

Growth, the Maghreb and the European Union Assessing the Impact of the Free Trade Agreements on Tunisia and Morocco

> John Page and John Underwood Working Paper No. 7 December 1996

John Page is Chief Economist in the World Bank's Middle East and North Africa department. John Underwood is a Lead Economist in the same department. This paper was originally prepared for discussion at the International Economic Association's Eleventh World Congress, held December 18 - 22, 1995, in Tunis, Tunisia. The findings, interpretations and conclusions expressed in this paper are entirely those of the authors, and do not represent the views of the World Bank, its executive directors, or the countries they represent.

#### **Abstract**

Morocco and Tunisia have both recently signed comprehensive integration agreements with the European Union (EU). These agreements consist of increased aid and technical assistance from the EU, in exchange for reductions in trade barriers over a period of 12 years on the p art of Morocco and Tunisia. The agreements are part of a broader European strategy to forge trade alliances and promote faster convergence of incomes between Europe's transitional and developing economy neighbours and the EU.

This paper examines the growth impact of the EU Partnership agreements on Morocco and Tunisia—gains from trade liberalization, increased foreign investment, and improvements in productivity—looking at trends in both countries between 1960-94, and at recent estimates of the welfare effects of trade liberalization under the agreements. The paper also examines the possible impact on investment behaviour, and options for accelerating productivity improvement. It concludes that increased investment and technology transfer are the greatest potential benefits of the Euro-Med partnership, but that further policy actions by Morocco and Tunisia, complementary to those contained in the agreements, will be needed.

# ملخيص

توصلت كل من المغرب وتونس إلى إتفاقيتي مشاركة مع الإتحاد الأوروبي، وترتب على هاتين الإتفاقيتين زيادة المساعدات المالية والفنية من الإتحاد الأوروبي. وكانت هذه المساعدات في مقابل تخفيض الموانع الجمركية وغير الجمركية في خلال فترة زمنية مقدارها ١٦ عاماً. وتجدر الإشارة إلى أن هاتين الإتفاقيتين جزء من إستراتيجية أوروبية شاملة تستهدف تدعيم العلاقات التجارية المتوسطية وتضييق الفوارق في الدخول بن الإتحاد الأوروبي من ناحية والدول المجاورة له في أوروبا الشرقية وجنوب البحر المتوسط.

وتختبر هذه الدراسة أثر إتفاقيتي المشاركة، سالفتي الذكر، على النمو الإقتصادى في كل من المغرب وتونس من خلال تحرير التجارة وزيادة الإستثمار الأجنبي المباشر ورفع الإنتاجية. وتجرى الدراسة هذا الإختبار من خلال تفسير إتجاهات تأثير التجارة على الرفاه الإقتصادى منذ عام ١٩٦٠ حتى عام ١٩٦٤، وكذلك بتحليل تقديرات تأثير تحرير التجارة، في إطار هاتين الإتفاقيتين، على الأداء الإقتصادى العام.

وتتناول الدراسة أيضا الآثار المحتملة للإتفاقيتين على سلوك الإستثمار، والخيارات المتاحة من أجل دفع التحسن فى الإنتاجية. وتخلص الدراسة إلى نتيجة مضمونها أن زيادة تدفق الإستثمارات ونقل التكنولوجيا هما أهم فائدتين لهاتين الإتفاقيتين، وتشير أيضاً إلى الحاجة إلى إتخاذ بعض الإجراءات المساعدة، من قبل حكومتي تونس والمغرب، لإستكمال ما جاء فى الإتفاقيتين وتعظيم الفائدة منهما.

### 1. Introduction

Morocco and Tunisia have each recently signed comprehensive integration agreements with the European Union (EU). These agreements consist of two essential elements—increased aid flows and technical assistance in exchange for reductions in trade barriers and other impediments to the flow of goods and investment over a period of 12 years. The EU-Med initiative, of which these agreements form a major part, is one element of a much broader European strategy to forge trade alliances with countries on Europe's periphery. Agreements with about 10 Eastern European countries in transition were signed in 1991, and the EU is at present actively negotiating with Egypt and Jordan to extend its web of integration agreements to the Mashreq. These European initiatives are intended to promote faster convergence of incomes between Europe's transitional and developing economy neighbors and the European Union.

Trade experts have traditionally viewed regional integration schemes as offering few benefits compared with universal trade liberalization. The costs of diversion of trade away from least-cost suppliers may outweigh the potential gains of trade creation among members of the agreement, and even when net trade creation effects are positive, the estimated welfare gains from partial liberalization are frequently small. The failure of numerous integration agreements among developing countries, and the success of the East Asian economies without formal regional agreements, have added to the skepticism.

Nevertheless, efforts to create regional trading blocs proceed worldwide. In addition to the EU agreements, the NAFTA and, more recently, the ASEAN agreements suggest that policy makers in both advanced and developing economies remain unpersuaded by static, welfare-based calculations of the limited benefits of regional integration. The potential dynamic benefits of integration agreements—their impact on long-run economic growth—are usually put forward as the rationale for their existence. Broadly, these dynamic benefits fall into two groups—the possibility of increased investment flows and the positive impact of integration agreements on productivity and technological change. Both channels can raise growth rates.

Political economy arguments are now routinely brought forward to underpin the impact of integration agreements on investment behavior. The "credibility" of the rules affecting domestic and foreign investment is viewed as greater in an integration agreement than from domestically-based rule changes alone, leading to a reduction in perceived political risks of investment (Hoekman, 1995). The opportunities for "deeper integration", including harmonization of standards, competition policies, taxation and regulations, are also cited as mechanisms by which investor behavior can be changed (Lawrence, 1991).

The means by which integration agreements can raise productivity growth rates have been less thoroughly explored. One strand of argument emphasizes that some of the deeper integration aspects of the agreements, such as harmonization of standards and improvements in trade facilitation, may reduce transactions costs and enhance measured productivity (Rutherford, Rutstrom, and Tarr, 1995). But the mechanisms by which these cost reductions take place are frequently only sketchily outlined, and the resulting estimates of benefits are highly arbitrary. Another argument emphasizes improvements in learning and productivity at the plant level, arising from increased export rivalry or import competition. These impacts are of course dependent on the trade creation effects of the integration agreements themselves. Finally, where agreements such as the Euro-Med Initiative include aid and technical assistance, technology transfer and productivity enhancement can be explicit aid objectives.

This paper examines three dimensions of the growth impact of the European Integration agreements on Morocco and Tunisia—gains from trade liberalization, increased foreign investment, and improvements in productivity. Section 1 looks briefly at historical trends in growth, investment, and productivity change in both countries between 1960 and 1994. Section 2 summarizes the results of recent estimates of the welfare effects of trade liberalization under the agreements. Section 3 examines the possible impact of the agreements on investment behavior, especially on foreign direct investment (FDI), and Section 4 reviews possible channels for the acceleration of productivity change.

## 2. Growth, Investment and Productivity Change in the Long Run

Morocco and Tunisia are the star performers of the Middle East and North Africa (MENA) region in terms of growth. Between 1960 and 1994, Tunisia grew by slightly more than 5 percent per year, and Morocco by slightly more than 4.5 percent. As a result, Morocco has more than doubled its per capita income in the last 35 years, while Tunisia has tripled its per capita income. While these achievements are dramatic and visible, they fall short in comparison with the rapidly-growing East Asian economies. If Morocco and Tunisia had grown, in per capita terms, as fast as the average for East Asia over the same period, per capita income would be \$700 higher today in Tunisia and \$1,300 higher in Morocco.

Using simple growth accounting, we decompose Morocco's and Tunisia's growth into its source elements (Table 1). Countries grow by accumulating labor, capital, and human capital, and by using these resources more efficiently. There is a substantial recent literature that

2

The Middle East and North Africa (MENA) region is here used to describe all Arab countries except Mauritania and Sudan plus Iran.

advances evidence across countries on the relative contribution of these three basic inputs and of efficiency gains—total factor productivity (TFP)—to output growth.

**Table 1. Determinants of Longterm Growth** 

	Morocco	Tunisia	E. Asia	Portugal	Spain	France
Per Capita Income, 1994 (US\$) 1/	1190	1821	n.a	7890	13560	22360
GDP Growth, 1960-94 (percent) <sup>2/</sup> Contribution to Growth (percentage points) <sup>2/</sup>	4.6	5.3	6.1	4.6		
Capital Accumulation	2.6	2.3	3	2.4		
Labor Force Growth	0.9	0.9	0.6	0.2		
Human Capital Growth	1.8	1.3	1.3	0.6		
Total Factor Productivity 3/	-0.7	0.8	1.2	1.4		

Notes: 1/ 1993 for Portugal, Spain, and France.

In all countries, labor-force growth is a basic source of economic growth. In both Morocco and Tunisia, labor-force growth has accounted for about one percentage point of GDP growth per year on average during the last 35 years. In comparison, labor-force growth contributed only about one half of one percent to output growth in East Asia, where population growth dropped off earlier and more substantially.

Human capital accumulation, proxied by average educational achievement, has been more important than labor accumulation, especially in Morocco, in contributing to economic growth. Although the level of education of the average Moroccan worker was and is substantially below that of the average Tunisian worker, the rate of accumulation of education was higher in Morocco during 1960–94. In Morocco, human capital accumulation is estimated to have contributed about two percentage points annually to growth, more than the roughly one-and-a-quarter percentage point rate in both East Asia and Tunisia.

The most important contribution to growth in Morocco and Tunisia has been accumulation of physical capital. On average, net new investment added about two-and-one-half percentage points per year to growth. In this case, the two Maghreb countries lag the three percentage-point average for East Asia, where saving rates have been consistently among the highest in the world. (During the last 35 years, investment averaged 20 percent of GDP in Morocco and 26 percent in Tunisia.)

<sup>2/ 1960-87</sup> for Portugal.

<sup>3/</sup> Authors' calculations, using the Nehru and Dhareshwar (1994) data set.

Nehru and Dhareshwar (1994) provide an extensive bibliography.

Yet, differences in physical capital accumulation are not enough to explain the differences between growth rates in Morocco and Tunisia and East Asia. Estimates of total factor productivity in Morocco and Tunisia show a low or negative average annual contribution to growth since 1960, ranging from three-quarters of one percentage point to a significantly negative number. Virtually all of the differences in growth rates between Morocco and Tunisia and East Asia can be explained by lower total factor productivity growth. Morocco and Tunisia have, for the most part, achieved economic growth the hard way—through physical and human capital accumulation. Not only have efficiency gains been lower in Morocco and Tunisia than in East Asia, these gains have also been lower than in Western Europe, where TFP contributed almost one-and-three-fourths percentage points to annual growth between 1960 and 1990.

Morocco and Tunisia have achieved better results in terms of TFP in recent years. Between 1988 and 1994, total factor productivity growth is estimated at about 0.9 percent per year in Tunisia and 0.4 percent per year in Morocco. It is likely that these improvements can be linked to structural adjustment, which reduced trade protection substantially in both countries, and to a reduction in the share of public investment in total investment. In both countries, there is evidence that public investment, notably public enterprise investment, has been less productive than private investment (World Bank, 1995a; 1995b). In Morocco, public sector investment fell from 50 percent of total fixed investment in the early 1980s to about 40 percent in 1994. In Tunisia, private investment remains a modest one third of total investment but has been rising since 1987, when the private share was only one quarter. However, the recent efficiency gains in Morocco and Tunisia remain insufficient to achieve the high rates of growth required to close the income gap between southern Europe and the Maghreb in a few decades.

## 3. How Large are the Benefits from Trade Liberalization?

Traditionally, studies of free trade agreements have focused on the welfare effects of trade liberalization. Recent studies of the possible benefits of the Morocco and Tunisia free trade agreements indicate that the benefits are significant but not enough to imply rapid income convergence (Rutherford, Rustrom, and Tarr, 1993; 1995). These results were generated using applied general equilibrium models of the two countries. Using similar policy

<sup>-</sup>

There is a school of "growth fundamentalists" who argue that more precise estimates in East Asia would yield substantially smaller residuals of TFP change. Krugman (1994) summarises their argument. It is likely, however, that application of similar growth accounting methods to the data for Morocco and Tunisia would yield substantially lower or higher negative residuals, thus preserving the ordinal ranking.

scenarios, the welfare gains are estimated to be about 1.5 percent of GDP in Morocco and 1.7 percent of GDP in Tunisia (Table 2). To put these numbers in perspective, the cumulative effect over 10 years of these gains would be an increase of per capita income of about \$25 per person in Morocco and \$40 per person in Tunisia. The gains would be larger, of course, if Morocco and Tunisia were to liberalize with respect to the entire world. By doing so, they would eliminate the trade diversion effects that reduce the benefits of regional integration agreements. With full liberalization, the welfare benefits to Morocco and Tunisia would be between 2 percent and 2.5 percent of GDP.

Table 2. Welfare Gains from Trade Liberalization (Percent of Pre-Agreement GDP)

	Morocco	Tunisia
Free Trade Agreement with the EU	1.5	1.7
Unilateral liberalization with respect to the world	2.5	2.3
FTA with EU including benefits from harmonization of standards, product quality improvements, and increased trading efficiency.	n.a.	4.7
Above benefits with unilateral liberalization with respect to the world		
	n.a	5.3

Source: Rutherford, Rustrom, and Tarr, 1993 and 1995.

(Trade diversion is relatively small because more than 50 percent of Morocco's non-oil imports and more than 70 percent of Tunisia's already come from Europe.)

The main beneficiaries of the EU free trade agreements are consumers. Currently, Moroccan and Tunisian non-agricultural exports (with a few small exceptions) enter the EU market duty free. Therefore, the major benefits come from lower traded-good prices in Morocco and Tunisia. These benefits more than offset the costs of adjusting labor and capital away from uncompetitive activities in traded-good sectors and a small shift from non-traded to traded-good production. (In Morocco, adjustment costs were assumed to be zero. Taking these one-time costs into account would reduce, but not eliminate, the estimated gains.)

In essence, the models described above are exercises in comparative statistics. They do not take into account factors that might increase the overall efficiency of production or the level of investment, apart from the reallocation of resources away from some existing activities toward others. In the Tunisia exercise, the authors (who obviously believe that there would be some form of dynamic benefit) enhance the basic model to take into account benefits from harmonization of standards and a reduction in trading costs. They do this by an assumption that harmonization of standards with the EU will improve export prices by two percent, and

that improvements in trade-related services would increase export prices by a further one percent and reduce import prices by one percent. The welfare benefits to Tunisia more than double, to 4.7 percent of GDP.

It is worth noting that the actual agreements are not identical to the assumed agreements modelled above. The most important difference relates to the timing and sequencing of tariff reductions. Most of the model runs assumed instantaneous reductions in tariffs. However, the actual reductions will be phased over 12 years, with faster reductions for imported inputs. The impact will be a temporary increase in protection with an implied welfare loss. The only model run close to this scenario, an assumed reduction of tariffs on 40 percent of the products currently imported from Europe by Tunisia, indicated a small net welfare loss. (Obviously, the analogy is not complete, because tariffs will eventually be completely eliminated between Morocco and Tunisia and the EU, and welfare gains will predominate.)

## 4. Will the Agreements Increase Foreign Investment?

Experience with other integration schemes suggests that a major potential benefit of the Tunisia and Morocco agreements may come from substantially increased foreign investment. Mexico received some 30 billion dollars of private capital inflow in the run-up to the NAFTA. Portugal and Spain saw private capital inflows increase by 2 percent of GDP following their integration with the EU and recently the more aggressive reformers in Eastern Europe have experienced large increases in investment (Dadush, 1995). This section asks whether Morocco and Tunisia can realistically expect a major increase in foreign investment resulting from the recent agreements.

Trends in Foreign Investment. Foreign savings played an important role in Morocco and Tunisia, notably in the 1970s and early 1980s. In the period from 1960 to 1987, the use of foreign savings averaged 6.3 percent of GDP in Morocco and 6.9 percent of GDP in Tunisia, 33 and 27 percent, respectively, of total investment. In recent years, the overall role of foreign savings has declined, averaging 5 percent of GDP in Morocco and 5.5 percent of GDP in Tunisia. In both cases, the decline came about in response to balance of payments difficulties in the mid-1980s.

The bulk of foreign savings inflows in both countries has traditionally come in the form of loans from, or guaranteed by, official agencies of industrial country governments, supplemented by several purely private, syndicated loans from commercial banks. Foreign direct and portfolio investment was marginal in both countries, less than one percent of GDP annually, on average through the 1980s. In the Moroccan case, the balance of payments

difficulties of the 1980s, combined with the heavy debt component of foreign liabilities, led to the need to reschedule payments on debt service with both official bilateral and private creditors. Recently, the composition of foreign savings inflows has begun to change, notably in Morocco, toward foreign direct investment.

Foreign direct investment (FDI) increased substantially in Morocco in the 1990s in line with the rising trend of expanded FDI to developing countries worldwide (Figure 1). This is in sharp contrast to largely stagnant FDI flows to MENA countries in general. In 1991 and 1992, direct foreign investment flows were in the range of 1.5 to 2.0 percent of GDP and reached 3 percent of GDP in 1994, probably because of transactions related to privatization. In large part, Morocco's increase against the trend for the region reflects the fact that by the early 1990s Morocco had implemented all of the formal policies needed to attract FDI including current account convertibility, full repatriation rights for profits and dividends, no prior approvals, no controls on contracts covering licenses, trademarks, management and technical cooperation, and no restrictions on foreign ownership except for agricultural land. Even in contrast with high performing East Asian economies, this was a remarkably liberal foreign investment regime (World Bank, 1995a).

About two thirds of Morocco's FDI originates in Europe, nearly a fourth from France alone. Middle Eastern investors are an important source of FDI in Morocco, accounting for about 20 percent of total direct foreign investment. The broad geographic patterns have been constant since the mid 1980s, except that the share of FDI originating from other MENA countries has declined and that originating in Spain has increased. The share of foreign investment in manufacturing in Morocco has remained virtually unchanged since the 1980s. Manufacturing accounts for about one fourth of total FDI. Recent trends have resulted in expanding investments in financial services and corresponding declines in tourism and real estate.

Tunisia's FDI flows have also grown in the 1990s, primarily as a result of investments in the energy sector. Investment flows to other activities have been very low and stable since 1990, partly reflecting reservation of investment licensing to the state in such potentially attractive areas as chemicals, cement, mining, electricity, and telecommunications. While the Unified Investment Code lifts restrictions on FDI for all export activities, many service and infrastructure sectors, such as telecommunications, tourism, computer services and information technology remain subject to prior approval.

One feature of Tunisia's foreign investment regime which differs from that of Morocco is that the bulk of foreign and joint venture investments in manufacturing are concentrated in the so called "offshore" sector. About 23 percent of wholly export-oriented offshore enterprises are foreign owned while another 24 percent are joint ventures. These firms have few direct links with the domestic Tunisian economy (World Bank 1994a).

#### FIG. 1

Portfolio Investment and Macroeconomic Management. Integration with the European Union may improve Morocco's and Tunisia's access to portfolio investments. If the agreements enhance Morocco's and Tunisia's perceived macroeconomic management, capital may shift from other locations and/or the debt service costs of existing portfolio flows may decline. Mexico benefited substantially from increased portfolio flows in the run-up to the NAFTA, largely as a consequence of its ability to portray the agreement as enhancing the prospects of sustained good macroeconomic management, but the impact of its failure to adhere to credible macroeconomic rules following the NAFTA is well known. Thus, two key elements for Morocco and Tunisia to enhance access to portfolio investment are first, their historical performance in macroeconomic management and second the likelihood that good performance will be sustained or improved during the implementation of the agreements.

How credible has macroeconomic management been in Morocco and Tunisia? Figures 2, 3, and 4 present three indicators of macroeconomic stability for countries in the Middle East and North Africa. These are the rate of inflation, the budget deficit, and movements in the real exchange rate. Morocco and Tunisia rank well in terms of both the rate and volatility of inflation in comparison with other Middle Eastern countries, although the EU has had marginally superior performance to both economies during the past ten years (Figure 2). Both countries' fiscal performance validates their performance on inflation (Figure 3). While it is difficult to judge the adequacy of real exchange rate levels in a comparative context, high exchange rate volatility suggests that macroeconomic management is insufficiently flexible to

minimize divergencies between the equilibrium and observed real exchange rate arising from differential inflation or terms of trade shocks. Morocco and Tunisia have shown superior ability to manage the real exchange rate (Figure 4).

Large external debt burdens tend to have an inhibiting effect on foreign investment (Diwan and Rodrik, 1992). Investors may perceive a debt overhang as indicative of past large macroeconomic imbalances—in particular lack of fiscal discipline—and they may fear that the debt burden will result in future increases in taxation or reimposition of exchange controls. New investors will abstain from funding otherwise good investments out of fear of being "taxed" by the prior creditors. External debt management in Morocco and Tunisia has been similar to other countries in MENA with debt to GDP ratios of about 60 percent of GDP (Figure 5). This contrasts with lower debt burdens in East Asia and Latin America in general, but is similar to the debt to GDP ratios of such rapidly growing East Asian economies as Indonesia and Malaysia.

In sum, relative to competitors in the region, Morocco and Tunisia appear to be well positioned to benefit from their reputation for prudent macroeconomic management. Both economies have established long run credibility in controlling inflation and fiscal deficits and in managing the exchange rate to accommodate external shocks. Debt management has been adequate. The integration agreements will place additional stress on macroeconomic

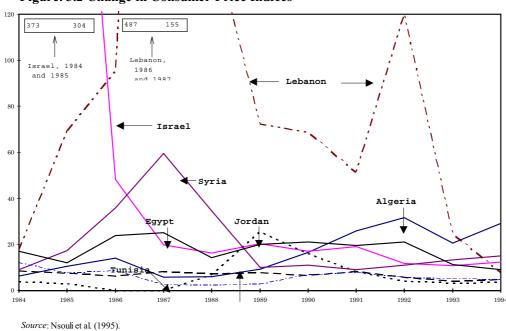


Figure. 3.2 Change in Consumer Price Indices

Morocco

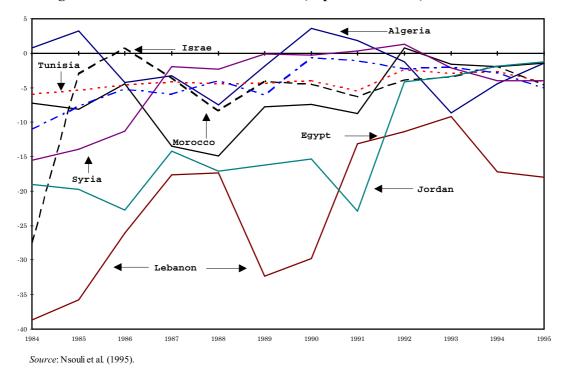


Figure 3.3. Central Government Balance (in percent of GDP)

management, because they are likely to require real depreciations of both currencies (compensating devaluations) as traded goods markets are liberalized and further fiscal prudence as capital markets are liberalized.

Vis a vis other MENA countries, the agreements may also enhance investors perceptions of the creditworthiness of Morocco and Tunisia in the future. The substantial aid packages embodied in the Euro-Med initiative can in part be used to facilitate macroeconomic adjustment. But additional effort will be required to shift perceptions of creditworthiness relative to emerging markets within the European Union itself. Figure 6 shows credit ratings compiled by *Institutional Investor* for selected Maghreb and Mediterranean countries. Both Tunisia and Morocco are evaluated by investors as less creditworthy than Spain, Portugal or Greece. Investor attitudes have improved for both economies since 1986, reflecting improvements in macroeconomic management, but neither has recovered its creditworthiness levels of the early 1980s. There has been no sharp upswing in investor evaluations in the past two years, despite the two countries active negotiations with the European Union. Tunisia leads Morocco in the surveys throughout the entire 15 years, but the gap has narrowed substantially.

### FIG. 4

Source: Nsouli et al., 1995.

## Can Financial Markets Absorb Increased Portfolio Flows Efficiently?

Financial markets in Morocco and Tunisia remain relatively undeveloped. Both are bank-based systems where direct instruments of financing—bonds or share issues—are rarely used by non-government entities. In both countries, the government and public enterprises absorb an inordinate share of the credit available. For example, in Morocco, the Treasury absorbs 35 percent of domestic credit. Until recently, in both countries banks were forced to place a large share of their assets in below-market government paper and to direct credit to state-owned enterprises. In both countries, banking systems were modernized to a great extent, with new and reasonably effective capital adequacy requirements and loan provisioning rules, though banks have been given leeway in complying in the short run. Banks are hampered in day-to-day liquidity management by the lack of functioning secondary markets for government securities.

Local currency bond markets, which have been the conduit of portfolio inflows in many countries, including Spain and Portugal, are not deep in Morocco and Tunisia. The markets for government bonds are at an early stage of development and there is no private bond

market in the traditional sense. Tunisia has seen rapid growth in its private bond market, but with a twist. All bond issues by private companies must be guaranteed by banks. In reality, purchasers are only taking on bank risk, just as if they made a long-term deposit in a bank. Banks charge the borrower for the guarantee, meaning that the normal benefit of bond financing, a reduced cost of intermediation, does not occur. No real non-bank private bond market can emerge until this restriction is lifted.

Stock markets in both countries can best be described as nascent, although both have grown rapidly in the past three years. Market capitalization represented 14 percent of GDP in Morocco and 16 percent in Tunisia at the end of 1994. In comparison, many comparator countries have much higher market capitalization to GDP ratios (Table 3.). In Morocco, the recent rapid increase in market capitalization has been fueled by the privatization program. Virtually all offers have been oversubscribed, implying a pent-up demand, including foreign demand. As much as 25 percent of shares offered in connection with privatization were reportedly purchased by Moroccans living abroad. Tunisia's stock market is dominated by bank shares. Again, there appears to be strong demand for Tunisian portfolio equity from abroad. The problem is a lack of security offers. In many developing countries, before portfolio investors came to the local market, local firms went to the international bond market. (This was the pattern in major Latin American countries as they returned to international markets as the debt crisis ebbed.) Few Moroccan or Tunisian private borrowers are able to access these markets, as yet, partly because of their reluctance to bear the foreign exchange risk in the absence of helping mechanisms.

To increase the ability of financial markets to attract and effectively channel new portfolio inflows to productive activities, a host of market development activities must be undertaken.

Table 3. Stock Market Capitalization(Percentage of GDP\*)

Morocco	14
Tunisia	16
Jordan	94
Turkey	30
China	100
Thailand (1993)	105

<sup>\* 1994</sup> unless otherwise noted.

Source: IMF 1995.

### FIG. 5

These include the development and full implementation of a good regulatory framework for stock and bond markets, better management of Treasury issues, and the development of secondary bond markets. The single largest factor that will determine the evolution of stock market activity in both Morocco and Tunisia is the program of privatization. Large-scale privatization through stock issues could rapidly develop these markets, making them a major conduit for foreign portfolio investment inflows.

# Will The Agreements Improve Credibility of Investment Rules?

One of the frequently cited motives for integration agreements is the ability to change perceptions of the investment climate by "locking in" changes in rules and institutions affecting both foreign and domestic investors (Nsouli, Bassat and Kannan, 1995). We noted above that Morocco has undertaken a wide range of legislative and regulatory reforms designed to create a private investment friendly environment. Tunisia has similarly introduced domestic and regulatory changes, although they are not as wide ranging as those in Morocco.

Recent surveys of existing domestic and foreign firms and of prospective foreign investors have been carried out for Morocco (World Bank, 1994b; 1992). The results of these point out substantial differences in investor perceptions between foreign firms and domestic firms currently operating in Morocco. Domestic firms identify production related constraints—financing costs, lack of skilled labor, access to industrial land, and high taxes—as the major

### FIG. 6

impediments to expanded investment. They do not identify aspects of the administrative and regulatory environment—bureaucratic red tape, licensing requirements, or an uncertain legal framework—as significant. Foreign firms identified fewer production-related constraints, but also did not identify aspects of the administrative and regulatory environment as significant impediments.

The surveys of potential investors revealed that relative to other Middle Eastern and North African economies, Morocco ranks well with respect to perceptions of its legal system, lack of red tape, business attitude and government competence (Figure 7). It ranks below the regional average in such areas as infrastructure, political risk and foreign trade policy.

There are some interesting differences between the perceptions of foreign investors currently operating in Morocco and potential investors, primarily reflecting implementation of policies intended to promote private sector development. Although the potential investors rate Morocco relatively highly in terms of government attitudes to private investment, foreign-

owned firms in Morocco cite regulations and restricted entry in some sectors as evidence of less profound commitment to private investment. Existing foreign firms also express greater reservations about the efficacy of legal safeguards than prospective investors. Virtually all operating foreign firms cite inadequate legal means for dispute resolution and lack of legal recourse on government contracts. Existing investors—in contrast to prospective investors—also identify lengthy, complex and uncoordinated administrative processes as significant constraints.

Figure 7. Potential Foreign Investors' Perceptions of Morocco's Business Environment

Economic conditions
Labor relations
Legal system
Input supply
Red tape
Exchange regime
Attitude
Taxes
Government competence
Trade policy
Infrastructure
Political risk
Ownership restrictions
Civil liberties
Market prospects

Below average Average Above average

Source: Kingdom of Morocco: Preparing for the 21st Century, World Bank 1994(b).

Results of surveying 124 potential European investors and firms currently operating in Tunisia point to similar concerns (Ministry of International Cooperation, 1995). Foreign investors rank political and social stability as the predominant factor determining investment decisions. Market size and macroeconomic stability are the primary economic considerations. Liberalization of the economy—including both trade liberalization and deregulation—was cited by nearly 20 percent of respondents as the single most important action the government could take to increase Tunisia's attractiveness to foreign investors. Another eight percent identified reducing bureaucratic procedures as most important. Of the five leading actions identified by respondents more than 40 percent focused on reducing red tape, and liberalization of the regulatory framework. As in Morocco, domestic investors tended to focus on production- related constraints—labor market regulations, absence of infrastructure, limited growth of the domestic market—rather than constraints arising from the legal and regulatory framework. The Tunisian survey also covered existing foreign investors. These respondents identified problems of the application of regulations and absence of systematic and transparent treatment by public officials as constraints on further investment.

These survey results suggest that improved credibility will not come automatically from the association agreements themselves. European investors' perceptions of government commitment to trade policy and regulatory liberalization may improve as a consequence of the agreements. Perceptions of political risk may decline, but many of the major constraints identified by existing foreign investors—red tape, discretionary decisions, and legal problems—are not covered by the agreements and will require sustained administrative and legal reform efforts.

# Will the Agreements Change Strategic Motivations for FDI?

Macroeconomic stability and improved legislative, regulatory and institutional structures are necessary but not sufficient conditions for increases in foreign direct investment. Surveys of foreign investment behavior consistently report strong strategic motives by direct foreign investors (World Bank, 1992). Thus if the integration agreements are to provide a basis for increased FDI in Morocco or Tunisia they must also result in changed strategic perceptions by foreign investors. In this section we examine the possible impact of the association agreements on a number of strategic objectives identified by surveys of European investors as relevant to foreign direct investment decisions in the Mahgreb (World Bank, 1992).

Natural Resources (downstream processing). Morocco's and Tunisia's trade specialization patterns, despite substantial change over the past twenty years remain highly concentrated in resource based activities (Table 4). Phosphate fertilizers and their derivatives have been a traditional source of exports for both economies and offer some potential for increased foreign investments. Similarly, for Tunisia, investments in fossil fuels will remain attractive to foreigners. It is unlikely that the integration agreements will substantially change investors' perceptions of the desirability of investments in either sector, although investment volume may increase somewhat as a consequence of an improved overall investment climate. The agreements may provide some scope for increased downstream investments in agro-industrial processing.

Table 4. Revealed Comparative Advantages and Disadvantages

Morocco			Tun	isia	
	1970	1991		1970	1991
Clothing	1.3	34.2	Clothing	0.3	95.5
Fish/Processed fish	8.7	27.0	Animal & Vegetable oils	5.6	21.5
Fruits and Vegetables	52.8	24.8	Fertilizers manufact.	13.7	20.9
Fertilizers manufact.	0.9	15.2	Mineral Fuels	35.5	19.9
Crude Fertilizers, Minerals	33.4	9.9	Fruits & Vegetables	12.1	6.6
Transport Equipment	-13.8	-14.2	Transport Equipment	-8.2	-15.4
Mineral Fuels	-7.3	-22.8	Textile yarn, Fabric	-8.4	-43.5
Machinery non elect.	-21.2	-26.1	Machinery non elect.	-21.7	-51.6
Cereals and preparations	-2.7	-6.0	Cereals and preparation	-17.9	-5.4
Iron and steel	-11.5	-10.4	Crude fertilizers, Minerals	15.7	-7.4

Source: Kingdom of Morocco-Republic of Tunisia Export Growth: Determinants and Prospects.

Both Morocco and Tunisia have strong revealed comparative advantages in agriculture and fisheries. Despite the restrictive nature of the agreements with respect to access to the European market in agricultural and processed agricultural products, both allow some scope for expanded agro-industrial exports.

Serving the Domestic Market. The guarantees of national treatment for foreign investors embodied in the agreements open up for European investors—especially in the case of Tunisia—possibilities for serving the Moroccan and Tunisian markets in previously restricted sectors. Major investments in activities to serve either market will be limited, however, by investors perceptions that their size is limited. Surveys of prospective investors in Morocco indicate that in comparison to other economies in MENA and Eastern Europe, investors perceive market prospects as well below average, reflecting small size and limited growth (Figure 7). Tunisia's market—which is only half of Morocco's—suffers from similar perceived deficiencies.

Serving the Regional Market. Because of the small size of both Tunisia's and Morocco's domestic markets, one possible strategic option for investors is to establish capacity in one economy to serve both (and other potential entrants to the Euro-Med agreement). The nature of the agreements concluded thus far preclude such an investment strategy, however. Because there are no provisions for liberalized trade among Mediterranean partners with the EU, a "hub and spoke" pattern of trade and investment is likely to arise in which investors choose to locate in Europe to serve several southern markets.

Niche Export Markets. The agreements may increase FDI in industries serving niche export markets in the European Union. These are primarily in low-end manufactures—textiles, clothing and footwear, and, in the case of Morocco, wood products. They are also the export industries in which existing foreign ownership is concentrated (Table 5). Since these niche exports previously enjoyed duty-free access to the European market, the primary motivation for new investment in these niches will not come from enhanced market access. Rather, it will have to come from increased cost competitiveness. Historical data suggest that Morocco especially, and Tunisia suffered from declining cost competitiveness in textiles, clothing, and footwear relative to such East Asian competitors as China, Indonesia, Malaysia and Thailand and such European competitors as Portugal, Greece and Hungary (World Bank, 1994c).

Production sharing arrangements where component production and assembly operations are distributed across several countries have become important magnets for FDI in East Asia. Prior to the integration agreements, the outward-processing facilities of the EU were designed

Table 5. Percentage Share of Foreign Ownership

	Export - oriented firms (export share $\ge 10\%$ )		Domestic - market oriented firm (export share < 10%)	
	Morocco	Tunisia	Morocco	Tunisia
Agro-Industries	20.8	10.0	6.8	2.3
Less than 100 workers	23.3	0.0	5.1	1.7
100 workers and more	20.0	51.0	7.7	6.2
Textiles, Clothing and Footwear	16.8	52.9	15.3	n.a
Less than 100 workers	19.8	40.9	7.2	n.a
100 workers and more	16.0	62.0	21.6	n.a
Chemicals	70.0	10.6	18.3	5.7
less than 100 workers	23.0	4.5	12.1	5.4
100 workers and more	72.3	25.0	21.6	6.8
Metals and Machinery	38.9	37.7	19.5	6.8
less than 100 workers	18.4	33.9	18.6	5.9
100 workers and more	42.4	42.8	19.9	9.1
Other Manufacturing	n.a.	22.7	n.a.	4.5
less than 100 workers	11.9	18.2	10.8	4.1
100 workers and more	n.a.	40.0	n.a	6.5

Source: Kingdom of Morocco -- Republic of Tunisia Export Growth: Determinants and Prospects

to facilitate such production sharing. Components could be admitted temporarily in Mediterranean countries for assembly and then re-exported to Europe without payment of duties. Tunisia and Morocco led other countries in MENA in using these facilities, but neither have utilized outward processing arrangements as fully as Eastern European competitors. Outward processing investments were heavily concentrated in clothing assembly in both countries. The integration agreements may facilitate some increase in production sharing based either on proximity (e.g. Morocco/Spain or Tunisia/Italy) or language (French), but the volume and diversity of production-sharing investments directed at Eastern Europe, suggest that both economies will begin as relatively less attractive destinations for these investments.

An important niche export market for economies as diverse as India and Barbados has been information services exports based on low-cost, English-speaking skilled labor. Such services as back-office operations, medical transcription, and software development have been successfully exported. Both Morocco and Tunisia have the potential for French language services exports. The integration agreements provisions for harmonization of standards,

approximation of laws and cross-border supply of services may help to promote such investments. Many information services exports, however, are heavily dependent on low cost, high quality telecommunications, the absence of which may limit the potential of both economies to attract such investments in the short run.

## 5. Will the Agreements Improve Productivity?

A third channel by which the integration agreements may increase growth in Tunisia and Morocco is improvements in technological acquisition and innovation. There is by now a large literature on the relationship between international trade and TFP change. While there is little consensus, it may be fair to characterize the literature as indicating that expanded international trade *may* improve TFP growth rates as a result of technological acquisition arising from increased exports, and/or of improved cost discipline and innovation arising from increased competition (Pack and Page, 1994). In this section we present economy-wide estimates of long-run TFP growth for Tunisia and Morocco compared with European and other developing economies. We then consider several mechanisms by which the integration agreements with Europe may improve TFP growth in both economies and assess their likely significance.

## Comparisons of Productivity Growth Rates

We estimate total factor productivity growth in a simple neoclassical framework by subtracting from output growth the portion of growth due to capital accumulation, to human capital accumulation, and to labor force growth. Because income share data are not available for most countries in our sample, output elasticities were estimated directly using a simple, cross economy production function. Annual log output growth was regressed on log capital growth, log human capital growth, and log labor growth between 1960 and 1990, specifying the production function to be Cobb-Douglas with constant returns to scale. Economy-specific dummy variables were used to estimate individual rates of TFP change for each of the sample's economies. Net investment is derived from constant price capital stock data (Nehru and Dhareshwar, 1993). Measures of human capital are incorporated in the specification using Barro and Lee's (1993) measure of educational attainment. TFP estimates are based on the parameters derived from an 85-country sample.

The contrast in productivity growth between Tunisia and Morocco and the major European economies is apparent in Figure 8. The diagram shows the TFP growth rate for the period

19

See Nishimizu and Page (1991) and Rodrik (1994) for reviews of the relevant literature.

1960-1990 for all 85 countries in the sample as a function of relative output per capita to the United States in 1960. High income, OECD economies are identified by the open boxes. Three broad patterns appear:

- (i) The range of TFP growth rates for high-income countries is quite compact, especially in comparison with low- and middle-income countries.
- (ii) Nearly one third of the low- and middle-income countries in the sample had negative

rates of TFP growth during 1960-89.

(iii) There is very little productivity based "catch-up" exhibited by low- and middle-income countries.

These are not promising results for the developing world. Despite a substantial literature on the potential for developing countries to achieve rapid growth through adopting known, "best practice" technologies, very few appear to have realized these gains. Where catch-up in per capita income is taking place, it is due primarily to higher rates of factor accumulation.

Tunisia and Morocco differ little from other MENA economies or developing countries in general. The estimated rate of TFP growth for Morocco is essentially zero and Tunisia's is less than one percent per year. Neither economy has rates of TFP change which equal the average for the high income countries of Europe and North America. Thus, despite the potential for both economies to adapt existing international best-practice technologies to their economies, neither has realized rates of TFP change which exceed those of European economies. In aggregate terms, no productivity-based catch-up is taking place.

Because TFP growth rates can be interpreted as rates of change in constant price average costs, it has become conventional to draw inferences concerning changing patterns of dynamic comparative advantage from international comparisons of TFP growth rates (Nishimizu and Page, 1986; 1991). For the economy in aggregate neither Morocco nor Tunisia reach the long-run TFP growth rates of any European economy. Both Tunisia and Morocco have declining dynamic comparative advantage, relative to potential trading partners in Europe; constant price unit costs are declining in both more slowly than in Europe.

The economy-wide estimates presented in Figure 8 must be interpreted with caution, since much of the estimated productivity change may arise from sectoral reallocation of factors (particularly in Morocco and Tunisia) rather than from productivity enhancements within specific sectors (Pack, 1992). Figure 9 presents comparisons of industry-specific rates of TFP

\_

For a concise review of the arguments for technologically based catch-up see Pack (1993).

change between Europe and Morocco for the late 1980s. The industry-specific estimates tell much the same story as the aggregate data. TFP growth rates for Moroccan industry are all close to zero between 1985 and 1990, contrasted with sectoral TFP growth rates in major European economies in the range of 1-2 percent. In relative terms Morocco is lagging Europe least in textiles, clothing and footwear and in basic metals—sectors in which at least some European countries experienced TFP declines. But on the whole, the pattern at the industry level confirms that Moroccan industries are failing to move closer to European best practice technologies. Dynamic comparative advantage is also deteriorating at the industry level.

Figure 8. Total Factor Productivity Growth and GDP Per Capita Relative to US GDP, 1960

# Will The Agreements Improve the Acquisition of Technology?

Countries face several alternatives for obtaining new technology which may be affected by the agreements. These include: (a) the purchase of new equipment; (b) direct foreign investment; (c) obtaining licenses for domestic production of new products or the use of new

processes; (d) the use of non-proprietary technology or reverse engineering; (e) obtaining information provided by purchasers of exports; and (f) undertaking one's own R & D. All but the last represent an attempt to move towards international best practice by assimilating technologies available abroad and (f) may have an element of aiding the identification, modification, and absorption of foreign technology rather than generating a genuinely domestic technology.

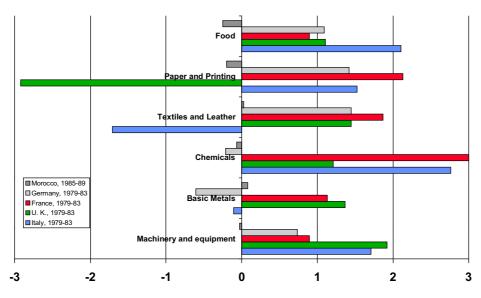


Figure 4.2 . TFP Growth Rates, Morocco and EU Countries

Source: Englander, S and A. Mittelstadt (1988) and Haddad, M. (1992).

New Equipment. The continuous importation of new, technologically superior equipment will increase measured TFP growth rates (Nelson ,1964). In the East Asian countries showing superior TFP growth rates in Figure 8, investment rates were very high and much of their equipment was imported from the OECD countries, embodying the latest designs. In Taiwan, for example, embodiment accounted for roughly 1.25 points of the five-point residual in the manufacturing sector (Pack, 1993). Cross-country evidence finds a significant impact of equipment investment in manufacturing on TFP growth rates (De Long and Summers, 1991). Clearly, opening the Tunisian and Moroccan economies to capital good imports from Europe at reduced duty rates will facilitate the import of new, improved equipment. But, because the liberalization of both economies is not universal with respect to capital goods imports, they run the risk of diverting imports away from suppliers of best practice technology in other regions. This risk is particularly acute in cases in which developing country machinery suppliers have adapted their equipment to skills and factor endowments more closely parallel to those of Morocco and Tunisia than in Europe.

Foreign Direct Investment. FDI permits local production to take place along the world best-practice production functions by substituting foreign physical and human capital for absent local factors, the best example of success being Singapore. FDI may also generate significant externalities as domestic firms become aware of new techniques and practices, workers move to other local firms, or establish their own, thus disseminating knowledge that

originally was proprietary. The limited evidence available for both Morocco and Tunisia suggests that despite the potential for productivity enhancements from FDI, neither economy has benefited substantially from FDI-related spillover in the past. In Tunisia, anecdotal evidence suggests that techniques employed in the offshore sector, which is the principal locus for FDI in manufacturing, have resulted in little spillover to the domestic economy and little technological upgrading (World Bank, 1994a). A recent cross-section time series study of manufacturing industries in Morocco found that while foreign-owned firms had higher levels of TFP—conforming to the technology transfer hypothesis—rates of productivity change for domestic firms in sectors with a high incidence of foreign investment were no higher than in sectors dominated by domestic investors, suggesting an absence of spillover (Haddad and Harrison, 1993).

The evidence is less informative, however, as to whether the lack of technological spillover form FDI is related to the pre-integration trade regime. The Tunisian study suggests that the *maquiladora* structure of the offshore enterprises—essentially transforming components supplied by European purchasers into finished products—provides few interactions with domestic suppliers, limiting potential purchaser-supplier technological links. Similarly, there is little mobility of managers and workers between offshore firms and domestic firms, limiting the transfer of skills embodied in workers (World Bank, 1994a). The Morocco study indicates that while spillover is not related to the level of protection, the overall level of productivity of foreign firms is. Foreign-owned firms in sectors protected by quotas have lower rates of productivity change (Haddad and Harrison, 1993). This is consistent with other studies of the relationship between trade policy and productivity change which have emphasized the negative impact of quantitative import restrictions on productivity growth rates (Nishimizu and Page, 1991).

Technology Licensing. Licensing existing technological knowledge about production processes offers considerable opportunities to LDCs for improving the level of best practice, a possibility most thoroughly exploited by Japan in the 1950s and 1960s. The increased intellectual property protections of the integration agreements may to some extent facilitate licensing of technology by firms in Morocco and Tunisia. But, there is some statistical evidence and a growing subjective sense that arms length licensing is decreasing as an option for closing technology gaps. Potential licensors in the OECD countries have become wary of helping possible competitors, even if contracts preclude exports to third countries for the

See, for example, Nagaoka (1989).

duration of the license. Particularly in R & D intensive sectors such as chemicals, machinery, and electronics, firms are increasingly unwilling to license technology as they perceive royalties provide an inadequate return for an action which may impair their own long term competitiveness. OECD firms increasingly prefer either cross-licensing agreements in which they obtain access to the licensee's technology or to its manufacturing skills.

Transfer of Non-Proprietary Technology. The transfer of non-proprietary knowledge is more feasible if a country begins its industrialization effort in labor intensive sectors using relatively old techniques, precisely the conditions obtaining if exports are based on comparative advantage. Part of the success of Korea and Taiwan stems from employing older machinery and knowledge that was not hedged by proprietary restrictions. 

The equipment was readily sold and the knowledge was available at low cost in engineering publications, trade literature, and from independent consultants. Some threshold level of competence is, of course, required to scan international markets but this is not very demanding in terms of skilled labor. Both Tunisia and Morocco have succeeded as exporters in labor intensive manufacturing, based on the transfer of non-proprietary technology. To the extent that the integration agreements reduce barriers to technology imports or encourage diversification of labor intensive manufactures, some additional technology transfers may occur. But given the high pre-existing access for labor intensive goods into the European market, the quantitative impact of these transfers on technological upgrading and productivity change may be limited.

Information provided by purchasers of exports. Information provided by purchasers can be quite important for firms. The motivation of the purchasers is to obtain lower-cost, better quality products from major suppliers. To achieve this they are willing to transmit tacit and occasionally proprietary knowledge from their other, OECD suppliers. Such transfers of knowledge are likely to characterize simpler production sectors such as clothing and footwear or more generally those older technologies that are not hedged by restrictions adopted to increase appropriability such as patents and trade secrets. Significantly, the knowledge transfer embodied in supplier purchaser relationships is generated only by exports. Firms in advanced economies have no incentives to transfer information to potential competitors in import substitution industries. Pack and Page (1994) conclude on the basis of both cross

<sup>-</sup>

See Rhee and Westphal (1977) for evidence on the use of older technology to achieve exports and Ranis (1979) for Taiwan.

<sup>&</sup>lt;sup>h</sup> This was first noted by Westphal, Rhee, and Pursell (1981) in Korea and confirmed in Taiwan by a number of local researchers. For a discussion of Taiwan see Pack (1993).

country evidence and a more detailed examination of Korea and Taiwan that manufactured exports work through several of the mechanisms listed above—primarily FDI, transfer of non-proprietary technology, and purchaser supplier relationships—to improve technical efficiency, and thereby contribute to rapid productivity change. They find a statistically robust relationship between manufactured export orientation and the rate of TFP growth. Export expansion resulting from the integration agreements may therefore provide a source learning for Tunisian and Moroccan firms independent of technology transfers embodied in equipment or FDI.

# Programs for Technological Upgrading

The mechanisms for technological upgrading outlined above, depend primarily on increased FDI and expansion of exports. The Euro-Med initiative also offers aid and technical assistance designed to improve local research and development capacity, broadly defined to include programs for the technological upgrading of existing firms. Indeed, nearly half of the proposed assistance to the region from the European Union's expanded aid program is directed at preparation for free trade, including expertise for modernization, restructuring, venture capital and training (Figure 10). This assistance, if effectively used, could provide a basis for accelerated technological mastery by both economies.

Both Morocco and Tunisia are in the early stages of designing programs of technical and financial assistance targeted at improving the competitiveness of existing firms. Experience with such "industrial restructuring" programs in East Asia, Latin America and Eastern Europe indicates that the central feature of successful technological upgrading programs is the provision of diagnostic information to firms regarding product, process, marketing and technological changes required to meet quality and price standards of export markets or increased import penetration.

In the case of large-scale firms, governments have been most effective in solving the collective action problem among producers. Working with manufacturers' associations they have helped to identify international sources of consulting expertise, to define terms of reference for diagnostic studies at sub-sectoral or industry levels and to ensure the widespread dissemination of results. In some cases governments have also actively attempted to involve the financial sector in the design and dissemination of the diagnostics in a effort to improve the "bankability" of projects arising from the studies.

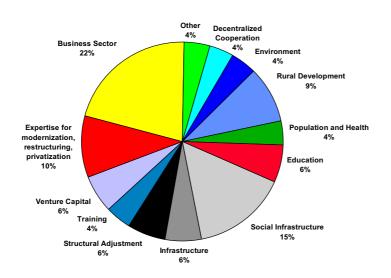


Figure 4.3. EU Sectoral Priorities for the Mediterranean Region

Source: Riordan et al., "The World Economy and Implications for the Middle East and North Africa Regions, ۱۹۹۵-۲۰۱۰." MENA LTPS Background Pape

Support programs to small and medium enterprises have generally succeeded where they have used government to broker private-to-private technical support directed at the enterprise level. Frequently these programs have involved initial grant funding of a portion of the costs of technical assistance to the firm, but they have emphasized full payment of costs by the enterprise of any continued consultancy arrangements. Some governments in Asia have also sponsored the development of private productivity centers, usually on a cost sharing basis with manufacturers associations (Levy, 1994).

#### 6. Policies for Accelerated Growth

Our assessment of the EU integration agreements with Morocco and Tunisia leads us to conclude that while they offer both countries an important opportunity to accelerate growth and raise incomes toward Southern European levels, substantial benefits will not accrue to either country automatically. The estimated impact of trade liberalization alone is small for both economies, reflecting primarily their previous largely free access to the European Market. The harmonization of laws and regulations, combined with both economies' prior track records for good macroeconomic management, may induce larger portfolio investments by European investors, but their financial markets will require substantial strengthening if

<sup>&</sup>lt;sup>9</sup> See, for example, Lieberman (1992) and Levy (1994).

those increased flows are to be used efficiently. Expanded foreign direct investment will depend as much on changing strategic perceptions of investors and reductions in bureaucratic impediments to business as on macroeconomic stability and credible rules. The primary sources of technological upgrading which may result from the agreements are likely to be from the expansion of exports and foreign direct investment.

What can Morocco and Tunisia do to ensure that the EU agreements fulfill their promise? First, they can accelerate and generalize the liberalization of trade embodied in the agreements. Second, they can move aggressively to improve their investment climate; and third, they can adopt policies intended to accelerate the rate of productivity change.

Accelerating Trade Liberalization. The 12-year pace of liberalization of the trade regime permitted by both the Morocco and Tunisia agreements is slow relative to the pace adopted by Eastern European economies entering into similar arrangements with the EU—most of which are attempting to achieve full liberalization in five years—and relative to the pace of multilateral trade liberalization undertaken by the major Latin American economies in the last decade. In Tunisia, moreover, there is discussion of beginning liberalization with capital goods and intermediates, which will have the effect of increasing effective protection to final goods producers. Delays in liberalization—and increases in effective protection to final goods producers—send perverse signals to potential investors and may delay or prevent domestic and foreign investment in export-oriented industries. They also postpone consumer benefits of liberalization of imports. Both Morocco and Tunisia would benefit from substantially accelerated trade reform.

The agreements also provide the opportunity for both countries to move more forcefully in reducing barriers to trade with the rest of the world economy outside of Europe. The gains to universal liberalization of trade are approximately 50 percent higher than those from liberalization with respect to Europe alone. In addition more universal liberalization with respect to capital and intermediate goods imports will result in greater diversification of sources of technology, permitting accelerated productivity growth.

Finally, both Morocco and Tunisia should begin negotiations for a free trade agreement between themselves. As we noted, the existing "hub and spoke" nature of the EU agreements provides no strategic motivation for investors to locate in either economy to serve both markets, nor does it facilitate production sharing arrangements. Both of these potential market structures would be enhanced by a parallel agreement which liberalizes trade between the two countries within the overall EU framework.

Improving the Investment Climate. There is a series of policy actions that could improve the investment climate in Morocco and Tunisia. These actions can be grouped under three broad headings: (i) deepening of financial markets; (ii) improvements in the judicial and administrative systems governing private activity; and (iii) further privatization. In fact, the distinctions are not clear-cut, as many of the suggested policy actions would have multiple benefits, as noted below.

Financial markets in the two countries do not, as yet, offer investors the variety of instruments or the kinds of services that are available in many other countries at roughly the same level of per capita income. More competition in banking markets would give banks more incentives to expand services. Further development of bond and equity markets would also spur banks to be more competitive. Privatization has already proven to be an effective means of developing equity markets; an acceleration of privatization would contribute to the rapid development of markets with a real critical mass.

Administrative and judicial reforms will be important in improving the investment climate in both countries. Most investor surveys indicate that the current judicial and administrative systems in Morocco and Tunisia deter investment. Respondents have few complaints concerning the laws themselves; they object to the way they are applied. Those that are actively involved in Morocco and Tunisia point to problems with the way commercial disputes are settled. Investors want quick and consistent decisions from a judicial system. They report that they receive neither. They report that administrative procedures are also heavy and sometimes murky. It can take months just to receive the necessary permits to open a relatively simple business (35 separate documents are needed in Morocco (World Bank, 1994b). Clearer interpretation and tighter enforcement of laws on collateral and on financial disclosure would greatly improve the function of financial markets.

Further privatization would contribute to a better investment climate in several ways. First, privatization provides immediate opportunities for foreign investors, either through direct investment or through non-controlling-interest portfolio investment. Second, a serious privatization program sends a signal to potential investors concerning a government's perspective on private-sector-led development. Third, privatization of key input and service industries lessens potential investors' concerns with respect to the availability of these inputs. Fourth, in the Moroccan and Tunisian context, private provision of infrastructure (a form of privatization) could help remove existing infrastructure bottlenecks (ports and roads, for example). Simultaneously, privatization would reduce the burden of loss-making enterprises on the budget; and private provision of infrastructure would reduce the fiscal burden imposed

when the state must provide these infrastructure services. Both would contribute to continued macroeconomic stability in a period in which tariff revenues will be falling.

Accelerating Productivity Change. We have argued that the principal means by which the EU agreements may accelerate TFP change are increased foreign direct investment, expanded purchaser seller interactions and more absorption of non-proprietary technology. These channels all largely depend on an expansion of non-traditional exports. Thus, both Morocco and Tunisia should adopt an "export push" strategy consisting of three essential elements:

- (i) Accelerated trade liberalization to reduce anti-export bias;
- (ii) Institutional reforms for trade facilitation including improvements in metrology and

standards, streamlining of customs procedures, regulatory reforms to open up sea and air freight to increased competition and improved trade promotion;

(iii) And targeted investments in trade related infrastructure including telecommunications, ports, export transport corridors, and power.

In both Tunisia and Morocco, the volume of investment required and the need for world class technology will also mean opening up these sectors to foreign investment.

Programs for technological upgrading of existing industry can be a useful adjunct to the productivity enhancing outcome of an export push, but the implementation of the "mise a niveau" in both economies will need to be well designed. There is a risk that highly targeted public programs of venture capital or subsidized lending for technological acquisition will not succeed in raising productivity at the firm level. Rather, public support should focus on correcting information deficits with respect to new products, quality standards and techniques and on solving the collective action problem. Government can play a catalytic role in organizing producers to seek out high quality sources of information on industrial restructuring and in disseminating that information widely.

#### References

- Barro, R. J. and J.-W. Lee (1993), "International comparisons of educational attainment," Paper presented at the conference, "How do national policies affect long-run growth?" World Bank, Washington, DC
- Dadush, Uri (1995), "The Maghreb-EU agreement." Paper prepared for the World Bank-Middle East Forum, Washington, DC.
- De Long, J. Bradford and Lawrence H. and Summers (1991), "Equipment investment and economic growth", Quarterly Journal of Economics, 106:445-502.
- Diwan, Ishac and D. Rodrik (1992), "External debt, adjustment, and burden sharing: a unified framework," Princeton Studies in International Finance.
- Haddad, Mona and Ann Harrison (1993), "Are there positive spillovers from direct foreign investment?" Journal of Development Economics, 42, 51-74.
- Hoekman, Bernard (1996), "The WTO, the EU and the Arab World: Trade Policy Options and Pitfalls," in Nemat Shafik (ed.), [.....], MacMillan, forthcoming.
- International Monetary Fund (1995), *Private Market Financing for Developing Countries*, Washington, DC.
- Krugman, Paul (1994), "The myth of Asia's miracle," Foreign Affairs.
- Lawrence, Robert Z. (1991), "Scenarios for the world trading system and their implications for developing countries," Technical Paper 47, OECD Development Center, Paris.
- Levy (1994), "Support systems for small and medium enterprise—comparative results," World Bank, Washington, DC.
- Lieberman, Ira (1992), "Industrial restructuring: policy and practice," Policy and Research Series, 9. World Bank, Washington, DC.
- Ministry of International Cooperation (1995), "Intensification de s Relations D'Investissements Entre La Tunisie et L'Union Europeanne," Tunis.
- Nagaoka, Sadao (1989), "Overview of Japanese industrial technology development," The World Bank Industry and Energy Department, Industry Series Paper No. 6, Washington, DC.
- Nehru, Vikram and Ashok Dhareshwar (1994), "New estimates of total factor productivity growth for developing and industrial countries," Policy Research Working Paper 1313, World Bank, Washington, DC.
- \_\_\_\_\_(1993), "A new database on physical capital stock: sources, methodology, and results," World Bank, Washington, DC.
- Nehru, Vikram, Eric Swanson, and Ashutosh Dubey (1993), "A new database on human capital stock," Policy Research Working Paper 1124, World Bank, Washington, DC.
- Nishimizu, Mieko and John Page (1986), "Productivity change and dynamic comparative advantage," *The Review of Economics and Statistics*, Harvard University.
- in J. de Melo and A. Sapir (eds.) *Trade Theory and Economic Reform: North South and East: Essays in Honor of Bela Balassa*, Oxford: Blackwell.
- Pack, Howard and John Page (1994), "Accumulation, exports and growth in the high-performing Asian economies," Carnegie-Rochester Conference Series on Public Policy, **40**, 199-236.

- Pack, Howard (1992), "Technology gaps between industrial and developing countries: are there dividends for latecomers?" *Proceedings of the World Bank Annual Bank Conference on Development Economics*, World Bank, Washington, DC.
- Pack, Howard (1993), "Industrial and trade policies in the high performing Asian economies," Background paper for *The East Asian Miracle*. World Bank, Washington, DC.
- \_\_\_\_\_ (1993), "Exports and Externalities: The Sources of Growth in Taiwan," Processed.
- Ranis, Gustav (1979), "Industrial development", in W. Galenson, ed., *Economic Growth and Structural Change in Taiwan*, Cornell University Press, Ithaca.
- Rhee, Yung W. and Larry E. Westphal (1977), "A Mi croeconometric investigation of choice of technique," Journal of Development Economics, 4:205-38.
- Rodrik, Danny (1994). "Miracle or design: lessons from the East Asian experience," Policy Essay No. 11, 15-53, Overseas Development Council, Washington, DC.
- Rutherford, Thomas F., E. E. Rustrom, and David Tarr (1993), "Morocco's free trade agreement with the European Community: a quantitative assessment," Policy Research Working Paper 1173, World Bank, Washington, DC.
- \_\_\_\_\_(1995), "The free trade agreement between Tunisia and the European Union," Policy Research Department. World Bank, Washington, DC
- Westphal, Larry E., Yung Rhee, and Gary Pursell (1981), "Korean industrial competence: where it came from," World Bank Staff Working Paper 469, Washington, DC.
- World Bank (1992), "Attracting private investment: capitalists' perceptions of the investment climate in Europe, the Middle East and North Africa," Regional study by the EMENA Technical Department. Washington, DC.
- \_\_\_\_\_ (1994a), *Tunisia: Private Sector Assessment*, Middle East and North Africa Regional Office, Washington, DC.
- (1994b), Kingdom of Morocco: Preparing for the 21st Century Strengthening the Private Sector in Morocco, Middle East and North Africa Regional Office, Washington, DC.
- \_\_\_\_\_ (1994c), Kingdom of Morocco–Republic of Tunisia: Export Growth: Determinants and Prospects, Middle East and North Africa Regional Office, Washington, DC.
- \_\_\_\_\_(1995a), Kingdom of Morocco: Country Economic Memorandum: Towards

  Higher Growth and Employment, Volumes I & II, Middle East and North Africa Regional
  Office, Washington, DC.
- \_\_\_\_\_ (1995b), Republic of Tunisia: Country Economic Memorandum Towards the 21st Century, Volumes I & II, Middle East and North Africa Regional Office, Washington, DC.