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Distortionary Effects of State Trading in Agriculture

Issues for the Next Round of Multilateral Trade Negotiations

Merlinda Ingco
Francis Ng

The Uruguay Round agreements on agriculture were intended to move member countries toward a fair and market-oriented agricultural trading system. But in practice, state trading enterprises with monopoly power or exclusive rights in agricultural trade in major products still prevail in many countries. And significant price distortions still exist in trade in products subject to state trading.

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Summary findings

The Uruguay Round agreements on agriculture were intended to move member countries toward a fair and market-oriented agricultural trading system. By progressively reducing domestic government support and export subsidies, converting nontariff barriers to tariffs, and reducing barriers to market access, members were committed to reducing distortions in world agricultural trade and in preventing new distortions from arising.

But state trading enterprises with monopoly power or exclusive rights in agricultural trade in major products are still prevalent in both industrial and developing countries.

In many countries, the operations of these state trading agencies tend in practice to nullify the intended objectives of the concessions on market access reached in the Uruguay Round.

And there are still significant price distortions in trade in products subject to state trading.

This paper — a product of the Development Research Group — is part of a larger effort in the group to evaluate the progress of trade liberalization and their effects on developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Chona Fernandez, room MC3-610, telephone 202-473-3766, fax 202-522-1159, Internet address mfernandez@worldbank.org. The authors may be contacted at mingco@worldbank.org or fng@worldbank.org. April 1998. (37 pages)

DISTORTIONARY EFFECTS OF STATE TRADING IN AGRICULTURE

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DISTORTIONARY EFFECTS OF STATE TRADING IN AGRICULTURE: ISSUES FOR THE NEXT ROUND OF NEGOTIATIONS

Merlinda Ingco and Francis Ng

1. Introduction

The Uruguay Round (UR) agreements on agriculture were intended to move member countries toward the goal of establishing a fair and market-oriented agricultural trading system. Through a process of progressive reduction in internal government support and export subsidies, conversion of non-tariff barriers to tariffs, and reduction of barriers to market access, members committed to reduce distortions in world agricultural trade and to prevent additional distortions from occurring.

It is only now, however, that it is apparent how countries have actually implemented their generalized commitments. Analysis of actual implementation of the UR agreements in agriculture show evidence of the ways the implementation process creates new opportunities for mischief and greater efforts on the part of anti-liberalization forces. An important issue relates to the operations of state trading enterprises (STEs) and their potential effects to circumvent the UR market access concessions and commitments to reduce exports subsidies. Since little was done during the Uruguay Round to bring more discipline to the activities of state trading enterprises, their effects on the effectiveness of the new UR rules in practice becomes a critical issue. In addition, the ongoing accessions to the World Trade Organization (WTO) of major developing countries with state trading highlight the need to examine STEs and how to reduce their distortionary effects on trade.

Based on 108 reporting countries, we evaluate in this paper the potential distortionary effects of STEs in agriculture and their abilities to circumvent the UR concessions on market access. Alternative policies and multilateral rules to reduce the distortionary effects of STEs are also discussed. Section 2 briefly reviews the GATT/WTO rules on state trading. These include regulating the activities of STEs, constraining their abilities to restrict trade and allowing their distortionary effects to be challenged under the WTO dispute-settlement procedures. A theoretical analysis of potential distortionary effects of STEs and the extent of these distortions in major countries are reviewed in section 3. Section 4 provides an inventory of country and product coverage of STEs and their importance to trade. Alternative policy options for future multilateral reforms in the next Round are discussed in section 5. Section 6 concludes.

2. GATT/WTO Rules on State Trading

This section briefly reviews the GATT rules on STEs under Article XVII. How the rules have been inadequate in disciplining the behavior of state trading agencies with monopoly or exclusive rights are discussed. The inadequacy is partly due to the vagueness of the provisions and poor compliance on STE notifications requirements.

Since the General Agreement on Tariffs and Trade (GATT) was first drafted in 1947, governments and state trading enterprises have been recognized as legitimate participants in world trade--both as market regulator and economic agent. As market regulator, governments impose trade policies governing market access of foreign goods; and as market agent, engage in exports or imports. However, it was recognized that governments or state-owned or controlled entities enjoying monopoly or exclusive trading rights can engage in activities that effectively foreclose market access or create restrictions to trade. Some countries attempted to limit the role of STEs, but failed as many other countries relied on these entities for their control on trade (US/GAO, 1995).

The GATT rules that emerged did not outlaw state trading, but a series of obligations are imposed. The most important requirements include the obligation to operate in a manner consistent with the general principles of non-discrimination, to make purchases or sales solely in accordance with "commercial considerations" and to supply information about the operations of state trade enterprises. Information on trade covered by STEs has to be provided to the GATT Secretariat on the basis of a questionnaire adopted in 1957 and revised in 1960. The rules are contained in Article XVII which established guidelines with respect to the behavior of state trading and the obligations of contracting parties. In addition to holding STEs to the same disciplines as other trading entities[1], and allowing foreign enterprises the opportunity to compete, Article XVII mandates the transparency of activities of state trading enterprises.[2]

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[1] Under GATT/WTO, non-discriminatory treatment generally includes most-favored-nation (MFN) and national treatments. MFN requires granting to all members the most favorable treatment granted to any single member. National treatment requires treating domestic and foreign producers equally. In article XVII, however, the meaning of non-discriminatory treatment is unclear. The United States maintains that state trading should provide both MFN and national treatment, but other members contends that national treatment is not required.

[2] Notifications are required to be made for all STEs. Any member which perceives that a trading partner has not adequately met its notification requirements may raise the matter bilaterally. More recently, a revision of the questionnaire for STEs to provide more tranparency have been discussed in the Committee on State Trading Enterprises.

Article XVII is not restricted to STEs that are owned or controlled by the state. Public ownership is not the issue. The focus is on the behavior of entities formally granted exclusive rights, special privileges or monopolies. Agencies or private-owned firms that have in effect been granted exclusive rights of privileges are also covered by Article XVII. Hence, any member may notify entities or firms of trading partners that are perceived to act as a STE on a *de facto* basis. However, Article XVII did not provide a definition of what constitute a "state trading enterprise". As a result, what constitute a STE or entities subject to Article XVII have been subject to different interpretations by members. This is apparent in the country notifications during the period 1980-1994 where countries appear to have different interpretations of what constitute a STE.

The Uruguay Round Agreement did not change any of the provisions in Article XVII. However, a Memorandum, called Understanding on Interpretation of Article XVII was included in the Agreement. The Understanding provided a definition of state trading enterprises, implemented procedural measures to improve compliance with Article XVII's notification requirement, and created a working party to review country notifications.[3] The working party shall review notifications and counter-notifications, review the adequacy of the questionnaire in light of notifications received.

For notification purposes, member countries agreed to define state trading enterprises during the Uruguay Round as: *"governmental and non-governmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports"* (WTO, 1994). All entities covered by this definition are subject to the guidelines in Article XVII. Under this definition, state trading enterprises include government agencies, statutory marketing boards, export marketing boards, regulatory marketing boards, fiscal monopolies, canalizing agencies, foreign trade enterprises, and boards and corporations resulting from nationalized agencies. Developed countries including the United States, Canada, Australia, New Zealand and Japan have recognized the existence of state trading in their countries.

Another set of GATT/WTO rules governing STEs comprise of the specific commitments included in accession protocols that are made by members regarding their use or acceptance of such

[3] A Working Party was established in 1995 under the Committee on Goods and Services to provide a practical understanding of state trading as defined in the Memorandum and to explore means of ensuring transparency in STE activities. The Working Party has met several times to address concerns about the potential trade distorting effects of some STE practices, including a complete reformulation of country notification requirements and established an illustrative list of state trading activities (WTO 1995).

entities. In general, the specific commitments relate to price mark-ups or privatization of state-owned enterprises. In cases where any member perceives that an STE has circumvented previous trade liberalization commitments, the WTO allow members to challenge such actions through the dispute settlement procedures.

State trading enterprises that engage in agricultural trade are also subject to the disciplines contained in the Uruguay Round Agreement on Agriculture. The Agreement required member countries to reduce market access restrictions, export subsidies and domestic support including any such measures provided by STEs. In particular, the disciplines on market access restrictions contain two specific references to STEs. *First*, the definition of non-tariff barriers subject to conversion to tariff equivalents includes non-tariff measures maintained through STEs.[4] *Second*, when providing notifications regarding implementation, members are required to explain the administration of market access commitments. Where such commitments are administered by STEs, details about the STE and its relevant activities are required to be provided. *Third*, under the export subsidy commitment, countries are required to reduce their budgetary expenditures on export subsidies and their quantity of subsidized exports, including subsidies provided by STEs. In addition, export subsidies not subject to reduction cannot be applied in a manner that allows members to circumvent their commitments to reduce export subsidies, including subsidies provided to or by STEs. *Fourth*, member countries are also required to reduce their aggregate measure of domestic support, including budgetary expenditures and revenue forgone by governments or their agents.

Other sections of GATT 1994 also contain references to STEs. For instance, countries that have negotiated with other GATT/WTO members to provide a certain level of protection for domestic producers cannot allow their STEs to operate in a way that affords a level of protection greater than was negotiated (Article II:4). That is, STE importers should not grant protection above that given by their bound tariff schedules. Also, references made in other GATT articles to import or export restrictions include those made effective through STEs.[5] In addition, in the Uruguay Round, the United States negotiated an exclusive bilateral agreement with Japan that sets limits on the price mark-up that the Japanese Food Agency could maintain for specified commodities. The Agreement, however, is less explicit on the disciplines on export credits and other subsidies administered through state trading enterprises. Based on previous studies (US/GAO, 1995) and review of more recent country notifications, there has been poor compliance on the rules to notify the existence and operations of STEs.

[4] See Article 4:2 of the Agreement on Agriculture.

[5] See interpretive note to GATT articles XI, XII, XIII, XIV, and XVIII.

3. How STEs May Circumvent WTO Rules and Commitments?

This section provides a discussion of major policy issues on STEs and their potential effects to circumvent the market access concessions reached in the UR. A theoretical analysis of potential distortionary effects of STEs is also presented.

On the import side, the UR Agreement on Agriculture mentions state trading in the context of market access in a footnote to Article IV.2. This provision stipulates that "members shall not maintain, resort to or revert to any measure of the kind which have been required to be converted into ordinary customs duties". The footnote clarifies that non-tariff measures maintained through state trading enterprises fall under this prohibited category.

An important issue is whether state trading operations tend to effectively nullify in practice the market access concessions reached under the Uruguay Round. The ability of STEs to distort trade in practice and effectively nullify the UR market access concessions stems in part from the ambiguity in the GATT rules governing STEs. As discussed in section 2, Article XVII states that state trading enterprises are expected to operate based on "commercial considerations". However, what constitutes a "commercial" consideration is ambigous, as firms can use market power as a commercial practice. In addition, when governments establish a state trading monopoly, market power is usually used to gain advantage over other domestic and foreign competitors. Given that market advantage, a state trader does not operate in the same way as a private enterprise. Hence, in practice, Article XVII has not been effective in modifying or disciplining the behavior of state trading enterprises.

In principle, the Uruguay Round Agreement in agriculture has introduced a way of reducing the distortionary effects of STEs. First, the abolition of non-tariff barriers (tariffication) under the UR include the non-tariff measures imposed by these entities. Second, Article II:4 of GATT 1994 states that no price mark-up administered by a STE importer should be larger than the bound tariff. Since few agricultural tariffs were bound before the Uruguay Round, and countries were allowed to maintain non-tariff barriers, STEs were able to effectively maintain high price mark-ups through non-tariff measures.

Under the Uruguay Round Agreement in agriculture, the non-tariff measures (including those maintained by STEs) were converted to tariffs. However, since these new bound tariffs are very high in

many countries, STEs are still able to effectively maintain high price mark-ups and domestic price protection in these countries.

An obvious but important policy reform for the next Round is, therefore, that of a further reduction in the remaining high bound tariffs. This approach should automatically limit the level of import price protection maintained by STEs. If countries notify the level of price mark-ups administered by STEs, it would be relatively easy to monitor the extent of import price protection by comparing price mark-ups with bound tariffs. Under this policy, state traders must sell imports on the domestic market at no more than the border prices plus the tariff.

Further reductions in the UR bound tariffs, combined with a more strict implementation of the Havana Charter would impose further discipline on the extent of import protection maintained by STEs. Two provisions of the Havana Charter (Article 31:4 and 31:5) are relevant. Article 31:4 called for an analysis of import costs and profit margins of import monopolies. Article 31:5 stated that import monopolies would "*import and offer for sale such quantities of the product as will be sufficient to satisfy the full domestic demand for the imported product...*" In simple terms, this implies that STEs canot be a further impediment to trade. This, combined with Article II:4 of GATT (disciplines on mark-ups) seems to impose some discipline on STEs in most cases. That is, if a STE did not import to meet demand, the evidence would manifest itself through a mark-up higher than that allowed. Although this may be difficult to show in practice.

Based on the panel decision between New Zealand and Korea on beef in 1989, the issue is clouded by quantitative restrictions or tariff quotas.[6] The panel explicitly stated that it would be inappropriate to apply Article II:4 when there is a quantitative restriction (and, at least from an economic point of view, a tariff quota) as the protection is provided by the quantity rather than the in-quota tariff.

[6] Korea's LPMO was a beef import monopoly established in July 1988, with exclusive rights for the administration of both the beef import quota set by the Korean government and the resale of the imported beef to wholesalers or in certain cases directly to end users such as hotels. The Panel examined whether the mark-ups imposed on imported beef, in combination with the import duties collected at the bound rate, afforded "protection on the average in excess of the amount of protection provided for" in the Korean schedule in violation of the provisions of paragraph 4 of Article II, as claimed by New Zealand. The LPMO bought imported beef at world market prices through a tender system and resold it either by auction to wholesalers or directly to end users. A minimum bid price at wholesale auction, or derived price for direct sale, was set by the LPMO with reference to the wholesale price for domestic beef.

According to the Panel, the price premium obtained by LPMO through the setting of a minimum bid price or derived sale price was directly afforded by the situation of market scarcity arising from the quantitative restrictions on beef. The Panel concluded that because of the presence of the quantitative restriction, the level of the LPMO's mark-up of the price for imported beef to achieve the minimum bid price was not relevant in the case. The panel stressed, however, that in the absence of quantitative restrictions, an import monopoly was not to afford protection, on the average, in excess of the amount of protection provided for in the relevant schedule, as set out in Article II:4 of the GATT. Furthermore, in the absence of quantitative restrictions, an import monopoly was not to charge on the average a profit margin which was higher than that "*which would be obtained under normal conditions of competition*" (in the absence of the monopoly). In principle, STEs could no longer maintain quantitative restrictions in agricultural products as a result of the Uruguay Round Agreement in agriculture. By converting quantitative restrictions (and other non-tariff measures) into tariffs, STEs could not, in principle, maintain protection higher than the new bound tariffs.

A stronger discipline which requires STE imports until the difference between import and domestic prices does not exceed the bound tariff means that the state importer will act similarly as a private trade under a fixed import tariff. In addition, a strict stipulation that the STE must meet market demand would rules out tricks like selling a fixed quantity at a price that falls below the binding, while generating a domestic market price above the binding.

On exports, an important issue relates to whether there is circumvention of commitments on export subsidy reductions. The Agreement on Agriculture does not mention state trading in the context of exports. During the Uruguay Round, some members had suggested for greater transparency that of introducing into Article 9 (export subsidy commitments) a specific obligation to notify details of exports of commodities by state trading enterprises. This was rejected by the participants involved in state trading. They referred to the notification system which already existed under Article XVII for all sectors, including agriculture. Under the present notification requirement to the Committee on Agriculture, exports by state trading enterprises fall under the general notification requirement as described in table ES1 and ES2 in the document on notifications accepted by the Committe on Agriculture. In practice, this implies that the details on exports by state trading enterprises will not be available through this notification. Recently, complains by members have been expressed concerning some practices by marketing boards in third country markets which are not linked to the traditional kind of export subsidies. It is claimed that these practices have the effect of export subsidies but are allowed by the WTO.

The types of export subsidies which are subject to reduction commitments are defined in Article 9 of the Agreement in Agriculture. If a state trading enterprise receives such subsidies, they would be subject to reduction. In addition, Article 10 stipulates that export subsidies not listed in Article 9 shall not be applied in a manner which results in, or which threatens to lead to, circumvention of export subsidy commitments. This is also applicable to state trading enterprises. A problem that needs to be addressed is the lack of transparency concerning state trading. Traditionally, marketing boards and STE exporters do not release information on their export sales. However, some of these sales are subsidized. Because of this lack of transparency, it is very difficult to monitor the export subsidy involved in a given transaction.[7] This problem is made worse by the practice used by state trading enterprises to pool revenue from all export sales and to distribute the revenue to farmers. Under this conditions, eventual circumvention of the commitment to reduce subsidized exports or to keep subsidies at a zero level cannot be verified.

Many participants believe that more transparency is needed and that some details (e.g. acquisition price on the internal market, selling price on the world market) should be supplied if requested in the Committee on Agriculture, especially under Article 10:3 (prevention of circumvention) and also under Article 18:6 of the Agreement on Agriculture (right of participants to raise any matter relevant to the implementation of commitments). The lack of transparency has been justified by members having STEs by the confidentiality needed to operate in the world market. Other exporters however, do not claim a similar degree of confidentiality for their exports. The wheat sector is perhaps a good example. There are five major exporters on the world market for wheat. Two of them have STEs which keep details of transactions confidential. The other three are more transparent. Two countries in the latter group subsidize exports, but the amount of subsidies is published and their selling prices are known.

Another problem is the fact that in the past, compliance with Article XVII notifications has been very poor. Circumvention of reduction commitments only could be verified by details on volumes of individual transactions, their level of subsidies and sales prices. The present questionnaire does not cover these points. In the past, those elements have not been supplied, also not in the framework of those notifications under Article XVII.

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[7] The lack of transparency is justified by the concerned countries by the confidentiality needed to operate on the world market. Other exporters, however, which do not have boards, do not claim a similar degree of confidentiality for their exports. It is actually the private trade which in their case makes and carries out sales. In the wheat market for instance, there are five major exporters on the world market. Two of them have trading boards, which keep details of transactions confidential. The other three ar more transparent. Two countries in that latter group subsidize exports, but the amount of their subsidies is published and their selling prices known. In addition, these latter countries would be ready to supply on request more detailed information on export transactions to the Committee on Agriculture.

The Uruguay Round Agreement does not exempt countries with state trading from their obligation to provide information. The request for information by members would not be made because of state trade but because there is a serious doubt whether the exports by the concerned country meet its reduction commitments. The obligation to supply information under Article XVII:4 of the General Agreement is triggered by other conditions when a party believes that its interests are adversely affected by the operations of the state trading enterprises. It is obviously not related to the reduction commitments under the Agreement on Agriculture.

On imports, members will have to ensure that new applicants commit themselves from the beginning of their membership to a system in which the substantial part of imports is executed by the private sector and not by state trading enterprises. In addition, tariff quotas sold to be under the control of state trading agencies, unless specific conditions are agreed should ensure market access. No country has so far claimed that the notification obligation under Article XVII of the General Agreement would preclude interested parties from asking questions under Article 18:6 of the Agreement on Agriculture, as to whether or not imports by state trading enterprise are in conformity with Article 4:2. It is likely that the right to ask those questions will often be exercised, particularly after the accession of countries such as Russia and China.

3.1. POTENTIAL DISTORTIONARY EFFECTS OF STATE TRADING

Any evaluation of the trade distortionary effects of state trading are complicated by the various measures that STEs use to control either a country's production, imports and/or exports. In addition, the lack of transparency in the operations of STEs prevent a sophisticated quantification of their distortionary effects. Based on the review of the GATT/WTO country notifications and Trade Policy Review reports, actual operations of state trading enterprises include assessment of levies on production and/or imports, license requirements for exports, provision of government guarantees on borrowed funds, and provision of export subsidies. Other state trading practices included government guaranteed minimum prices. Some member countries have justified their state trading enterprises by the need to protect domestic producers against low-priced imports. The variety of state trading practices makes comparisons between countries difficult. In addition, many types of STEs operate in the world market, with differences in operations such as import or export STEs, the types of industries, size of operations, and the level of government control or intervention. This diversity makes it difficult to generalize about the distortionary effects of STEs and their effects on particular markets or on the world trading system.

3.1.1 STE Activities and Behavior with Potential Distortionary Effects

A significant number of STEs handling agricultural commodities appear to combine foreign trade monopoly with mechanisms to influence domestic supply and distribution. The major objectives of many STEs include domestic price stabilization, market regulation, and control and promotion of exports. These agencies are usually producer controlled, government sanctioned monopolies with exclusive authority to engage in intervention purchases of domestic production, control output prices, set producer and consumer prices, influence domestic distribution and conduct imports and exports. In general, the state trading agency has control over the movement, pricing, quality standards and marketing of the products concerned. In many agricultural markets, STEs usually obtain their power from their ability to be price discriminators.

Policies implemented through state trading involve a wide variety of activities.[8] In this section, we identify and rank STE policies and activities in terms of their potential ability to distort trade. The STE operations and characteristics listed in Box 1 and discussed in this section are considered to have the greatest potential to create trade distortions.

Box 1
Potential Distortionary Effects of STE Operations

Most trade-distorting STE operations

- Administration of price support schemes for domestic production through different price schemes
- Determines the purchase price and/or sales prices of domestic production and imports
- Authorizes or manages production and processing of domestic goods
- Purchases and sales of all or significant percentage of domestic production based on the predetermined floor and ceiling prices; administration of marketing arrangements
- Monopoly on imports and/or exports
- Maintenance and administration of quantitative restrictions and licenses on imports and/or exports
- Provision of export credit guarantees and export subsidies
- Administration of global or bilateral agreed quotas, phytosanitary regulations and restraint arrangements
- Restrictions on export licenses

Least trade-distorting STE operations

- Quality control of domestic production
- Provision of export-related support services such as storage, shipping, handling, processing, and packaging
- Promotion and advertising activities for both exports and national consumption
- Maintenance of emergency stocks of key staples

[8] For a detailed discussion of STE activities, see WTO note, dated October 1, 1996, "Draft Illustrative List of the Relationship between Governments and STE and STE Activities, Annex I and II. G/STR/W/32 1996.

Price support to producers. A major role of STEs in many countries is to support the domestic policy objective of price and/or income support to producers. To attain this objective, countries impose regulations on quantities and prices of traded goods. The mechanism used is usually through "guaranteed or fixed prices" for outputs or inputs directly or indirectly administered by the STE or by the government through parastatal organizations. In these cases, STEs will establish floor (minimum) or ceiling (maximum) prices which will trigger their purchases of goods or their release of stocks. Inherent in these functions is a monopoly or monopsony power granted to the STE in order to insulate domestic markets from foreign competition. For STEs mainly engaged in import activities, the STE has a sole purchasing authority in the world market and monopoly selling rights in the domestic market. In the case of STE exporters, the policy is reversed with the government granting parastatal organizations monopsony power in the domestic market and monopoly export rights or "single selling desk" authority in world markets.

In countries with price stabilization as a major objective, a STE is also typically engaged in intervention activities including management of stocks, buying and disposal of stocks and management of government set targets for reserved stocks. In many developing countries, state trading is used as a mechanism to execute or operationalize "food security" objectives through cheap food policy. The latter policy involves taxing producers and subsidizing consumers. In this situation, STEs are viewed by governments as an effective administrative agency to implement this domestic policy objective. This usually includes transportation and distribution of subsidized food and/or agricultural inputs. The practices of the Food Corporation in India and BULOG in Indonesia, both have sole authority for intervention purchases of domestic production for grains and exclusive rights to import illustrate these types of STE operations. Among the developed countries, activities of the Japan Food Agency provide additional illustrations of STE instruments with potential trade distortionary effects.

In the case of STEs engage in exporting, a number of developed country exporters have STEs which engage in price pooling to support producer prices or minimize income risks to farmers. The impact of price pooling arises from the STEs ability to create differences between markets--particular domestic versus export markets, but also between different sub-markets. This can be consistent with economic efficiency in the country, if for instance, an exporter discriminates to increase export returns. However, price pooling within season is costly economically. While being justified by some strange notion of equity, price pooling creates costly distortions in storage markets.

Under price pooling, the final price paid to producers by STEs is a blended price based on a net revenue of all sales in foreign and domestic markets. This allows STEs to pay producers the same return regardless of the time of delivery during the marketing year. Through a system of delayed payments to producers, STEs enjoy greater flexibility than private firms in discretionary pricing in world markets.

Exclusive rights to buying and selling. Typically, statutory regulations provide STEs with opportunities unavailable to private firms that compete against them. In particular, many STEs maintain exclusive rights to purchase and sell certain products destined for domestic and/or export markets. Depending on the objectives of STEs, this statutory power is often used to act as a monopsonist or monopolist, offering producer prices lower than world market prices and/or selling to consumers at prices higher than world levels. Revenues and profits derived from these transactions are used by STEs to subsidize exports of selected commodities in which it has monopoly or monopsony rights. In addition, most STE exporters have exclusive rights to export sales of key products. These exclusive export rights can enhance the monopoly powers and economic rents available to STEs and enhance the practice of price discrimination across export markets. STEs with exclusive rights to buying and selling usually control domestic supplies, hence facing less uncertainty in sourcing supplies for exports than other competitors. This provides flexibility for STES in making long-term export arrangement with importing countries.

Enjoys government subsidies or guarantees. Many STEs enjoy special privileges and facilities from their sponsoring governments. These facilities usually include subsidies paid out to cover deficits on price payment guarantees to producers and/or financial benefits that would not be available to private firms. The funds could be used to reduce the prices of exports to gain an advantage in the international market. In some countries, the subsidies are used in isolated cases, such as during unusually low prices. For example, the Canadian government provided financial assistance to Canadian Wheat Board during a year when market prices were low, thus reducing the impact of low prices on producers. In other countries, the subsidies are provided on a regular basis, resulting in higher returns and production of subsidized producers. Other forms of special privileges granted to STEs include special tax advantage, transportation subsidies, and interest rate subsidies lowering the cost of STE borrowings relative to private firms.

3.2 STATE TRADING AND THE IMPLEMENTATION OF URUGUAY ROUND COMMITMENTS IN MARKET ACCESS

As discussed in the previous section, a major concern with STEs is that such entities may be used through which governments may circumvent their commitments under the Uruguay Round agreement in

agriculture. Unfortunately, neither the Agreement nor the country schedule of commitments spell out how the various aspects of the trade regime will be implemented. The implementation in some countries, while consistent with WTO rules, is managing trade more than liberalizing it. In practice, the conversion of non-tariff barriers in agricultural products is implemented by the adoption of tariff-rate quotas. The Agreement on agriculture allowed discretion in the allocation of import rights at the lower in-quota tariff rates. In some countries, the tariff quotas are allocated to state trading agencies or domestic producer groups who has the right to determine the conditions of entry and, in some cases, the marketing channels used. In some cases, the quotas are allocated to domestic processors thereby insuring that the imported product does not have direct access to consumers. Some countries have allocated the quotas to importers on the condition that they buy a certain amount of domestic product.

During the implementation of the Uruguay Round commitments in market access, many STE importers still enjoy exclusive or monopoly rights to import, purchase and sell certain key products. In many cases, it is very difficult, if not impossible to evaluate whether purchases, both domestic and imports, are restricted due to lack of demand or because of specific government policy such as domestic protection. In this situation, if the STE decides to keep control on sales and purchases, then tariffication and/or tariff reductions may not necessarily enhance demand and improve market access.

Table 1 shows the number of tariff lines by type of TRQ administration. The frequency index (Fm)[9] showing the percentage of tariff lines subject to specified scheme of TRQ administration is also

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[9] The frequency measure provide one way of capturing the changes in trade policies and comparing the policies on a country-by-country basis. A frequency index and trade coverage measure for each type of allocation scheme will be measured as follows:

$$F_m = (\Sigma D_i N_i \div N_t) * 100$$

$$TC_m = ((\Sigma D_{i,t-r} * V_{i,t-n}) / \Sigma V_{i,t-n}) * 100$$

where

F_m	=	frequency index showing the percentage of tariff lines subject to a specified measure
TC_m	=	trade coverage ratio showing the share of total imports subject to a specified measure
N_i	=	tariff line i,
$D_{i,t}$	=	dummy variable, 1 if one or more NTB is applied, 0 otherwise
N_t	=	total number of tariff lines in a product group
$V_{i,t-n}$	=	value of imports in tariff line item i in year t-n

If r and m are zero, the index is based on current trade values, otherwise it is based on specified base year trade weights. Holding n constrant and varying r will measure the effects of changes in protection with constant trade weights.

estimated. As shown in Table 1, many of the newly established tariff-rate quotas in many countries are administered by a government agency or a STE.

Based on the WTO notifications by 33 countries in 1995, table 1 shows the number of tariff lines[10] subject to tariff quotas in agricultural products established under the Uruguay Round Agreement classified first by nature of allocation (global or specific country) and second, by type of administration. The percentage of tariff lines for each type of administration scheme for all the tariff quotas established in 1995 are also shown. The results can be summarized as follows. First, a significant proportion of the tariff quotas established under the Uruguay Round are administered by importing countries. Second, for tariff quotas with specific country allocations, the most of the quotas are administered by a government agency. Several importing countries have allocated the tariff quotas to their state trading agencies.

In many cases, the government agency has allocated the quota rights for certain products exclusively to a state trading monopoly. Given that these STEs maintain monopoly or exclusive rights or has significant control over domestic marketing, distribution, pricing, and other bottleneck facilities, the commitments on trade policy reforms and tariff concessions become largely irrelevant in enhancing market access. That is, even with zero tariff bindings and zero quotas, the STE has the ability to effectively foreclose domestic markets from foreign competition by influencing prices of domestic and foreign goods. In addition, the state monopoly maintains the ability to impose high mark-ups on imported products, thereby reducing domestic demand for imports. Similarly, if STEs enjoy special privileges in sourcing domestic outputs and inputs and prices paid are below market-clearing levels, the STE effectively receives a subsidy which may reduce market access opportunities for foreign products.

[10] The country notifications on market access specifies the tariff quotas and the tariff lines under each tariff quota. The number of tariff lines under each tariff quota were counted by country.

Table 1. TRQ Administration by Importers, No. of Tariff Lines and Frequency index by type of arrangement.

COUNTRY	GLOBAL					SPECIFIC COUNTRIES				
	Administered by Importers					Administered by Importers				
	Domestic Industry	State Trading	Traditional Importers	Compound	Domestic Producers & State Trading	Government Agency	State Trading Board	Marketing Board	Domestic Producer Group	Not Notified
Austria	0	0	0	0	0	0	0	0	0	0
Barbados	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0
Canada	0	0	0	0	0	123	0	0	0	2
China	0	0	0	0	0	0	0	0	0	0
Colombia	48	0	0	0	0	119	0	4	0	0
Costa Rica	0	0	0	0	0	11	0	0	0	0
Czech Republic	0	0	0	0	0	46	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	6	0	0	0	0
Hungary	0	0	0	0	0	4	0	0	0	75
Iceland	40	0	0	0	0	57	0	0	0	0
Indonesia	1	0	0	0	0	4	1	0	0	0
Israel	3	0	0	0	0	21	0	0	0	0
Japan	39	0	24	0	59	98	24	0	0	0
Korea, Republic	0	0	0	0	0	19	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0
Morocco	0	0	0	0	0	0	0	0	0	32
New Zealand	0	0	0	0	0	0	0	0	0	0
Norway	0	0	8	0	0	0	35	0	0	0
Philippines	5	1	0	0	0	13	0	0	0	0
Poland	0	0	0	0	0	254	0	0	0	0
Romania	0	0	0	0	0	7	0	0	0	0
Slovak Republic	0	0	0	0	0	38	0	0	0	0
Slovenia	0	0	0	0	0	33	0	0	0	0
South Africa	8	0	4	0	0	62	0	0	0	0
Swaziland	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0
Switzerland	240	94	0	0	0	446	164	0	0	19
Thailand	2	3	0	0	0	37	0	0	0	0
Tunisia	0	0	0	0	0	13	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0
United States	0	0	0	0	0	63	0	0	0	78
Uruguay	0	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	0	0
European Union	4	0	88	0	0	11	15	0	0	267
Total	**390**	**98**	**124**	**0**	**59**	**1485**	**239**	**4**	**0**	**473**
(%)	13.58	3.41	4.32	0.00	2.05	51.71	8.32	0.14	0.00	16.47

Source: Authors' estimates

As indicated in section 2, GATT 1994 imposed limits on the extent of protection that can be extended to STE importers. Article II:4 of GATT states that protection, on average, should not exceed the amount of tariff protection provided for in their tariff schedule. This could be interpreted as the maximum price mark-up which can be charged when imports are sold in the domestic market. In addition, the Uruguay Round introduced tariff rate quotas as a means to improve access for those products subject to tariffication. However, both of these provisions in themselves do not guarantee improved market access. For instance, STEs can satisfy the rule on maximum price mark-ups by simply reducing their profit margin without expanding imports. Second, since the over-quota tariffs are prohibitively high, as is the case in many countries, imports only enter within the minimum access commitments. Third, in countries where existing preferential arrangements are included in current access commitments, the possibilities for increased market access remain limited.

GATT/WTO rules allow STE monopoly importers to administer imports into a country provided such activities are carried out within "acceptable commercial practices." But what is considered "acceptable commercial practices"? The lack of transparency in STE activities and operations precludes the determination of specific distortionary impacts and whether operations are within the spirit of the Agreement. The administration of tariff quotas determine who gets the monopoly rent associated with quota rights and licenses. The legalization of tariff rate quotas following the Uruguay Round Agreement makes import administration by STEs a major concern, especially due to the non-transparency that exists in the Agreement on Import Licensing Procedures with regards allocation of import quotas.

The tendency of member countries to establish new STEs to administer the implementation of the new tariff quotas following the Uruguay Round is another concern. The Philippines, for example, established a new STE to administer its commitments on meat tariff rates quotas. Similarly, Taiwan set-up new STE to administer its tariff rate quotas on rice and poultry products. China recently re-introduced state trading in oilseeds and oilseed products. The objectives in all these appear to be to provide exclusive purchase rights to STEs so that the government can maintain its control on trade flows. These activities preclude competition and impede the entry of new private firms.

Several other STE activities and operations can circumvent the general WTO rules on market access. Many of these entities control grades and standards of imported products. Such control may lead to discriminatory treatment against products of certain national origin, thus impeding the free trade and market access in these goods. In addition, some members maintain multi-tiered foreign exchange rate systems, where STEs are granted preferential rates for purchases. These policies in effect discourage competition at discriminates against private importers, both domestic and foreign. In other countries, STEs are occasionally allowed to keep over-quota tariff revenues or resale price differentials. These STEs use the tariff revenues to subsidize other aspects of their own operations to the disadvantage of other firms.

4. ESTIMATING THE DISTORTIONARY EFFECTS OF STATE TRADING

4.1 DISTORTIONS BASED ON GATT/WTO RULES

To estimate the trade distortion effects of STEs, one has to determine the extent of government intervention resulting from STE operations and their effects on domestic production and total demand--domestic and foreign. For STEs which control imports, one approach in the literature follows the"tariff

equivalence" method which the distortion effect is measured by the equivalent effect on domestic prices to a tariff. Similarly, it could be argued that the distortion effect of a STE which controls exports can be measured by the effect on domestic price equivalent to an "export tax or export subsidy equivalent".

Another approach attempts to evaluate the effects of STEs based on specific GATT rules. For instance, based on GATT 1994 STE importers must operate in such a way such that domestic demand for imports is satisfied and protection granted should not exceed the bound tariff. In addition, STEs should behave like commercial firms and respect the principle of non-discrimination. Based on these rules, the analytical task is to evaluate whether domestic demand for imports is satisfied and whether the STE enjoys more protection than the bound tariff. Whether the STE behaved "commercially" is difficult to define and evaluate in practice. One way is to determine whether the STE imports to satisfy the level of domestic demand which would be faced by a private importer under competitive conditions.

The methodology for measuring protection is well developed in the literature. Given an import demand function for a product, the difference between the world price level and the wholesale price of the same good is the tariff equivalent of the import policies which operate to determine the import quantity. This is shown in Figure 1 where a particular STE administers imports under competitive markets. Given an excess demand (ED) faced by the STE and the excess supply curve (ES) which is perfectly elastic at the world price (Pw), the tariff equivalent measures the impact of the STE on prices. If the STE imports and sells at the same price as Pw, then there will be a zero tariff equivalent. If the STE sells in competition with private importers, the tariff equivalent would be equivalent to the actual tariff applied to private imports. The effect of the STE on trade is measured by the reduction in the import volume.

For STE exporters, the Uruguay Round Agreement mandates that they should not grant export subsidies that would exceed their UR commitments. The question is whether the STE grants an export subsidy and how much. The simple analysis of export subsidies could be employed to estimate the distortionary effects of STE exporters. The latter will have an export supply schedule which will be observable at the price Pw and quantity of sales Qo (Figure 2). Given a domestic price faced by producers, the degree of subsidy represented by export subsidy equivalent could be measured in the same way as the tariff equivalent in Figure 1. The effect on trade is the amount by which an export subsidy equal to the subsidy equivalent would expand exports. The total expenditure on export subsidies provided by the STE exporter is given by the per unit subsidy equivalent multiplied by the volume of exports.

4.2 DISTORTIONS UNDER IMPERFECT COMPETITION

The analysis of distortions and welfare effects resulting from STEs with monopoly power under imperfect competition is complex. Monopoly power resulting from exclusive rights granted to STEs can be exercised in several ways which will affect trade flows. The major analytical questions include (a) the effects on imports and exports of STEs with exclusive rights or monopoly power in domestic markets and (b) use of monopoly or monopsony power in the world market to influence traded quantities and prices.

The first question is analogous to a *small country case*, where the country STE does not influence its terms-of-trade. In this situation, monopoly power of STEs in domestic markets are exercised in several ways including control on supplies, distribution, consumption, and quantities traded. Assume initially that a STE has control on at least one of these functions. Also assume that the STE does not impose any quantitative restrictions on total imports and other firms can import additional quantities above the tariff quota or minimum access level to satisfy total demand. In practice, this implies that the STE does not restrict other firms from importing over the in-quota tariff. For STE exporters, assume initially that UR commitments on maximum export subsidies are satisfied. The analytical question is therefore on the extent of trade distortion other than those resulting from hidden non-tariff barriers and export subsidies. In this case, the STE with monopoly power in the domestic market may restrict production below the competitive level in order to raise prices. However, other firms can engage in trade and consumers can purchase from abroad at the world price. The STE would operate in such a way that marginal cost of domestic production is equal to marginal revenue as given by the price of imports. If the STE does not enjoy any quantitative controls on total imports, then other firms can always satisfy their needs from imports. Hence, the quantity of total imports would be similar from that of competitive level. The trade distortion effect of the STE in the initial case of zero quantitative restrictions or hidden non-tariff barriers would be minimal.

Consider another case of STE with monopsonist power and exclusive rights in purchasing domestic production. To minimize cost, the STE monopsonist would buy less from domestic suppliers than under a competitive market condition. The STE would capture rents from purchasing less of the domestic product at lower prices than the cost of imports in order to equate its marginal cost of buying from the domestic market with the world price inclusive of tariffs. In practice, this usually require imposing export restrictions or ban on exports. However, if other domestic firms can engage in exports, the STE monopsonist loses its market power. Therefore, the distortion and trade effect of monopoly or monopsony power of STEs in the domestic market arises from the existence of non-tariff barriers including hidden quantitative import and export restraints.

This leaves the case of STEs with monopoly power on trade. Consider the case of STE monopoly operating to maximize profits or rents by influencing or controlling trade. If the objective of the STE is to maximize profits by exploiting consumers, then even in the case of a small country with no influence on world prices, the STE would impose trade restrictions equivalent to a tariff or an export subsidy. For a STE importer, the rent-maximizing tariff equivalent would be the difference between marginal and average revenue on the domestic market. The volume of imports would be lower than the free-trade level. Thus, the distortion effect can be measured by the size of the tariff equivalent of the policies in-place. Conversely, if the STE monopolist engages in trade by exploiting producers, the equivalent policy would be a subsidy on imports to reduce domestic prices until the marginal cost of buying from domestic suppliers is equal to the world price. The level of rent-maximizing subsidy would be the difference between the supply price and the marginal cost of purchasing from domestic suppliers. In this case, the trade distortion effect would be measured by the import subsidy equivalent. If the STE monopolist also controls domestic marketing and decides to exploit consumers, imported products are sold domestically at a high price and domestic product are purchased at the low price. With product differentiation, the trade and distortion effects should be measured accounting for product prices and quality differences in imports and domestic goods. The distortion effect can be represented or proxied by measures of producer or consumer subsidy equivalents.

Consider another case where a STE has monopoly rights on trade and is supporting a country's domestic producer price or income support policy. In this case, rents are transferred from consumers to producers and the STE. If the STE operates to support domestic prices above the competitive level and rents are distributed to producers in the form of higher prices, the impact on trade would be equivalent as in the case of production controls or quota. The distortion effect in this case would be represented by the tariff equivalent, measured as the price gap between the higher domestic price and the world price. A third case is that of a STE operating in support of cheap food policy or "food security" objective. Here, the STE with trade monopoly and controls on marketing or distribution sells imports at low domestic prices through imposition of import subsidies or export taxes. The distortion effect would be represented by the subsidy or tax equivalent.

In a large country case where a member country is large enough to influence its terms of trade, the distortion and trade effects are more difficult to measure in practice. In this case, the STE with monopoly power on trade faces a demand curve which is the sum of the domestic and foreign demand, and is less than perfectly elastic. The STE monopolist operates in such that its total marginal costs is

equivalent to its total marginal revenue. Profits in this case could be increased by restricting production and driving up the world price. The effect on trade flows can be represented by a producer tax equivalent on domestic production, where the height represents the degree of monopoly power in domestic and world market. In practice however, controlling domestic production in the absence of trade restrictions is not likely to result in trade distortions. The STE monopsonist likewise has some market power if world prices are influenced by the restriction of purchases on the domestic market. With restrictions on domestic purchases, imports and world prices would increase. Here, the trade effect is due to restrictions on domestic production and can be represented by a producer tax equivalent measure.

Consider a profit-maximizing STE with monopoly or monopsony powers on trade. Assume also that the STE has the power to discriminate among markets and impose optimal trade taxes. In this situation, the STE monopolist would operate such that its excess supply curve is equivalent with its marginal export revenue function and would impose an optimal export tax. A STE monopsonist would equate its excess demand schedule with the marginal import cost function and impose an optimal import tariff. The distortion effects would be represented by a tariff equivalent of the optimal tax/tariff policies.

Figure 5 illustrates a measure of the "true" rate of protection when a tariff or price mark-up are imposed on all importables under the case of differentiated products and three classes of commodities: exportables (P(x)); importables (P(m)); and purley domestic goods ((P(H)). When a price mark-up or tariff equivalent to t is imposed on all importables, the price ray corresponding to the P(m)/P(x) price ratio rotates from OT to OT'. The price ratio rotates such that the new ray OT' is above the old equilibrium point by an amount equal to the length (1+t) of the nominal price mark-up or tariff. To reach a new equilibrium (at point B), the intersection of OT' with HH, the price of exportables relative to domestic goods decline to 1/(1+d), while the price of importables relative to domestic goods increase to (1+t) / (1+d), where d is the increase in the price of domestic or home goods. The increase in the price of home goods is larger, the stronger the elasticity of substitution between importables and home goods.

4.3 PRICE SUBSIDY EQUIVALENTS ON PRODUCTS SUBJECT TO STATE TRADING

As discussed in the previous section, many state trading enterprises administer directly or indirectly their respective country's domestic price support schemes. In these countries, domestic producer prices, prices at which STEs buys and sells, export prices or some combination are most often fixed and administered by the STE. A simple indicator of the extent of price distortions resulting from STE operations is the tariff equivalent of market price support measures or price subsidies extended to products under STEs. If the STE importer controlled domestic marketing as well, importables may be

sold to consumers domestically at P(m) while purchasing home goods from domestic producers at low prices (P(d)). Under differentiated products, the trade and price distortion effects of STEs are estimated as the producer subsidy equivalents (Dixit and Josling, 1997).

Table 2 shows the estimates of producer subsidy equivalents of major agricultural products subject to STEs in several developed and developing countries. The coverage of countries and respective products include only those which have submitted country notifications to the WTO.[11] To compare the changes in the extent of subsidies provided after the completion of the Uruguay Round Agreements, estimates of subsidy equivalents during the pre-Uruguay Round period (1988-94) and in 1995, following the implementation of the agreements are presented.

Has the implementation of the Uruguay Round Agreements resulted in a decline in the magnitude of subsidy equivalents for major agricultural products subject to STEs? In developed countries, current estimates indicate that, except in a few cases, the magnitude of average subsidy equivalents of major products have declined during the first year of implementation. However, the extent of remaining subsidies and distortions resulting from these subsidies are still very large in many cases. Among the few cases where the subsidy equivalents appear to have increased in 1995, Japan's rice and milk sectors showed the largest increase.

Table 3 summarizes our estimates of tariff equivalents of price subsidies including price mark-ups on major products under state trading in countries where information are available for the year 1995. The estimates of tariff equivalents of price subsidies shown in Table 3 indicate that state trading agencies in the countries covered tend to set domestic selling prices above world market prices, resulting in subsidies to producers. Imported products are sold by STEs at a fixed, above world market price levels, resulting in protection for domestic producers, which is paid by consumers.

For state trading agencies engage in exports, the analysis indicate that domestic prices are set or maintained at above the agencies' export price (i.e. world prices) of a given product. The agencies' monopoly gain on domestic sales are used to raise the revenue of the domestic producers and thus becomes an implicit production subsidy. Likewise, export subsidies result from guaranteed minimum reference prices for purchases from producers, to the extent that such prices are above prevailing world prices. State trading agencies which administer domestic price support schemes essentially provides protection to domestic producers. Imports are sold based on determined mark-ups, equivalent to a tariff

[11] Estimates will be updated as country notifications to the WTO become available.

in order to maintain the domestic production subsidy. The country notifications indicate that in almost all cases, the volume of imports is determined based on market requirements to compensate for any shortfall in domestic production, the level of which is usually influenced by some form of producer subsidy.

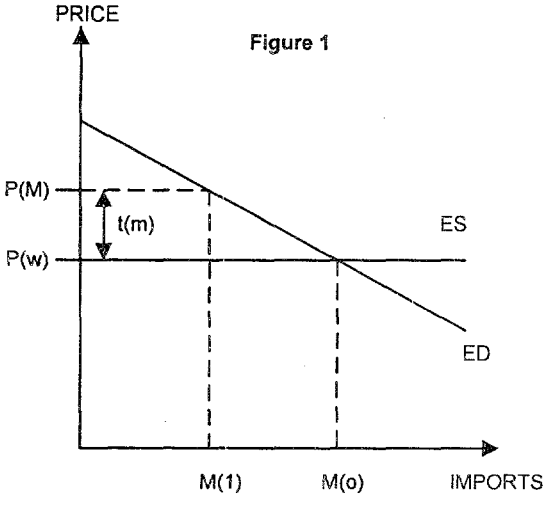

Figure 1

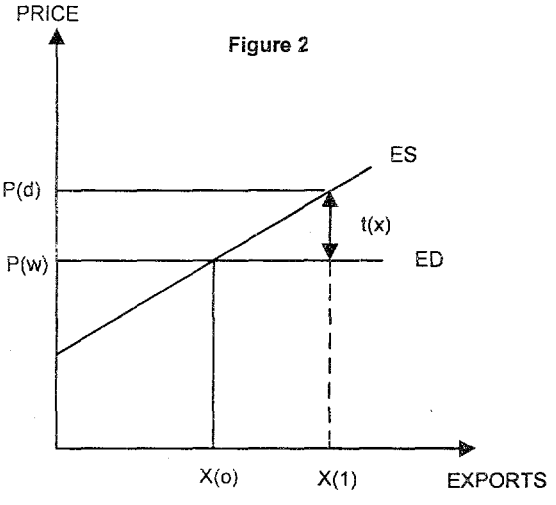

Figure 2

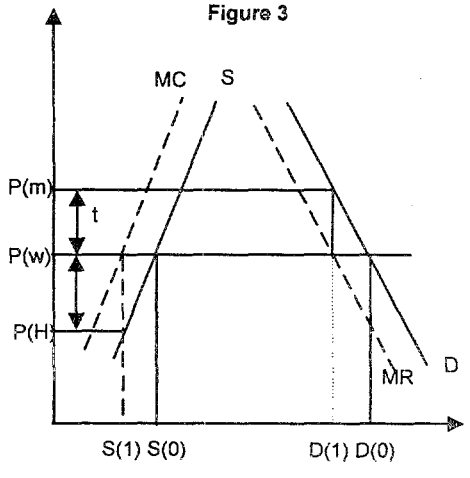

Figure 3

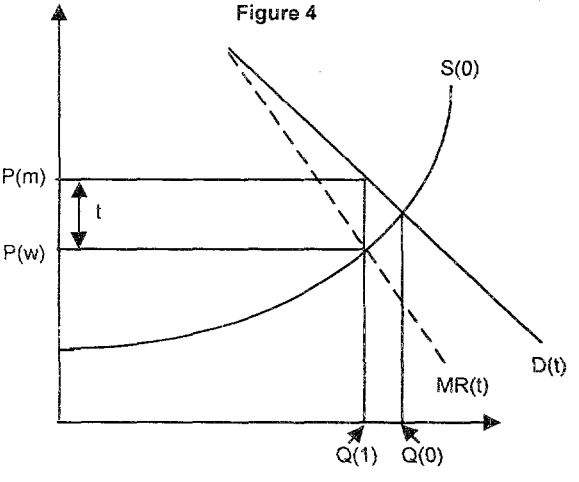

Figure 4

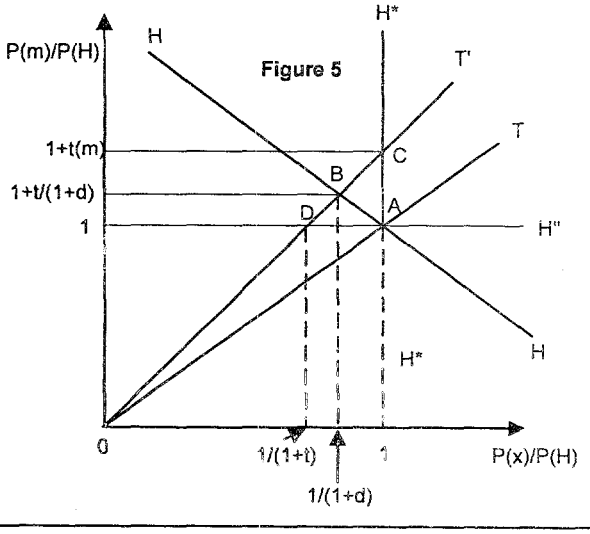

Figure 5

Table 2

Producer Subsidy or Tax Equivalents of products subject to STEs in selected developed and developing countries, percent.										
Product Groups	wheat		rice		coarse grains		beef		milk	
	Pre-UR	1995	Pre-UR	1995	Pre-UR	1995	Pre-UR	1995	Pre-UR	1995
Developed Countries										
Australia	4.50	6.40	6.70	5.60	4.62	5.03	9.41	5.18	18.50	24.70
Canada	62.10	29.40	0.00	0.00	39.82	18.62	22.70	13.60	81.70	62.20
Finland	80.10	79.00	0.00	0.00	74.66	79.71	80.26	72.64	83.60	81.00
Japan	98.00	103.00	89.40	97.10	98.80	99.30	48.90	46.70	85.90	90.50
New Zealand	16.30	1.00	0.00	0.00	3.36	1.00	7.71	2.11	4.00	1.60
Norway	85.60	73.10	0.00	0.00	54.20	47.90	84.60	79.93	88.70	85.70
Sweden	43.70	30.00	0.00	0.00	45.35	51.54	61.06	51.65	73.90	69.00
Switzerland	84.40	80.70	0.00	0.00	89.07	77.15	87.16	88.66	82.50	86.10
Turkey	51.30	-6.40	0.00	0.00	7.14	1.57	8.90	39.98	26.10	50.30
United States	45.40	22.50	48.70	39.70	22.58	11.63	6.40	5.11	62.50	43.90
Developing										
Colombia	87.20	21.00	50.30	27.50	-7.40	-5.30	21.80	41.40	19.70	19.80
Argentina	-1.80	4.20	0.00	0.00	-2.30	3.80	-6.30	6.80	0.00	0.00
Ecuador	0.00	0.00	-8.80	-10.10	-22.80	-60.20	23.30	-19.10	0.00	0.00
Paraguay	-40.10	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bolivia	10.77		-422.16		-657.91		-46.25		-906.58	
Peru	56.83		0.00		9.62		1.75		-150.35	
Mexico	53.90	31.81	32.78	-22.46	24.69	5.22			-5.17	-44.73
Brazil	43.20		95.10		8.10		-78.10		0.00	
Venezuela	0.00		39.50		70.70		0.00		0.00	
Egypt	46.40	73.90	12.10	-22.80	-48.30	-71.10	0.00	0.00	0.00	0.00
Morocco	52.00	62.00								
Tunisia	47.00		0.00		302.00		0.00		22.00	
South Africa	-22.40		0.00		-11.80		0.00		0.00	
Malaysia										
Thailand			4.73	-23.03						
Indonesia			21.83	4.64						
India										
Czechoslovakia	-22.50		0.00		-16.10		76.80		4.70	
Hungary	-14.20		0.00		-23.20		53.40		25.10	
Poland	-38.80		0.00		-19.20		-69.50		0.00	
Romania										

Source: Authors' Estimates, based on basic data from OECD, USDA, and World Bank documents.

Table 3. Tariff Equivalents of Price Subsidies and Mark-Ups, percent, 1995

	Australia	Canada	Japan	New Zealand	Norway	Switzerland	Turkey	United States
wheat	0.0	0.0	580.7	0.0	137.9	274.6	-16.2	6.0
rice	0.8	0.0	503.1	0.0	0.0	0.0	0.0	0.0
coarse grains	0.0	0.0	255.7	0.0	69.8	51.8	-1.8	0.0
beef	0.0	47.0	0.0	0.0	109.4	304.1	58.4	45.7
milk	31.0	104.3	398.1	0.0	168.7	336.0	56.1	65.6
other meat	0.3	6.4	69.5	20.0	157.6	189.0	24.9	0.0
sugar	-15.8	0.0	58.4	0.0	0.0	76.9	13.1	-4.6

Source: Authors' Estimations

5. State Trading Enterprises in Agricultural Trade

This section attempts to answer the following questions: Which countries have STEs and what products are under their control? How important are STEs in practice as an instrument of protection and source of market distortions in agricultural trade? To date, there has been no cross-country study of STEs in both developed and developing countries. This makes it difficult to quantitatively evaluate the prevalence of STEs in trade and the extent of their potential distortionary effects. To evaluate the latter, specific information on STE behavior, activities and transactions level data such as price mark-ups are required. Unfortunately, these types of data are not readily available. The analysis in this paper is based on information from various sources including WTO country notifications and Trade Policy Reviews, agriculture and commodity reports prepared by trade attaches in the Foreign Agricultural Service of the US Department of Agriculture (USDA/FAS), and World Bank country documents and internal reports.

In accordance with Article XVII, member countries are required to submit responses to questionnaires on state trading activities every 3 years. In addition, members are required to provide notifications of any changes in STE operations during intervening years. Compliance by members on notification requirements between 1980 and 1994 were very poor. During this period, only a total of 45 countries submitted either a full or updating notifications. Out of the 45 countries, only 3 countries (Finland, Sweden and Norway) provided full notifications for all five of the full reporting years. 26 countries only submitted three or fewer times during the period, with eight countries reporting only once during the period.[12]

During 1995 through July 1997, only 35 countries notified the WTO about their STE operations. These notifications indicated that a total of 121 state trading enterprises were involved in state trading in

[12] See WTO, G/L/128, October 28, 1996.

35 countries. Twenty of these countries listed state trading for grains and eleven countries notified the presence of state trading in dairy products. State trading were also reported in other agricultural products, including cotton, fisheries, forest products, horticulture, livestock and meats, oilseeds and vegetable oils, and some tropical products. The extent of state trading activities based on these figures are likely underestimated because of the remaining ambiguity in interpreting the new WTO definition and because many members have yet to submit their notifications.

Tables 4 and 5 summarizes the range of products under STE operations in developing countries. The data indicate that although STEs exist in manufacturing and services industries, agriculture appears to be the most important category of products under state trading in both developed and developing countries.[13] A review of country notifications suggests that the emphasis on agriculture in state trading activities stems from countries' agricultural policies. And because these agricultural policies were generally exempted from GATT disciplines prior the Uruguay Round Agreement, it was futile in practice to have tight restrictions of STEs which carried out agricultural trade policies. This gave room for the possible use of STEs as administrators of non-tariff barriers allowed under Article XI:2 and perhaps prevented the strict application of Article II:4 to agricultural trade.

The importance and role of STEs vary significantly across countries. State-owned enterprises accounted for about 13 percent of GDP in a sample of 65 developing countries during the late 1980s, as compared with about 6 percent in a group of 10 developed countries (World Bank, 1995). How important are STEs in world agricultural trade? Evidence based on a review in developing countries shown in Tables 4 and 5 suggest that many STEs affect trade in agricultural products. This is reflected in both formal exclusive rights or *de facto* monopoly rights or special privileges through control over domestic sources of supplies, inputs, marketing and prices.

We evaluate the extent of STE control and potential distortionary effects on trade based on several indicators, namely (1) the number of commodities covered under STE operations; (2) market share of STEs on key products; (3) whether the STE has monopoly control or exclusive rights; and (4) existence of non-tariff measures used by the STEs. Based on these indicators, we ranked the operations of STEs in individual countries as "strong", "medium" and "weak". A "strong" status implies that the country has a long list of commodities (over 30 product categories) under extensive STE controls, with

[13] However, it is likely that STE operations are also prevalent in manufacturing and services sectors, but accurate analysis is prevented by lack of information and low compliance on country notifications on STEs. Service sectors seems implicitly not included in the STE notifications.

exclusive rights or import monopoly on many items, and with significant market share in key products. A category "weak" means that only one or two sectors or a few commodities (less than 5 product items) were under STE control. In addition, the STE concerned may not have exclusive rights or monopoly preference on imports or those items have been in a process of phase-out or deregulation under a government reform program. The category "medium" is in between the strong and weak category. Under a medium status, the country is still maintaining STEs in trade with quite many commodities covered and granted exclusive rights or monopoly power are applied to certain items (between 5 to 30 product items).

Table 4 also summarizes the ranking of STE operations and potential distortionary effects in 45 developing countries. Based on the extent of commodity coverage and existence of monopoly or exclusive rights, seven developing countries (Bangladesh, Bolivia, Ghana, Hungary, India, Kenya, and Nigeria) are considered to have STEs with strong control on trade and potential significant distortionary effects. Sixteen developing countries examined (Costa Rica, Cote d'Ivoire, Dominican Republic, Egypt, Indonesia, Mauritius, Mexico, Pakistan, Peru, Romania, South Africa, Sri Lanka, Tunisia, Uruguay, Venezuela, and Zimbabwe) have STEs which are considered under "medium" status. Out of the 16 countries, 8 countries have STEs with monopoly power and exclusive rights on several important products. The other 19 developing countries in the sample are classified as having "weak" STEs mainly due to few commodity coverage. However, 8 of these 19 countries have STEs which are granted monopoly power or exclusive rights on trade in key product items. Hence, the potential distortionary effects of STEs in these countries may still be important on these key product markets, despite the fact that few commodities are covered under STE control.

Although the data on value or volume of trade carried out by STEs are very limited based on the WTO Trade Policy Reviews, tables 4 and 5 indicate that a significant amount of agricultural trade were carried out by STEs in several countries. For example, about 30 percent of Bangladesh's imports on foodgrains, edible oils, and raw meat were under state trading in early 1990s. In India, about 28 percent of total imports of rice, wheat, cereals, edible oils and fertilizers were under state trading during the same period. STEs in Peru accounted for about 20 percent of total imports in rice, cocoa, fish and fertilizers. Similarly, about 20 percent of Tunisia's total imports of foodstuffs, tea, coffee, vegetable oils and tobacco were under state trading.

On exports, STEs also accounted for important shares in total exports in several developing countries. For example, STEs in Bolivia accounted for 45 percent of total exports in rice, sugar, coffee,

raw wool and yarns. About 38 percent of Dominican Republic's total exports of rice, wheat flour and sugar were under state trading.

We now turn to the review of country notifications on state trading submitted to the WTO during a more recent period: 1995-1997. Table 6 provides a summary of state trading enterprises, their product coverage and market share of STE trade in total trade in these products for selected industrial countries. As shown, a wide range of products are under state trading in major industrial countries. Among these countries, Australia, Canada, Japan, New Zealand, Switzerland and the United States appear to have the largest number of STEs and/or largest number of products under state trading. As described in Box 1, the operations of STEs in these countries indicate potential substantial effects on the extent of domestic protection and distortions in trade in major agricultural products.

In many of these products, the state trading enterprises have significant shares in total trade in the products concerned, with several countries indicating STEs accounting for 100 percent of country's total trade in several key commodities during 1992-95. It is interesting to note that, while many products under STEs are agricultural goods, other products such as electricity, gas, chemicals, minerals, and petroleum are also under STEs in several industrial countries (see Table 6). Many of these STEs have monopoly or exclusive rights in trade in these products. In the case of Canada, the Canadian Dairy Commission (CDC) maintained exclusive import rights in dairy products following the implementation of Canada's minimum access commitments under the Uruguay Round.

Although a tariff rate quota was established under the UR minimum access commitment for butter, the exclusive allocation of all import licenses to the state trading monopoly (CDC) would likely limit in practice the extent of market access in the Canadian market for butter despite the implementation of commitments made under the Uruguay Round. Similar situations are likely in other industrial countries where the tariff rate quotas established under the Uruguay Round are administered by the state trading monopoly and/or the import licenses under the TRQ are exclusively allocated or granted to the state trading enterprise with exclusive rights. The prevalence of this phenomenon where STEs act as administrators of UR minimum access commitments in agriculture are discussed further in section 4.

The WTO country notifications sometimes do not provide complete information on existing STEs. For example, although the Australian notification provided accurate review of state trading enterprises, several entities which qualify as STEs are excluded. These include the Australian Barley Board, which controls feed and malting barley; the West Australia Grains Pool which has monopoly control over all grains in Western Australia except wheat; GRAINCO, the Queensland STE which

controls certain non-wheat grains and GRAINCORP, the New South Wales STE which similar functions as GRAINCO.

For developing countries and transition economies, table 7 summarizes the range of products under state trading and STE's market share in trade in these products in 30 countries. The results indicate that many STEs with exclusive rights are still maintained by developing countries and that trade in a wide range of products are under the control of these enterprises. More importantly, many of the STEs appear to hold monopoly power or exclusive rights in trade in many products, as indicated by the estimates of market shares. While the market shares of many STEs appear to have declined in recent years, a number of STEs also appear to have increased their shares in total trade in several products in recent years. For example, the trade share of the Turkish STE in barley trade increased from 75% in 1992-94 to 100% in 1995.

There are other STEs in developing countries which are also not reported in WTO country notifications. For example, in Indonesia, in addition to BULOG, the national logistics agency which controls trade in most major agricultural commodities, the Clove Coordinating Agency (BPPC) and APKINDO also meet the working definition of a STE. BPPC seeks to manage the domestic market and controls all clove production and imports. All imports are barred, though smuggling is likely given Indonesia's higher domestic prices compared with world prices. APKINDO, the wood products trade association is non-governmental enterprise which has been granted exclusive rights to export plywood to certain markets, particularly South Korea, Japan and Europe. Its major purpose is to fix prices in export markets. Through its export licensing role, APKINDO controls about 70 percent of the world market in hardwood plwood.

6. Alternative Policies or Multilateral Rules to Reduce Distortionary Effects of State Trading

A more effective approach to reduce the incidence of trade distortions due to STEs with monopoly power or exclusive rights is to eliminate the source of their distortionary power rather than through rules governing their behavior. An obvious approach would be to abolish their monopoly powers on imports. While STEs could continue to exist, they should not have exclusive import rights. Policy rules that outlaw monopoly rights, exclusive or discriminatory allocation of the new tariff-quotas in agricultural products to state trading monopolies would also reduce their distortionary effects on trade. Furthermore, member countries could establish new rules which allow private firms to compete with the

state trading body as a component of the further liberalization of trade. For example, members should implement their market access commitments under the Agreement in Agriculture such that the new tariff rate quotas are allocated to private firms on a non-discriminatory basis and not to government agencies or state trading monopolies. This would improve the ability of other countries to monitor the performance of STEs and generate interest groups that promote liberal trade within the importing country.

Hoekman and Low (1997) provide an excellent discussion of alternative approaches for disciplining state trading with exclusive rights. They reviewed current approaches including binding STE mark-ups, requiring trade expansion commitments in country accessions and sector specific commitments. Alternative approaches suggested by Hoekman and Low include the following: (i) continuing to allow state trading but focus more tightly on their behavior; (ii) adopting tighter restrictions on the creation of state trading enterprises with special privileges; (iii) adopting countervailing actions and remedies; (iv) provision of compensation to trading partners when an STE is established. According to Hoekman and Low, adoption of countervailing remedies is undesirable and that the alternative approaches could potentially provide better outcomes.

In agricultural trade, one way to effectively reduce the market power of STEs is to expand the quantity of the new tariff quotas until the monopoly power has no binding effect. Expanding the magnitude of imports under the minimum access provisions such that actual imports are determined by the lower in-quota tariffs would reduce the ability of STEs to maintain high import protection. Hence, further expansion in the tariff quotas and rules defining obligatory imports under minimum access would reduce the distortionary effects of STEs.

The Uruguay Round Agreements did not specify how the tariff quotas would be allocated. New policy rules governing a non-discriminatory allocation of import rights under the new tariff quota mechanism would be another way of challenging the power of STEs. The key is to expand the required import quantities under the minimum access commitments beyond the level which the STE would choose to import. Rules requiring the minimum access provisions as obligatory imports would reduce the distortionary powers of STEs.

In the case of STE exporters, a different strategy would be required. One important issue is whether the STE exporter is in violation of liberal trade. If the STE can restrict sales of another country exporter below the competitive level, then this may be treated as a matter of internal competition policy. If the monopoly power of the STE exporters extends to international markets, and can influence the sales to and from others, then some regulation at the multilateral level seems necessary. However, in practice

the STE exporter usually exports into a competitive market, and there is little need for multilateral rules in this situations. Trade liberalization by opening up markets should further weaken the monopoly power of particular STE exporters. In developing countries, many marketing boards have been deregulated recently to allow the private sector to compete in export markets. Appendix 1 provides a summary of recent reforms in STEs in developing countries.

In agriculture, an important issue for STE exporters for the next round arises not from the descriminatory practice of monopoly power but with the covert subsidization of agricultural exports. The United States has complained that Canada's Wheat Board undercuts US exporters in world markets, by subsidizing exports. The issue is therefore a more simple one of monitoring and further reductions on export subsidies. For STEs, the provision of financial assistance to STE exporters should be explicitly included as an export subsidy under the rules in the Uruguay Round Agreement. The export subsidies extended to these STEs should have been included into their schedules of commitments. If the process of reducing such export subsidies continues during the implementation of the Uruguay Round Agreement, then the issue of the subsidized STE exporters will disappear. In a number of countries, the state trading export activity results from the presence of STE importers and some from the existence of export subsidies in other countries. Abolishing the monopoly power of STE importers and further reducing overall export subsidies may reduce the attractiveness of establishing or using STE to conduct trade.

Overall, multilateral rules to strengthen the monitoring of STEs and their activities, including introducing stronger disciplines under Article XVII (e.g. increased transparency) would be needed to reduce the trade distortionary effects of STEs. As mentioned above, the notification procedure under Article XVII is woefully inadequate and has no teeth partly because of the vagueness of the provisions and because the Article has not been used to claim nullification, although it surely must as shown through the Trade Policy Reviews.

7. Conclusions

While permitted under Article XVII of the General Agreement on Tariffs and Trade, state trading monopolies are not permitted to operate in such a manner as to distort trade. We evaluate in this paper the prevalence of state trading enterprises in agricultural trade, their potential trade distortionary effects and their abilities to circumvent the Uruguay Round concessions on market access. We conclude that state trading agencies with monopoly power or exclusive rights are indeed very important in trade in major agricultural products in both developed and developing countries. The analysis in this paper indicate that the operations of these agencies effectively result in discriminatory practices and high

protection of domestic products over imported goods. Based on estimates of tariff equivalents of price subsidies extended to major products under state trading, the analyses indicate that significant price distortions remain in trade in these products.

In principle, the abolition of non-tariff barriers under the Uruguay Round would have reduced the distortionary powers of state trading monopolies. Governments could no longer claim that their STE is maintaining a non-tariff barrier. In addition, under Article II:4 of the GATT, the price mark-up imposed by state trading importers could not be larger than the bound tariff submitted under the Uruguay Round tariff schedules. The analysis in this paper indicate that the operations of STEs with monopoly power or exclusive rights may tend to effectively nullify in practice the intended objectives of the market access concessions reached under the Uruguay Round.

The notification procedure under Article XVII is woefully inadequate and has no teeth in disciplining distortionary behavior of STEs partly because of the vagueness of the provisions and because so far, with one exception, the Article has not been used to claim nullification, although it surely must. There is a need to strengthen the monitoring of STE operations and disciplines under Article XVII.

Based on actual implementation, the new established tariff rate quotas under the Uruguay Round minimum access commitments have increased the scope for state trading in agricultural trade. Based on the WTO country notifications, new STEs have been established in a number of countries. The analysis of TRQ administration and allocation schemes indicate that in a large number of countries, the new tariff rate quotas are administered by a STE with monopoly power or a government agency. Or in many cases, the import licenses are allocated or granted exclusively to a STE with exclusive rights or government agency.

Table 4: Summary of the Status of State Trading Enterprises for 45 Developing Countires

	State Trading Enterprises					Sector Covered			
Country	Status	Monopoly	Regime	% Import	% Export	Agric	Manuf	Serv	Major Agricultural Products
Argentina	Weak	No	M/X	..	..	X			Grains, meat
Bangladesh	Strong	Yes	M	30%	..	X	X		Foodgrain, edible oil, raw matl.
Bolivia	Strong	No	M/X	9%	45%	X	X	X	Rice, sugar, coffee, raw wool, yarns
Brazil	Weak	No	X	..	..		X		
Cameroon	Weak	Yes	M/X	..	..	X	X	X	Cotton, wheat flour, fertilizers
Chile	Weak	No	M/X	..	..	X	X		Wheat
Colombia	Weak	No	M	5%	..	X	X	X	Agricultural inputs
Costa Rica	Medium	Yes	M/X	..	..	X	X	X	Rice, wheat, mazie, beans, sugar
Cote d'Ivoire	Medium	Yes	M/X	..	..	X	X	X	Wheat flour, rice, ref. sugar, coffee, cocoa, cotton
Czech Repu	Weak	No	M/X	..	..	X		X	Foodstuffs
Dominican	Medium	Yes	M/X	23%	38%	X	X		Rice, wheat flour, sugar
Egypt	Medium	Yes	M	..	..	X	X		Wheat, flour, tea, edible oils, fats, tobacco, wood
El Salvador	Weak	Yes	M	..	..	X		X	Sugar
Ghana	Strong	No	M/X	..	..	X	X		Foodstuffs, beverages, fertilizers
Hong Kong	None	No							
Hungary	Strong	Yes	M/X	..	..	X	X	X	Grains, oilseeds
India	Strong	Yes	M/X	28%	6%	X	X		Rice, wheat, cereals, edible oils, fertilizers
Indonesia	Medium	Yes	M/X	..	..	X	X		Foodstuffs, beverages, sugar, garlic, fertilizers
Israel	Weak	No	M	..	..	X			Frozen meats, edible offal
Kenya	Strong	Yes	M/X	..	..	X	X	X	Cereals, sugar, fertilizers
Korea	Weak	No	M/X	..	..	X			Beef, tobacco, ginseng
Macau	None	No							
Malaysia	Weak	Yes	M	..	..	X			Rice
Mauritius	Medium	Yes	M/X	9%	..	X	X		Rice, flour, staple crops, fertilizers, fruits
Mexico	Medium	Yes	M	..	..	X	X		Maize, milk powder, soybean, sorghum, oilseeds
Morocco	Weak	Yes	M	..	..	X		X	Oilseeds, tobacco
Nigeria	Strong	Yes	M/X	..	..	X	X	X	Cocoa, cotton, groundnuts, palm products, rubbers
Pakistan	Medium	Yes	X	..	..	X			Edible oils, fruits
Peru	Medium	No	M/X	20%	..	X	X	X	Rice, cocoa, fish, fertilizers
Philippines	Weak	Yes	M	..	..	X			Rice
Poland	Weak	No	M	..	..	X			Basic food, tobacco, spirits
Romania	Medium	No	M/X	..	..	X	X	X	Livestock, dairy products
Senegal	Weak	Yes	M	..	..	X	X		Rice
Singapore	None	No							
Slovak Repu	Weak	No	X	..	..	X			Beef, port, dairy products, sugar, potatoes
South Africa	Medium	Yes	M/X	..	..	X	X		Wheat, maize, cereals, dairy prod., sugar, oilseeds
Sri Lanka	Medium	Yes	M	..	..	X		X	Wheat
Thailand	Weak	Yes	M/X	..	..	X	X		Potatoes, garlic, tea, fish, plywood, tobacco
Tunisia	Medium	Yes	M/X	20%	20%	X	X		Foodstuffs, tea, coffee, veg. oil, tobacco
Turkey	Weak	No	M	..	..	X	X		Sugar, tobacco
Uganda	Weak	No	X	..	..		X	X	Coffee, food crops, timber, lint
Uruguay	Medium	No	M/X	..	..	X	X	X	Sugarcane, sunflower oil, potatoes
Venezuela	Medium	Yes	M/X	11%	..	X	X	X	Sugar processing, milk
Zambia	Weak	Yes	M	..	..		X	X	
Zimbabwe	Medium	Yes	M/X	..	..	X	X		Wheat, maize, beef, dairy products, cotton

Memo Items

STE status:	7	==> 5 Yes/ 2 No
Medi	16	==> 13 Yes/ 3 No
Wea	19	==> 8 Yes/ 11 No
None	3	==> 3 No

Source: GATT/WTO, Trade Policy Review, various issues, 1990-96.

Table 5: State's Trading in Agricultural Products by Country in 1990.

Products (SITC Rev. 2)	Exporting Countries	Importing Countries	No. of Exporter	No. of Importer
00 Food & live animals	AFG, EGY, JOR, MWI, MLT, ROM	NER, PHL, ROM, SDN, SYR, TGO, TUN, TUR	6	8
01 Meat & meat preparations	ALG, COM, COG, ETH, EGY, GHA, JAM, MLT, MOZ, PER	BWA, NIC, NER, PER, TUR, ROM	10	6
02 Dairy products & eggs	ALG, BDI, BEN, BFO, BGD, COL, COM, ETH, ECU, GHA, IDN, JAM, MEX, MLT, NER, NGA, PER, TUR, ZMB, ZWE	BRA, PAN, ROM, TUN	20	4
03 Fish & fish preparations	BEN, COG, COM, EGY, GHA, JAM, MLT, MOZ, NGA	BEN, BDI, BGD, BRA, GIN, IND, MEX, MOR, MOZ, PAN, ROM, SLV, URY	9	13
04 Cereals & cereal Prep.	ALG, BEN, BDI, BOL, BRA, BWA, COL, COG, CRI, CYP, DOM, EGY, ETH, GHA, GUY, JAM, MEX, MLT, MOR, MUS, MWI, NER, PER, ROM, SEN, SYR, ZMB	ALG, ARG, BOL, BRA, BWA, CRI, GUY, IDN, LSO, MDG, MOR, MWI, PAK, ROM, SLV, SYR, TUR, ZWE	27	18
05 Vegetables & fruits	ALG, BEN, COG, COL, COM, DOM, EGY, GHA, GUY, MLT, NER, SDN, TUN, URY, ZMB	AFG, BEN, BFO, CRI, CYP, EGY, ETH, GIN, GHA, IND, JAM, LSO, MDG, MOR, MWI, NER, NIC, PAN, PAK, ROM, SDN, SYR, TUN, TUR, VEN	15	25
06 Sugar & honey	AFG, BEN, BDG, COG, EGY, GHA, MOR, MOZ, ROM, SYR	BDG, BRA, CIV, CRI, DOM, ETH, GUY, IND, LSO, MDG, MOZ, NIC, ROM, SLV, ZMB	10	15
07 Coffee, cocoa, & tea	BFO, EGY, MLI, MLT, ROM, SYR, TUN, URY, ZMB	BDI, BDG, BOL, BRA, CAF, CIV, CMR, COG, CRI, DOM, ETH, IND, IDN, JAM, LBR, LKA, MDG, MOZ, NGA, PAN, SLE, TGO, TUN, TZA	9	24
08 Animal feeding & stuff	COL, EGY, JAM, LKA	BGD, BRA, BWA, NER, PER, SEN, TGO, TUR, TZA, ZMB	4	10
09 Misc. edible products	ALG, BEN, EGY, ETH, GMB, GUY, MDG, MEX, SDN, SYR, TUN, ZMB	ALG, PAN, ROM, TUR	12	4
11 Beverages	BEN, BFO, GHA, GMB, ETH, NGA, ROM, SDN, SYR	ALG, BEN, CYP, MDG, MOR, PAN, ROM	9	7
12 Tobacco & products	AFG, ALG, BEN, BFO, COM, EGY, ETH, GMB, MLI, NER, PER, ROM, SDN, SYR	ALG, BGD, CAF, CMR, COG, DOM, EGY, NIC, PER, SYR, TZA	14	11
21 Hides & skins (raw)	EGY, ROM	BDI, BGD, BWA, ETH, KEN, MWI, NER, PAN, SDN	2	9
22 Groundnuts & peanuts	COL, CYP, EGY, JAM, LKA, MEX, ROM, VEN	AFG, ARG, BFO, BRA, CMR, CRI, GMB, ETH, MYS, MWI, NGA, NIC, ROM, SDN, SLE, SYR, TUR	8	17
23 Crude rubber	ALG, DOM, EGY, ETH, IND, IDN, MOZ, ROM, ZMB	BRA, CMR, IDN, LKA, MYS, NGA, PAN, TUR	9	8
24 Cork & wood	ALG, EGY, JAM, MLI, MLT, ROM, TGO, ZMB	COG, COL, ROM, TZA, UGA, ZMB	8	6
25 Waste paper & board	DOM, IDN, LKA, ROM	BRA, TUR	4	2
26 Cotton & fibres	BDG, DOM, EGY, ETH, IND, IDN, LKA, MOZ, SYR, TUR	AFG, BDI, BGD, BOL, BRA, CAF, CMR, COL, EGY, ETH, GMB, IND, LKA, MOZ, MWI, NGA, NIC, PAK, SYR, TGO, TUR	10	21
27 Crude fertilizers	BDI, BEN, BFO, BOL, BUR, CMR, COG, DOM, ETH, EGY, GMB, IND, IDN, JOR, KEN, LKA, MOR, MWI, NER, NPL, PAK, ROM, SYR, TUR, ZMB	BRA, CHL, EGY, ETH, GIN, IND, IDN, JOR, KEN, LKA, MOR, MOZ, MRT, MWI, PAK, PAN, ROM, SEN, TGO, TUR	25	20
29 Crude animal & veg matls	BFO, ETH, MOZ, MWI, PAK, ROM, SYR, THA, URY, ZMB	AFG, BWA, EGY, ETH, MDG, NER, PAN, PER, ROM, SLV, TZA	10	11
Country Total:			221	239

Source: UNCTAD, Handbook of State Trading Organizations of Developing Countries. Vol. I, 1990.

Table 6: Summary of State Trading by WTO Notifications of Article XVII:4(a) in Selected Industrial Countries

Country	Date	State Enterprise	Trading Product	Import	Export	1994 Value (US$ Mill)	Remark	As % of Total Trade
Australia	07/22/96	Australian Dairy Corp.	Milk powder, cheese, butter		x	243.4		23%
		Australian Dried Fruits Board	Sultanas, raisins, currants					
		Australian Honey Bureau	Honey					
		Australian Horticultural Corp.	Nursery products, avocados					
			Apples, pears, citrus					
			Dried vine fruit					
			Cheatnuts & macadamia nuts					
		Australian Meat & Livestock Corp.	Beef & veal, buffalo meat					
			Lamb, goat meats, mutton					
			Live cattle & sheep					
		Australian Wheat Board	Wheat		x	2235.8		99%
		Australian Wine & Brandy Corp.	Wine, brandy & grape spirit					
		Wool International	Wool		x	221.0		5%
		Queensland Sugar Corp.	Sugar		x	2231.7		81%
		Grainco - Queensland based agribusiness	Wheat & barley, sorghum					
		New South Wales Grains Board	Coarse grains, oilseed					
			Barley sorghum, oats					
		Australian Barley Board	Barley, oats, peas, faba beans					
			Lupins, vetch & canola					
		Grain Pool of Western Australia	Oats, faba beans, peas, linola					
			Barley, lupins & canola					
		New South Wales Rice Marketing Board	Rice		x	733.0		63%
Canada	09/29/95	Canadian Dairy Commission	Butter	m		1.4		69%
					x	3.7		97%
			Milk & milk powder		x	84.3		94%
		Freshwater Fish Marketing Corp.	Freshwater fish		x	37.6		37%
		Importation of Intoxicating Liquor Act	Alcoholic beverages	m		177.7		
		Canadian Wheat Board	Wheat		x	2995.6		99%
			Barley		x	476.3		100%
European Union	01/23/96	Electricite & Gaz De France	Electricity & gas	m	x			
(France)		Entreprise Miniere et Chimique	Minerals, chemicals	m				
			Potassium fertilizers	m	x	270 tons ('000)		
(Austria)	06/26/96	Austria Tabakwerke AG	Tobacco	m				
		VOA	Alcohol	m				
Iceland	01/15/97	State Alcohol & Tobacco Monopoly	Alcohol, beer, wine, spirit	m		13.5		100%
			Spirit		x	0.6		100%
			Tobacco & products	m		13.6		100%
Japan	10/30/96	Agriculture & Livestock Industries Corp.	Livestock, raw silk, & sugar	m				
			Skim milk & powder	m		16.9 tons ('000)		
		Japan Food Agency	Wheat	m		6.4 tons (mill)		
			Rice	m		1.6 tons (mill)		
			Barley	m		1.8 tons ('000)		
		Japan Tobacco Inc.	Tobacco	m		703.4		
			Salt	m		277.0		
		Ministry of Int'l Trade & Industry	Alcohol (>90%)	m		1.4		

Source: WTO Country Notification of STEs, 1995-97.

Table 6: Summary of State Trading by WTO Notifications of Article XVII:4(a) in Selected Industrial Countries

Country	Date	State Enterprise	Trading Product	Import	Export	1994 Value (US$ Mill)	Remark	As % of Total Trade
New Zealand	08/08/95	Apple & Pear Marketing Board	Apples, pears		x	326		100%
		Hop Marketing Board	Hops		x	6.1		100%
		Dairy Board	Butter, cheese, milk powders		x	3389.9		
		Kiwifruit Board	Kiwifruit		x	381.1		
		Wool Board	Wool		x	1054.1		
		Meat Producers Board	Meats		x	2634.9		
		Game Industry Board	Deer meat & dear antlers		x	182.5		
Norway	09/12/96	Norwegian Grain Corporation	Grains, feed stuffs	m		84.2		
		A/S Vinmonopolet	Alcoholic beverages & spirits	m	x			
Switzerland	12/06/95	Swiss Butter Supply Board	Butter	m		5.2	100%	
		Federal Alcohol Administration	Distilled beverages	m		15.1	100%	
		Federal Office of Agriculture	Bread flour, wheat meal	m		0.1	100%	
					x	0.3	100%	
United States	09/29/95	Commodity Credit Corp.	Butter, cheese, dry milk	m		156.1		
					x	406.6		
			Barley, corn, oats	m		89.5		
					x	3968.3		
			Sorghum, soybeans	m		14.5		
					x	4761.0		
			Wheat, rice	m		89.3		
					x	4914.8		
			Honey, sugar	m		663.8		
					x	135.7		
			Cotton, rye	m		17.5		
					x	2286.6		
			Peanuts, dry beans	m		29.1		
					x	392.4		
			Sunflowerseeds, flaxseed	m		8.5		
					x	63.0		
		Federal Helium Program	Helium		x	100.4 m3	(mill)	
		Isotioes Prod & Distr. Program	Isotopes	m		88.2		
					x	103.8		
		US Enrichment Corp.	Uranium	m		518.1		
					x	1045.7		
		Naval Petroleum & Oil Share Reserves	Crude oil, gas, petroleum prod.	m		43354.8		
					x	502.9		
		Strategic Petroleum Reserve	Crude petroleum	m		38463.5		
					x	53.3		
		Power Marketing Administration	Electricity			3046.9	Revenues	
		Tennessee Valley Authority	Electricity	m		960.3		
					x	30.0		
		Strategic & Critical Materials	Stockpiles materials	m		4324.6		
		Stockpiling			x	685.1		

Source: WTO Country Notification of STEs, 1995-97.

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