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**Towards a Free Trade Agreement
with the European Union:
Issues and Policy Options for Egypt**

Bernard Hoekman   Simeon Djankov
The World Bank   University of Michigan

Abstract

The Government of Egypt has for some time been pursuing economic reform, which has led to great improvement in macroeconomic indicators. The supply response by the private sector, however, in terms of investment in productive resources and employment creation, has been limited. This may be due to uncertainty regarding the reversibility of reform, or because reforms have not gone far enough to induce large scale investment.

This paper assesses the potential role of a Euro-Mediterranean Agreement (EMA) in helping to implement further structural economic reforms, and hence to help address the abovementioned impediments to investment. It evaluates the recently negotiated EMA between Tunisia and the EU, and discusses possible effects of preferential liberalization with the EU and additional action that could enhance the benefits for Egypt.

ملخص

تتبع الحكومة المصرية منذ فترة برنامجا للإصلاح الاقتصادى، أدى إلى تحسن كبير فى المؤشرات الكلية للاقتصاد. زلكن استجابة القطاع الخاص، فى صورة استثمار فى الموارد الإنتاجية وتوليد فرص العمل كان محدوداً. وقد يرجع ذلك إلى عدم التيقن من نية الاستثمار فى طريق الإصلاح، أو إلى أن الإصلاح لم يحقق تقدما ملحوظا فى دفع الاستثمار على نطاق واسع

تقيم هذه الورقة الدور الذى يمكن أن تلعبة إتفاقية المشاركة بين أوروبا ودول البحر المتوسط فى المساعدة على تطبيق مزيد من الإصلاحات الاقتصادية الهيكلية، ومن ثم المساعدة فى مواجهة معوقات الإستثمار. وتتناول هذه الورقة الإتفاقية التى وقعت أخيرا بين تونس والإتحاد الوربى، وتناقش الآثار المحتملة للمشاركة المصرية ــ الوربية والإجراءات المكملة التى يمكن أن تعزز النفع المحتمل لمصر من هذه الاتفاقية.

Summary

This paper evaluates the potential role of a Euro-Mediterranean Agreement (EMA) in helping the Government of Egypt implement structural economic reforms. There are numerous possible benefits associated with an EMA. It may offer a strong mechanism for anchoring economic reforms, thus enhancing the perceived credibility of reform efforts. Greater credibility under an EMA may lead to higher economic growth as investment is induced and productive efficiency increases. Another potential benefit is the *harmonization* of regulatory regimes and administrative requirements and the associated reduction in trade costs. Examples pertain to product standards, testing and certification procedures, mutual recognition agreements, and common documents for customs clearance. Security of market access may also be augmented: the EMA may lead to the elimination of contingent protection, such as antidumping actions. Another possible gain is the promise of financial transfers and technical assistance conditional upon implementation of the EMA (i.e., are *additional*). A final and very important potential benefit of an EMA is if it is part of a deliberate strategy to liberalize the economy generally, i.e., on a most-favored-nation basis. Financial and other assistance from the EU can then be used to offset the transitional costs of liberalization more generally.

The economic arguments against preferential liberalization are well known. By discriminating in favor of specific trading partners, trade *diversion* may occur. That is, the elimination of tariffs on imports from the EU may induce Egyptian consumers and firms to source from EU suppliers that are less efficient than non-EU producers. Whether trade diversion will be significant to offset the potential benefits of the free trade agreement is an empirical question, the answer to which depends greatly on the contents of the agreement. A first EMA was signed in July 1995 between Tunisia and the EU, establishing the "model" for the others that remain to be negotiated. Although an EMA provides a unique opportunity for Egypt to credibly pursue far-reaching liberalization of trade in a gradual fashion, an agreement along Tunisian lines will not maximize the potential benefits for Egypt.

A review of the Tunisian agreement reveals the absence of binding commitments in the areas of direct investment and supply of services, and the maintenance of antidumping. There is a 12-year transition path to free trade with the EU, with liberalization of goods competing with domestic production only starting five years after the entry into force of the agreements. By lowering tariffs on intermediates and capital goods first, domestic industries are granted

some up-front compensation for the adjustment costs that must be incurred later, and are given time in which to restructure. The tariff liberalization strategy ensures that tariff revenues will initially decline slowly, giving more time to mobilize alternative tax bases. However, the backloaded nature of tariff reductions may reduce incentives to initiate rapid restructuring, and may create problems in implementing tariff reductions in the future. The gradual liberalization may also be too slow in terms of maintaining existing export markets and capturing new ones in the face of increased competition from former centrally-planned and Asian economies.

The recent literature evaluating alternative explanations for the success of particular countries in attaining and sustaining high rates of economic growth concludes that while low trade barriers are crucial, equally important are efficient public institutions, domestic competition, a well-functioning service sector (finance, infrastructure, distribution, etc.), investment in human resources (education), high rates of private saving and investment, and a stable macro-economy. These factors cannot all be "imported" through an agreement with the EU. But some that were not included in the Tunisian EMA could have been, especially the policy regimes pertaining to FDI and the service sector. A commitment by Egypt in the EMA to a concrete transition path to achieve a liberal environment in these areas would enhance the likely beneficial impact of the EMA. Indeed, without liberalizing services, an EMA may result in effective taxation of many manufacturing industries that are currently benefiting from significantly positive rates of protection. Maintaining high rates of protection for the service industry—by excluding them from the reach of liberalization—will impede the supply response expected from the reform effort, as inefficient service industries make it more difficult to compete in both domestic and export markets. In designing the tariff reform, consideration should be given to attempting to reduce not only the average level of effective protection over time, but also the variation in effective rates of protection across industries. This can be done by reducing both MFN tariffs and by opening the service sector to greater competition.

The analysis illustrates the importance of a long-term economic strategy. The benefits of the EMA will be maximized if the agreement is used as part of a deliberate strategy to offset existing political economy constraints on unilateral liberalization. Without making this an explicit long-term objective, it may prove difficult for the government to open the economy to foreign competition on an MFN basis substantially in the future, if only because of the importance of tariffs in government revenue. A clear timetable and transition path pursued

concurrently with the implementation of the EMA would do much to provide a strong signal to domestic producers that what ultimately counts is not the regional market, but the world market.

1. Introduction

For some time now the Government of Egypt has been pursuing economic reform, as reflected most prominently in the Economic Restructuring and Structural Adjustment Program (ERSAP) and the liberalization commitments made during the Uruguay Round of multilateral trade negotiations. While economic adjustment efforts have led to great improvements in macro-economic indicators,[1] the supply response by the private sector—in terms of investment in productive resources and employment creation—has been limited. There are a number of possible explanations for this, but two stand out: (i) uncertainty regarding the reversibility of reform; and (ii) reform efforts have not yet gone far enough to induce large-scale investment. The investment to GDP ratio is 18 percent, significantly below that of other lower-middle-income countries (World Bank, 1996). Foreign direct investment is negligible compared to the flows going to emerging market economies: Egypt obtained only 1 percent of the annual direct investment inflow into Indonesia in 1995.[2] The potential for greater production and exports is significant: non-oil exports increased by over 70 percent during 1994-95. The fact that export growth fell to almost zero in the second half of 1995 reveals the existence of constraints. The constraints are well known. The public sector accounts for more than one-half of GDP, and employs 55 percent of all workers with post-secondary education (World Bank, 1995a). Trade barriers remain relatively high. Average taxes on trade exceed 30 percent, more than twice the level applying in Eastern Europe and many South-east Asian and Latin American countries. The extent of cost-raising regulatory and administrative "red tape" is extensive.

This paper assesses the potential role of a Euro-Mediterranean Agreement (EMA) in helping to implement further structural economic reforms. An EMA can help address both of the factors noted above that impede investment since it can be much more than a trade liberalization agreement. It may also address liberalization of investment and services, and provide for extensive cooperation on regulatory and economic policies. Section 2 discusses the possible benefits and costs of preferential liberalization with the EU. Section 3 summarizes and evaluates the recently negotiated EMA between Tunisia and the EU and argues that significant additional actions will enhance the benefits for Egypt in terms of

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[1] For example, the fiscal deficit was 1.3 percent of GDP in 1995, down from 25 percent in 1987/88, inflation was around 6 percent, and foreign exchange reserves were $18 billion.

[2] *Financial Times* Survey, May 20, 1996.

fostering sustainable economic growth. Key issues in this connection are liberalization of inward foreign direct investment (FDI) and service sector activities, which have been left for the future in the Tunisian EMA. Complementary policy actions that go beyond the EMA will further increase benefits. Two policy areas that are particularly important include reducing tariffs applied to the rest of the world and active pursuit of privatization. Section 4 analyzes the possible implications of alternative approaches to reducing tariffs in the EMA context, and illustrates the importance of taking concurrent actions to improve the efficiency of the service sector. Section 5 concludes.

2. Benefits and Costs of Regional Integration

There are three options to liberalize trade and investment regimes: unilateral action, reciprocal liberalization in the context of multilateral negotiations, and preferential (discriminatory) liberalization. For a small country that cannot influence its terms of trade, unilateral free trade is generally the best policy. If, in the context of multilateral negotiations, other countries reciprocate, this increases the gains from unilateral liberalization efforts. However, there are few if any gains to be expected from making liberalization conditional upon reciprocity by trading partners, as the relatively small size of the Egyptian market does not give the government much bargaining power. Preferential liberalization through the negotiation of a free trade agreement (FTA) will generally also be economically inferior to unilateral liberalization. The reason is simple: the world market is much larger than the regional one. By not discriminating across potential trading partners, domestic firms and consumers will be able to buy goods and services from the most efficient suppliers, wherever they are located. By granting preferential treatment to specific countries, trade *diversion* may occur—the elimination of tariffs may induce consumers and firms to source from suppliers located in a partner country that are less efficient than those located in non-member countries.[3]

Various sources of gains may more than offset any trade diversion losses. Trade *creation will occur*—the elimination of domestic sourcing by firms and consumers in favor of imports of goods produced by more efficient suppliers in the partner country after the elimination of trade barriers. Economists argue that even if this is sufficient to offset the possible welfare loss caused by trade diversion, unilateral liberalization does not give rise to such potential

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[3] This depends on a variety of factors, including trade shares, country size, and the elasticity of export supply functions. See Panagariya (1995) and Schiff (1995) for a general analysis.

losses so that net gains are greater. Other sources of gains exist that are specific to the agreement. Six are mentioned here.

(1) *Credibility and dynamic gains.* An EMA may offer a strong mechanism for locking in (anchoring) economic reforms. The credibility associated with EMA-based reform may lead to greater investment and greater efforts to enhance productivity. Quantifying the growth effects that may result is very difficult. However, the cross-border merger and acquisition activity that was associated with the EU's Single Market program in the late 1980s and the investment effects of Spain's accession to the EEC in the mid-1980s are indicative of the type of market response that may emerge following the initiation of a credible regional liberalization strategy.[5]

(2) *Harmonization and mutual recognition.* An EMA may involve harmonizing regulatory regimes and administrative requirements relating to product standards, testing and certification procedures, mutual recognition agreements, common documents for customs clearance (e.g., the EU's Single Administrative Document), coordination and cooperation on linking computer systems of Customs, etc. While such cooperative efforts can be pursued unilaterally, formal agreements may be necessary to induce the administrative bodies involved to cooperate. The greater is the share of trade with partner countries, the greater the benefits of elimination of such nontariff barriers, which impose real resource costs.

(3) *Security of market access.* An EMA may allow agreement to eliminate the possibility of imposing contingent protection, such as antidumping actions against partner country exports. The greater the share of total trade that occurs between partner countries, the greater the value of enhancing the certainty of market access through bilateral agreement. In the multilateral context such an agreement is unlikely to be feasible any time soon (Hoekman and Kostecki, 1995). Harmonization or recognition of administrative requirements and procedures may also help to improve the security of market access. An important area in this connection are product standards and their enforcement.

(4) *Transfers.* The EMA involves transfers from the EU. Such transfers are both financial and in the form of technical assistance. To the extent they are *additional* to status quo ante flows they are a source of gain. Additionality may not be easy to determine. Egypt already

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[5] Bajo-Rubio and Sosvilla-Rivero (1994), in an econometric analysis of the Spanish case, find a positive relationship between EU accession and FDI inflows.

receives significant financial assistance from the EU, both through bilateral official aid, and through the Financial Protocols that are agreed every four years under auspices of bilateral Cooperation Agreements. What matters then is the comparison between the present discounted value of the expected transfers under status quo arrangements (the Cooperation Agreement) and those that are expected under the new regime (the EMA). Given the generally declining trend in official aid, and the emergence of the central and eastern European countries as new "claimants" on EU assistance, taking past transfers as the basis for an "additionality" test is probably not appropriate. To some extent the EMA may lock in current transfers that otherwise could be vulnerable. If so, there is additionality.

(5) *Political economy.* Non-economic considerations, especially foreign policy objectives may imply that there is a stronger political constituency for regional as opposed to unilateral or multilateral liberalization. Hence, the chances of attaining liberalization, albeit on a preferential basis, may be greater. In part this is because the set of issues on the table is large, including political, social and economic cooperation. Of course, from an economic perspective it remains important that the government knows to what extent the attainment of non-economic objectives is associated with economic losses, and that efforts are made to minimize such losses.

(6) *Facilitation of general liberalization.* A final, and very important, potential benefit of an EMA is if it is part of a strategy to liberalize economic activity more generally, i.e., on a most-favored-nation (MFN) basis. Welfare will be higher if trade barriers confronting non-partner countries are lowered. Adjustment costs for Egypt associated with liberalization on an MFN basis are not likely to be much higher than those emerging from preferential liberalization with the EU (Konan and Maskus, 1996). If financial and other assistance from the EU is used to facilitate the transition to general reductions in trade barriers, the EMA may enhance the political feasibility of MFN liberalization.

The extent to which these factors apply, and the magnitude of the associated welfare gains, are an empirical matter. Much depends on the contents of the negotiated agreement, the size of the additional financial and other types of transfers, and the longer-term economic policy stance of the government. Historically, preferential trade agreements generally have not gone much beyond the GATT. Allowance is frequently made for the re-imposition of protection; for various types of non-tariff measures; and for the use of contingent protection. Often, little progress is made in harmonizing procedures or implementing mutual recognition

arrangements (Hoekman and Kostecki, 1995). The probability that an EMA will be welfare enhancing increases the more the EMA goes significantly beyond the current WTO disciplines, especially in services; and the greater is progress in the area of trade facilitation — customs procedures, documentary requirements, product testing and certification. Cooperation and harmonization of standards and customs clearance procedures can do much to reduce the administrative costs of trade. Such benefits are particularly important because trade diversion losses may not occur if cost-increasing barriers are eliminated. Indeed, some administrative barriers may not differentiate between sources of imports. If these barriers are reduced or removed in the context of an EMA, they will also reduce the costs of trade with non-EU countries. This will further increase gains from an EMA.

3. Evaluation of the EMA with Tunisia

Currently, economic relations between Egypt and the EU are governed by a Cooperation Agreement dating from the 1970s. This agreement, which is unlimited in duration, provides duty-free access to EU markets for industrial goods, and preferential access for agricultural commodities. The agreement is not reciprocal, and Egypt continues to apply MFN tariffs to goods of EU origin. The agreement is complemented by periodic Financial Protocols, which establish the amount of financial resources the EU provides over a five-year period. These institutional arrangements will be changed with the implementation of a Euro-Med Agreement.

The basic objectives of an EMA are to: achieve reciprocal free trade between the EU and Mediterranean countries in most manufactured goods; grant preferential and reciprocal access for agricultural products; establish conditions for gradual liberalization of trade in services and capital; and encourage the economic integration of Mediterranean countries. The goals and constraints imposed by Mediterranean countries are perhaps best stated in the EU Commission's request for negotiating authority: "in order to be able to enter progressively into free trade with the Union and to take on board a wide range of trade-related Community regulations (customs, standards, competition, intellectual property protection, liberalization of services, free capital movements, etc.) .. Mediterranean countries .. insist on four fundamental aspects ..: the need for long transitional mechanisms and secure safeguards; the need to obtain improved access for their agricultural exports; the need for increased financial flows .. [and]

the possibility to count on the Community's help to accelerate the modernization of their social and economic systems."[°]

The first EMA, negotiated with Tunisia, was initialed in April and signed in July 1995. An agreement with Morocco followed in October 1995. In terms of what the EU is willing to offer, there is likely to be very little variance across EMAs. At the time of writing (summer 1996) the specifics of the EMA between Egypt and the EU were still under negotiation, but the initial drafts suggest that the agreement will closely resemble that of Tunisia. What follows therefore discusses the Tunisian agreement ('the EMA').

The Terms of the Agreement with Tunisia

The EMA is unlimited in duration and is to be implemented over a 12-year period. Its operation is overseen by an Association Council (meeting at ministerial level at least once a year) and an Association Committee (meeting at the level of officials, responsible for implementation of the Agreement). The EMA has seven major elements: (1) political dialogue; (2) free movement of goods; (3) right of establishment and supply of services; (4) payments, capital, competition and other economic provisions (e.g., safeguards); (5) economic, social and cultural cooperation; (6) financial cooperation; and (7) institutional provisions. Many of the provisions of the EMA are conditional upon the date it enters into force (e.g., timing of tariff reductions). This in turn depends on how long it will take the 15 EU member states and the Tunisian parliament to ratify the agreement.

(1) *Political dialogue.* The EMA calls for the establishment of a regular political dialogue between the parties of the agreement, to focus in particular on regional security, stability and development, as well as the promotion of common initiatives.

(2) *Free movement of goods.* There are four major dimensions regarding liberalization of trade in goods: trade in manufactures; trade in agricultural produce; safeguard mechanisms; and rules of origin. As noted above, Tunisia (like Egypt) already benefits from duty-free access to EU markets for manufactured goods under the 1976 Cooperation Agreement, and additional protocols (1982, 1988) negotiated after the enlargement of the EU in 1981 and 1986. Thus, liberalization will mostly occur on the Tunisian side. Quotas are to be abolished upon the entry into force of the agreement—except as allowed by GATT rules. In contrast to the Europe Agreements with Eastern European countries, no special treatment was given to

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[°] "Strengthening the Mediterranean Policy of the European Union: Establishing a Euro-Mediterranean Partnership," Communication from the Commission to the Council and the Parliament, October 1994.

Tunisia as regards more rapid elimination of textile quotas than agreed under the GATT. However, Tunisia is reportedly only subject to two quotas, neither of which is fully utilized (World Bank, 1994). Tunisian tariffs on industrial products of EU origin will be reduce to zero over a 12-year period. Four groups of products—at the seven-digit Community Common Nomenclature (CN) level—have been defined in Annexes. Tariffs on manufactured products that are not mentioned in one of these Annexes will be abolished upon the entry into force of the agreement. There are 470 six-digit tariff lines in this category, all of them either intermediate inputs or machinery. They account for 10 percent of 1994 imports from the EU (Table 1).[`] Tariffs and surcharges on products listed in Annex 3 to the Agreement will be eliminated over a five-year period in steps of 15 percent, starting from entry into force of the treaty. Products on this list, together with the group of goods to be liberalized immediately (i.e., those not mentioned in an Annex) account for some 35 percent of 1994 imports by Tunisia. Annex 4 of the EMA comprises a list of products that will be liberalized over the full 12-year period transition period, in steps of 8 percent per year. Products listed in Annex 5 will commence tariff reductions four years after the entry into force of the agreement, with reductions spread out linearly over the remaining eight years of the transition period (i.e., annual cuts of 11-12 percent). A final list of manufactured products contained in Annex 6 is exempted from tariff reductions. This list contains 37 six-digit tariff lines, comprising bread, pasta, and carpets.

Import weighted average tariffs applying to the groups of goods to be liberalized range from 21 to 34 percent (Table 1). Goods to be liberalized immediately have the lowest average tariffs, while those to be liberalized last have the highest average rates. Liberalization of intermediate inputs and capital goods is front-loaded, whereas liberalization of consumer goods has been back-loaded. Some 90 percent of the goods in Annexes 3 and 4 are intermediates or machinery; as compared to only 4 percent for Annex 5. About three quarters of Tunisian exports to the EU in 1994 involved Annex 5 goods, representing over 40 percent of domestic production. As Annex 4 covers another 20 percent of domestic output, much of domestic industry is subject to gradual and back-loaded liberalization. This might assist the

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[`] Trade data reported by EUROSTAT is either on a 6 or 8-digit level basis, making it impossible to relate exactly the tariff commitments (which use 7-digits) to publicly available trade statistics. However, in most cases, a concordance from the 7 to the 6-digit level was straightforward.

Table 1: Tariff Liberalization Commitments by Tunisia (Industrial Products)

	Share of trade		Share in domestic output	Share in total tariff revenue	Import weighted ave.tariff	Number of 6-digit lines Total=5019		Share of machinery & intermediates (%)	
	Exp	Imp					% of total	by line	by import value
Annex 3: 5-year transition	16	24	20	12.5	26.7	1810	41	93	87
Annex 4: 12-year transition	7	29	22	9.2	30.4	1127	26	94	89
Annex 5: 8-year transition starting in year 5	75	36	43	32.9	33.8	944	22	8	4
Annex 6: exempted	1	1	1	n.a.	n.a.	37	1	0	0
Industrial goods not listed in an annex: immediate liberalization	1	10	14	3.6	21.6	470	10	100	100

Source: authors' calculations based on COMEXT and World Bank data. All data are for 1994.

domestic industries concerned to prepare for greater competition from imports in the future. However, increasing effective rates of protection (see Section IV below) will imply welfare losses as resource allocation incentives become more distorted. If the increase in effective protection of domestic industries during the first part of the implementation period leads to inefficient investment or non-adjustment, pressures may also emerge in the future to resist market opening or impose safeguard actions.

The approach taken by Tunisia with respect to tariff elimination is similar to that of the Central and Eastern European countries, albeit much more gradual. Poland committed itself to eliminate tariffs on about 30 percent of its imports from the EU in 1992, and to abolish the remainder over a seven year transition period, with duty reductions taking place during the last four years. Hungary agreed to liberalize 12-13 percent of its imports over a three-year period in annual steps of one-third, another 20 percent between 1995 and 1997, again in steps of one-third and the rest (two-thirds) between 1995 and 2001, in steps of one-sixth per year. The Czech and Slovak Republics dismantle tariffs over a seven-year period (like Poland, but somewhat less front-loaded). The higher level of initial tariffs in Tunisia (and the Mediterranean more generally) may explain the longer transition path to free trade with the EU. Average protection levels in Eastern Europe are in the 6 percent range, as compared to 30 percent for Egypt.

A possible factor underlying the back-loaded nature of the tariff reduction process is that the government may have been concerned with the revenue implications of a more uniform move to free trade with the EU. Twenty-eight percent of government revenues are derived from trade taxes, with the EU accounting for 58 percent of total tariff revenue. Most of the

tariff revenue from trade with the EU is currently collected on the imports of consumer goods (Annex 5), which account for 33 percent of total revenues, compared to 12 and 9 percent, respectively, for Annexes 3 and 4 (Table 1). The goods to be liberalized immediately generate only 3.6 percent of total revenue. Dependence on trade taxes in Egypt is much lower than in Tunisia. In Egypt, import duties account for only 10 percent of government revenues. As the EU share of total imports is also less than in Tunisia (42 compared to 68 percent), revenue implications are less far-reaching.

Safeguards. In addition to antidumping and countervailing duties, which continue to apply, a general safeguard provision makes allowance for "appropriate measures" to be taken if imports from a partner country injure import-competing industries. Necessary conditions for such actions are that products are "being imported in such increased quantities and under such conditions as to cause or threaten to cause serious injury to domestic producers of like or directly competitive products in the territory of one of the Contracting Parties, or serious disturbances in any sector of the economy or difficulties which could bring about a serious deterioration in the economic situation of a region" (Article 25). The first of these criteria is drawn from the GATT; the second is specific to EU trade agreements. Article 25 allows substantial opportunity to intervene if the political willingness to do so exists.

Agriculture. Little will change as far as agricultural trade is concerned. The objective of the EMA is to gradually liberalize trade in this sector. In concrete terms it mostly locks in the status quo (existing preferential arrangements), while offering limited improvements in access for specific products through expansion of tariff quotas and reduction/elimination of tariffs for specific quotas. Negotiations to improve on existing agricultural concessions are to be initiated after January 1, 2000. Continued restrictions on imports of agricultural products reduce the benefits of an EMA for Mediterranean countries. The unwillingness (inability) of the EU Commission to significantly expand export opportunities was an important stumbling block for Morocco in reaching agreement with the EU,[v] and has also emerged as a negotiating issue in the Egypt-EU negotiations. The relative importance of agriculture varies significantly across Mediterranean countries. It is least important to Jordan, where it accounts for 8 percent of GDP, and most important in Egypt, Morocco and Syria, where it contributes some 20

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[v] After lengthy and heated negotiations, Morocco obtained improved access to EU markets for tomatoes, citrus, and cut flowers. For example, an additional 15,000 ton quota was given for tomatoes, of which 5,000 may be shipped in October, and 10,000 during November-March. Preferential treatment ceases in April, when EU produce comes to market.

percent to GDP. The agricultural sector accounts for some 14 percent of total Egyptian exports, as compared to 30 percent for Morocco.

Rules of Origin. An objective of the Tunisian agreement is to promote the integration of the Maghreb countries. More generally, the EU is in favor of greater integration of the economies of the Mediterranean countries. This is important, as the negotiation of bilateral agreements between the EU and each of the Mediterranean countries would otherwise lead to a so-called hub-and-spoke system. A problem with such an arrangement is that it creates incentives for firms to invest in the `hub', i.e., the EU, as this gives them barrier-free access to all the `spokes'. Partly for this reason a Central European Free Trade Agreement (CEFTA) was established by the Visegrad countries. To avoid a hub-and-spoke system from emerging, Mediterranean countries are well advised to pursue a similar strategy.

Intra-regional trade between countries of the Middle East and North Africa is limited. In part this reflects the similarity in endowments, in part the non-competitiveness of processed and manufactured goods that are produced. If the Persian Gulf states are included, intra-regional trade is not insignificant (it stood at some $8.3 billion in 1990, or 8 percent of total exports). Relative to the participation in world trade, these levels are actually quite high.[^] Thus, the trade of Egypt, Jordan, Syria and Turkey with other countries in the Middle East and North Africa is four times more intensive than trade with the world as a whole (Yeats, 1996). The only major economy in the region where intra-regional trade is clearly `too low' is Israel. However, if attention is restricted to Mediterranean nations (i.e., the Gulf countries are excluded), intra-regional trade becomes much smaller. Such trade represents less than 3 percent of total trade of Mediterranean countries. Given the differences in the factor endowments and per capita income between Israel and some of its neighbors, intra-regional trade should be able to grow substantially.

The rules of origin included in an EMA are important in this connection. Even though in principle Mediterranean countries already have duty-free access to EU markets for manufactured goods, in practice rules of origin may be such as to require the use of EU inputs in order to benefit from duty-free treatment.[^] Less restrictive rules of origin in an EMA may

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[^] See Yeats (1996) and Lawrence et al. (1995). Existing intra-regional trade is to some (unknown) extent driven by barter deals and a web of preferential, commodity-specific "protocol trade" agreements. These involve preferential tariff rates on specific lists of goods of Arab origin. Some of the intra-regional trade may therefore consist of the "wrong" goods, i.e., those in which countries do not have a comparative advantage.

[^] Local content requirements are often 60 percent, i.e. to benefit from duty-free access to the EU, 60percent of the value added must originate in either the EU or in the partner country. Alternatively, if a change in tariff heading criterion is used,

then imply an effective liberalization of trade in manufactures. The Tunisian agreement allows for cumulation for rules of origin purposes for products produced in Algeria and Morocco as well as the EU and Tunisia. This may help create backward and forward linkages between the Maghreb countries and enhance the potential for intra-industry trade. The extension of cumulation to other Mediterranean countries as well as Eastern European nations would be more beneficial, helping to offset the hub-and-spoke nature of the EU's web of trade agreements. To be effective, more liberal rules of origin must be complemented with a reduction in barriers to intra-regional trade. This could be pursued by converting existing commodity-specific preferential trade agreements between Mediterranean countries into full-fledged free trade agreements (Hoekman, 1995a).

(3) *Right of establishment and supply of services.* The right of establishment (i.e., freedom to engage in FDI) is an objective in the EMA. Modalities to achieve this objective are to be determined by the Association Council. No specific language is devoted to this subject and no time path or target date is mentioned for its realization. This contrasts with the Europe Agreements, where the EU has granted free entry and national treatment to all firms from partner countries from 1992 on, except in air and inland water transport and maritime cabotage. The Eastern European countries also grant free entry and national treatment to EU firms, with transitional periods for a limited number of sectors/activities. The absence of the right of establishment does not imply that FDI is restricted in Tunisia. However, the fact that the government chose not to lock in the status quo, let alone go beyond it is something that potential foreign investors may well take into account.

No specific commitments are made regarding liberalization of cross-border supply of services. As with the right of establishment, liberalization is an objective that is to be pursued by the Association Council. The EMA simply refers to the obligations of each Party under the General Agreement on Trade in Services (GATS). These do not imply much, if any, liberalization (Hoekman, 1995b). Mediterranean countries made very limited commitments under the GATS, subjecting some 6 percent of their service sectors to the national treatment and market access principles, as compared to 26 percent for the EU. [*] The Europe

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the value-added equivalent may exceed 60 percent. See Hoekman and Kostecki (1995) for a summary discussion of origin rules.

[*] The share of the service sector where commitments were made—even if not guaranteeing national treatment and market access—also differed substantially. The EU scheduled 57 percent of its services; the Middle East and North African members of the WTO only 16 percent.

Agreements are more concrete with respect to services than the EMA. They allow for temporary entry of natural persons and contain specific provisions dealing with air and maritime transport.

(4) *Payments, competition and other economic provisions.* The EMA requires the adoption of the basic competition rules of the EU, in particular with respect to collusive behavior, abuse of dominant position, and competition-distorting state aid (Articles 85, 86, and 92 of the Treaty of Rome), insofar as they affect trade between the EU and each partner country. Implementing rules are to be adopted by the Association Council within five years (as opposed to three under the Europe Agreements). Until then, GATT rules with respect to countervailing of subsidies will apply. For the first five years after entry into force of the EMA, Tunisia will be regarded as a disadvantaged region under Article 92.3(a) of the Treaty of Rome. This implies that state aids can be applied to the entire territory of Tunisia during this period. Rules to enforce competition policy and subsidy disciplines are to be adopted by the Association Council after the initial five- year period. The EMA also provides for enhanced transparency of state aids, each party agreeing to provide annual reports on the total amount and distribution of the aid given. Antidumping remains applicable to trade flows between partners, despite the agreement by Tunisia to apply EU competition disciplines. Liberalization of government procurement is not required; reciprocal and gradual liberalization of public purchasing is, however, an objective.

(5) *Economic and social cooperation.* One-third of the articles of the Tunisian EMA deal with cooperation in economic, social and cultural matters. The prime objective underlying economic cooperation is to target "first and foremost" activities "suffering the effects of internal constraints and difficulties or affected by the process of liberalizing Tunisia's economy as a whole, and more particularly by the liberalization of trade between Tunisia and the Community" (Article 43). Methods of economic cooperation mentioned in the EMA include information exchange, provision of expert services (consultants), joint ventures (e.g., the Euro-Partenariat program), and assistance with technical, administrative and regulatory matters. Specific areas mentioned in the EMA include regional cooperation, education and training, science and technology, the environment, modernization of industry (including agricultural processing), promotion and protection of investment (e.g., negotiating investment protection and double taxation treaties), standardization and conformity assessment (introduction of EU procedures/rules, upgrading Tunisian testing labs), approximation of

economic legislation, financial services (supporting restructuring; improving auditing and supervision), agriculture and fisheries (modernization, diversification), transport (modernization and restructuring; management; quality upgrading), telecommunications and information technology (standardization, introduction of electronic data interchange), energy, tourism, and statistics.

The various articles alluded to above are largely oriented towards upgrading Tunisian infrastructure broadly defined (both physical and regulatory) and providing support for restructuring of the economy. This support is not just reflected in technical assistance and advice, but is supported by financial assistance as well (see below). The specific mentioning of an issue area under the economic cooperation chapter presumably signals that this is a legitimate subject for using EU financial resources. One area of great importance for many countries in the region is cooperation on customs matters (Article 59). The aim of such cooperation is the simplification of procedures, the introduction of the EU's Single Administrative Document and linking EU and Tunisian transit systems. Active cooperation on these matters will be important for trade facilitation. Another issue that is important is standardization and conformity assessment. The longer run objective of the EMA is to conclude agreements for the mutual recognition of certification (Article 40).

(6) *Financial cooperation.* As mentioned earlier, Mediterranean countries have received financial transfers from the EU under auspices of revolving 5-year Financial Protocols. The sums involved vary per country, but are significant. During the period of the Fourth Protocol (1991-96), Tunisia was allocated a total of ECU 284 million.[1] Under the EMA approach, financial protocols will not be renewed. Instead, the EU envisages earmarking a total amount of assistance—grants and loans—for all the Mediterranean countries. Individual allocations out of this total would not be pre-determined, but would in part be endogenous—depending on country performance, including the implementation of the EMA. Although not spelled out explicitly in the EMA, the articles in the EMA on financial cooperation put emphasis on the link between EMA implementation and the provision of financial resources.

Article 75 of the Tunisian EMA states that "With a view to full attainment on the Agreement's objectives, financial cooperation.....shall entail:

- facilitating reforms aimed at modernizing the economy;

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[1] The amounts have been steadily increasing in nominal terms. During 1978-81, Tunisia obtained ECU 95 million. This rose to ECU 139 during 1981-86 and ECU 224 during 1986-91.

- updating economic infrastructure;

- promoting private investment and job creation activities;

- taking into account the effects of the progressive introduction of a free trade area on the Tunisian economy, in particular where updating and restructuring of industry is concerned;

- flanking measures for policies implemented in the social sectors.

Article 76 goes on to say that the Community will examine ways to support structural adjustment policies needed to restore financial equilibrium, while Article 77 seeks to establish a basis for coordinated approaches to dealing with "exceptional macroeconomic and financial problems which could stem from the progressive implementation of the Agreement." However, the exact modalities of financial cooperation are vague, the relevant procedures to "be adopted by mutual agreement between the Parties by means of the most suitable instruments once the Agreement enters into force" (Article 75). How future financial transfers will compare to past flows remains to be seen. The EC Commission requested a total of ECU 5.5 billion for the region for a four year period; ECU 4.7 billion was approved by the Council. An equivalent amount is to be provided by the European Investment Bank.

(7) *Institutional provisions.* As noted previously, the Association Council is the main body responsible for the implementation and operation of the EMA. It also deals with disputes. In the case of a dispute that cannot be addressed through consultations with the Council, one of the parties may appoint an arbitrator. The other party is then required to appoint a second arbitrator within two months, and the Association Council appoints a third one. Decisions by the three arbitrators will be taken by majority vote, with the Parties required to implement them. However, it is not clear what the sanctions may be in case of non-implementation of arbitration decisions. Time will tell how this dispute settlement mechanism will work. In a number of areas that are particularly relevant from a market access viewpoint binding obligations have yet to be established, e.g., as regards product standards. Disputes on such issues, e.g., allegations that standards are used as nontariff barriers, are perhaps better dealt with by the WTO. Disputes on matters relating to state aid (in the first five years of the EMA), antidumping, and state trading are explicitly referred to the WTO by the Tunisian EMA (Article 36).

Evaluating EMAs

In principle, the liberalization of trade required under the EMA should induce firms to upgrade their production capacity and improve their efficiency. Although in the long run the EMA is likely to be beneficial to all of the countries involved, it may be economically welfare-reducing in the short- to medium-run due to its discriminatory nature. However, simulation studies analyzing the static effects of preferential liberalization vis-à-vis the EU for Tunisia suggest that the net static welfare impact of the EMA will be positive (Brown et al. 1995; Rutherford et al. 1995). Much of the gains may arise because of the reduction in administrative barriers through the improvement the administration of regulatory regimes (e.g., customs; certification of product standards). However, the absence of binding commitments in the areas of foreign direct investment and supply of services, the exclusion of government procurement, and the maintenance of antidumping and broadly worded safeguard provisions implies that the EMA does not go significantly beyond existing multilateral (WTO) disciplines. The transition path to free trade with the EU is a long one, with liberalization of goods competing with domestic production starting five years after the entry into force of the agreements. By lowering tariffs on intermediates and capital goods first, domestic industries are granted some up front compensation for the adjustment costs that must be incurred later, and are given time in which to restructure. The tariff liberalization strategy ensures that tariff revenues will initially decline slowly, giving more time to mobilize alternative tax bases. But the possible downside of the strategy should be recognized. The backloaded nature of the tariff reductions may reduce the incentives to initiate rapid restructuring, and may create problems in implementing tariff reductions in the future (e.g., through pressure for safeguard protection). Gradual liberalization may also be too slow in terms of maintaining existing export markets and capturing new ones in the face of increased competition from former centrally-planned and Asian economies, driven by the liberalization achieved in the Uruguay Round. Much therefore depends on the credibility of the EMA. This in turn depends on the extent to which complementary actions are pursued to improve the functioning of the economy. Important in this connection is the fact that the EMA does little to ensure investors of national treatment or to grant the general right of establishment. This is a significant difference with the Europe Agreements, where such establishment is permitted immediately for most activities, and a transition path is spelled out for the remainder. By signaling their openness to FDI, the Central and Eastern European countries increased the incentives for foreign firms to establish and transfer much needed know-how. FDI is

especially important in the services area, where

establishment often remains the best way to contest a market. Efficient services are crucial in terms of being able to participate in the global economy: telecommunications, information technology, port services, financial intermediation, and business support services are all key elements underlying the ability to compete on world markets. By limiting commitments to those made in the GATS, the EMA risks sending a signal that liberalization is not on the immediate agenda. It also puts the burden on unilateral efforts to move forward.

4. Possible Implications of Emulating the Tunisian Agreement

Although the basic outline of the EMA between Egypt and the EU will be similar to the Tunisian agreement, the Government of Egypt has substantial discretion to determine the contents and time path of liberalization. This involves the modalities of the transition to free trade with Europe, actions to encourage FDI and open up the service sector to greater competition, and the policy stance that is taken regarding the rest of the world.

A simulation study analyzing the static effects of preferential liberalization vis-à-vis the EU for Egypt suggests that much of the welfare gain from an EMA is associated with a reduction in administrative barriers.[12] Free trade with the EU—elimination of tariffs on EU imports combined with an assumed one percent increase in the export prices of Egyptian exports because of reduced incidence of testing and certification costs in the EU, as well as an 8 percent increase in export prices of agricultural produce and clothing—results in a welfare gain of only 0.2 percent of GDP. This low figure reflects the impact of trade diversion. However, if it is assumed that the EMA also reduces administrative costs incurred by traders in Egypt—due to customs procedures, quality control, "red tape"—and that this reduction applies to all trade (not just the EU), the welfare gains rise to 1.8 percent of GDP.[13]

Liberalization

Table 2 "translates" Tunisian commitments on tariff liberalization for Egypt's case. It is assumed that Egypt would pursue an identical approach to free trade with the EU, based on

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[12] Konan and Maskus (1996). The simulation uses a 38-sector computable general equilibrium model of the Egyptian economy.

[13] It is assumed that administrative barriers impose costs equivalent to a 5 percent ad valorem tax on imports of goods, a 10 percent tax on exports, and a 15 percent tax on imported or exported services. These estimates are likely to be conservative as no account is taken of domestic distortions in service markets that raise the effective costs of Egyptian manufacturing.

the same grouping of commodities into annexes, each subjected to a different time path for tariff elimination. Compared to Tunisia, a greater share of domestic output is found in Annex 5 products (comprising mostly consumer goods)—50 as compared to 43 percent—while the relative importance in domestic production of goods subject to immediate liberalization is less (8 compared to 14 percent). Liberalization would be more gradual (backloaded) than in Tunisia. In terms of imports from the EU, emulating the Tunisian approach would ensure that 45 percent of current imports would become duty-free within five year; thus, EU criterion that at least 40 percent of trade becomes duty-free within five years would be met.

Egypt has a large merchandise trade deficit, but imports more from the rest of the world than from the EU. Hence it is less dependent on the EU for tariff revenue than Tunisia. The EU generates 44.3 percent of total tariff revenue, as compared to 59 percent for Tunisia. Free trade with the EU thus has less of a fiscal impact (Table 3).

Calculating the impact of alternative liberalization strategies on the levels and distribution of effective protection of Egyptian industry provides a useful measure of the change in incentive regime for industries. The effective rate of protection (ERP) is a measure of the extent to which trade barriers protect domestic value added in production.[14] The import-weighted average tariff is currently 30 percent (Table 4). At 70 percent (Table 4, last column), the average effective rate of protection is significantly higher than the average nominal rate. Effective rates are higher than nominal ones for 17 industries, all of which are final goods sectors. All agricultural sectors (not reported here) and the four intermediate sectors (crude petroleum, other extracting industries, iron and steel, and leather) have lower effective protection than what nominal tariffs would suggest. The structure of protection in Egypt is therefore skewed towards final goods.

Many inputs used by industries are not traded—services are often an important example. Analogous to tariffs on traded inputs, the higher the tariff-equivalent of regulatory policies for services, the lower the effective protection for industries that use the service inputs involved.

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[14] The basic formula for calculating the ERP is $(V-V^*)/V^*$, where V is the domestic value added per unit of a good at domestic (tariff inclusive) prices, and V^* is valued added at world prices (zero tariffs). Value added per unit is defined as the gross value of output minus the cost of inputs used in production, i.e., $V=t_fP_f - t_iP_iX$, where t_f and t_i are the tariffs on a good and its inputs, P_f and P_i are the prices, and X is the amount of inputs used to produce a unit of the good. Value added at world prices is $V^*=P_f - P_iX$, as tariffs do not apply. See Appendix for more details on the calculation of ERPs used in this paper.

Table 2: Tunisian Tariff Liberalization Commitments Applied to Egypt (Industrial Products)

	Trade with EU value and share*		Trade with ROW value and share		EU share of total trade		Share in domestic output	Share in total tariff revenue	Av. tariff weighted by EU imports	No. of 6-digit lines		Machinery & inermediates share	
	Exp	Imp	Exp	Imp	Exp	Imp					% total	by line (%)	by import value (%)
ANNEX 3: 5 year transition	642 (29)	1196 (25)	385 (19)	839 (14)	62	58	27	8.3	14.6	1140	29	83	79
ANNEX 4: 12 year transition	465 (21)	1291 (27)	527 (26)	2787 (46)	46	32	14	11.7	19.1	946	24	67	56
ANNEX 5: 8 year transition starting in year 5	907 (41)	1339 (28)	972 (48)	1738 (29)	48	43	50	20.2	31.7	913	23	8	7
ANNEX 6: Exempted	21 (1)	48 (1)	9 (0.2)	30 (0.5)	96	62	1	0.6	24.8	2'	1	0	0
Industrial goods not listed in an Annex: Immediate liberalization	177 (8)	909 (19)	142 (7)	659 (11)	55	58	8	3.5	8.1	802	23	89	85
TOTAL	2412	4783	2035	6053	54	43	100	44.3	19.4	3930	100	60	53

*Shares in (..); values in US $ million

Source: authors' calculations based on Egyptian Customs data (1994).

Table 3: Tariff Revenue Loss of Tunisian EMA for Egypt (Industrial Products)[*]

Total tariff revenue, 1994, (US$ million)	Loss in tariff revenue (share of total revenue)			
	in 3 years	5 years	9 years	12 years
1,879	15.1%	36.1%	45.4%	55.1%

Takes into account expected changes in EU market share as described in the appendix.

Source: authors' calculations based on Egyptian Customs data (1994).

Table 4: Protection in Egypt, 1994

	EU share of imports	Nominal tariff	Share of services in total inputs	Current ERP with tariff equivalents for services	Current ERP without tariff equivalents for services
Chemicals & products, exc. petroleum	63	15	32	-12	21
Clothing	12	68	44	147	162
Cotton ginning and pressing	40	7	12	9	14
Cotton spinning and weaving	57	29	22	38	51
Crude petroleum and natural gas	63	9	89	-21	7
Food processing	26	36	23	59	72
Furniture	59	56	26	107	118
Glass and products	35	34	26	91	109
Iron, steel, other base metals	18	28	25	9	14
Leather products excl. shoes	62	35	28	13	28
Machinery and appliances	52	27	27	20	38
Mineral products, n.i.e.	48	19	19	21	33
Other extractive industries	47	13	54	-25	-3
Other manufacturing	48	30	62	23	34
Paper and printing	45	31	52	52	90
Petroleum refining	43	13	32	45	83
Porcelain, china, pottery	16	37	34	98	115
Rubber, plastic and products	34	24	37	16	33
Footwear	37	56	24	267	301
Transportation equipment	33	40	43	65	90
Wood & products excl. furniture	40	33	37	54	66
Average	42	31	36	51	70

Source: Trade shares from the Eurostat Comext database (1995); service shares from the 1994 input-output table; ERP from own calculations; nominal import-weighted tariffs from Subramanian (1995).

Given the importance of services in the production process—i.e., transportation of inputs and the goods produced, financial intermediation, insurance, business services, telecommunications—it is clearly necessary to take into account the extent to which regulatory regimes raise the costs of services, thereby imposing a tax on manufacturing and agriculture. These costs are not limited to direct price-increasing effects. Insofar as their effect is to reduce quality of services, users are

also confronted with an implicit tax. The service intensity of Egyptian industries varies substantially, ranging from a high of almost 90 percent for crude petroleum/gas extraction, to a low of 12 percent for cotton ginning and pressing (Table 4, column 3). Industries that are particularly dependent on services include "other" manufacturing, extractive activities, paper and printing, clothing, transport equipment, wood products, and rubber/plastics. If account is taken of the fact that service inputs used by Egyptian industry are less efficient and more costly than they might be (because of lack of competition), the magnitude of the ERP for most manufacturing industries falls significantly—from an average of 70 to 51 percent (Table 4, column 4). Indeed, for some industries it becomes negative, implying that the tariffs on intermediates combined with the implicit tariffs on service inputs outweigh the tariff protection applying to the goods produced. That is, the regulatory regime results in the effective taxation of Egyptian industry.[15]

The ERP is not a measure of the cost of protection, since all it does is provide information on differences in the level of protection across industries without taking into account the quantity of output that is protected (industry size) or divergences between private and social costs for each marginal unit of output (Corden, 1984). General equilibrium models are required to evaluate the welfare costs of protection, as these take into consideration quantities and interaction effects. Indeed, with the emergence of off-the-shelf software packages that allow computable general equilibrium (CGE) modeling, ERP analyses have largely been abandoned in the literature. Notwithstanding this, the ERP is useful in providing qualitative information on the change in the investment incentive regime over time that is caused by the gradual trade liberalization. An ERP framework also is useful to determine relative sensitivity of industries to various types of domestic distortions, such as the implicit tax imposed by an inefficient services sector.

In the EMA context, tariff changes apply only to some imports (from the EU) and are implemented gradually. It is therefore necessary to make some assumptions about how EU market shares change, which in turn will affect estimates of ERPs. The Appendix explains the methodology used in this connection. It should be recognized that the "final" ERPs that apply at the end of the transition period are not equilibria (even in a partial equilibrium sense) as the

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[15] See the appendix for a description of the methodology used.

methodology used imposes mechanical assumptions on the extent to which changes in sourcing of imports occur. The earlier a tariff change is implemented, the greater the adjustment in EU import market shares. This "short run" focus provides information on the cross-industry implications of alternative tariff reduction approaches during the transition period.

Three alternative tariff reduction strategies are compared in Tables 5-7: emulation of the Tunisian approach; a linear (proportional) reduction across-the-board over 12 years; and a concertina approach under which the maximum tariff on EU imports is gradually compressed to zero over 12 years. In the proportional case it is assumed that all tariffs are reduced by one-twelfth each year; under the concertina the maximum tariff is reduced to zero in steps of one-twelfth. To facilitate comparisons the ERP is reported at 3-year intervals. It is assumed for the time being that nothing is done to enhance the efficiency of services--i.e., the tariff equivalents for services are maintained unchanged throughout, MFN tariffs on the rest of the world remain constant, and no reduction in tariffs on agricultural products occurs. *Ex ante*, one expects the Tunisian approach to be most likely to result in increases in ERPs in the early stage of the transition to free trade with Europe, while this is least likely under the concertina.

Under the Tunisian approach, five industries with positive ERPs experience little change in protection until year 9: clothing, glass, ceramics, rubber/plastics and footwear (Table 5). Under the alternative approaches this occurs only for clothing. The Tunisian and proportional reductions lead to faster initial declines in ERPs, while the concertina leads to the most gradual decline in the average ERP. Noteworthy is that the Tunisian approach results in the lowest average ERP at the assumed mid-point (year 6), but implies the highest dispersion of protection across industries. Under the concertina less change occurs up to year 9, and the change after year 9 is therefore more dramatic: the average ERP for manufacturing falls from 27 to -7 percent (Table 7). In contrast, the other two approaches imply an average ERP of close to 20 percent by year 9. The proportional approach results in a steady and uniform reduction in ERPs (Table 6). In all cases, after 12 years ERPs are mostly negative, reflecting the impact of the inefficient service sector. Trade (distribution), transport and storage, and hotels and restaurants see their ERPs increase significantly (not reported), reflecting the gradual decline in the cost of tangible inputs.

Manufacturing industries that continue to benefit from positive—sometimes substantial—ERPs at the end of 12 years are limited (clothing, ceramics, glass products, iron and steel, footwear).

Table 5: Tunisia Scenario (no reduction in service tariffs)

Sector	ERP0	ERP3	ERP6	ERP9	ERP12
Agriculture					
Vegetable Foodstuffs	-5	-2	0	0	4
Other vegetable products	-5	-3	0	5	8
Animal products	18	24	26	52	64
Manufacturing					
Chemicals and products excl. petroleum	-12	-38	-85	-76	-60
Clothing: assembled and pieces	147	150	151	141	89
Cotton ginning and pressing	9	9	4	-5	-22
Cotton spinning and weaving	38	39	24	3	-23
Crude petroleum and natural gas	-21	-26	-34	-32	-28
Food processing	59	54	46	29	-10
Furniture	107	86	67	34	-12
Glass and products	91	88	90	61	3
Iron steel other base metals	9	8	3	3	4
Leather products excl. footwear	13	14	7	-6	-21
Machinery and appliances	20	-3	-41	-36	-29
Mineral products n.e.i.	21	5	-31	-21	-5
Other extractive industries	-25	-20	-6	-15	-27
Other manufacturing	23	18	15	6	-8
Paper and printing	52	42	32	9	-29
Petroleum refining	45	24	-29	-24	-14
Porcelain china pottery	98	96	92	80	37
Rubber plastic and products	16	15	16	7	-11
Footwear	267	275	251	186	47
Transportation equipment	65	58	55	33	-12
Wood & products excl. furniture	54	47	44	23	-13
Manufacturing Average	51	45	32	19	-7
Services					
Construction	-64	-43	-2	16	58
Electricity, gas	-116	-97	-59	-56	-50
Transport, storage	-25	-9	24	29	42
Hotels, restaurants	-42	-39	-24	-6	19
Communications	-15	-7	8	14	25
Finance	-10	-7	-3	2	11
Distribution	-9	-7	-3	1	8
Insurance	-4	-3	-1	2	5
Services Average	-36	-26	-8	1	16

Source: authors' calculations.

Table 6: Proportional Scenario (no reduction in service tariffs)

Sector	ERP0	ERP3	ERP6	ERP9	ERP12
Agriculture					
Vegetable Foodstuffs	-5	-2	0	0	4
Other vegetable products	-5	-3	-1	3	8
Animal products	18	24	33	51	64
Manufacturing					
Chemicals and products excl. petroleum	-12	-23	-36	-51	-64
Clothing: assembled and pieces	147	147	143	131	77
Cotton ginning and pressing	9	5	-1	-9	-23
Cotton spinning and weaving	38	26	12	-4	-24
Crude petroleum and natural gas	-21	-23	-25	-27	-29
Food processing	59	53	42	25	-11
Furniture	107	84	57	26	-10
Glass and products	91	82	69	46	4
Iron steel other base metals	9	9	8	7	2
Leather products excl. footwear	13	6	-1	-10	-22
Machinery and appliances	20	9	-3	-18	-28
Mineral products n.i.e.	21	16	10	1	-10
Other extractive industries	-25	-25	-26	-26	-25
Other manufacturing	23	18	12	3	-8
Paper and printing	52	40	24	2	-29
Petroleum refining	45	36	24	5	-25
Porcelain china pottery	98	96	90	77	36
Rubber plastic and products	16	14	9	3	-10
Footwear	267	247	212	151	33
Transportation equipment	65	57	44	24	-10
Wood wood products excl. furniture	54	44	32	14	-10
Manufacturing Average	51	44	33	18	-9
Services					
Construction	-64	-49	-27	4	58
Electricity, gas	-116	-105	-91	-72	-45
Transport, storage	-25	-15	-3	16	43
Hotels, restaurants	-42	-32	-19	-3	20
Communications	-15	-9	-1	9	25
Finance	-10	-7	-3	3	11
Distribution	-9	-6	-3	1	8
Insurance	-4	-3	-1	2	5
Services Average	-36	-28	-18	-5	16

Source: authors' calculations.

Table 7: Concertina Scenario (no reduction in service tariffs)

Sector	ERP0	ERP3	ERP6	ERP9	ERP12
Agriculture					
Vegetable Foodstuffs	-5	-2	-1	0	4
Other vegetable products	-5	-3	2	5	8
Animal products	18	27	36	54	64
Manufacturing					
Chemicals & products excluding petroleum	-12	-12	-10	2	-58
Clothing: assembled and pieces	147	135	122	112	69
Cotton ginning and pressing	9	9	9	5	-18
Cotton spinning and weaving	38	38	38	10	-22
Crude petroleum and natural gas	-21	-21	-20	-17	-28
Food processing	59	59	53	36	-3
Furniture	107	84	50	16	-15
Glass and products	91	91	83	51	10
Iron steel other base metals	9	9	9	8	4
Leather products excl. footwear	13	13	9	-5	-21
Machinery and appliances	20	21	23	0	-31
Mineral products n.i.e.	21	21	22	15	-7
Other extractive industries	-25	-25	-23	-2	-17
Other manufacturing	23	23	25	14	-5
Paper and printing	52	52	53	23	-22
Petroleum refining	45	45	45	36	-12
Porcelain china pottery	98	98	94	77	46
Rubber plastic and products	16	16	16	10	-6
Footwear	267	225	163	113	28
Transportation equipment	65	66	54	33	-7
Wood & products excl. furniture	54	54	50	28	-7
Manufacturing Average	51	48	41	27	-6
Services					
Construction	-64	-64	-60	-34	56
Electricity, gas	-116	-115	-111	-102	-53
Transport, storage	-25	-24	-22	-6	43
Hotels, restaurants	-42	-32	-19	-7	20
Communications	-15	-14	-11	4	25
Finance	-10	-8	-5	2	11
Distribution	-9	-6	-4	1	8
Insurance	-4	-3	-1	2	5
Services Average	-36	-33	-28	-17	16

Source: authors' calculations.

The Tunisian approach gives rise to distorted incentives during the transition (ERPs for some industries rise), but the increases are relatively minor (with the exception of clothing). The results suggest that *if* nothing is done to improve the cost efficiency and quality of the service sector, the costs associated with the Tunisian approach may not be very high in comparison to alternative

approaches given that it ensures that industries are compensated to some extent for the lack of improvement in services. However, this is of course very much a second best situation—it would be better to reduce the inefficiency of the service sector concurrently with the reduction in tariffs.

Supporting Actions Within the EMA Framework

Table 8 reports calculations of the ERP at the *end* of the transition period under the proportional reduction approach, assuming that the cost inefficiency of the services industry is addressed to varying degrees (ranging from a 25 to 100 percent reduction in the assumed tariff equivalents). It can be seen that the manufacturing average ERP becomes positive only if these price wedges are reduced by at least 40 percent. After elimination of the assumed 15 percent tariff equivalent for services, two thirds of all industries would benefit from positive ERPs after free trade with the EU. Such reductions in the inefficiency of the service industries will require greater competition, in part through the encouragement of FDI. FDI will only materialize if the regulatory and institutional environment is conducive to private sector investment. Indeed, in the absence of improvements in the legal and regulatory framework, opening up to trade with the EU may result in greater competition from imports without much in the way of new investment. If so, the potential negative impact of an EMA is significant and the political viability of its implementation may well decline. Much is likely to depend in this connection not only on actions to open service markets to greater competition but also on privatization efforts (see below) and on how EU financial assistance is used.

Egypt has a significant stock of educated workers that are either employed directly by the government administration or by state-owned firms. There is also a large pool of unskilled, underemployed labor and a substantial number of unemployed university graduates (World Bank, 1995b). Implementation of the EMA will be more difficult if increased job opportunities for the unskilled and the educated unemployed do not materialize, or if job losses in the state sector become too large to be politically manageable. Greater employment opportunities for the unskilled could emerge through the creation of firms specializing in labor-intensive production and by improving access for agricultural exports. The latter has been excluded; a necessary condition for the former is the existence of adequate infrastructure and the absence of red tape restricting

Table 8: Impact on ERPs of Reducing Tariff Equivalents for Services, Assuming Full Elimination of Tariffs on Imports From EU

Sector	Service Share	0% Cut	25% Cut	50% Cut	75% Cut	100% Cut
Chemicals and products excluding petroleum	32	-64	-56	-48	-40	-32
Clothing: assembled and pieces	44	77	81	84	88	92
Cotton ginning and pressing	12	-23	-22	-20	-19	-18
Cotton spinning and weaving	22	-24	-20	-17	-14	-11
Crude petroleum and natural gas	89	-29	-22	-15	-8	-1
Food processing	23	-11	-8	-4	-1	2
Furniture	26	-10	-7	-4	-1	2
Glass and products	26	4	9	13	18	22
Iron steel other base metals	25	2	3	4	5	7
Leather products excl. footwear	28	-22	-18	-14	-10	-6
Machinery and appliances	27	-28	-24	-19	-15	-10
Mineral products n.i.e.	19	-10	-7	-4	-2	1
Other extractive industries	54	-25	-19	-14	-8	-2
Other manufacturing	62	-8	-5	-2	0	3
Paper and printing	52	-29	-20	-10	-1	9
Petroleum refining	32	-25	-15	-6	4	13
Porcelain china pottery	34	36	40	44	48	52
Rubber plastic and products	37	-10	-6	-2	2	6
Footwear	24	33	42	50	59	67
Transportation equipment	43	-10	-4	2	8	15
Wood wood products excl. furniture	37	-10	-7	-4	-1	2
Mean	33	-9	-4	1	5	10
Standard Deviation	17	29	28	28	28	28

Source: authors' calculations.

export production (regulations, tax administration, customs). For many of the more highly educated potential job opportunities lie in an expanding private (formal) service sector.

Complementary Actions Outside of the EMA Framework

Liberalization and locking-in of regulatory regimes concerning services and investment can be done within the context of an EMA. Other reforms can be contemplated that go *beyond* the EMA—i.e., are neither required nor a longer-term objective of the EMA. These include reduction of MFN tariffs, liberalization vis-à-vis neighboring countries, and privatization.

MFN Tariffs. The foregoing results illustrate the need to reduce MFN tariffs significantly, especially those that support high rates of effective protection after the transition to free trade with the EU (e.g., clothing, ceramics). Of equal importance is a reduction in the dispersion of tariffs. Greater uniformity of tariffs combined with a substantial reduction in the average level will already do much to improve resource allocation and welfare. For example, Konan and Maskus (1996) estimate that a uniform, non-discriminatory tariff of 10 percent would increase welfare by 30 percent relative to the EMA alone.

Reducing Hub-and-Spoke Investment Diversion Incentives. It was noted earlier that a free trade agreement may create incentives for firms *not* to invest in Egypt but to locate in the center (hub) of the network of EU trade agreements (i.e., Europe). Trade barriers against regional trading partners should be eliminated as rapidly as possible to encourage investment by domestic and foreign firms that are interested in servicing regional markets and want to benefit from Egypt's geographical location and relatively diversified industrial base.

Privatization. The role of the state in Egypt is very large. The public sector accounts for 50 percent of GDP and 35 percent of total employment, with average wages in the public sector 20 to 40 percent above those in the private sector (Diwan, 1995). The size of the public sector imposes a large burden on the economy. If maintained, it also reduces the credibility of the EMA-based liberalization program, as without significant restructuring and contraction, greater competition from imports will lead to greater public enterprise losses, fiscal pressures, and the possibility of macroeconomic problems. The government is actively pursuing a privatization program. Privatization will not only provide a signal to international financial markets that there are substantial investment opportunities, but enhance the credibility of the liberalization program. Privatization of state-owned enterprises will generate revenue, create investment opportunities

for foreign (and flight) capital, and limit possible claims on the budget as competitive pressures emerge. A strong case can be made that there may be a high payoff for using EU grants to fund worker compensation schemes to facilitate downsizing of the public sector and privatization (World Bank, 1995b). The wording of the Articles in the EMA on the scope and priorities for financial and economic cooperation implies that such funding should be possible.

5. Conclusions

A free trade agreement with the EU will give rise to greater competition in product markets and a more efficient allocation of resources. The extensive provisions in the EMA for technical cooperation aiming at harmonization and mutual recognition of regulatory procedures (e.g., in the area of customs clearance, product standards) provide opportunities to reduce transactions costs associated with trade and to improve the investment climate. The magnitude of the benefits for Egypt clearly depend on the contents and implementation of the EMA. Two factors have been emphasized in this paper: the need to extend the EMA to include liberalization of foreign direct investment and services, and the possible implications of the design of the tariff liberalization program. Both dimensions have implications for investment incentives, adjustment costs, and national welfare over the transition.

If, as seems likely, the Tunisian approach to tariff reductions is followed, effective rates of protection may rise during the early years of the transition period. By lowering tariffs on intermediates and capital goods first, domestic industries will be granted some up front compensation for the adjustment costs that must be incurred later, and for the inefficiency of domestic service providers. Such a liberalization strategy also ensures that tariff revenues will initially decline slowly, giving more time to mobilize alternative tax bases. But the possible downside of the strategy is that the backloaded nature of the tariff reductions may reduce the incentives to initiate rapid restructuring, and may create problems in implementing tariff reductions in the future, especially if investment is induced in the sectors concerned. Moreover, although firms will obtain some "compensation" on the domestic market, clearly this will not apply to export-oriented firms who will need to have access to low-cost, high quality services if they are to be able to compete on world markets.

The ERP analysis suggests that the opportunity cost of a Tunisian approach to reducing tariffs may be relatively minor. Of greater importance is the pursuit of supporting and complementary actions to improve the functioning of the economy. Upgrading the quality and reducing the costs of services is critical in this connection. This will require foreign direct investment, as establishment often remains the best way to contest service markets. Efficient services are crucial in terms of being able to participate in the global economy: telecommunications, information technology, port services, financial intermediation, and business support services are all key elements underlying the ability to compete on world markets. Further gains can be obtained by pursuit of complementary actions: reducing the average level and dispersion of tariffs imposed on non-EU products and negotiating full-fledged free trade agreements with other countries in the region. This will reduce hub-and-spoke induced investment diversion incentives and allow Egypt to capitalize on its geographical advantages.

Appendix

Let Q_{EU} be the quantity of EU imports into Egypt, Q_{ROW} be the quantity of ROW imports, e_{EU} is the own price elasticity of demand for EU imports, and $e_{ROW\text{-}EU}$ is the cross-price elasticity of ROW imports with respect to EU imports. Suppose that due to the FTA tariffs towards EU imports have been reduced by **DT** percent. Then the change in the quantity of goods imported from the EU is:

$$\Delta Q_{EU} = Q_{EU}\ \Delta T\ \varepsilon_{EU} \tag{1}$$

Similarly, the change in ROW imports is

$$\Delta Q_{ROW} = Q_{ROW}\ \Delta T\ \varepsilon_{ROW\text{-}EU} \tag{2}$$

The new share of EU imports in total imports is then:

$$SHARE_{EU} = \frac{Q_{EU} + \Delta Q_{EU}}{Q_{EU} + \Delta Q_{EU} + Q_{ROW} + \Delta Q_{ROW}} \tag{3}$$

or

$$SHARE_{EU} = \frac{Q_{EU}\ (1 + \Delta T\ \varepsilon_{EU})}{Q_{EU}\ (1 + \Delta T\ \varepsilon_{EU}) + Q_{ROW}\ (1 + \Delta T\ \varepsilon_{ROW\text{-}EU})} \tag{4}$$

Equation (4) can be expressed as a function of the previous period's market share. Dividing the right-hand side by the numerator and manipulating the ratio of import quantities:

$$SHARE_{EU}^{t+1} = \frac{1}{1 + \left(\dfrac{1}{SHARE_{EU}^{t}} - 1\right)\dfrac{1 + \Delta T\ \varepsilon_{ROW\text{-}EU}}{1 + \Delta T\ \varepsilon_{EU}}} \tag{5}$$

The expression for the new weighted tariff becomes:

$$TARIFF_{NEW} = TARIFF_{EU}\ SHARE_{EU} + TARIFF_{ROW}(1 - SHARE_{EU}) \tag{6}$$

which is calculated for each sector.

The effective rate of protection is finally derived as follows:

$$ERP_i = \frac{TARIFF_{NEW_i} - \sum_{j \neq i} TARIFF_{NEW_j} \; a_j}{1 - \sum_{j \neq i} a_j} \qquad \textbf{7}$$

where $\mathbf{a_j}$ is the input share of sector $\mathbf{j}$ in the production of good $\mathbf{i}$ taken from the 1994 Input-Output matrix for Egypt.

The data that are used to calculate ERPs have been adjusted to take into account the fact that extensive exemptions are granted to importers for imports of capital goods and certain intermediate inputs. The vector of nominal tariffs was adjusted downward for such goods by the proportion with which actual collected total tariff revenue falls short of "predicted" tariff revenue, i.e., what would be collected in the absence of exemptions. Alcoholic beverages and tobacco products are excluded in the analysis given extremely high nominal rates of protection/taxation. The 1990 input-output table was used, adjusted to reflect 1994 aggregate output. Trade data for 1994 were obtained from the UN Comtrade database. Because no information is available on the magnitude of the implicit protection granted to services, the "tariff equivalents" used to calculate the effective rates have been assumed, based on case studies and surveys. These have revealed that the costs for Egyptian businesses of services are substantially higher than in comparator countries (see also the Chapter by Mohieldin in this volume). For example, the Egyptian telephone company has 34 lines per employee as compared to 192 in high income countries. Restrictive entry and monopoly supply of certain port services results in handling costs per container in Alexandria that are almost triple those in Turkey (World Bank, 1995b). The assumed 40percent rate of "taxation" of distribution and transport services also reflects the administrative trade costs referred to earlier, relating to customs clearance, enforcement (sometimes abuse) of product standards, etc. The following "tariff equivalents" were taken from Konan and Maskus (1995): construction, communications, financial services, business and professional services, distribution, transport, storage: 15 percent. We assume a 0 percent tariff equivalent on electricity, water and gas. To allow for the fact that over time the

share of the EU in total imports of Egypt, allowance is made for EU shares to increase following a decline in tariffs.

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