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Economic Policies, Firms' Entry and Exit and Economic Performance in Four MENA Countries

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" Dynamisme industriel et productivité au Maroc: Une analyse quantitative"

Synthèse[*]

par
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Le point de départ de cette analyse est la confrontation de deux résultats mis en évidence par la littérature concernant l'impact de la libéralisation commerciale sur l'efficacité productive. D'une part, plusieurs études montrent qu'en dépit de plus de 20 années de libéralisation commerciale, le secteur manufacturier en Jordanie, Maroc et Tunisie demeure marqué par une grande inefficience et une forte spécialisation productives. D'autre part, la littérature traitant de plusieurs autres pays en développement montre que the canal le plus important par lequel la libéralisation commerciale affecte l'efficacité productive est un processus de sélection 'naturelle' entre firmes : Les moins efficaces restructurent ou quittent le marche tandis que de plus productives entrent sur le marche. Il est, des lors, important d'examiner dans quelle mesure un processus similaire s'est enclenché dans les trois pays susmentionnés. Etant donnée, ses similarités (niveau de développement, culture, région, et libéralisation) et ses différences (principalement ses meilleures performances économiques) avec ces trois pays, la Turquie est analysée dans un but comparatif.

Notre analyse montre que, en effet, le processus d'entrée et de sorties des firmes a contribué à l'amélioration de l'efficacité productive dans les trois pays. Cette amélioration a été réalisée à la fois à travers la sortie des firmes les moins productives et l'entrée d'autres plus performantes. L'effet positive sur la productivité du secteur est du à l'impact propre des entrées et sorties et non a l'impact à travers la productivité des survivants. La sortie semble 'nettoyer' le secteur des entreprises les moins productives alors que l'entrée permet de les remplacer par de plus productives. Il apparait que

[*] Basée sur les études réalisées par L. Achy, R., BenJelili, N. Barakat, M. Goaied, T. Pamucku, I. Saif, Kh. Sekkat and E. Taymaz. Ces études sont reprises dans un ouvrage collectif: Kh. Sekkat (Ed), "Market Dynamics and Productivity in Developing Countries: Economic Reforms in the Middle East and North Africa", Springer, à paraitre.

l'amélioration de la productivité est du aussi à d'autres facteurs tells que l'accès aux facteurs de productions (le capital en particulier) et le degré de concurrence sur le marche.

Bien que le processus d'entre/sortie des firmes ait eu un impact positif sur la productivité dans les trois pays considérés et que cet impact soit similaire à celui dans d'autres pays émergents, la question demeure concernant la persistance de l'inefficacité productive dans ces trois pays. La réponse est à trouver dans l'intensité du processus.

La comparaison de l'intensité de ce processus dans les 3 pays montre qu'elle est de loin plus faible qu'en Turquie ou dans d'autres pays émergents. Il semble, dès lors, que si le processus d'entrées/sorties des firmes permet d'améliorer la productivité en Jordanie, Maroc et Tunisie, l'impact final est limité par l'intensité du processus lui même. En conséquence, l'analyse des déterminants de l'intensité du processus entrées/sorties est nécessaire afin de fournir des recommandations utiles.

L'examen des déterminants de l'intensité du processus entrées/sorties montre que l'entrée est supérieure dans les industries offrant des opportunités de marché. Elle est plus faible dans les industries connaissant des barrières naturelles (intensité du capital requis) ou stratégiques (concentration élevée) à l'entrée. La sortie des firmes est moindre dans les marchés en expansion, nécessitant du capital spécifique ou faisant face à une faible concurrence interne et externe.

Ces résultats, en ligne avec littérature, suggèrent les recommandations de politiques économiques suivantes. Primo, le degré de concurrence sur le marché apparaissant comme facilitateur du processus entrée/sortie, une application rigoureuse, notamment en Jordanie et au Maroc, de la politique de la concurrence est nécessaire. Secundo, un meilleur accès au capital a émergé comme un autre déterminant favorisant les entrées/sorties. Le cout du capital ne se limite pas aux taux d'intérêt mais dépend aussi l'accès au crédit, la protection du droit de propriété, la taxation, le respect des contrats etc. Selon différents indicateurs internationaux, le classement des trois pays est assez médiocre de ce point de vue.

Tertio, l'existence d'opportunités de marche a un effet net positif sur le processus d'entrée/sortie et sur son impact sur la productivité. Abstraction faite de la demande intérieure, qui est un problème plus macroéconomique, ce résultat suggère que

l'amélioration de la productivité peut aussi passer par une plus grande orientation à l'exportation.

"Economic policies, firms' entry and exit and economic performance in four MENA countries"

Summary*

by
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The starting point of the analysis is the confrontation of two results in the literature concerning the impact of trade liberalization on firm's efficiency. On the one hand, evidence show that, after more than 20 years of liberalization, the main manufacturing industries in which Jordan, Morocco and Tunisia are specialized suffer high degree of inefficiency. On the other hand, the recent literature suggests that the major channel by which liberalization affects firms' efficiency is natural selection in the same industry: less efficient firms restructure or exit while more efficient ones enter or expand in the market. The question is, therefore, whether or not the process of entry and exit has played a similar role in these countries and why. Given Turkey's similarity (e.g. level of development, same region, comparable culture, adoption of liberalization) and difference (i.e. better economic performance) with the 3 other countries, it is used as a benchmark for comparison.

The analysis showed that over recent years the process of entry and exit has, indeed, contributed to improve industries' productivity in Jordan, Morocco and Turkey. This improvement took place either through exit of the less productive firms (Jordan), entry of more productive firms or both (Morocco and Turkey). The effect on industries' productivity operates through entry and exit in their own and not through their impact on the productivity of survivors. Exit seems to clean industries from their less productive plants while entry allows replacing these plants by more productive one. Productivity is also driven by other factors such as factors of production availability (especially capital) and actual competition.

Although the process of entry and exit has improved productivity in a similar way in the countries of interest as in other emerging economies, the question remains about the relative

* This summary is based on 4 national reports produced by L. Achy, R., BenJelili, N. Barakat, M. Goaied, T. Pamucku, I. Saif, Kh. Sekkat and E. Taymaz. The reports included in the volume: Kh. Sekkat (Ed), "Market Dynamics and Productivity in Developing Countries: Economic Reforms in the Middle East and North Africa", Springer, forthcoming

persistence of inefficiency in the corresponding manufacturing sector. The response might be found in the intensity of the process.

Comparing the intensity of entry and exit across the 4 countries and with other emerging economies (both at the sector and at the industries level), shows that the intensity is the highest in the Turkish manufacturing sector, where it is comparable to other emerging economies. From 2000 on, intensity is the lowest in Tunisia. In Jordan, Morocco and Tunisia entry and exit rates are much lower than in other emerging economies. Hence, it seems that while the process has played a similar role as in other emerging economies, its limited impact on industries' productivity is due to its weak intensity. It is, therefore, important to study the determinants of entry and exit in the 4 countries.

Regressions of the intensity of entry and exit rates on a series of firm, industry and country specific characteristics, show that entry is higher in those industries offering some opportunities (sales or productivity improvement), and lower in industries with high natural (capital intensity and wage level) and strategic barriers (concentration of incumbents). Exit is lower when demand is growing, there are high sunk costs and competition either foreign or domestic is limited.

The above results are in accordance with the literature (see the introduction) and suggest a number of policy recommendations. First, intense competition either foreign or domestic seems to affect productivity directly and indirectly through higher entry and exit rates. Hence, enforcement of competition policy seems to be a good instrument for improving productivity. The 4 countries have adopted a competition policy. However, its enforcement varies greatly across countries: Tunisia and Turkey went significantly further in this respect than Jordan and Morocco. The latter should urgently improve their record in term of enforcement of competition policy. Moreover, higher openness to trade seems also in order especially in Jordan, Morocco and Tunisia. The 3 countries are member of the WTO and have, in particular, signed a free trade agreement (FTA) with the EU. Jordan and Morocco have also a FTA with the USA. Morocco and Tunisia have a FTA with Turkey. It seems, however, that their FTA induces faster dismantling of barriers to trade than their participation to the WTO. Their continuous and firm commitments to such agreements could, therefore, have a very beneficial impact on productivity. Second, better access to factors of production also appears to affect productivity directly and indirectly through higher entry and exit rates. This is especially true for capital. The cost of using capital encompasses a number of components such as getting credit, protecting investors, paying taxes, enforcing contracts etc. Comparisons with around 170 countries over the World show that in 2005, Turkey performs fairly well in

this respect, Jordan have an “average record” but Morocco and Tunisia exhibit in general disappointing records. The latter have, however, recently implemented a number of reforms to address the problem of access to capital. Third, industries offering demand opportunities witness higher entry but lower exit rates. Since the positive effect of entrants on productivity improvement is found to be much higher than the negative effect of potential exitors, the net effect is expected to be positive. Abstracting from internal demand, which is a macroeconomic issue, it seems that productivity improvement can also be achieved though more export orientation of the economy. Interestingly comparison with major exporters from Asia (Korea and Japan) shows that although the obstacles to exporting are higher in the 4 countries, the differences are not dramatic. The problem may come from the export strategies which seem less active in terms of promotion, advertising, lobbying etc.

"Economic policies, firms' entry and exit and economic performance in four MENA countries"*

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1. Introduction

The change in the economic strategy, initiated in the mid-1980s and accelerated during the 1990s, of MENA countries aimed at putting their economies on a path of higher efficiency and, hence, fostering growth and development. The core of the new strategy was constituted around lowering trade barriers, privatizing public firms and reforming the foreign-exchange market. Other reforms, such as the adoption of competition laws, aimed at improving the business climate were also on the agenda.

In the Region, four countries have especially sustained important efforts toward the implementation of new strategy. These are Jordan, Morocco, Tunisia and Turkey. The latter has even gone further under the framework of the Customs Union agreement signed with the European Union (EU) which came into effect in 1996. The agreement embraces a number of deep integration elements such as the harmonization of Turkey's competition policy legislation to that of the EU, the adoption of the Community's commercial policy towards third countries, and the adoption of the EU Acquis regarding the standardization of industrial products.

Recent analyses (see Hoekman and Winters (2007) for an overview) of the impact of liberalization on efficiency in developing countries (LDCs) suggest that the major channel is natural selection among firms and reduction in X-inefficiency: less efficient firms are forced to downsize, improve efficiency or exit, with more efficient firms expanding their market shares. For instance, Wacziarg and Wallack (2004) analyzed a set of 25 liberalization episodes in developing countries and found a very weak effect of liberalization on inter-

* This reports is based on 4 national reports produced by N. Barakat and I. Saif (Jordan), L. Achy and Kh. Sekkat (Morocco), R. Ben Jelili and M. Goeid (Tunisia) and T. Pamucu and Kh. Sekkat (Turkey). National reports are available from the present author: Khalid Sekkat, CP 140, University of Brussels, 50 Avenue F.D. Roosevelt, 1050 Brussels, Belgium. Tel: +32 2 650 41 39, Fax: + 32 2 650 39 01, Email: ksekkat@ulb.ac.be.

industry labor reallocation but a strong effect of intra-industry reallocation.[1] Bernard and Jensen (1999) found that intra-industry reallocations to higher productivity exporters explain up to 20 percent of productivity growth in US manufacturing. For developing countries, Aw et al. (2000) showed that exposure to trade forces the exit of the least efficient producers in Korea and Taiwan. Pavcnik (2002) finds that market share reallocations contributed significantly to productivity growth following trade liberalization in Chile.

Recent evidence for Jordan, Morocco and Tunisia (Sekkat, 2008) confirms that the 20 years of economic reforms in these countries have resulted in little inter-industry reallocation of activities. The manufacturing sector is still highly specialized in few "traditional" industries. More than 50% (less for Jordan) of the sector's value added /employment depends on 3 industries the core of which includes textiles and wearing apparel, food products and chemicals. However, these industries are, in general, inefficient and enjoying high market power suggesting that the above process of entry and exit has not been in play in these countries. It is, therefore, important to examine whether this is true (i.e. economic liberalization has not improved productivity through the process of firms' entry and exit) and why.

The process of trade liberalization alone might not produce the expected gains if other reforms (e.g. product and labor market regulations) are not implemented. For instance, Revenga (1997) suggests that the small market responses found in developing countries may reflect restrictive labor market regulation. Harrison and Hanson (1999) argue that imperfect product markets may also be a relevant factor underlying the observed limited impacts of trade liberalization. Borjas and Ramey (1995) suggest that capital or financial market distortions or inefficiencies affect the ability of firms to expand or to enter. These variables may be more important than the labor market. Finally, studies on the determinants of investment (e.g. Wei, 2000 and Klapper et al., 2007) suggest that the institutional framework of a country could also have marked impacts on entry and exit.

This report provides a comparative analysis of the findings of 4 researches investigating the above issue in Jordan, Morocco, Tunisia and Turkey.[2] Given Turkey's higher progress in terms of economic reforms, its inclusion can serves also as a benchmark for comparison with

[1] A theoretical foundation of such a process is provided by Melitz (2003) who showed how changes in the relative performance of firms as a response to foreign competition occur.

[2] The methodology used in the reports is inspired by Disney et al. (2003a, b) and further developed in Sekkat (2007).

the 3 other countries to shed useful lights on their potential weaknesses. The studies addressed the following specific questions:

- What are the intensity and determinants of firms' entry and exit in the 4 countries?
- What are the policy and institutional reforms that may have affected the process of entry and exit?
- What is the impact of firms' entry and exit on the manufacturing sector's productivity?
- Which policy recommendations follow from the answers to the above questions?

The next section examines the extent of inter versus intra industry reallocation of activities in the 4 countries. Section 3 investigates the determinants of the process of firms' entry and exit. Section 4 assesses the effects of such a process on labor productivity. Section 5 summarizes the main findings and provides policy recommendations.

2. Inter and intra industry reallocation

2.1 Inter-industry reallocation

Aggregate level analysis

In the 4 countries the importance of manufacturing Value Added (VA) in GDP is lower than in other developing countries and even lower than in other Middle Income countries although the difference are less pronounced in the latter case.

In 2006, Turkey exhibits a markedly lower share of manufacturing in GDP than in the 3 other countries. While the shares remained relatively stable between 1995 and 2006 in Morocco, Tunisia and Turkey, Jordan showed an important increase (from 12.32% to 18.19%). One reason behind this seems to be an increase is the establishment in Qualifying Industrial Zones (QIZs). These zones allow for the privileged access to the USA market and have resulted in the expansion of the exports of the garment and textile.

Table 1: Share of Manufactured Value Added in GDP (ISIC 311 to 390)
(Percentage)

Year	Jordan	Morocco	Tunisia	Turkey	Middle income	Developing Countries
1995	12.32	18.14	18.50	13.60	18.60	19.45
2000	13.46	17.57	18.25	13.55	19.11	20.66
2006	18.19	17.10	17.17	13.94	19.19	22.24

Source: UNIDO, http://www.unido.org/index.php?id=4879

One issue raised in the introduction is the fact that in Jordan, Morocco and Tunisia the manufacturing sector is still highly specialized in few “traditional” industries despite 20 years

of economic reforms. It is, therefore, interesting to see whether this is also a characteristic of the Turkish manufacturing sector which seems to achieve better outcomes from liberalization (e.g. Taymaz and Yilmaz, 2007 and Pamukçu, 2003). In order to do this, we should move to a more disaggregated level of the data and compute the Gini index of specialization of the manufacturing sector in each country. However, such move implies caution because the industry classification in Turkey has changed since 2001.

Table 2: Gini index of specialization in the manufacturing sector

	1995	2005
Jordan	0.48	0.56
Morocco	0.57	0.59
Tunisia	0.47	0.47
Turkey	0.49	0.48*

* = 2001

Table 2 presents the Gini index and shows no clear contrast between Turkey and the other 3 countries. Morocco is more specialized than Turkey while Tunisia has a similar degree of specialization. However, with a same degree of specialization there may be differences in performance because countries are not specialized in the same industries. We should, therefore, also examine the pattern of specialization at the industry level.[3]

Industry level analysis

In order to overcome the problem posed by the change in industry classification in Turkey since 2001, we will proceeds in 2 ways. First, we compare the structure of the manufacturing sector in Jordan, Morocco and Tunisia to the Turkish one in 1995. This allows assessing how far these countries were with respect to the benchmark. Second, we analyze the evolution of the sector's structure between 1995 and 2005 in the 3 countries to identify possible "catch up" with the benchmark's specialization.

[3] Appendix A presents the structure of the manufacturing sector in the 4 countries.

Table 3: Pattern of specialization: Comparison with Turkey in 1995
(Percentage points)

Industries	Jordan	Morocco	Tunisia
Food and Beverages	2.44	8.00	1.65
Tobacco products	11.25	6.31	-2.32
Textiles	-9.95	-8.45	-2.86
Wearing apparel, except fur apparel	-3.13	4.48	14.40
Leather and Footwear	0.44	0.78	4.60
Woods	0.15	0.78	5.67
Paper and paper products	-0.15	1.10	-1.47
Printing and Publishing	1.51	0.85 :	
Chemicals	2.43	0.13	-3.52
Rubber and Plastic	-0.83	-1.14	-1.59
Non-metallic mineral products	8.83	3.01	1.44
Basic metals	-3.64	-4.92	-5.97
Structured metal products	1.47	0.57	0.53
Machinery	-4.86	-4.96	-6.26
Office and computing machinery	-0.04	-0.16	-0.95
Other electrical equipment	-1.59	0.65 :	
Electronic Equipment	-1.52	-2.57 :	
Medical, Optical, Watches Etc.	-0.28	-0.26 :	
Vehicles and Accessories	-4.76	-2.75	-3.79
Other Transport equipment	-0.46	-0.62 :	
Manufacturing n.e.c.	2.70	-0.85	0.46

Table 3 presents countries specialization in comparison with Turkey in 1995. A positive figure means that the share of the industry in total manufacturing is higher in the country under consideration. The main differences between Turkey and the 3 other countries concern 9 industries out of 21. Jordan, Morocco and Tunisia are much more specialized in non-metallic mineral products, food and beverages, tobacco (except Tunisia) and wearing apparel (except Jordan). Turkey is much more specialized in textiles, basic metals, machinery and vehicle and accessories. It seems, therefore, that in 1995 Jordan, Morocco and Tunisia were mainly producing basic manufactured good while Turkey was producing more sophisticated goods (i.e. machinery and vehicle and accessories).

Table 4: Pattern of specialization: Evolution between 1995 and 2005
(Percentage points)

Industries	Jordan	Morocco	Tunisia
Food and Beverages	-2.36	-2.19	-0.23
Tobacco products	-4.95	4.43	0.04
Textiles	-1.58	-1.31	-4.04
Wearing apparel, except fur apparel	7.48	-1.70	1.05
Leather and Footwear	-0.82	-0.11	1.07
Woods	-0.31	-0.36	0.05
Paper and paper products	-0.25	-1.32	-0.96
Printing and Publishing	0.00	0.01 :	
Chemicals	0.60	2.17	-0.22
Rubber and Plastic	-0.42	-0.76	0.07
Non-metallic mineral products	-1.62	-0.44	0.31
Basic metals	3.13	0.80	-0.85
Structured metal products	0.10	-0.04	-0.69
Machinery	0.40	0.08	0.01
Office, computing machinery	0.00	0.02	3.20
Other electrical equipment	2.02	1.14 :	
Electronic Equipment	-1.06	-0.06 :	
Medical, Optical, Watches Etc.	0.43	0.06 :	
Vehicles and Accessories	-0.33	-0.55	1.04
Other Transport equipment	0.21	-0.01 :	
Manufacturing n.e.c.	-0.66	0.12	0.14

Table 4 sheds light on whether Jordan, Morocco and Tunisia have succeeded in upgrading their manufacturing production toward more sophisticated goods over the period 1995-2005. A positive figure means that the share of the industry in total manufacturing has increased in the country under consideration. The results show that the changes are in general marginal. In all countries, the most significant changes (more than 2 percentage points) do not concern more than 4 industries over 21. If any upgrading should be mentioned, it concerns other electrical equipment in Jordan and office and computing machinery in Tunisia.

To sum up, it appears that the process of accelerated economic liberalization in Jordan, Morocco and Tunisia has not resulted in any major change of the manufacturing sector specialization. This is in line with the recent literature which found that (e.g. Wacziarg and Wallack, 2004) intra-industry reallocation seems to be more important than inter-industry reallocation when discussing the effects of trade liberalization. We turn to this in the next section.

2.1 Inter-industry reallocation

This section highlights the importance of intra-industry reallocations though the dynamics of firms' entry and exit. For a given year t, if a firm was present in t-1 but absent in t+1, it will be classified as an exitor. If a firm was absent in t-1 but present in t+1, it will be classified as an entrant. A firm that was absent in t-1 and t+1 (i.e. it is only present on t) is both entrant and an exitor. Finally, a firm that belongs to none of the three categories will be classified as a survivor. For comparability across sectors, we define entry and exit rates with respect to the current year's stock of establishments:

$$\text{Entry rate in t} = \frac{\text{Number of new firms in t}}{\text{Number of firms in t; including entrants but excluding exitors}} \quad (1)$$

$$\text{Exit rate in t} = \frac{\text{Number of firms that exit in t}}{\text{Number of firms in t; including entrants but excluding exitors}} \quad (2)$$

Aggregate level analysis

Figure 1 presents an index of "turbulence" in the manufacturing sector. The index is simply the arithmetic mean of entry and exit rates and highlights the intensity of market's dynamism. The index is much higher in Turkey than in the other countries. From 2000 on, it decreases or stabilizes in all countries. Splitting the index into its components, Figure 2 shows that the entry rate is higher in Turkey until 1999 and then fall under the Moroccan and the Tunisian. The entry rate in these two countries (especially in Tunisia) exhibits a decreasing trend from 2000 on. The exit rate (Figure 3) gives a clearer contrast between the countries. It is the highest in Turkey and the lowest in Tunisia and remains stable around 10% and 3% respectively. The exit rate in Jordan and Morocco is steadily increasing since 2000 to be close to the Turkish by the end of the period.

Figure 1: Turbulence in the manufacturing sector

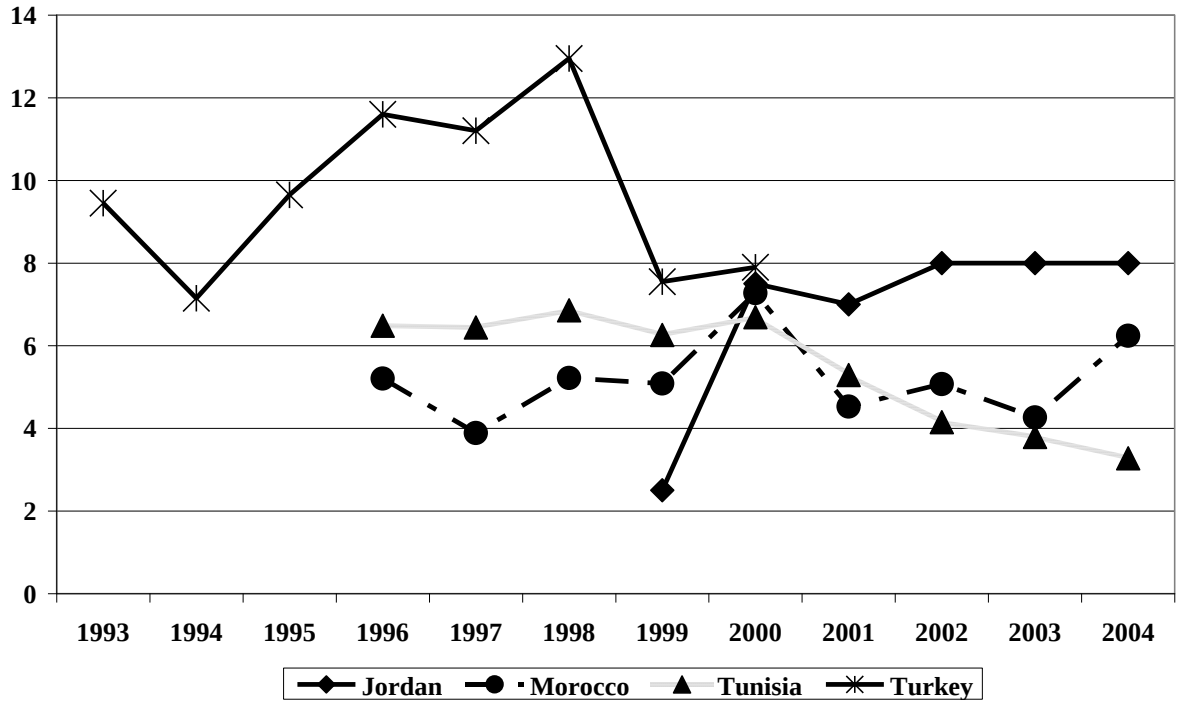


Figure 2: Entry rates

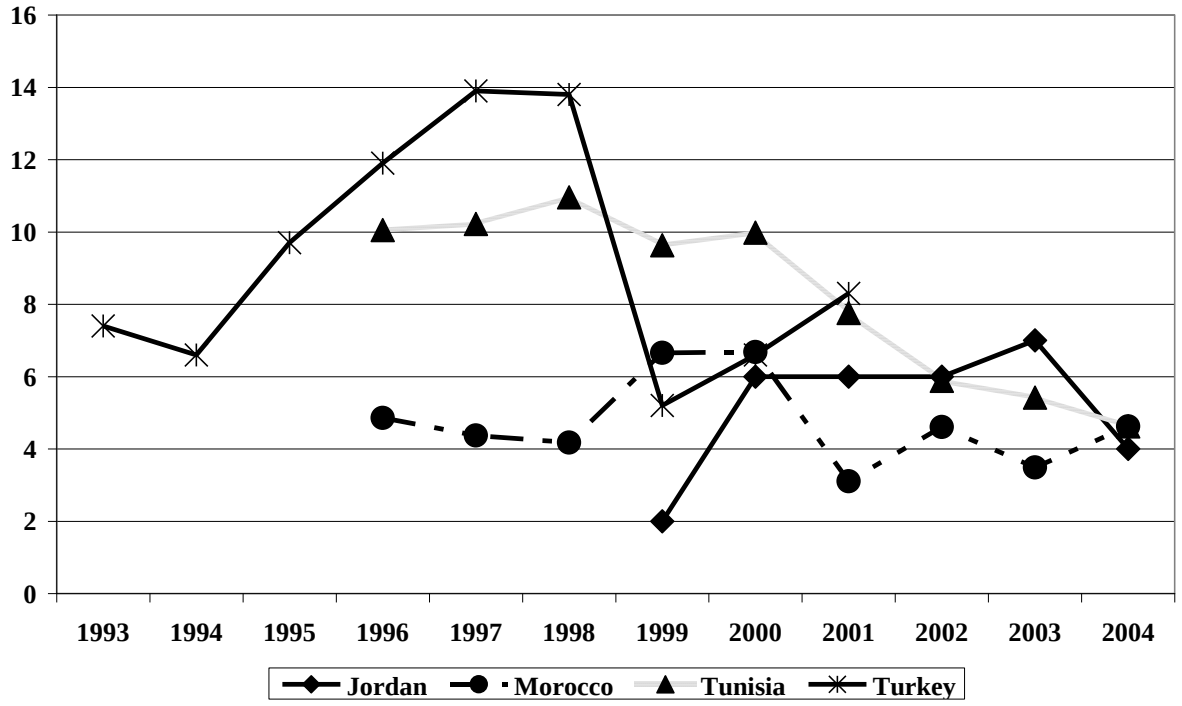
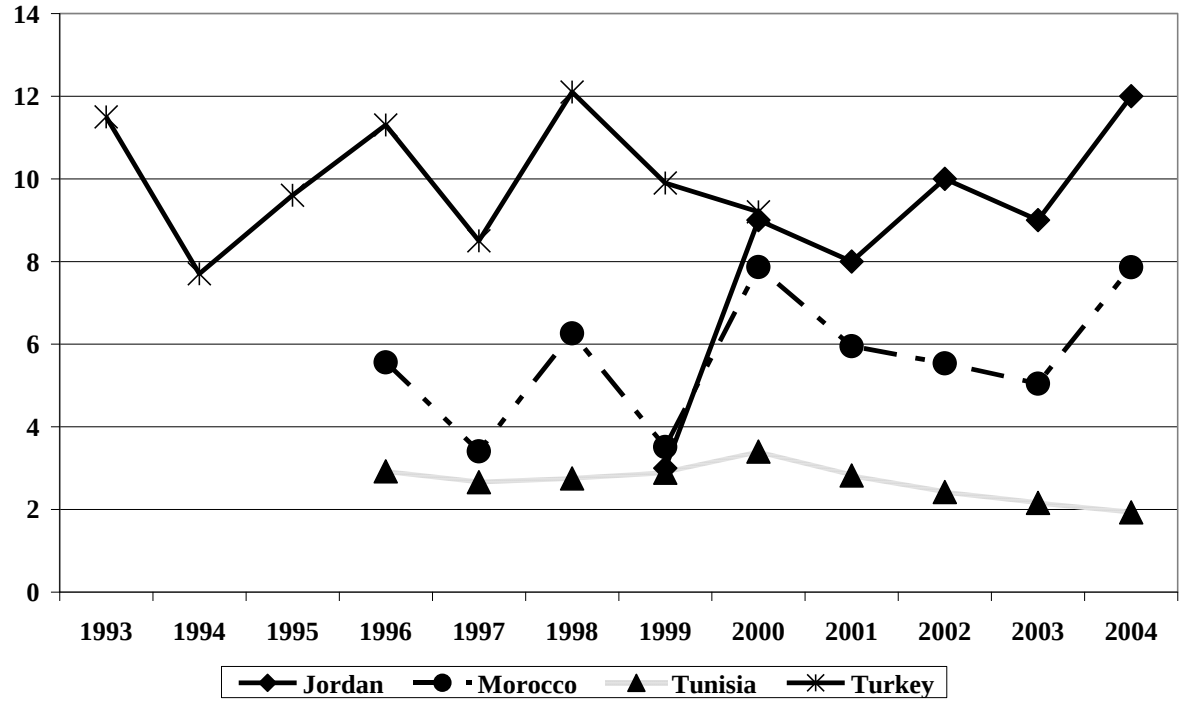


Figure 3: Exit rates



In the 4 countries, the entry rate lies, on average over the period, between 4.73% (Morocco) and 9.27% (Turkey). This is comparable to the findings by Eslava et al. (2006) for Columbia (8%), but lower than in Brazil (13.86% following Campos and Iootty (2005)) and in Hungary and Poland (14.05% and 10.20% respectively following Klapper et al. (2007)). The exit rate in our sample lies between 2.66% (Tunisia) and 9.97% (Turkey) which is lower than in Columbia (11%) and (10%) Brazil.

Summing up, it appears that "turbulence" is the highest in the Turkish manufacturing sector, where it is comparable to other emerging economies. From 2000 on, turbulence is the lowest in Tunisia. While in Turkey and Tunisia the main driver of "turbulence" is the entry rate, in Jordan and Morocco the main driver is the exit rate**.** Finally, entry and exit rates in Jordan, Morocco and Tunisia are much lower than in other emerging economies.

Industry level analysis

The aggregate entry and exit rates hide sometimes considerable differences across industries. Table 5 presents industries with the highest and the lowest entry and exit rates over the period 1995-2005. In Jordan, entry rate is the highest for manufacture of rubber products (50%) and manufacture of wood and wood products (20%). It is below 5% for 20 industries out of 27.

Exit rate is the highest for other manufacturing products (43%), manufacture of leather products (33%) and manufacture of wearing apparel (27%). It is below 5% for 13 industries out of 27. Two aspects are worth noting in Jordan. First, the highest entry and exit rates are due to industries with very small number of firms. Second, except for these industries the distribution of entry and exit rates is almost flat.

In Morocco entry rates lie between 1.89% in manufacture of glass products and 7.28% in manufacture of wearing apparel. Exit rates lie between 1.2% in non-ferrous metal and 7.75% in manufacture of wearing apparel.

In Tunisia the highest entry rate is comparable to the one found in Jordan and concerns textiles (25.98%). The lowest entry rate is 3.55% and concerns paper and cardboard industries and printing and related support activities. Note, however, that wood products and electric and electronic equipment exhibit high entry rates (around 10%). Exit rates are always lower than entry rates. They are also lower than in Morocco and Jordan. The maximum exit rate is found for textiles (5.39%) and the minimum for paper and cardboard industries and printing and related support activities (0.84%). These are the same industries than for entry.

In Turkey, there is a limited degree of variability of entry and exit rates across industries. Out of 28 industries, 27 have an entry rate higher than 5% (14 industries have a rate higher than 10%). Among the 27 industries the maximum (17.7%) concerns manufacture of furniture (except metal) and the minimum (5.8%) concerns beverages. Exit rates lies between 4.5% (Coke and refineries) and 15.2% (manufacture of wearing apparel, except footwear).

It is worth noting that in the 4 countries entry and exit are mainly driven by small- and medium-sized firms. Moreover, textile related products are those with high exit rates irrespective of the country. No specific pattern emerges for entry rates across the 4 countries. However, in Morocco and Tunisia both the highest entry and the highest exit rates concern textile related products. Such a high turbulence could be associated with the foreseen termination of the Multi Fibers Agreement in 2005.

Table 5: Industries with the highest and lowest entry and exit rates: 1995-2005
(Rates in percentage)

	Entry	
	High	**Low**
Jordan	Rubber products (50%) Wood products (20%)	8 industries exhibit 0%
Morocco	Wearing apparel (7%)	Glass products (2%)
Tunisia	Textiles (26%).	Paper and printing (3%)
Turkey	Furniture (except metal) (17%)	Beverages (5.8%)
	Exit	
	High	**Low**
Jordan	Other manufacturing products (43%) Leather products (33%) Wearing apparel (27%).	4 industries exhibit 0%
Morocco	Wearing apparel (8%)	Non-ferrous metal (1%)
Tunisia	Textiles (5.39%)	Paper and printing (1%).
Turkey	Wearing apparel (15%)	Coke and refineries (4%)

Correlation analysis

The analysis of the correlation between entry and exit rates, although a rough approach, allows shedding some lights on two competing conjectures. If entry and exit rates at the industry level are mostly driven by industry specific demand shocks, then the correlation should be negative (Bartelsman et al. 2004). Alternatively, if entry and exit rates at the industry level are driven by a process of creative destruction (i.e. a supply side shock) within the industry, then the correlation of entry and exit rates should be positive

At the aggregate level, the average correlation between entry and exit is low in Morocco (around 20% in absolute terms) but with changing signs depending on the year. The average correlation is relatively high (around 50% in absolute term) in Jordan, Tunisia and Turkey. It is, in general, positive in Tunisia and Turkey and negative in Jordan.

Table 6 summarizes the results at the industry level. The correlation is high and positive in the Jordanian food industry (81%), other manufacturing products (80%) and manufacture of wearing apparel (72%) and relatively low for the remaining industries. It is high and positive for the Moroccan transport equipment (65%), foods products (67%), other non-metallic mineral products (76%) and high and negative for wearing apparel (-65%). In Tunisia it is high and positive for textile industries (60%), wood products (74%), clothing and lining industries (80%) and fabricated metal products (83%) and relatively low for the remaining industries. Finally, in Turkey except for 4 industries[4] out of 28, the correlation is relatively low.

There seems that no common pattern of correlation across countries at the industry level exists. A negative correlation shows up only in Morocco. It concerns wearing apparel one of the most important industry in the economy which seems to be affected by a specific demand shock. In the other countries and for numerous Moroccan industries the correlations are positive suggesting that the process of creative destruction (i.e. a supply side shock) is the main driver of entry and exit.

[4] Coke and refineries, manufacture of machinery electric, printing, and publishing and non-ferrous metal

Table 6: Correlation of entry and exit rates by industry: 1995-2005
(Rates in percentage)

	Correlation	
	Significantly positive	Significantly negative
Jordan	Food (81%) Other manufactures (80%) Wearing apparel (72%)	
Morocco	Other non-metallic minerals (76%) Foods (67%) Transport equipment (65%) Other chemicals (54%) Rubber products (54%)	Wearing apparel (-65%) Pottery, China, etc. (-57%)
Tunisia	Fabricated metal (83%) Wearing (80%) Wood products (74%) Textiles (60%) Metallurgy (55%)	
Turkey	Non-ferrous metal (70%) Printing, and publishing (58%) Machinery electric (56%) Coke and refineries (55%)	

3. Determinants of entry and exit

The previous section shows that the intensity of firms' entry and exit in Turkey is comparable to other emerging economies having adopted trade liberalization. In Jordan, Morocco and Tunisia it is much lower. The fact that the process of trade liberalization in these countries has not induced a similar intensity of firms' entry and exit suggests that other factors might have slowed down such a process. To investigate this issue, this section summarizes the findings of national studies on the determinants of entry and exit.

The studies used a similar methodology (Sekkat, 2007) where a series of firm, industry and country specific factors determine the intensity of entry and exit. The econometric models for the entry and exit are respectively:

$$\text{Entry rate}_{i,t} = \alpha_0 + \alpha_1 * \text{Average size of entrants}_{i,t} + \alpha_2 * \text{Industry's characteristics}_{i,t} + \alpha_3 * \text{Institutional environment}_{i,t} + \alpha_4 * \text{Exit Rate}_{i,t} + \mu_{i,t} \quad (3)$$

$$\text{Exit rate}_{i,t} = \beta_0 + \beta_1 * \text{Average size of exitors}_{i,t} + \beta_2 * \text{Average age of exitors}_{i,t} + \beta_3 * \text{Industry's characteristics}_{i,t} + \beta_4 * \text{Institutional environment}_{i,t} + \beta_5 * \text{Entry rate}_{i,t} + \upsilon_{i,t} \quad (4)$$

where i stands for industry, t stands for time, entry rate is defined in Equation (1), exit rate is given by Equation (2).

Firm's characteristics include the average size of entrants and exitors in terms of employment or output and the average age of exitors.

Industry's characteristics include profit margin, concentration ratio, growth rate, average productivity, average wage rate, capital intensity and openness to trade. Profit margin determines the attractiveness for new firms to enter into the industry but it could also be associated with. In the former case the expected sign positive while in the latter the reverse is expected. The concentration is an indicator of the easiness to enter a market. It is easier to enter perfectly competitive industries in which many small firms produce standard products. Openness to trade captures the impact of foreign competition through imports and opportunities of business through exports. The growth rate of the industry is a proxy of its life cycle. New firms prefer to enter rapidly growing industries. The other variables aimed at capturing some "natural" barriers to entry. Capital intensity may discourage entry because if the industry uses capital-intensive technology, the cost of the initial investment could be substantial. The average labor productivity reflects the dynamism of an industry. It can also be associated with investment. In the first case it may encourage entry while in the second case it could discourage entrants either because investment requirements are indivisible and massive or because of the risks of severe post-entry competition. The average wage rate in an industry can be negatively correlated to the entry rate if it reflects the demand for industry-specific skills.

Regarding exit, the following signs are expected for the coefficients. Negative for profit margin (losses stimulate the decision to exit), capital intensity (sunk cots delay exit), growth rate (firms can survive in rapidly growing industries) and concentration ratio (high concentration reduces competition among firms).

Finally, since entry and exit rates tend to be correlated (Caves, 1998) exit rate is included in Equation (3) and entry rate is included in Equation (4).

Country's variables include trade barriers, exchange rate, investment and labor market regulations as well as indicators of governance (e.g. political stability, corruption, democratic

accountability, bureaucratic quality). Trade barriers protect from foreign competition: the expected coefficient for entry and negative for exit. An increase in the exchange rate means an appreciation of the currency which makes domestic firms less competitive. The expected sign is, therefore, negative for entry and positive for exit. The signs for regulations and governance depend on whether they are pro business or not.

Due to data availability the exact definition of each explanatory variable varies from one country to another. However, the economic interpretation of the variable remains the same across countries (e.g. C4 versus Herfindhal for concentration). For this reason the significance and sign of the coefficients can be compared across countries but not their levels. The estimation method is also the same across countries. Since the dependent variable can not take values below zero (there is no negative entry or exit rate), econometric theory implies that OLS estimation gives biased results and one should use, instead, the Tobit method. The estimation was conducted using various combinations of the explanatory variables, of interactions terms and of lags. To save on space, Tables 7 and 8 present only the results of the preferred regressions in each country report.

The results for Jordan are counterintuitive both for entry and the exit equations. For instance, they show that entry decreases in expanding market and exit increases in declining market which is in contradiction with the above economic discussion. The reason for the counterintuitive results may be, as noticed above, that the highest entry and exit rates are due to industries with very small number of firms and that the distribution of entry and exit rates is almost flat.

In Morocco the only significant coefficient (apart from lagged entry) is the one of the Real Effective Exchange Rate (REER). Entry is affected significantly and negatively by the REER. As an increase in the REER means an appreciation of the dirham (i.e. a loss of competitiveness of Moroccan firms with respect to foreigners both on the domestic and on international markets) new firms do not enter. The coefficient of the lagged entry rate is positive and significant. This implies that if entry is feasible into a given market (less barrier to entry or expanding demand) there will be more and more entry.

Characteristic of entrants plays a role in explaining entry rate in Tunisia. Entry is higher is those industries where entrants need to be big. *Industry's characteristic* pertaining to profit has a negative and significant coefficient. This is compatible with the interpretation of this variable as an indicator of imperfect competition which deters entry. In the same vein, concentration and capital intensity discourage entry. High productivity fosters it. Similar to Morocco is the result that export prospects encourage entry.

In Turkey, the coefficient of concentration is negative and significant implying that entry rate is lower in more concentrated industries. The coefficient of industry growth is positive and significant, confirming the positive influence of greater business opportunities and possibly of the industry life cycle on entry. Coefficient estimates of the average wage level are significant and negative. Import duties exert a negative and significant effect on entry rate. This could be interpreted as entry into sectors where firms are sheltered from foreign competition is more difficult than in less protected sectors. Hence, tariff reductions that took place in the Turkish economy sine the early nineties must have eased entry of firms in the manufacturing sector. The direction of foreign trade apparently plays an important role in the entry process. Growth rates of imports of goods originating from developed countries and exports toward these countries have not significant effects but the same variables when focused on developing countries have positive and significant coefficients. It seems that trade with developing countries facilitates the creation of new (small) firms possible because of the fact that local entrepreneurs believe that the business prospects are better in sectors in which developing countries tend to specialize.

The other institutional environment variables collected in each country (e.g. investment regulations, labor regulations and other trade and non-trade barriers) do not exhibit significant coefficients. The reason is that these variables do not vary enough across time and industries (i.e. have a low variance) and hence the estimates of their impact can not precise enough.

Table 7: Estimations results: Determinants of the entry rate

	Jordan	Morocco	Tunisia	Turkey
Firm's characteristics				
Average size of entrants	0.00		0.02	
	2.14		**3.21**	
Industry's characteristics				
Profit margin	0.00		-0.10	-0.01
	1.83		**-3.43**	**-0.05**
Concentration ratio	-0.01	-0.11	-0.26	-0.13
	-3.14	**-0.62**	**-2.61**	**-2.61**
Growth rate	-0.01	-0.04	0.04	0.08
	-1.99	**-0.08**	**1.27**	**5.94**
Average productivity	0.00		3.09	0.00
	2.64		**1.96**	**0.27**
Wage rate	-0.00			-0.02
	-4.21			**-1.91**
Capital intensity	-0.00	-0.08	-0.03	0.00
	-2.91	**-0.77**	**-1.93**	**0.77**
Imports from developed countries				-0.01
				-1.21
Imports from less developed countries				0.01
				3.69
Exports to developed countries			0.01	-0.00
			2.07	**-1.01**
Exports to less developed countries				0.02
				3.60
Institutional environment				
Tariffs	-0.05	0.17		-0.06
	-1.50	**0.93**		**-2.19**
Real effective exchange rate		-0.16		
		-2.78		
Exit Rate	0.04		0.69	0.20
	1.67		**3.40**	**5.99**
Lagged entry rate		0.44		0.09
		3.10		**2.46**
Period	2000-04	2001-04	1998-2003	1992-2001

In Morocco, demand plays an important role in the process of firms exit. The corresponding coefficient is negative and significant. When demand is increasing, firms stay in the market. Concentration, reflecting the intensity of competition, has a significant and negative coefficient. Firms operating in poorly competitive environment are likely to survive than those in highly competitive environment. In Tunisia, both industry's growth and capital intensity have the expected negative sign. Exit is lower in growing industries and when capital intensity (i.e. sunk costs) is high. In Turkey, the level of concentration has a negative and statistically significant coefficient. Labor productivity has a positive and significant coefficient. If we see (as for entry) productivity as an indicator of industry's dynamism, this means that exit rate is higher in dynamic industries. Wage rate, trade protection and imports from LDCs have negative and significant coefficients. Exit rate is lower in more protected markets but also in industries competing with LDCs. Although surprising at first sight, the latter result is coherent with the findings for entry rate. Like for entry rate and for the same reason the coefficients of the other institutional variables are non significant in the 4 countries.

To summarize, the findings that are consistent across the 4 countries are that entry is higher in those industries offering some opportunities either sales or productivity improvement. These are in general characteristics of new and growing industries. Entry is discouraged by natural (capital intensity and wage level) and strategic barriers (concentration of incumbents). Exit is lower when demand is growing, there are high sunk costs and competition either foreign or domestic is limited. Once the control for the other determinants is done, entry rates are, in general, positively related to exit rates lending support to the hypothesis of creative destruction in the countries.

Table 8: Estimations results: Determinants of the exit rate

	Jordan	Morocco	Tunisia	Turkey
Firm's characteristics				
Average size of exitors	-0.00		0.00	
	-3.17		**0.20**	
Average age of exitors	-0.00			
	-0.66			
Industry's characteristics				
Profit margin	-0.00		0.01	0.01
	-1.89		**0.63**	**0.08**
Concentration ratio	0.05	-0.41		-0.13
	-1.46	**-3.49**		**-2.61**
Growth rate	0.13	-1.10	-0.01	0.01
	2.73	**-3.28**	**-2.16**	**0.45**
Average productivity	00.0		0.20	0.04
	-0.60		**0.69**	**1.86**
Wage rate	-0.03			-0.08
	-2.28			**-4.31**
Capital intensity	-0.00	-0.03	-5.38	0.00
	-1.20	**-0.46**	**-2.46**	**0.12**
Imports from developed countries				-0.01
				-0.92
Imports from less developed countries				-0.01
				-1.98
Exports to developed countries			-0.00	-0.01
			-0.23	**-1.34**
Exports to less developed countries				0.01
				0.78
Institutional environment				
Tariffs	0.54	-0.15		-0.08
	10.96	**-1.32**		**-1.78**
Real effective exchange rate		-0.03		
		-0.82		
Entry Rate	-0.35		0.10	0.04
	-0.74		**3.71**	**0.83**
Lagged exit rate		-0.04		-0.15
		-0.31		**-2.29**
Period	2000-04	2001-04	1998-2004	1992-2001

4. Entry, exit and productivity

The main interest in the process of entry and exit concerns its impact on productivity (Hoekman and Winters, 2007 and Wacziarg and Wallack, 2004). This section investigates the impact of the process of entry and exit on labor productivity in the countries under consideration. If the process is found to be conductive to higher productivity, the fact that its intensity is low in these countries means a loss of opportunities to improve economic performance.

There are two commonly used methods to assess the impact of the process of entry and exit on productivity. The accounting method decomposes labor productivity into the contribution of "internal restructuring" (i.e. productivity growth within the surviving establishments, or the "within" effect), changes in the market shares of the survivors (i.e. productivity grows further if the shares of higher productivity establishments increase, or the "between" effect) and contribution of entry and exit. The other method is econometric and is motivated by the fact that the accounting one may not measure precisely the impact of entry and exit on productivity growth of survivors. Practically, it consists in a regression of the change in output of survivors on the change in their inputs and on the state of present competition and entry and exit rates.

Table 9: Contributions to productivity growth

	Entrants	Exitors	Survivors	Total
Jordan	0.15	-9.70	109.56	100
Morocco	120.18	-51.76	31.58	100
Turkey	111.59	-84.63	73.04	100

The results of the accounting method are in Table 9. Due to data problems, the method could not be applied to Tunisia. Moreover, in all countries the between effect was almost zero. So the column survivors concern mainly the within effect. In Jordan, clearly the incumbent plants are on average more productive than entrants and exitors. New entrants play a minor role in enhancing productivity. In contrast, in Morocco and Turkey improvement in productivity is mainly driven by entrants. The contribution of survivors is positive but much lower than entrants. In the 3 countries, exitors have contributed negatively to productivity growth over the period. Hence exit seems to clean industries from their less productive plants. Entry

allows replacing these plants by more productive one. The results at the industry level are in general in accordance with Table 9.

Table 10 presents the results of the econometric method. It concerns the impact of entry and exit on the productivity of survivors. Hence, if the coefficients of entry and exit rate are significant this means that these variables have an additional effect on aggregate performance through their impact of the productivity of survivors. If the coefficients are not significant this means that the whole impact of entry and exit is captured in Table 9. The typical regression is:

$$\Delta\log(Y_{it}) = \eta_0 + \eta_1 * \text{Firm's characteristics} + \eta_2 * \text{Industry's characteristics} + \eta_3 \text{ Institutional environment} + \eta_4 * \text{Impact of entry and exit} + + \xi_{it} \quad (5)$$

where $\Delta\log(Y_{it})$ is the change in output of survivor i at time t, firm's characteristics concern the change in its inputs, industry's characteristics include the state of present competition and openness and the institutional environment covers various policy variables.

Like in Section 3, the exact definition of each explanatory variable varies across countries (due to data availability) but its economic interpretation remains the same. The estimation method is also the same: the GMM estimation method which takes account of simultaneity. To save on space, Table 10 presents only the results of the preferred regressions in each country report.

Table 10: Estimations results: Determinants of productivity

	Jordan	Morocco	Tunisia	Turkey
Firm's characteristics				
Change in capital	0.48	0.01	0.28	0.09
	2.67	**1.71**	**2.60**	**18.25**
Change in employment	1.18	-0.16	0.93	0.54
	2.39	**-1.05**	**5.40**	**38.71**
Industry's characteristics				
Concentration	0.24	-0.03		-0.01
	5.35	**-1.97**		**-0.14**
Imports from developed countries				0.05
				4.12
Imports from less developed countries				0.01
				2.68
Exports to developed countries				-0.01
				-1.56
Exports to less developed countries				-0.01
				-0.54
Institutional environment				
Tariffs	0.14			-0.04
	3.71			**-0.80**
Impact of entry and exit				
Entry rate	-0.12		-1.22	-0.12
	-1.96		**-1.62**	**-1.42**
Lagged entry rate			0.75	-0.06
			0.95	**-1.08**
Exit rate	0.00		2.39	-0.26
	-0.08		**1.15**	**-3.20**
Lagged exit rate			2.20	0.00
			1.11	**-0.02**
Net entry		0.56		
		1.66		
Period	2000-04	2001-04	1998-2004	1992-2001

Here again and may be for the same reason as before, the results for Jordan are counterintuitive. In Morocco, investment has a positive and significant coefficient. The coefficients of the concentration ratio is significant and negative implying that less competitive industry are also less productive. Finally, net entry exerts a positive and significant impact on productivity. In Tunisia, output growth rate is highly dependent on labor and capital. There is no significant relationship between firm entry and exit (actual or lagged) and output growth of survivors. In Turkey, labor and capital have positive and significant coefficients. The coefficient associated with the degree of concentration is negative but not significant. Variables measuring the extent of foreign competition (i.e. growth rate of imports from developed and from developing countries), both exert a positive and significant effect on survivors' productivity growth. In contrast, the exit rate variable has a coefficient that is negative and significant.

To conclude, it seems that across the 4 countries there is a weak support to the hypothesis that entry and exit have an effect on survivors' productivity. In contrast, the latter depends heavily on factors of production availability especially capital and on actual competition. Both factors of production availability and actual competition (either foreign or domestic) improve survivors' productivity.

5. Conclusion and policy recommendations

The starting point of the analysis is the confrontation of two results in the literature concerning the impact of trade liberalization on firm's efficiency. On the one hand, evidence show that, after more than 20 years of liberalization, the main manufacturing industries in which Jordan, Morocco and Tunisia are specialized suffer high degree of inefficiency. On the other hand, the recent literature suggests that the major channel by which liberalization affects firms' efficiency is natural selection in the same industry: less efficient firms restructure or exit while more efficient ones enter or expand in the market. The question is, therefore, whether or not the process of entry and exit has played a similar role in these countries and why. Given Turkey's similarity (e.g. level of development, same region, comparable culture, adoption of liberalization) and difference (i.e. better economic performance) with the 3 other countries, it is used as a benchmark for comparison.

The analysis showed that over recent years the process of entry and exit has, indeed, contributed to improve industries' productivity in Jordan, Morocco and Turkey. This

improvement took place either through exit of the less productive firms (Jordan), entry of more productive firms or both (Morocco and Turkey). The effect on industries' productivity operates through entry and exit in their own and not through their impact on the productivity of survivors. Exit seems to clean industries from their less productive plants while entry allows replacing these plants by more productive one. Productivity is also driven by other factors such as factors of production availability (especially capital) and actual competition.

Although the process of entry and exit has improved productivity in a similar way in the countries of interest as in other emerging economies, the question remains about the relative persistence of inefficiency in the corresponding manufacturing sector. The response might be found in the intensity of the process.

Comparing the intensity of entry and exit across the 4 countries and with other emerging economies (both at the sector and at the industries level), shows that the intensity is the highest in the Turkish manufacturing sector, where it is comparable to other emerging economies. From 2000 on, intensity is the lowest in Tunisia. In Jordan, Morocco and Tunisia entry and exit rates are much lower than in other emerging economies. Hence, it seems that while the process has played a similar role as in other emerging economies, its limited impact on industries' productivity is due to its weak intensity. It is, therefore, important to study the determinants of entry and exit in the 4 countries.

Regressions of the intensity of entry and exit rates on a series of firm, industry and country specific characteristics, show that entry is higher in those industries offering some opportunities (sales or productivity improvement), and lower in industries with high natural (capital intensity and wage level) and strategic barriers (concentration of incumbents). Exit is lower when demand is growing, there are high sunk costs and competition either foreign or domestic is limited.

The above results are in accordance with the literature (see the introduction) and suggest a number of policy recommendations. First, intense competition either foreign or domestic seems to affect productivity directly and indirectly through higher entry and exit rates. Hence, enforcement of competition policy seems to be a good instrument for improving productivity. The 4 countries have adopted a competition policy. However, its enforcement varies greatly across countries: Tunisia and Turkey went significantly further in this respect than Jordan and Morocco. The latter should urgently improve their record in term of enforcement of competition policy. Moreover, higher openness to trade seems also in order especially in Jordan, Morocco and Tunisia. The 3 countries are member of the WTO and have, in particular, signed a free trade agreement (FTA) with the EU. Jordan and Morocco have also a

FTA with the USA. Morocco and Tunisia have a FTA with Turkey. It seems, however, that their FTA induces faster dismantling of barriers to trade than their participation to the WTO. Their continuous and firm commitments to such agreements could, therefore, have a very beneficial impact on productivity. Second, better access to factors of production also appears to affect productivity directly and indirectly through higher entry and exit rates. This is especially true for capital. The cost of using capital encompasses a number of components such as getting credit, protecting investors, paying taxes, enforcing contracts etc. Comparisons with around 170 countries over the World show that in 2005 (see Appendix B) Turkey performs fairly well in this respect, Jordan have an "average record" but Morocco and Tunisia exhibit in general disappointing records. The latter have, however, recently implemented a number of reforms to address the problem of access to capital. Third, industries offering demand opportunities witness higher entry but lower exit rates. Since the positive effect of entrants on productivity improvement is found to be much higher than the negative effect of potential exitors, the net effect is expected to be positive. Abstracting from internal demand, which is a macroeconomic issue, it seems that productivity improvement can also be achieved though more export orientation of the economy. Interestingly comparison with major exporters from Asia (Korea and Japan) shows that although the obstacles to exporting are higher in the 4 countries (see Appendix B), the differences are not dramatic. The problem may come from the export strategies which seem less active in terms of promotion, advertising, lobbying etc.

Appendix A: Structure of the manufacturing sector in the 4 countries

Industries	Jordan		Morocco		Tunisia		Turkey	
	1995	2005	1995	2005	1995	2005	1995	2001
Food and Beverages	17.50	15.13	22.18	19.99	16.70	16.47	15.06	14.18
Tobacco products	14.32	9.36	13.40	17.82	0.74	0.79	3.07	7.09
Textiles	3.08	1.50	5.52	4.21	10.16	6.13	13.02	13.97
Wearing except fur	2.65	10.13	11.20	9.50	20.18	21.23	5.78	6.72
Leather and Footwear	1.17	0.34	1.39	1.28	5.32	6.39	0.72	0.61
Woods	0.95	0.64	1.41	1.05	6.48	6.53	0.81	0.63
Paper and paper products	3.08	2.82	2.98	1.66	3.54 [a]	2.58 [a]	3.23	1.88
Printing and Publishing	3.29	3.29	1.37	1.38	:	:	1.78	0.52
Chemicals	15.91	16.50	12.61	14.78	9.96	9.74	13.48	12.48
Rubber and Plastic	3.50	3.08	2.76	2.00	2.73	2.80	4.32	3.90
Non-metallic mineral products	16.76	15.13	10.27	9.83	9.36	9.67	7.92	7.27
Basic metals	4.14	7.27	2.22	3.01	1.81	0.96	7.78	7.14
Structured metal products	4.77	4.87	3.87	3.83	3.83	3.14	3.30	3.30
Machinery	1.91	2.31	0.85	0.93	0.51	0.52	6.77	5.80
Office and computing machinery	0.00	0.00	0.02	0.04	4.61 [b]	7.81 [b]	0.04	0.18
Other electrical equipment	1.06	3.08	3.26	4.40	:	:	2.65	2.61
Electronic Equipment	1.06	0.00	1.07	1.01	:	:	2.58	3.63
Medical, Optical, Watches Etc.	0.00	0.43	0.12	0.18	:	:	0.28	0.38
Vehicles and Accessories	1.27	0.94	2.03	1.49	2.70 [c]	3.75 [c]	6.04	4.79
Other Transport equipment	0.00	0.21	0.36	0.35	:	:	0.46	0.98
Manufacturing n.e.c.	3.61	2.95	1.11	1.23	1.37	1.50	0.91	1.95

a = Paper and paper products + Printing and Publishing

b = Office and computing machinery + Other electrical equipment + Electronic Equipment + Medical, Optical, Watches Etc.

c = Vehicles and Accessories + Other Transport equipment

Appendix B: World Bank's indicators of the cost of doing business

B.1: Ranking of countries in 2005

	Jordan	Morocco	Tunisia	Turkey
Ease of Doing Business	73	117	77	84
Starting a Business	127	63	52	47
Dealing with Licenses	68	130	113	145
Employing Workers	30	158	93	148
Registering Property	110	53	69	48
Getting Credit	76	143	96	59
Protecting Investors	114	114	151	58
Paying Taxes	16	125	138	61
Trading Across Borders	85	70	36	69
Enforcing Contracts	72	126	38	69
Closing a Business	79	58	30	137

B.2: Change of ranks 2005 to 2006

	Jordan	Morocco	Tunisia	Turkey
Ease of Doing Business	5	-2	3	7
Starting a Business	6	-16	7	6
Dealing with Licenses	2	3	-3	3
Employing Workers	0	-2	-1	-2
Registering Property	0	-8	2	6
Getting Credit	7	0	5	6
Protecting Investors	4	4	0	2
Paying Taxes	2	3	1	4
Trading Across Borders	-7	7	3	10
Enforcing Contracts	3	1	2	1
Closing a Business	5	3	-1	1

B.3: Trading Across Borders 2006

Country	Jordan	Morocco	Tunisia	Turkey	Korea	Japan
Requirement to export						
Number of documents	7	6	5	8	5	4
Number of days	28	18	18	20	12	10
Cost (US$ per container)	720	700	770	513	780	989
Requirement to import						
Number of documents	12	11	7	13	8	5
Number of days	28	30	29	25	12	11
Cost (US$ per container)	955	1500	600	735	1040	1047

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