38.93	46.65	42.06	40.48
	ROW	37.52	41.77	33.29	39.35	43.83	38.52	37.86
	EU15	29.82	40.97	30.90	32.49	47.41	44.93	39.62
Jordan								
	World	33.56	33.60	31.01	30.43	31.86	32.53	30.77
	ROW	34.10	31.77	31.76	35.12	28.61	28.09	26.23
	EU15	9.62	7.30	13.82	4.58	.	6.29	7.91
Lebanon								
	World	16.34	25.73	.	15.43	.	28.04	.
	ROW	16.94	26.58	.	15.52	.	29.35	.
	EU15	7.20	9.18	.	6.72	.	8.02	.
Morocco								
	World	15.80	19.55	11.38	18.19	19.29	18.68	19.33
	ROW	9.69	12.55	8.78	10.38	9.30	10.36	12.61
	EU15	16.82	21.23	10.52	18.76	21.69	22.10	20.56
Syria								
	World	9.76	13.45	.	9.76	11.47	.	.
	ROW	22.72	12.27	.	22.72	9.14	.	.
	EU15	1.12	9.82	.	1.12	16.71	.	.
Tunisia								
	World	22.32	29.72	22.92	23.30	28.35	30.40	31.61
	ROW	19.07	23.58	17.40	17.27	22.72	21.47	25.73
	EU15	21.59	26.98	22.58	22.30	26.66	28.19	27.46
Turkey								
	World	26.39	37.77	22.08	27.53	36.71	39.35	40.58
	ROW	28.53	37.75	23.42	29.15	34.62	38.53	39.84
	EU15	18.85	31.10	15.24	20.66	30.41	32.70	31.59
MP9								
	World	37.80	48.82	33.67	39.65	45.70	50.82	51.70
	ROW	39.10	46.74	34.09	41.29	43.60	45.23	45.38
	EU15	27.93	37.46	25.03	29.41	36.89	40.11	38.66
(*)Following the methodology of Grubel & Lloyd.								
Index calculated based on manuf. trade, categories 5 to 8 of Sitc rev3, at 5 digits.								
Source Comtrade, FEMISE calculations								

Annex 10. Main sectors of MPs exports specialization				
Partner	1995	2000	2005	2009
<i>Chemicals</i>				
ROW	12%	10%	10%	13%
EU15	8%	6%	5%	7%
<i>Electronic components</i>				
ROW	4%	8%	3%	4%
EU15	4%	5%	5%	6%
<i>Transport equipment</i>				
ROW	3%	4%	5%	6%
EU15	1%	3%	8%	10%
<i>Non electrical machinery</i>				
ROW	4%	4%	4%	4%
EU15	3%	2%	3%	3%
<i>Metals & other basic manuf.</i>				
ROW	8%	5%	7%	10%
EU15	5%	4%	4%	5%
<i>Minerals, oil excl.</i>				
ROW	18%	19%	16%	10%
EU15	6%	4%	5%	3%
<i>Computers, telecoms</i>				
ROW	5%	8%	3%	1%
EU15	2%	5%	4%	3%
<i>Fresh food products</i>				
ROW	6%	5%	4%	4%
EU15	9%	6%	5%	5%
<i>Processed food products</i>				
ROW	7%	4%	4%	5%
EU15	5%	3%	3%	3%
<i>Oil products</i>				
ROW	11%	17%	19%	13%
EU15	23%	31%	33%	28%
<i>Textiles and fabrics</i>				
ROW	5%	4%	5%	4%
EU15	6%	5%	4%	4%
<i>Clothing</i>				
ROW	9%	6%	5%	3%
EU15	23%	20%	16%	16%
Source : Comtrade, FEMISE calculations				

Annex 11. Shares (in%) of MPs* in European imports** in manufacturing

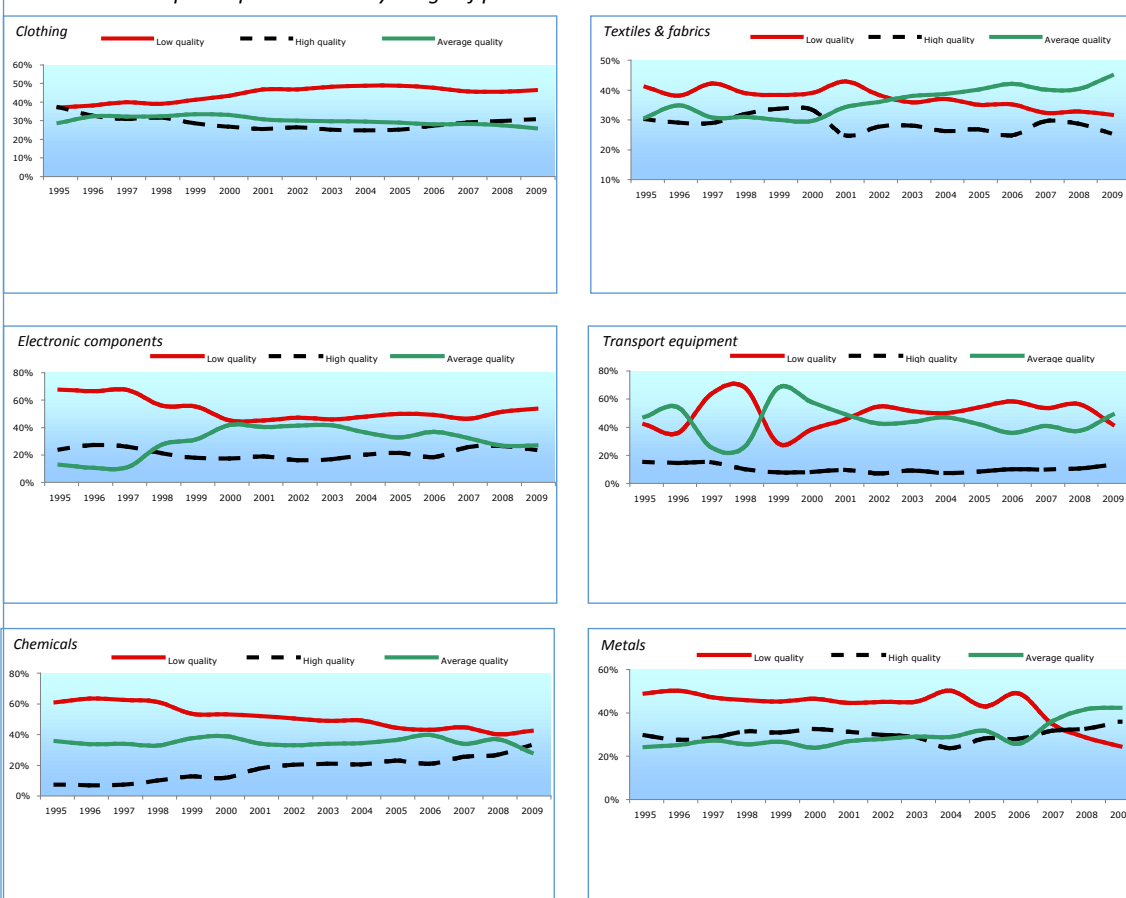
Sectors	1995	2000	2005	2009
Clothing	22%	17%	21%	17%
Textiles and fabrics	11%	14%	17%	16%
Leather & leather products	4%	6%	4%	4%
Metal & other basic manuf.	3%	3%	4%	4%
Electronic components	2%	2%	2%	2%
Electric components	2%	3%	4%	6%
Transport equipment	1%	3%	6%	6%
Wood, paper	0,90%	1,70%	2,50%	2,40%
Other manuf.	1%	1%	2%	2%
Non electrical machinery	1%	1%	2%	3%
Computers, telecoms	0%	0%	2%	1%
Total	4%	3%	5%	5%

*-Egypt, Jordan, Morocco, Tunisia et Turkey

** relative to EU imports excl. intra-EU

Source : Comtrade, FEMISE calculations

Annex 12. MPs exports specialization by range of product



Source : Comtrade, FEMISE calculations

Annex 13.-. Quality range (in %) of MPs exports by technological intensity										
		Low quality			Average quality			High quality		
	Technological intensity	1995	2000	2009	1995	2000	2009	1995	2000	2009
Egypt	Low	72%	11%	21%	16%	3%	66%	12%	86%	13%
Jordan		100%	52%	22%				0%	48%	78%
Morocco		0%	48%	15%	61%	36%	31%	39%	16%	54%
Tunisia		30%	33%	30%	17%	23%	47%	53%	44%	23%
Turkey		57%	48%	25%	24%	26%	38%	19%	27%	36%
MP5		57%	34%	24%	22%	18%	45%	21%	49%	31%
Egypt	Average	0,86	0,9	0,43	0,01	0,03	0,19	0,13	0,07	0,38
Jordan		24%	35%	19%	50%	33%	35%	26%	33%	33%
Morocco		23%	17%	38%	77%	72%	46%	0%	11%	15%
Tunisia		53%	53%	37%	23%	24%	40%	24%	23%	23%
Turkey		60%	52%	35%	23%	35%	51%	17%	13%	14%
MP5		55%	49%	38%	27%	36%	46%	18%	15%	16%
Egypt	High	71%	45%	46%	0%	11%	19%	29%	43%	36%
Jordan		6%	31%	74%				94%	69%	26%
Morocco		91%	39%	43%	9%	60%	38%	0%	1%	19%
Tunisia		69%	64%	23%	28%	26%	28%	3%	11%	49%
Turkey		100%	99%	92%				0%	1%	8%
MP5		81%	68%	64%	12%	28%	15%	7%	5%	22%
Egypt	Labour & ressources	47%	30%	23%	31%	38%	24%	22%	31%	53%
Jordan		88%	22%	9%	3%	76%	69%	9%	2%	23%
Morocco		68%	44%	36%	16%	28%	28%	15%	28%	36%
Tunisia		21%	27%	41%	38%	40%	33%	41%	33%	25%
Turkey		26%	33%	35%	37%	41%	36%	37%	26%	29%
MP5		30%	34%	36%	35%	38%	33%	35%	28%	31%
Source : Comtrade, FEMISE calculations										

Annex B1. An example of CGE models: the new version of MIRAGE (Decreux and Valin, 2007)

Recent CGE modeling has progressed in several ways compared to traditional CGE models. In particular, the new generation has progressively incorporated the recent trade theory mentioned in the introduction, such as imperfect competition and horizontal product differentiation (Smith and Venables, 1988; Harrison et al., 1997) as well as some dynamic features (Baldwin, 1989), etc. In addition, some specific research has been devoted to technical aspects, such as the choice of appropriate elasticities in imperfect competition (Rosen, 2006).

This first Annex presents one example of these new models, i.e. the new version of MIRAGE developed by Decreux and Valin (2007). The main features of this model are the following. First, although horizontal product differentiation is introduced in a standard fashion, the corresponding calibration procedure is novel in that it allows the available information to be used more efficiently. Second, the modeling is done in a sequential set-up where installed capital is assumed to be immobile even across sectors. Consequently, capital reallocation only results from the combined effect of depreciation and investment. This assumption gives investment a crucial role in terms of capital stock adjustment. In addition, cross-border investment (FDI) is introduced explicitly in a novel way. Indeed, standard CGE models generally assume that FDI results from international capital flows due to capital mobility. A major drawback is that it induces implausibly high cross-border capital flows (compared with observed flows). On the other hand, MIRAGE attempts to induce more plausible capital flows by linking empirical evidence to theoretical consistency. This can be achieved by modeling domestic and foreign investment in a single framework where saving allocation is a function of initial savings, the current capital stock, the sectoral rate of return to capital as well as the adjustment speed of capital (for more details, refer to Decreux and Valin, 2007, pp.15-16). However, the model does not take into account FDI spillover effects on productivity, al-

though an increasing empirical literature shows the existence of such effects.

A third interesting innovation is the consideration of vertical product differentiation through the introduction of two quality ranges. This has been implemented by adding a specific CES nesting level in the utility function. The quality ranges are defined on a geographical basis in such a way that goods produced in a developing country are assumed to belong to a different quality range than those produced in developed countries.

Trade policy modeling is also a key characteristic in MIRAGE. In this regard, trade barriers include ad-valorem tariffs, specific tariffs, tariff quotas and anti-dumping duties which can be calculated in tariff equivalents. Preferential agreements are also taken into account in a quasi-exhaustive way. The information is generally available at HS6 level, but it can also be aggregated in several product categories. In addition, specific features of the agricultural sector are introduced. These include export subsidies, price support, production quotas, land allocation across crops as well as capital and land subsidies.

The model also includes a dynamic set-up. It is solved in a sequential way for up to 20 years. The dynamics include exogenous variables such as the growth rate of production factors as well as technical progress. In addition, labor, land and the number of varieties adjust instantaneously to match the objectives and constraints of the model. Some other variables are endogenous, especially capital stocks which adjust depending on domestic and foreign investment. This implies that the rates of returns for capital vary across sectors after the base year. Adjustment costs also arise from these changes in capital allocation in case of a significant shock (which may render the allocation sub-optimal).

As a last characteristic, MIRAGE makes it possible to distinguish a dual labor market observed in some

developing economies, with a modern (urban) labor market which pays an efficiency wage to unskilled labor and a traditional (rural) market which pays labor at its marginal productivity. This implies specific migration from rural to urban areas, hidden unemployment in these countries as well as underemployment in the rural areas.

The other features and assumptions are standard. On the supply side, they include production with 5 factors (capital, skilled labor, unskilled labor, land and natural resources) with exogenous growth rates. On the demand side, final consumption is modeled in each region through a representative agent characterized by an intra-temporal utility function. A fixed share of the regional income is allocated to savings, the remaining share to consumption with a first CES. The four-stage CES are modeled in order to consider the consumer choice within each sector, across countries, across varieties and across qualities (for additional information and the complete model setup, refer to Decreux and Valin, 2007).

Annex B2. An example of new gravity model based on Anderson and van Wincoop (2003)

Although gravity models have been used for a long time in the assessment of regional agreements, recent research has shed new light into the theoretical underpinning of gravity models. This has made it possible to reduce biases due to omitted variables and other misspecification. Amongst the recent models, one crucial reference is Anderson and van Wincoop (2003). The basic model is as follows:

Starting from a product differentiation framework with one sector economy, and assuming that consumers have CES preferences with σ as a common elasticity, the gravity equation may be written as:

$$X_{ij} = \frac{Y_i Y_j}{Y_w} \left(\frac{T_{ij}}{P_i P_j} \right)^{1-\sigma} \quad (1)$$

with:

$$P_j^{1-\sigma} = \sum_i P_i^{\sigma-1} \theta_i T_{ij}^{1-\sigma}, \forall j \quad (2)$$

and

$$P_i^{1-\sigma} = \sum_j P_j^{\sigma-1} \theta_j T_{ji}^{1-\sigma}, \forall i \quad (3)$$

where Y_i , Y_j and Y_w denote country i 's GDP, country j 's GDP and world GDP respectively; T_{ij} accounts for trade costs between i and j ; P_i and P_j reflect the implicit aggregate equilibrium prices and θ_i and θ_j are country i and j 's income shares.

The main underlying assumptions are the following: each country produces a unique product variety so that the export of a particular good from i to j is identical to the consumption of this good in country j ; transport costs are symmetric ($T_{ij} = T_{ji}$); the production of firms exceeds the net amount received by the consumer (iceberg transportation costs), and bilateral prices depend on trade barriers alone.

As compared to traditional gravity equations, the key improvement here concerns the specification of the trade cost term in brackets in equation (1). This term has two components: bilateral trade resistance (T_{ij}) as well as multilateral trade resistance through the price indexes. Indeed, as prices in the importing country (j) depend on trade barriers charged to all exporting countries (i), P_j reflects the inward multilateral trade resistance. Similarly, P_i reflects outward multilateral trade resistance as it depends on country i 's trade barriers from all its import partners. In both cases, an increase in multilateral resistance leads a country i to trade more with its bilateral partner j . Overall, the implication of the trade cost term is that trade between country i and j is determined by bilateral trade barriers relative to average trade barriers that both countries face with all their trading partners.

Overall, a major problem concerning the specification of the trade cost function is the choice of the

appropriate variables. This may give rise to a bias due to omitted variables. The trade cost specification proposed here accounts for this problem by introducing specific bilateral interaction effects which capture any remaining unobserved bilateral trade resistance variables (cultural, political, etc...):

$$T_{ij} = d_{ij}^{\rho} t_{ij}^{\lambda} l_{ij}^{\psi} b_{ij}^{\gamma} \eta_{ij} \quad (4)$$

with d_{ij} , t_{ij} , l_{ij} , b_{ij} and η_{ij} denoting respectively geographical distance (as a proxy for transport costs), tariffs and non tariff barriers (NTBs), differences in languages, other border effects as well as specific bilateral interaction effects. Substituting (4) into (1) and after log linearization, the theoretical gravity equation takes the following form:

$$\begin{aligned} \ln X_{ij} = & (1 + \alpha_1) \ln Y_i + (1 + \alpha_2) \ln Y_j - (1 + \alpha_3) \ln Y_w \\ & + \rho(1 - \sigma) \ln d_{ij} + \lambda(1 - \sigma) \ln t_{ij} + \psi(1 - \sigma) \ln l_{ij} \\ & + \gamma(1 - \sigma) \ln b_{ij} + (1 - \sigma) \ln \eta_{ij} \\ & - (1 - \sigma) \ln P_i - (1 - \sigma) \ln P_j \end{aligned} \quad (5)$$

with $\sigma > 1$; $0 < \alpha_1, \alpha_2, \alpha_3 < 1$ and $\rho, \lambda, \psi, \gamma > 0$.

The first line of this equation refers to the traditional «mass» gravity variables, the second and third lines include traditional and new bilateral trade cost variables respectively, whereas the last line captures multilateral trade costs.

The last step consists in making appropriate assumption to get an estimable equation. The main assumption relates to the measure of prices which are commonly proxied by country fixed-effects. Other assumptions must also be made about the regional group included. In the following equation, a typical model applied to the EU-15 includes three types of regional groups: the EU, CEECs as was as MENA countries (SMCs):

$$\ln X_{ij} = a_0 + a_1 \ln Y_i + a_2 \ln Y_j + a_3 \ln d_{ij} + a_4 \ln EU_{ij}$$

$$+ a_5 \ln CEEC_{ijt} + a_6 \ln SMC_{ijt} + a_7 \ln l_{ijt} + a_8 \ln b_{ijt} + \varepsilon_{ijt}$$

$$\varepsilon_{ijt} = \eta_{ijt} + \beta_i + \mu_j + \omega_t + \nu_{ijt} \quad (6)$$

This type of models can then be used to calculate the trade effects of a PTA (through the estimation of the corresponding parameter estimates) or to calculate trade potentials with the residuals of the model.