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Effects of the Uruguay Round on Egypt and Morocco

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Abstract

This paper presents simple computational techniques to examine a variety of effects of the Uruguay Round on developing country trade flows. These methods are applied to the cases of Egypt and Morocco to simulate the implications of the Round for their medium-term balance of payments. The analysis takes into account most-favored-nation tariff cuts, preference erosion, liberalization of trade in textiles and clothing, and potential increases in world food prices. The simulation results indicate that the overall balance of payments implications of the Uruguay Round for these countries, while negative, may not be very significant.

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The conclusion of the Uruguay Round of multilateral trade negotiations represents an important achievement for international trading relations and medium-term growth prospects for the world economy. Nevertheless, some developing countries have raised concerns about possible adverse effects of the Round relating to the erosion of preferences for some suppliers and to higher food-import prices.

The paper sets out a methodology for quantifying the effects on developing countries of the various commitments under the Round on the liberalization of trade in goods. This methodology is applied to Egypt and Morocco. The case studies illustrate the range of effects engendered by the Round on imports and exports. The paper also identifies the limitations of the methodology.

The analysis reveals that Egypt and Morocco did not undertake significant commitments to liberalize their own trade regimes (although Egypt will eliminate its quantitative restrictions on textiles and clothing), but locked in previous trade liberalization and rendered their regimes more transparent. On the export side, the most significant impact on the two countries will be the elimination of the restrictive regime in textiles and clothing embodied in the Multifiber Arrangement. During the ten year phase-out period of this Arrangement, the effect is expected to be positive on Egypt as its export quotas grow, but negative on Morocco, which may suffer a loss in market share to currently constrained competitors. Thereafter, the export prospects of the two countries will depend critically on their ability to compete with suppliers in the Middle East, Eastern Europe, and Asia. Both the gains from most-favored-nation tariff cuts on Egypt's exports and the losses stemming from the erosion of preference margins on export products that benefit from preferences are estimated to be small. In the case of Morocco, a predominant share of whose exports receive preferences in the European Union market, there will be some loss in exports from the most-favored-nation tariff cuts, although these will be small. Increased food costs from higher food prices are also likely to be insignificant. The overall balance of payments impact on the two countries, though negative, is not likely to be significant.

Nonetheless, the impact of the Round needs to be closely monitored as its provisions are implemented. Policy efforts should be directed at increasing productivity and fostering a favorable investment climate to ensure that benefits of the Round are maximized.

I. Introduction

The conclusion of the Uruguay Round and the entry into force on January 1, 1995 of the World Trade Organization (WTO) represent important achievements for international trading relations and medium-term growth prospects for the world economy. The Round provides for increased market access for industrial products; integrates new and dynamic areas such as services and intellectual property into an agreed multilateral framework; brings agriculture and textiles and clothing into the framework of multilateral rules; strengthens the functioning of the world trading system through improvements in rules on subsidies, antidumping and countervailing actions, and through improved multilateral dispute settlement procedures. 1/ By requiring all countries to adhere to all the multilateral agreements of the Uruguay Round, thereby reducing the special dispensation previously offered to developing countries, the Round facilitates their increased integration into the multilateral trading system. Developing countries are expected to benefit from their own efforts at binding tariffs and making their trade regimes more transparent and rules-based. In fact, developing countries' gains from the Round will derive largely from their own liberalization efforts, as these lower prices of imports to consumers, improve resource allocation, and help stimulate economic growth. They will also gain through liberalization by their trading partners, particularly in textiles and clothing owing to the phase-out of the Multifiber Arrangement (MFA).

Nevertheless, some developing countries have raised concerns about potentially adverse effects of the Round relating to the erosion of preferences and to higher food prices. The Final Act of the Uruguay Round includes a "Decision on Measures Concerning the Possible Negative Effects of the Reform Program on Least-Developed and Net Food-Importing Developing Countries." 2/ This stresses the need to ensure adequate supplies of food aid and notes that developing countries may be eligible to draw on the resources of international financial institutions to address short-term difficulties in financing normal levels of commercial food imports as a result of the Uruguay Round. This paper quantifies such costs for two developing countries and their implications for financing needs. 3/ In view of this narrower focus on balance of payments need, and in contrast especially to computable general equilibrium (CGE) models of the Round, the paper does not attempt to assess the effects of the Round on economic welfare.

1/ See Harmsen and Subramanian (1994) for a discussion of the results of the Uruguay Round.

2/ See GATT (1995), p. 448.

3/ Eiteljörge and Shiells (1995) examine the impact of changes in world agricultural prices due to the Round for a broader set of developing countries.

The paper suggests a methodology for estimating some of the effects of the Uruguay Round on developing countries, and illustrates its application to two Middle Eastern countries--Egypt and Morocco. The effects on imports stem from liberalization of their own trade regimes, and from changes in world food prices induced by the Round. Those on exports arise from changes in their external trading environment, including tariff cuts in the markets of trading partners and liberalization of the textiles and clothing sectors.

The country cases were chosen because they provided both common and contrasting features to enable an interesting comparative analysis. Regarding similarities, there were two noteworthy features. First, both countries were active participants in the Uruguay Round and effectively articulated their concerns and positions during the negotiating process, particularly in areas of key interest to developing countries (for example, Egypt in relation to the food price effects, textiles and clothing, and intellectual property, and Morocco in relation to textiles and clothing and agriculture). Second, the similarities between the economic structures of the two countries allow for some interesting comparisons. For example, the textiles and clothing sectors are important export earners for both countries, and maintaining competitiveness in them is an important policy issue that they will have to address in the wake of the Round. Egypt and Morocco are also both net food importers (with Egypt being a significantly larger one) so the Uruguay Round food price effects can be highlighted.

There are also several interesting contrasts between Egypt and Morocco which enable investigation of a range of issues related to the Round. Egypt's import liberalization commitments illustrate the import and revenue consequences of the Round. In the area of textiles and clothing, Morocco exemplifies the case of a supplier that is currently unconstrained by quotas and therefore might be adversely affected by the liberalization under the Round; in contrast, Egypt is a currently constrained supplier that will benefit from the expansion of quotas during the ten-year transition period. The Moroccan situation allows the estimation of the loss of preferential quantitative access (which can be adapted to other areas such as agriculture) in addition to the normal loss of tariff preferences that both countries are also likely to face in selected products. Some of Egypt's trade is conducted on a most-favored-nation (MFN) basis, permitting analysis of the positive impact on its exports of MFN tariff cuts by industrial countries.

This paper is organized as follows. Section II discusses the methodology used in the two case studies. Sections III and IV then provide quantitative assessments of the Round for Egypt and Morocco, respectively. Section V compares and contrasts the results obtained for the two countries and discusses their policy implications.

II. Methodology

This section provides a set of quantitative methods for analyzing the effects of the Uruguay Round which is subsequently employed in the two case studies. The methods utilize disaggregated commodity trade data, and measure comparative static effects on the trade account of the balance of payments. Alternative methodologies used in other studies are compared to those utilized in this paper. On the export side, the paper considers: (i) the effects of cuts in tariffs by trading partners on an MFN basis, (ii) the effects of tariff preference erosion, and (iii) the impact of external liberalization of the textiles and clothing sector on a constrained and an unconstrained supplier. On the import side, methods are proposed for estimating the effects of tariff cuts (including the effects on government revenue) and of higher world food prices.

1. Exports

a. MFN tariff cuts

Countries benefit from increased exports as a result of MFN tariff cuts by their trading partners. The most significant improvements in market access as a result of the Uruguay Round will likely occur in the major industrial country markets, namely, the EU, Japan, and the United States. A focus on the effects of MFN tariff cuts on the trade flows of large industrial countries may call for the use of a multi-country general equilibrium model to capture potential changes in the terms of trade. For small open economies, however, terms of trade are exogenous so a small country model may be sufficient. Further, if any of the exportable sectors affected by tariff cuts in the country's trading partners is large enough to influence other sectors through changes in relative prices of products or factors of production, then general equilibrium modelling would be necessary to capture such linkages. 1/ This study uses partial equilibrium methods which assume that these general equilibrium effects are sufficiently small in magnitude to be ignored. It is further assumed that the supply of the product shipped to the country reducing its MFN tariff is perfectly elastic. Hence, the percentage change in import demand by the exporting country's trading partner is given by:

$$dM^*/M^* = \epsilon_m^*[dt^*/(1+t^*)],$$

1/ For instance, even in a small open economy, demand for nontraded goods may respond to trade liberalization, which in turn may dampen changes in demand for traded goods via general equilibrium feedback effects.

where asterisks refer to the developing country's export market and ϵ_m^* is the own-price import demand elasticity. 1/ Comprehensive sets of estimates of own-price elasticities of import demand on a detailed commodity basis are not available across countries so estimates for the United States from Stern and others (1976) are used. Since these elasticity estimates are subject to a variety of biases, the estimated export effects should be interpreted with caution. Nevertheless, they provide a sense of the likely order of magnitude of the effects.

b. Tariff preference erosion

In some markets, developing country exports to certain industrial countries could face an erosion of preferences as a result of MFN tariff reductions under the Uruguay Round. Although there are several ways of estimating the trade diverted from preference-receiving countries, these are all variations on essentially the same partial equilibrium trade model. 2/

Estimates of preference erosion effects are based on a three-good imperfect substitutes model. It is assumed that there are three differentiated goods in the industrial country market: (1) domestic production; (2) imports from preferred sources; and (3) imports from nonpreferred sources. Demand for each of these three goods depends on its own price and on prices of the other two goods. Supply curves are assumed to be infinitely elastic. 3/

To illustrate, suppose the tariff on imports from preferred sources is zero and there is an ad valorem tariff, t, on imports from nonpreferred sources in the initial equilibrium. Erosion of preferences occurs when the tariff on imports from nonpreferred sources is set to zero. This causes the price of imports from nonpreferred sources to fall from $P_3(1+t)$ to P_3. Assuming that domestic production and preferred imports are substitutes for nonpreferred imports, demand for each of the former two goods decreases. As a result, the quantity of imports from preferred sources falls from Q_2 to Q'_2, and import value decreases by $P_2(Q_2-Q'_2)$.

The reduced imports from preferred sources due to preference erosion can be expressed as the product of the initial value of preferred imports,

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1/ The domestic price in the export market is $p^* = (1 + t^*)p_w$, where p_w is the world price and t^* is the ad valorem tariff rate. Therefore,

$$dp^*/p^* = dt^*/(1 + t^*)$$

so the term on the right-hand-side of the expression is the percentage change in the domestic price as a result of the tariff change in the export market. If the supply of imports were assumed to be upward sloping, the estimated change in import quantity would be lower.

2/ Laird and Yeats (1990) present a number of partial equilibrium methods for estimation of preference erosion.

3/ If supply curves are upward sloping, then estimates of quantity changes based on horizontal supply curves will be biased upward.

the cross-price elasticity of demand for preferred imports with respect to a change in the price of nonpreferred imports, and the percentage change in the price of nonpreferred imports:

$$dQ_2/Q_2 = \epsilon_{23} [dt/(1+t)]$$

or

$$P_2 \, dQ_2 = (P_2Q_2) \, \epsilon_{23} [dt/(1+t)]$$

Available partial equilibrium approaches to the analysis of preference erosion differ principally in their assumptions underlying the estimation of the cross-price elasticity of demand for imports. As is clear from the above expression, this elasticity is crucial in determining the effects of preference erosion.

One approach to computing cross-price elasticities is based on the Armington (1969) model, in which there are three varieties (domestic output, preferred imports, and nonpreferred imports) of each kind of good (e.g., footwear). This implies the following expression for the elasticity of demand for preferred imports with respect to a change in the price of nonpreferred imports: 1/

$$\epsilon_{23} = [P_2Q_2 / (P_1Q_1+P_2Q_2+P_3Q_3)] \, (\sigma - \eta);$$

where σ is the elasticity of substitution between the three varieties and η is the elasticity of aggregate demand for this kind of good (e.g., footwear). While this approach may be useful in some cases, in many instances reliable estimates of σ and η are unavailable for detailed trade categories.

Rousslang and Parker (1984) provide an alternative method for computing cross-price elasticities based on own-price elasticity estimates by making certain simplifying assumptions and utilizing relations from consumer theory. They show that if the commodity category is small in relation to total income, and preferred sources have a smaller import share than nonpreferred sources, then:

$$\epsilon_{32} = - \epsilon_{22} [P_2Q_2 / (P_1Q_1+P_3Q_3)].$$

To compute the cross-price elasticity, ϵ_{23}, based on this equation, it is assumed that income elasticities of demand for preferred and nonpreferred

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1/ The expression for the cross-price elasticity of demand is given in equation (26) of Armington (1969), p. 175.

imports are equal. Under this assumption, the Slutsky symmetry condition, in combination with the above equation, yields:

$$\epsilon_{23} = - \epsilon_{22} [P_3Q_3 / (P_1Q_1+P_3Q_3)]. \text{ 1/}$$

This approach is easier to implement because the own-price elasticity of demand for preferred imports, ϵ_{22}, can be approximated by the own-price elasticity of demand for imports aggregated across all sources, which are available for detailed product categories in Stern and others (1976). Clearly, the estimated cross-price elasticities of import demand are subject to considerable uncertainty. However, deriving estimates based on relations from economic theory and from estimates of own-price elasticities of import demand is probably the best that can be done while still utilizing detailed trade categories for analysis.

c. Textiles and clothing

The Uruguay Round Agreement on Textiles and Clothing provides for expansion in quota growth rates under the MFA and for the phased integration of products into the WTO. 2/ This means that exports of textile and clothing products from quota-constrained countries (e.g., Egypt) will grow more quickly as a result of the Round than they would have otherwise. Presently unconstrained suppliers (e.g., Morocco) may accordingly suffer from an erosion of export market shares as a result. Once a product is integrated into the WTO, it will no longer be subject to quotas. While this is likely to result in profound changes in the international market for textiles and clothing, these effects are very difficult to quantify as they depend on the cost profiles of all textile and clothing exporters; hence, this paper does not attempt to quantify the impact on Egypt and Morocco after 2005 when textiles and clothing trade will be free of restrictions. Rather, the focus is on how the expansion of quotas in the transition period may affect the exports of constrained and unconstrained exporters.

(1) Constrained exporter

For a quota-constrained country, quota growth rates agreed prior to the Uruguay Round are to be increased by 16 percent annually between 1995 and 1998, 25 percent annually between 1998 and 2002, and 27 percent annually between 2002 and 2005. For example, if the existing quota growth rate is 6 percent, then under the agreement, the growth rate will be 6.96 percent between 1995 and 1998, 8.7 percent between 1998 and 2002, and 11.05 percent between 2002 and 2005. These growth rates can simply be applied to the base

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1/ The import share term is approximated by the share of merchandise imports in absorption of goods (i.e., non-services GDP plus merchandise imports minus merchandise exports) in the Egypt and Morocco case studies below.

2/ These are in addition to tariff reductions on textiles and clothing items.

period exports of textiles and clothing to estimate the effects of expanded quota growth rates on exports.

(2) Unconstrained exporter

For an unconstrained supplier, it is more difficult to estimate how expansion of competitors' quotas under the Uruguay Round will affect its exports since this depends on its competitiveness vis-à-vis other unconstrained suppliers and total demand in the importing market. In the case studies below, projections of total import demand for textiles and apparel in major markets from Hertel and others (1995) are used. Their study estimates that quota acceleration under the Round will increase total imports of wearing apparel into the EU by 13 percent in 2005 relative to what imports would have been under existing MFA quota growth rates. They also provide estimates of cumulative quota growth rates for the 1992-2005 period, under existing and expanded quota growth rates, for imports into the EU market from major quota-constrained suppliers. These estimates are used below to estimate what total clothing exports of unconstrained suppliers to the EU market would have been under the existing MFA, as well as to project such exports under the Uruguay Round Agreement. The reduction in exports for any one unconstrained supplier is then determined under the assumption that all unconstrained suppliers are equally competitive so that their exports contract in proportion to their trade shares in the base period. 1/

2. Imports

a. Tariff cuts

Commitments to reduce tariff rates will stimulate trade, improve resource allocation, yield benefits in the form of lower prices to consumers, and serve as a stimulus to economic growth. This paper only

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1/ Aside from the problems of taking outside estimates and making further calculations based on extraneous assumptions, the validity of the method described above depends crucially on the analysis of Hertel and others (1995). Their study utilizes a fairly standard 15 region, 10 sector CGE model that incorporates results of the Uruguay Round in the areas of market access and textiles and apparel. The analysis also utilizes World Bank projections of factor endowments and technical change to capture differential rates of growth in the world economy during the simulation period, in particular the rapid increase in the productive capacity of Asia during the coming decade. This feature gives rise to a novel result, namely, that quota premia will rise over time even though quotas continue to grow simply because many constrained Asian suppliers grow even more rapidly. These results are speculative and rest on many tentative assumptions; as such, our projections for unconstrained suppliers are uncertain, but might provide some indication of what may happen to these suppliers as a result of increased competition under the Round.

considers methods for computing the effect of tariff cuts on a country's imports. Since the focus is on the balance of payments, the paper does not attempt to estimate welfare effects such as those featured in CGEs. The methodological issues involved are similar to those discussed above in connection with MFN tariff cuts in a country's export markets.

The simple partial equilibrium model employed here will assume, once again, that there is an infinitely elastic supply of imports and a downward-sloping demand for imports; this could either be demand for a final good by consumers or demand for an intermediate good by producers. The percentage change in import quantity, M, is equal to

$$dM/M = \epsilon_m[dt/(1+t)],$$

where ϵ_m is the own-price elasticity of import demand, t is the ad valorem tariff rate, and dt/(1+t) is the percentage change in the domestic price of the imports in response to a tariff change. 1/

Tariff cuts also have implications for government revenue. Total tariff revenue, R, is equal to tP_wM, where P_w is the world price, so the percentage change in tariff revenue is:

$$dR/R = (dt/t)+(dM/M).$$

Tariff reductions also affect indirect tax revenue if the indirect tax on imports is applied to the value of imports inclusive of customs duties. In this case, indirect tax revenue S is equal to $s(1+t)P_wM$, where s is the indirect tax rate. The change in indirect tax revenue is given by the following equation:

$$dS/S = [dt/(1+t)]+(dM/M). \quad 2/$$

b. Food price effects

Reductions in agricultural export subsidies, particularly in the industrial countries, as a result of commitments under the Uruguay Round Agreement on Agriculture may lower export supply and raise world prices for

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1/ The relevant (tariff-inclusive) import prices faced by domestic consumers are those based on applied tariff rates, which may fall well short of statutory rates in developing countries due to a variety of exemptions. Accordingly, changes in statutory rates should be scaled down based on the relation between actual duties collected and duties under statutory rates; in this connection, see Section III.2.d below.

2/ Changes in protection may also be expected to affect indirect tax revenues through induced changes in prices and outputs of import-competing and nontradable goods. However, the following analysis will only examine the revenue effects deriving directly from changes in prices and volumes of imports.

certain commodities. Reductions in import tariffs and nontariff barriers would have similar effects on world prices. These changes would lead to an increase in food import costs, especially for net food-importing countries.

An influential early study found that net food-importing countries would lose from world agricultural liberalization. 1/ However, this study was completed prior to conclusion of the Round and therefore assumed greater liberalization, especially of agricultural tariffs and NTBs by the industrial countries, than was actually agreed. As a result, losses to certain developing countries due to higher agricultural prices were likely overstated.

A more recent study using the same model but based on actual commitments made in the Round in relation to applied tariff rates estimated more modest changes in world commodity prices and in the economic welfare of net food-importing country groups. 2/ This study reduces the wedge between domestic prices received by producers and the world price based on tariff commitments in the Round. Since it is a net trade model, reduced import barriers implicitly lead to reduced export subsidies as well, although these latter cuts may be understated if export subsidy reductions agreed in the Round exceed cuts in import barriers.

To estimate the effects of higher world food prices on individual net food-importing countries, projected price increases from che Goldin and van der Mensbrugghe (1995) study are applied to projections of the country's food imports over the medium term. 3/ These projections are regarded as the baseline, i.e., assuming that the Uruguay Round Agreement on Agriculture is implemented. The projected price increases from the Goldin and van der Mensbrugghe study provide estimates of the incremental effects of

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1/ See Goldin, Knudsen, and van der Mensbrugghe (1993).

2/ See Goldin and van der Mensbrugghe (1995).

3/ Since food import volumes are not estimated to change in response to the (small) price changes, the calculated impact on food imports might be considered an upper bound.

the Agreement on Agriculture on world agricultural commodity prices at the end of the six-year implementation period. 1/ The time path of price increases is unclear; a simplifying assumption made in this paper is that prices increase uniformly over the projection period. 2/

3. Balance of payments

Overall effects on the balance of payments may be estimated by adding together the separate effects on exports and imports obtained using the methods described above. To do this, the trade estimates for different effects of the Round must be converted to a common base year. 3/ There is also a matter of interpreting the timing of the estimated effects. Although implementation periods vary in different portions of the Uruguay Round, the estimated changes in trade most often refer to the effects of the Round once liberalization has been fully implemented and the world economy has fully adjusted to the policy changes. The exceptions to this rule are the effects of MFA liberalization; this paper only estimates the effects during the transition period.

The estimated overall effects of the Round on the balance of payments must be interpreted with caution since the estimation methods are either of a partial equilibrium nature or, as with the effects of expanded clothing quotas on unconstrained suppliers and world food price changes, are based on calculations from previous studies.

This study focuses on certain price and trade changes in the world economy likely to result from the Round, whereas a full global general equilibrium approach would integrate changes in all relative prices and incomes in a consistent framework. Hence, it is somewhat unclear how the partial equilibrium estimates in the present paper would compare to a full general equilibrium assessment.

1/ As noted in Tables 6 and 12, the impact on food imports is estimated under two scenarios corresponding to the assumptions underlying the Goldin and van der Mensbrugghe (1995) study. In the first scenario, the world food price changes are estimated on the assumption that the level of protection in agriculture absent the Round would have been the average level between 1982 and 1993, while the second scenario assumes that the level of protection would have been equal to the 1991-93 average.

2/ In practice it is possible that the increase may be felt mostly in the latter part of the period, since farmers may be slow to believe that resources will really be allowed to adjust out of agriculture in the industrial countries.

3/ The Egypt case study uses a base year of 1993/94, whereas the Morocco case study uses a base year of 1992. These base years were chosen because they were the most current year available when the estimates were originally prepared.

III. Case Study I: Egypt

Egypt was a major player in the Uruguay Round and took the lead in expressing certain developing country interests during the negotiations. The agreement is likely to affect it in a variety of ways. Its effects on Egypt's exports are first considered below, taking account of MFN tariff cuts by its major trading partners, preference erosion, and liberalization of quantitative restrictions, particularly the MFA. This is followed by an analysis of the effects of Egypt's Uruguay Round commitments and changes in world food prices on its imports. The revenue effects of Egypt's tariff commitments are also analyzed. The results are then evaluated in terms of their potential balance of payments effects. Finally, Egypt's various other commitments in the Uruguay Round are assessed. The analysis in this section is based on Egypt's schedule of Uruguay Round market access commitments, its current national tariff schedule, and the commitments made by Egypt's main trading partners under the Uruguay Round.

1. Exports

Egyptian exports will be affected by Uruguay Round tariff cuts and changes in quantitative restrictions in its major markets. For the purpose of the simulation exercise, detailed commodity export data have been compiled for Egypt's non-oil exports to major OECD markets (Tables 1-3). Since the Round did not affect tariffs of petroleum and petroleum products, 1/ it is appropriate to concentrate on non-oil exports. 2/ Furthermore, since developing countries generally did not undertake significant liberalization under the Uruguay Round, Egypt's exports to these markets are also unlikely to be significantly affected. Hence, the focus in this paper is on Egypt's non-oil exports to OECD markets.

a. Tariff cuts where Egypt is an MFN exporter

Where Egypt does not benefit from tariff preferences, MFN tariff cuts by its trading partners are likely to increase Egypt's exports. The increased exports (shown in percentage and absolute terms in columns (7) and (8), respectively, for entries in column (6) labelled "MFN" in Tables 1-3) are estimated according to the method described in Section II. A large share of exports (58 percent in the case of the EU market and 41 percent in the case of the Japanese market) enters at zero MFN rates and will be unaffected by the Uruguay Round. In the case of the U.S. market, a large

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1/ Tariffs on crude petroleum in major OECD markets are either unbound (as in the United States) or set at low levels (zero percent in the case of the EU). Tariffs on petroleum products are bound and higher than those for crude oil. However, there were no tariff cuts by major importing countries on either category of products.

2/ The non-oil exports covered in the simulation account for between 92 percent and 96 percent of total non-oil exports to the three markets (the European Union, Japan, and the United States).

Table 1. Egypt: Impact of EU's tariff cuts on Egypt's Non-Oil Exports to EU
(in thousands of 1990-92 U.S. dollars unless otherwise specified)

SITC Code	Commodity	Average value, 1990-92 (1)	Harmonized System (HS) Code (2)	Pre-Round Tariffs (percent) (3)	Post-Round Tariffs (percent) (4)	Percentage Change in Price (5)	Type of Trade 1/ (6)	Percentage Change in Exports 2/ (7)	Change in Exports (8)	Import Demand Elasticity (9)
651	Textile yarn and thread	173153.3	52	8.44	6.51	-1.8%	Quota	54.9%	95015	-1.14
684	Aluminum	156103.0	26	0.00	0.00	0.0%	MFN	0.0%	0	-1.38
841	Clothing not of fur	56943.0	61	13.19	11.66	-1.4%	Quota	54.9%	31247	-3.92
652	Cotton fabrics, woven	43240.0	5208	10.00	8.00	-1.8%	Quota	54.9%	23727	-1.14
054	Vegetables, fresh etc.	36250.3	07	11.24	8.33	-2.6%	MFN	3.0%	1072	-1.13
656	Textile products, nes	21052.0	59 & 60	9.69	7.10	-2.4%	Quota	54.9%	11552	-3.92
263	Cotton	19179.7	5201.00	0.00	0.00	0.0%	MFN	0.0%	0	-1.14
561	Fertilizers, manufactured	16038.7	31	5.01	4.31	-0.7%	Preferential	-0.5%	-87	-0.81
677	Iron, steel wire excl. wire rod	13548.7	72	4.94	0.11	-4.6%	Preferential	-2.1%	-283	-0.45
031	Fish, fresh, simply preserved	10306.7	03	13.35	11.47	-1.7%	MFN	1.9%	193	-1.13
599	Chemicals, nes	10196.3	28 & 29	7.04	4.47	-2.4%	Preferential	-1.9%	-199	-0.81
673	Iron and steel shapes	10157.0	72	4.94	0.11	-4.6%	Preferential	-2.1%	-212	-0.45
292	Crude vegetable materials, nes	10100.3	14	0.19	0.00	-0.2%	MFN	0.2%	22	-1.13
055	Vegetables, preserved, prepared	9843.3	07	11.24	8.33	-2.6%	MFN	3.0%	291	-1.13
671	Pig iron, etc.	8342.7	72	4.94	0.11	-4.6%	Preferential	-2.1%	-174	-0.45
674	Iron, steel, plate, sheet	7252.7	72	4.94	0.11	-4.6%	Preferential	-2.1%	-152	-0.45
682	Copper	6845.3	74	4.62	2.12	-2.4%	Preferential	-1.1%	-72	-0.44
051	Fruit, nuts, fresh, dry	6712.0	08	11.62	8.66	-2.7%	MFN	3.0%	201	-1.13
657	Floor covering, tapestry, etc.	6356.3	57	10.25	7.66	-2.3%	Quota	54.9%	3488	-3.92
693	Wire products, nonelectrical	6355.0	74	4.62	2.12	-2.4%	Preferential	-0.8%	-50	-0.33
061	Sugar and Honey	6343.0	17	14.00	9.98	-3.5%	MFN	4.0%	253	-1.13
678	Iron, steel, tubes, pipes, etc.	4880.7	73	6.04	0.99	-4.8%	Preferential	-2.2%	-106	-0.45
042	Rice	4775.7	1006.10.00	330.00	211.00	-27.7%	MFN	31.3%	1493	-1.13
081	Animal feeding stuff	4699.3	23	1.97	1.37	-0.6%	MFN	0.7%	31	-1.13
551	Essential oil, perfume, etc.	3237.0	33	5.28	2.23	-2.9%	Preferential	-1.9%	-62	-0.66
221	Oil seeds, nuts, kernels	3108.0	12	2.52	1.08	-1.4%	MFN	1.6%	49	-1.13
812	Plumbing, etc., equipment	2801.0	85 & 84	5.09	2.32	-2.6%	Preferential	-3.0%	-85	-1.15
893	Articles of plastic, nes	2761.0	39	9.44	6.21	-3.0%	Preferential	-2.4%	-66	-0.81
861	Instruments, apparatus	2424.0	90	5.63	2.08	-3.4%	Preferential	-2.2%	-54	-0.66

Memorandum Items:	
Total exports	1251307.3
Total non-oil, non-gas exports	711050
Total Exports covered in analysis	663006
of which:	
Preferential Exports	94840
MFN (non-quota) Exports	267421
Exports under quota	300745
Increase in Exports due to:	
Quota effect	165029
MFN tariff cut effect	3605
Preference erosion effect	-1601
Total	167033

Sources: Exports in column (1) from United Nations Commodity Trade Statistics. Demand elasticities from Stern and others (1976). Elasticities for preference erosion effects use merchandise imports as proportion of absorption of goods (i.e., non-services GDP plus merchandise imports minus merchandise exports) from World Bank, World Tables and IMF, Direction of Trade Statistics.

1/ MFN = change in trade due to MFN tariff cut by EU; preferential = change in trade due to preference erosion; Quota = change in trade due to quota liberalization.

2/ For currently quota constrained items, the percentage change in exports represents the difference between the cumulative growth rate that would have prevailed under the MFA and the cumulative growth rate resulting from the Round.

Table 2. Egypt: Impact of U.S. tariff cuts on Egypt's Non-Oil Exports to United States
(in thousands of 1990-92 U.S. dollars unless otherwise specified)

SITC Code	Commodity	Average value, 1990-92 (1)	Harmonized System (HS) Code (2)	Pre-Round Tariffs (percent) (3)	Post-Round Tariffs (percent) (4)	Percentage Change in Price (5)	Type of Trade 1/ (6)	Percentage Change in Exports 2/ (7)	Change in Exports (8)	Import Demand Elasticity (9)
841	Clothing, not of fur	53829	61	15.92	11.19	-4.1%	Quota	54.9%	29538	-3.92
652	Cotton fabrics, woven	18880	5208	8.44	6.51	-1.8%	Quota	54.9%	10360	-1.14
651	Textile yarn and thread	14761	52	10.63	8.57	-1.9%	Quota	54.9%	8100	-1.14
656	Textile etc. products, nes	4757	59 & 60	10.24	4.93	-4.8%	Quota	54.9%	2611	-3.92
292	Crude vegetable materials, nes	4524	14	1.66	0.99	-0.7%	MFN	0.7%	34	-1.13
657	Floor covering, tapestry, etc.	3994	57	6.11	2.80	-3.1%	Quota	54.9%	2192	-3.92
075	Spices	2095	09	1.21	0.70	-0.5%	MFN	0.6%	12	-1.13
671	Pig iron, etc.	1822	72	5.27	0.24	-4.8%	Preferential	-2.5%	-46	-0.53
678	Iron, steel, tubes, pipes, etc.	1493	73	4.08	1.02	-2.9%	Preferential	-1.5%	-23	-0.53
821	Furniture	1048	94	4.83	2.02	-2.7%	Preferential	-3.0%	-31	-1.11
551	Essential oil, perfume, etc.	827	33	2.13	1.12	-1.0%	Preferential	-0.8%	-6	-0.76
054	Vegetables, fresh, etc.	816	07	13.73	9.05	-4.1%	MFN	4.6%	38	-1.13
553	Perfume, cosmetics, etc.	681	34	4.61	1.45	-3.0%	Preferential	-2.3%	-16	-0.76
	Memorandum Items:									
	Total exports	262929								
	Total non-oil, non-gas exports	114609								
	Total exports covered in analysis	109527								
	of which:									
	Preferential Exports	5871								
	MFN (non-quota) exports	7435								
	Exports under quota	96221								
	Increase in exports due to:									
	Quota effect	52800								
	MFN tariff cut effect	84								
	Preference erosion effect	-122								
	Total	52761								

Sources: Exports in column (1) from United Nations Commodity Trade Statistics. Demand elasticities from Stern and others (1976). Elasticities for preference erosion effects use merchandise imports as proportion of absorption of goods (i.e., non-services GDP plus merchandise imports minus merchandise exports) from World Bank, World Tables and Economic Report of the President (1995).

1/ MFN = change in trade due to MFN tariff cut by U.S.; preferential = change in trade due to preference erosion; Quota = change in trade due to quota liberalization.

2/ For currently quota constrained items, the percentage change in exports represents the difference between the cumulative growth rate that would have prevailed under the MFA and the cumulative growth rate resulting from the Round.

Table 3. Egypt: Impact of Japan's tariff cuts on Egypt's Non-oil Exports to Japan
(in thousands of 1990-92 U.S. dollars unless otherwise specified)

SITC Code	Commodity	Average value in 1990-92 (1)	Harmonized System (HS) Code (2)	Pre-Round Tariffs (percent) (3)	Post-Round Tariffs (percent) (4)	Percentage Change in Price (5)	Type of Trade 1/ (6)	Percentage Change in Exports (7)	Change in Exports (8)	Import Demand Elasticity (9)
263	Cotton	27436	5201.00	0.00	0.00	0.0%	MFN	0.0%	0	-1.14
671	Pig Iron, etc.	2804	72	5.34	0.26	-4.8%	MFN	6.8%	192	-1.42
651	Textile yarn and thread	1803	52	6.75	4.56	-2.1%	MFN	2.3%	42	-1.14
684	Aluminum	969	26	0.00	0.00	0.0%	Preferential	0.0%	0	-0.28
719	Nonelectrical Machines, nes.	810	84	3.64	0.00	-3.5%	Preferential	-0.7%	-6	-0.20
657	Floor covering, tapestry, etc.	676	57	12.72	7.55	-4.6%	MFN	18.0%	122	-3.92
677	Iron, steel wire excl. wire rod	673	72	5.34	0.26	-4.8%	Preferential	-1.4%	-9	-0.28
	Memorandum Items:									
	Total exports	65399								
	Total non-oil non-gas exports	38118								
	Total exports covered in analysis	35171								
	of which:									
	Preferential exports	2452								
	MFN exports	32719								
	Exports under quota	0								
	Increase in exports due to:									
	Quota effect	0								
	MFN tariff cut effect	356								
	Preference erosion effect	-15								
	Total	341								

Sources: Exports in column (1) from United Nations Commodity Trade Statistics. Demand elasticities from Stern and others (1976). Elasticities for preference erosion effects use merchandise imports as proportion of absorption of goods (i.e., non-services GDP plus merchandise imports minus merchandise exports) from World Bank, World Tables.

1/ MFN = change in trade due to MFN tariff cut by Japan; preferential = change in trade due to preference erosion.

share of Egyptian exports (84 percent) enters at non-zero MFN rates, but the bulk of this is accounted for by oil exports, which are also not likely to be affected by the Uruguay Round tariff cuts. 1/

b. Tariff cuts where Egypt is a preferential exporter

Where Egypt is the recipient of preferential (less-than-MFN) tariffs, its exports could be adversely affected by MFN tariff cuts by its major trading partners. Egypt benefits from preferential tariffs (which are usually zero percent) on about 14 percent of its total exports to the EU, 4 percent to Japan, and 4 percent to the United States. 2/ The preference erosion effect will therefore influence only this volume of trade. The loss of exports, as estimated using methods described in Section II, is given in columns (7) and (8) for entries in column (6) labelled "preferential" in Tables 1-3.

c. Liberalization of quantitative restrictions on Egyptian exports

Egyptian textile and clothing exports, currently subject to quantitative restrictions, will be positively affected by the Uruguay Round. Bilateral MFA quota growth rates for textiles and clothing products--assumed to be 6 percent per year on average for Egyptian exports--will be increased in three stages. It is assumed that Egypt's textile exports will increase by the maximum allowed amounts during the transition period. 3/ These estimated export increases are given in columns (7) and (8) of Tables 1-3 for entries in column (6) labelled "Quota." These figures do not take into account the effects of the complete liberalization of trade in textiles and clothing after the transition period.

d. Total effect on exports

The estimated results of the above effects on Egypt's exports are summarized in the memorandum items of Tables 1-3. They indicate that the most important impact of the Uruguay Round will derive from the liberalization of textiles and clothing quotas. In 2005, exports of these items to the United States and the EU will be about $218 million (in 1990-92 U.S. dollars) higher than in the absence of the Round. Of this increase, about 76 percent ($165 million) will be accounted for by exports to the EU.

1/ The export proportions entering at different MFN duty rates are from the World Bank-UNCTAD SMART database.

2/ World Bank-UNCTAD SMART database.

3/ Although Egypt's textiles trade with the EU is not covered by the MFA, it is nevertheless assumed that Egypt's textile and clothing quotas in the EU market will grow at the same rate as that required under the Uruguay Round. This assumption is based on recent experience, which shows that the restrictiveness of the EU market for Egyptian products is similar to that under the MFA.

Egypt's exports under nonpreferential conditions account for about 38 percent of total non-oil exports to the three markets covered in the analysis. This share is greatest in the Japanese market (about 93 percent), followed by the EU market (40 percent) and the U.S. market (about 7 percent, predominantly textiles and clothing products). However, the benefits to Egypt from MFN tariff reductions in the above three markets are quite small because of the limited extent of MFN tariff cuts in these markets. For example, in the EU market the weighted average price reductions stemming from MFN tariff cuts are 1.2 percent (compared with reductions of 3.2 percent on products that benefit from preferences). In aggregate, MFN tariff reductions will lead to increased Egyptian exports of about $4 million (or about 1.3 percent of Egypt's nonpreferential exports to the three major markets).

While the reduction in preferential margins facing Egyptian exports is larger than the MFN tariff reductions, the loss in exports in the three major markets due to the erosion of preferences is estimated at about $2 million (or 2 percent of preferential exports). Thus, excluding textiles and clothing, the loss in exports from the erosion in preference margins is outweighed by the gains from tariff reductions on items subject to MFN trade, although the difference is insignificant and both effects are very small.

2. Imports

a. Bindings

At the heart of a country's WTO liberalization commitments are its tariff bindings, which are commitments not to raise its tariffs beyond "bound" levels without consulting and/or compensating 1/ its trading partners. A binding contributes to greater predictability of market access and to clearer signals to economic agents. As argued by François and Martin (1994), tariff bindings can also lead to significant improvements in market access conditions by limiting the range of protection that is permissible.

Prior to the Uruguay Round, Egypt had bindings on about 3 percent of tariff lines. 2/ However, under the Round, this will change significantly. As Table 4 shows, Egypt has bound 100 percent of its Harmonized System (HS) tariff lines in agriculture (as was required of all countries) and about 97 percent of its HS 4-digit tariff lines (1,015 out of 1,046) in the industrial sector. These commitments approach those of most OECD countries and represent a significant step forward in terms of Egypt's integration into the trading system relative to the past and to other

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1/ Compensation usually involves lowering other tariffs to offset tariffs that have been increased.

2/ Although Egypt had bound about 15 percent of its tariff lines prior to 1990, the tariff changes implemented in 1991 exceeded the bound rates on a number of tariff lines, effectively reducing the extent of real bindings.

Table 4. Egypt: Indicators of Import Liberalization under the Uruguay Round

A. Bindings			
Total Number of HS 4-digit tariff lines, December 1994		1267	
Agriculture		221	
Industry		1046	
Total Number of HS 4-digit tariff lines bound		1236	
Agriculture		221	
Industry		1015	
Percent of HS 4-digit tariff lines bound		97.6%	
Agriculture		100.0%	
Industry		97.0%	
B. Tariff Reductions	*Agriculture*	*Industry*	*Total*
Average final bound rate in 2005	61.7%	32.1%	37.0%
Average applied rate, December 1994	56.4%	27.1%	32.0%
Average expected post-reform applied rate 1/	50.3%	21.2%	26.1%
Average "water in the bound tariff," December 1994 2/	5.3%	5.0%	5.0%
Average expected post-reform "water in the bound tariff" 2/	11.4%	10.9%	10.9%
Number of tariff lines affected by the Uruguay Round ("Affected imports") 3/	36	192	228
as a percentage of total tariff lines	8.9%	10.1%	9.9%
Average tariff reduction on "affected imports" 2/ 3/	-9.4%	-11.3%	-11.0%
Average price reduction on "affected imports" 3/ 4/	-4.8%	-6.7%	-6.4%

1/ If the program of tariff reform under Egypt's current arrangement with the IMF is fully implemented.

2/ Percentage points.

3/ This measures the additional liberalization that will need to be undertaken after the current reform program, and excludes the textiles and clothing sector. In other words, for these tariff lines, Uruguay Round bound rates in 2005 will be less than applied rates in December 1994 and those following reform.

4/ Based on adjustments that reflect the relation between actual duty collections and statutory tariff rates in Egypt. Specifically, the usual expression for the percentage change in domestic price, dt/(1+t), was multiplied by 2/3, where t represents the statutory ad valorem tariff rate.

developing countries' bindings. 1/ They should provide some insurance against future reversals of trade policy, yielding efficiency benefits domestically and market access benefits to Egypt's trading partners.

Under the Uruguay Round, countries were also required to "bind" any other duties and charges applied to imports and list these in their Uruguay Round tariff schedules. Egypt has inscribed only a few "other duties and charges" on agricultural goods in its schedule, effectively committing itself to a relatively transparent tariff regime. Further, unlike some industrial countries, Egypt's tariff schedule has very few specific tariffs (on 14 tariff lines), all relating to cigarettes and tobacco-related products. This too should contribute to a transparent trade regime.

b. Tariffs: levels and reduction

Table 4 contains data on Egypt's unweighted average tariffs. Under the Round, Egypt's final bound tariffs (i.e., tariffs that it has committed to in 2005) will average about 62 percent in agriculture, 32 percent in industry, and 37 percent overall. 2/ The average bound tariff in 2005 will be greater than the current applied tariff by about 5 percentage points in both agriculture and industry. However, if Egypt implements the program of tariff reform under its current arrangement with the IMF, the margin between the future bound tariff and the applied tariff (or the "water in the bound tariff") will be about 11 percentage points in both agriculture and industry. This is in contrast to several other developing countries that have a much larger gap between bound and applied tariffs. 3/ Ideally, the bound tariff should be equal to the applied tariff, which would lock in the trade liberalization already undertaken. Although Egypt is still far away from this ideal, it has nevertheless reduced its margin for reversing past trade liberalization by binding its tariffs at "reasonable" levels.

While the gap between bound and applied tariffs is not unduly large, the level of applied tariffs remains high. The current unweighted average tariff is about 27 percent for industry, 56 percent in agriculture, and 32 percent overall (including beverages). Even if the current program of tariff reform is completed, tariff levels will remain very high by

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1/ The 26 developing countries included in the WTO Integrated Database bound an average of about 73 percent of tariff lines in industry.

2/ In addition to specifying final bound tariffs, Egypt's schedules also contain the sequencing of tariff reductions. For industrial products other than textiles and clothing, the initial bound tariff is (f+10) percent (where f is the final bound tariff), which is reduced in five equal annual installments; for textile and clothing products, the initial bound tariff is (f+30) percent, reduced over ten years in equal installments. In agriculture, the initial bound tariff is specified in the schedule and will be reduced over ten years in equal annual installments.

3/ See Table 5 in Harmsen and Subramanian (1994).

international standards and impose significant costs to the Egyptian economy.

Tariff bindings do not indicate the extent of actual liberalization under the Uruguay Round. Actual liberalization due to the Round will occur if the applied rate envisaged under the tariff reform mentioned earlier is greater than the final bound rate. This will be the case for about 10 percent of all tariff lines (excluding the textiles and clothing sector). For these lines, the average tariff reduction will be about 11 percentage points, with slightly larger tariff reductions in the industrial sector. This will result in average price reductions in the domestic market of about 6 percent (Table 4). Thus, Egypt's Uruguay Round commitments will lead to some, albeit limited, incremental liberalization.

c. Quantitative restrictions on imports

Under the Round, Egypt (like all countries) has committed to the elimination of all quantitative restrictions on agriculture. Just prior to the conclusion of the Round, the outstanding quantitative restrictions in agriculture were on selected poultry products. In addition, Egypt has committed to eliminating quantitative restrictions on 95 4-digit tariff lines in the textiles and clothing sector, which account for about 8 percent of all tariff lines. These restrictions will be eliminated by January 1998 for textiles and by January 2002 for clothing. Thus, it is expected that no quantitative restrictions (except for those maintained on health and security grounds) will remain at the end of the Uruguay Round implementation period. 1/

d. Impact on imports

Egypt's liberalization commitments will have consequences for its imports, which are shown in Table 5. It is estimated that total imports in 2005 will be about $220 million (or about 2.1 percent) higher than they would have been without the Round measured in 1993/94 U.S. dollars, in large part because of the elimination of the quantitative restrictions on textiles and clothing products. Imports of these products are expected to increase by about 78 percent (albeit from a low base resulting from the current ban

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1/ However, Egypt could introduce or maintain other quantitative restrictions if they can be justified on balance of payments grounds.

Table 5. Egypt: Impact of Import Liberalization under the Uruguay Round

A. Quantitative Restrictions (QRs)			
Number of HS 4-digit QRs eliminated 1/		97	
as percent of total HS 4-digit tariff lines		7.7%	
B. Import and Fiscal Consequences	*Agriculture*	*Industry* (excl. textiles)	*Textiles 2/*
"Affected imports" as percent of total tariff lines 3/	8.9%	10.1%	80.0%
Increase in "affected imports" 3/	4.8%	10.1%	77.9%
Change in customs duty receipts on "affected imports"	-16.0%	-38.7%	0.4%
Change in General Sales Tax (GST) receipts on "affected imports"	0.0%	3.4%	51.9%
Memorandum items			
Total increase in imports 4/		220	
Change in receipts from customs duties 4/		-31	
Change in receipts from GST 4/		20	
Total change in receipts 4/		-11	

1/ This assumes that the restrictions on poultry products will be eliminated under the Round. 95 out of 97 restrictions are on textiles and clothing products.

2/ All references to textiles include clothing. The tariff equivalent of the prohibitive quotas existing prior to the Round is assumed to be 100 percent. All changes in textiles are due to the combined effect of the tariff reduction and quota elimination.

3/ "Affected imports" are defined in Table 4. Price elasticities of import demand of -1, -1.5, and -3 are assumed for agriculture, industry, and textiles respectively. The higher elasticity for the latter is based on the observation that elasticities increase with prices, becoming infinitely elastic when imports are eliminated; in Egypt, imports of textiles and clothing are very small owing to the quantitative restrictions on imports of these products.

4/ In millions of 1993-94 U.S. dollars. The change in receipts for each sector is calculated by applying the percentage changes to the receipts estimated to accrue from affected imports.

on these items). 1/ As liberalization in agriculture and industry was limited, both in terms of the magnitude of tariff reductions and the proportion of imports affected (about 9 percent of tariff lines in agriculture and 10 percent in industry), the effects on imports will be correspondingly small.

e. Revenue effects

Overall, it is estimated that the revenue consequences of the Round will also be small, about $11 million less in 2005 (measured in 1993/94 U.S. dollars) than in the absence of the Round (Table 5). This decrease in revenues comprises an increase in receipts from the General Sales Tax (GST) of about $20 million, which is offset by a larger decrease in receipts from customs duties. 2/ Although revenues from agricultural and industrial imports will fall because of the tariff cuts, revenues from textiles imports do not decrease, despite the large cut in effective tariffs, because of a Laffer-effect as imports grow rapidly from the negligible levels resulting from the current import ban on these products. The overall effect, while negative, will be small and represent a loss of less than 0.7 percent of revenue. Hence, Egypt is not likely to suffer significant fiscal losses on account of its Uruguay Round liberalization commitments.

f. Effect of the Uruguay Round on Egypt's food imports

Egypt is a large net food importer. Its key agricultural imports comprise wheat, flour, maize, edible oil, sugar, tea, and animal fats (Table 6). In 1993/94, imports of these items together exceeded $1.2 billion. Egypt played a key role in the Uruguay Round negotiations in seeking recognition of the possibility that terms of trade losses may be experienced by net food importers, and in calling for steps to mitigate such losses.

1/ The estimated 78 percent increase in imports of textiles and clothing was obtained by reducing the ad valorem tariff equivalent of the ban on these products (assumed to be 100 percent) to 22.4 percent (the average final bound duty rate for these items). An import demand elasticity of -3 was assumed, and the usual expression for the percentage change in domestic price, dt/(1+t), was multiplied by 2/3 to reflect the relation between actual duty collections and statutory tariff rates in Egypt. Hence, the percentage change in imports was estimated as: $(-3)(-0.78/2)(2/3) = 0.78$. The tariff equivalent of the ban may be understated; if so, the present paper's assessment of the balance of payments implications of the Round may be too sanguine. By the same token, the adverse revenue impact may be overstated.

2/ Receipts from the GST on industrial and textile and clothing products increase because the assumed elasticity of import demand with respect to price exceeds one. GST receipts from agricultural products remain unchanged.

Table 6 shows the quantitative impact of estimated changes on the food import bill based on the method described in Section II. 1/ For some of Egypt's imports (for example, edible oil, tea, and animal fats) food prices are expected to fall. Under the more adverse scenario, total food imports are likely to be $26 million higher in 2001/02 measured in 1993/94 U.S. dollars, or $32.8 million measured in 2001/02 dollars, than they would otherwise have been. 2/ This represents about 2.0 percent of total food imports (about 0.3 percent of total imports) in 1993/94. Under the alternative scenario, food imports are likely to be negligibly higher because of the Uruguay Round than otherwise. These higher food costs are likely to increase gradually as liberalization by the major producing countries is phased in over the six-year implementation period.

3. Balance of payments effects

Combining the effects on imports and exports (Table 7) yields the overall balance of payments effect. In 2005, the Uruguay Round is estimated to have virtually no net balance of payments effect (about $3 million measured in 1993/94 dollars). The positive export effect of $244 million (comprising $241 million, $4 million and -$2 million from the quota expansion, MFN tariff cuts, and preference erosion effects, respectively) is likely to be offset by a slightly larger negative effect (of $247 million) arising from increased imports. 3/ The impact of higher world food prices will account for about 10.5 percent of the total increase in imports if the more adverse scenario is realized.

The timing of the various effects on the balance of payments will vary. While the effects will start to be felt in 1995, the full effects of the acceleration of textiles and clothing quotas will not be felt until 2005, and the full effects of the MFN tariff cuts and preference erosion could be

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1/ The impact is analyzed under two scenarios. Under the adverse scenario (scenario II), food price rises are generally higher than under the alternative scenario (scenario I) because the liberalization attributed to the Round is greater. This results from the assumption that in the absence of the Round, levels of agricultural protection would have been equal to the average level prevailing between 1991 and 1993 under scenario II, while under scenario I, the assumption is that such protection would have been equal to the average between 1982 and 1993.

2/ These estimates differ somewhat from those in Eiteljörge and Shiells (1995) for Egypt primarily due to a difference in baseline projections. The Eiteljörge and Shiells study, which dealt with a large number of countries, projected net food import volumes based on WEO assumptions regarding demand growth in the importing market. The present study utilizes more detailed data on Egypt based on national sources and projects imports as the difference between consumption and production, adjusting for stock changes.

3/ The total export figure of $244 million is based on the results for the three markets estimated in Tables 1-3 adjusted to extend them to all OECD markets and rebased to 1993/94.

Table 6. Egypt: Impact of the Uruguay Round on Food Imports
(in millions of U.S. dollars)

	1993/94	1998/99	2001/02
Baseline: With Uruguay Round 1/			
Wheat	342.3	380.9	411.1
Flour	82.3	88.6	93.8
Maize	247.6	286.1	313.0
Edible oil	275.3	281.1	313.2
Sugar	149.8	186.6	209.1
Tea	97.4	129.3	148.9
Animal fats	59.6	60.3	67.1
Total	1254.3	1412.8	1556.1
Scenario I: Without Uruguay Round 2/			
Wheat	342.3	378.6	406.3
Flour	82.3	88.1	92.7
Maize	247.6	284.4	309.3
Edible oil	275.3	281.9	315.0
Sugar	149.8	185.7	209.1
Tea	97.4	130.3	151.1
Animal fats	59.6	60.4	67.5
Total	1254.3	1409.5	1551.0
Incremental effect of the Round		3.3	5.1
as percent of baseline imports		0.2%	0.3%
Scenario II: Without Uruguay Round 3/			
Wheat	342.3	373.8	395.9
Flour	82.3	87.0	90.3
Maize	247.6	280.8	301.4
Edible oil	275.3	281.5	314.1
Sugar	149.8	183.2	203.4
Tea	97.4	130.2	150.8
Animal fats	59.6	60.4	67.3
Total	1254.3	1396.8	1523.3
Incremental effect of the Round		16.0	32.8
as percent of baseline imports		1.1%	2.1%

1/ Based on the World Economic Outlook (WEO) projections for April 1995. Under Scenario I (II), it is implicitly assumed that the WEO projections incorporate the incremental price effects due to the Uruguay Round that are based on the assumption in Scenario I (II).

2/ Scenario I: Based on estimates of changes in world food prices estimated by Goldin and van der Mensbrugghe (1995) on the assumption that levels of protection in agriculture in the absence of the Round would have been the average level for 1982–93.

3/ Scenario II: Based on estimates of changes in world food prices estimated by Goldin and van der Mensbrugghe (1995) on the assumption that levels of protection in agriculture in the absence of the Round would have been the average level for 1991–93.

Table 7. Egypt: Summary Impact of Uruguay Round in 2005
(in millions of 1993/94 US dollars)

Effect	Magnitude
1. Balance of Payments Effects	
A. Increase in imports, of which:	247
from liberalization	220
from higher food prices 1/	26
B. Increase in exports, of which: 2/	244
from textiles quota expansion	241
from MFN tariff cuts	4
from preference erosion	−2
C. NET EFFECT	−3
2. Fiscal Effect	
Change in revenue	−11

1/ Based on the scenario with higher food price increases; in the alternative scenario, imports would increase by only $4 million.

2/ The export numbers are obtained from the results for the three large markets (presented in Tables 1−3), and then adjusted to extend them to all OECD markets as well as rebased to 1993/94.

felt five to six years after the entry into force of the WTO. Similarly, the full effects on imports from Egypt's liberalization will be felt in 2005 as the quantitative restrictions on textiles and clothing products are entirely eliminated.

4. Other commitments under the Round

a. Subsidies and trade-related investment measures

Since Egypt does not subsidize its agriculture, Uruguay Round requirements to reduce export and domestic subsidies in this sector do not apply to it. In the area of industrial products, developing countries whose per capita GNP exceeds $1,000 will need to eliminate export subsidies. Egypt, however, is exempted from this commitment as its GNP per capita falls below this threshold.

The Uruguay Round agreement on trade-related investment measures (TRIMs) requires the elimination of local content requirements over a 5-year period. Egypt eliminated certain requirements in 1994 under the Bank- and Fund-supported adjustment program. However, it appears that certain assembly industries must still meet a local content requirement of up to 60 percent in order to obtain customs duty reductions. This requirement will have to be eliminated as a result of the Round.

b. Services

The main features of the General Agreement on Trade in Services (GATS) are most-favored-nation (MFN) treatment, national treatment, and market access. MFN treatment essentially prevents discrimination between foreign suppliers of services. National treatment requires members to treat foreign service suppliers no less favorably than domestic suppliers, while market access commitments entail liberalization; these two obligations apply only to those services included in the schedule of commitments submitted by WTO members, and then only if no qualifications or conditions are attached.

Egypt's schedule contains commitments on only 16 percent of the universe of services covered by the GATS. Commitments were made for construction, tourism (including hotels and restaurants), insurance and banking, securities-related services, and international maritime transport. However, a number of restrictions are imposed on these sectors, often relating to inward investment. For example, the share of foreign personnel to total employment in a foreign-owned venture is not to exceed 10 percent. In the construction sector, foreign equity may not exceed 49 percent of total capital, and only joint ventures are permitted. The same applies to tourism projects in the Sinai, insurance, and joint-venture banks. 1/

1/ See Hoekman (1995).

In the area of financial services, an economic needs test applies to the establishment of branches by foreign banks, with terms and conditions to be determined by the Central Bank of Egypt. Representative offices are restricted to market research. It is noteworthy that capital market services, including underwriting, brokerage, trading in securities, portfolio and investment management, are unrestricted and open to foreign firms.

In nearly all cases, liberalization commitments offered in the services sector amount to a binding of the status quo. As a result, GATS is not likely to lead to increased services imports.

c. Intellectual property

The Uruguay Round agreement on intellectual property (TRIPs), will entail substantive legislative changes in Egyptian domestic law. The main features of TRIPs are a national treatment obligation, high minimum standards of intellectual property protection for patents, copyright, trademarks, geographical indications, industrial designs, semi-conductor chip design, and trade secrets. The TRIPs agreement also entails commitments to make available procedures and remedies under domestic law to ensure effective and expeditious enforcement of intellectual property rights. 1/

Egypt has two major concerns about the TRIPs agreement. First, the requirement to introduce patent protection for pharmaceuticals could lead to higher prices and significant welfare losses. Second, the commitment to ensure effective enforcement of intellectual property rights could unduly burden national customs and judicial authorities.

Total sales of patentable and nonpatentable drugs in Egypt was $615 million in 1993. It has been estimated that increased patent protection may result in increases in prices of patentable drugs, ranging from 2 percent to 67 percent, and in consumer welfare losses, up to 70 percent. 2/ These results are, however, extremely sensitive to assumptions about underlying market structure, demand and cost conditions, and the expected size of the market that is likely to be affected by the TRIPs agreement. Further, these estimates ignore possible dynamic benefits, stemming from greater research and development and transfer of technology induced by the TRIPs agreement. Finally, the full economic impact of TRIPs in the pharmaceutical sector will only be felt in 2015, 20 years after the entry into force of the WTO.

1/ See Harmsen and Subramanian (1994).
2/ See Subramanian (1995).

IV. Case Study II: Morocco

The main effects of the Round on Morocco are likely to result from liberalization by its trading partners. On the export side, Morocco may suffer from erosion of tariff preferences especially in the EU, its main export destination. It may also experience preference erosion of a quantitative nature in textiles and clothing due to expansion of quotas of its competitors in the EU market. On the import side, Morocco did not undertake significant reductions in tariffs, and quantitative import restrictions are likely to be replaced by tariff quotas at very high tariff rates. Thus, Morocco's own liberalization efforts are unlikely to affect its imports appreciably. However, liberalization under the Round by Morocco's trading partners in the area of agriculture may lead to changes in world food prices, thereby leading to changes in food imports.

This section first considers the nature and magnitude of possible changes in Moroccan exports as a result of the Uruguay Round agreement. It then assesses Morocco's commitments under the Round and the likely effects of changes in world food prices on Moroccan food imports. The quantitative results are finally brought together in order to consider the overall balance of payments implications of the Round for Morocco.

1. Exports

a. Preference erosion

Morocco currently receives duty free access to the EU market for all industrial and most agricultural goods. Potentially, it stands to lose market share, as MFN tariff cuts by the EU under the Round increase the relative competitiveness of nonpreferred suppliers. Furthermore, the potential for gains due to increased access to markets in which Morocco does not receive preferential treatment is unlikely to be significant. Nearly two-thirds of Morocco's exports are destined for the EU market; less than 5 percent is exported to Japan, and less than 4 percent to the United States. Most of Morocco's remaining exports are destined for other developing country markets, which undertook very limited liberalization commitments. Therefore, changes in market access due to MFN tariff cuts by Morocco's trading partners will mostly be due to preference erosion in the EU market, and the focus is exclusively on these effects below.

Estimated effects on EU imports from Morocco due to erosion of tariff preferences for the leading import categories (excluding clothing and fresh and prepared fruits and vegetables categories) are provided in Table 8 based

Table 8. Effects of Preference Erosion on the European Union's Imports from Morocco
(thousands of 1992 U.S. dollars, unless otherwise specified)

SITC Code (rev. 2)	Commodity	EU Import value 1992 (1)	EU Pre-Uruguay Round tariff (percent) (2)	EU Post-Uruguay Round tariff (percent) (3)	Percentage change in price (4)	Import Demand Elasticity (5)	Decrease in EU imports from Morocco (6)	Decrease in EU imports from Morocco (percentage change) (7)
562	Fertilizers, manufactured	196,338	5.0	4.3	−0.7	0.8	1,060	0.5
271	Fertilizers, crude	176,696	5.0	4.3	−0.7	0.8	954	0.5
036	Shell fish, fresh, frozen	157,307	13.4	11.5	−1.7	0.4	943	0.6
776	Transistors, valves, etc.	115,193	6.1	3.5	−2.5	0.3	907	0.8
034	Fish, fresh, chilled, frozen	98,181	13.4	11.5	−1.7	0.4	589	0.6
522	Inorganic chemical elements, oxides, etc.	81,835	6.1	4.4	−1.6	0.8	1,092	1.3
037	Fish, etc., prepared, preserved, nes	78,617	13.4	11.5	−1.7	0.4	471	0.6
851	Footwear	65,832	11.7	7.0	−4.2	0.8	2,114	3.2
334	Petroleum products, refined	62,803	3.1	1.6	−1.5	0.3	286	0.5
773	Electricity distributing equipment	49,624	6.1	3.5	−2.5	0.3	391	0.8
651	Textile yarn	41,818	10.0	6.4	−3.2	0.4	494	1.2
287	Base metal ores, concentrates, nes	40,149	4.6	2.1	−2.4	0.4	425	1.1
292	Crude vegetable materials, nes	32,804	0.2	0.0	−0.2	0.4	22	0.1
075	Spices	31,321	0.2	0.0	−0.2	0.4	21	0.1
792	Aircraft etc.	25,626	3.8	2.0	−1.7	1.0	469	1.8
251	Pulp and waste paper	25,444	0.0	0.0	0.0	0.2	0	0.0
612	Leather, etc., manufactures	23,973	7.0	4.8	−2.0	0.5	244	1.0
831	Travel goods, handbags	23,391	7.0	4.8	−2.0	0.5	238	1.0
685	Lead	22,632	4.5	1.5	−2.9	0.4	286	1.3
784	Motor vehicle parts, accessories nes	17,635	9.0	6.4	−2.4	1.0	445	2.5
681	Silver, platinum, etc	13,496	5.1	2.0	−2.9	0.4	174	1.3
278	Other crude minerals	11,686	3.5	1.0	−2.5	0.4	127	1.1
288	Nonferrous metal scrap nes	11,114	5.1	2.0	−2.9	0.4	143	1.3
772	Switchgear etc., parts nes	10,025	6.1	3.5	−2.5	0.3	79	0.8
633	Cork manufactures	9,607	5.3	2.4	−2.8	0.2	59	0.6
874	Measuring, controlling instruments	8,876	5.6	2.1	−3.4	0.3	97	1.1
653	Woven man-made fiber fabric	8,140	10.2	7.3	−2.6	0.4	77	0.9
551	Essential oils, perfume, etc.	7,223	5.3	2.2	−2.9	0.4	76	1.0
611	Leather	7,066	7.0	4.8	−2.0	0.5	72	1.0
899	Other manufactured goods	6,809	6.9	3.4	−3.3	0.7	147	2.2
812	Plumbing, heating, lighting equipment	5,976	5.7	2.0	−3.5	0.3	68	1.1
714	Engines and motors nes	5,689	4.1	1.2	−2.8	0.3	52	0.9
625	Rubber tires, tubes etc.	5,671	3.2	1.8	−1.3	1.7	123	2.2
781	Passenger motor vehicles excl. buses	5,659	9.0	6.4	−2.4	1.0	143	2.5
764	Telecommunications equipment, parts, accessories nes	5,640	6.1	3.5	−2.5	0.3	44	0.8
744	Mechanical handling equipment	5,598	4.1	1.2	−2.8	0.3	51	0.9
291	Crude animal materials nes	5,342	0.6	0.2	−0.4	0.4	8	0.1
659	Floor coverings etc	5,256	10.3	7.7	−2.3	0.4	45	0.9
112	Alcoholic beverages	5,226	20.3	14.4	−4.9	0.5	134	2.6
	Total of leading categories	1,511,318			−1.7		13,169	0.9
	Total	3,479,503						

Sources: Import values from United Nations Commodity Trade Statistics. Import demand elasticity figures from Stern and others (1976); merchandise imports as a proportion of absorption of goods (i.e, non-services GDP plus merchandise imports minus merchandise exports) from World Bank, World Tables and IMF, Direction of Trade Statistics.

on the methodology described in the Section II. 1/ The estimates are based on actual 1992 import values, shown in the first column. The tariff cuts by the EU resulting from the Round are shown along with the effects on domestic prices in the EU in columns (2)-(4). Column (5) gives the assumed own-price import demand elasticities multiplied by EU merchandise imports as a proportion of EU absorption of goods (used as rough proxies for EU cross-price elasticities as explained in Section II). Columns (6) and (7) yield the estimated changes in Moroccan exports to the EU (in both 1992 U.S. dollars and as percentage changes over the 1992 base period values). Overall, the effects of preference erosion on Morocco are very small due to the small price changes involved, with the total drop in trade just $13 million from the 1992 base period, or 0.9 percent, relative to total trade in these sectors.

b. *MFA reform*

Morocco will be affected by the phase-out of the MFA under the Uruguay Round Agreement on Textiles and Clothing. About 25 percent of Morocco's total exports consist of textiles and clothing, with the majority being sold to the EU, which are subject to some quantitative restrictions, although these limits are not strictly enforced. Therefore, Morocco may lose market share as currently restricted suppliers' quota growth rates expand under the Round and as restraints on exports of products are eventually removed. The magnitude of these losses are estimated using the methodology developed in Section II.

Estimates of the effect that higher quota growth rates under the Round will have on Moroccan clothing exports to the EU are provided in Tables 9 through 11. Table 9 presents EU imports from the top 11 suppliers during 1992, the latest year for which data were available from the United Nations Commodity Trade Statistics, for the 12 leading apparel categories. 2/ Cumulative export quota growth rates for the 1992 to 2005 period are shown in Table 10. 3/ Table 11 contains simulation results for the sum of the

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1/ The leading 50 3-digit Standard International Trade Classification (SITC) import categories were chosen. Then clothing categories were excluded since these will be affected by erosion of preferential access due to coverage of Morocco's competitors in the EU market by quotas. Changes in quotas will affect Morocco's exports to the EU but changes in tariff preference margins will only alter the distribution of quota rents. Similarly, fresh and prepared fruits and vegetables categories were excluded since these will be affected by changes in EU quotas.

2/ These categories were selected because they had the highest levels of imports into the EU from Morocco during 1992 within the clothing sector.

3/ The first column in Table 10 shows the cumulative quota growth for each country in its exports of clothing to the EU, under (pre-Uruguay Round) MFA quota growth rates. The second column shows cumulative growth rates augmented by the amounts specified in the Uruguay Round Agreement on Textiles and Clothing.

Table 9. EU Imports of Clothing by Leading Partners and SITC Categories, 1992
(thousands of U.S. dollars)

Partner:	Trade category (SITC, Rev. 2): 8421	8422	8423	8424	8429	8432	8433	8434	8435	8439	8441	8442	Sum
Austria	37,061.6	24,582.1	13,531.0	25,090.6	15,356.8	6,560.7	17,407.5	30,117.8	22,861.9	68,132.4	31,642.6	6,878.3	299,223.3
China, People's Rep.	110,822.1	16,879.7	112,326.8	77,271.6	444,375.6	21,470.4	40,931.0	53,465.0	281,661.5	616,941.4	277,420.2	44,522.9	2,098,088.2
Hong Kong	36,881.1	2,515.3	345,788.2	23,626.8	288,404.3	6,129.0	46,434.6	52,178.4	350,403.0	452,967.5	438,905.2	34,553.4	2,078,786.8
India	3,710.6	303.8	12,896.7	4,236.4	55,714.9	4,403.4	85,544.3	43,536.0	244,806.2	139,952.6	237,326.9	6,630.0	839,061.8
Indonesia	51,462.8	2,770.3	29,180.2	12,624.9	243,547.2	4,424.4	11,441.2	4,357.3	18,344.9	205,266.4	41,694.9	2,754.2	627,868.7
Korea, Rep. of	28,413.7	3,285.4	17,100.6	6,230.3	164,630.9	507.1	4,978.4	6,696.8	26,613.6	61,406.9	124,771.3	333.4	444,968.4
Morocco	33,626.5	27,892.6	303,570.2	40,396.9	110,813.2	6,480.1	24,910.2	83,057.8	87,243.3	224,744.7	142,293.4	8,876.6	1,093,905.5
Poland	54,194.3	31,725.1	101,883.9	95,742.7	88,429.4	24,528.8	25,466.1	64,176.6	137,179.8	166,969.6	99,653.8	675.8	890,625.9
Thailand	23,351.5	534.1	21,735.5	2,941.4	128,407.5	1,384.2	15,461.1	11,368.7	22,936.7	186,082.0	17,922.5	1,282.9	433,408.1
Tunisia	26,165.9	5,756.4	494,131.5	78,148.8	140,830.7	15,392.2	22,879.1	94,405.6	60,806.2	250,954.1	117,152.1	6,426.6	1,313,049.2
Turkey	25,742.2	39,027.6	125,207.0	73,334.1	108,646.1	9,656.1	30,764.5	46,400.1	117,286.0	358,110.2	154,915.5	12,075.5	1,101,164.9

Source: United Nations, Commodity Trade Statistics, Series D.

Table 10. Assumed Effects of MFA Quota Expansion on EU Imports of Clothing (cumulative growth rates, 1992–2005, in percent)

Partner	Under MFA 1/	Under Agreement on Textiles and Clothing
Austria	NA	NA
China, People's Rep.	53	88
Hong Kong	19	28
India	39	61
Indonesia	100	166
Korea, Rep. of	33	50
Morocco	39	NA
Poland	39	61
Thailand	99	165
Tunisia	39	NA
Turkey	39	61

Source: Hertel and others (1995), Table 4.

1/ Morocco, Tunisia, Poland and Turkey are not MFA members. Cumulative growth rates given for those countries, as well as India, are those assumed for the EU from the rest of the world in the source table.

Table 11. Effects of MFA Quota Expansion on EU Clothing Imports in Leading Industries
(in thousands of 1992 U.S. dollars)

Partner	Import Value, 1992	Import Value, 2005		Increase under Agreement on Textiles and Clothing
		Under MFA	Under Uruguay Round Agreement on Textiles and Clothing	
China, People's Rep.	2,098,088.2	3,210,074.9	3,943,986.2	733,911.3
Hong Kong	2,078,786.8	2,473,756.3	2,660,847.1	187,090.8
India	839,061.8	1,166,295.9	1,350,889.5	184,593.6
Indonesia	627,868.7	1,255,737.4	1,670,130.7	414,393.3
Korea, Rep. of	444,968.4	591,808.0	667,452.6	75,644.6
Morocco	1,093,905.5	1,520,528.6	1,392,273.6	(128,255.0)
Poland	890,625.9	1,237,970.0	1,433,907.7	195,937.7
Thailand	433,408.1	862,482.1	1,148,531.5	286,049.3
Tunisia	1,313,049.2	1,825,138.4	1,671,189.9	(153,948.5)
Turkey	1,101,164.9	1,530,619.2	1,772,875.5	242,256.3
Sum	10,920,927.5	15,674,410.9	17,712,084.3	2,037,673.4

Note: Import value in 2005 under the Agreement on Textiles and Clothing is assumed to grow by 13 percent, relative to the import value in 2005 under the MFA, based on Hertel and others (1995), Table 10. Imports from Morocco and Tunisia are assumed to adjust so that imports from these sources add to the projected total, with the share of adjustment apportioned between the two based on their imports under the MFA in 2005.

12 selected clothing categories. The first column shows 1992 import values from Table 9. The second column applies the cumulative quota growth rates under the MFA without the Uruguay Round to the 1992 import values. For Morocco and Tunisia (the two unconstrained suppliers), it is assumed that their exports to the EU would grow cumulatively by 39 percent over 1992-2005, or about 2.5 percent per year. While somewhat lower than historical growth rates, this rate of growth reflects the likely increased competitive pressures that Morocco and Tunisia would have faced even absent implementation of the Uruguay Round agreement. The third column applies expanded quota growth rates to the 1992 import values for countries other than Morocco and Tunisia. 1/ Total imports in these categories are estimated to grow by 13 percent as a result of expanded quota growth rates, based on simulated changes in total EU imports of clothing in Hertel and others (1995). Exports by Morocco and Tunisia were estimated as the residual, reflecting their vulnerability to competition, especially from dynamic Asian suppliers, with the changes in exports apportioned between the two using 2005 import shares under the (pre-Uruguay Round) MFA quota growth rates.

While Morocco's exports of clothing to the EU would have risen from $1,093.9 million in 1992 to $1,520.5 million in 2005 (in 1992 dollars) under pre-Uruguay Round MFA quota growth rates, they would rise to only $1,392.3 million in 2005 under the Uruguay Round (because quotas on other suppliers to the EU are permitted to expand at a faster rate). Comparing Moroccan clothing exports to the EU in 2005, with and without expanded growth rates for its competitors, Moroccan exports would fall by $128.3 million or by 8.4 percent due to the Round, despite a 13 percent increase in total EU clothing imports. While admittedly rough, these calculations suggest that Morocco's competitive position within the EU clothing market may not be substantially affected by MFA reform during the ten-year transition period.

The assessment provided above does not include estimates of what will happen to Morocco once quotas are eliminated, which will be important toward the end of the ten-year MFA phase-out period and thereafter. Such effects are highly uncertain since the world market has been restricted for decades. Nevertheless, existing studies indicate that total elimination of tariffs and nontariff barriers may roughly double developing country exports to industrial countries, with less competitive suppliers facing a potentially

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1/ Expanded growth rates were also applied to Poland and Turkey even though they are covered by quotas outside the MFA, since these suppliers are likely to put added competitive pressure on Morocco and Tunisia due to lower unit labor costs during the ten-year transition period. If Poland and Turkey instead face preference erosion, the effects on Morocco and Tunisia reported in Table 11 may be overstated.

substantial loss of market share. 1/ The effects on Morocco will depend importantly on its efforts to foster a favorable investment climate generally, including through additional trade liberalization. Hence, in view of the uncertainties involved, and notwithstanding the lengthy phase-in period for liberalization, effects of the Round on Morocco's clothing exports to the EU should be closely monitored.

2. Imports

a. Morocco's commitments

Liberalization commitments made by Morocco in the Round were limited mainly to expanded coverage of tariffs by bound rates and conversion of quantitative restrictions to tariffs for a few agricultural products. In agriculture, Morocco, like all countries, agreed to bind 100 percent of its tariff lines. However, one quarter of the bound rates on agricultural products are in excess of 100 percent, with soft wheat at 190 percent, corn at 161 percent, rice at 234 percent, and sugar at 221 percent. Morocco also agreed to convert quantitative restrictions on imports of sugar, oilseeds, cereals, and their derivatives into tariffs, although the authorities have not yet decided what form these tariff schemes may take. Finally, export subsidies will gradually be reduced over a ten-year period.

In industrial products, Morocco agreed to bind all tariff lines at 40 percent for tariffs and 15 percent for other duties and charges. This represents an important expansion of tariff bindings on industrial products, since only one-third of all tariff lines were bound prior to the Uruguay Round.

In services, Morocco mainly agreed to preserve existing levels of market access and national treatment for all of the areas specified explicitly in its schedule of commitments. Of the 161 total service activities, Morocco specified commitments in 41 of these explicitly, including in the areas of professional services, financial services, tourism services, transportation, and telecommunications. Presently, the right of establishment for foreign firms is given in all sectors except for airplane repair and maintenance. Morocco has adopted a number of measures to modify legislation in the services area to conform with the General Agreement on Trade in Services (GATS), and further reforms are underway.

Morocco also phased out reference prices prior to the Uruguay Round agreement and passed an antidumping law. It is unclear whether the Round will imply changes in Morocco's antidumping procedures, especially since these have not yet been used. Improved intellectual property rights as a result of the Round may induce some pharmaceutical companies to locate in Morocco. In any event, implications for Morocco's balance of payments of

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1/ See, for instance, Whalley (1994), UNCTAD (1986), Kirmani and others (1984), Trela and Whalley (1990), and Yang (1994).

changes in rules and institutions under the Uruguay Round agreement are as yet unclear, and they are accordingly not analyzed further in this paper.

b. Food imports

Morocco is a net importer of food items such as cereals (although these imports are normally roughly offset by exports of fresh fruits and vegetables) and could be directly affected by the Uruguay Round's impact on food prices. However, the adverse effects of higher world food prices on Morocco appear to be small in light of recent estimates in Goldin and van der Mensbrugghe (1995). They indicate that prices for sensitive Moroccan imports such as wheat would rise by about 1 to 4 percent in the long run (6 to 10 years). Effects of the Uruguay Round on world food prices would likely be swamped by fluctuations due to unrelated factors. Since food, beverages, and tobacco imports constitute 12 percent of total imports for Morocco, even a 10 percent increase in world food prices, phased in over 6 years, would increase total imports by only 0.2 percent per year.

While these simple calculations suggest that the effects of higher food prices due to the Round may not be large for Morocco, more detailed estimates are presented in Table 12 using the methodology described in Section II. 1/ For wheat, rice, coarse grains, and sugar, the incremental effect of the Round is estimated to range from $8 million to $29 million, measured in 2000 U.S. dollars. This amounts to between 1 and 4 percent of total food imports, and this impact would be spread over several years.

3. Balance of payments

The overall effects of the Uruguay Round on Morocco's balance of payments will only become clear once provisions of the Round are fully implemented. The provisional estimates presented above are brought together in summary form, converted to a common 1992 base, in Table 13. This shows, on the export side, declines in exports of $13 million due to tariff preference erosion in the EU market, and $92 million due to erosion of preferential access in the EU clothing market due to expansion of its competitors' quotas under the Round. On the import side, higher world food prices due to agricultural liberalization is estimated to increase Morocco's food import costs by $20 million. The overall trade balance is thus expected to deteriorate by $125 million, which amounts to 5 percent of the 1992 trade balance. This deterioration would be spread over several years.

1/ Import volumes are projected based on April 1995 World Economic Outlook (WEO) projections of demand growth in developing countries, and are consistent with the estimates in Eiteljörge and Shiells (1995).

Table 12. Morocco: Impact of the Uruguay Round on Food Imports
(in millions of U.S. dollars)

	1993	2000
Baseline: With Uruguay Round 1/		
Wheat	354.7	572.3
Rice	0.5	1.0
Coarse Grains	110.8	189.4
Sugar	0.0	0.1
Total	466.0	762.8
Scenario I: Without Uruguay Round 2/		
Wheat	354.7	564.3
Rice	0.5	1.0
Coarse Grains	110.8	189.2
Sugar	0.0	0.1
Total	466.0	754.6
Incremental Effect of the Round		8.2
Scenario II: Without Uruguay Round 3/		
Wheat	354.7	547.8
Rice	0.5	1.0
Coarse Grains	110.8	184.5
Sugar	0.0	0.1
Total	466.0	733.4
Incremental Effect of the Round		29.4

1/ Based on the April 1995 World Economic Outlook (WEO) price projections, which include the price effects due to the Uruguay Round.

2/ Based on estimates of changes in world food prices estimated by Goldin and van der Mensbrugghe (1995) on the assumption that levels of protection in agriculture in the absence of the Round would have been the average for 1982–93.

3/ Based on estimates of changes in world food prices estimated by Goldin and van der Mensbrugghe (1995) on the assumption that levels of protection in agriculture in the absence of the Round would have been the average for 1991–93.

Table 13. Morocco: Summary Impact of the Uruguay Round on the Trade Balance in 2005
(in millions of 1992 U.S. dollars)

1. Change in Exports (positive number is an increase)	−105
of which:	
A. from tariff preference erosion	−13
B. from MFA reform 1/	−92
2. Change in Imports (negative number is an increase)	−20
of which:	
A. from higher food prices 2/	−20
3. Change in Trade Balance (positive number is an increase)	−125
(percent of 1992 trade balance)	−5.0

1/ The change in exports in 1992 was estimated by multiplying the estimated change in 2005 by the ratio of exports in 1992 and 2005.

2/ Based on the scenario in Table 12 with higher food price increases due to the Round; the change in imports in 1992 was estimated by multiplying the estimated change in Scenario II by the ratio of 1993 to 2000 net food imports and by the ratio of total merchandise imports in 1992 and 1993.

V. Conclusions

The case studies for Egypt and Morocco provide a basis for the following conclusions. First, for the most part, Egypt and Morocco undertook few commitments to liberalize their own trade regimes. Thus, the Uruguay Round was not used as an opportunity for significant further liberalization in goods or services. Egypt did undertake some commitments to lock in its past trade liberalization and render it more transparent by binding its entire tariff schedule; but incremental liberalization was not significant, except for the elimination of quantitative import restrictions in textiles and clothing and poultry. Although bound rates are not greatly in excess of applied rates, the latter remain high in absolute terms and in comparison to many other developing countries. Morocco also made very substantial commitments by increasing the number of tariff lines covered by bindings to 100 percent in both agriculture and industry, and by agreeing to convert quantitative restrictions on certain agricultural items into tariffs.

Second, the crucial determinant of future export opportunities will be the provisions of the Uruguay Round Agreement on Textiles and Clothing. In the case of Egypt, the beneficial impact will arise primarily from the expansion of textile and clothing quotas during the ten-year phase-out period of the MFA. Morocco is not an MFA participant and quantitative restrictions on its exports of clothing to the EU are not strictly enforced. As a result, Morocco likely will face additional competitive pressures in the EU market due to increased MFA quota growth rates for its competitors and the eventual full integration of textiles and clothing into the WTO.

Third, the negative effects stemming from preference erosion and from increased food prices are likely to be small for both countries. Regarding the latter, the increase in food prices will be small as the extent of agricultural liberalization in the Round was limited. In the case of Egypt, the preference erosion effect is small as preferential exports account for a small fraction of total exports. Morocco ships mostly to the EU, and receives duty-free treatment from the EU except for certain agricultural products. However, the effects of preference erosion on Morocco's exports are likely to be small because the EU's MFN tariff cuts are modest for products of relevance to Morocco.

Fourth, combining the effects on imports and exports, the above analysis suggests that the balance of payments impact of the Round is not likely to be highly significant. In the case of Egypt, the balance of payments impact is virtually nil (-$3 million in 1993/94 dollars). This result reflects the roughly offsetting effects of increases in textile and clothing exports ($241 million) and imports ($176 million). In the case of Morocco, however, the estimated negative impact is more substantial, at $125 million in 1992 dollars (or 5 percent of the 1992 trade balance), but this effect will be felt only gradually through 2005. These estimates are subject to the qualifications noted in Section II and should be viewed as indicative of the likely quantitative impact of the Round. The actual

impact of the Round for these countries needs to be monitored closely with a view to identifying any adjustment and financing needs.

Finally, an important caveat should be noted to the opportunities and challenges created by the Round (relating principally to the textiles and clothing sector for both Egypt and Morocco). In order to avail itself of the opportunity opened up by the expanded quotas, Egypt's supply capacity will have to be improved. To keep pace with its competitors, Morocco will need to increase its productivity, including through upgrading its educational system and transportation and communications infrastructure, and by fostering a favorable investment climate. More generally, in the long run, when the MFA is completely dismantled, the export performance of both Egypt and Morocco will depend crucially on their ability to compete with exporters in the Middle East, Asia and Eastern Europe.

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