

Agriculture in the WTO

ISSUES IN REFORMING TARIFF-RATE IMPORT QUOTAS IN THE AGREEMENT ON AGRICULTURE IN THE WTO

Commissioned Paper Number 13

**The International Agricultural Trade
Research Consortium**

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Participants

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All authors participated as private individuals, and the views expressed should not be taken to represent those of institutions to which they are associated.

The International Agricultural Trade Research Consortium (IATRC) is an organization of approximately 160 economists from 15 different countries, interested in research, policy analysis, and current developments in international agricultural trade. For further information, please contact Professor David Blandford, Chairman, IATRC, Department of Agricultural Economics and Rural Sociology, Pennsylvania State University (dblandford@psu.edu) or consult the IATRC website (<http://www.umn.edu/iatric>)

Preface

The International Agricultural Trade Research Consortium (IATRC) is an informal association of university and government economists. The Consortium has taken a keen interest in the Uruguay Round and the negotiations on agriculture from the inception of talks in 1986. During the Uruguay Round, the Consortium published, under the overall title of “Bringing Agriculture into the GATT”, a series of eight Commissioned Papers that have attempted to monitor and interpret the progress of the negotiations and in a modest way to provide a platform for ideas. After the negotiations were concluded, Commissioned Papers were published, evaluating the new Agreement on Agriculture and the commitments that major countries had accepted under it. The present paper continues the series by assessing the issues of reforming tariff-rate import quotas in the Agreement and drawing implications for the current round of negotiations. Even though the Uruguay Round has firmly embedded agriculture into GATT disciplines, the series title “Bringing Agriculture into the GATT” has been maintained to indicate the unity of the overall series.

Like previous Commissioned papers of the IATRC, the present work is that of a team of economists. This paper was organized under the Chairmanship of Harry de Gorter with 17 other contributing authors. Each co-author contributed a draft of one or more chapters and participated in reading and improving the other chapters. The drafting responsibilities for the specific issues were as follows: chapter 3 (GATT Rules) de Gorter, Boughner and Skully; chapter 4 (Overview) Liapis; chapter 5 (EU) Bureau and Tangermann; chapter 6 (U.S.) Skully; chapter 7 (U.S. dairy) Coleman and Boughner; chapter 8 (developing countries) Abbott and Morse; chapter 9 (Japan and Korea) Choi and Sumner; chapter 10 (Canada) Barichello; chapter 11 (Australia and New Zealand) MacLaren; chapter 12 (Bananas) Herrmann, Kramb and Moennich; and chapters 1-2 and 13 were drafted by de Gorter and Sheldon, but with significant input from several other authors. The authors are aware of the fact that different views on a number of policy issues are occasionally presented in the individual country chapters. To a large extent, these divergences of views reflect different attitudes adopted in the respective countries, and it is for that reason that not all of them have been ironed out in the process of editing the country drafts. Though not necessarily agreeing with everything in the paper, each of the authors has nevertheless agreed to be associated with the entire report.

ABBREVIATIONS

ABARE	Australian Bureau of Agriculture and Resource Economics
ACP-STATES	African-Caribbean-Pacific States
AMAD	Agricultural Market Access Database
AMF	Anhydrous Milk Fat
CAP	Common Agricultural Policy
CMOB	Common Market Organization for Bananas
EU	European Union
FCFS	First-come, First-Serve
HS	Harmonized System
HTS	Harmonized Tariff Schedule
IATRC	International Agricultural Trade Research Consortium
MAC	Minimum Access Commitment
MFA	Multi-fiber Agreement
MFN	Most Favored Nation
NAFTA	North American Free Trade Agreement
NTB	Non-Tariff Barrier
NZDB	New Zealand Dairy Board
OECD	Organization of Economic Cooperation and Development
PSE	Producer Support Estimate
QR	Quantitative Restriction
SMP	Skim Milk Powder
SSG	Special Safeguard [Provision]
STE	State Trading Enterprise
TRQ	Tariff Rate Quota
UNCTAD	United Nations Conference on Trade and Development
URAA	Uruguay Round Agreement on Agriculture
U.S.	United States
USDA	United States Department of Agriculture
WMP	Whole Milk Powder
WTO	World Trade Organization

1. Introduction

The Uruguay Round Agreement on Agriculture (URAA) put in place a set of rules that may, in the future, have significant effects on the conditions for market access for agricultural products. In most cases, bound tariffs replaced non-tariff barriers such as quotas, embargoes and licenses. Rules facing exporters were to be now more transparent. In addition, minimum access commitments were made through the use of tariff rate import quotas, with a lower tariff (in-quota tariff) for imports within the quota, and a higher tariff rate (out-of-quota tariff) for imports exceeding the quota. A total of 35 countries including all OECD Member countries (except Turkey) have scheduled 1,370+ tariff rate quotas (TRQs) for agricultural commodities in the members' schedules that are annexed to the URAA. Although agriculture is now integrated into the multilateral trading system, most commentators agree that the URAA did little actually to liberalize agricultural trade (USDA, 1997; ABARE, 1999; OECD, 1999). Bound out-of-quota tariffs remain very high while quotas have resulted in the institutionalization of pre-existing rents for specific countries and firms or state trading enterprises (STEs), thereby potentially maintaining resistance by these stakeholders to any trade liberalization initiatives.

However, the potential for trade liberalization through reduction in tariffs or increases in quotas could be realized at the agricultural trade negotiations in the World Trade Organization (WTO). Developing countries in particular have much at stake here, as they are potentially large exporters who lose significantly from agricultural trade restrictions (Hertel and Martin, 1999). The purpose of this Commissioned Paper is to assess the problems and issues related to liberalizing market access and to administering the large number of TRQs. No specific provisions were approved in the URAA regarding administration of the quotas, although relevant GATT rules were to apply. Trade liberalization with TRQs is very complex, with two tariffs, a quota and several specific situations like over-quota imports, quota under-fill and preferential quotas and tariffs. In terms of administering TRQs, WTO member countries use a host of different methods, ranging from applied tariffs, and auctioning, to licenses on demand and first-come, first served. Each of these methods can lead to differing inefficiencies and inequities. In addition, other conditions placed on TRQ administration like domestic purchase requirements (prohibited by existing GATT rules) or quota limits per firm also have the potential to generate inefficiencies.

Quota administration can have a direct influence on both trade flows and the distribution of rents originating under the quotas, and is, therefore, a highly political issue. In the debate about implementation of the URAA, much dissatisfaction has been voiced regarding TRQ administration in many specific cases, and, in some cases, formal disputes have been brought before the WTO. There is an urgent need to provide more information on how TRQs are currently administered, what the economic implications are for TRQ reform and trade liberalization, how trade flows have developed under TRQs, what better rules for TRQ administration might look like, and how the next round of WTO negotiations should deal with TRQs in agriculture. The following chapters provide this essential information.

TRQs at low or minimal tariffs provide market access opportunities in agriculture, beyond the hoped-for effects of the scheduled reduction in tariffs. TRQs were put in place to deal with the fact that tariffication of existing quantitative restrictions would have shut off all trade in many cases. All countries were expected to allow access to their domestic markets for imports equivalent to at least 3 percent of domestic consumption in the 1986-1988 base period. This proportion was to rise to 5 percent by the year 2000 (2004 for developing countries). These provisions refer to "minimum access". When traditional imports did not represent a sufficient percentage of domestic consumption, TRQs were applied so as to meet URAA minimum access commitments.

In addition, the URAA agreed that preexisting market access had to be preserved. That is, access conditions for historically established import quantities would be maintained by a provision referred to as "current access". Hence, for a number of products, countries opened up TRQs in order to meet the obligations of current access. In most countries, TRQs have mainly been used to maintain traditional import flows but have not led to a large increase in trade. This can be explained by several factors:

- URAA commitments were based on the Modalities established by the WTO, which were not incorporated as part of the URAA (see IATRC, 1994). What countries actually agreed to was what they respectively submitted in their schedules, whether or not it reflected the application of the Modalities. As a result, the Modalities discipline was not always followed in practice, and the operation of TRQs was left to individual country discretion. For example,

some countries calculated their TRQs in a way that does not always correspond to 3 percent of consumption. This also made it possible to minimize market access increases for more politically sensitive commodities.

- TRQs were often set for products characterized by tariff peaks, so the out-of-quota tariffs remain prohibitive.
- Commitments as well as management of TRQs lack transparency in many countries. This creates gray areas that allow some countries to get around some of the URAA disciplines. One example is the latitude given to (or taken by) countries either to use different - and sometimes inconsistent - statistical classifications or to define products at a level of very fine detail, restricting access to quotas for particular products from specific origins.
- TRQs under minimum access are not always allocated on a non-discriminatory basis, as was specified in the Modalities. Countries have used existing freedom to fill not only current access but also, sometimes, minimum access TRQs with imports under preferential agreements. In such cases, one or a few countries are allowed access to the TRQ concerned and can take advantage of the new trade opportunities. Where this is the case, it considerably limits the scope of the current functioning of the URAA in terms of trade liberalization. In some cases, quotas are allocated to countries that are unlikely to be able to export the relevant commodity. In other cases, tariffs under preferential agreements are lower than the in-quota MFN tariffs so those minimum access quotas are, *de facto*, filled with preferential imports from particular countries.
- Even though countries are obligated to open their markets to imports at particular tariffs within the TRQs specified in their schedules, they are not required to import quantities corresponding to the TRQs. Market conditions may preclude a 100 percent quota fill rate. In some cases, only a small share of the TRQ quantities is actually imported because of the manner in which TRQs are administered. This translates into a low fill rate for such quotas.

TRQs have various institutional designs with respect to the distribution of quota shares among countries and licenses among importing and exporting firms. A *global quota* has imports determined by market forces (provided there are no biases in the licensing schemes) while

country-specific allocations involves the importing country assigning shares to specific exporting countries. In the latter case, WTO rules require that such allocations aim at a distribution of trade approximating to the shares which would occur in the absence of restrictions (see Article XXIII). *Licenses* are often used as a means of administering TRQs, and can be assigned to importing or exporting firms (or to both such that an importing firm needs to present both an import and an export license to import authorities). The share of rent going to importing or exporting countries will depend on the bargaining power resulting from any licensing requirements.

An efficient TRQ administration method will be one that allows for full utilization of the import quota (in terms of quotas allocated to importing firms and of the latter fully using their allocation). Rules such as tradability of quotas and/or licenses (e.g., sold or rented) will affect the incentives for utilizing TRQs. An understanding of the implications of allocating non-tradable, country-specific export quotas and licenses to importing or exporting firms is important. The method of allocating quotas can have important implications for the impact of trade liberalization. For example, if export licenses are allocated to high cost producers, reduction of in-quota tariffs may result in increased quota fill, whereas an increase in the quota may result in quota under-fill. Other factors affecting the efficient administration of TRQs include simplicity, transparency, and certainty.

In the following chapters, such issues surrounding TRQs will be discussed in general and for specific country cases and commodity sectors. After the analysis of alternative TRQ liberalization scenarios, the implementation of the URAA is assessed in terms of five major issues:

- Identification of the many different TRQ *allocation methods* and the problems associated with those methods, including the additional conditions
- The incidence and problems associated with *discrimination*, as in country-specific export quotas and import and export licensing to trading firms
- The economics of *fill rates* and the reasons for and implications of quota under- or over-fill

- Problems associated with TRQ *transparency and notification procedures* (including the means by which countries may circumvent market access commitments such as through calculation procedures)
- The tariffs for the commodities under TRQs and the administration of TRQs.

The basic economics of TRQs and trade liberalization are discussed first in Chapter 2, along with a summary of inefficiencies that can be generated from alternative quota administration methods.

In Chapter 3, the GATT rules regarding quantitative restrictions are examined, and an interpretation of GATT Article XIII is presented that shows it is inherently contradictory – it advocates non-discrimination and use of tariffs, yet also permits TRQs to be allocated on an historical basis, a procedure which is typically discriminatory. This can cause tension between trading partners. An examination of import and export licensing rules is also conducted, using the Banana Dispute as an example.

Using a selected sample of data on commodities and countries worldwide, a global view of relative tariff rates, quota fill rates and trade flows is then described in Chapter 4. This provides an overview for the individual country case studies that are presented in subsequent chapters.

In Chapter 5, the use of TRQs in the European Union (EU) is examined, 87 TRQs having been implemented in order to meet the EU's market access obligations. About 60 percent of the TRQs relate to minimum access, while the remainder relates to current access. The latter category has been documented with much more transparency compared to those of other countries such as the United States. The chapter concludes that the EU has chosen to administer its TRQs in a way that neither discourages imports nor improves economic efficiency. The most common methods of TRQ administration are licenses on demand, historical allocation, and first-come first-served. Fill rates have been quite high for most TRQs, and there is no evidence that the EU has managed TRQs in such a way as to discourage market access. The TRQ system accounted for most of the increased access to the EU market after the URAA. In terms of further

trade liberalization, the chapter concludes that increasing quota volumes in the EU is likely to result in more gains than reductions in tariffs.

In the case of the United States described in Chapters 6 and 7, a total of 54 TRQs covering 7 product categories have been notified to the WTO. Of these, the TRQs covering sugar, peanuts, cotton, and dairy products originated in quotas designed to maintain a U.S. domestic price support program. Most of the TRQs in the United States are allocated on an historical market share basis, and once allocated, they are likely to become difficult to redistribute in accordance with changing comparative advantage.

In Chapter 8, the implementation and administration of TRQs in developing countries is analyzed. Fourteen developing countries have notified the WTO that they utilize TRQs for over 180 agricultural commodities, the countries being Brazil, Colombia, Costa Rica, Guatemala, Indonesia, Korea, Malaysia, Mexico, Morocco, Panama, the Philippines, Thailand, Tunisia, and Venezuela. Only Korea and the Philippines are actually implementing TRQs typically found in rich countries. The remaining countries made notifications to the WTO of the use of TRQs to verify that they are meeting their access commitments. In at least half of the total cases, an applied tariff is the relevant regime, while for a third of cases, licenses are either being employed or there is STE involvement. In many cases, applied tariffs are well below a country's bound GATT rates, the exceptions being Korea and the Philippines where applied tariffs are close to GATT bindings. This suggests that there has already been substantial trade liberalization in some of these markets, and over-fill of quotas is as common as under-fill. The chapter concludes by arguing that maximal benefits from future trade liberalization in developing countries are most likely to come from tariff reduction rather than expansion of import quotas.

The analysis in Chapter 9, which is concerned with Korea and Japan, indicates that TRQs for all agricultural imports were established following the URAA, specifically, 67 in the case of Korea, and 19 in the case of Japan. Korea administers its TRQs through licenses on demand, first-come first-served, auctioning, and STEs, while Japan uses both licenses and STEs. Interestingly, although the US and other exporting countries have targeted STEs for investigation in the next round of trade negotiations, TRQs involving STEs have the highest fill rates in Korea and Japan. Access for some commodities, such as rice, is less open than would be the case if

quota amounts were made available on a commercial basis. As a result, consumer benefits are reduced, and allocation across import suppliers has been affected.

The focus in Chapter 10 is on Canada, where a total of 21 TRQs are administered for agricultural commodities, the fill rates being typically high. Most Canadian TRQs are allocated to private firms, and administration imposes minimal burden on importers. Canada allocates import quotas mostly on the basis of licenses granted to importing firms which imported the product historically. Provisions are made for new entrants. While allocating quotas to firms with historical market share may not be the most efficient method, Canada has started to make progress toward transferability of quotas on a permanent basis, with quotas now being tradable in many categories. Overall, the chapter notes that Canada's TRQ regime has been successful in maintaining transparency, and minimizing costs to importers, although additional gains could be made through further simplification of quota administration, notably for poultry, and if quotas could either be bought and sold or rented within a particular year in all product categories. Quota rents could also be spread more widely if quota auctions were adopted.

The effects of TRQs from the perspective of 2 major exporters: Australia and New Zealand are analyzed in Chapter 11 while the recent banana dispute in the WTO is analyzed in Chapter 12. The lessons to be learned from this latter dispute and the implications for the administration of TRQs in the URAA are discussed. Finally, in Chapter 13 we look ahead to the URAA negotiations and provide an assessment of the ways in which trade liberalization can be maximized and potential reforms of TRQ administration methods to provide for more efficient and equitable TRQ regimes.

2. The Economics of Tariff Rate Quotas and the Effects of Trade Liberalization

The purpose of this chapter is to explain the economics of trade liberalization with tariff quotas, describe the potential inefficiencies resulting from various administration methods (including the inefficiencies of non-tradability of import licenses and country-specific export quotas), and to outline features of a more desirable TRQ administration model. Tariff rate quotas allowed countries to make market access commitments through both import tariffs and quotas. ‘Tariffication’ involved the conversion of non-tariff barriers into MFN out-of-quota tariffs, which were bound and reduced by an unweighted average of 36% (minimum of 15% per tariff line) by 2000/01 (and four years later for developing countries). ‘Quotification’ provisions provided import opportunities despite the high out-of-quota tariffs, with minimum access assured and current access not restricted. All countries agreed to maintain a minimum access of 3% of domestic consumption (in the base period 1986-88) and increase to 5% by the year 2000.

In order to meet access commitments, many countries scheduled an ‘in-quota’ and an out-of-quota’ tariff. The import quota was to provide a means for countries to allow imports up to at least current and minimum access levels with a lower tariff for in-quota (including ‘over-quota’¹) imports and a higher tariff for out-of-quota imports. There was no uniformity across countries or commodities in absolute or relative levels of the in-quota and out-of-quota tariffs, resulting in differing (potential and realized) trade liberalization effects.² Quota rents are therefore also unequal across countries and commodities. Many out-of-quota tariffs were prohibitively high (aided by the process of purposeful miscalculation or ‘dirty tariffication’), making the quota the maximum import level. Some countries also used creative methods to minimize access through ‘dirty quotification’³.

As will be shown below, the effects of trade liberalization depend critically on which of the three basic regimes is operational to begin with (the quota, the in-quota tariff or the out-of-quota tariff), the trade liberalization option under consideration (lowering either tariff or increasing the quota level), and how close one is to a regime switch with trade liberalization.

¹ The level of ‘over-quota’ imports at the in-quota tariff is determined at the discretion of the importing country.

² Countries were more easily able to meet their trade liberalization obligations (a 36% in the unweighted average of all tariffs) by reducing low tariff sectors relatively more (in percentage terms).

Furthermore, tariff quotas involve other complexities that are also important for policy makers to understand before the true effects of trade liberalization can be determined. We will show in section 3 of this chapter that over-quota imports, quota under-fill (other than that due to the in-quota tariff being the effective instrument), quota and non-quota imports at preferential tariff rates, preferential or ‘country specific export’ quotas, and “non-notified” import quotas (e.g., preferential quotas for Eastern Europe) can all complicate the analysis. The analysis to follow shows how TRQs involve many complexities for policy makers to understand before meaningful trade liberalization can occur. The discussion is not meant to be exhaustive but illustrative and highlights the key factors to be taken into consideration for the negotiations.

The final two sections of this chapter discuss the possible inefficiencies of alternative tariff quota administration methods and outlines desirable features of a more efficient and equitable TRQ regime.

2.1 The Basic Economics of Tariff Quotas

It is important to be able to identify the condition under which the quota or either tier tariff becomes effective, i.e., which policy instrument is the constraint and so determines the level of imports and domestic/world prices. One can then describe the interaction between the tariffs and quota in their effects on trade and welfare, and the distribution of quota rents and tariff revenues. Liberalizing trade via a reduction in tariffs has a different effect on these variables than increasing quota levels.

Let us formally define the three basic policy instruments in a tariff-quota scheme: the import quota Q^{quota} ; the tariff t_1 on in-quota imports (including possibly over-quota imports), and the higher tariff t_2 on out-of-quota imports.⁴ Only one of the import tariffs or the quota can be *effective* in determining imports and domestic/world prices, rendering the other two policy

³ Examples of how countries manipulated quantities was choosing different base periods, using net *versus* gross imports or calculate consumption at a product aggregation level that suited their purposes.

⁴ We ignore for the moment in this formal analysis the possibility of quota under-fill (other than that due to the in-quota tariff being the effective instrument), over-quota imports with government discretion at in-quota tariffs (where imports can be above the quota), quota and non-quota imports at preferential tariff rates, and “non-notified” import quotas.

instruments *redundant*.⁵ For a tariff to be effective, therefore, it must change the volume of trade from the bound quota level. Otherwise, each tariff is redundant and the quota becomes effective, in which case the world price plus the out-of-quota tariff must be greater than (and the world price plus the in-quota tariff must be less than) the domestic price resulting from the import quota alone.

The in-quota tariff can be effective when the world price plus the in-quota tariff is greater than the unobserved or ‘what if’ domestic price that would have occurred if the import quota was the only policy instrument (likewise for the out-of-quota tariff if the world price including the out-of-quota tariff is below the hypothetical import determining domestic price).

Figure 2.1 shows that if the quota level is very high and close to the free trade level (i.e. such as Q^{quota} which is close to the intersection of the excess demand curve ED and the excess supply curve ES), then the in-quota tariff t_1 is effective and the domestic price = $P_W + t_1$. A tariff causes a wedge between the domestic price and the world price P_W . The equilibrium is determined when the wedge between the excess supply (determining P_W) and the excess demand (determining the domestic price) curves is equal to the tariff. This equilibrium determines total imports that are lower than free trade levels. Indeed, when the in-quota tariff t_1 is effective, imports would be at the maximum level M^*_{MAX} in Figure 2.1 and will remain so as long as the quota level is to the right of M^*_{MAX} . The resulting domestic price would be at the minimum P_{MIN} and quota under-fill occurs.

If, on the other hand, the quota is very low and close to the origin like Q^{quota} in Figure 2.1, then the out-of-quota tariff t_2 is effective. The out-of-quota tariff determines the minimum level of total imports M^*_{MIN} and the maximum possible domestic price P_{MAX} occur under this scenario. Because the quota level is to the left of the minimum level of total imports (the requirement for the t_2 tariff to be effective in the first place), out-of-quota imports occur. If the

⁵ The world price is defined to be the c.i.f price net of marketing costs to the appropriate market in the domestic market for the importer.

quota falls between the minimum and maximum level of imports, then the quota is effective in determining the domestic price like that depicted by Q_e^{quota} in Figure 2.1.⁶

Hence, there are three possible regimes over all levels of the import tariff rate quota Q^{quota} :

- the “in-quota tariff regime” where the lower in-quota tariff t_1 is operative (for example, Q_1^{quota} in Figure 2.1), where quota rents and out-of-quota revenues are zero, but in-quota tariff revenues are areas $c+f+h+i$.
- the “out-of-quota tariff regime” where the higher out-of-quota tariff t_2 is operative (for example, Q_2^{quota} in Figure 2.1), where quota rents equal areas $a+b$, out-of-quota tariff revenues are areas $d+e+f$, and in-quota tariff revenues of area c .
- the “quota regime” where the import quota (for example, Q_e^{quota} in Figure 2.1) determines price, where quota rents are areas $b+e+g$, in-quota tariff revenues are areas $c+f+h$, and out-of-quota tariff revenues are zero.

2.2 The Implications for Future Trade Negotiations

The analysis in Figure 2.1 demonstrates that, depending on the regime in effect, only one instrument can be effective at a time, so reducing either tariff (namely, the effective one) or increasing the quota will result in trade liberalization. Therefore, negotiators need to identify and change the one policy instrument of the three that is effective to begin with in order to maximize the effects of trade liberalization.

Under some circumstances, regime switches could occur (perhaps with only small changes in the one effective policy instrument). A further reduction in the tariff (or an increase in the quota) would then become ineffective in liberalizing trade. To counter this, it is important to not only identify the effective instrument in the current situation but also how soon the instrument becomes redundant upon liberalization. To do this, one can compare the relative level of out-of-quota imports to the quota and the quota fill rate. This provides information about how close one is to a regime switch.

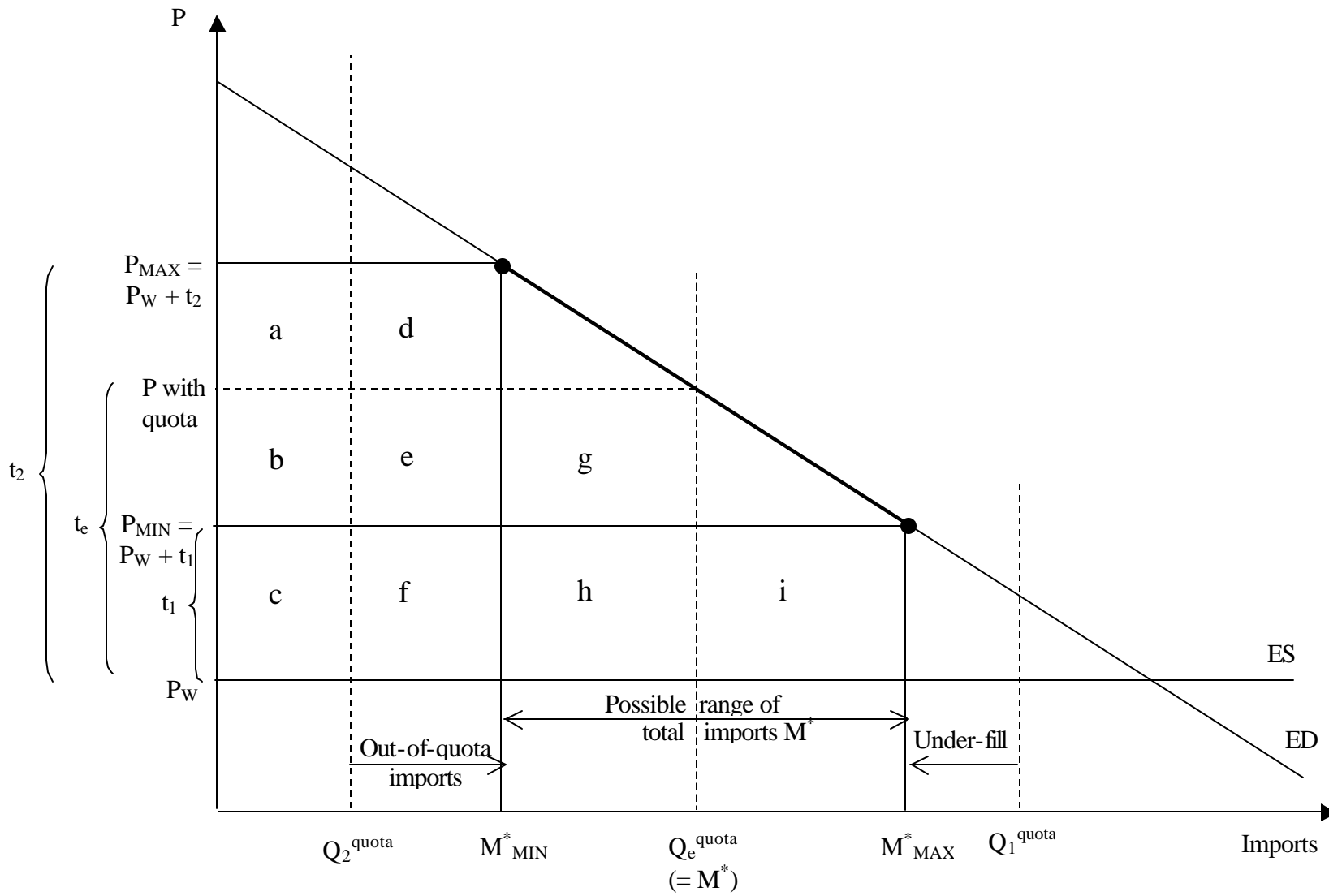
⁶ A regime switch can also occur with a shift in the free trade equilibrium, independent of policy changes. For example, large increases in import costs (due to an increase in world prices) or insufficient domestic demand (resulting in a leftward shift in excess demand) could trigger the in-quota tariff regime to be effective.

Consider, for example, the case where t_e^* is close to but less than t_2^* (i.e., imagine Q_e^{quota} in Figure 2.1 to be close to but to the right of M_{MIN}^*), where t_e^* is the tariff equivalent of the binding quota. A small reduction in the out-of-quota tariff rate t_2 will have no impact on imports. A simultaneous increase in the quota will be required in order for trade liberalization to occur. However, once t_2^* reaches t_e^* (the tariff equivalent when the quota is binding), further decreases in the rate t_2 will have maximal effect in liberalizing trade. Hence, for such cases where t_e^* is close to t_2^* , it may be sufficient to focus on negotiating significant reductions in the tariff rate t_2 only.

Table 2.1 summarizes the effects of alternative trade liberalization scenarios. Notice that when the out-of-quota tariff rate t_2 is effective (like with Q_2^{quota} in Figure 2.1), then an increase in the quota has no volume effect initially until imports under the quota are greater than M_{MIN}^* . Conversely, when the quota is initially effective (like Q_e^{quota} in Figure 2.1), then a decrease in the tariff rate t_2 has no effect unless t_2 goes so low as to generate imports beyond the quota level Q_e^{quota} . Hence, because the domestic price with a quota (world price plus some tariff equivalent t_e) described earlier is unobserved when the quota is not effective, it is sufficient to observe how large out-of-quota imports are relative to the quota, or the quota fill rate. This gives information on how close the unobserved t_e plus the world price is to the domestic price. Indeed, to avoid an instrument becoming redundant upon liberalization, it may be necessary to have at least two liberalizing instruments at the same time.

To summarize, in order to liberalize trade, negotiators should especially focus on reducing out-of-quota tariffs, in those cases with out-of-quota imports or if the out-of-quota tariff t_2 is close to the tariff equivalent of the quota t_e . If t_e is far below t_2 , increasing the quota will have a greater chance of liberalizing trade in the short run. A reduction in t_e will liberalize trade only if t_2 is close to and below t_e , in which case both tariffs need to be reduced, or if under-fill is significant because t_1 is effective — otherwise, quotas will also have to be increased in order to obtain trade liberalizing effects. This is highlighted in Table 2.1 where one notices that many cells have ‘0’ in them. This analysis shows the importance of understanding the relationship between three tariffs: the in-quota tariff t_1 , the out-of-quota tariff t_2 and the tariff equivalent of the quota when the quota is effective (where the latter can be derived from observed domestic market and world prices).

Figure 2.1: The Economics of the 3 Tariff-Quota Regimes



The share of rents versus tariff revenue depends on the relative difference between the two tariffs and on the size of the import quota. There is, however, no one uniform tariff-quota policy administered by every country, which makes it difficult to determine whether an increase in import quotas or a decrease in tariffs will result in a greater trade liberalizing effect. Therefore, there is no general rule on how quota rents and tariff revenues will change with trade liberalization.

Out-of-quota tariff revenues exist only if Q^{quota} is to the left of M^*_{MIN} , while there are always t_1 tariff revenues. Quota rents exist only if Q^{quota} is less than M^*_{MAX} . Quota rents can increase with a lower t_1 and a higher t_2 , while t_2 revenues decline with an increase in quota levels. The last 3 columns of Table 2.1 summarize all of the possibilities for changes in rents and tariff revenues. In some cases, the direction of the change in tariff revenues depends on the elasticities of excess supply and excess demand. In other cases, regime switches occur, and so tariff revenues could increase, stay the same or decrease.

2.3 The Economics of Quota Under-fill, Over-quota Imports and Preferential Tariffs

The discussion so far ignores the possibility of quota under-fill (independent of the in-quota regime being effective), over-quota imports, and imports under preferential tariffs. Over-quota imports occur when it is still profitable to import even though the over-quota duty is paid. Imports also occur at preferential rates which can be below either the in-quota or above-quota tariffs, and can be equal to zero.

The introduction of tariff-rate quotas in no way meant that they would necessarily be filled. So far, we have identified the in-quota tariff may be so high or the quota so large that the in-quota tariff is effective and under-fill occurs. Therefore, a low quota fill rate does not necessarily imply inefficiency (there may be unavailable supply or insufficient demand, such that the in-quota tariff is effective). A fill rate of 100% or more does also not necessarily imply efficiency. However, inefficiencies and transactions costs imposed by the allocation schemes (i.e., country specific export quotas to high cost exporters, export (import) licenses issued to high cost firms with non-tradability of quotas/licenses, information costs, implicit non-tariff barriers and the like) can result in quota under-fill or partial rent dissipation with a 100 percent quota fill rate. On the other hand, out-of-quota imports could occur on the excess supply curve ES if other

exporters do not incur the same costs and constraints as those importing under the quota regime (but out-of-quota imports do pay the higher tariff t_2).

The possibility of quota under-fill, over-quota imports and imports under preferential tariffs complicates the analysis of determining the initial regime from observed data, and hence of the effects of trade liberalization. We can identify seven possible outcomes in Table 2.2, using hypothetical data. Column (2) gives the bound quota while column (3) summarizes imports under the quota at t_1 , which includes the possibility of over-quota imports. Column (4) gives total imports of all products that are specific to the bound tariff-rate quota notified to the World Trade Organization (WTO 2000a) (it excludes 'non-quota' imports of a product category, for example, particular types of cheeses). The difference between column (4) and (3) is the out-of-quota imports (column 5). The "quota share" of total imports given in column (6) provides critical information on the regime, summarized in column (7). A quota share equal to 100 percent means the quota is effective (scenario (f)) or there is under-fill due to either the in-quota tariff regime being effective or inefficiencies of the quota allocation scheme are such that the quota is unfilled yet effective (scenarios (d) and (a), respectively, in Table 2.2. If the quota share is less than 100 percent, then there are out-of-quota imports with either the out-of-quota tariff or the preferential tariff being effective.

In scenario (a), imports are greater than the minimum in Figure 2.1 but less than the quota: $M_{MIN}^* < M < M_{MAX}^*$ and $< Q^{quota}$. In scenarios where either t_2 or the preferential rate t_p are operational (scenarios (b), (c), (e), (g) and (h)), it is possible that part of the out-of-quota imports occur at the preferential rate and the rest at t_2 (for which case the out-of-quota regime is effective).⁷ However, if the preferential tariff is effective (not shown in Figure 2.1), then there are no out-of-quota imports at t_2 . In these scenarios where either t_2 or t_p are effective, the total level of imports equal M_{MIN}^* in Figure 2.1 only for the t_2 regime. If the t_p regime is effective, imports are greater than M_{MIN}^* in Figure 2.1. Note that imports are less than the quota in scenario (b), but greater than the quota in scenario (c), (e) and (g).

Scenario (d) and (e) have over-quota imports at t_1 and so the government has exercised its discretionary powers. Note that the government uses discretion in scenario (e) in allowing over-

⁷ The preferential import tariff regime is not shown in Figure 2.1 but would be some tariff below t_2 .

quota imports, but the out-of-quota regime still applies. The final two columns of Table 2.2 present alternative “fill rates”. Column (8) presents the “in-quota” fill rate that is published by the WTO (2000a) and cited widely.⁸ The final column gives the ratio of total imports to the quota (the “total import fill rate”). Column (9) always exceeds the in-quota fill rate when either the τ_q or τ_p regimes are effective. In scenario (b) and (c), quota under-fill as defined by the WTO (2000a) in column (8) is not as critical as it seems because quota imports were displaced by out-of-quota imports. Quota rents were foregone (and are now τ_q tariff revenues) but inefficiency in trade has been minimized, given that the quota under-fill is due to high cost exporters receiving the quota licenses or inefficiencies in trade generated by the import quota allocation system itself.

Scenarios (b) and (c) are cases where out-of-quota imports occur and the “in-quota import fill rate” in column (8) is less than 100 percent. This is a sufficient (but not a necessary) condition for inefficiencies in the quota allocation methods to exist. Note that the in-quota fill rate reported by the WTO can be greater than 100 percent but an increase in the quota may have no effect on trade volume because of over-quota imports. Likewise, an increase in the quota with an in-quota fill rate of less than 100 percent may also have no effect on trade because the inefficiencies caused by the quota allocation method to cause under-fill in the first place may prevent further increases in imports as well (and in some cases, there are out-of-quota imports which would simply be displaced by any increased in-quota imports due to the increase in the quota). The analysis in Table 2.2 highlights the importance of analyzing “quota share” in column (6) and the two fill rates in the last two columns to gain a full understanding of which regime is operative, and what the implications are for economic efficiency and the distribution of quota rents and tariff revenues. Nevertheless, including quota under-fill, over-quota imports and preferential tariffs can change the stylized analysis of tariff-rate quotas in Figure 2.1 and Table 2.1 substantially.

The outcomes of identifying initial tariff-quota regimes are even more complicated if one allows for the possibility of imports with autonomous (un-notified) and preferential quotas. If the fill rate is less than 100 percent, then imports under quotas not notified to the WTO displaces in-

⁸ The WTO (2000a) does not give any figures above 100 percent because their concern is to compare commitments while our numbers in column (9) compare actual in-quota imports.

quota imports and so the in-quota import fill rate is underestimated. In cases where the total import fill rate is greater than or equal to 100 percent, it may seem like there are out-of-quota imports at t_2 but really the un-notified quota is effective. Another possibility is that imports from high cost exporters under quotas with preferential in-quota tariff rates may result in a higher in-quota fill rate than otherwise would be the case because of the preference afforded these high cost exporters who would not otherwise export. These potential complexities also need to be taken into account when analyzing tariff-quota liberalization options, but are omitted in the discussion here.

2.4 Alternative Quota Administration Methods

Almost 50 percent of the total 1371 agricultural tariff quotas scheduled in the WTO are administered by “applied tariffs” (Table 2.3). An applied tariff regime means no quota shares are allocated and imports are allowed in unlimited quantities at the in-quota tariff rate or lower. “Licenses on demand” are used for another 25 percent of the TRQs whereby import licenses are allocated in relation to quantities demanded (and requests are typically reduced pro rata if they exceed the quota volume).⁹ “First come, first served” is the third most commonly used administration method where imports are allowed in at the in-quota tariff rate until the quota is filled. “Historical allocation” is a method whereby licenses are issued in relation to past imports while “auctions” result in licenses allocated on the basis of a competitive bid system. Imports directly controlled by “state trading enterprises” and “producer groups” are the remaining major type of administration methods of tariff quotas. “Other” administration methods are those that do not fall into the aforementioned categories, “mixed allocation” refers to methods that are a combination of methods listed in Table 2.3, and “not specified” refers to tariff quota administration regimes which have not been notified.

⁹ Some licenses on demand regimes allocate licenses on a first come, first served basis.

Table 2.1: Effects of Trade Liberalization with TRQ's

Baseline (initial situation)	Policy Change	- - - - change in - - - -					
		Imports	Farm Welfare	Efficiency	t ₁ revenue	t ₂ revenue	Quota rents
t ₁ effective (Q ₁ ^{quota})	decrease t ₁	+	-	+	+ or - ¹	0	0 ²
	decrease t ₂	0 ³	0	0	0	0	0
	increase quota	0	0	0	0	0	0
t ₂ effective (Q ₂ ^{quota})	decrease t ₁	0	0	0	-	0	+
	decrease t ₂	+	-	+	0	+ or - ¹	-
	increase quota	0 then + if M > M _{MIN} [*]	0 then - if M > M _{MIN} [*]	0 then + if M > M _{MIN} [*]	0 then + if M > M _{MIN} [*]	- then 0 if M > M _{MIN} [*]	+ then + or - ¹ if M > M _{MIN} [*]
quota effective (Q _e ^{quota})	decrease t ₁	0	0	0	-	0	+
	decrease t ₂	0 then + if M > Q _e ^{quota}	0 then - if M > Q _e ^{quota}	0 then + if M > Q _e ^{quota}	0	0 then + if M > Q _e ^{quota}	0 then - if M > Q _e ^{quota}
	increase quota	+	-	+	+	0	+ or - ¹

¹Outcome depends on the elasticity of excess demand and excess supply.

²If t₁ goes so low that the quota becomes effective, then quota rents are generated.

³If t₂ falls below t₁ (as has happened in some cases), then imports increase.

Table 2.2: Scenarios under the Tariff Rate Quota System with the Possibility of Over-quota Imports, Quota Under-fill and Preferential Tariffs*

1	2	3			4	5	6	7	8	9
Scenario	Bound quota	Imports under the quota (t_1) ¹			Total imports	Out-of-quota imports (t_2/t_p) ²	Quota share (3(c)/4)	Regime	In-quota import fill rate (3(c)/2)	Total import fill rate (4/2)
		(a) In-quota	(b) Over-quota	(c) Total						
a	100	60	0	60	60	0	100%	t_1/Q ³	60%	60%
b	100	60	0	60	80	20	75%	t_2/t_p	60%	80%
c	100	60	0	60	120	60	50%	t_2/t_p	60%	120%
d	100	100	20	120	120	0	100%	t_1/Q	120%	120%
e	100	100	20	120	180	60	66%	t_2/t_p	120%	180%
f ⁴	100	100	0	100	100	0	100%	Q	100%	100%
g	100	100	0	100	120	20	83%	t_2/t_p	100%	120%
<i>h</i> ⁵	<i>100</i>	<i>60</i>	<i>0</i>	<i>60</i>	<i>100</i>	<i>40</i>	<i>60%</i>	<i>t_2/t_p</i>	<i>60%</i>	<i>100%</i>

- 1 all imports that came in at t_1 (bound in-quota rate) or lower applied rate
- 2 all imports that came in at t_2 (applied out-of-quota rate) or preferential rates $t_p = 0$
- 3 Q represents the committed or bound quota plus discretionary over-quota imports (if relevant)
- 4 It is possible but only by chance that the in-quota tariff regime is operative
- 5 Row h is italicized because it is identical to row c. The t_2 regime occurs with in-quota imports less than the quota AND when total imports are greater than the quota.

* The data in this table is hypothetical for illustrative purposes only. The analysis also ignores the possibility of non-notified quotas and non-quota imports.

Source: de Gorter and Kask (forthcoming).

The second column of Table 2.3 reports the “fill rate” as reported by the WTO (2000a,b). Recall that the WTO reports the “in-quota import fill rate” as described in column (8) of Table 2.2. This ignores the possibility of out-of-quota imports and so is a narrow interpretation of a “fill rate”. Furthermore, the WTO data in Table 2.3 has a maximum fill rate of 100 percent and ignores the imports where the in-quota fill rate exceeds 100 percent (which it often does in the real world). This results in a downward bias in the figures reported in column (2) of Table 2.3.

Table 2.3 Principal Methods of Administrating Tariff Quotas

	1999 # of quotas	1998 Simple average fill rate (%)	1998 Distribution of fill rates (percent of tariff quotas)	
			0-20%	80-100%
Method of Administration				
Applied Tariffs	643	69	24	60
Licenses on Demand	337	53	36	39
First-come, first-served	147	51	40	37
Historical Allocation	75	65	27	58
Auction	56	51	41	47
State Trading	22	86	10	85
Producer Groups	9	80	13	75
Mixed Allocation	59	84	5	80
Other	15	91	-	80
Not Specified	9	44	20	20
Overall	1,371	62	29	51
Additional Constraints				
Domestic Purchase Requirement ¹	48	69		
Limits on tariff quota shares ²	119	51		
Export Certificates ³	24	53		N/A
Past Trading Performance ⁴	78	51		

1. A condition requiring the purchase of domestic production of the product in order to be eligible.
2. Limits the maximum share or quantity of the quota allowed.
3. Requires an export certificate administered by the exporting country.
4. Limits eligibility to established importers of the product concerned.

Source: Calculated from the World Trade Organization, 1997, 2000a,b. “Tariff Quota Administration Methods and Tariff Quota Fill.” Background Paper by the Secretariat, 6 November (AIE/S4) and “Tariff and Other Quotas” 23 May 2000 G/AG/NG/S7 and /S8.

The average fill rates can be misleading because some are equal to zero and others are equal to 100 percent. The fill rates reported are also biased because trade volume or value is not used to weight them. Hence, very little can be read into the fill rates reported other than to note that the average fill rate for 1998 is 62 percent with state trading enterprises having the highest fill rate and auctions the lowest. The last column of Table 2.3 gives the distribution of fill rates falling between 0-20 percent and 80-100 percent. The data indicates a bi-modal distribution of fill rates for the lowest and highest fill rate categories. This may indicate that particular attention should be placed on the low fill rate category to determine the reasons for such performance. Data provided by the WTO (2000a,b) indicate that the fill rates are constant for the period 1995-1999, but the fill rate for quotas that have expanded is less than that for quota volumes that remained constant. There is no difference in the fill rate between global and country specific export allocations, and only a small difference across commodity groups, with fibers and beverages having the lowest fill rates (approximately 40 percent) with oilseeds, sugar and tobacco having the highest fill rate of 67 percent. The fill rates do vary across countries significantly, with Australia, Brazil and Indonesia with 100 percent fill rates and Costa Rica, Malaysia and Slovak Republic below 40 percent. Again, one cannot make substantive conclusions from this data because of the many caveats of how the data is constructed cited earlier. In addition, almost 50 percent of the TRQs are administered by applied tariffs in which cases one would not necessarily expect a 100 percent fill rate.

We now briefly outline the incentives for inefficiencies with each tariff quota administration type.

Licenses on Demand

Import licenses are allocated to individual firms pro rated on the difference between the quota level and the total amount of licenses requested. Over subscription can result in uneconomic quantities allocated to each applicant. This method also enables higher cost importers to obtain the rights to the rents. Therefore, an inefficient distribution of licenses across firms generates economic waste with quota rents at least partially dissipated with the extra costs associated with importation. There are ways to mitigate these inefficient rent seeking practices. A good example of such a scheme is the EU regime for eggs. Any importer can apply for the

license but is required to pay 20 percent of the value of the product in advance once a license is awarded. There is now an incentive for the importer not to overbid for the license and hence reduces rent-seeking activity by high cost suppliers. It also provides an incentive for the successful firm to import the product, thereby reducing the chance of quota under-fill. However, the costs of the down payment may deter some firms from participating and so lead to quota under-fill because of uncertainty. Once a firm receives an import license, the firm loses the down payment.

First- Come, First -Served

With no import rights allocated to either the importer or the exporter, an exporter may not risk the costs of shipping the product and find that the quota has been filled. The costs of storage until the following quota season, of paying the higher out-of-quota tariff or of shipping the product elsewhere may be high. The costs for traders of establishing a business relationship over time with importers are also a factor contributing to under-fill. Exporters do not have information on who holds the import license. The first come, first served method is prone to wasting resources by concentrating imports at the beginning of the season, increasing costs for importers who have to store the product, and discriminating against exporters farther from the import market and with different seasons, generating higher exporting costs at the beginning of the quota year. First-come, first served can also encourage low value bulk shipments as exporters cannot guarantee customers regular shipments of finished products throughout the year.

Historical Importers

Allocating import licenses to importing firms or granting 'country specific' export quotas on the basis of historical shares can lead to a waste of global resources if the lowest cost exporting country or importing firm do not receive the rights to imports. Historical import allocation therefore enables high cost importing firms and/or high cost exporting countries to operate, leading to the partial dissipation of quota rents (provided licenses and quotas are non-tradable). If licenses are known to be allocated as a share of historical imports, firms may act strategically to increase market share. Chiquita is purported to have expanded imports in the European Union in 1992 in anticipation of the new Common Market Organization for bananas

(CMOB) where import licenses (and export quotas) were to be allocated as a proportion of historical imports. Resources are therefore wasted in rent seeking activities to obtain more licenses.

Auctioning

The auctioning of import quota licenses is generally deemed to be an efficient way to allocate the right to import (Bergsten, *et al.* 1987; Skully, 1997).¹⁰ An auction would generate the same level of revenue to the government as a tariff at the rate t would have done. However, data in Table 2.3 indicate that the auction method has the lowest fill rate. It is possible for one group to purchase the entire portion of the right to import (domestic or foreign), and then withhold part of the licensed import quantity to maximize revenues. Bergsten, *et al.* (1987) argue that procedures can be designed to guard against the monopolization of licenses.

State Trading Enterprises (STEs)

The quota fill rate is very high for those STEs that control imports directly or indirectly. This may be due to exporters having to deal with only one entity, and hence do not face the transactions and information costs when dealing with many importing firms owning import licenses under other schemes. An STE is also more visible and so perhaps even scrutinized more with political pressures by foreign governments. The ability to seek rents is still possible, however. However, some STEs deliberately allocate export quotas to higher cost exporters for political reasons (ABARE 1999), resulting in inefficiencies and inequities. STEs have the ability to restrict imports to help farmers, but they do not seem to do this by under-filling quotas.

Producer groups

The control over imports by producer groups leads them to trade off the benefits from owning the quota rents and the loss in producer surplus through competition from imports. Failing to fill the quota is advantageous only if the quota rents are smaller than the loss in producer surplus due to increased imports (ABARE 1999). The outcome depends on the relative domestic supply/demand elasticities for the product, the level of the domestic price with imports

(which depends on the world price and excess supply conditions in the world market) and the level of the import quota. There remains a problem of distributing the rents to farmers, which if blended with revenues from sales from domestic production, would cause an increase in domestic production and so reduce welfare. Another option is to destroy the imported product, representing a cost to farmers (unless the domestic government finances it on behalf of the producer group). Producer groups could instead import a product that is of inferior quality, thereby fulfilling their quota and at the same time maintaining income from domestic production provided the cross elasticity of demand is low.

Lottery

An option not separately identified in the WTO's documents is issuing import licenses by lottery. This does occur (e.g. some U.S. butter and milk powder import licenses) and is efficient in that a firm cannot affect the likelihood of obtaining the license *a priori*. Nevertheless, each firm would have to comply with application procedures and assuming each firm is allowed only one draw, there are incentives to break the firm down into many small firms to increase the probability of receiving a license. Such rent seeking activities involve economic inefficiencies. Furthermore, high cost firms may win the lottery and, if the licenses are non-tradable, this method may result in excessive uncertainty and economic waste.

Additional Conditions

Table 2.3 also lists the additional conditions associated with the administration methods discussed above. Each of these can lead to wasteful rent seeking activities as well. A domestic purchase requirement increase the cost for some importing firms that otherwise would not be involved in domestic production.¹¹ Thus, part of the quota rents is dissipated and fill rates would be lower as domestic consumption declines and production increases. Limits on quota shares do not allow for economies of size and coordination, again resulting in the dissipation of quota rents. Limits on quota shares discriminate against more distant suppliers for whom shipload amounts are the economic size of shipment, rather than truckload lots, for example. Export

¹⁰ Some argue that auctions can be inconsistent with GATT rules because the auction fee can cause the tariff binding to be breached.

¹¹ Domestic purchase requirements could have in the past been considered a GATT-Article XI quantitative restriction, which is now prohibited by the URAA.

certificate requirements that are non-tradable and allocate the rights to rents to higher cost exporters as could the condition of past trading performance, can both lead to partial dissipation of quota rents.

2.5 Characteristics of More Efficient TRQ Administration Methods

Three broad objectives of TRQ administration are important. First, from an international perspective, allow market access opportunities up to the full amount of the TRQ level. This is how the URAA was intended to deal with the remaining high tariffs that inhibit trade. Second, from a home country perspective of making the most efficient use of domestic resources, ensure that the lowest cost or highest revenue firms do the importing. In other words, allocate TRQs to those firms that can make the best use of them by generating the highest profits from the importing activity. Third, the system of TRQ administration of TRQs should be designed to operate efficiently in that it does not unnecessarily waste the country's resources.

Given these objectives, we now describe what would constitute an efficient regime for administering TRQs, by discussing the means for achieving each objective.

Full Utilization of the TRQ

To ensure full use of the TRQ, many models and procedures could be followed. The full use of TRQs has two aspects: the aggregate TRQ for a country should be fully allocated to importing entities (firms), and the entities receiving TRQs should fully use their allocation. For the first aspect, the main means of assuring full utilization is for the administering agency to fully distribute import quotas to importers, and to do so relatively early in the quota period. Other rules for operating the TRQ administrative system must be designed to facilitate a full, rapid and transparent distribution of the quota.

For the second aspect, there are many means of ensuring that importers holding the quota make full use of it. In a market economy, one would wish to preserve the profit motive for importers so that they would import the item in question as long as domestic prices are higher than world prices by more than the cost of importation. This can be accomplished by having private firms receive the import quotas. It can also be accomplished by allowing firms to

compete to obtain these import rights. The general point here is that the TRQ system should involve many importers and not create a situation where there is a monopoly importer.

Similarly, allowing quotas to be rented out or rented in, or bought and sold openly, will create strong incentives for the firms that obtain the quotas to use them fully. The application of carefully constructed additional regulations can also strengthen the incentives for firms to make full use of their quotas. One example is the widely observed rule for all types of quota systems, for the quota holder to “use it or lose it.” Such a regulation removes quota from quota holders if they do not use some high percentage of their quota. Whether such added regulations are necessary is a separate question, but most countries seem to believe so because this type of regulation is almost universal across and within countries.¹²

TRQs allocated to firms that make best use of them

The second objective is to ensure that those importers receiving the quota are the most efficient importers in terms of net profit (lowest costs, highest revenues). One widely suggested method of achieving this is to use quota auctions to allocate the TRQ. Although this allocation mechanism is economically efficient, there may be legal WTO issues that inhibit its use. The fee that is paid in such an auction, although it is bid by the would-be buyer, could be seen as a breach of the tariff binding, the in-quota tariff in this case, and that fee is not related to the cost of import service. Allocation by auction will result in those firms that make the highest net importing profit acquiring the quota. However, other methods can achieve this same end. One effective but overlooked mechanism is to allow quota resale and transfer. However, the quota is initially allocated, if there is a well-developed (and legal!) market in quota for resale and transfer, a firm that is unlikely to utilize its quota fully can sell it and realize the quota profits. In the process, the quota passes along to a firm that will necessarily use it to recoup the costs of buying it. The point is often lost, that resale provisions will result in the quota ending up in the same hands (i.e., that it is as economically efficient) as with an auction. This point has practical importance because many jurisdictions find some reason for *not* allowing quota transfer and sale.

¹² A “use it or lose it” stipulation could have firms importing when it is not economical to do so, because the import license has capitalized value for future use. This can cause economic waste. A better principle is “turn it back in or lose it”.

An Efficient TRQ operating system

The third objective is to have efficient quota administration and regulations. This can be accomplished most effectively by following a basic rule in regulating quota use, and that is to *keep the regulatory system as simple as possible*. All firms (existing ones or newcomers) should be allowed to acquire the quota; there is no reason for limiting the quota validity period (i.e., they should be able to use the quota whenever they wish within the quota period); and buying and renting should be fine for all firms of whatever size or with whatever facilities. Put differently, the rules need only to say which commodity item can be imported (certain HS numbers) and that imports must be made by the end of the quota period. The temptation to use the quota regulatory system to meet other objectives should be resisted.

Another way to keep the quota administration system as simple as possible is to *minimize the uncertainty* and rule changes associated with the regime. Even if there are a number of rules, if these rules are transparent, well publicized and not changed too often, the uncertainty factor facing quota users is substantially reduced. This is particularly an issue in developing countries where quota regimes are often characterized by little information and a possible lack of transparency and openness, perhaps to facilitate corruption of various types.

One added rule type may be useful, and that concerns the general question of the *distribution of quota rents* and whether the recipient should *pay* for the quota. (Note the possible legal issues surrounding any payment for the quota, beyond the in-quota tariff and a cost of service, as mentioned above.) It may be judged desirable to tax away some of the profits (quota rents) accruing to quota holders. This can be done effectively and completely by an auction, but it can also be done less thoroughly by imposing a charge to acquire the quota. This has the advantage of generating some public revenue as well as leaving some profits in the hands of the quota recipient (although reducing those profits by the amount taxed by this charge). And the charge can be infinitely varied to achieve any desired split in revenues (quota rents) between the quota recipients and the treasury. One disadvantage of such a charge system is the difficulty in knowing, at least at the outset, what to charge. Observations on the transfer price prevailing in private transactions can be a guide to the total rents and to an appropriate charge to levy on initial allocations.

One advantage of both these payment schemes is that they have the effect of reducing *rent seeking* or corruption by those wishing to obtain the quotas. Rent seeking induced by a quota allocation scheme can make the system very inefficient in terms of the waste of time and money spent in lobbying, especially when quota values are high. This can be reduced or prevented by making the receipt of quotas less lucrative by auctioning them or charging a fee for them that is close to the auction price. In general, rent seeking can be reduced by keeping the quota allocation system rules-based, with clear reallocation criteria and a mechanical reallocation process with no scope for case-by-case adjustments or individual judgments. (Keeping the system rules-based is still consistent with imposing penalties that may result in quota reallocations for behavior by quota holders considered undesirable by quota administrators. The key issue is that these penalties be specified in advance and not discretionary.)

Another way to make the quota system work more efficiently is to define *two types of quota* — permanent and annual. TRQs are usually valid for only one year. In some cases, it may be more efficient for a firm to own the quota outright, so that the amount of quota the firm will have in future years is known with certainty. This can be accomplished by defining a permanent quota, according to which the firm would receive the annual import rights every year in perpetuity (subject to the possible future demise of the regime, of course, and subject to “use it or lose it” provisions). Yet to have *only* such a “permanent” quota is less efficient than giving the permanent quota owner the flexibility of being able to rent out (or in) some permanent quota from year to year. In other words, an efficient quota system will involve both permanent quota (for acquisition for long-term reasons) and one-year quota or the rental of permanent quota (for short-term reasons of fluctuating markets and general flexibility). Managers of such schemes can draw on the experience of TRQ administration for short-term, one-year rental arrangements and for long-term, permanent quota arrangements.

A number of other issues regarding TRQ systems concern the efficiency of the quota administrative system, the profitability (size of quota rents) of the export opportunities opened up or restricted by the TRQ, and the equity of quota allocations. This allocation issue is as much about which entities within a country receive import rights, but which countries gain the right to export into the importing region through the TRQs. Five issues can be addressed: How aggregated are TRQ commitments, and at what level of commodity aggregation are TRQs

administered? Second, should TRQs be targeted partly or completely to specific countries' exports ("country reserves")? Third, should state trading enterprises (STEs) be handling or be the recipient of TRQs? Fourth, should import allocations be restricted to industry segments, establishments, and product end-uses? And fifth, are there administrative matters concerning handling the TRQs, such as validity periods and unfilled quota provisions, that lead to fewer imports or lower-valued imports that lower the value of the TRQ to the exporting country? Finally, there is some confusion about whether a problem in the eyes of an exporter is due to a country's TRQ implementation system or to the negotiated access and commitments agreed upon in the URAA. One such example would be the debate about tariff peaks, which is not a TRQ issue per se, and will not be discussed here. Another is the actual level of the TRQ, which was also negotiated and is not an issue of TRQ administration.

On the subject of aggregation, to maximize the value of the TRQs one would like to see commitments defined as broad aggregates and administered similarly. However, if the TRQ is defined broadly (e.g., "eggs"), yet in terms of administration it can be used only to import processed eggs, not table eggs, the TRQ will be valid only for low-valued egg products. This mix of commitment and administration detail effectively reduces the market access of the TRQ. To maximize the value of market access for a given TRQ, the commitment should be made across a broad commodity category, without further administrative constraint, and the private trade should determine which products to import within that broad commodity category.

The country reserve or preferential trade issue is really one of equity in distribution of TRQs among different countries' exports. But limiting a TRQ to a specific country's exports lowers the benefit in terms of trade liberalization of the TRQ compared with allowing any country's exports under that quota, as in the previous case discussed. Certain country allocations existed prior to the URAA, and these were continued to ensure that those countries would not lose as a result of an importer's URAA commitments under the guidelines for establishing current access commitments.

The matter of STEs handling TRQs remains contentious. One argument is that the STE, often less influenced by market considerations, may have no incentive to fill the TRQ. A simple statistical correlation, as done by the WTO Secretariat in June 1998, shows that state trading

enterprises fill their TRQs as completely as other recipients of TRQ allocations. Although it may be expected that STEs would not have the incentive to fill their TRQs, in an actual situation this depends on the specific incentives faced by the firm, agency, or STE. That kind of detail is not revealed by simple correlations, and so this approach offers only an incomplete test of STE behavior in filling TRQs.

Another complaint is that the STE, especially if it represents producer interests, will choose to limit the TRQ to lower valued imports within that category or to pay the exporter lower prices for the good in question than would be paid under a private market transaction. Therefore, the argument goes, allocating TRQs to STEs is likely to reduce the market access represented by that quota, either quantitatively or in value terms. There is a general potential of an STE to lower the value of its TRQ, and the specific use of a policy directive to import products for processing, not retail, use.

Restricting import allocations to industry segments, establishments, and product end-uses, this will also reduce the value of the market access represented by the TRQ. In effect, such restrictions reduce the demand for those imports, compared with unrestricted, open market allocation of those imports. Although this restriction puts allocations into the hands of those who will use it, the recipients are willing to pay less to get the allocation than others would be. If not, the restriction would be unnecessary.

Consequently, this type of restriction has the same effects as do country reserves and, arguably, allocating TRQs to state traders. Any restrictions on who can use or receive TRQs will reduce the demand for and lower the implicit value of that TRQ, to the disadvantage of would-be exporters. There are several examples of this kind of TRQ allocation and it has usually arisen for historical reasons, where pre-URAA end-use allocations have been preserved in the current TRQ allocations.

With regard to administrative restrictions in handling of TRQs, such as limited validity periods for the quota and unfilled quota provisions, the tighter those restrictions, the more costly it is to comply and the lower the demand for TRQ imports. This could lead to fewer or lower-valued imports, or simply to a reduction in import quota rents (or in the implicit value to the

importing country of the TRQ). This situation can harm the importing country as much as the exporting country, as discussed earlier.

3. TRQs and GATT Rules

Article 4 of the Uruguay Round Agreement on Agriculture [URAA] specifies disciplines for Market Access, one of the three pillars of the agreement. Paragraph 2 of Article 4 states that "members shall not maintain, resort to, or revert to any measures of the kind which have been required to be converted into ordinary customs duties." A footnote to the Agreement expands on this statement:

These measures include quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing, non-tariff measures maintained through state-trading enterprises, voluntary export restraints, and similar border measures other than ordinary customs duties, whether or not the measures are maintained under country-specific derogations from the provisions of GATT 1947, but not measures maintained under balance-of-payments provisions or under other general, non-agriculture-specific provisions of GATT 1994 or of the other Multilateral Trade Agreements in Annex 1A to the WTO Agreement.

While Article 4 established an obligation to convert non-tariff barriers into ordinary customs duties, the URAA left WTO members considerable discretion over how to effect this conversion. Guidelines or 'modalities' for establishing tariffs and tariff-rate quotas were drafted; and while they were generally used by countries to prepare their schedules of commitments, there were important exceptions, and the guidelines were not binding obligations. Several WTO members are alleged to have engaged in 'dirty tariffication,' that is, they established higher tariffs than the suggested method would have allowed. There were also guidelines for calculating minimum access volumes, that is, how to determine 3 percent of base period domestic consumption. These constructed tariffs and in-quota volumes were included in members' Uruguay Round tariff schedules. A window for challenging them existed between the time the country schedules were submitted and the time when the URAA was accepted by the WTO membership. If a member was able to submit a tariff that was 'too high' or an in-quota volume that was 'too low' and it was not successfully challenged, then once it was accepted as part of the URAA, it became 'too late' to be challenged. The tariffs and in-quota volumes in the accepted schedules became the new WTO obligations. These obligations are the starting point for disputes over how the obligations are implemented and administered.

Article XIII of the GATT “Non-Discriminatory Administration of Quantitative Restrictions” governs the administration of quantitative restrictions, including TRQs. Article XIII can be interpreted as being inherently contradictory. It advocates non-discrimination and the use of tariffs rather than quantitative restrictions, yet it also allows supplier tariff quotas to be allocated on an historical basis, a method that is inherently discriminatory. The WTO is a judicial body to enforce the law constructed by its members. In the enforcement of Article XIII, fair market access is all that matters; access to quota rents plays no role. Of course, the distribution of rents drives many trade conflicts and is the source of disputes over TRQs.

Tariff quota administration concerns how the rights to import at the in-quota tariff are distributed. This determines both the volume and distribution of trade as well as the distribution of quota rents. It is important to keep the distinction clear between the volume and distribution of *trade* and the volume and distribution of *rents*. The WTO is only concerned with how quota administration influences the volume and distribution of *trade*; it has no direct interest in the distribution of rents. However, it is the distribution of *rents* that motivates the politics of TRQ administration. The choice of how to administer a tariff quota becomes a political decision; many competing interests claim entitlements to quota rents.

Historically, four positions were put forward by various countries:

1. Quantitative restrictions are *per se* inconsistent with MFN.
2. MFN requires that each country be assigned an *equal* share of the global quota.
3. MFN can be approximated by allotting the global quota in *proportion* to the trade shares of current suppliers.
4. Quantitative restrictions should be filled on a *first-come, first-served* basis.

Because of conflicting interpretations of the principle of non-discrimination, there was no consensus, but that “there was fairly unanimous agreement that the use of global, race-to-the-border quotas (now permitted by GATT Article XIII) was inconsistent with MFN because it unduly favored countries with geographical proximity and/or better transport facilities” (Hudec 1997, 178. n. 14). The first position claims there is no just way to solve the quota allocation

problem. The second position argues for strict parity. The third position advocates proportionality, defined as the observed volume of trade in some recent representative period. The fourth position asserts (literal) priority in the form of first-come, first-served. This issue has not been resolved to this date.

Instead of advocating one principle of distributive justice and proscribing all others, Article XIII allows a conflicting set of distributive principles. Predictably, this leads to trade conflicts over TRQ administration. The interpretation advanced here is as follows: quantitative restrictions are inconsistent with MFN principles; however, if they are administered as if they were tariffs, they can be MFN consistent. Two means of administering TRQs as tariffs are auctioning TRQ rights and allowing current TRQ holders to lease TRQ rights to other suppliers. The two methods have radically different distributions of rent, but identical expected distributions of trade. The expected distributions of trade are also identical to that generated by a tariff, and thus consistent with MFN.

The economic interpretation of Article XIII advanced here, and in Skully (1999a), concludes that the GATT advocates two criteria for judging whether the quotas under TRQs are being properly administered: (1) quota fill and (2) distribution of trade. Quota fill requires that imports of the in-quota volume be allowed if market conditions permit. That is, TRQ administrators should not impose any impediments to imports beyond payment of the in-quota tariff. If apparent profitable arbitrage opportunities are not realized, it may be because of the TRQ administration method. Of course, there may be other legitimate costs that have not been observed, thus zero-fill or under-fill does not necessarily mean TRQ administration is the cause.

As for the distribution of trade, GATT Article XIII, paragraph 2 states:

In applying import restrictions to any product, contracting parties shall aim at a distribution of trade in such product approaching as closely as possible the shares which the various contracting parties might be expected to obtain in the absence of such restrictions ...

That is, one determines what the distribution of trade (supplier market shares) would be if there were no trade restrictions. The allocation of the TRQ is then evaluated by how closely the observed distribution of the restricted volume of trade (under tariff quota) approaches the counterfactual distribution. The economic principle underlying the distribution of trade criterion

is the minimization of trade distortions given the TRQ constraint. The GATT principle of non-discrimination asserts that trade shares should be determined by the relative efficiency of suppliers and not by alternative, discriminatory criteria.

Subparagraphs in XIII 2c and 2d, on supplier quotas, are clearly contradictory in advocating both non-discrimination and tolerance (if not advocacy) of discrimination. The subparagraphs allow for “supplier tariff quotas,” TRQs that are allocated to supplying countries and require that “the imported product originate from a particular country or source”. Thus, they allow importing countries a GATT-consistent means of discrimination. As for how the supplier tariff quota shares are apportioned, GATT Article XIII, 2d states that agreement should be sought among all interested WTO members but that if this is “not reasonably practicable,” then:

the contracting party concerned shall allot to contracting parties having a substantial interest in supplying the product shares based upon the proportions, supplied by such contracting parties during a previous *representative period*, of the total quantity or value of imports of the product, due account being taken of any *special factors* which may have affected or may be affecting the trade in the product.

The two italicized phrases (here, not in the original) have been the subject of further definition by the GATT in a series of interpretative notes to Article XIII. The convention has been to use an average of the three years prior to the imposition of a restriction as the representative period. Several disputes have arisen over base periods during which there were other restrictions on trade. The GATT recommends that shares be allotted according to the trade shares “which would correspond to what could reasonably have been expected in the absence of restrictions.” Once again, this is the free trade counterfactual distribution of trade, the operational equivalent of non-discrimination.

With regard to the meaning of *special factors*, the GATT interpretation includes “changes in relative productive efficiency” which may have occurred since the representative period “as between the various foreign producers.” Clearly, changes in competitive advantage are viewed as an appropriate cause for reapportioning supplier shares.

Thus, XIII: 2c and 2d instruct member governments that they are allowed to transfer TRQ rights to incumbent exporters, but that they should do so in such a way as to approximate

the free trade counterfactual distribution of trade. This is not a simple task. The passage above elucidating the term “special factors” gives the impression that exporter shares can be (and, indeed, should be) reallocated in line with changing economic conditions. Logically this reapportionment should be without compensation. If quota rights are granted partially to compensate for lost market access due to the imposition of a quota, then quota rights should go to those suppliers actually harmed by the quota. If a supplier granted quota suffers a loss of competitive advantage and is incapable of exporting without the quota rent, then the quota clearly no longer denies market access and there is no basis for compensation. It is the lower-cost entrants who are impaired. However, once vested with quota rights, suppliers aggressively defend what they view to be their property rights to quota rents.

We are unaware of a case where this kind of reallocation has occurred in accordance with Article XIII. The lack of such reallocations is hardly surprising. First, Article XIII 2d instructs the country imposing the quota to “seek agreement with ... all other contracting parties having a substantial interest in supplying the product concerned.” As share reapportionment is a zero-sum game from the point of view of quota holders, agreement among them is unlikely. Second, the primary reason the government imposing the quota chooses to allocate “supplier quota” is to appease suppliers harmed by the quota. In this regard it is similar to a voluntary export restraint whereby the quota-constrained exporter is partially compensated by the transfer of rents from the importing country. For example, the U.S. tobacco, peanut, and sugar TRQs (and some in dairy) transfer quota rents from the United States to the holders of TRQ rights. The quota rights are non-transferable, and the product delivered in-quota must be the domestic product of the exporter. Such compensation might have been reasonably and non-discriminatorily apportioned when the quota was imposed, but with the passage of time and changes in the relative comparative advantage of potential suppliers of the control product, the distribution of shares can become increasingly malapportioned. The allocation of the right to export via "country specific" TRQs is also contentious because an exporting firm has the potential to obtain the rents available through bargaining power, imperfectly competitive practices, and/or the issuance of an export license.

An example of a dispute over the method by which country-specific export quotas are allocated is the "Banana Dispute" (WTO, 1997a). Exporters argued that the methods used by the

EU in allocating export quotas were discriminatory and did not reflect recent trade patterns. Export quotas were allegedly allocated to some countries but not others with comparable or even greater historical trade levels. As upheld by the Appellate Body in the Banana Dispute, this is inconsistent with Article XIII, although the latter rules that importers allocating export quotas may:

...seek agreement with respect to the allocation of shares of the quota with all other contracting parties having a substantial interest in supplying the product concerned.

If an agreement is not possible, then export quotas are to be allocated to those countries having a "substantial interest" based on shipments during a "previous representative period." The EU was accused of not allocating quotas consistent with exports in the "representative period", with some countries receiving higher quotas than historical exports and other countries less. The EU also allocated export quotas to non-WTO members, provided additional amounts to Lomé countries above and beyond that "required" by the preferential agreement, and assigned shares to some, but not all countries that did not have a "substantial interest."

The Banana Panel also ruled on the issue of the EU requiring only some countries to issue export licenses to exporting firms for the country-specific export quota. The EU was found to be in violation of Article I of GATT which requires that "...all rules and formalities in connection with importation and exportation...be accorded immediately and unconditionally to the like product...". Hence, not requiring export licenses for all countries with export quotas was not in accordance with the MFN clause. Countries with export licenses were given preferential bargaining power because it allowed them to extract a share of the quota rents.

The Banana Dispute also highlighted the problems of allocating import licenses. There are inconsistencies across countries in regard to the period of validity for the import license, the size of the licenses, eligibility requirements for an import license, reallocation of unused licenses, and requirements for the use of the license. Overall, firms importing from Latin America faced very complicated licensing procedures in comparison to firms importing African, Caribbean and Pacific State (ACP) countries. The first had unnecessary burdens imposed on them, which were deemed to be treated in a discriminatory, trade restrictive and trade distorting manner. These importing firms faced non-automatic licensing, and had to apply many times, which often

delayed imports (sometimes for the 1st three weeks of every quarter, according to claims filed by Ecuador). The Panel ruled that licensing rules are generally covered by Article 1 GATT as "... rules and formalities in connection with importation and exportation..." and therefore, the EU was found again in violation of this GATT article.

The Agreement on Import Licensing Procedures in the WTO requires that the application process for obtaining and renewing a license be as simple as possible, and that all rules and information concerning the procedures should be published. The Licensing Agreement provides for two types of import licensing: automatic and non-automatic. Rules applied by importing countries for licensing procedures should "...be neutral in application and administered in a fair and equitable manner." No licensing procedures should be trade distorting or restrictive and "...no more administratively burdensome than absolutely necessary to administer the measure."

However, the importing country gets to decide what is 'fair and equitable' and which methods are least 'administratively burdensome'. The Licensing Agreement sets only vague guidelines, many of which are open to the interpretations of the importing countries. In the Banana Dispute, the EU's import licensing scheme was deemed to be "highly complex" for imports from Latin America (WTO, 1997b).

The licensing procedures were found to be inconsistent not only to Article I but also to Article III (national treatment clause) and Article X (applying different sets of rules) as well as to GATS rules. Even though it is true that Article XIII of the GATT is not concerned with the distribution of rents, rents cannot be arbitrarily be distributed such that it alters competitive conditions for firms in a discriminating way. That is what the dispute around GATS was all about. Even though the European Union had claimed that the distribution of quota rent was to its discretion and not within the scope of WTO rules, the Panel blamed precisely the fact that firms of complainants' origin, which were mostly category A operators, had to purchase licenses from EU/ACP firms, which were mostly category B operators, in order to maintain their previous market share within the sector of Latin American Bananas (see Chapter 12 for details). The price of these licenses sometimes usurped the entire quota rent. The European Commission that had reported that the licensing regime was designed to "cross-subsidize" bananas of EU and ACP origin, and so intended this distribution effect. To sum up, this previous Panel decision

makes clear that quota rent cannot be used at will to manipulate competitive conditions in a discriminating way in service sectors which are tied to the supply of the import restricted good.

These issues surrounding country-specific export quotas, exporting firm licenses, and import-licensing procedures highlight the problems of discrimination and exemplify the inefficiencies that can arise.

4. An Overview of Tariffs, Quotas and Imports Worldwide

The purpose of this chapter is to provide an overview of tariffs, import quotas and trade for individual commodities and countries under the TRQ system. We use preliminary data from the Agricultural Market Access Database (AMAD) project and data from the WTO. AMAD is a cooperative effort among the OECD, FAO, UNCTAD, Agriculture and Agri-Food Canada, European Union Commission - Agriculture Directorate-General, the U.S. Department of Agriculture - Economic Research Service, and The World Bank¹³.

In this chapter, an overview is presented on the fill rates --the level of notified imports as a percentage of the scheduled quota¹⁴ -- as well as on the relative levels of tariffs. We also illustrate the gap between in-quota and out-of-quota tariffs by providing examples for selected countries and commodities. An examination of worldwide data gives us a general indication as to how the TRQ system is operating in terms of liberalizing trade, and provides a context for the individual case studies to follow.

4.1 Fill Rates

Countries with TRQ commitments are required to notify the WTO each year on the scheduled TRQ for that year and actual in-quota imports. The effects of market access commitments on trade are difficult to isolate from the effects of changes in market conditions. Many agricultural commodity prices reached near-record highs and near-record lows in the URAA implementation period. One summary statistic that can be used to assess improvements in market access is the fill rate of the import quota. A fill rate greater than 100 percent indicates that notified imports exceed the scheduled quota. This is not to say that where quotas are not filled countries are not meeting their commitments. There are many reasons that fill rates can be less than 100 percent and they are discussed extensively elsewhere in this document.

¹³ Data are available at www.amad.org.

¹⁴ Defined as the “in-quota import fill rate” in Chapter 2.

Table 4.1 provides data on the fill rates.¹⁵ The countries included in Table 4.1 account for 912 of the over 1,370 scheduled TRQs. It can be ascertained from Table 4.1 that some countries have not notified all of their TRQs on which they made commitments. Notifications by both OECD and ‘other’ countries increased in three years 1995-97. In 1997, OECD and ‘other’ countries tabled 84 and 80 percent of their scheduled TRQs, respectively.

Reporting average fill rates as a summary statistic of market access has limitations (see also Chapter 2). First, notification procedures are not uniform across countries. Some countries only report imports up to the quota level, while others report all imports subject to the in-quota tariff rate. While this discrepancy is not a problem when there is quota under-fill, it does otherwise under-estimate market access. On the other hand, some countries like the EU notify imports based on licenses granted rather than on actual imports. This reporting method could over-estimate market access if importers do not fully utilize their licenses. Attempts to reconcile notifications with trade data are inundated with difficulties. For example, the EU trade data are difficult to decipher because the same trade codes appear in several TRQs.

Second, the fill rates reported in Table 4.1 give equal weight to all TRQs, irrespective of trade volume or value. A fill rate calculated on a scheduled TRQ of 16 tonnes has the same weight as a fill rate based on 1,600 tonnes. However, weighting schemes are problematic because the units differ within and among countries, even within the same TRQ and the diversity of products that comprise any TRQ makes it difficult to weight them by value. The average fill rates are also misleading because some are equal to zero and others are equal to 100 percent.

Third, the URAA did not mandate that each quota be filled. In fact, a low quota fill rate does not necessarily imply inefficiency. As explained in Chapter 2, there may be unavailable supply or insufficient demand such that the in-quota tariff is effective. A fill rate of 100 percent or more does not necessarily imply efficiency. Filled quotas may occur even if suppliers are high cost importing firms or export countries/firms, or state trading enterprises may have fulfilled WTO commitments but have imported low quality product or destroyed imports (see the discussion on Korea and Japan to follow). Either way, inefficiencies in the administration of

¹⁵ Notification data in AMAD for 1998 are less complete due to lags between country notifications to the WTO and their incorporation into AMAD.

quotas can be associated with fill rates greater than 100 percent. Fourth, independent of export quotas or non-tradability of licenses, the method of allocation of the import license itself can have a direct impact on the quota fill rate and hence on economic efficiency. An important indicator of administrative inefficiency is when there is a fill rate of less than 100 percent and there are out-of-quota imports. Situations like this beg the question of whether imports will increase with an increase in the level of the quota. In other words, the issue is whether the fill rate is proportionate to the quota, or in-quota imports are limited, independent of the quota level. This becomes an important issue when determining the effectiveness of alternative trade liberalization scenarios.

Average fill rates reported in Table 4.1 are different from those reported by the WTO (G/AG/NG/S/7 and G/AG/NG/S/8). Average fill rates in those reports are based on calculations that truncate the fill rate distribution at 100 percent. But, truncating the fill rate at 100 percent loses important information on the degree by which market access may have improved. Furthermore, this may provide erroneous information on which is the relevant regime for these TRQs. As shown in Chapter 2, a quota with 100 percent fill rate may be in the quota or in the out-of-quota t_2 regime, depending on the level of total imports. But, if a country voluntarily expands imports leading to more than 100 percent quota fill, the binding constraint may in fact be the in-quota t_1 regime, a very different regime with different implications about quota rents and domestic prices. The WTO methodology therefore over-estimates the number of TRQs that may be in the quota or the out-of-quota t_2 regime. This has repercussions regarding the effects of further trade liberalization. Based on the information from the WTO, one may be tempted to give undue weight to quota expansion when in fact quotas may not be the binding instrument.

These problems using average fill rates notwithstanding, Table 4.1 provides a mixed picture of how market access has changed. Some TRQs have fill rates of over 100 percent while fill rates for others are close to zero. Among the Quad countries-- Canada, U.S., EU, and Japan-- Canada has the highest fill rate over the four year average, at 100 percent, while the other three each have simple average fill rates less than 100 percent. Among the Quad countries, the United States has the lowest four-year average fill rate of 59 percent. Furthermore, between 1996 and 1997, when world prices for many agricultural commodities fell, the fill rates for the Quad countries either declined or remained the same. On the other hand, the average fill rate for

Table 4.1 Number of TRQs and average fill rates OECD and selected countries

Country	Total TRQs	Number of notified TRQs				Number of 100% and over fill rate				Average fill rate (percent)				Total average fill rate
		1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998	
Australia	2	2	2	2	2	1	1	1	1	117	112	103	99	108
Canada	21	21	21	20	20	10	9	12	15	82	98	95	124	100
Switzerland	28	28	27	27	27	18	17	15	15	338	401	374	432	386
Czech Republic	24	24	24	24	24	5	7	4	5	50	55	60	69	58
European Union	87	54	83	84	43	18	34	34	18	75	72	69	73	72
Hungary	75	66	68	67	67	18	2	5	8	55	52	45	43	49
Japan	20	18	18	18	18	5	4	3	2	78	77	74	68	74
Korea	67	67	67	63	64	36	31	34	31	117	128	134	121	125
Poland	109	19	23	29	26	8	10	11	1	43	43	39	32	39
Iceland	90	87	86	86	na	41	43	49	na	798	994	1658	..	1150
Mexico	11	1	0	0	0	1	112	112
Norway	232	217	203	215	213	111	93	93	98	215	460	269	251	299
New Zealand	3	3	3	3	3	1	1	0	0	69	50	34	25	45
United States	41	26	38	39	39	0	3	4	4	51	62	60	62	59
TOTAL OECD	810	633	663	677	546	273	255	265	198	157	200	232	117	176
Indonesia	2	1	1	1	na	1	1	1	na	4306	1558	748	1399	2204
Malaysia	19	19	18	..	na	3	9	..	na	57	162	..	na	110
Philippines	14	14	14	14	na	6	6	3	na	265	58	44	na	122
Slovak Republic	24	24	24	24	24	3	5	2	3	77	47	46	43	53
Slovenia	20	20	20	20	na	1	0	0	na	51	18	8	na	26
Thailand	23	14	23	23	na	8	8	8	na	349	318	513	na	393

Source: Author's calculations from AMAD and WTO notifications

all OECD countries exceed 100 percent. By this criterion, and given the *caveats* discussed above, it would seem that on average, market access to the OECD countries increased during the first four implementation years. However, it is difficult to distinguish what is due to policy *versus* that due to changes in market conditions.

Additional information such as the relationship between domestic and world prices would help illuminate the discussion on the TRQ system and market access. However, in the majority of cases, the specification of TRQs (usually many different products spanning several HS headings in a single TRQ) and their notifications (a single figure reporting all imports of the different products within a single TRQ) renders such comparisons infeasible. Even in the few cases where TRQs are defined relatively narrowly, the availability of domestic and world prices are generally not available for consistent comparisons. Hence, the focus on imperfect indicators such as fill rates.

Along with information on the average fill rates, another indicator of changes in market access is the number and share of notified quotas with fill rates that fall within a given range. Most of the quotas, (about 40 percent over the 4 year period), have fill rates that are equal to or greater than 100 percent. But, as shown in Table 4.1, the number of fill rates (as well as their share of notified quotas) at or above 100 percent, declined over the four-year period. By this criterion, it would seem that little progress has been made in increasing market access (other than the growth in the TRQs), as about 60 percent of the TRQs were not filled. The number of quotas with fill rates in excess of 80 percent during this period (but less than 100 percent) represent an additional 14 percent of the notified quotas. Thus, a little more than half of the notified quotas have fill rates that are greater than 80 percent, suggesting that significant improvements in market access remain. This point is punctuated by the fact that many quotas have fill rates that are less than 20 percent. About 23 percent of the notified quotas during the four-year period fall in this category and their proportion increased over the four-year period from 21 percent of the notified quotas in 1995 to 26 percent in 1998. It is beyond the scope of this chapter, but clearly further investigation as to why such a large number of TRQs have such low fill rates is warranted. The detailed case studies that follow investigate various factors that may be responsible.

The data in Table 4.1 suggest that focusing on increasing the quota as currently defined and administered may not have significant payoffs in liberalizing trade. The majority of the TRQs in OECD countries are currently not being filled. Hence, further increases in quotas without changes in tariffs or changes in how quotas are administered, allocated, or scheduled, may not increase market access. On the other hand, the data suggest that for many TRQs, the quota component may not be restricting trade. For many TRQs (at least 265 in 1997) the quotas did not restrict trade in that a country simply expanded the quota as necessary to increase imports. Table 4.1 indicates that for many products the quota is not binding as notified imports exceeding the quota enter the country at the lower in-quota tariff rate. Further expansion of these quotas may not necessarily expand trade either. Therefore, expanding quotas may not necessarily liberalize trade significantly in the majority of situations where there is either quota over-fill or under-fill. A single summary statistic from the notification and schedule data to assess the impacts of the TRQ regime is problematic, and so the case studies that follow analyze the TRQ systems for individual commodities and countries.

4.2 In-quota and Out-of-quota Tariff Rates

The tariff data do not include mark-ups or other fees. They are based on the MFN bindings and TRQ schedules, and so exclude preferential tariffs. In principle, the in-quota rates are lower than the out-of-quota tariff rates. In the URAA, industrial countries agreed to bind their tariffs and reduce them by an unweighted average of 36 percent during the implementation period. Some countries chose to reduce both their in-quota and out-of-quota tariffs, while most opted to omit in-quota tariffs from their reduction commitments. In some cases, no change in the in-quota tariff rates leads to out-of-quota rates becoming less than the in-quota rate. Therefore, a pure tariff regime results because quotas become redundant.

The number and complexity of the TRQ tariff schedule varies by commodity and country. For example, the US schedule of 41 TRQs consists of 360 tariff lines that have both *ad valorem* and specific tariffs. Iceland's 90 TRQs consist of 407 lines with *ad valorem* and compound tariffs (*ad valorem* plus a specific component) while Canada's 21 TRQ schedule contains 256 lines, many of which contain complex tariffs (*ad valorem* and specific along with expressions such as "not less than" or "not more than"), while Korea and Hungary's TRQ in-quota tariff schedules are *ad valorem* only.

The calculated level of protection generated by tariffs depends on the choices that are made while aggregating and converting specific tariffs to their *ad valorem* equivalents. To compare relative rates of protection across sectors and countries, specific rates need to be converted to their *ad valorem* equivalent. Furthermore, meaningful comparisons cannot be made at the TRQ level (not all countries scheduled the same TRQs, for example). Rather, tariffs need to be aggregated to specific products such as butter, cheese, beef, wheat, and the like.

Converting specific tariffs into their *ad valorem* equivalents is arbitrary because a theoretical basis for choosing a specific conversion factor is not available. Furthermore, aggregating tariff lines to compute tariffs that represent the “true” protection level at the TRQ level is even more arbitrary.

The problem of converting tariffs to an *ad valorem* equivalent and of aggregation is illustrated with an example for skim milk powder (SMP). Japan’s schedule includes two TRQs for SMP. One SMP TRQ consists of 2 tariff lines, and both lines have an in-quota tariff rate of 0 percent (with no specific component) while the out-of-quota rate is 0 percent plus 438 yen/kg. for one line, and 0 percent plus 470 yen/kg for the second line. The second SMP TRQ consists of 6 tariff lines. The in-quota tariff rate ranges from 0 percent to 35 percent, while the out-of-quota rate ranges from 0-33 percent plus a specific component, depending on the line of either 438 or 470 yen/kg. The average in- and out-of-quota tariff rate for each of these two TRQs varies, depending on the aggregation method and on the price used to convert specific rates into *ad valorem* rates. By taking a simple average of the tariff lines, we obtain an in-quota tariff rate for the second SMP TRQ of 20 percent, and an out-of-quota rate of 19 percent plus 454 yen/kg. However, the implied level of protection changes dramatically when trade volume is used as a weight to aggregate the tariff. Both in- and out-of-quota tariff rates become 1 percent, while the specific component falls to 438 yen/kg.

Further aggregation of the two SMP TRQs to obtain a single in- and out-of-quota tariff rate at the product level yields equally different results. The in-quota tariff rate for SMP can be as low as 1 percent if the tariffs are weighted by trade volume, or it can be 15 percent if a simple average is used, or 18 percent if the TRQ volume is used as the weight. The out-of-quota tariff (including the *ad valorem* equivalent using Japanese unit values) ranges from 81 percent when

trade is the weight to 203 percent based on a simple average. The out-of-quota tariff rate would be considerably higher if a world unit value or a world reference price is used to convert the specific tariff to its *ad valorem* equivalent.

In this paper, specific and complex tariffs were converted to their *ad valorem* equivalent based on each country's import unit values. Simple average *ad valorem* rates were computed for each of the products in the data sample. These are reported in Table 4.2. Given our discussion above on SMP TRQs in Japan, the calculations reported here need to be interpreted with caution. Table 4.2 also includes information on the number of TRQs and on the number of tariff lines that were involved in computing the average tariff for that product, and the number of specific and/or complex lines included in the calculations. The sensitivity of the computed average tariff to alternative weighting schemes increases with the number of tariff lines and with the number of specific and/or complex tariffs.

The results in Table 4.2 illustrate that both the in-quota and out-of-quota rates differ widely among commodities within a country, and between countries. For the sampled commodities and countries, the in-quota and out-of-quota rates are surprisingly high, considering that the average tariff for all agricultural products in 1996 was 16 percent in the EU, 8 percent in the U.S. and 5 percent in Japan (OECD, calculated using production weights). In-quota rates range from 0 percent for beef and veal in Canada and wheat in the EU to 60 percent for butter in Hungary. In general, Table 4.2 indicates that in-quota rates are relatively smaller in Canada and the U.S. compared to the other countries. The gap between the in-quota and out-of-quota rates differs widely across commodities and countries. This indicates the potential protection provided by the tariffs for these TRQ commodities. Imports above the effective quota (i.e. one that has not been voluntarily expanded by the government) face the out-of-quota rate. The largest difference between the in and out-of-quota rates is in Japanese butter with an out-of-quota tariff that is 459 percentage points higher than the in-quota rate. The second highest gap is for butter in Poland with an out-of-quota rate 315 percentage points above the in-quota rate.

On average, the lowest gap between in- and out-of-quota rates is in the U.S. where the out-of-quota rate is 36 percentage points higher for the products in the data sample. The largest gap is in Japan, where the average difference between in and out-of-quota tariff rates are 252

Country	Commodity	Average Tariff Rates %		Number Of TRQs	Number of Tariff Lines	Number of specific lines	
		In-Quota	Out-of-Quota			In-Quota	Out-of-Quota
Canada	Beef & Veal	0	32.2	1	6	0	0
	Butter	10.1	333.2	1	2	0	2
	Cheese	0.8	267.3	1	17	17	17
	Wheat	1.3	68.3	1	2	2	0
	Average	3.1	175.2				
EU	Beef & Veal	27.6	130.2	8	49	5	49
	Butter	43.1	120.4	2	9	9	9
	Cheese	26.1	82.4	9	49	49	49
	Skim milk powder	33.6	94.5	1	1	1	1
	Wheat	0.0	88.4	2	3	0	3
Average	27.9	108.1					
Hungary	Beef & Veal	17.0	71.4	1	10	0	0
	Pork	16.8	53.8	1	11	0	0
	Butter	60.0	130.4	1	1	0	0
	Cheese	50.0	81.4	1	11	0	0
	Wheat	10.0	41.7	1	7	0	0
	Corn	3.0	38.0	1	2	0	0
Average	26.1	69.5					
Korea	Beef & Veal	42.6	42.6	1	6	0	0
	Pork	25.0	25.0	1	3	0	0
	Butter	40.0	96.0	1	2	0	0
	Skim milk powder	20.0	179.1	1	4	0	0
	Corn	1.8	348.1	2	9	0	0
Average	25.9	138.2					
Japan	Butter	35.0	493.6	1	3	0	3
	Skim milk powder	15.0	203.3	2	8	0	8
	Wheat	19.0	129.7	1	25	0	25
Average	23.0	275.5					
Poland	Beef & Veal	30.0	303.2	2	2	0	2
	Pork	30.0	125.5	1	2	0	1
	Butter	40.0	354.6	1	1	0	1
	Cheese	35.0	220.0	1	1	0	0
	Wheat	22.5	142.0	1	2	0	1
	Corn	20.0	102.0	1	1	0	1
Average	29.6	207.9					
U.S.	Beef & Veal	5.0	28.8	1	14	6	0
	Butter	2.7	39.0	1	3	3	3
	Cheese	12.2	46.1	9	53	0	53
	Skim milk powder	1.8	51.0	1	2	2	2
Average	5.4	41.2					

Source: Author's calculations from AMAD.

percentage points. A lower gap does not necessarily imply lower cost access opportunities however, because a low gap can result from cases where both the in- and out-of-quota rates are very high. For example the average difference between in and out-of-quota rates in Hungary is 43 percent points, but Hungary has some of the highest in-quota rates.

From these data, we can see one possible reason for the low fill rates -- relatively high in-quota tariffs. For many commodities in most countries, the in-quota rates are at double-digit levels. Many are in the 20 percent to 40 percent range, with some as high as 60 percent. Out-of-quota tariff rates for most commodities in many countries are at triple-digit levels. It is not surprising, therefore, that quota are not being filled.

Interestingly, in Korea, the in and out-of-quota tariff rates are the same for beef and pork. This is a result of Korea's scheduled reductions in the out-of-quota rate and the planned elimination of the quota for these two products. The pork quota is scheduled for elimination in 1997 while the beef quota is scheduled for elimination in 2001. Based on the data, the beef quota becomes redundant after 1997, earlier than scheduled.

4.3 Applied tariffs

The observed applied tariff rate can differ from either the scheduled MFN in-quota or scheduled MFN out-of-quota rates. Using 1997 data for selected OECD countries and commodities, the applied rate is not materially different from the scheduled MFN rate for most countries and products. Canada, the EU, Japan, and the U.S. apply tariffs on the same basis as in their schedules. That is, their schedule MFN rates are the applied in-quota and applied out-of-quota tariff rates. Speculation after the conclusion of the URAA was that scheduled MFN tariff rates were substantially greater than applied rates. Hence, it was feared that negotiated reductions in scheduled rates would have no effect. This gap between scheduled and applied rates was deemed to be one of the shortfalls of the Agreement.

For most countries and products examined here, this does not appear to be the case. Applied rates are the same as scheduled rates (with the exception of developing countries discussed later in Chapter 8). The notable exception is the three products in the data sample

from the Japanese schedule. The in-quota-applied rate is the same as the scheduled MFN rate, but the applied rate on the out-of-quota imports is substantially lower than the scheduled MFN rate. For example, the average applied rate on SMP in Japan is 58 percent compared to the scheduled MFN rate of 203 percent. The average applied rate on butter is 83 percent and is 33 percent on wheat, both significantly lower than their scheduled MFN rates.

Although the data coverage on products and countries may not be representative, the data here suggest that the gap between scheduled and applied tariffs may not be as big a problem as initially feared. However, scheduled MFN tariffs remain very high. The relatively large number of quotas with low fill rates and the criticism that market access did not improve significantly following the Agreement may be a result of the relatively high scheduled tariffs that remain in the system.

4.4 Imports

Most countries do not distinguish between in-quota and out-of-quota imports in reporting trade figures. Depending upon the detail at the HSC level for scheduled and notified TRQs and reported trade statistics, it may be possible to infer in-quota and out-of-quota imports from total trade. However, that is only the case for Canada, Japan, and the U.S. whose schedule and import data enable one to distinguish between in-, out-of-quota and total imports.

Table 4.3 reports in- and out-of -quota trade for selected commodities by these three countries. Out-of-quota imports for these products are very small which is consistent with the large disparity typically found between the in-quota and out-of -quota tariff rates. For example, there are zero out-of-quota butter imports by Japan. Similarly, Canada's 1997 trade data for cheese indicates that Canada voluntarily expanded its cheese TRQ and there were over-quota imports (at the in-quota tariff) of around 3,000 tonnes while out-of-quota imports were only 26 tonnes. This may be a reflection of Canada's very low in-quota tariff rate of less than 1 percent while the out-of-quota rate is more than 260 percent.

Out-of-quota trade (both above-quota imports and those that come in quota-free) is important for some products. For example, Canada's out-of-quota beef imports in 1997 were

almost equal to in-quota imports¹⁶. In Canada's case, out-of-quota beef imports occurred while the TRQ fill rate was greater than 100 percent. But, it is possible to have out-of quota imports even with a fill rate of less than 100 percent because of how quotas are allocated and administered. Data here suggest that this is in fact occurring. For example, out-of-quota US cheese imports (including many cheeses not covered by quotas) were 3 percent of the in-quota volume even though the fill rates for the cheese TRQs were less than 100 percent. Similarly, out-of quota butter imports occurred in the United States with a fill rate less than 100 percent. Quota rents still exist in these cases as well.

Table 4.3 In- and Out-of-Quota Imports: Selected Commodities and Countries - 1997			
Country	Commodity	In-quota Imports (tonnes)	Out-of-quota Imports (tonnes)
Canada	Beef & Veal	89,192	85,108
	Butter	3,440	2.4
	Cheese	23,723	26
	Wheat	117,449	984
Japan	Butter	398	0
	Skim milk powder	41,824	2,826
	Wheat	6,314,495	917
U.S.	Beef & Veal	732,330	41
	Cheese	9,975	3,399
	Skim milk powder	2,500	368
Source: Calculations based on AMAD.			

¹⁶ Canada's out-of-quota beef imports reported in AMAD include Canada's imports from the US under NAFTA at a duty of 0 percent.

4.5 Summary

The conclusions that can be drawn from the preliminary data are mixed in terms of assessing the impact of TRQs on market access. Based on official schedules and notifications, the calculated fill rate for OECD countries would suggest that market access might be expanding. The simple average fill rate has increased. But this is a biased indicator -- it does not reflect the volume of trade involved, and so a few large fill rates can dominate the results. The data also suggest that governments are rather innovative in their use of the TRQ system. In cases where countries want more imports, they simply expand the TRQ to increase imports at the lower in-quota rate without dismantling their armor for use in subsequent years as desired. Since the TRQs do not represent minimum imports, countries can use them to protect their industries as they wish, expanding them when it is politically convenient. Although countries can also manipulate their tariff schedules to obtain similar results by lowering applied tariffs, the data suggest that quotas have been voluntarily expanded frequently whereas applied tariffs tend to be at the schedule MFN rates. The data also indicate that the in-quota tariffs are relatively high for most commodities. They tend to be in the mid- to high double-digit range, and in most cases, they are the binding instruments. Out-of-quota tariff rates are very high, often over 100 percent, thereby negating the possibilities for out-of quota imports in most cases. Applied tariffs for the products and countries examined in this study are almost equal to the scheduled tariffs, suggesting that further reductions in scheduled tariffs may eventually lead to improvements in market access.

5 TRQs in the European Union

5.1 A Brief Description of TRQs in the European Union

The European Union established 85 tariff rate quotas in its Schedule resulting from the Uruguay Round. An extra quota for grape juice and grape musts (following negotiations under Article XXIV.6 of the GATT in the context of EU Northern enlargement) was added in September 1996. A quota for rum and taffia was added in July 1997 following the 1996 Singapore ministerial meeting agreement of the WTO. As a result, a total of 87 tariff rate quotas was incorporated in the commitments of the 15 members in the EU, after Austria, Finland and Sweden had joined the Union. The precise description of these quotas can be found in the Official Journal of the European Communities (OJEC, 1999)¹⁷. Table 5.1 shows the different categories of products covered by TRQs. It is, however, important to stress that the economic importance of the imports covered varies widely. For example, in some cases, TRQs volumes are as little as 300 tonnes of meat, or 129 tonnes of poultry, while some other TRQs deal with 2 million tonnes of maize, 34,000 tonnes of tenderloins or 2.2 million tonnes of bananas. Clearly, the number of TRQs per se, or average figures computed across TRQs, has little meaning.

	Grains Oilseeds	Sugar	Dairy	Meat		Eggs	Others	Total
				Poultry	Other			
EU	15	4	12	6	22	3	25	87
Canada	5	-	11	2	1	2	0	21
USA	3	6	24	-	1	-	20	54
WTO	339	50	183	249		21	528	1370

Source: from WTO and OJEC figures.

Origin of the TRQs. In the EU, most MFN tariffs were determined under the process of tariffication. That is, former measures such as variable levies were converted into tariffs. The tariffication process resulted in high base tariffs. TRQs were set either to preserve market access by ensuring that historical quantities continued to be treated under former access conditions, or

to provide opportunities for additional imports so as to fill minimum market access obligations in spite of the high, and sometimes prohibitive MFN tariffs.

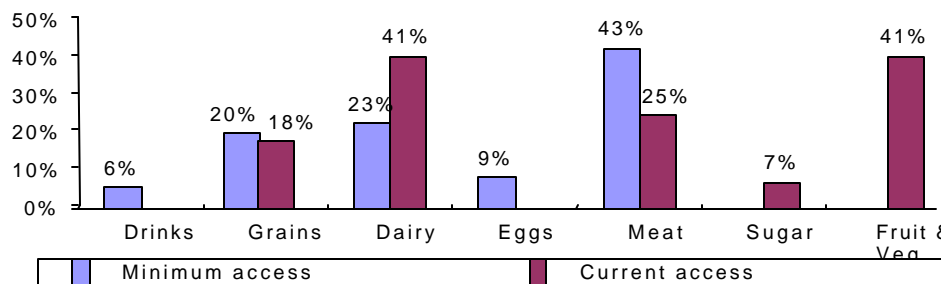
In the EU Schedule, the TRQs have a clear origin. Forty-four quotas, representing a total of 155 tariff lines in the Harmonized system (HS) classification at the 8-digit level, were presented in the schedule under current access. A total of 37 tariff quotas, representing roughly 160 tariff lines at the 8-digit level, were notified under minimum access. Quotas for non-tariffed products include 6 quotas corresponding to 7 tariff lines at the 8-digit level, for fresh potatoes, carrots, turnips, sweet peppers, and almonds. They are also listed separately.

While current access quotas often correspond to live animals, beef, fruits and vegetables, minimum access TRQs were mainly opened for meat, dairy products and grains (see Figure 5.1). Note that the number of quotas itself is not very meaningful because of the heterogeneity of TRQs, and Figure 5.1 must be interpreted with caution. In general, the quotas under current access correspond to larger import quantities than those under minimum access. For example, while current access quotas correspond to imports of roughly 430,000 tonnes of meat (not counting large imports of live animals), minimum access quotas for meat amount to a total of 130,000 tonnes only. Some of the 87 TRQs originated from compensating third countries for access they used to have to the markets of Austria, Finland and Sweden before they joined the EU. This is the case, for example, for TRQs on ice (70,000 tonnes), oats (10,000 tonnes) and poultry meat (700 tonnes). These are notified under minimum access in the EU Schedule (In the WTO negotiations on compensation for EU enlargement, some other TRQs were also opened up, and tariffs were reduced on a number of products, see IATRC, 1997).

Some other TRQs resulted from the bilateral settlement of earlier trade disputes. For example, the GATT oilseeds panel dispute was settled by the opening of 20,000 tonnes of beef, 15,500 tonnes of poultry meat, 500,000 tonnes of maize and 300,000 tonnes of wheat, notified as TRQs under minimum access. Older agreements resulted in import quotas notified as TRQs under current access. This is, for example, the case of the compensations granted to traditional exporters such as the United States, for the accession of Spain to the single market (TRQ of 2 million

¹⁷ Note that in the official schedule, two quotas for corn and sorghum are officially part of the same tariff rate quota,

Figure 1. Distribution of EU Minimum and Current Access TRQs across Commodity Groups



tonnes of maize and 300,000 tonnes of sorghum). Much other arrangements such as imports of high quality beef have led to a TRQ notified under current access. One of the quotas for "high quality beef" allocates 37,800 tonnes to a particular list of countries including the United States/Canada, Argentina, Australia and New Zealand.

Other TRQs resulted from bilateral arrangements that the EU had in the past concluded with individual exporting countries. This is the case for most EU TRQs listed under "current access". The reasons for which these bilateral arrangements had been agreed differ. In some cases, past voluntary export restraint agreements were the historical source of TRQs that are now included in the EU's Schedule. The export restraint agreement between the EU and Thailand, relating to Thailand's manioc exports to the EU is one such case. That TRQ commits the EU to charge no more than the tariff that existed under the bilateral agreement, on the quantity of imports set in that export restraint agreement. It should be noted that the EU did not open up any TRQs for products that had undergone tariffication and where no specific bilateral arrangements had existed in the past. This fact is noteworthy as one could well have argued that the high EU tariffs that resulted from tariffication had, at least in some cases, the potential of getting in the way of the imports that used to be shipped to the EU under variable levies before the Uruguay Round. Thus, to be on the safe side, some exporters could well have requested the EU to set up current access TRQs for tariffied products even in cases where no specific bilateral arrangements had existed in the past. However, the EU did not open up such TRQs, arguing that the tariffs that

which explains the widely quoted figure of 86 TRQs in the EU. See OJEC for details.

resulted from tariffication provided at least as favorable access to the EU market as the respective non-tariff measures had done in the past.

One should also mention the recent tariff quota allocated to the U.S. for malting barley (100,000 tonnes for years 1999 and 2000). This tariff rate quota is not part of the 87 TRQs listed above. It is part of an agreement following consultations with the EU under WTO dispute settlement procedures (the U.S. challenged the reference price system for grains that deprived U.S. exporters of the duty reductions on high-value grains agreed during the Uruguay Round).

Transparency of the EU TRQs. Some seemingly technical aspects such as statistical classification and the definition of products may strongly affect the practical scope of the market access commitments under the URAA. For example, many countries have used unique or inconsistent statistical classification of the products under TRQs, which makes the monitoring of the implementation of market access cumbersome. Some countries have created quotas with such a degree of precision in the definition of the commodity covered that they *de facto* restrict export rights to a particular country. In some cases, there is suspicion that changes in the classification and product definition during the implementation period of the URAA made it possible to shift some sensitive commodities to a more protected tariff line. Transparency is therefore an important criterion in the assessment of the URAA implementation.

The EU has a somewhat better record than most countries as far as transparency of TRQs is concerned. Indeed, it is one of the very few countries that have listed separately the minimum access quotas. This is particularly important because current access quotas are mainly a new shell for old preferential agreements. They are seldom open on a MFN basis, and one may consider that minimum access quotas are the only ones that hold the promise of leading to a genuine increase in market access. A separate listing of minimum access quotas, such as provided by the EU, makes it easier to assess the real impact of the URAA.¹⁸

The list of tariff rate quotas, the levels of imports and the related tariffs are published in the Official Journal of the European Communities (OJEC) in a consistent classification, even

¹⁸ The separate listing of minimum access and current access TRQs has not affected the overall volume of quota set by the EU for the individual products. The EU opened up minimum access TRQs only where, and to the extent that, past imports, whether covered by current access TRQs or not, were below the required percentage of domestic consumption.

though it imperfectly matches the classification used in the Schedules¹⁹. Notifications to the WTO (G/AG/N/EEC, MA:1 and MA:2) provide information on the volume of imports under the particular quota, the management and the allocation of import licenses, and on the level of quota that is pre-allocated to a particular country.

The Modalities specified that market access commitments should be based on the 4-digit level of the Harmonized system (HS). Very few countries have followed this guideline. In practice, TRQs were notified at the 8-digit level (EU, Canada, USA), and even 9- or 10-digit level in some countries. This narrows the range of products eligible, and, therefore, may restrict imports to a particular list of countries. In the EU, there are a few cases where the degree of detail in the definition of products raises questions.²⁰ However, it is noteworthy that while the definitions are sometimes very restrictive for the current access quotas (which, anyway may be allocated to a particular country, that has usually agreed to the specification chosen), this is not the case for minimum access quotas in the EU. For that reason, the statistical definition of the products can hardly be seen as imposing hidden restrictions on imports, as it is the case in some other countries (e.g. Korea, Japan, Brazil, Thailand which have set quotas on the basis of the 9- or 10-digit level of the HS).

The transparency of the notifications to the WTO has been questioned since the volume of imports that is notified by the EU correspond to the volume specified in the licenses given to importers, not to the actual quantities imported. (Note that this is not a violation of the URAA - other countries like Canada are in the same situation). The Committee for Agriculture in the WTO questioned the possibility that EU imports are overestimated if licenses are unfilled. The EU claims that it is not the case, since a deposit is required from the importer. According to the EU, this makes it very unlikely that a trading company obtains a license and chooses not to import the product.

¹⁹ One of the explanations of the discrepancies in description and codes is that the OJEC refers to the new EU-15 commitments, while the original Schedule referred to EU-12. Second, there have been changes in the codes of the European Classification (Nomenclature Combinée, the European version of the Harmonized system) that has been adopted in the OJEC. The EU continues to notify its compliance with WTO commitments in the former classification, so that actual policy can be compared to the original commitments (Codes in the initial classification are followed by "Ex" in the WTO notifications). In addition, both codes imperfectly match the Geneva List of tariff lines used in the schedule on bound (out-of-quota) tariffs.

Modalities of TRQ calculation. The Modalities mentioned that WTO countries had to offer a minimum access in 1995 equivalent to 3 percent of the average consumption between 1986 and 1988. However, some degree of freedom could be used in the exact calculation of the level of tariff quota for a particular commodity. Since the Modalities lost their legally binding value when the Schedules were adopted, the procedures used by some countries made it possible to minimize the impact of the minimum access commitments.

Consumption statistics often do not match the detail of trade statistics. Using this argument – whether justified or not – several countries choose to calculate the level of quota as a percentage of consumption for aggregate commodities, and then to allocate this aggregate level between the more detailed commodities, so as to set lower TRQ levels for the most sensitive ones. Typically, the United States and Canada have used this procedure for dairy products. This "dirty quotification" may have resulted in a level of quotas below the actual 3 percent of consumption (see Doyle, 1999, for the case of dairy products in the United States and see also IATRC, 1994). The EU used a similar procedure for meat products. It calculated the overall quota at a rather aggregated level for the meat sector, and then allocated the quota across the various tariff lines in a somewhat arbitrary way, and not necessarily such that imports were to be highest in the most sensitive markets. As a result, the allocation between the different categories of meat was not the same as if the Modalities had been followed precisely (IATRC 1994). In particular the TRQ for pigmeat was established at a level lower than a disaggregate calculation for individual meat categories would have yielded. However, because of the rather large imports of bovines and beef under current access quotas and the increase in minimum access TRQs for pigmeat during the implementation period, the overall EU TRQs for meat are argued to be consistent with the 5 percent minimum access objective. This is also the case for other TRQs than meat. For wheat, for example, it is noteworthy that the EU implemented a TRQ which augments base period imports such that 5 percent of domestic consumption was reached in 1995 already (the requirement was 3 percent for that year, and 5 percent only in 2000).²¹

²⁰ For example, a current access quota specifies the live animals eligible with a degree of detail that includes the particular breed of the animal (*Simmental* or *Pinzgau*). This specification was agreed with the country of origin, i.e. Switzerland. This information is normally well beyond the 8-digit level in the EU version of the HS.

²¹ The minimum access quota of wheat opened up by the EU, at zero tariffs, amounts to about 0.5 percent of base period consumption, while base period actual imports were about 4.5 percent of base period consumption.

Most significant increases in EU market access. Current access quotas, as well as those minimum access TRQs which correspond to compensation for EU enlargement, hardly correspond to new trade opportunities for third countries. Taking this into account, the examination of the EU TRQs suggests that they have only led to a limited increase in access to the EU market. This is not specific to the EU, and it is also the case in most WTO countries. The main impact of the URAA market access provisions are to be found for those commodities where large minimum access quotas have been set. In the EU, this is the case for corn, for durum and quality wheat (note, however, that it resulted from the oilseed dispute settlement with the U.S. rather than from the URAA). It is also the case for cheese and skim milk powder, where most of the increases in EU market access are likely to occur. A large quota was also created for the egg sector. This sector experiences little domestic support and hence domestic production has to compete with imports.

5.2 In-quota and Out-of-quota Tariffs

In principle, a TRQ should provide access to imports thanks to a low in-quota tariff. It should, therefore, be less restrictive than a regular quota since third countries do not face a quantity constraint, but simply a higher out-of-quota tariff. In practice, however, out-of-quota tariffs are often prohibitive and effectively exclude imports in excess of the quota in many countries. In addition, there are also cases where the in-quota tariff itself was set at a relatively high level, making it difficult even for in-quota imports to compete with domestic production (ABARE, 1999).

The setting of the tariff. Even less than for the level of quotas, the Modalities did not set precise constraints on the level of tariffs for in-quota imports under minimum access requirements. Tariffs should be "low or minimum", which leaves a lot of room for interpretation. Most WTO member countries have set in-quota tariffs as a percentage of the out-of quota tariff. However, the percentage varies a lot across commodities and is often larger for the most sensitive commodities.

In the EU, tariffs under current access TRQs are much lower than the respective out-of quota tariffs. For example, the in-quota tariffs for live animals are designed so that the specific component of the out-of-quota tariff (which is by far the largest duty) is set to zero. As a result,

imports under current access TRQs for meat products are subject to small tariffs (from zero for sheep meat to 20 percent for beef), with the exception of young live animals for fattening. Feedstuffs under current access TRQs also have very small tariffs (from zero to 7 percent), and refined sugar from Africa, Caribbean and Pacific (ACP) countries enters the EU with no duty. Butter from New Zealand still faces a significant tariff, although roughly half of the out-of-quota tariff. On average, over the 50 quotas under current access and for non-tariffed products, the in-quota tariff shows a reduction of 80 percent compared to the out-of-quota tariff of the beginning of the implementation period.²² Since in-quota tariffs have remained unchanged during the implementation period, while out-of quota tariffs are scheduled to decrease, the gap is narrowing. In 2001, current access tariff quotas will be roughly one third of out-of-quota tariffs for the commodities concerned. There is however some variation between commodities.

For TRQs under minimum access, the EU has applied a rather uniform reduction relative to the out-of-quota MFN tariff when setting in-quota tariffs. With the exception of quotas for high quality beef where no "in-quota" tariff is set, but where it is specified that the rate have to be fixed by the competent authorities so as to ensure that the quota will be filled, most of the in-quota tariffs have been set at 32 percent of the out-of quota MFN initial (base) tariff. The gap is much larger for high-quality meat, since meat is highly protected in the EU while it is subject to low in-quota tariffs. Other exceptions include milled rice, durum and wheat that are subject to a zero in-quota tariff. In the case of minimum access TRQs, the in-quota tariffs are also not scheduled to change during the implementation period of the URAA. Hence for these products, too, the gap is narrowing over time, and in-quota tariffs are close to 40 percent of the out-of-quota tariff at the end of the implementation period.

Compared to most other countries, where in-quota tariffs were set in a more arbitrary way, the EU procedure used for minimum access TRQs is transparent, and shows that the "strategic" setting of tariffs across commodities so as to protect the most sensitive commodities has been very limited.²³ However, the procedure maintains the tariff dispersion that can be observed for the out-of quota tariffs. In particular, commodities, where the out-of quota tariff is

²² This figure is a non-weighted average tariff across TRQs after converting specific tariffs into *ad-valorem* equivalents. The conversion was made on the basis of an average world price, constructed as the 4-year average unit value of imports between 1995 and 1998 (calculation by the authors).

very high, still experience a significant in-quota tariff. The case of butter is typical in this regard. The out-of-quota tariff is high (Euro 2316/tonne). The in-quota tariff under minimum access is equivalent to 948 Euro per tonne, which is significantly higher than the in-quota tariff in other countries.²⁴

5.3 Allocation of import licenses

Allocation of quotas to specific countries. In principle, quotas under minimum access should be allocated on a MFN basis. This was specified in the Modalities. In practice, there are grey areas in many countries. In some countries there is a lack of transparency concerning which quotas are under minimum and current access. The distinction matters, as many current access quotas are allocated to given countries only, in particular where they have originated from preferential trade agreements. Countries such as the United States and Canada, for example, do not distinguish between minimum access and current access. It is therefore difficult to assess whether or not they have granted preferential in-quota tariffs to specific countries.²⁵ In other cases, the setting of the in-quota tariff at a level higher than the regular tariff under preferential agreements results in a *de facto* allocation of quota to a preferentially treated (often neighbor) country. This all often takes place with little transparency.

As far as trade liberalization is concerned, it makes a lot of difference whether a particular quota is open on a MFN basis, or whether access to this quota is restricted to, say one particular country. In practice, country-specific allocation is used either to prevent access or to achieve reciprocal benefits on a bilateral basis. In addition, the possibility to allocate quotas to a particular country may result in low imports under that quota. Indeed, quotas are sometimes allocated to countries that are unlikely to be able to export the commodity (e.g. some of the U.S. TRQ for ice cream has been allocated to Jamaica, which, unsurprisingly, is not exporting any ice cream into the U.S., see Doyle 1999). Administration procedures often make reallocation of such

²³ This is similar to the reduction rates chosen for tariffs that resulted from tariffication, where the EU has opted for a 36 percent reduction for nearly all products, and not less than 20 percent reduction in any single case.

²⁴ The in-quota tariff is Cdn\$163/t, i.e. roughly US\$111/t in Canada and US\$123/t in the US, compared roughly to 1004US\$ in the EU. Note however that this does not seem to be a prohibitive tariff, since the minimum access TRQ for butter has a fill rate close to 100 percent.

unfilled quotas to other would-be exporters difficult. Preferential allocation of TRQs to particular countries is, therefore, an important issue for assessing the implementation of the URAA market access provisions.

In the EU, most quotas under current access result from old preferential agreements, and many of them are allocated on a preferential basis. Out of 44 current access TRQs, 17 are allocated to a particular list of countries. This includes some non-WTO member countries, such as the People's Republic of China. Several quotas are pre-allocated to countries associated with the European Union, such as Poland, Romania, Hungary, Bulgaria, Croatia, Slovenia, Czech and Slovak republics, or Macedonia. Some quotas are also allocated to ACP countries that benefit from a preferential agreement under the Lomé convention. For example, this is the case for sheep, goat, and mushrooms quotas, a 1.2 million tonne quota of sugar, and of a granted share of the quota for bananas. Access to some tariff rate quotas is restricted to the U.S., Australia, Uruguay, New Zealand, Chile, Indonesia, Thailand, India, Iceland and Greenland respectively. In some cases, the whole quota is pre-allocated to a particular country (e.g., to New Zealand for EU imports of butter).

In the EU, quotas under minimum access are administered on a MFN basis, and are, therefore, not allocated to a particular country. However, quotas on rice can be considered as exceptions, since the administrative conditions of the allocation of licenses discriminate between countries. In the case of rice, the administrative procedures (export licenses) resulted in allocating imports to Thailand and Australia. As part of the concessions made to the United States as compensation for the accession of Finland, Austria, and Sweden to the EU, the EU agreed to implement tariff rate quotas (TRQ) for imports from the U.S. of 38,700 tonnes of milled rice at zero duty and 7,600 tonnes of brown rice starting in 1996 (the new 100,000 tonnes quota for malting barley with a 50 percent tariff reduction, which is not part of the EU schedule, is also allocated to the U.S.).

There is a controversy about the actual allocation on a MFN basis of some other EU minimum access quotas. The EU Schedule mentions that for 18 out of the 35 quotas under

²⁵ Requests for details are often dismissed or answers often lack precision, in the WTO Committee for Agriculture. The Canadian response to a question from Hungary in the September 1999 meeting suggests that preferential tariffs within quota are provided to some Member countries because of regional trade agreements such as NAFTA.

minimum access, the EU may count against the quota the preferential imports from Central and Eastern European Countries (CEECs) under the so-called Europe Agreements (concluded with countries that are expected to join the EU in the near future). This is the case for pigmeat (5 quotas), poultry (3 quotas), dairy products (7 quotas), and processed eggs (3 quotas). The EU Schedule does not specify the quantities under quota that would be allocated and the eligible countries. The EU is suspected of granting lower tariffs to CEECs than the regular in-quota tariffs. The U.S Department of Agriculture claims that this allows the CEECs to capture a disproportionate share of the minimum access TRQs, and to reap most of the benefits of the improved market access, especially in the pork, poultry and, to a lesser extent, skim milk powder (USDA, 1997). The EU claims the opposite, and that the corresponding MFN in-quota tariffs were reduced to the same level as those under the Europe Agreement²⁶. The U.S. raised the issue officially at the WTO during the November 1998 meeting of the Committee of Agriculture. The EU responded that imports under European agreements are counted in the tariff quotas only when the tariff under the preferential agreement was identical to the in-quota tariff and that in other cases, there was no case where preferential imports had been counted against the quota.²⁷

5.4 Management of Import Licenses

Allocation method. In the EU, the management of tariff quotas, with the exception of the quota for rice and cassava, has not raised many controversies. Tariff quotas are allocated using mainly three methods, the allocation as a proportion of licenses requested (44 quotas), the allocation to traditional importers (20 quotas), and the first-come, first-serve procedure (21 quotas), depending on the quota. Though these procedures are not ideal from the viewpoint of economic theory, most economists find that they do at least not discriminate explicitly among exporting countries (see ABARE, 1999; OECD, 1999). Table 5.2 shows the EU management procedures in comparison to those used by other developed countries. The pros and cons of each particular method are described in detail in OECD (1999) and ABARE (1999).

²⁶ The EU initial Schedule notifies in-quota tariffs that correspond to 32 percent of the out-of-quota tariff, while under the Europe Agreement; preferential tariffs are, in general, around 20 percent. This Schedule, however, was established before the Europe Agreements and may not include later changes.

²⁷ This claim is supported by information from German customs that the in-quota tariffs on live animal imports from third countries were lowered to the level charged on imports from the Central European countries.

Table 5.2 Number of TRQs Administered According to Administration Method (1997)

	LoD	His	FCFS	ST	PG	AU	AT	mixed or non specified	Total
EU	44	20	21	-	-	-	-	2	87
Canada	5	6	7	1	-	-		2	21
Korea	4	-	21	10	4	5	2	21	67
Israel	2	1	1	-	-	-	2	6	12
Japan	-	12	-	4	1	-		3	20
Mexico	-	1	-	-	-	-	10	-	11
Switzerland									28
Thailand	10	3	2	-	5	1	2	1	23
USA	1	-	27	-	-	-		26	54

LoD: Licenses on demand, on the basis of quantity requested, uniform reduction if the sum of requests exceeds TRQ;
His: allocated to historical importers;
FCFS: First-come-first served.
ST: Licenses allocated to state owned importer.
PG: Licenses allocated to producers' organization.
AU: Auction.
AT: Applied tariff (unlimited imports, TRQ notified but not enforced)
Mixed: includes lottery in the USA.

The three types of procedures are the following cases:

- ***Licenses as a function of quantities requested.*** Licenses are on demand, until they exceed available quantities. The allocation of licenses can be the responsibility of the Commission, as it is the case for fruits (cherries, apricots, oranges, lemons), or of Member states of the EU. In that case, national governments indicate to the Commission the number of requests and the quantities requested. If the sum of the import licenses exceeds the TRQ, the Commission reduces proportionally the level of each license. Under this system, conditions for entry are known and this provides a degree of certainty to importers on the precise tariffs and entry conditions.
- ***Allocation to traditional importers.*** For some quotas, in general under current access, import licenses are attributed to traditional importers. This has the advantage of maintaining established contacts and preventing speculators from winning control of licenses, but may result in rigidities in the market. In order to leave access to the market to newcomers, a share of the quota is reserved to new importers in the EU. For live cattle, for example, 20 percent

of the quota is allocated to newcomers, the rest to traditional importers. This provision also exists for the quotas for beef, bananas, mushroom, wheat, skim milk powder, and butter.

- ***First-come, first-served.*** For 3 quotas (offals, live sheep, potatoes) there is no rule for allocating licenses in the EU. They are attributed by order of request to the importer, even though these quotas are allocated to a pre-defined list of countries. The advantage of this method is that it reduces the odds of creating vested interests, compared to a licensing system. However, it may encourage concentration and seasonality of imports.

No quotas are allocated through state monopoly and producers' organizations. Two quotas are considered as managed by a mixed procedure by the WTO. In these cases, the share of the quota that is pre-allocated to a given list of countries is managed on a first-come, first-served basis, while the share of quota that is on a MFN basis is provided through import licenses.

Administrative restrictions. The management of the quota sometimes imposes additional requirements on importers (and sometimes exporters) in order to allocate licenses. For example, in order to be eligible to import live cattle, beef, corn, rice or wheat, importers must be registered under the Value Added Tax system of one Member State. In a few cases, (some beef offals) imports are allowed only for processing. Grape juice can be imported only if it is used in products other than wine. Importers of raw cane sugar must process it before the following first of July, and must themselves be refiners. In some cases, it is required that the authorities of the exporting country provide a certificate of authenticity of the product. For cane sugar, a certificate of origin must be provided. Finally, would-be importers of rice, corn, millet, durum or oats must show that they have traded this commodity within the last 12 months. For eggs, it is required to have imported at least 50 tonnes of egg products during each of the last two years (similar conditions exist for turkey meat). For cassava and rice, export licenses are required from particular countries (Indonesia in the case of cassava; Thailand and Australia in the case of rice).

Validity of licenses. For 59 out of the 87 tariff quotas, import licenses have a limited period of validity. This type of restriction also exists in many other countries (e.g. Canada). In the EU, imports must take place within a few months, but the validity is shorter in some particular cases. This could be a problem for imports from remote countries. For example, the validity of the

import license for wheat (7 days), durum (7 days) or sugar (30 days) could be an administrative obstacle to imports. These provisions have been questioned within the WTO Committee for Agriculture. The EU claims that the system is designed to avoid excess subscription to tariff quotas; that, even for wheat, importers have in fact a 45-day delay between the subscription to an import license and the expiration of the validity of the license; and that the tariff rate quotas in question have been fully utilized (June 1997 meeting).

5.5 Fill Rates

The fill rate expresses actual imports as a percentage of the TRQ volume concerned. Fill rates can be seen as an ex-post check of the way countries have implemented the market access commitments of the URAA. As shown in Chapters 2 and 3, the fill rate is an ambiguous indicator, since market forces can explain a low fill rate. Table 5.3 shows average fill rates. Bureau and Tangermann (1999) provide more details.

Table 5.3 Fill Rates of TRQs, 1995 – 97 Average (minimum and current access)

	Rate 1995	Rate 1996	Rate 1997	Average 1995-97
EU	75%	71%	73%	73%
WTO Membersⁱ	65%	63%	46%	58%
Canada	78%	85%	83%	82%
Japan	70%	71%	70%	70%
USA	48%	53%	56%	52%
Korea	78%	76%	76%	77%

Source: WTO

ⁱcountries notifying TRQs

Current access quotas. The fill rate of quotas under current access is, on average, 73 percent. Averages are, however, of little meaning because of the presence of very small quotas in the list. It is necessary to focus on the large quotas in order to have a better image of the fill rate.

Sixteen of the EU's 44 quotas under current access had a fill rate lower than 85 percent in 97. TRQs for live animals were close to being fully utilized. The main quota (169,000 heads of live young cattle for fattening) was filled at 100 percent. Current access quotas for beef (roughly 140,000 tonnes) are also almost entirely filled (with the exception of a very small quota for

buffalo meat).²⁸ For sheep meat, the large quota of 283,000 tonnes was 88 percent filled in 1997, but the quota for live sheep and goats was filled only to 64 percent. Regarding dairy products, the main quota is a 72,000 tonnes of butter allocated to New Zealand. The fill rate has yet to be notified, the EU arguing that there was a problem of product definition that was still unresolved.²⁹ Quotas for cheese (for processing and cheddar) allocated to New Zealand and Australia have been almost entirely filled.

The lower fill rates observed are those for feedstuffs. The 5.5 million tonne quota for cassava, allocated to Thailand, and the 600,000 tonnes of sweet potatoes allocated to China had low fill rates in 1997 (61 percent and 0 percent respectively). So do the 135,000 tonnes of arrowroot and manioc TRQ, allocated to China and other non-WTO countries (11 percent fill rate), and the 135,000 tonne quota for bran (8 percent fill rate). The main reasons for the low fill rates are, according to the EU, that several years of reform of the Common agricultural policy and, in particular, the significant cuts of EU support prices for cereals under the MacSharry reform have reduced demand for imports of feed stuffs, that were used as cereal substitutes. There is little doubt that this was indeed the case, given the large shift in consumption from imported grains substitutes such as Corn Gluten Feed to domestic grains that have taken place in the EU over the last few years, in spite of the low tariffs for grain substitutes. In addition, the main suppliers of cassava are themselves becoming larger users, or find increasing demand in neighboring countries. This is also the case for China, whose domestic demand absorbs supply of sweet potatoes and arrowroots. The large quota for maize (3 million tonnes) and sorghum (300,000 tonnes) has only been utilized at 70 percent in 1997 in spite of a variable tariff that is supposed to be adjusted so as to ensure that the quota will be filled (note that imports of sorghum far exceeded the quota in 1996). It is interesting to note that descriptive statistics show no obvious relationship between the rate by which the in-quota tariff is reduced relative to the out-of-quota tariff, and quota fill.

The quotas that correspond to non-tariffed products, are in general very small, with the exception of almonds (90,000 tonnes), which is fully utilized.

²⁸ Note that imports under the 11,500 tons quota of high quality beef (from animals normally not supplemented with hormones) allocated to the U.S were suspended in June 1999 after the EU claimed that hormone residues were found in 12 percent of the meat tested. In 1998, preliminary figures suggest that this quota was filled up to 60 percent only.

Minimum access quotas. The fill rate of quotas under minimum access is 74 percent. Again, an arithmetic average must be interpreted with caution, given the considerable heterogeneity of the different quotas. The quota for rum and taffia, for example, has a very low fill rate because the last available figures notified refer to 1997, when the quota was implemented. Overall, fourteen of the minimum access quotas have a fill rate lower than 85 percent.

The three quotas (roughly 20,000 tonnes) for high quality beef are fully utilized. So are the quotas for poultry cuts (30,000 tonnes at the end of the implementation period). The quota for skim milk powder (40,000 tonnes) and the various quotas making up a total of 15,000 tonnes of cheese are also fully utilized. The various quotas for pigmeat are among the most underutilized ones. The reason is, according to the EU, the low demand from the industry for imports, especially in processed products (sausages) because of the competitiveness of EU production.³⁰ (Note that minimum access quotas for pigmeat represent relatively small quantities, anyway). The quota for eggs for consumption shows a fill rate of as little as 1 percent. Again, the EU explains this situation by market conditions, and points out the 100 percent utilization of the quota for egg yolks and eggs not in shell. The egg albumin quota is only filled up to 46 percent.

Minimum access quotas for grains include a 500,000 tonne quota for maize, a quota for husked rice (20,000) and for milled rice (63,000 tons) and a quota for quality wheat (300,000 tonnes) that are completely utilized.³¹ Note that, in some cases, fill rates are below 100 percent with actual imports having been above TRQ volumes. An explanation is that the administrative procedure for accessing imports under quotas is very complicated and involves significant costs. In some cases where the difference between the in-quota and out-of-quota tariff is limited, importers prefer a simpler administrative procedure to a lower tariff.

²⁹ The quarrel between New Zealand and the EU about the treatment of spreadable butter has meanwhile been settled.

³⁰ One indication of the competitiveness of EU pigmeat producers is that this product is among those with the largest shares of non-subsidized exports among all agricultural products for which the EU has export subsidy commitments. In 1996/97, 65 percent of EU pigmeat exports were shipped without subsidies (according to the EU notification of export subsidies).

³¹ The 300,000 tonne quota for quality wheat showed only a 30 percent fill rate in 1997. The EU Commission pointed out that this happened in spite of a zero tariff applied within the quota (see Table 2). This quota was entirely filled in 1998. The 50,000 tonne quota for durum showed a 86 percent fill rate in 1997; Durum imports were not notified for 1998 when this paper was written.

In the case of the EU's minimum access quotas, descriptive statistics show a clear relationship between the rate of tariff reduction and quota fill. This suggests that there may be a tendency for quota fill to be the higher, the lower the in-quota tariff is relative to the out-of-quota tariff.

5.6 Conclusion

The EU created a large number (87) of TRQs after the Uruguay Round, following the agreement laid down in the Modalities that minimum access should be provided and that current access (i.e., access that existed before the Uruguay Round) not be restricted. Unlike those of nearly all other countries, quotas in the EU's Schedule are clearly categorized as minimum access or current access TRQs, providing transparency in this regard. Roughly two-fifths of the EU's TRQs come under current access, usually providing continued access, on a bilateral basis, for exporters who in the past enjoyed preferential access to the EU or who had low or zero tariff access to EU markets for products under voluntary restraint agreements. As far as quantities are concerned, the EU's current access quotas tend to be much larger than those created under minimum access.

In establishing the TRQs, it appears that the EU has generally not deviated from fundamental rules in the Modalities. As in many other countries, there was a bit of "dirty quotification" in the EU, both in terms of product specification and the calculation of minimum access quantities based on domestic consumption.

In the EU, the relationship between in-quota tariffs and out-of-quota tariffs differs greatly between current and minimum access. Under current access, in-quota tariffs as percentages of above-quota tariffs vary widely across products, because the individual TRQs reflect their historical origins and, hence, the (usually) low levels of protection that the EU had historically agreed with the exporting countries concerned. For most minimum access TRQs, on the other hand, the EU has set in-quota tariffs at a universal percentage (32 percent) of out-of-quota tariffs, and has not distinguished between less and more sensitive products. For both current and minimum access quotas, in-quota tariffs remained constant during the URAA implementation period, so that over time they have risen relative to the declining out-of-quota tariffs.

In administering license allocation under the TRQs, the EU has not been particularly inventive, either in using approaches that make it difficult to import the products concerned or in devising innovative approaches or methods, such as auctioning, that are economically more convincing than the other, more frequently used, approaches.

Fill rates for TRQs in the EU have been reasonably high and have increased over time. It is interesting to note that some of the larger current-access quotas have exhibited relatively low fill rates, more so than have minimum access quotas. This was particularly so with current access quotas for feedstuffs that in the past was used as cereal substitutes in the EU. With the significant cut in EU cereal support prices, it is no surprise that import demand for these feedstuffs has declined noticeably. As far as we can see, no case has been identified in which the EU has deliberately used quota management procedures to make access to its markets more cumbersome than expected under a TRQ regime.

Overall, it appears that the EU has played a reasonably fair game as far as TRQs are concerned. Concerns do remain, though, as to the exact articulation of the Europe Agreement and the quotas under minimum access. The EU has indicated in its schedule that imports under the (preferential) Europe Agreement could be counted against certain quotas. Even though this provision is used when preferential tariffs under the Europe Agreement and in-quota (MFN) tariffs are similar, other countries fear that this could result in CEECs taking greater advantage of the EU increase in market access under the minimum access provisions.

It is still difficult to make an assessment of the actual increase in access to the EU market that has resulted from the URAA. The scheduled decrease in tariffs is still being implemented, some statistics have yet to be published, and because of short run fluctuations of world prices, one needs a few more years to assess changes in import flows. However, it is very likely that most of the increase in access to the EU market has resulted from the setting of minimum access TRQs. The 36 percent cut in bound tariff has mainly resulted in squeezing out the original water in tariffs that resulted from the so-called dirty tariffication process (see IATRC, 1997). Future cuts in bound tariffs are likely to have a significant impact on trade flows but, so far, it is the TRQ system that has resulted in the most significant increases in EU imports. One explanation is that, while tariff cuts have been implemented progressively, the EU has set TRQs so that

market access represents 5 percent of consumption several years before the end of the implementation period of the URAA. Even though several TRQs were only partially filled during the first years, they have led to significant increases in imports in the cheese, grain and beef sectors (for example, the 300,000 tonne quota for quality wheat showed only a 30 percent fill rate in 1997 but this quota was entirely filled in 1998).

For the next round of WTO negotiations, an interesting question is which approach might work best to liberalize EU trade - reductions of in-quota tariffs or an expansion of quota volumes? Clearly, the answer would differ from product to product. However, as a general rule, it would appear that an expansion of quota volumes is likely to achieve more than a reduction of in-quota tariffs. In most cases where fill rates are low in the EU, this appears to be the case not because in-quota tariffs are high but because import demand is limited on EU markets, probably even at lower tariffs. As a matter of fact, in several cases low fill rates coincide with low or even zero in-quota tariffs (e.g. worked oats, with zero in-quota tariff but a fill rate of only 22 percent in 1997). In such cases, neither larger quota volumes nor lower in-quota tariffs would make imports grow. On the other hand, where TRQs are fully used, only an expansion of quota volumes can help to liberalize trade, while a reduction of in-quota tariffs would do no more than to raise the rents that tend to flow to EU-based traders. Hence, for the EU's negotiating partners it may be best, in the next WTO round, to concentrate on an expansion of TRQ volumes.

6 U.S. TRQs for Sugar, Tobacco and Peanuts

6.1 Introduction

The United States has formally notified 54 TRQs to the WTO. Seven groups are delineated in Table 6.1. The beef TRQ replaces the 1979 Meat Import Act, repealed as part of the URAA. The TRQs for green olives and satsumas in airtight containers are carried over from earlier bilateral trade disputes. The tobacco TRQ is the U.S. response to a GATT ruling against U.S. domestic content regulations for cigarettes (discussed in the section on tobacco below). These first three groups are exceptions to the generalizations that follow.

Each of the four remaining groups finds the origin of its TRQs in a quota imposed to sustain a domestic price support program. Most resulted from the *tariffication* of the quantitative restrictions previously in place under Section 22 of the Agricultural Adjustment Act. Section 22 allowed the President to impose fees or quantitative restrictions on imports of products that could materially interfere with the operation of domestic agricultural price-support programs. The law was amended in 1948, 1950, and 1951 to specify that the right to impose such restrictions could not be abridged by “any treaty or other international agreement to which the United States is or hereafter becomes a party.” The clause was designed to insulate domestic agricultural policy discretion from the recently formed GATT. Import competition in the early 1950s triggered Section 22 actions. Between 1951 and 1955, quantitative trade restrictions were imposed on the following products: cotton and certain cotton waste; wheat and wheat products; dairy products, including dried milk, cheese, butter,

Table 6.1: U.S. TRQs notified to the WTO

Product	Number	Origin
Beef	1	Meat Import Act of 1979
Green olives (4), satsumas in airtight containers	5	Bilateral trade disputes
Tobacco	1	Domestic Content Law, 1993
Cane sugar, sugar containing products (11)	12	1934 quota
Peanuts (2), peanut butter	3	Section 22
Cotton	7	Section 22
Dairy products	25	Section 22
Total	54	

chocolate crumb, and certain animal feed containing milk or milk derivatives; barley, rolled barley and barley malt; oats and ground oats; shelled and prepared almonds; shelled filberts; peanuts; peanut oil; flaxseed and linseed oil; and rye, rye flour and meal. (Jackson 1969 733-737).

Several parties challenged these quantitative restrictions in the GATT. In 1955, the GATT granted the United States an indefinite waiver from its GATT obligations for actions taken under Section 22. Because the quotas were imposed to prevent disruption of domestic price support or production control programs, it was often necessary to restrict not merely the controlled commodity but also many of its processed derivatives and substitutes. Thus Table 6.1 shows that in addition to cane sugar, 11 sugar-containing items are also restricted. Similarly, there are 25 TRQs for dairy products, almost half the total TRQs.

This chapter does not attempt to discuss all 54 TRQs. It focuses on four commodities: sugar, tobacco, peanuts and dairy. Sugar, peanuts and tobacco TRQs are administered on an historical supplier basis; and each one has its peculiar characteristics. However, these cases represent the range of problems inherent in historical allocation. The discussion below can be generalized to other TRQs as well.

6.2 Sugar TRQ

The U.S. sugar quota is an excellent example of the persistence of quota allocations. Only exceptional economic or political circumstances have induced reapportionment. Supplier shares of the quota for U.S. sugar imports were first allocated in 1934 on the basis of trade volumes from 1931 to 1933. Save for wartime controls, the allocation was essentially unchanged until 1948. Legislation in 1948 and 1956 made minor adjustments to the shares of the two major suppliers, Cuba and the Philippines. The trade embargo imposed on Cuba after the Cuban Revolution forced a reassignment of the large Cuban share in 1961. It was formally reallocated in 1965 to countries, other than the Philippines, in proportion to their shares of the trade in 1963 and 1964. This allocation continued until 1974 when the quota was repealed. A new quota was imposed in 1982 on the basis of trade shares from 1975 to 1981; this allocation was transferred unaltered into a tariff rate quota in 1995 and remains in effect. Each major change was prompted

by an economic or political shock that, in each case, altered the structure of the sugar market. Despite this, the allocation of shares was based on the pattern of trade prevailing before the change.

The present U.S. sugar tariff rate quota is allocated to exporting countries on the basis of their 'olympic average' market shares of U.S. sugar imports in the period 1975 to 1981. This was a period of exceptionally high world sugar prices, so high, in fact, that in 1975 the United States removed the quantitative import restriction that had been in place since 1934. During several months of the base period, the world price of sugar exceeded 30 cents per pound. At 30 cents virtually everybody is an inframarginal sugar supplier. Thus, the market shares of U.S. imports during the period 1975 to 1981 included some unusually high-cost suppliers. The current TRQ was converted from a standard quota after Australia successfully challenged the U.S. quota on the grounds that it violated GATT Article XI in 1989. Establishment of the TRQ in 1995 resolved the dispute.

Skully (1998) examines the pattern of imports for quota-exempt re-export sugar. Raw sugar may be imported outside of the quota if it is refined and re-exported within 90 days. This trade is not distorted by tariffs or quotas (save for the embargo on Cuba), and so it provides an estimate of the free trade counterfactual distribution of trade. This distribution is contrasted with the allocation of TRQ shares in Table 6.2. Low-cost sugar producers located relatively close to U.S. refining centers in the Gulf and Atlantic ports dominate the quota-exempt distribution of trade. If the quota were auctioned to suppliers, the quota-exempt suppliers would be those most likely to place the winning bids. Similarly, they would be the likely suppliers if the quota were replaced with the tariff-equivalent tariff or if international quota leasing or resale were allowed.

The requirement that sugar imported under the TRQ must be produced in the country allocated the quota rights amounts to an antiscalping law and is identical to the prohibition on intercounty leasing of tobacco quota discussed above. This restriction induces costly transactions. Taiwan, for example, has tariff quota rights for exports of about 24,000 short tons of sugar to the United States. Taiwan always fills its quota; however, this is the only sugar it exports. Taiwan's domestic production does not satisfy its domestic demand. It imports sugar (usually from Australia or Thailand) to cover the difference, which includes an additional 24,000

**Table 6.2: Market Shares of U.S. Sugar Imports:
TRQ and Quota-exempt Reexports**

	Quota-exempt Reexports	Tariff-rate Quota
	<i>Share</i>	<i>Share</i>
Guatemala	39.2	4.6
Colombia	20.2	2.3
Costa Rica	11.4	1.4
Honduras	11.0	1.0
Dominican Rep.	9.2	17.0
El Salvador	5.8	2.5
Nicaragua	1.7	2.0
All others	1.6	69.2
<i>of which:</i>		
Brazil		14.0
Philippines		13.0
Australia		8.0
Argentina		4.2
Peru		4.0
Panama		2.8
All others		23.1

Source: Skully 1998

tons to cover the domestic production exported to the United States. It would be more efficient for Taiwanese quota holders to charter a shipment of 24,000 tons of sugar from Queensland or Guatemala to the United States and simply pocket the arbitrage rents. Similarly, the Philippines, the third largest quota holder (13 percent), has recently been unable to cover its domestic needs. In fact, it has a TRQ to limit sugar imports. To procure domestic sugar to fill its U.S. tariff quota, the Philippine sugar authorities have offered domestic mills 1.2 tons of imported raw sugar for every ton of domestic raw sugar delivered for export to the United States.

Hawaiian sugar production has been in decline since the 1980s (Table 6.3). Since the mid-1990s, sugar production has ceased on the islands of Oahu and Hawaii, where sugarcane mills have been disassembled and shipped to Central America. The sole sugar refinery on the U.S. West Coast was constructed primarily to refine raw Hawaiian sugar for continental

Table 6.3 Hawaiian Cane Sugar, 1982 to 1999

Year	Sugarcane area harvested	Sugar production	Sugarcane Farms
	<i>1000 acres</i>	<i>1000 short tons, raw value</i>	<i>Number</i>
1982	89	983	188
1987	80	979	79
1991	74	724	31
1995	53	491	9
1999E	35	350	4

Source: *Crop Production*, NASS, USDA and U.S. Census of Agriculture.

consumption. With the collapse of Hawaiian production, the refinery has not been able to run at normal capacity. Supplier TRQ shares are based on the distribution of supply to meet refinery import volumes between 1975 and 1981, when virtually all imports were to Gulf and Atlantic coast refiners. This historical allocation has made it difficult for the West Coast to find foreign quota-holding replacement suppliers, which led members of the California Congressional delegation to request a GAO (1999) investigation into the administration of the sugar quota. Thus, the allocative losses from malapportioned TRQ rights are not limited to foreign production. They distort the distribution of domestic sugar refining as well.

6.3. Tobacco TRQ

The tobacco TRQ is of relatively recent origin. Starting in the 1980s, U.S. cigarette manufacturers began to market generic cigarettes. These low-priced alternatives to premium brands were produced with larger proportions of imported leaf, the lower cost of which apparently provided sufficient margins to offset any erosion of premium brand sales. The growth in tobacco imports stressed various elements of the domestic tobacco regime. Perhaps more important, antismoking interests perceived the growth of generic cigarette sales as a public health threat. The regulatory response that eventually passed into law was a section of the Omnibus Budget Reconciliation Act (OBRA) of 1993. The law required that U.S.-manufactured cigarettes contain at least 75 percent domestically grown tobacco. Domestic content laws are an obvious violation of the GATT, and several tobacco-exporting countries promptly brought complaints. The dispute was resolved by negotiation between the United States and the various

interested suppliers, in accordance with Article XIII 2d. The resolution was not simply to repeal the domestic content law, as this would have resulted in the status quo ante. Rather, a supplier TRQ was devised. President Clinton issued a proclamation making the TRQ effective on 13 September 1995. Thus, the quota year for tobacco import starts each year on September 13. Table 6.4 shows the allocation of this TRQ.

Table 6.4 U.S. Tobacco TRQ Allocations and Fill Rates

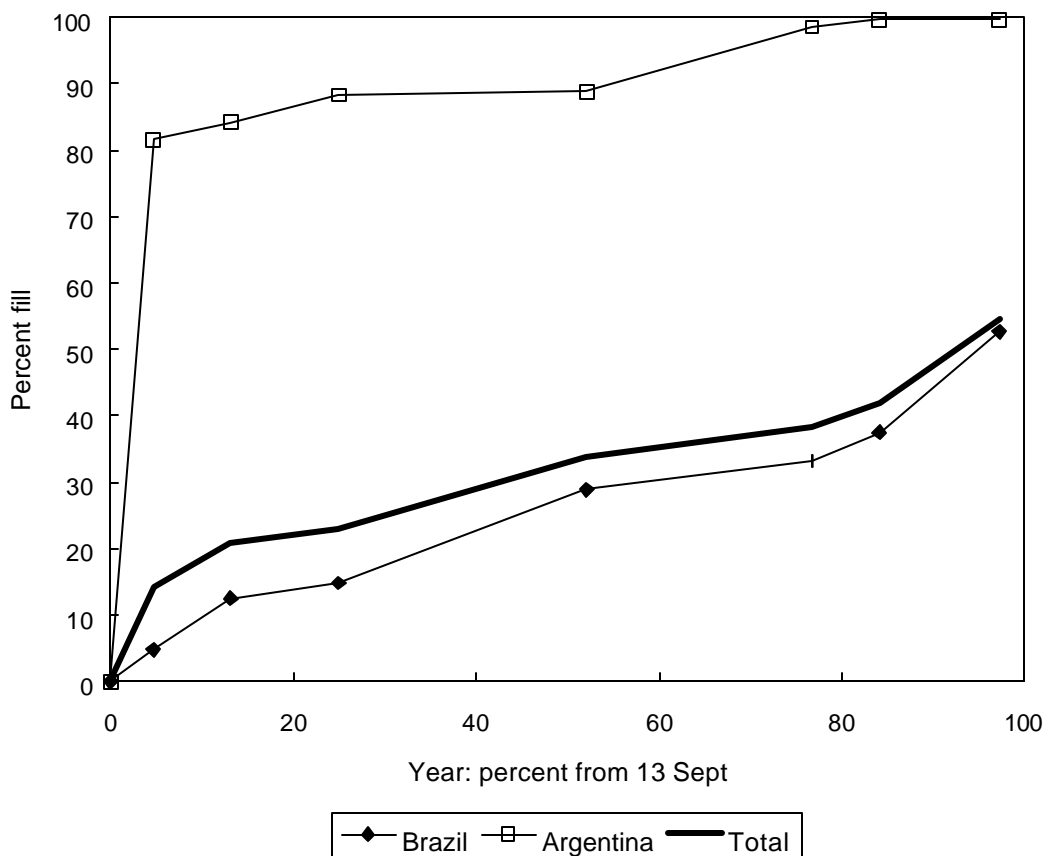
Supplier	Metric tons	Share %	1996/97 Fill	1997/98 Fill	1998/99 Fill
Argentina	10,750	7.9	100	100	65
Brazil	80,200	53.0	83	53	57
Chile	2,750	1.8	84	59	0
EU-15	10,000	6.6	23	31	32
Guatemala	10,000	6.1	43	45	14
Malawi	12,000	7.9	100	87	52
Philippines	3,000	2.0	10	0	2
Thailand	7,000	4.6	94	48	31
Zimbabwe	12,000	2.0	53	24	39
Other	3,000	2.0	100	100	99
Total	150,700	100.0	76.7	54.7	48.8

Source: Allocations, Harmonized Tariff Schedule of the United States (2000), Chapter 24, Additional U.S. Note 5(a). Fill rates, USDA Foreign Agricultural Service, *Tobacco: Markets and World Trade*.

The TRQ is for cigarette leaf tobacco, primarily flue-cured and burley tobacco, the two most important tobaccos with production control programs. Oriental leaf tobacco is not produced in the United States and, until the 1980s, was the principal cigarette leaf tobacco imported. Cigarettes are produced from a blend of flue-cured, burley, oriental, and other tobaccos. Oriental tobacco is an essential input into cigarettes and is not subject to TRQ. The TRQ covers nine eight-digit tariff lines; however, almost all in-quota imports are of “tobacco, partly or wholly stemmed/stripped, threshed or similarly processed, not from cigar leaf.”

Figure 6.1 plots the TRQ fill profile for the quota year 1997/98. The profile plots how much of a TRQ allocation is filled and when: the x-axis measures the quota year from 13 September and the y-axis measures the percentage filled. Three profiles are plotted. The first is

Figure 6.1: US Tobacco TRQ Fill profile, 1997/98



the fill profile for the 3,000 metric tons allocated to all countries on a first-come, first-served basis. One would expect this quota to fill first, and it does, often very quickly. Also plotted are Brazil, the largest TRQ shareholder, and the total TRQ fill. With 53 percent of the TRQ, Brazil's export pattern dominates the total. As Brazil does not fill its share, the total TRQ also shows a significant under-fill. Unlike the sugar and peanut TRQs, which always fill, tobacco does not. Is this because of how the quota is administered? Or does under-fill result from a lack of import demand? Available evidence indicates that lack of demand is the principal cause of under-fill, but that the non-transferability of quota among countries contributes to the problem. Lack of demand follows from the recent decline in U.S. cigarette production and consumption. Cigarette output has fallen from 755 billion pieces in 1996 to an estimated 625 billion for 1999. Consumption has fallen from 487 billion pieces in 1996 to an estimated 425 billion in 1999 (Capehart 1999).

Table 6.4 also reports the fill rates for TRQ holders for each quota year. The total fill rate has fallen from 77 percent to 49 percent. So there does not appear to be unmet excess demand for imported cigarette leaf. However, the fill rates also indicate that quota allocation may contribute to under-fill. For example, the Philippines has never filled more than 10 percent of its quota of 3,000 metric tons while the other FCFS category always fills its 3,000 tons. As with its sugar quota, the Philippines and other exporters would benefit if they could lease their unused quota to quota-constrained suppliers in the “other” category.

6.4. Peanut TRQ

The U.S. peanut program supports the price of raw, in-shell peanuts for human consumption only, not the price of peanuts for oil or meal or other uses. The peanut TRQ covers raw, in-shell peanuts as well as shelled, blanched, and ‘other’ peanuts—processed substitutes in consumption for raw, in-shell peanuts. There is also a separate TRQ for peanut butter.

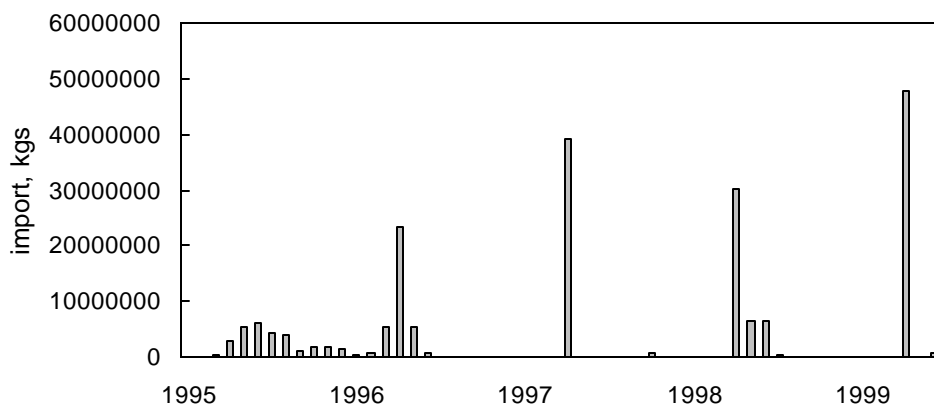
The Uruguay Round obligates WTO members who had imposed import bans or other quantitative restrictions to allow market access of no less than 3 percent of domestic consumption (in a base period) in 1995, and to expand the market access to no less than 5 percent by 2000. Because the United States regularly imports more sugar and tobacco than the 5 percent minimum access requirement, neither TRQ required expansion. The minimum access requirement was binding on U.S. peanut imports. Thus, the TRQ increased from 1995 through 2000 (Skully 1999b).

The peanut TRQ is a hybrid of two general forms of TRQ administration. It mixes historical allocation and first come first served allocation. The in-quota allocation respects a bilateral agreement between the United States and Argentina that guarantees Argentina 78 percent of the minimum access (in-quota) volume. Peanuts from Mexico are excluded from the WTO peanut TRQ because Mexican peanuts have a separate TRQ. Peanuts from all other sources share access to the balance of the in-quota volume. The first come, first served method of administration allocates the in-quota volume to whomever imports first. Thus, there is a powerful incentive to import as early in the quota year as possible, and, predictably, there is a

surge of imports on April 1, when the quota year commences. Figure 6.2 plots the monthly volume of imports under the U.S. peanut TRQ. Most imports enter in April.

While the United States allocated 78 percent of the in-quota TRQ volume to Argentina, it did not allocate the quota rights to the government of Argentina or to particular Argentine

Figure 6.2: U.S. Peanut imports under TRQ
volume, by month



organizations or firms. The U.S. tariff schedule merely specifies that peanuts of Argentine origin are eligible to fill the Argentine share of the TRQ. Anyone can purchase peanuts from Argentina at the world price and try to import them into the United States before the quota is filled and capture the quota rent by selling them at the U.S. price. The government of Argentina contends that the quota rights and rents belong to Argentina or Argentine firms. Argentina has formally raised this issue at the WTO.

The U.S.-Argentine peanut dispute is over who should obtain the rents from the in-quota trade. While rents are at the heart of most TRQ disputes, as previously noted, the WTO is only concerned about whether member countries are abiding by their WTO obligations and is indifferent to distribution of quota rents. The WTO principally focuses on whether in-quota imports are impeded and whether market access is allowed to all member nations on a nondiscriminatory basis. If quota rights are assigned to Argentina that does not solve the quota allocation problem, but merely transfers it. Argentina would then have to allocate TRQ rights

among Argentine peanut suppliers. Trela and Whalley (1995), in their study of the Multi-Fiber Agreement, demonstrate that the allocation of MFA quota by exporting governments to domestic firms causes far more allocative inefficiency (eight times as much, in fact) than the initial quantitative restrictions imposed by importing countries. The principal reason is that exporting countries tend to allocate quota rights on an historical basis.

7. Dairy TRQs in the United States

The TRQs introduced by the United States after the URAA for dairy products replaced absolute quotas. The major dairy products subject to TRQs are fluid milk and cream (fresh, condensed, and evaporated), butter, cheese, and milk powders (Table 7.1). Imports of certain whey products, chocolate containing butterfat, infant formula, ice cream, and animal feeds containing milk are also restricted by TRQs. During 1996-98, the value of these imports was about \$0.5 billion, most of which was cheese. Comparing import levels with apparent consumption indicates that the TRQs have been highly effective in controlling trade in these products. During 1996-98, import penetration levels (measured by the ratio of imports to domestic consumption) for all major categories were 6 percent or fewer (Tables 7.1).

Not all dairy products are subject to TRQs, however. In fact, more than half (by value) of the dairy products imported into the United States between 1996 and 1998 were not subject to TRQs (Table 7.1).

Most of these non-quota products, such as specific varieties of cheese imports (mainly cheese made of sheep's milk), milk protein concentrates, and whey protein concentrates, are subject to specific and/or *ad valorem* tariffs. Generally tariffs on these products are low. For example, the average *ad valorem* equivalent across all non-quota imports was only 1 percent during 1996-98, with cheese at 4 percent and whey protein concentrate 5 percent. Casein, accounting for half of the non-quota imports and 28 percent of all dairy imports, has a duty rate of "Free." With the exception of whey protein concentrate, non-quota imports represent total domestic consumption for these products, with negligible U.S. production of these products.

Most import quotas prior to the URAA were imposed in 1953 under Section 22 of the Agricultural Adjustment Act, as amended, and covered virtually all imports of products derived from cow's milk, except casein, caseinates, lactalbumin, and soft-ripened cow's milk cheese.³² These quotas limited imports of products to a quantity equal to about 2 percent of the equivalent of U.S. production of milk. The market access provisions of the URAA cover four areas: (i)

³² Some import quotas existed prior to 1953 under the War Powers Act. Not all Section 22 quotas began in the 1950s, some were introduced in the late 1970s.

Table 7.1 U.S. dairy products: Imports and import penetration ratios. Average 1996-98

Product	Imports	Import penetration ratio ^{1/}
	----- million dollars ---	----- percent -----
Subject to quota:	---	
Milk & cream, fresh, condensed & evaporated	15	^{2/}
Butter	30	6
Cheese	394	4
Nonfat dry milk	6	1
Whole milk powder	5	6
Other	48	
Total with quota	498	
Not subject to quota:		
Casein	306	100
Milk protein concentrate	104	100
Whey protein concentrate	5	^{2/}
Cheese	192	96
Other	5	
Total without quota	612	
Total all imports	1,110	
% imports with quota	45	
% imports without quota	55	

^{1/} Measured by the ratio of import value to domestic consumption value.

^{2/} Less than 0.5 of 1 percent.

Source: Compiled from information provided by the U.S. Department of Commerce, USDA National Agricultural Statistics Service, American Dairy Products Institute, International Dairy Foods Association, and U.S. International Trade Commission.

conversion of non-tariff barriers to tariffs, (ii) commitments to maintain current access or provide minimum access opportunities, (iii) tariff bindings and reductions, and (iv) special safeguards.³³

7.1 Tariffication

The URAA stipulated that for in-quota tariffs, countries were to set rates low enough to enable commercial trade to take place (many countries used the same rates as applying on products under the quota system). For out-of quota tariffs, countries were to set rates at levels no greater than the level of protection afforded by the non-tariff barriers, based on the 1986-88 base period.

³³ Information in this section was taken mostly from, Uruguay Round Agreement Act, Statement of Administrative Action, published in H. Doc. 103-316, 103d Cong., 2nd Sess., pp. 709-41.

To illustrate how tariffication worked, suppose a country during 1986-88 had an import quota of 5,000 tons on cheddar cheese and that the tariff on in-quota imports was 10 percent *ad valorem*. Also suppose that this quota resulted in a domestic price of cheddar cheese being on average 75 percent higher than the world price during this period. Then under tariffication, a TRQ would be established for 5,000 tons (assuming this was more than 5 percent of domestic consumption), with an in-quota tariff rate of 5 percent and an out-of quota rate of 75 percent.

For the U.S. dairy industry, the URAA's tariffication requirements meant converting its Section 22 import quotas to TRQs. In all, 16 TRQs were established, generally consistent with the products subject to section 22 quotas (Table 7.2). These TRQ totaled about 156,000 tons³⁴ of dairy products in the initial year (1995), increasing to about 208,000 metric tons by the final year of implementation (2000). A large share of this quota was accounted for cheese, which was increased from 116,445 metric tons in 1995 to 136,441 metric tons in 2000.

7.2 Market access commitments

For the United States, converting absolute quotas into TRQs resulted in market access increasing significantly for some dairy products and not for others. For example, the combined Section 22 quota for butter and butter substitutes was 865 tons in 1994, while for 1995 the TRQ quantity was increased more than eight-fold to 7,458 tons. The TRQ for ice cream more than doubled the Section 22 quota, while the quotas on dried whole milk powder and nonfat dry milk also increased significantly. In contrast, there were only small increases in market access for fluid milk and cheese.

The other major change as a result of the URAA was the introduction of the "any country" import license. Under Section 22, licenses were allocated for imports of specific products from specific countries. So, for example, the Section 22 quota for nonfat dry milk was 820 tons, which was allocated to just two countries—Australia with 600 tons and Canada with 220 tons. Thus imports from other countries, such as New Zealand, were excluded from entering the U.S. market. Under the URAA, the United States continued this practice by allocating TRQs

³⁴ Excluding products measured in liters and additional tonnage reserved for Mexico in accordance with the North American Free Trade Agreement (see below for details on TRQs negotiated under NAFTA).

Table 7.2 Dairy products: Section 22 quotas and URA market access commitments, 1995-2000

Product	HTS chap, note	Section 22	metric tons						Change 95-99 percent	
			1995	1996	1997	1998	1999	2000		
Milk & cream, fluid, 1-6% fat 1/ 2/			11,356	11,356	11,356	11,356	11,356	11,356	0	
Milk & cream, fluid, or frozen, fresh or sour 1/	4, 5		5,678	5,727	5,921	6,115	6,308	6,501	6,695	17
Butter, & fresh or sour cream	4, 6		321	3,977	4,577	5,177	5,777	6,377	6,977	75
Dried skim milk	4, 7		820	1,261	2,061	2,861	3,661	4,461	5,261	316
Dried whole milk	4, 8		3	371	961	1,551	2,141	2,731	3,321	795
Dried milk & cream	4, 9		0	100	100	100	100	100	100	0
Articles with 5.5%-45% butterfat	4, 10		1,170	1,905	2,345	2,785	3,225	3,665	4,105	115
Milk & cream, cond. or evap.	4, 11		2,445	2,857	3,657	4,457	5,257	6,057	6,857	140
Dried buttermilk/whey	4, 12		225	296	296	296	296	296	296	0
Butter substitutes	4, 14		544	3,481	4,001	4,521	5,041	5,561	6,081	75
Cheese	4, 17-23		110,999	116,445	120,444	124,443	128,443	132,442	136,441	17
Chocolate with > 5.5% butterfat 3/	18, 2		9,711	15,467	17,608	19,748	21,708	24,028	26,168	69
Chocolate with < 5.5% butterfat 3/	18, 3		2,123	2,123	2,123	2,123	2,123	2,123	2,123	0
Infant formula	19, 2			100	100	100	100	100	100	0
Ice cream 1/	21, 5		1,633	3,283	3,761	4,237	4,714	5,191	5,668	73
Animal feed containing milk	23, 2		7,394	7,400	7,400	7,400	7,400	7,400	7,400	0

1/ '000 liters.

2/ Section 22 quotas only applied to fluid milk with a butterfat content greater than 5.5 percent.

3/ Quotas not applicable to retail products.

Note.—Excludes quantities allocated to Mexico under the NAFTA.

Note.—Under the URAA MACs, countries were required to set initial TRQ quantities at 3 percent of domestic consumption in a 1986-88 base period, increasing to 5 percent by 2000. With the exception of fluid milk and cheese, quota products were generally intermediate products for which consumption data were not readily available. Thus, in determining TRQ quantities for the United States (except for cheese and fluid milk), total domestic consumption of butterfat and solids nonfat were estimated for 1986-88. Next the “3 percent rule” was applied to these consumption estimates giving a MAC for butterfat and solids nonfat. Finally, TRQ quantities were allocated to individual products, such that the overall butterfat and solids nonfat commitments were met. Thus the 3-5 percent MAC was not applied to individual products (e.g., nonfat dry milk), but to the overall components of imported products. As a result of this process, U.S. negotiators were able to commit to less than the 3 percent MAC for many of the most import sensitive dairy products.

Source: Uruguay Round *Agreement on Agriculture*.

among individual countries. However, an additional “any country” category was introduced that opened up the market to any country able to supply products. For example, in 1995 the total TRQ for non-fat dry milk was 1,261 tons. Australia and Canada were allocated licenses to ship 600 tons and 220 tons, respectively, while an allocation of 441 tons was made available to any country, including Australia and Canada.³⁵ With the exception of cheese, the bilateral TRQ

³⁵ So, for example, in 1996 Canada shipped all 820 tons of its country specific allocation, plus 512 tons under the “any country” allocation, for total imports of 1,332 tons.

allocations were fixed throughout the implementation period, with minimum access requirements met by increases in the “any country” TRQ allocation.

7.3 Tariff bindings and reductions

In addition to tariffication, the URAA required that tariffs (both tariffs resulting from tariffication of non-tariff barriers and pre-existing tariffs) be reduced in equal installments over 6 years by a minimum of 15 percent and on average by 36 percent (using a simple, unweighted average). Owing to the sensitivity of imports, with a few exceptions U.S. policymakers committed to reduce out-of quota tariff rates on dairy products by the minimum 15 percent (Table 7.3). For example, the United States agreed to reduce its tariffs on butter from 82 cents per pound to 70 cents per pound, from 46 cents per pound to 39 cents per pound for nonfat dry milk, and from 66 cents per pound to 56 cents per pound for cheese. In-quota rates were held constant throughout the Agreement’s implementation period at 6 cents per pound for butter, 1.5 cent per pound for non-fat dry milk, and 12 *ad valorem* percent for cheese.

Table 7.3 Dairy products: Tariff commitments under the URAA

Commodity (HTS)	Units	Base	1995	1996	1997	1998	1999	2000
Butter								
In-quota (0405.10.10)	¢/lb.	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Out-of quota (0405.10.20)	¢/lb.	82.2	80.2	78.1	76.1	74.0	71.9	69.9
Nonfat dry milk								
In-quota (0402.10.10)	¢/lb.	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Out-of quota (0402.10.50)	¢/lb.	46.2	45.0	44.8	42.7	41.5	40.4	39.2
Cheese								
In-quota (0406.90.08)	Percent	12	12	12	12	12	12	12
Out-of quota (0406.90.12)	¢/lb.	65.5	63.8	62.2	61.5	58.9	57.3	55.7

Source: Harmonized Tariff Schedule of the United States, 1995-2000.

7.4 Special safeguards³⁶

Two types of SSGs apply to U.S. imports of dairy products—value-based and quantity-based.³⁷ Value-based SSGs allow additional duties (over and above the out-of quota tariff rate)

³⁶ Under Article 5 of the URAA, countries may apply special safeguards (SSG) to products whose nontariff measures have been converted into duties, and that are designated for SSG treatment in their schedules. Special safeguards take the form of temporary additional duties and are typically applied to products particularly “sensitive to trade”. Under rules in the URAA, SSGs are permissible to prevent low prices or import surges from injuring a domestic industry (although no determination of injury is required).

to be imposed on out-of quota imports when prices fall below a fixed trigger price (based on average prices during 1986-88), and are invoked automatically on a shipment-by-shipment basis. Value-based SSG duties, published in Chapter 99, Subchapter 4 of the HTS, increase as the value of imports declines. This import value is determined by the U.S. Customs Service, and defined as the price actually paid or payable for merchandise, excluding U.S. import duties, freight, insurance, and other charges. Value-based SSGs are applied automatically and do not have to be formally announced when in effect, as in the case of volume-based SSGs. Value-based SSG duties stayed at the same levels during the 1995-99 URAA implementation period. In the case of cheddar cheese, for example, an import value of less than 29.5 cents per pound generates a SSG duty of 57.2 cents per pound, which is then added to the out-of quota tariff of 57.3 cents per pound. Thus the overall tariff is 114.5 cents per pound. As the value increases, the SSG duty declines and reaches zero when the value reaches 83.9 cents per pound. As a result, the SSG forces the unit value of out-of quota imports (import value plus over-quota tariff and SSGs) to remain in a fairly small range (134.5- 142.5 cents per pound). According to WTO notifications, products for which value-based SSGs were invoked on a significant volume of out-of quota imports during 1995-98 were butter and cheese.

Quantity-based SSGs allow additional duties to be imposed on out-of quota imports if actual imports exceed a certain trigger level of imports. Because the trigger import level for each product is based on imports over the previous 3 years, they are announced annually in the *Federal Register*. Quantity-based SSG duties are also reported in Chapter 99, Subchapter 4 of the HTS, and in general decline 15 percent during the URAA implementation period. Again, in the case of cheddar cheese, the *Federal Register* (March 9, 2000) announced a trigger quantity of out-of quota imports of 14,725 tons for calendar year 2000. If this trigger were reached, an additional tariff of 18.6 cents per pound would be applied to the out-of quota rate. According to WTO notifications, only value-based SSGs were invoked during 1995-98, thus quantity-based SSGs were not invoked during this period.

³⁷ Only one SSG type (either price-based or quantity-based) can be applied at any particular time.

7.5 U.S. Dairy TRQs under NAFTA

NAFTA is an agreement between the United States, Mexico, and Canada to remove all trade barriers, including those on agricultural products, over a 15-year period (1994-2008). Because Canada excluded its dairy sector from the Agreement, NAFTA provisions affect dairy trade only between the United States and Mexico. Under the market access provisions of NAFTA, the United States replaced Section 22 quotas with TRQs. These TRQs are additional to those established under the URAA. Five separate TRQs were established³⁸ for U.S. dairy imports from Mexico, with initial allocations based on historical trade. The initial quota quantities were small and are increasing at 3-percent compounded annual rate over a 10-year period. For example, an initial TRQ for milk powder was established at 422 metric tons increasing to 535 metric tons by 2002, while the TRQ on cheese is increasing from 5,550 metric ton to 6,433 tons over the same period. Beginning in year 2003, all quantitative restrictions will be eliminated.

In-quota shipments enter the United States from Mexico with a duty rate of “Free.” Out-of quota tariff rates were established based on the 1989-91 tariff equivalent of the section 22 quotas, and are being phased out over 10 years. These out-of quota tariffs will be completely phased out beginning 2003. SSGs do not apply to imports from Mexico.

7.6 TRQ Administration

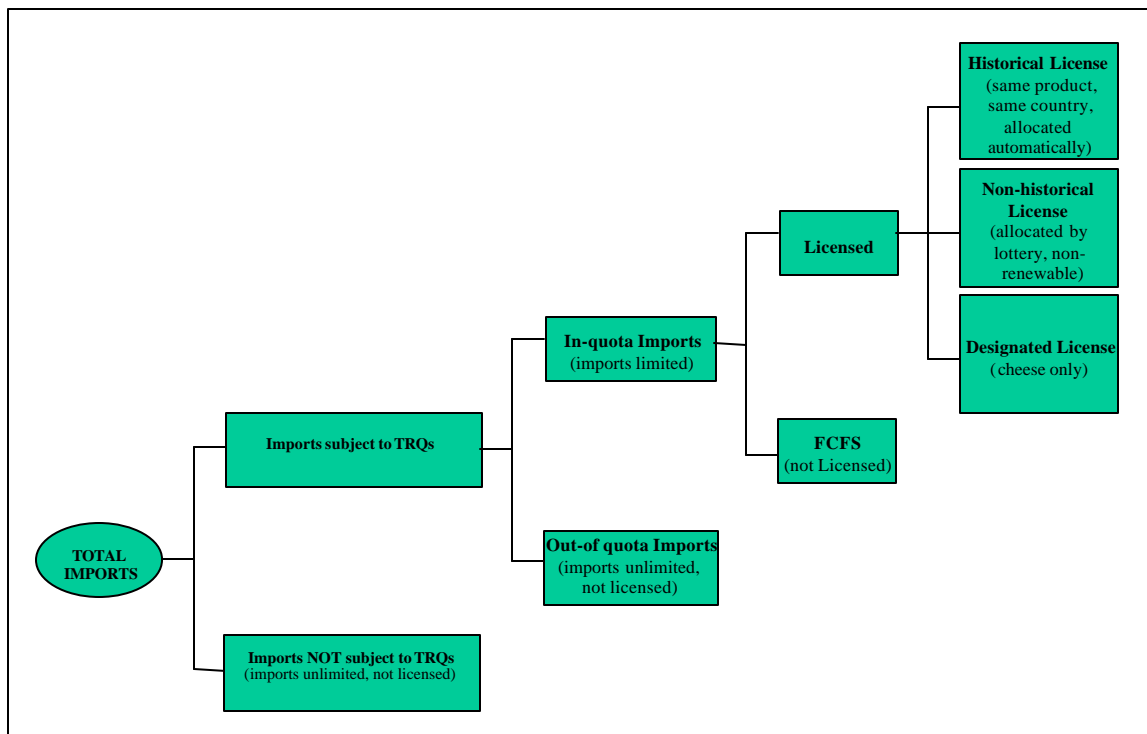
As indicated in Table 7.1, about one-half of U.S. imports of dairy products are subject to TRQs. These products are classified as either in-quota imports or out-of quota imports. In-quota imports are classified in 8-digit HTS subheadings, which give the in-quota tariff rates. Out-of quota imports may enter the U.S. domestic market without import licenses and in unlimited quantities, thus the main factor limiting out-of quota imports are the out-of quota tariffs that are often prohibitive. Out-of quota imports are classified in separate 8-digit HTS subheadings

³⁸ (i) Milk and cream, fluid or frozen, fresh or sour, ice cream; (ii) butter, & fresh or sour cream, dried milk & cream, butter substitutes; (iii) dried skim and whole milk, dried buttermilk/whey, animal feed containing milk; (iv) articles containing over 5.5%-45% butterfat, milk & cream condensed and evaporated, chocolate containing butter fat; and (v) cheese.

(typically adjacent in the HTS to the in-quota subheadings) which give the out-of quota tariff rates. The TRQ quantities are specified in the “additional notes” to HTS Chapters covering dairy imports (mostly in Chapter 4). Each TRQ has its own additional note. The additional notes also list the HTS subheadings that are counted toward the TRQ quantity.³⁹

In the United States, TRQ administration—the method by which in-quota TRQ quantities are allocated among importers—is highly complex, as illustrated in Figure 7.1.⁴⁰ In-quota imports are either subject to licensing requirements or are administered on a first-come, first-served (FCFS) basis. Imports not subject to TRQs are considered non-quota imports and are permitted into the U.S. dairy market in unlimited quantities and without the requirement of an import license.

Figure 7.1. Administration of U.S. Dairy Imports



³⁹ Additional note 6 of the 1999 HTS Chapter 4 indicated that the total quantity of butter and milk and cream exceeding 45 percent fat (entering under tariff subheading 0401.30.50, 0403.90.74, and 0405.10.10) must not exceed 6,377 tons, and were subject to an in-quota rate of 5.6 cents per pound. Out-of quota imports were classified as “Other” imports of butter and milk and cream exceeding 45 percent fat (imports entering under tariff subheading 0401.30.75, 0403.90.78, and 0405.10.20), and faced the out-of quota tariff rate of 71.9 cents per pound.

⁴⁰ For complete details on the U.S. Dairy Import Licensing System, consult the FAS homepage.

7.6.1 TRQs administered through import licenses

Import license specification

About three-quarters of the dairy products subject to TRQs require a license to be imported into the United States. The licensing authority is the U.S. Department of Agriculture's Foreign Agricultural Service (FAS) which allocates licenses annually to importing firms that conduct business in the United States and have an office and an agent in the United States. However, because firms are not required to be of U.S. origin, foreign firms are also eligible to apply for licenses.⁴¹

Import licenses give holders the right to import product at the in-quota tariff rate. However, they place restrictions on the licensees by specifying certain conditions of importing. For example, the licenses specify the type of product (by stating the HTS Chapter and additional note) and the quantity that can be imported (licenses are not of uniform import volume). Licenses also specify the period during which shipments must take place (generally imports must take place within a calendar year beginning January 1 each year). Further, import licenses specify the country or group of countries from which license holders must source imported products. There are three types of license based on country designation—"country specific" licenses, "other country" licenses, and "any country" licenses. A "country specific" import license indicates a specific country from which the firm must source the imports. An "other country" license allows importing firms to select from a list of eligible exporting countries other than those with country specific licenses. "Any country" licenses allows importing firms to source product from any eligible exporting country (including countries with country specific licenses).⁴²

⁴¹ The New Zealand Dairy Board (NZDB) exports large amounts of dairy products to the United States under the TRQ regime, but also is as an importer of the products because the NZDB has purchased subsidiary companies that own import licenses in the United States.

⁴² In 1999, the TRQ for butter was 6,377 tons (HTS chapter 4, note 6). Country specific licenses were issued to importers sourcing product from New Zealand (totaling 151 tons) and the EU (totaling 96 tons). Other country licenses totaled 74 tons (i.e., quota exclusively for countries other than New Zealand and the EU). Any country licenses accounted for the remaining tonnage (6,056 tons), and could be sourced from all eligible countries including New Zealand and the EU.

Types of import licenses

FAS allocates three types of import license: (i) *historical*, (ii) *non-historical*, and (iii) *designated* licenses. Of the total import licenses allocated on a yearly basis, approximately 75 percent are historical, 15 percent are non-historical and 10 percent are designated.⁴³

Historical import licenses

Historical licenses are allocated automatically to the same importing firms that held historical licenses in the previous year. Dating back to the early 1950s,⁴⁴ historical licenses were first allocated to firms that had built a historical base of imports during a previous representative period (called “old historical licenses”).⁴⁵ As a result of increasing quantities on existing quotas and the creation of new quotas during the Tokyo Round of multilateral trade negotiations, an additional set of historical licenses was allocated to firms that had built a historical base of imports in the applicable representative period (called “new historical licenses”). After the Tokyo Round, the quantity of dairy imports covered by historical licenses was fixed and has not increased since; however, each year the amount of historical licenses allocated falls slightly due to licenses being permanently surrendered or revoked. Only those firms that received historical licenses prior to, and as a result of, the Tokyo Round are allocated historical licenses every year (as long as the firm utilized the required amount of the import license in the previous year).

Under licensing regulations, the licensees need use only 85 percent of the quota amount each year to be eligible for the full amount the following year. If a firm fails to use at least 85 percent of its allotment, the FAS will revoke the license and the firm will not be eligible to receive a historical license the following year.⁴⁶ The importing firm has the option, however, of surrendering unused portions of their allotment so as not to be penalized. Surrendered amounts

⁴³ Personal conversation with Richard Warsack, FAS.

⁴⁴ The historical licensing procedure was instituted in 1951 under authority of Section 104 of the Defense Production Act of 1950.

⁴⁵ The previous representative periods were as follows: 1930-34 for butter; 1948-50 for dried buttermilk and whey, non-fat dried milk, whole milk powder, blue mold cheese, and edam and gouda cheese; 1956 for butter substitutes; 1961-65 for cheddar and American-type cheese; 1967-69 for ice cream; and 1967, 1970, and 1978-79 for swiss or emmenthaler cheese, gruyere cheese, and cheese substitutes (USDA, 1988).

⁴⁶ The 85 percent requirement does not apply if the licensee can demonstrate that the level of imports fell short because of reasons such as a breach of contract by the transporter or the supplier or because of an act of nature. Also, if a known export monopoly exists in a country specified on the import license, the 85 percent requirement does not apply to that licensee.

are excluded from the 85 percent utilization requirement.⁴⁷ The FAS reallocates the surrendered licenses to other license holders or even to the same holder that surrendered its amount earlier in the season.⁴⁸ If a firm has been reallocated surrendered amounts, the amounts are then included in the 85 percent utilization requirements (i.e., reallocation increases the overall size of the firm's historical license for that year). Starting in 1999, licensing rules require that if more than 50 percent of the amount is surrendered for three consecutive years, the following year's license amount will be an average of the annual quantities actually imported.⁴⁹

Non-historical import licenses

Non-historical licenses are licenses that are allocated on a yearly basis through a rank-and-order lottery system to those importing firms that imported required amounts of the selected product in the previous year (i.e., by importing at the out-of-quota rate or with non-historical licenses).⁵⁰ Firms apply every year by ranking commodities on their application based upon preference. A series of random draws is then conducted commodity-by-commodity to determine which firms will receive licenses. Non-historical licenses are allocated to individual products separately, so it is possible for a firm to obtain more than one non-historical license in a given year. Non-historical licenses are non-renewable; however, an importing firm may reapply the following year for the identical non-historical import license, but, because allocation is random, the license is not guaranteed.

⁴⁷ For example, if a firm only uses 65 percent of its license in a given year, surrendering 35 percent of its license, the firm will not be penalized for falling 20 percent below the 85 percent usage requirement. If the firm did not surrender the unused portion (the 35 percent), then it would not be eligible for the historical license the following year. Thus, it is often in the best interest of the firm to surrender unused amounts.

⁴⁸ In 1997, New Zealand owned 28 percent of the dried buttermilk and whey import quota (Canada owned the remainder), but because firms importing from Canada surrendered all of their import licenses, firms importing from New Zealand obtained the surrendered portion through the reallocation process. Thus, New Zealand imports accounted for 100 percent of the dried buttermilk and whey TRQ for that year.

⁴⁹ Rule changes to be introduced in 2001 will mean that if 50 percent of the amount is surrendered in 3 of the 5 prior years, the average of the 5 years will be allocated the following year.

⁵⁰ In the case of cheese, to be eligible for a non-historical license, the importing firm is required to have (1) made at least 3 entries of at least 57,000 kg where each of the 3 entries were not less than 2,000 kg each; (2) made 8 entries (two entries in each of at least three quarters) of at least 19,000 kg (not less than 450 kg) per shipment; or (3) is the owner or operator of a cheese processing plant that processed or packaged at least 450,000 kg of cheese or cheese products in its own plant in the previous year. To be eligible for a non-historical license for non-cheese products, a firm must meet the criteria in (1) – (3) above, or be the exporter of dairy products in the required amounts of (1) – (3) above.

The quantity of imports covered by non-historical licenses increases each year. For licensed non-cheese products, increases are sourced from (i) transfers of permanently surrendered or revoked historical licenses, and (ii) committed increases in the TRQ from the URAA. For licensed cheese products, increases are sourced only from transfers of permanently surrendered or revoked historical licenses.

Designated import licenses

Negotiated during the URAA, designated licenses are allocated to firms importing cheese that the exporting government has specifically designated. The quantity of imports covered by designated licenses has increased each year since 1995 to account for the committed increases in the cheese TRQ under the URAA.

7.6.2 TRQs administered on a first-come first-served (FCFS) basis

The U.S. Customs Service on a FCFS basis administers imports of certain dairy products subject to TRQs.⁵¹ Under this system, imports arriving in the United States face the in-quota rate of duty up to the point at which the quota is filled. Any subsequent imports face the out-of quota duty rate. Thus there is risk involved for importers because the TRQ could fill while the shipments are en route, leaving them to face the out-of quota rate when the product arrives at the port. When this situation arises, some importing firms put products in storage at or near the border so that they are first in line when the next TRQ season opens. However, if the product is highly perishable or if it is too expensive to store or to reroute, firms may ship the product to alternative markets or simply dispose of the product.

7.6.3 Issues concerning TRQ administration

The concern about the administration of U.S. dairy TRQs centers on two issues: barriers to entry and barriers to trade. Several industry representatives indicate that the import licensing system is costly and cumbersome, and serves as a significant barrier-to-entry for firms wishing to operate in the United States. All import licenses are non-tradable (i.e., they cannot be resold).

⁵¹ The products covered under FCFS include: dairy products from Mexico; certain dairy products from Israel; cheddar cheese from Canada (made from unpasteurized milk and aged for 9 months or more); fluid milk or cream (fresh or sour); milk or cream (condensed or evaporated in airtight containers); dried buttermilk or whey; infant formula; ice cream; and animal feed containing milk.

Therefore, there are two ways firms wishing to enter the market can obtain a license, neither of which is costless nor guaranteed. One option is to purchase a firm that already holds a historical import license. However, because rents associated with the quota become capitalized into the value of the firm, this option typically is extremely costly. Alternatively, a potential entrant could obtain a non-historical license through the random selection process, hoping for the “luck of the draw” on a yearly basis. According to some importers, the FCFS allocation creates uncertainty about the ability to obtain products on a continuous basis, so that business planning and establishment of normal, long-term supplier/customer relationships are comprised.⁵²

In addition to being a barrier to entry, some importers argue that the licensing system is a significant non-tariff barrier to trade. They point out that most quotas are not filled even though U.S. prices are significantly above international prices. When an import quota goes unfilled, the gap between the domestic and the world price widens, thereby increasing the market distortions and welfare losses associated with the TRQ regime.

TRQ fill rates for licensed dairy products for the years 1995 through 1999 are reported in Table 7.4.⁵³

In general fill rates have been high and fairly stable over time. For example, during 1996-99 utilization rates for cheese, and butter and butter substitutes were all close to 100 percent.⁵⁴ However, for a few product categories, the rates fluctuated and/or were lower, such as dried buttermilk/whey during 1996–99.

A low quota fill rate does not necessarily mean that the TRQ is acting as a non-tariff barrier to trade. For instance, if there is insufficient domestic demand for the product at prevailing world market prices, imports may not reach the TRQ quantity level. For example, the 1995 in-quota price of butter (the world price plus the in-quota tariff) exceeded the U.S. price by several cents per pound, limiting imports and resulting in a TRQ fill rate of only 6 percent.

⁵² NZDB, Submission before the U.S. International Trade Commission, for Investigation 332-325, June 1998.

⁵³ Calculated from TRQ levels and in-quota imports reported in *Dairy Monthly Imports*.

⁵⁴ A fill rate greater than 100% indicates that over-quota imports have occurred. Over-quota imports are imports that enter at the in-quota tariff rate, but are in excess of the allotted amount for a given year.

Table 7.4 Licensed dairy products: Import quota fill rates, 1995 – 1999

Product	1995	1996	1997	1998	1999
	----- percent -----				
Butter	6	88	97	99	98
Butter Substitutes	0	90	118	98	99
Nonfat dry milk	27	94	77	96	98
Wholemilk powder	22	75	100	98	98
Dried Buttermilk/Whey	0	99	28	28	28
Cheese	87	89	77	85	94
Other—NSPF	90	94	75	86	98
Blue Mold	91	93	93	94	97
Cheddar	91	96	86	98	96
American	84	94	87	92	96
Edam & Gouda	95	88	77	86	96
Italian	85	85	94	97	98
Gruyere	89	82	71	87	90
Other—Lowfat	87	74	56	40	53
Swiss	82	85	74	80	95
Ice Cream	1	1	1	2	69
Chocolate > 5 % butterfat	26	26	78	77	78
Chocolate < 5 % butterfat	22	0	0	0	0

Source: USDA, FAS, *Dairy Monthly Imports*. Various issues.

During 1996-99, the U.S. price exceeded the in-quota price, and consequentially the fill rates were much higher in those years.

Although low fill rates can result from market factors, TRQ administration may also have led to actual imports falling short of TRQ quantities. Reasons for this include: (i) the assignment of country specific licenses to countries that may not produce or export the product, or are high-cost producers (e.g., the ice cream TRQ allocated to Jamaica), (ii) the allocation of TRQs in insufficient volume to make importing economically viable (e.g., infant formulas (100 tons) and cream powder (100 tons)), (iii) the difficulty in forming long-term business relationships among importers, exporters, and end-users for products administered by FCFS, (iv) the reallocation methods for country specific quotas which are complicated; and (v) the failure of importing firms to surrender unused amounts to be used for reallocation.⁵⁵

Industry representatives have also expressed concern over procedures for the allocation of non-historical licenses. They allege that the small import volumes associated with each license encourage some companies to circumvent the rules by breaking into smaller, subsidiary companies, each of which applies for licenses separately. These companies place their name in

the pool for the lottery to increase the combined probability of “winning” a license. It is argued that some of these companies are entering the lottery regardless of whether they have a need for the product—they are simply importing the products, reselling in the domestic market, and collecting the quota rents from the transaction. In the EU, a similar situation has arisen in which companies have set up several subsidiaries in order to increase their chances of gaining import licenses (International Agricultural Trade Research Consortium).

7.7 Impact of TRQs on the Dairy Product Imports, Quota Rents and Tariff Revenues

Overall, the U.S. dairy TRQ regime was highly effective in limiting imports of dairy products during the period 1995 through 1999. In general, prohibitive out-of quota tariff rates, coupled with complicated and costly TRQ administration procedures have made it virtually impossible for “new” trade to occur on either side of the market. During 1995-99, out-of quota imports were very limited for most products in all years (Table 7.5), with the share of out-of quota imports to total imports less than 30 percent for most products (excluding 1998).⁵⁶ For some products there was virtually no out-of quota trade (e.g., out-of quota imports of cheese have been considerably low). However, for others, the share of out-of quota imports in certain years was high (e.g., over 50 percent). High out-of-quota imports generally are not maintained from year-to-year (e.g., rates for non-fat dry milk and whole milk powder in 1995 fell in 1996).⁵⁷

Given fluctuating world prices, declining tariffs and increasing quota quantities, the impact of TRQs on U.S. dairy imports is dynamic, as illustrated by the U.S. butter market during 1995-99 (Figure 7.2). When the U.S. price for butter exceeded the in-quota price (world price plus the in-quota tariff), in-quota imports occurred (starting in the second quarter of 1996). Similarly, when the U.S. price exceeded the out-of-quota price (world price plus the out-of quota

⁵⁵ See Boughner and Boughner and de Gorter for further reasoning behind low quota fill rates.

⁵⁶ In 1998, out-of quota imports make up a larger share of total imports for all products in comparison to 1997 shares, most likely because of high domestic prices for dairy products.

⁵⁷ Shares for chocolate with less than 5 percent butterfat are high due to the non-existence of in-quota imports. This is a case where quota portions were not allocated to major producers of the product. The United States was not required to increase the TRQ over the implementation period because they already met their market access commitment level. Thus, the “any country” category does not exist for this TRQ, so all imports other than those from Ireland, New Zealand (1 kilogram allocated), and the United Kingdom enter at the out-of quota tariff rate.

Table 7.5

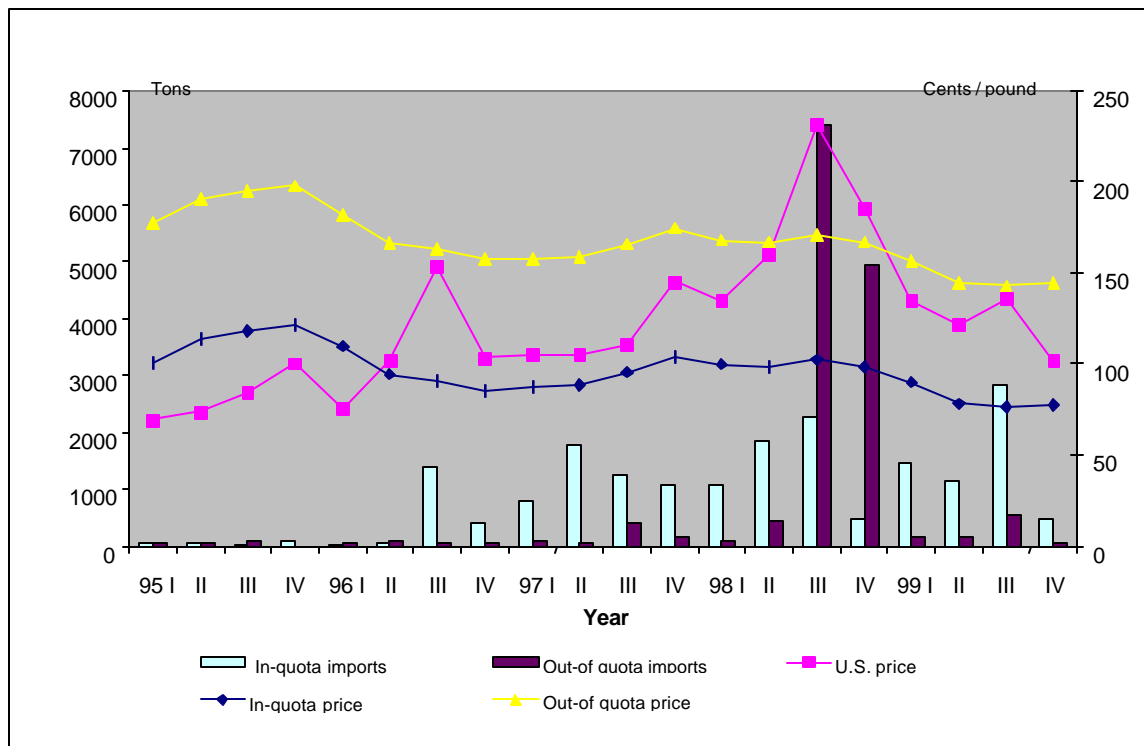
Dairy products: Out-of quota imports as a share of total imports, 1995 – 1999

Product	1995	1996	1997	1998	1999
	----- percent -----				
Butter	3	5	12	69	14
Butter substitutes	0	0	0	62	51
Nonfat dry milk	46	18	14	24	21
Wholemilk powder	60	0	2	9	12
Dried Buttermilk/Whey	0	0	34	71	13
Cheese	0	2	1	8	12
Ice Cream	5	0	0	11	50
Chocolate > 5 % butterfat	0	0	0	2	2
Chocolate < 5 % butterfat	4	100	99	100	99

Note:—Excludes out-of quota imports from Mexico which enter at a preferential out-of quota rate.

Source: *Dairy Monthly Imports*, U.S. Department of Commerce, U.S. International Trade Commission

Figure 7.2. Butter: Prices and Imports, 1995-99



Note—SSGs not included in calculation of out-of quota prices

tariff), out-of-quota imports occurred (in third and fourth quarters of 1998). When the U.S. price was below the in-quota prices, imports fell to very low levels (in 1995 through the first quarter of 1996). Thus, over the past five years, policy regimes have switched from the import quota determining imports to the in- and out-of-quota tariffs determining imports, a result of changing

levels of world and domestic prices, out-of-quota tariff rates, and TRQ quantities. In turn, tariff revenues, quota rents and import quota fill rates are affected.

Quota rents were estimated to be about \$165 million in 1997 (Schluep). Existence of such rents may lead to firms allocating resources to obtain the rights to these rents (e.g., applying for non-historical import licenses or purchasing firms that hold historical licenses). Once they have obtained the rights, resources may be allocated in trying to capture the rents (e.g., bargaining between importing and exporting firms over the rents). Importers do not capture all quota rents, however. For example, Hornig, Boisvert and Blandford analyze the distribution of rents for U.S. cheese imports and conclude that unequal market power exists between importers and exporters, and that exporters extract a greater share of the rents. As the level of rents rises, exporting firms are interested only in maintaining a price-cost ratio and so allow the importers' share to increase, approaching a more equal division of the rents.

Tariff revenues were estimated to be approximately \$100 million in 1999, of which 95 percent were from imports of cheese, butter, non-fat dry milk and ice cream tariffs. Cheese tariff revenues made up 73 percent of total dairy tariff revenues in 1999.

7.8 Conclusions

Although TRQs are an important component of U.S. dairy policy, only about half of the total value of imports are subject to TRQs. The U.S. introduced TRQs for most major dairy products during the URAA, which increased potential market access opportunities substantially for some dairy products (e.g., butter (75 percent), wholemilk powder (795 percent), and non-fat dry milk (316 percent)) and not for others (e.g., fluid milk (0 percent) and cheese (17 percent)). However, high out-of-quota rates of duty, small tariff reductions, and the SSG provisions have meant that large quantities of out-of-quota imports have been prevented from entering the domestic market. Generally, out-of-quota imports occur only in periods of low world prices and high domestic prices.

The administration of U.S. dairy TRQs has been proven to be extremely complicated, burdensome, and non-transparent. The import licensing procedures serve as a significant barrier-to-entry for firms wishing to start importing dairy products into the United States, as well as a

significant non-tariff barrier to trade. Low quota fill rates have ensued as a result of the intricate licensing procedures.

Negotiators can further liberalize markets by either increasing import quotas or reducing out-of-quota tariffs, or a combination of the two. For the U.S. dairy, significantly reducing the prohibitive out-of-quota tariffs and removing (or substantially reducing) SSG rates are necessary to increase market access. Import quota rents can be significantly reduced and displaced by out-of-quota tariff revenues as a result of out-of-quota tariff reduction.

The next round may also include provisions governing how TRQs are administered. U.S. industry representatives, in particular, have urged for such disciplines, although details of such provisions have not been forthcoming, other than that administration procedures should be transparent and provide effective and commercially realistic market access.⁵⁸

⁵⁸ Statement of Janet A. Nuzum, International Dairy Foods Association before the Trade Policy Staff Committee on the Upcoming WTO Negotiations, May 19, 1999.

8. Tariff Rate Quota Implementation and Administration by Developing Countries

8.1 Introduction

Fourteen developing countries have notified the World Trade Organization (WTO) that they utilize tariff quotas for imports of over 180 agricultural commodities.⁵⁹ Those notifications include reports on the mechanisms by which tariff quotas are implemented and administered, the quotas in force, and the extent to which imports under the quota meet market access commitments. Countries examined here include Brazil, Colombia, Costa Rica, Guatemala, Indonesia, Korea, Malaysia, Mexico, Morocco, Panama, Philippines, Thailand, Tunisia, and Venezuela. These countries primarily use tariff quotas for imports of cereals, oilseeds, meats, dairy products, sugar, fruits and vegetables.

Abbott and Morse (1999) contend that the TRQ was a poorly understood instrument at the time the U.S.-European Union (EU) compromise was reached to conclude the Uruguay Round negotiations. Relatively few developing countries have adopted this instrument, and in most cases where they have implemented it, it is quite different from the original conception of how a TRQ was to function. In developing countries, TRQ implementation mechanisms are frequently either MFN tariffs at levels well below GATT bindings or modifications of state trading or licensing regimes. In the latter case, most import levels are well in excess of minimum access commitments. Some more recent adoptions of tariff quotas, such as in the U.S.- China agreement on agricultural trade (USTR, 1999), appear to use these commitments as maximum rather than minimum trade levels, however. Recent WTO entrants in Eastern Europe have also used true TRQs much more extensively, resulting in more protectionist trade regimes.

Several issues arising from alternative implementation mechanisms employed for TRQs are relevant to the debate on how this instrument might be viewed in the trade negotiations. We first briefly explore these issues — discrimination, under-fill, state trading, and protectionism. We then examine data on TRQ commitments, actual imports, and trends in those imports to evaluate the relevance of these issues as they apply to developing countries' agricultural imports.

⁵⁹ Data was collected for the major agricultural commodities that fall under the distinct product categories listed in Table 1. Some minor categories have been ignored in this analysis. To keep the project manageable, we have also excluded from our study implementation of tariff quotas by Eastern European countries, in that implementation

From this analysis, we make recommendations regarding the role of TRQs in the further liberalization of trade regimes.

8.2 Issues in TRQ Implementation and Administration

The four key issues of concern in WTO negotiations that relate to trading rules and practices include *discrimination* among exporters by importers, *under-fill* (the extent to which minimum access commitments are not met), *state trading* as an implementation mechanism, and the impact on *protectionism* (or liberalization) resulting from the adoption of this instrument.

First-come, first-served administrations are seldom used by the 14 developing countries studied here, who typically employ either an applied MFN tariff regime or more traditional licensing schemes. MFN regimes include neither a mechanism to allocate rents nor a means to enforce the quota limitation. Under the licensing mechanism, discrimination concerns arise with the need to determine license allocation procedures. State trading and apparent state managed regimes are common methods, although countries often do not report how licenses are distributed. Skully elaborates on the potential unfairness and inefficiencies of these mechanisms relative to auctions, which are also rarely implemented by these 14 countries.

The notifications submitted by these developing countries to the WTO reveal many instances in which countries do not import sufficient quantities to meet their minimum access commitments. This outcome, called “under-fill” can occur under two distinct scenarios. The two possible reasons for under-fill have quite different implications for the effectiveness of the TRQ instrument. One possibility is that administration mechanisms are costly and cumbersome, limiting access to the low tariff and rendering it ineffective. Thus, administrative mechanisms function as a non-tariff trade barrier (NTB). Alternatively, demand may simply have been inadequate, even at a domestic price determined by the low tariff, to generate imports sufficient to meet the minimum access commitment. In this case, it should be borne in mind that these commitments were not intended as guaranteed import levels, but rather as levels of market access for which additional barriers to trade would not be erected. An important task in gauging the significance of under-fill is assessing which reason lies behind that outcome.

issues may be somewhat different in those countries, especially where tariff quotas were proposed and implemented

State trading is an issue in its own right in the upcoming WTO Millennium Round negotiations. This discussion will necessarily overlap debate on the TRQ instrument. One fear is that this instrument has helped not only to continue the need for state trading, but has caused its expanded use. Since importing rights must be allocated, a government institution must exist to do so. That institution may control imports handled by private firms or may handle the product itself. While the distinction of who physically handles imports may not be critical (Abbott and Young, 1999), the government remains closely involved in managing trade. The need to allocate valuable quota rents ensures that concerns regarding “rent seeking” remain.

There is also concern that TRQs as implemented may increase rather than reduce the extent of protectionism applied to agricultural imports. GATT bindings of MFN tariffs in many instances are very high, often reaching prohibitive levels when TRQ regimes are in place. However, in most of these developing countries, applied tariffs are much lower than GATT bindings – a situation called “dirty tariffication” (Ingco, 1995). The high GATT commitments increase concern that liberalization of import regimes was not accomplished in the Uruguay Round. Practice shows, however, that in most developing countries tariffs are bound at high levels not to raise applied tariffs, but rather to maintain flexibility in trade regimes. Since a tariff may be changed so long as it remains below the GATT binding, tariffs can be and are adjusted as world prices change, much like what is accomplished under a variable levy.

Behaviors by these 14 developing countries discussed below show that low MFN tariffs are found in the most liberal trade regimes.

8.3 Quota Fill Rates

Overfill is a much more common occurrence in these developing countries. Imports reported as under the quota may in fact exceed the quota, sometimes substantially. The frequency of this outcome is due to the prevalence of two trading regimes – applied tariffs and variants on state-managed regimes. Applied tariff regimes set one tariff, and no mechanism limits imports to the minimum access commitment. We found that these one-tariff regimes often set the applied tariff below the bound TRQ rate. Implementation by variants of state-managed trade, including state trading, licenses, or bilateral quotas frequently resulted in overfill as well. It has not been

well after the signing of the 1994 Uruguay Round Agreement.

uncommon in the past for state agencies to vary effective quotas based on domestic “need” which would vary with domestic production. As long as a quota is above a country’s bound minimum access commitment, it may be varied in this manner in compliance with WTO requirements. This case has been labeled an “endogenous quota” in that the quota level each year depends on domestic market outcomes (Abbott and Morse, 1999). It is difficult to ascertain if this is truly the regime in place, as licenses may be given simply to ensure compliance with food safety regulations and may not be limited, or may be limited in a non-transparent way by the government.

8.4 Information Sources on Developing Country TRQ Regimes

To determine which trade regimes were in place and how TRQs are performing in the 14 developing countries examined here, we supplemented data available from WTO notifications with information on GATT commitments, actual imports, and applied border measures.

From the WTO, we collected two types of notifications provided by individual countries as well as GATT Uruguay Round commitments. Each reporting country has submitted an MA:1 notification describing administration methods applied to its TRQs and market access commitments. MA:2 notifications are annual country self-reports on quota levels (market access levels) and in-quota imports. In addition, the WTO makes available initial TRQ offers of binding MFN and in-quota tariffs as well as minimum access commitments on a CD Rom (WTO, *Complete Results of the Uruguay Round*, 1996).

Applied MFN and in-quota tariffs were collected from the UNCTAD (United Nations Conference on Trade and Development) TRAINS (Trade Analysis and Information System) database for 1995 to 1997. In cases where true TRQs exist, two tariffs were available from TRAINS. In most cases, only MFN tariffs are reported in TRAINS.

In order to determine if out-of-quota imports were occurring, we collected total import data for 1980 through 1997 from the FAO AGROSTAT database. The earlier data, from 1980 to 1994, was used to project trend imports for 1995 to 1997. The 1995 to 1997 total import data were compared both with trend projections and with the WTO notifications on in-quota imports.

Based on all the evidence we found, including descriptive information on administrative method and WTO classifications, we determined the most likely economic model to apply in each commodity case: a pure tariff regime, a pure quota regime, a true TRQ regime, or an endogenous quota regime.

8.5 Findings

Table 8.1 summarizes information on use of TRQs by country. It reports the number of commodities in each developing country for which we were able to collect data on TRQ implementation; the trade regime in place; the relationships between bound and applied tariffs; and comparisons of total imports, trend imports and quota fill. Table 8.2 summarizes the same information by commodity for the major commodity groups (meats, milk, cereals, potatoes, soybeans, and sugar).

Country Summaries

Half of the trade regimes in developing countries submitted as TRQ notifications are run as pure tariff regimes. Over a third of the total cases employ licensing schemes or state trading. True TRQ regimes are found only in Korea and the Philippines, and the only pure quota regimes are found in Korea. We found no cases where applied tariffs were above the base GATT offer (the initial reduction in 1995), and in two-thirds of cases, applied tariffs were already below these countries' GATT bound rates, a condition which does not need to be achieved until 2004. On average, applied tariffs are half of GATT bindings, and in many countries tariffs are less than 25 percent of GATT bindings. This result is consistent with both systematic overestimation of tariff equivalents in the baseline and substantial liberalization of these markets. Only in Korea and the Philippines, where true TRQs are applied, are MFN tariffs close to the relatively high GATT bindings. In Korea, the applied TRQ rates are about one-quarter of MFN rates. In the other countries, applied MFN tariffs are almost always below the GATT-offered in-quota tariffs. In summary, except where true TRQs are actually applied, pure tariffs well below commitment rates are generally found, indicating substantial liberalization for those markets.

Table 8.1. Trade Regime, Tariffication, Quota Fill and Import Trends by Country

Administration	All 14	Brazil	Colombia	Costa Rica	Guatemala	Indonesia	Korea	Malaysia
TRQ Notifications to WTO	180	2	33	5	12	1	28	8
Tariff Regimes	91	2	19	5	7	0	0	0
State Regimes	65	0	14	0	5	1	10	8
Quota Regimes	2	0	0	0	0	0	2	0
True TRQs	24	0	0	0	0	0	18	0
Tariffication								
Applied MFN Tariff / GATT MFN Offer	0.52	0.45	0.15	0.26	0.19	0.00	1.20	0.01
Applied Tariff less than MFN Offer	120	2	33	5	12	1	0	6
Applied Tariff less than TRQ Offer	109	2	33	5	12	1	0	6
TRQ Offer / GATT MFN Offer	0.61	1.06	0.99	0.65	0.40	0.56	0.62	0.79
TRQ Applied / MFN Applied Tariff	-	-	-	-	-	-	0.23	-
Imports versus Quotas								
Total Imports / Quota	8.03	1.64	27.47	2.94	4.42	26.93	18.37	6.09
Under-fill cases	41%	0%	23%	93%	22%	0%	44%	33%
Overfill cases	38%	100%	76%	0%	44%	100%	36%	33%
Imports increased after 1994	72%	83%	80%	73%	61%	100%	74%	92%
+ 1 Std	39%	83%	43%	53%	39%	67%	39%	54%
+ 2 Std	23%	67%	24%	27%	14%	67%	29%	42%
Imports decreased after 1994	28%	17%	20%	27%	39%	0%	26%	8%
- 1 Std	6%	0%	4%	20%	8%	0%	4%	0%
- 2 Std	1%	0%	0%	0%	0%	0%	0%	0%

Table 8.1. (continued) Trade Regime, Tariffication, Quota Fill and Import Trends by Country

Administration	Mexico	Morocco	Panama	Philippines	Thailand	Tunisia	Venezuela
TRQ Notifications to WTO	1	11	8	9	20	10	32
Tariff Regimes	0	7	8	2	9	2	30
State Regimes	1	4	0	1	11	8	2
Quota Regimes	0	0	0	0	0	0	0
True TRQs	0	0	0	6	0	0	0
Tariffication							
Applied MFN Tariff / GATT MFN Offer	1.47	0.65		1.47	0.52	0.22	0.21
Applied Tariff less than MFN Offer	0	7		2	11	9	32
Applied Tariff less than TRQ Offer	0	7		1	4	7	31
TRQ Offer / GATT MFN Offer	0.00	0.85		0.93	0.36	0.32	0.43
TRQ Applied / MFN Applied Tariff	-	-		0.59	-	-	-
Imports versus Quotas							
Total Imports / Quota	1.30	8.95	3.74	4.72	3.76	0.69	1.32
Under-fill cases	0%	30%	25%	71%	63%	75%	39%
Overfill cases	100%	3%	13%	25%	37%	0%	28%
Imports increased after 1994	0%	70%	100%	100%	78%	50%	54%
+ 1 Std	0%	52%	88%	83%	35%	5%	13%
+ 2 Std	0%	36%	38%	58%	17%	5%	4%
Imports decreased after 1994	100%	30%	0%	0%	22%	50%	46%
- 1 Std	0%	9%	0%	0%	2%	25%	10%
- 2 Std	0%	0%	0%	0%	2%	10%	0%

This liberalization has led to increased imports. Imports increased beyond trend levels in nearly three quarters of the cases, and the increase is statistically significant at the 5 percent level in one quarter of the cases. Imports fell below trend in only one quarter of the cases, and the decline in imports was never statistically significant. Total imports of these commodities were, on average, eight times the minimum access commitments, with substantial variation by commodity. While under-fill was found in 41 percent of the cases, overfill was found in nearly as many cases (38 percent). Moreover, the magnitude of overfill was substantial enough to achieve the observed ratio of imports to quotas to be greater than one. In Costa Rica, where auction mechanisms are reported, under-fill is the most prevalent outcome, and in Korea, where true TRQs are implemented by state agencies, overfill is substantial and imports have increased significantly in many cases. Only in Tunisia are total imports routinely less than the quota.

Commodity Summaries

Observations from Table 2 offer insight into three issues. First, state regimes are generally applied to politically sensitive staples, whereas applied tariffs are more generally found for goods that were largely not previously traded. Second, the occurrence of under-fill and overfill differs by commodity group and by extent of tradability. Third, structural shifts in import trends due to liberalization can be explained in part by commodity-specific elasticities.

The contrast between cereals and oilseeds on the one hand, and meat and dairy products on the other hand, is reflected in trade regime choice. Whereas cereal imports are most often controlled by a state regime, tariff regimes are more prevalent for meat and dairy products. State regimes generally ensure that quotas fill. The low wheat tariffs are likely due to the fact that state agencies control trade. Tariff regimes are frequently applied to products that are historically non-tradable. Where the private sector is more involved, as appears to be the case for non-tradables, tariffs are closer to GATT bindings. Several regimes are applied to sugar, with varying results. Nevertheless, applied tariffs are generally below GATT bindings.

Under-fill cases are most prevalent for meat and dairy products. These goods would have been thought of as non-tradable prior to 1994 in most of these countries. It should be noted, however, that meat and dairy imports frequently increased at least one standard deviation above trend and seldom fell below trend. For cereals and oilseeds, which were traded more heavily

prior to the 1994 GATT agreement, under-fill is quite rare and overfill is common. Increases in cereal and oilseed imports relative to trend are less pronounced, but decreases are only found for wheat. In the wheat cases, imports are only 30 percent above minimum access commitments on average, whereas much greater ratios of imports to quotas are found for the other cereals. For sugar cases, under-fill is frequently found.

Structural changes in trends can also be related to commodity characteristics. To ensure increased market access following liberalization, structural change may be necessary. While on average sugar imports are well above minimum access commitments, imports appear to have remained on trend more than other commodities, so under-fill is more common than over-fill. This may reflect low demand elasticities for sugar, since tariff reductions would have lowered domestic prices. Cereal imports are also less likely to expand than meats or dairy products when tariffs fall due to low elasticities. Imports of meats and dairy products generally increased, though in several cases that increase was insufficient to fill quotas.

General Themes

The above observations together with the detailed country information described in Abbott and Morse (1999) permit us to make some generalizations about TRQ implementation and administration in developing countries.

Use of TRQs - Tariff rate quotas were used relatively little by developing countries as part of their trade regimes following the Uruguay Round Agreement. Only 14 developing country WTO members are providing notifications on the use of this instrument. In many cases, those notifications seem intended to report that imports are meeting minimum access commitments, as the regime in place is seldom a true TRQ. We found TRQs implemented as designed only in Korea and the Philippines. In other countries, either applied tariffs are below the low in-quota tariff included in GATT offers, or TRQ notifications correspond with some state control of trade, through licensing or state trading. State regimes are more prevalent for the politically sensitive staples, commodities that account for a substantial number of TRQ notifications.

Liberalization - In spite of possible continued state involvement in management of agricultural trade, substantial liberalization of trade regimes is found in these cases. Tariffs have been reduced, and imports have generally expanded. Moreover, applied tariffs are generally

Table 8.2 Trade Regime, Tariffication, Quota Fill and Import Trends by Commodity

Administration	Beef	Pork	Poultry	Milk	Potato	Wheat	Barley	Maize	Rice	Soybean	Sugar
TRQ Notifications WTO	7	7	7	10	4	4	5	7	8	3	5
Tariff Regimes	3	3	2	5	1	0	0	2	2	1	2
State Regimes	4	2	3	4	2	4	4	4	6	2	2
True TRQs	0	2	2	1	1	0	1	1	0	0	1
Tariffication											
Applied MFN Tariff / GATT MFN Offer	0.58	1.01	0.77	0.35	1.19	0.06	0.37	0.61	0.27	0.43	0.48
Applied Tariff less than MFN Offer	5	3	4	7	1	4	4	3	4	2	4
Applied Tariff less than TRQ Offer	3	4	5	8	1	4	3	5	6	2	4
TRQ Offer / GATT MFN Offer	0.95	0.97	0.80	0.51	0.44	0.36	0.53	0.56	0.69	0.42	0.46
TRQ Applied / MFN Applied Tariff	-	0.72	0.59	0.09	0.33	-	0.06	0.22	-	-	0.63
Imports versus Quotas											
Total Imports / Quota	4.05	1.09	2.81	5.25	5.75	1.29	3.18	11.34	4.82	16.65	19.88
Under-fill cases	62%	43%	57%	32%	38%	13%	10%	7%	20%	0%	43%
Overfill cases	8%	14%	29%	26%	25%	63%	50%	64%	47%	100%	25%
Imports increased after 1994											
+ 1 Std	0%	0%	43%	16%	13%	0%	10%	29%	13%	17%	14%
+ 2 Std	38%	79%	21%	16%	63%	0%	10%	36%	27%	33%	14%
Imports decreased after 1994											
- 1 Std	15%	0%	0%	21%	0%	25%	10%	0%	0%	0%	14%
- 2 Std	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%

below GATT bindings, offering flexibility to these governments in varying applied tariffs as world prices fluctuate. We know that flexibility (effective variable levies) not increased protectionism has been the rationale behind “dirty tariffication” in several cases. Where true TRQs have been implemented, applied tariffs are closer to GATT bindings, but substantial expansion of trade has generally occurred, because imports are often above trend projections. Total imports are generally several times the minimum access commitments. In those cases, state or producer organization management of trade is important. Thus, liberalization is more likely due to actual tariffication and reduction of MFN tariff than to the use of TRQs.

State Trading and Endogenous Quotas - One difficulty in evaluating these trade regimes is due to their extensive use of licenses. Licenses may ensure that food safety regulations are met or may limit imports. If they do limit imports, the state is commonly setting quotas above minimum access commitments, which results in overfill being as common as under-fill. It is likely that quotas are adjusted annually by the state based on domestic market conditions, along the lines of the endogenous quota model discussed earlier. This flexibility in policy is in compliance with WTO commitments since these quotas generally remain above minimum access commitments.

Under-fill - Imports less than minimum access commitments were identified as a concern based on initial notifications of imports under TRQs. At least in these developing country cases, this seems to be a misplaced concern. Over-fill is as common as under-fill. Imports of commodities are usually substantially greater than the commitments and are expanding. On average, total imports are at eight hundred percent of commitment. In cases where under-fill is observed, products were unlikely to have been extensively traded prior to 1994, and low demand elasticities mean that liberalization is unlikely to lead to demand increases sufficient to meet minimum access commitments. Evidence on administrative methods shows only a few cases in which requirements to obtain access to quotas or transactions costs associated with these quotas could lead to reduced imports. In the case of Costa Rica, for example, where auctions to allocate quota rights seem to be failing, out-of-quota imports are well above the quota. This result may be due in part to the small difference between in-quota and MFN tariffs. In the two countries where true TRQ regimes are functioning, cases of under-fill are more common. In both Korea and the Philippines, under-fill often appears to be due to weak demand, but problems with the

administration of quotas by producer groups have been noted. In at least one instance, procedures have been challenged in the WTO dispute settlement process and have been modified several times as governments seek to ensure that producer groups comply with the intent of the TRQs.

Quota Rights and Rents - Since quota regimes are rare, administrative methods seldom need to allocate rights to import under low tariffs, and hence to the rents accruing to these rights. Where rents might accrue, institutions typically are designed to give those rents to domestic agents. Assigning administration of quotas to producer groups or processors is common. When endogenous quotas are in place, constraints related to prior sale of domestic production are also found. There are very few bilateral quotas implemented by developing countries. Bilateral quotas are commonly used in the U.S. and EU as part of their preferential trade arrangements and to offer foreign aid via trade opportunities by allowing developing country exporters to capture the quota rents. This same motivation is not relevant to these developing countries that have little incentive to use this institution to direct trade toward politically favored partners.

8.6 Conclusions

Only fourteen developing country members of the WTO are reporting that they use tariff rate quotas as part of their agricultural import regimes. Evidence regarding administration of those imports indicates that true TRQ mechanisms as initially envisioned, and as implemented in the U.S. or EU, are used in only two of those fourteen countries – Korea and the Philippines.

Our belief, supported by the notifications on administration methods, is that in many cases, countries are not actually implementing TRQ regimes, and the purpose of their notifications to the WTO is simply to verify that imports are meeting their minimum access commitments. In half of the cases examined here, regimes described in notifications to the WTO are simple applied tariff regimes, and those countries only report the use of MFN tariffs to UNCTAD. In two thirds of the remaining cases, licenses are employed and some state involvement in trade regimes may remain. While these latter cases are not transparent regimes, they appear at times to continue institutions similar to pre-Uruguay Round trade regimes. In addition, these regimes may employ endogenous quotas that can ensure that minimum access commitments are met and can adjust in response to domestic market conditions or world prices.

Both dirty tariffication and endogenous quotas permit developing countries to operate flexible policy regimes within their WTO commitments. These regimes permit stabilization of domestic markets in the face of volatility in world prices.

In spite of continued state involvement in trade, substantial liberalization of the trade regimes for commodities notified as being under TRQ regimes has occurred. Tariffs are well below GATT bindings, both for MFN commitments and lower in-quota tariff commitments. Imports have expanded, often significantly above trend imports, and overfill of quotas is as common as under-fill. Imports below minimum access commitments are more likely caused by weak demand than by costs associated with meeting TRQ administrative requirements. Under-fill is more common for meat and dairy products that would have been viewed as non-tradable prior to 1994 and for which the observed significant expansion of imports is still below those commitments. For the politically sensitive staples, demand has expanded less, but under-fill is rare. Low demand elasticities for agricultural goods are also likely to contribute to under-fill, since lower tariffs may have little impact on demand levels.

Problems of under-fill, discrimination in the distribution of rights to import, and rent seeking could increase in the future if countries choose to make further use of TRQs. In China's accession offer to join the WTO, and in trade regimes adopted by recent Eastern European entrants to the WTO, more extensive use of true TRQs has led to more protectionist regimes, at least in the long run, than were found in the fourteen developing countries studied here.

The substantial liberalization found here is due to tariffication and lowering of MFN tariffs, not to increased market access via TRQs. Future liberalization of agricultural trade regimes is more likely to arise from reductions of MFN tariffs than from expansion of either minimum access commitments or greater use of TRQs as a device to guarantee access. Lowering in-quota tariffs will most likely only increase rents to privileged agents, and allocation mechanisms generally direct those rents to domestic agents or intermediaries, not exporters. Expanded minimum access commitments permit quantitative restrictions to persist. Lowering out-of-quota or MFN tariffs is likely to lead to more liberal markets in the future, while avoiding problems of rent allocation from either expanding quotas or decreasing in-quota tariffs.

9 Management of Tariff Rate Quotas in Korea and Japan

9.1. Introduction

The agricultural trade policies of Korea and Japan drew much attention during the URAA negotiations because they had been using non-tariff barriers and many domestic intervention measures in agriculture. As a part of the URAA, Korea and Japan accepted tariffication for all of their agricultural commodities except rice, which received a waiver. Agricultural products with prior import bans (or very low access) faced minimum market access commitments as a part of TRQ programs and others held the current market access provisions. Korea and Japan, as importing countries, have enforced TRQs strictly during the first four years of the URAA implementation period.

The objective of this chapter is to investigate implications of tariff-rate quota management for agricultural products in Korea and Japan and to describe the procedure that created TRQs for Korea and Japan and the role of TRQs in agricultural imports. We will analyze quota fill rates to show how the rates differ depending on administration method. The role of state trading enterprises (STEs) in TRQ management will also be considered. Finally, we identify some welfare implications of TRQ administration.

9.2 TRQs under Market Access Commitments to Implement the URAA

Korea

Before the URAA, imports of most agricultural products were limited by quantity restrictions, except for a few raw materials required for manufacturing. Wide-scale trade reform for agricultural products took place in 1989. When the GATT Committee on Balance of Payments (BOP) decided to terminate concessions allowing Korea to use non-tariff import barriers because of deficits in the balance of payments, the Korean government announced a reform schedule of agricultural markets for 1991 to 1997. As the result of UR negotiations, livestock products, vegetables, and oranges were the main products included as BOP items in the country schedule. The URAA resulted in higher initial tariffs for some of those BOP items, but

with the agreement, the tariffs would be reduced to their original, applied levels at the end of implementation period.

Under the URAA, Korea applied tariffs or created TRQs for all agricultural products except rice. Rice tariffication was waived and rice became subject to a pure quota. Tariffication of rice is scheduled to be renegotiated during 2004, one year before the end of the implementation period.

Market access commitments were made for 220 agricultural products,⁶⁰ and TRQs were created for 190 items,⁶¹ while the rest of the agricultural market was opened with a tariff-only provision. Quota quantities, in-quota tariffs, and bound tariffs for major TRQ products are described in Table 9.1. For some items, the TRQ has already expired. For example, the TRQs for pork, poultry meat, and orange juice were removed in July 1997. The TRQ for beef will expire on December 31, 2000.

After the verification of the country schedule in 1994, 97 of the 190 TRQ items gained approval for additional markups of in-quota imports. Markups were provided for BOP items as well as for tariffication items.⁶² Of these 97 markup items, 83 were notified as the state-traded products. Among them, some BOP items were given specific time limits for state trading.⁶³ Beef imports will be provided by the private sector no later than January 2001. Imports of remaining items will be privatized after 2004.

The creation of TRQs under the market access provisions effectively increased agricultural imports (Table 9.2). For example, foreign rice, potatoes, and oranges are now shipped into Korea, while they were previously allowed only in the case of emergent crop

⁶⁰ This applies to products defined on 10-digit HS codes. The number increased to 242 as the classification method has changed. The products remain basically the same.

⁶¹ This is the same as 67 items with 4-digit HS codes (common names). The market access is provided through minimum market access for 104 items and through current market access for 86 items.

⁶² BOP items are subject to the following statement. "The Government of Republic of Korea or its designated agencies can take measures consistent with the Agreement establishing the WTO to ensure orderly domestic markets and to designate revenues resulting from the sales of these products in Korea (Note 5 of Tariff Rate Quota-Market Access, The Country Schedule of Korea)." Items under the URAA tariffication are subject to a more explicit statement on the markup. "The Government of Republic of Korea or the designated state trading agent can impose markup on sales of these products in Korea in addition to the in-quota tariff (Note 4 of Tariff Rate Quota-Market Access)."

⁶³ The artificial honey and cocoons were removed from the list of state traded items in June 1996, and silk was removed in June 1997.

failures. Imports of beef, onion, sesame, and pepper also showed substantial increases during 1995 to 1997 compared with the period 1992 to 1994.

Table 9.1. Tariff Rate Quotas for Selected Products, Korea: 1995-2004

Product	Quota (tons)		Tariff (%)		
	Initial	Final	In-quota	Initial	Final
Rice	51,307	205,228	5	n.a.	n.a.
Barley	14,150	23,582	20	333/ 410 ³⁾	229.7/ 361 ³⁾
Corn	6,102,100	6,102,100	3	365	328
Soybeans	1,302,152	1,032,152	5	541/ 1,062 ³⁾	487/956 ³⁾
Potatoes	11,286	18,810	30	338	304
Onions	12,369	20,645	50	150/ 200 ³⁾	135/ 180 ³⁾
Garlic	8,680	14,467	50	400/ 2,000 ³⁾	360/ 1,800 ³⁾
Red pepper	4,311	7,185	50	300/ 6,900 ³⁾	270/ 6,210 ³⁾
Oranges	15,000	57,017	50	99	50
Ground nuts	4,907	4,907	40	256.1	230.5
Sesame	6,731	6,731	40	700/ 7,400 ³⁾	630/ 6,660 ³⁾
Beef	123,000	225,000 ¹⁾	43.6/ 41.6 ¹⁾	44.5 & 70% markup	40 & 0% markup ¹⁾
Pork	21,930	18,275 ²⁾	25	37	25
Poultry	7,700	6,500 ²⁾	20	35	20
Skim milk powder	621	1,034	20	220	176
Whole milk powder	344	573	40	220	176
Whey	23,000	54,233	20	99	49.5
Butter	250	420	40	99	89

1) 2001

2) 1997

3) %/ won per kg: applied tariff is the percentage of product value or won per kg, whichever is higher. (The exchange rate in 1995 was 774 won/US\$. It was about 1,150 won/US\$ in late 1999.)

For rice, the import ban was lifted and a minimum market quota was established at 51,307 tons in 1995, increasing to 205,228 tons in 2004. For wheat, for which the market was liberalized before the URAA, the tariff rate is to be reduced from 3 percent to 1.8 percent by 2004. The TRQ for corn and corn products is 6,102,100 tons, and the in-quota tariff will decline from 3 percent to 1.8 percent by 2004. A TRQ for barley and barley products of 14,150 tons was established and will increase to 23,582 tons by 2004.

For beef, the TRQ expands from 187,000 tons in 1998 to 225,000 tons in 2000. The private portion of TRQ under the simultaneous-buy-and-sell (SBS) system was set to increase by 10 percent each year, up to 70 percent in 1999 and 2000, and markup was set to decline from 70 percent in 1995 to zero in 2000. All non-tariff import barriers will be removed in January 2001. The tariff, set at 44 percent in 1995, will fall to 40 percent in 2004. For pork and chicken, all

Table 9.2. Imports of Major Agricultural Products in Korea: Pre- and Post-UR

Product	Unit Ton		
	1992-94	1995-97	Change (%)
Rice	0	213,780	Not applicable
Barley	0	83,850	Not applicable
Pepper	6,722	14,229	111.7
Garlic	39,396	28,227	-28.4
Onions	61,798	95,200	54.0
Sesame	162,163	174,800	7.8
Soybeans	3,605,822	4,530,000	25.6
Potatoes	0	5,536	Not applicable
Beef	352,119	447,210	27.0
Oranges	2,902	54,685	1,784.4

Source: Ministry of Agriculture and Forestry.

quantitative import restrictions were eliminated on July 1, 1997 and tariffs will be reduced annually until 2004.

For dairy products, the TRQ of 23,000 tons of whey was established in 1995, to increase by 10 percent annually over ten years. On January 1, 1995, imports of all types of cheese, infant formula, and other dairy preparations were put under tariffication at a rate of 40 percent, to be reduced to 36 percent over ten years. For oranges, the TRQ is increasing from 28,125 tons in 1998, to 57,017 tons in 2004. The in-quota tariff is 50 percent, and the out-of-quota tariff of 79.4 percent in 1999 will be reduced to 50 percent in 2004. The orange juice import tariff was set at 60 percent on July 1, 1997.

Japan

Japan is known for high agricultural trade barriers, but Japan's agricultural market was actually less restrictive than Korea's before the UR negotiations. Fewer items are under TRQ programs in Japan than in Korea.

When it joined the GATT in 1955, Japan claimed the right to regulate trade in rice and in some other commodities under the GATT/BOP clause. In 1963, Japan ceased applying the BOP clause, except to some agricultural products, such as rice and beef. Under a bilateral agreement with the United States, quantitative restrictions on the beef market were eliminated in 1988. Under the URAA, Japan converted 28 commodities from non-tariff protection to tariffs (IATRC, 1997). TRQs were created for 19 items. Among these, 10 are dairy products, including skim milk powder, whey, and butter (Table 9.3). Other TRQ items are legumes, starches, ground nuts, konnyaku roots, and cocoons. Rice was granted a waiver from tariffication under Annex 5 to the URAA. Annex 5 increased access to the Japanese market from 4 percent of average annual consumption during 1986-88 (379,000 tons) in 1995 to 8 percent (758,000 tons) in 2000. However, in April 1999, Japan changed its rice import policy to tariffication with minimum market access. With the tariffication, Japan announced that it would reduce the annual increase in rice imports quota from 0.8 percent to 0.4 percent (682,000 tons in 2000) and apply a tariff of

Table 9.3. Tariff Rate Quotas, Japan: 1995-2000

Product	Quota (tons)		Tariff (yen/kg)		
	Initial	Final	In-quota	Initial	Final
Rice	379,000	682,000 ¹⁾	Various	351.17 ²⁾	341
Wheat & processed products	5,565,000	5,740,000	Various	65	55
Barley & processed products	1,326,500	1,369,000	Various	46	39
Starches	157,000	157,000	Various	140	119
Ground nuts	75,000	75,000	10	726	617
Konnyaku roots	267	267	40	3,289	2,796
Legumes	120,000	120,000	10	417	354
Cocoons	798	798	various	2,968	2,523
Raw silk				8,209	6,978
Skim milk powder (school lunch)	7,264	7,264	0	466+25%	396+21.3%
Skim milk powder (others)	85,878	85,878	Various	466+35%	396+29.8%
Evaporated milk	1,585	1,585	Various	Various	Various
Whey (feed)	45,000	45,000	0	Various	Various
Whey (infant)	25,000	25,000	10	Various	Various
Butter & butter oil	1,873	1,873	35	Various	Various
Concentrated whey	14,000	14,000	Various	Various	Various
Prepared edible fat	18,977	18,977	25	Various	Various
Other dairy products	124,640	133,940	Various	Various	Various
Designated dairy products	137,202	137,202	Various	Various	Various

1) The original quota quantity in the country schedule was 758,000 tons.

2) For 1999.

Note: Exchange rate was 125 yen/US\$ (1995) and about 105 yen/US\$ (late 1999).

351.17 yen/kg (equivalent to about 450 percent⁶⁴) in 1999. In-quota rice imports are subject to further markup of up to 292 yen/kg.

9.3 Quota Administration Methods and Quota Fill Rates

TRQs in Korea are administered in four ways: (1) first come, first served, (2) auction of quota, (3) license on demand, and (4) state trading. License on demand is allocated to designated multiple importers or qualified end-users and to new entrants to the market. Qualification is based on import history. Quota rent goes to the importing firm and, the markup goes to the government. For some items under auction and state trading, part of the quota is allocated with the license on demand. For auctioned products, the government gets the quota rent. State-traded products are administered using open tender, and the STEs get the quota rent.

For any TRQ products (excluding rice), out-of-quota importation is possible. Products with lower out-of-quota tariffs, such as oranges, whey, and butter, have real potential for such importation. In some cases, the TRQ has been expanded for raw materials, feed, and other products. During 1995 to 1998, about twenty product group TRQs were expanded to allow low tariff imports. Corn, soybeans, barley, and sesame have been included every year in this list.

In the following paragraphs, we consider more details on the administration of TRQ for some products important in world trade.

Rice is a state-trading item without out-of-quota imports. The in-quota tariff rate is 5 percent. The Ministry of Agriculture and Fisheries administers the quota through an open tender system with sealed bids. For example, the “Invitation for Bids” (Supply Administration of Korea, 1998) contains conditions of contract, specifications, and forms. The tender specifies the 10-digit HS code. The invitation describes the specification and quantity as “Non-glutinous brown rice medium or short grain (Japonica type) in 40 kg Jute bag or P.P. bag; Crop year: 1997 or 1998; Grade: U.S. No. 3 or better for the classes of brown rice; Unit and Quantity: 20,000 M/T net.” To be eligible to import, a company’s offers are judged as qualified after passing the sample examination. Then the lowest price bidder wins the right to import.

⁶⁴ This is based on exchange rates on April 1999 and U.S. rice export prices (Dyck, et al.).

State trading for beef is administered by the Livestock Products Marketing Organization, a subsidiary company of the National Livestock Cooperatives Federation.⁶⁵ Rent and markup income from imports are added to the Livestock Development Fund. An invitation for bids in 1998 included the following contents: Commodity: Frozen beef (Primal cuts packaged in a carton must be able to store under optimal conditions under -18°C for up to 24 months); Quantity: 9,323 M/T; Origin: USA, Canada, Sweden, Denmark, Japan, New Zealand, Australia, Finland, Mexico; and Netherlands; and Qualification: Registered with the Korean Foreign Trade Association and also with Livestock Products Marketing Organization, at least, one day prior to the tender date.

The orange TRQ is administered by the Cheju Citrus Growers Agricultural Cooperative. To avoid competition, imports are allowed only for the season during which no local mandarins are in the market. So far there have been no out-of-quota imports. In 1997, around 38 billion won (about \$40 million at 1997 exchange rate of 951 won per US\$) was collected for research and development and for purchasing sub-quality mandarins. The quota rent was equivalent to about 5 percent of the total revenue (about \$753 million) from mandarins.

In Japan, imports under TRQs are managed by import licensing and state trading. Quantities under import license are allocated by the Ministry of Agriculture, Forestry, and Fisheries to private importers, based on historical business records and business plans. For imports of pork, a differential tariff system similar to the variable levy of the European Union is allowed (IATRC, 1997). For some products, such as whey, butter, and ground nuts, the quantities of in-quota tariff imports were increased by applying the higher, final-year quota quantity to the initial year of implementation.

The average quota fill rate for TRQs in Korea during the period 1995 to 1998 was 113 percent (Table 9.4). During the same period, Japan showed an average fill rate of 87 percent. Fill rates varied with management methods. In Korea, the auction method had the lowest fill rate (71 percent) followed by the first come, first served fill rate (79 percent). License on demand had the highest fill rate (156 percent). An average fill rate for products under state trading was 146 percent during the same period. In Japan, the average fill rate for products imported under

⁶⁵ On November 29, 1999, the Ministry of Agriculture and Forestry announced that it would administer the state

licenses was 60 percent, and the average fill rate for products under state trading was 113 percent.

For commodities using the first come, first served method, the relatively low fill rate could be the result of weak import demand. In some cases, neither the in-quota tariff nor the quota quantity was binding. For the state-traded commodities, the tendency was to implement commitments precisely, because state-traded commodities are generally those considered politically important by the governments of Korea and Japan as well as by exporting countries.

Table 9.4 Quota Fill Rates by Management Methods, 1995-98

	First come, first served	Auctioning	License on Demand	State Trading	Average
Korea	79%	71%	156%	146%	113%
Japan	n.a.	n.a.	60%	113%	87%

n.a.: Not applicable.

Note: The numbers are a simple average, not trade weighted or domestic market weighted. So, for example, rice receives the same weight in the table as sesame.

Source: Author calculations.

9.4. The Role of State Trading Enterprises

Korea

Seven importing STEs handle seventeen agricultural products in Korea (Table 9) (Choi, et al., 1998). The STEs, except for the Cheju Citrus Growers Agricultural Cooperative and the National Ginseng Cooperatives Federation, are not involved in exporting any of the commodities they handle. TRQs allocated to the state trading enterprises contributed significantly to increased imports of those products.⁶⁶

The Ministry of Agriculture and Forestry is the designated importer for the TRQ of rice and barley. Private companies registered with the government participate in bidding and the

trading of beef imports by auctioning during 2000.

⁶⁶ It is not clear, however, that the STEs generally show higher fill rates than the private sector. For example, beef imported both through the STE and through private traders in 1998 equaled about 47 percent of the committed

lowest bidder meeting minimum quality or other requirements wins the right to supply. As a result of straight price-bidding, low-quality rice has been imported from India, China, and Thailand during the period 1995 to 1998. Imported rice is sold through an open auction system to rice processors or is stored.

Barley is imported directly by private animal feed manufacturers who acquire import licenses from the Ministry of Agriculture and Fisheries. Since imported barley is used mostly for feed manufacturing, it does not compete with domestically produced barley.

The Agricultural and Fishery Marketing Corporation is designated to administer the TRQs of ten state traded items: pepper, garlic, onions, sesame, ground nuts, edible soybeans, beans, buckwheat, ginger, and potatoes. For these items, a large gap exists between international and domestic prices. Private importation would have induced windfall profits and confronted domestic sellers with competition from low-priced imports. Established in 1967, the Agricultural and Fisheries Marketing Corporation is a semi-governmental organization that trades and stores in the domestic market. For imports, it publicly solicits bidding. The announcement includes the item name, delivery date, quantity in tons, and the arriving harbor. There is little restriction on participation in the bidding. Among import items, some sesame and ginger are imported by the private sector. Also, part of the soybean import quota is imported by the recommended end-users. The corporation sells the imported items through the auction system in the public wholesale market. Domestic prices, determined by the auction, tend to be lower than local product prices, due to quality differences.

State trading of beef TRQ lasts until beef market tariffication. Part of beef TRQ is imported by open bidding administered by the Livestock Products Marketing Corporation. The remaining beef is imported by the private sector through the SBS system. Under the SBS system, beef is imported directly by the wholesalers/end-user group. The proportion of TRQ quantity imported under the SBS system increased from 30 percent in 1995 to 70 percent in 2000. Domestic sale price is determined through auction in the wholesale market or by the importing STE, taking import costs and domestic price into account. The National Livestock Cooperatives Federation (natural honey), the National Ginseng Cooperatives Federation

quantity. The market situation was not favorable to imported beef due to low demand and high dollar value,

(ginseng), and the National Forestry Cooperatives Federation (pine nuts) operate in a manner similar to other importing STEs.

Japan

Japan reported six STEs to the WTO.⁶⁷ Among these, four STEs import agricultural products.⁶⁸ The Food Agency administers Japan's market access commitments for rice, wheat, and barley. The Livestock Industry Promotion Corporation managed TRQ imports of dairy products such as milk powder, condensed milk, buttermilk powder, whey, and butter. The Japan Raw Silk and Sugar Price Stabilization Agency administered the TRQ of raw silk until October of 1996, when the two STEs merged into the Agriculture and Livestock Industries Corporation.⁶⁹ The Japan Tobacco Inc., now a private agency, imports leaf tobacco.

State trading activities are based on legislated import rights and, in some cases, by specific monopoly rights over domestic production and distribution, as is the case with tobacco products and Japan Tobacco Inc. STEs still monopolize imports of several commodities and limit imports into Japan.

The Food Agency, the largest STE in Japan, monopolizes import and domestic markets of rice, wheat, and barley, although public traders are allowed to import if they pay import duties. The stated reason for maintaining an importing STE in rice, wheat, and barley is “to stabilize supply and demand situations of prices for such staple foods and for promoting stability of national life and economy” (Japan's notification to WTO). The Food Agency collects prior information on the demands for rice by type and origin and allocates the TRQ to exporting countries based on that information. Actual imports are administered by open tender under the SBS system, whereby importers and wholesalers offer simultaneous tenders for the buying and selling prices of each variety of rice.⁷⁰ As a result, the United States, Australia, Thailand, and

reflecting the financial crisis. We note that exporters disputed this situation.

⁶⁷ WTO, G/STR/N/1/JPN, 22 August 1995.

⁶⁸ Japan's Ministry of Health and Welfare and Ministry of International Trade and Industry (MITI) are STEs for opium and alcohol, respectively.

⁶⁹ WTO, G/STR/N/2/JPN, 30 October 1996.

⁷⁰ In the Japanese rice SBS, buyers and sellers propose a quantity and price of rice to be exchanged. The Food Agency then examines all bids, choosing those that have the widest margin between the proposed selling and buying prices. The agency keeps the margin (Dyck, et al., 1999).

China were the major suppliers of rice to Japan in 1998. The minimum share of SBS mandated in the URAA increased from 3 percent in 1995 to 19 percent in 1998.

Leaf tobacco markets were opened in 1985, but effective control over trade in tobacco continues to be exercised by Japan Tobacco Inc. through its monopoly rights as the sole domestic producer of tobacco products. Although private traders can import leaf tobacco, the existing monopoly renders all importers of leaf tobacco dependent on its subsequent purchase by the Japan Tobacco Inc.

Private traders can import dairy products and raw silk, subject to out-of-quota tariffs. The Agriculture and Livestock Industries Corporation collects the tariffs and inspects the quality and safety of imports. As with rice, markups on designated imported dairy products are bound by the Country Schedule of Japan. The bound markups were reduced by 15 percent between 1995 and 2000. Domestic sale prices for dairy products and raw silk are based on import prices, management costs, and domestic prices for dairy products.

9.5. Welfare Implications of TRQ Administration

As described in Chapter 2, different methods of allocating import quantities may have different implications for consumers, producers, exporters, importers, and for revenue from quota. Contrast the quota auction used for non-STE products with the low price bid used for rice and other STE items in Korea. With an auction, the government maximizes revenue earned from the restriction on import quantity, and the specific qualities and product characteristics reflect the highest offer. Note that the outcome in this case is the same as if the tariffs were set at the quota auction price.⁷¹ A system that offered imports to the low-price seller would have identical results only if there were no product or supplier quality variations within the quota category. The low-price bid system encourages minimum quality within a category, not the quality for which Korean customers would pay the largest differential. Thus these two systems may have quite different allocative and distributional outcomes.

Korea seems to pursue multiple objectives in its TRQ administration, while abiding by the obligations of its URAA commitments. The four objectives that we have identified are to:

- 1) maximize revenue (STEs, markup, quota auction) or rent (license on demand);
- 2) maximize farm profit or minimize damage to farmers from a given import quantity;
- 3) minimize domestic market price variability; and
- 4) maximize social welfare.

The Trade Policy Review Body for Korean agriculture stated that “ongoing reforms have been driven mainly by external requirements, rather than efficiency considerations or consumer welfare (WTO, p.3).” The unstated background condition is that the farm constituency has been primary. Protection policy has continued with implementation of the URAA. The Ministry of Agriculture and Forestry states that “for state trading products, the import season is adjusted with flexibility so as to minimize conflicts with domestic production and to mitigate undesirable effects of imports. Revenues from the operation of STEs and quota auction are added to funds for rural projects. In 1997, revenue from STEs was about 375 billion won (\$394 million) and quota auction revenue was 25 billion won (\$26 million)” (MAF, 1998).

As described in Chapter 3, are TRQs administered with commercial considerations on a MFN basis? What are the domestic welfare implications, especially given that domestic issues are affected by who gets the quota rent and how alternative methods of TRQ administration influence producer and consumer surplus? As for MFN treatment, Josling, et al. (1996) argue that “the test of commercial behavior is unlikely to be conclusive...The solution to this problem is likely to rest in the direction of a meshing of national antitrust legislation, international codes, and the new provisions on anti-dumping, subsidies, and dispute settlement procedures that have now been incorporated into the GATT/WTO.” The quotation focuses on the STEs, but it can also apply to the overall TRQ administration. From the administrator’s point of view, TRQs must be administered transparently and fairly enough to conform to the international rules.

Korea’s TRQ practices for rice and oranges serve as interesting cases. For rice, the government’s main objectives have been to minimize impacts on the domestic market and on producers. It was politically important for the government to keep the promise of mitigating the adverse impacts of market access. With the operation of open tender and price bidding, low-quality rice was imported and used for manufacturing purposes between 1995 and 1998.

⁷¹ This requires a static-world assumption.

Imported rice was separated from the domestic table rice market by selling it through public auctions to rice manufacturers. To minimize producer losses, the government chose the import product quality with the minimal cross-price elasticity.

A welfare analysis on Korean rice quota administration shows that the current system of minimizing the import price, by steering imports to the low-quality market, saves producers approximately 1.1 percent of total rice revenue in surplus losses (which was about U.S. \$9.6 billion in the years 1995 to 1997). It also lowers quota revenue by about 0.9 percent of total rice revenue (about \$86 million) and reduces consumer surplus gains by 1.3 percent of total rice revenue (about \$125 million). Further, the loss of producer surplus that would occur if imports were shifted from industrial to table rice would be larger than the gain in quota rents. Thus, it would not be possible to compensate farmers for such a shift using quota rent alone (Sumner and Choi, 2000).

Korea agreed to a relatively large quantity of citrus imports. Unlike rice, these fruits are allowed directly into the domestic market. Quota rent is allocated directly to the domestic citrus industry. The STE typically opens the tender during the off-season. The local citrus industry may consider the maximization of profits from sales of domestic citrus together with rents from the off-season sales of imported citrus, by choosing the seasonal (or monthly) import quantity. Since the annual quotas are pre-determined, seasonal allocation would be the choice variable. In the longer-run, the expansion of in-quota quantity also could be considered to maximize the joint profit.

9.6. Summary and Conclusion

Import policies in both Japan and Korea seem designed to minimize the impacts of imports on domestic markets in which domestic farms also compete, subject, of course, to the URAA and the WTO rules. TRQs are allocated partly through the STEs, but private firms import many agricultural products.

In Korea, TRQ administration follows four paths: 1) import on the basis of first come, first served; 2) auctioning import licenses to the highest bidder among private firms; 3) license on demand; or 4) administration by STEs that were previously responsible for price stabilization

and other intervention measures. Despite elaborate policies still in place for that limit import access, the TRQ contributed significantly to market access and resulted in increased imports into Korea. Japan administers its TRQ through both license on demand and state trading.

Generally, STEs in Korea and Japan operate as importers of items with large international-domestic price gaps and for which the domestic crop is economically important for farmers. For example, rice, beef, oranges, and other horticultural crops in Korea, and rice, dairy products, and leaf tobacco in Japan, are major agricultural commodities imported through STEs. The operations of STEs, including purchasing, selling, pricing, and revenue handling have been reasonably transparent.

Our analysis presents that state-traded products show the higher fill rate. It may seem ironic, therefore, that the United States and other exporters have targeted STEs for particular scrutiny in the next round of WTO negotiations. If fill rates are a useful measure of administrative barriers to openness, it is other TRQ methods that should be cause for concern. In fact, fill rate is only one part of the story; how the quota is filled is also important. Our analysis and others (de Gorter and Boughner, 2000) show that variation in product type, season, and import supplier may all be crucial to understanding fill rates and the degree to which liberalization has occurred.

Welfare implications of specific TRQ allocation methods require individual case studies. For example, since the government or STE tends to choose commodity characteristics that minimize the effects on prices received by domestic farmers, it is necessary to measure cross-price elasticities to quantitatively assess how distorting this practice is on international trade. In addition, international political pressure may affect STE behavior more than it would affect private importers. Rice provides an instructive example of the interplay between domestic and international politics.

Both Korea and Japan strictly implemented the URAA commitments on rice. However, several issues arose from how these countries managed quotas. The STEs of both countries kept most imported rice away from domestic consumers. The Food Agency of Japan allocated rice across national suppliers with results roughly mimicking commercial trade. Japan also used markups to keep imported rice away from domestic consumers. In Korea, rice has been

imported through tenders where the lowest bidder wins. This results in low-quality rice imports from suppliers who were unlikely to have been successful in commercial trade.

The fill rate of beef TRQ quota after the financial crisis in Korea raises another situation that warrants critical consideration. In 1998, Korea's quota fill rate was about 47 percent for both STE importer and the private traders through the SBS system. Is this a coincidence of commercial outcomes, or a result of internal coordination? This outcome is difficult to judge and may only be resolved through the WTO dispute settlement process. In general, the concern is that private firms may face subtle but effective domestic persuasion to curb imports or behave in ways consistent with government policy. With China joining the WTO, this issue is likely to grow in importance.

In summary, while the TRQs have contributed to increase imports of major agricultural products in both Korea and Japan, problems with transparency and commercial considerations in administering the TRQs remain. Access for some commodities seem to be less open than would be the case if quota amounts were made available on a commercial basis. As a result, consumer benefits are reduced, and allocation across import suppliers has been affected. The next round of WTO negotiations will face these issues if quantitative market access is to improve in the interim while tariffs are reduced. Subsequent meetings will also face STE issues regarding possible manipulations within approved market methods and the ways to encourage market results through market mechanisms rather than political considerations.

10. Tariff Rate Quota Administration in Canada

10.1. Introduction

The purpose of this paper is to review the operation of TRQs in Canada to determine whether the TRQ system has worked efficiently and as intended, and to see if any lessons can be drawn to help in guiding the next round of WTO negotiations. The administration of tariff rate quotas since 1995 has been undertaken by the Export and Import Controls Bureau (EICB) of the Department of Foreign Affairs and International Trade (DFAIT), which also was previously responsible for the administration of all import quotas. In keeping with this continuity in jurisdiction, the shift in administration from the previous import quota regime to the current TRQ system has been smooth and largely seamless.

The firms that receive import allocations (or “quota-shares”) are mostly private, with the post-1995 exception that a state enterprise, the Canadian Dairy Commission (CDC), is the sole entity that is now granted import permits for butter by the EICB. Import allocations are decided upon annually. The property right to this quota, year after year, is weak in strictly legal terms, but there has been a great deal of continuity in allocations over the years. There has also been considerable variation in the number of holders of import permits or allocations across dairy products. In 1991, for example, there were 237 quota holders for cheese, 33 for ice cream, 28 for yogurt, 1 for buttermilk, and 1 for evaporated and condensed milk (Canadian International Trade Tribunal, 1992).

TRQs have been handled in much the same way as were the previous import quotas. The number of quota holders by product has not changed appreciably, although now there is a TRQ for butter (held by the CDC) whereas previously there was no specific import quota. Many regulations for obtaining and using the quotas are the same as in the pre-1995 period. There are now twenty-one TRQs in Canada, thirteen of which are discussed under ten categories below. (For the details of all 21 TRQs, see Barichello.)

A. Current Procedures

The procedures that are now followed can be summarized across commodities in terms of which firms are likely to be given priority in TRQ allocations and what restrictions must be followed. In the numerous dairy product categories, turkeys and substantially for shell eggs, new entrants are discriminated against in Canada, although in some cases like chicken there has been a gradual shift away from historical allocations to more open access. For TRQ allocations, some commodities emphasize historical importers and firms with established operations and distribution lines. Sometimes allocations are proportional to production or sales, and sometimes an allocation depends upon specific component needs in the production process. In other cases, TRQs are allocated on a first-come, first-served basis. Almost always there is an adjustment for any previous quota left unfilled. “Use it or lose it” is the rule almost universally applied, with an allowance for sufficient prior notification to the administering agency. There are some size restrictions per company for the holding allowed, and some Canadian residency conditions.

No financial element is involved in the quota allocation process between quota recipients and the administering agency. In other words, there is no auctioning and no charge for a quota allocation. Therefore, it is a policy decision that all quota rents accrue to the recipient of the quota. Some commodity rules do not allow rentals or inter-firm quota transfers, but in most cases, quotas can be rented and sold, a change from the situation in 1991.

B. Performance of TRQ Regime in terms of fill rates for TRQ

Another aspect of Canada’s TRQ regime is the extent to which TRQ levels have been filled by actual imports. In general, the percentage is close to one hundred across all categories. Therefore, the situation in Canada is generally unlike that in many other country jurisdictions where there have been problems of “under-filling” TRQs. This appears in part to be the natural outcome of vesting the TRQs in private hands, outside the farm production side of the dairy industry where there is a commercial incentive to import the products in question. Another observation is that there are available import permits, supplementary to the TRQs (and outside TRQ access), for those processing firms wishing to import dairy raw materials or products, manufacture or further process other dairy products, and export them internationally. Imports for re-export are outside the TRQ system and are not counted as part of Canada’s fill.

We have data for 1995 to 1998 for all twenty-one products or product categories (beef, poultry/eggs, dairy products, a close dairy substitute (margarine), and wheat/barley) that fall under the jurisdiction of the Export and Import Controls Bureau on the TRQ levels and actual quantities imported. Ten major categories are reviewed below. Ignoring the open wheat/barley category, for 1997 there are only four cases where TRQs are not virtually 100 percent filled: yogurt (88 percent filled), heavy cream (63 percent), dry whey (83 percent), and margarine (1.6 percent). In 1998, there are two such cases: heavy cream (83 percent), and margarine (6 percent). There are no data for liquid milk, for which Canada's TRQ is 64,500 tons, due to the unique means of dealing with this TRQ which allows individual cross-border shoppers to import the product subject to the conditions which applied in the base period.

10.2 Commodity-Specific Detail for Canada's TRQs

10.2.1 Margarine

Canada had a TRQ of 6348.8 tons of margarine in 1998, rising to 7558 tons in the year 2000. In 1998, actual imports under the TRQ were 404.43 tons, indicating a fill rate of only 6.4 percent. This might indicate that protective measures are being practiced in the implementation of this TRQ to restrict margarine imports, but there are no indications that this is so. The TRQ is administered on a first-come, first-served basis. Since the establishment of the tariff quota, all import requests have been granted. There are no restrictions on access to these permits, other than a 500-ton limit per applicant and that has been raised from 200 tons per applicant. Further increases in that level have not yet been requested. The only imports are specialty spreads.

It is most likely that domestic margarine production in Canada is highly competitive with imports such that general margarine imports are not profitable. This is not surprising, given that Canada is an exporter of canola, a major ingredient in margarine production, and that canola is available relatively inexpensively. And all oilseeds can be imported without duty. Furthermore, this low fill rate for the margarine TRQ has persisted over the TRQ period.

10.2.2 Shell Eggs

Canada's import quota under the FTA and NAFTA for table eggs and egg products was agreed to at 2.988 percent of the previous year's domestic production, split among shell eggs (1.65 percent), egg products such as frozen, liquid, and further processed eggs (0.71 percent), and powdered eggs (0.63 percent). For 1999, this is equivalent to 13.318 million dozen. The WTO commitment established a TRQ level of 19.66 million dozen for 1999, which were about 5 percent of the base year. The higher access level between these two quotas is applied, and since 1996, this has been the WTO commitment.

For both shell eggs and egg products, the quota is allocated to historical (pre-1974) importers of shell eggs and egg products who keep their initial allocation minus any adjustments for underuse. The remainder of the quota for these two categories of imports is allocated to registered egg stations (shell eggs) and processors, wholesalers, and distributors (for egg products) on the basis of their market share. The quota for powdered eggs is allocated on a modified first-come, first-served basis to registered processed-egg stations and further processors that use powdered eggs in their manufacturing processes. A new allocation for nest-run eggs for breaking purposes (i.e., ungraded shell eggs) was introduced in 1996 for the increase in import access that occurred under Canada's larger WTO access commitment. This is allocated each year to registered processed egg stations on a market share basis.

This latter allocation has been contentious because all the increased market access agreed to under the WTO goes to egg imports for breaking purposes, with none of the access going to the higher-priced shell-egg market. This is an example of an end-use quota restriction that has denied WTO import access to higher-valued portions of the egg market by preserving that market for domestic producers, but one that Canada has vigorously defended.

A supplementary quota scheme exists for the usual two reasons: to prevent shortages of shell eggs or egg products, and to allow imports of eggs to be re-exported in some form. Obtaining this quota for "shortages" involves making an application to the EICB. It consults with the Canadian Egg Marketing Agency, the national agency overseeing the activities of the provincial producer marketing boards, to determine if a shortage exists or if domestic product is available.

The fill rate of Canada's egg TRQ has been close to or above 100 percent since 1995. In the last two years, 1997 and 1998, the fill rates were 120 percent and 132 percent, respectively, on an egg-equivalent basis, although these numbers include supplementary permits.

10.2.3 Chicken

The quota level for chicken also differs between the FTA/NAFTA and the WTO. Under NAFTA, the agreed quota level was 7.5 percent of the previous year's domestic production. The WTO commitment has been 39,844 tons (eviscerated product basis) for both 1997 and 1998. Due to continuing growth in the domestic market, the access level under NAFTA has been higher and consistently applied since 1995.

The method of allocating this quota was revised in 1996, and it has now become quite complex. Three groups receive quota. First, any firms, regardless of their end use, who imported chicken prior to 1979 receive their initial allocation, adjusted for underuse. Second, processors of chicken products that are not on the Import Control List, and who hence must compete with imports that have open access to the Canadian market, receive enough quota ("FTA quota") to cover their "needs" but they must satisfy an "activity" test. Firms in the food services sector receive a share (5.6 percent, or 2.7 million kgs.) of the TRQ remaining, depending upon the firm's market share. Finally, the remainder of the TRQ is split 70:30 between chicken processors (on the basis of market share) and chicken distributors (on the basis of equal shares). Any firm with a historical share can opt (irreversibly) for a market share or equal share, depending upon whether they are a processor or food services firm, or a distributor, respectively. There are minimum "threshold levels" for firms to qualify for quota in these various categories, with some provision for minimum quota allotments for small operations. Firms with historical quota shares are subject to use-it-or-lose-it provisions.

Supplemental quota is available under four categories: for shortages in the domestic market; imports destined for re-export; firms who wish to test-market new products or processes; and to allow further processors to compete with imports. Requests for quota for shortages are made to the EICB, which consults with the Chicken Farmers of Canada who determine the availability of domestic supplies for that use. For the other three categories, supplementary permits are issued on request. There are no country reserves within the chicken quotas.

The fill rates for the chicken TRQ have been at 100 percent since 1995. In 1997 and 1998, the fill rates were calculated as 139 percent and 146 percent, respectively, but this was due to the fact that NAFTA quota levels are higher than the WTO quota levels used as the basis for the TRQ fill rate calculations. However, it is also true that the market for chicken, particularly for further processed categories, has been growing quickly, and supplemental quota allocations (above the TRQ) have been common.

10.2.4 Beef and Veal

Although there is free trade between Canada and the U.S. under the FTA/NAFTA, Canada has a TRQ commitment under the WTO. It has agreed to a TRQ for non-NAFTA countries (except Chile) in the amount of 76,409 tons for fresh, chilled, and frozen beef and veal. The TRQ does incorporate two country reserves, for New Zealand and Australia, with the New Zealand share of the total quota at 29,600 tons and the Australia share at 35,000 tons. The remaining amount, 11,809 tons, is open to all other countries.

The beef TRQ is allocated to importers in two pools, one for processors and retailer-processors, and one for distributors. The former pool, of 57,307 tons, is allocated based on the amount of beef and veal from countries other than the U.S., Mexico, and Chile processed in these processors' own facilities from November 1 to October 31 of the previous year. The second pool, of 19,102 tons, is allocated to distributors based on sales of beef and veal from countries other than the U.S., Mexico, and Chile, from November 1 to October 31 of the previous year. A system of supplementary quotas has been implemented to deal with market shortages.

The beef and veal TRQ has been filled or virtually so in all years since 1995. In 1995, the fill rate was 113 percent; in 1996, the rate was 97.4 percent; in 1997, it was 117 percent; and in 1998, it was 111 percent.

10.2.5 Fluid Milk

In the case of fluid milk, Canada has a TRQ of 64,500 tons. This is a global TRQ, accessible by any country supplier, but in practice, due to transportation costs, it is likely to be filled only from the U.S. This TRQ is unique in that Canada does not allocate it to any importer, but leaves its importation to individual residents of Canada who shop in the U.S. and choose to

bring fluid milk home. Prior to 2000, there was a limit of \$20 per resident per trip for importation of fluid milk and cream for the personal use of the importer and his household. But that dollar limit has been removed following a WTO Panel finding and Appellate Body finding concerning the administration of Canada's fluid milk TRQ. Because there is no formal counting of fluid milk imported by individual consumers, no published notifications are made and the fill rate cannot be verified.

10.2.6 Powdered Buttermilk

Canada's WTO commitment in the case of powdered buttermilk is a TRQ of 980 tons that has stayed constant over the period from 1995 to date. Unlike yogurt, however, it is not a global commitment; rather, the supplying country is New Zealand for the full TRQ allotment. Furthermore, the TRQ is allocated to one historical importer. The reason for this country reserve is the same as for Australia and condensed milk, that when powdered buttermilk was placed on the Import Control List, New Zealand was the traditional and sole supplier, and this arrangement rolled over into the WTO commitments.

The administrative arrangements are standard. The importer has completely filled this TRQ in each year since 1995. The fill rates have been 1995, 116 percent; 1996, 133 percent; 1997, 101 percent; and 1998, 120 percent.

10.2.7 Butter

As one of the most protected of Canada's dairy products, butter had been on the Import Control List for forty years with the Canadian Dairy Commission as the sole importer. In most years prior to 1995, there were no butter imports. Butter was imported only to relieve temporary market shortages. In 1995 as part of Canada's UR commitments, a TRQ for butter was initiated, with a growth factor built in and with a country reserve for New Zealand. The level of the TRQ for 1995 was 1,964 tons, increasing to 3,274 tons in 2000. Of this, New Zealand's reserve started at 1,200 tons (61 percent) of the 1,964 tons in 1995, increasing to 2,000 tons of Canada's total 3,274 tons in the year 2000. The TRQ accounts for less than 3 percent of Canada's base-period butter consumption.

This TRQ has been fully allocated by the EICB to the Canadian Dairy Commission, the national agency that oversees dairy policy in Canada and which is a state trading enterprise by virtue of its right as the sole importer of butter. The further allocation of this quota is restricted to use only by processors and further processors. As noted earlier, this allocation of the butter quota to the CDC has been contentious, with New Zealand complaining that it has received lower export prices for its butter than would otherwise be the case.

The TRQ has been filled in each year since 1995 with a fill rate of 100 percent in the 1995, 1996, 1997, and 1998 dairy marketing years.

10.2.8 Cheese

A cheese import quota was introduced in 1975 at 50 million pounds, which was reduced to 45 million pounds (20,412 tons) in 1978. There was then an agreement between Canada and the European Union for a country reserve. The current EU share (since 1996) is 66 percent, with the remainder open to imports from all other countries. The TRQ established for cheese under the URA was fixed at this same level of 20,412 tons until 1999 and beyond. In addition, the country reserve to the EU was incorporated into the administration of Canada's cheese TRQ. In the view of some industry experts, the EU reserve produces a result not that different from what the pattern of imports would be with open markets, and, therefore, would arguably be consistent with GATT 1994 Article 13.

A large number of private cheese importers have been actively involved in the cheese trade for many years and have retained their rights to annual allotments of this TRQ since 1995. These historical importers receive their traditional allotment regardless of where they are in the cheese trade, as long as they remain active in it and utilize at least 95 percent of their import allocation. TRQs can be bought and sold among cheese-trade participants and newcomers. In fact, there has been enough trade in these quotas that 72 percent of current cheese quota holders have entered the cheese trading system since 1985. There is also a provision for supplemental quotas for market shortages and for re-export, but these allocations are rare.

As far as fill rates are concerned, cheese quotas have been filled in each of the four years since 1995, at 100 percent until 1997, and at 101 percent in 1998.

10.2.9 Ice Cream

This product was named to the Import Control List in 1988, but then placed under a TRQ like all other agricultural products in 1995. The TRQ level was initially 347 tons, rising by 1999 to 456.6 tons. It is open to all countries and has no restrictions on the types of importing firms.

The TRQ is allocated to historical importers, regardless of their sector of activity, in proportion to their historical imports. Underutilization penalties apply if imports fall below 90 percent of the importer's allocation, and such quota is reallocated periodically to those who apply, new or traditional importers, without restriction.

The fill rate on this quota has been quite high and steadily rising to more than 100 percent. In 1995, it was 89 percent; in 1996, it was 99 percent; in 1997, it was 104 percent; and in 1998, it was 121 percent, even though there was a growth factor in the TRQ.

10.2.10 Wheat, Barley and Their Products

There are four TRQs under this category, and they are items not under supply management industries. The items are wheat, barley, wheat products, and barley products. The TRQ levels for 1998/99 were: wheat, 190,582 tons; barley, 335,160 tons; wheat products, 123,557 tons on a grain-equivalent basis; and barley products, 16,070 tons on a grain-equivalent basis. In addition to these quota levels, under NAFTA provisions, Mexican wheat, barley, and their products can still enter at the in-quota tariff rates, even if the TRQ is full. The same applies to the U.S. for wheat and wheat products, and now also for barley and barley products.

TRQs for these grains and products are available to importers from the U.S. and Mexico on a first-come, first-served basis. Revenue Canada, Canada's customs and income tax department, keeps track of the volumes, and once the TRQ level is reached, the over-TRQ tariff then applies. Initially, importers need General Import Permit No. 20, available without application, and they pay the in-quota tariff. After the TRQ is filled, General Import Permit No. 100 is necessary, covering unlimited imports, but all such imports pay the higher over-TRQ rates of duty. A supplementary access regime covers the situation of market shortages.

Fill rates are quite variable within these grain categories. The fill rates for the wheat TRQ in the four marketing years from 1995/1996 to 1998/1999 were 18, 74, 27, and 33 percent, respectively. For barley, over the same four years, fill rates were 5, 31, 12, and 18 percent. For wheat products, the TRQ was always filled, with fill rates of 114, 100, 110, and 102 percent. For barley products, the fill rates were 75, 70, 59, and 60 percent. Despite less than complete fill rates, there appears to be no administrative constraint that reduces market access. Permits are free for the asking and no application is required. Further, access to the TRQs is on a first come, first served basis. The explanation would appear to be that imports of wheat, barley, and barley products are often not profitable, particularly for wheat and barley grain, given the competitiveness of Canadian grain production and processing.

10.3 Lessons Learned from the Canadian TRQ System

In terms of fill rates, the Canadian record is relatively good. Most categories are filled or nearly so. When categories have low fill rates, it appears most often to be due to the importation being unprofitable. Further, the rules and procedures for these TRQs appear to be transparent and not too difficult to use. In other words, for this criterion, the Canadian TRQ system appears to be working as desired. Explaining why fill rates are so high is a tall order, but some observations can be made. First, the quotas are usually allocated to private firms that are independent and do not profit from domestic production. There would appear to be strong incentives for these firms to fill their TRQs as long as the underlying economics of importation are attractive. Further, the administration of the regime is quite open, straightforward, and predictable, not burdening importers with large costs.

In terms of quota allocation, the domestic economy and foreign exporters will gain from allocating quotas to those importers who can generate the highest profits from the quotas. One would want to see a minimum of regulations restricting who can gain access to the quota, by enterprise characteristics or industry sector (e.g., further processors, or end-uses). Also, one would want to allow new entrants to get into importation readily. TRQ allocation in important parts of the Canadian system has done little to help accessibility by often relying on allocation to historical importers. But some changes are now beginning to give more access to newcomers.

The most effective means of meeting an objective of open access is to allow quotas to be bought and sold on a permanent basis and for there to be easy short-term rentals (buying and selling the quotas for that import year). The advantage of allowing this kind of transferability is that it makes the initial allocation largely irrelevant for achieving an efficient quota system. On this score, Canada has improved its regime by allowing the quotas to trade in most categories. It is important that this trade be allowed to continue and that implementing regulations protect sale and rental activity in all TRQ categories. (This does not apply in those cases where quotas are not constraining, such as when they are allocated on a first-come, first-served basis.) This is a most effective means of getting quotas into the hands of the most efficient importers. Then the initial allocation can be done simply to transfer income to desired groups (e.g., further processors), and the initial allocations can become irrelevant for keeping the regime operating efficiently. Allocating quotas by auctions becomes less an issue of efficiency for the regime and more a question of how to split up the quota rents.

Regarding the objective of keeping the administration of the quota system efficient, this calls for keeping costs to the importer of accessing quota as low as possible, keeping transparency high, and keeping uncertainty from rule changes, additions, or interpretations as low as possible. Across the twenty-one TRQ categories, Canada's regime appears reasonably successful in meeting this objective. There are still many gains from further simplifying quota administration. Some of the poultry allocations seem particularly good candidates for further simplification. In fact, it would seem unnecessary to have *any* rules governing quota administration other than that the quota or permit is needed to undertake importation, and that the quota must be used within the quota period. Further gains in domestic efficiency can be arrived at by changes in system design. One example already noted is to allow quota rental (within the year) and another is to permit quota to be held *permanently* (the right to be given the annual import permits each year, as for farm quotas). This allows the flexibility of annual quota holding adjustment, in case of excess demand or your inability in one year to completely use your quota, and it provides the certainty of knowing you will be receiving your import quota each year.

It may be desirable on equity grounds to spread the quota rents more widely than is presently practiced. This could be achieved with auctions, or for a charge to be levied on quota recipients each year. Canada has not gone any distance down this path in quota administration.

In terms of more international issues, there is the question of targeting TRQ supplier countries with the use of country reserves. Canada does have five of these (one-fourth of all TRQs), but does not appear to consider the existence of such reserves a policy objective. These reserves do not seriously affect the operation of Canada's regime, do not contribute to quota under-fill, and are valuable only to the recipient exporter. Another issue is the role of State Trading Enterprises. Canada has only one case, butter, in which the TRQ is allocated to the Canadian Dairy Commission. One worry about such a role for STEs is that they may have weaker incentives to fill the quota. But the evidence in Canada is that the STE monopoly importer is fully utilizing its butter TRQ.

Implications for the negotiations

From this review, the primary lesson for dealing with TRQ administration in the next round is to require that TRQ levels are actually imported where there is a market demand for such imports. Penalties should be imposed on governments (or their implementing agencies) for failure to allocate quotas to importers, allowing them to be guided by private economics as to how much to import. If the importer is not an independent private firm (e.g., a STE), additional penalties may be necessary to induce them to import their TRQ import levels, assuming there is a private demand for those imports.

It is not clear why any additional WTO rules should be adopted in this area, other than to ensure meeting privately profitable TRQ levels as discussed above. From the Canadian experience above, it would not seem necessary to require quota allocation to private firms, to disallow allocations to STEs, or to require the auctioning of quotas. Most of these additional rules could contribute to filling TRQs and reducing the economic cost of quota administration and system operations. But if we can deal directly with the filling of TRQs as suggested above, such other rules are either redundant or are primarily matters for domestic policy.

11. The Case of Australia and New Zealand facing TRQs⁷²

11.1 Introduction

Australia and New Zealand, as leading members of the Cairns Group, are committed to achieving reductions in the distortions remaining, post-Uruguay Round, in international markets for agricultural and food products. TRQs are but one element of the several distortions that remain. Over the past fifteen years, each country has reduced its support to the agriculture sector. In the period 1986-88, as measured by the percentage Producer Support Estimate (%PSE), support stood at 7 percent for Australia and 11 percent for New Zealand compared with 34 percent for Canada, 46 percent for the EU, 65 percent for Japan, 26 percent for the U.S. and the average for the OECD countries of 41 percent (OECD 1999, Table III.5). By 1998, the corresponding figures for Australia and New Zealand were 7 percent and 1 percent, respectively, and for the other countries listed were 16 percent for Canada, 45 percent for the EU, 63 percent for Japan, 22 percent for the U.S. and 37 percent for the OECD average. Neither Australia nor New Zealand uses export subsidies as a way of increasing market share and boosting farm incomes, although state trading enterprises are an important feature of the international marketing for some products, e.g., wheat and sugar in Australia and dairy products in New Zealand.

On the import side, both countries introduced Tariff Rate Quotas on a very small number of products, having earlier removed tariffs altogether on imports of some agricultural products, e.g., the Australian tariff on sugar was removed in 1997. Australia introduced TRQs for cheese and for tobacco; New Zealand introduced them on imports of fresh apples, fresh pears and hop cones (WTO 1998, Attachment pp. 1 and 16). With the exception of the TRQ on cheese, the method of administration is by applied tariff rate. For cheese, the method of administration is by historical imports with licenses tradable amongst holders. Because the statutory marketing arrangements in Australia for tobacco are being restructured and the effective rate of assistance is due to fall from 60 percent in 1997-98 to 2 percent in 1999-2000 (Productivity Commission

⁷² Notes provided by Ron Sandrey and Rowena Hume of the New Zealand Ministry of Foreign Affairs and Trade contributed substantially to this chapter and so are gratefully acknowledged. However, they are not responsible for any remaining errors.

1999, p. 45), and because tobacco is relatively unimportant in terms of the value of imports, it will not be considered further.

Given the small number of TRQs in place, the main emphasis here will be on the TRQs which impede or which in some instances appear to enhance exports from these two countries. For Australia, the principal products in terms of the value of exports are beef, dairy, sugar, wheat and wool. TRQs are only important for exports of beef, dairy and sugar. However, for particular products, e.g., sheep meat, in certain markets, e.g., the EU, TRQs are important in providing access to the market that would not otherwise exist. The country-specific allocation to Australia by the EU for sheep meat was 18.65 thousand tonnes (carcass weight) (ABARE, p. 40) which amounted to 13.6 percent of total exports of sheep meat during the period 1995 to 1997. In the case of New Zealand, the focus will be restricted essentially to exports of dairy products.

11.2 Australia

Imports

The basic details about the Australian TRQ for cheese are as follows. The minimum access commitment provided in the WTO schedule was 11.5 thousand tonnes for 1995 and 2000 (ABARE 1999, p. 38). The quantities to be imported have not been allocated to particular countries. The in-quota tariff is a specific tariff of A\$96 per tonne for both years; the out-of-quota tariff is A\$1.22/kg or A\$1220 per tonne. The indicative world price in 1995-96 was A\$3,000/tonne thus giving *ad valorem* equivalent rates for in-quota and out-of-quota of 3 percent and 41 percent, respectively.

Consumption of cheese in the period 1986-88 was 135.0 thousand tonnes and gross imports were 19.5 thousand tonnes, thus giving a gross imports-to-consumption ratio of 14.4 percent (ABARE 1990, p. 57). With imports currently (1997-98) at 31.2 thousand tonnes (ABARE 1998, p. 77) and base-period consumption at 131.2 thousand tonnes, the imports-to-consumption ratio is 23.8 percent, i.e., well in excess of the required minimum access commitment. With current (1996-97) consumption now at the considerably higher level of 197.8 thousand tonnes (ABARE 1998, p. 72), the ratio of gross imports-to-consumption is still in excess of the commitment at 15.8 percent.

The fill rates for the Australian cheese TRQ were 98 percent in 1995, 95 percent in 1996 and 79 percent in 1997 (WTO 1998, Attachment p. 1). Over these three years, the domestic production of cheese rose from 234 thousand tonnes to 285 thousand tonnes (ABARE 1998, p. 80) which may partly explain the fall in the fill rate.

Export Markets

The most important agricultural exports by value in recent years (the average of years 1995-96 to 1997-98) have been wool (A\$4.2 million), wheat (A\$3.8 million), beef (A\$2.3 million), dairy products (A\$1.6 million) and sugar (A\$1.5 million) (ABARE 1998, pp. 221, 205, 148, 75 and 197, respectively). The two principal markets for wool are China and the EU. The former is not a member of the WTO and the latter has no TRQ for wool. The main markets for wheat over these last three years have been Indonesia (15 percent share), Iran (13 percent share), India and Japan (8 percent share), Egypt (7 percent share) and China and Pakistan (6 percent share). Of these countries, Indonesia, India and Pakistan are recent Members of the WTO (1995) and have no TRQ for wheat, while Iran and China are not members of the WTO. Egypt has no TRQ for wheat and Japan has a TRQ that is administered through a state trading enterprise, namely, the Japanese Food Agency, and the quotas are not country specific. The in-quota tariff is zero but there is a mark-up of 53 yen/kg in 1995, decreasing by 1.3 yen/kg to 2000 (ABARE, p. 37). The out-of-quota tariff is 55 yen/kg. On an indicative world price of 25,000 yen/tonne, the *ad valorem* rate is 220 percent. The fill rates in 1995 and 1996 were each 100 percent (WTO 1998, Attachment p. 13). Hence, TRQs are not a significant feature, either as a help or as a hindrance, to Australian exports of wheat which are conducted by the now privately owned state trading enterprise AWB (International) (formerly the statutory marketing board, the Australian Wheat Board).

The two most important export markets for Australian beef by value are Japan (54 percent share over the period 1995-1997) and the U.S. (19 percent share) (ABARE 1998, p. 148). The corresponding volume shares were 41 percent and 27 percent, respectively (ABARE 1998, p. 147). As a result of the tariffication of the Japanese beef import quota in 1991, there is no TRQ in place (WTO 1998, Attachment p. 13). However, the U.S. does have a TRQ which, according to the WTO (1998, Attachment p. 28), is administered on a first-come, first-served

basis. The access provided for 1995 and 2000 was to be 656.6 thousand tonnes (ABARE 1999, p. 36). The in-quota tariff in both years is US\$0.044/kg or US\$44/tonne, and the out-of-tariff rate is 31% for 1995 and 26.4% for 2000. The indicative world price for beef in 1995-96 was US\$1,800/tonne, implying an *ad valorem* rate of 2.44 percent for the in-quota tariff. The fill rate for 1995 was 66 percent while in 1996, it had fallen to 59 percent (WTO 1998, Attachment p. 28). Between 1994 and 1995, beef production in the U.S. rose from 11.2 million tonnes to 11.6 million tonnes (i.e., by 3.6%) which may partly explain the fall in the fill rate as imports fell from 1.07 million tonnes (carcass weight) to 0.95 million tonnes (ABARE 1998, p. 144). According to ABARE (1999, p. 40), the U.S. allocates its beef TRQ to specific countries of which the Australian volumes were to be 378.2 million tonnes (assumed carcass weight) in 1995 and 2000. The actual volume in 1995 was 312.5 million tonnes (converted from a shipped weight basis of 210.7 thousand tonnes (ABARE 1998, p. 147) at 1.48), a fill rate of 83 percent. Australian exporters require accreditation with the USDA and an export license from the state trading enterprise Meat and Livestock Australia Ltd.

For exports of Australian dairy products, the most important constituents by value are cheese, skim milk powder, whole milk powder and butter. For cheese, the dominant export destination is Japan with a volume share of 47 percent over the years 1995-96 to 1997-98 (ABARE 1998, p. 75). These imports are not subject to a TRQ (WTO 1998, Attachment p. 13). For skim milk powder, the four most important export markets are the Philippines (24 percent share by volume), Malaysia (16 percent), Japan (12 percent) and Thailand (11 percent). With the exception of Japan, none of these countries has a TRQ in place (WTO 1998, Attachment p. 21-22, 15 and 27, respectively). Japan has two TRQs for skim milk powder, one for school lunches and the other for all other purposes, both administered by license on demand (WTO 1998, Attachment p. 13). The in-quota tariff rate is 0 percent (or 35 percent if sugar is added, a technical tariff) for 1995 and 2000 (ABARE 1999, p. 37); the out-of-quota rate for both years is 396 yen/kg which, at an indicative world price of 243,000 yen/tonne, is an *ad valorem* rate of 163 percent. The fill rates for the first category were 58 percent and 64 percent in 1995 and 1996, respectively, but only 49 percent and 40 percent respectively for the second category. As far as whole milk powder is concerned, Malaysia and Thailand are the important export markets with average volume shares of 14 percent and 9 percent, respectively, over the period 1995-96 to 1997-98 (ABARE 1998, p. 75). Neither country appears to have a TRQ in place for this product

(WTO 1998, Attachment p. 15 and 27, respectively). Finally for dairy products, Thailand is the dominant export destination for butter and butterfat with a volume share of 12 percent (ABARE 1998, p. 75). There is no TRQ in place.

For Australian exports of bulk raw sugar, the main export destinations (by volume) over the period 1995-96 and 1996-97 were Canada (18 percent), Japan (17 percent), South Korea (16 percent) and Malaysia (15 percent) (ABARE 1998, p. 197). The share destined for the U.S. was 4 percent and that for the EU was zero. Given the prices available in the U.S. market, this is a more important market than the volume share would suggest. In 1998, the average monthly world market price of raw sugar was US9.68 cents/lb compared with the U.S. domestic raw sugar price of US22.06 cents/lb (<http://www.fas.usda.gov/htp/sugar/1999/november/prices.pdf>). The in-quota tariff for 1995 and 2000 is US1.460 cents/kg with a out-of-quota tariff of US39.85 cents/kg in 1995 and US33.87 cents/kg in 2000 (ABARE 1999, p. 36). The *ad valorem* equivalent rates are 5 percent and 121 percent, respectively. Also of note is the EU's allocation of its TRQ on a selected country basis (largely because of the Sugar Protocol of the Lomé Agreement). Australia has no share (ABARE 1999, p. 40), hence the zero exports.

Of the major destinations for Australian sugar by volume, Canada, Japan and South Korea have no TRQ in place. Malaysia does have one that is administered through a license-on-demand basis (WTO 1998, Attachment p. 15). The fill rates were 0 percent and 13 percent in 1995 and 1996, respectively. In the case of the U.S. TRQ, the allocation is on a first-come, first-served basis (WTO 1998, Attachment p. 28), although there are some country-specific assurances (ABARE 1999, p. 40). Australia was given a minimum import share of 8.3 percent. For U.S. fiscal year 1999/2000, the import volume from Australia has been set at 87.4 thousand tonnes (<http://www.fas.usda.gov/htp/sugar/1999/november/trq.pdf>). This is slightly less than the actual volume of imports in fiscal year 1999 of 88.1 thousand tonnes but much less than imports of 260.5 thousand tonnes in fiscal year 1996.

<http://www.fas.usda.gov/htp/sugar/1999/november/imports.pdf>).

11.3 New Zealand

In 1997/98, the top four markets for New Zealand cheese were Japan (22.6% by value), the European Union (Belgium and the U.K. 17.8%), the United States (9.1%) and Australia (8.6%) (New Zealand Dairy Board 1999, Table 5.5). Access to all of these markets, with the exception of Japan, is controlled by TRQs. For 1999, the U.S. cheese quota is 140.5 thousand tonnes, of which New Zealand has a country-specific quota of 21.7 thousand tonnes (MFAT 1999). Of this New Zealand quota, 7,300 tonnes is for Cheddar, 2,000 is for American cheese, 1,000 tonnes is for low-fat cheese and 11,322 is for other types of cheese. It has been estimated (Schluep 1999, Table B-1) that for all types of cheese imported by the U.S. in 1997, the quota rents were US\$ 186.7 million of which New Zealand gained US\$ 25.4 million. However, this share of the total disguises the heterogeneous nature of the cheeses imported. Of the nine types classified, New Zealand had substantial rental rates on only three. These were “Other cheese NSPF” with a 50.5 percent share, “Cheddar” with a 80.5 percent share and “American other than cheddar” with a 69.0 percent share.

There are also TRQs facing New Zealand exports to the U.S. of butter, anhydrous milk fat (AMF), skimmed milk powder (SMP), and whole milk powder (WMP). For butter, the TRQ generated in 1997 rents of US\$ 3.8 million of which New Zealand had a 55 percent share. For SMP and WMP, the rents amounted to US\$ 1.7 million and US\$ 1.3 million, respectively, which represented shares of 72 percent and 53 percent, respectively. For AMF and casein, the U.S. is the most important export destination, accounting for 11.9 percent and 50.1 percent, respectively (NZDB 1999, Tables 5.7 and 5.8, respectively). Casein is one of the very few dairy products that are not subject to a TRQ in the U.S. market, the others being whey protein concentrates and milk protein concentrates.

The administration of TRQs in the U.S. is complex. For example, dairy product imports from New Zealand are subject to both country-specific TRQs but also MFN tariffs. The TRQs for cheese, butter, AMF, SMP and WMP are administered through import licenses while other products subject to TRQs enter on a first-come, first-served basis. The import licenses are allocated on either an historical holding basis or they are given to importers nominated by the exporting country. Not the entire country-specific quota for New Zealand is under the control of

the New Zealand Dairy Board, i.e., other importers are also given licenses to import. The licenses which are given to the New Zealand Dairy Board are held by its U.S. subsidiary, NZMP Cheese Ingredients, and, hence, the New Zealand Dairy Board collects the quota rents on only that proportion of licenses which it controls. However, when New Zealand dairy products enter the U.S. through other importers, then the price is a negotiated one between the Board, as the single-desk seller, and the importer, and the quota rents are shared between the two. Exports to the U.S. under the MFN quota license arrangements for butter, AMF, SMP and WMP are trivially small, a maximum of 57 tonnes per year per license, and are allocated through an annual lottery.

Calculating the quota rents generated in the U.S. market for the New Zealand Dairy Board, by multiplying exports by the difference between the U.S. wholesale price and the cif import price, will overstate these rents because some of the imports go through firms other than the New Zealand Dairy Board's subsidiaries. The estimates of New Zealand's quota rents in the U.S. market in 1997 for all dairy products were US\$ 49.5 million (Schluep 1999, Table B-1). This represents an upper bound because of the leakage in the control that the Dairy Board is able to exercise.

In some respects, the import arrangements for New Zealand dairy products destined for the EU market are more straightforward than those for the U.S. Since Britain joined the then European Economic Community in 1973, New Zealand has had preferential access to the United Kingdom (and EU) markets for butter and cheese. With the implementation of the Uruguay Round Agreement on Agriculture, these arrangements were continued through country-specific TRQs for New Zealand. For butter, the quota of 76.7 thousand tonnes represents 4 percent of the EU butter market and it attracts a specific tariff of 869 euros/tonne (an *ad valorem* rate of approximately 50 percent). The out-of-quota tariff is 2000 euros/tonne or an *ad valorem* rate of approximately 125 percent.

For cheese, there are two quotas: one of 4,000 tonnes for cheese for processing and a second of 7,000 tonnes on Cheddar cheese. The in-quota tariff is 170.6 euros/tonnes and the out-of-quota tariff is 1765 euros/tonne. These represent *ad valorem* rates of approximately 10 percent and 100 percent, respectively.

The administrative arrangements for these TRQs are as follows. The EU requires matching licenses, i.e., its import licenses have to be matched by the award of export licenses by the exporting country, in this case by New Zealand. Imports of New Zealand butter and cheese by the EU require the importer to have an IMA1 certificate (Import Monitoring Arrangement) and an import license. The IMA1 certificate can only be obtained from the New Zealand Dairy Board. The import license for butter has to be obtained from the UK Intervention Board for Agricultural Produce and for cheese from the corresponding authorities in the Member countries. Thus, the New Zealand Dairy Board has more control of the process in the EU market than it has in the U.S. market.

The New Zealand Dairy Board is a monopolist with respect to the country-specific TRQ on butter and cheese destined for the EU market, i.e., it is a monopolist in the license market. But its control is even greater than that. In the export market for dairy products, the New Zealand Dairy Board is also a single-desk seller. As far as the EU market is concerned, the Board sells dairy products to its EU subsidiaries at the EU market price as well as selling to other EU importers at negotiated prices. Given these arrangements, there is an incentive for New Zealand to fill its quota because EU prices are much higher than prices in the highly distorted world market. In this case, unlike that in the U.S., the Dairy Board can capture most (all) of the rents because of the control which it can exercise in both the license and the product markets. These rents have been estimated to be US\$ 90.0 million for butter and US\$ 16.1 million for cheese in 1997 (Schluep 1999, Table B-1). The respective fill rates were 80 percent and 86 percent.

Therefore, in the EU market, the quota rent captured by the New Zealand Dairy Board and, hence, New Zealand dairy farmers because of the link between the Board and internal milk and dairy prices, may be reasonably approximated by multiplying the import volume by the difference between the internal EU price and the world market cif price inclusive of the tariff.

There are two aspects of the quota rents acquired by the NZDB that need to be explored in more detail. The first aspect is what does the Board do with the rents: For example, does it pass these back to dairy processors and, hence, indirectly to milk producers, or does it use them to buy subsidiary companies in importing countries, or does it use them to advertise New

Zealand dairy products in some or all of its export markets? The second aspect is, if the prices which New Zealand dairy producers receive for their product is increased by receipt of part of the quota rents, then what is the supply response and what are the additional export volumes then achieved? In that sense, the quota rent acts in the same way as a production or an export subsidy. Clearly, there are no simple answers to these questions and the research necessary to answer each goes well beyond the scope of this chapter. However, it should be obvious from the institutional detail provided for New Zealand that a combination of TRQs in important export markets, together with a single-desk export seller of the product and administrator of licenses has a greater potential to distort markets than envisaged by those who, during the Uruguay Round, supported the introduction of TRQs as a means of improving market access. TRQs under perfect and imperfect competition have quite different effects on markets. In the case of Australia, the role played by single desk exporters is less significant because wheat does not face substantial TRQs, although this is not true for sugar exports to the U.S.

11.4 Conclusions

The existence of TRQs remains one of the important distortions in international markets for agricultural products. For Australia and New Zealand, the issue of market access is an important one. Neither country has made much use of TRQs, the former having two (cheese and tobacco) and the latter three (apples, pears and hop cones). To the extent that each country has been granted country-specific import quotas by importing countries, it might be argued that guaranteed access would be better than the alternative of no TRQ. However, it is apparent from the descriptions provided above that the arrangements facing each of these exporting countries in the major markets of the EU, Japan and the U.S., as well as in important Asian markets, carry administrative costs for the exporter because of the licensing arrangements in many instances. These costs must go some way towards offsetting the additional revenues generated through quota rents.

Whether the net economic benefits to Australia and New Zealand of the market access provided by TRQs are positive is very difficult to determine. In some cases, e.g., New Zealand shipments of dairy products and sheep meat to the EU, there were pre-existing arrangements which guaranteed access, while in other cases, the uncertainty created by quota allocated on a

first-come, first-served basis, e.g., sugar imports to the U.S., increases the costs of trade. For certain, any estimate of quota rents calculated by multiplying the export volume by the difference between the internal and world price inclusive of tariff will overstate these net benefits because of the administrative costs incurred by the exporter and because of the distortions created by the alternative methods of allocating the quota. To offset these possible additional costs of exporting, for certain products there may be some additional gains that are captured by the single export desk activities of the Queensland Sugar Corporation and by the New Zealand Dairy Board. The measurement of the size of such gains and the supply response induced through the passing back of part of the rents has not been attempted.

12. The 1999 WTO Panel Report on The EU's Common Market Organization for Bananas

12.1 Introduction

The WTO Panel Report in 1999 found the EU's Common Market Organization for Bananas (CMOB) in violation of WTO rules regarding country reserves and import licensing procedures. The CMOB TRQ system originated with the Single European Act of 1993, which led to a common market policy in bananas. The objective of this chapter is to examine the administration problems plaguing the CMOB TRQ system and to assess the implications for the TRQ schemes in the URAA.

The Original Policy

Prior to the CMOB in 1993, no uniform EU policy on bananas existed, with policies ranging from free trade to very protectionist regimes. Two major policy changes characterized the original CMOB: a *deficiency payment system* for EU banana producers (to compensate farmers for the new policy) and a *TRQ scheme* with import licenses. A quota for African, Caribbean and Pacific State (ACP) countries was distinguished from a Most Favored Nation (MFN) quota. Traditional ACP exporters received a fixed quota of 857,700 tons of bananas with an in-quota-tariff of zero. The MFN quota of 2 million tons was for bananas imported from either third countries or non-traditional imports from ACP countries⁷³.

A distinctive feature of the banana TRQ was the distribution of import licenses. Except for a small share for market newcomers (3.5% of imports), licenses were allocated to traders depending on the origin of the bananas. So-called "Category A" operators had marketed dollar bananas and received 66.5% of the licenses. "Category B" operators had marketed EU/ACP bananas and received 30% of the import licenses. The allocation of licenses within the two major categories A and B was further regulated according to functions of the firms in the distribution channel. The licenses were tradable in most instances.

⁷³ These are either exports by ACP countries that had not exported to the EU before the introduction of the CMOB or quantities exceeding the pre-1991 peak imports by traditional suppliers.

The Framework Agreement

The CMOB was contentious from the beginning, with the GATT Panel in 1994 concluding that the CMOB was inconsistent with various GATT rules [THAGESEN/MATTHEWS (1997)]. Consequently, the EU signed the Framework Agreement on Bananas (BFA) in 1994 with four of the five countries that had initiated this GATT Panel. The BFA introduced country-specific allocations for Venezuela, Costa Rica, Colombia, and Nicaragua, taken from the global MFN quota. These four countries were allowed to issue export certificates for up to 70 percent of their national quotas, better: quota shares. One stated goal of this arrangement was to alter the distribution of quota rents partly towards the exporting countries. The remaining share was mainly supplied by Latin American exporters not participating in the agreement, such as Ecuador, Panama, Honduras and Guatemala and a few ACP countries. Among importers, there was still the same restrictive division of the licenses according to operator categories and activity functions.

Recent Reforms

After the introduction of the Framework Agreement, a dispute settlement procedure in the WTO was initiated in September 1995. The Panel concluded in March 1997 that the CMOB is inconsistent with several GATT and GATS rules. The EU had, until the end of 1998, to reform the policy. This Panel ruled not only on the distribution of quota shares to particular exporting countries, but also on the details of the complicated licensing regime, in particular on operator categories and activity functions as well as on GATS issues. Operator categories and activity functions were altogether abolished along with export licenses. The Commission now distinguishes between traditional and new market participants only, based on banana imports in 1994-96.

In January 1999, a new banana Panel was set up in order to investigate whether Ecuador's complaints that the modified European policy was still inconsistent with WTO rules were justified or not. In April 1999, the Panel decision was again unfavorable for the EU. Although tariff preferences of ACP countries according to the Lomé provisions were accepted, special treatment with respect to the allocation of country reserves was found not to be covered by the Lomé waiver, so that the requirements of Art. XIII applied. The Panel recommended an either

an applied tariff regime or a combination of tariffs and quotas combined with an overhaul of the import-licensing scheme. To this date, no political consensus with all parties involved has been found. In November 1999, the EU proposed to return to a tariff-only policy in a two-step plan [EUROPEAN COMMISSION (1999)]: First, a TRQ system would remain in place but be replaced, no later than January 1, 2006, by a tariff-only system. The transitional TRQ regime would maintain the existing MFN quota of 2,553,000 tons with a tariff rate of 75 Euro per ton. ACP countries could import tariff-free within this quota. The European Commission favors a licensing system based on historical trade, if an agreement with the trading partners can be found. Otherwise, a first-come first-served rule is suggested.

In addition, a new quota of 850,000 tons would be introduced, similar in size to the old tariff-free quota for traditional imports from ACP countries. This quota would now be open for all exporters, but a tariff preference of 275 Euro/ton would be given to ACP bananas. The idea for allocating this quota is to apply a striking-price tender system.

12.2 Administration of TRQs under the CMOB

The CMOB TRQ is a complicated system of country-specific and MFN quotas with differing tariffs, which have changed many times in the 1990s. While TRQs are not an absolute limit to imports, the out-of-quota tariff is so high that out-of-quota imports are basically zero. The EU's country-specific¹⁾ TRQ for traditional imports from ACP countries²⁾ was created in the context of the Lomé Convention. The ACP quota of 857,000 tons was the sum of the maximum exports of each country prior to 1991. The intent was, according to EC Regulation 404/93, to “[maintain] traditional trade patterns as far as possible”. First, the MFN quota was essentially a global quota open to all countries. As the CMOB evolved, a growing share of this quota was allocated to specific exporting countries [EUROPEAN COMMISSION (1998)]. This quota grew from annual 2.0 million tons (mt) in 1993 to 2.1 mt in 1994 and is 2.2 mt from 1995 until today.

While the EU considered these quotas as different regimes, the WTO Panel found in 1997 that separate regimes are WTO-inconsistent. Imports from ACP countries were generally duty-

¹⁾ Only in the most recent version of the CMOB of 1999 country-specific allocations were given up and replaced by a global quota.

free as long as they were in-quota. The in-quota tariff for imports from third countries was originally 100 and later 75 ECU. ACP countries were also granted a tariff preference of 100 ECU on the much higher out-of-quota tariff (Table 12.1).

Table 12.1: The CMOB 1993-present: An overview

Regime		Original Common Market Regime 1993-1994		BFA-Reform 1995-1998		WTO-Ruling Reform 1999-Present	
		ACP	MFN	ACP	MFN	ACP	MFN
Country-Category		ACP	MFN	ACP	MFN	ACP	MFN
Quota Allocation		Country-Specific Allocation	Global Quota	Country-Specific Allocation	~ 50% Country-Specific Allocation for BFA Signatories; ~ 50% Global Quota	Global Quota	~ 90% Country-Specific Quota for Substantial Suppliers; ~ 10% Global Quota (“others”)
Country-Specific Quota Transfer					Partly Transferable		No Transferability
Quantities		857,700 t	2,000,000 t ^a (1993) (2,200,000 t) ^a (1995)	857,700 t	2,553,000 t ^a	857,700 t	2,553,000 t ^a
Tariffs	1st tier	0 ECU/t ^b	100 ECU/t ^{b,c}	0 ECU/t	75 ECU/t ^c	0 ECU/t	75 ECU/t ^c
	2nd tier	750 ECU/t ^b	850 ECU/t ^{b,c}	722 ECU/t	822 ECU/t ^c	537 ECU/t	737 ECU/t ^{c,d}
License Regime			Operator Categories + Activity Functions		Operator Categories + Activity Functions		Distinction only: Traditional Operators and Newcomers

a = Including non-traditional; b = green ECU; c = The tariffs for traditional ACP imports apply also to non-traditional imports from ACP countries within the MFN quota; d = Will be reduced to 680 ECU/t as negotiated in the Uruguay-Round.

Source: Own compilations based on different publications of the EUROPEAN COMMISSION; THAGESSEN AND MATTHEWS (1997); WTO (1997b); WTO (1999).

The EU retained the option to reduce or increase the overall MFN quota based on future demand estimates. In practice, only the second possibility was used by introducing an “Autonomous Quota” and “Hurricane Licenses”.

²⁾ Belize, Cameroon, Cape Verde, Côte d’Ivoire, Dominica, Grenada, Jamaica, Madagascar, Somalia, St. Lucia, St. Vincent and the Grenadines and Suriname.

Hurricane Licenses

Over-quota imports are additional imports at the in-quota tariff, the application of which is left to the discretion of the importing country [BOUGHNER/DE GORTER (1999)]. Hurricane Licenses made such over-quota imports with respect to the MFN quota share possible. They were introduced with the aim to compensate importers who marketed traditional ACP bananas for supply shortfalls due to “exceptional circumstances” like hurricanes [EUROPEAN COMMISSION (1994)]. Even though this option was used several times between 1994 and 1996, the total amount of 281,605 t is negligible. More importantly, only category B operators could import additional quantities from profitable Latin American sources. It is no surprise that this preferential treatment was criticized by the WTO.

Country-specific allocations

The Framework Agreement introduced country-specific shares of the MFN TRQ share. In addition to proportional shares granted to the Latin American signatories, 90,000 t were reserved for non-traditional imports from ACP countries. Since this allocation was found to be WTO-inconsistent (see below), it was revised in the 1999 version of the CMOB (see Table 2).

The Autonomous Quota

The Autonomous Quota was introduced in 1995 in order to take account of Austria, Finland and Sweden joining the EU. Despite its name¹⁾ and though its quantity of 353,000 t was not included in the WTO schedule, we do not consider these imports as “over-quota”. The reason is that it has effectively been a constant increase of the MFN quota, for which all the administrative provisions of the latter equally apply.

The actual country-specific shares varied significantly from year to year. The reason is that quantities that could not be supplied by a Latin American BFA signatory were reallocated to another one. This option of EC Regulation 478/95 was used repeatedly.

¹⁾ The term “Autonomous Quota” was not officially used until the introduction of the newest CMOB in 1999 [BLE (1999)].

Table 12.2: Country Specific Allocation of the MFN Quota (t)

Source	1994	1995	1996	1997	1998	1999
Costa Rica	.	638,923	618,593	600,920	677,961	653,823
Colombia	.	690,801	571,009	563,812	539,287	587,996
Nicaragua	.	.	79,307	52,516	.	.
Venezuela	.	19,113	37,010	51,361	51,361	.
Panama	402,353
Ecuador	668,120
Subtotal	.	1,348,837	1,305,919	1,268,608	1,268,608	2,312,252
„Other“ Third Countries	.	1,269,928	1,229,521	1,194,392	1,194,392	240,748
Total Third Countries	.	2,618,765	2,535,440	2,463,000	2,463,000	.
Total ACP ^b	.	90,000	90,000	90,000	90,000	.
Total	2,171,400	2,708,765	2,625,440	2,553,000	2,553,000	2,553,000

a = Based on the quantities of 1994 (2,100,000 t). b = Dominican Republic and non-traditional Imports

from ACP countries.

Source: Own compilation from EUROPEAN COMMISSION.

12.3 Trade and Fill-Rates of the Quotas

The introduction of TRQs does not necessarily lead to increased market access. Fill-rates reflect the inefficiencies caused by administrative rules and differences in costs between countries. It is therefore necessary to analyze fill-rates in detail in order to draw conclusions about the effectiveness of the trade policy instrument. Three main trends become apparent from Table 12.3.

The introduction of country-specific quota shares, combined with the already existing operator categories and activity functions, led to a fragmentation of imports. This may have made country-specific imports less attractive. Resulting quantities might have been too small to cover risks and fixed costs. Country-specific allocations are at a disadvantage because of

Table 12.3 : Fill-Rates of the MFN Quota Excluding Country-specific Non-traditional Imports from ACP countries (%)

Source	2 nd half 1993	1994	1995	1996	1997	1998	1999
Costa Rica	.	.	88.35	97.50	100.47	n.a.	n.a.
Colombia	.	.	80.59	113.42	100.78	n.a.	n.a.
Nicaragua	.	.	.	15.90	56.50	n.a.	n.a.
Venezuela	.	.	69.83	48.06	58.78	n.a.	n.a.
Panama	n.a.
Ecuador	n.a.
Subtotal	.	.	84.11	93.79	96.53	n.a.	n.a.
„Other“ Third Countries	.	.	91.51	95.54	102.87	n.a.	n.a.
Total Third Countries	.	.	87.70	91.61	97.92	n.a.	n.a.
Total ACP ^a	.	.	78.31	98.52	83.10	n.a.	n.a.
Total	n.a	95.66	87.39	91.85	97.40	n.a.	n.a.

a = Due to the available data which do not allow to distinguish between different types of licenses, it was impossible to allocate over-quota imports due to hurricane licenses. Therefore, these were left out.

b = Dominican Republic und non-traditional imports from ACP countries; n.a. = not available.

Source: Own computations with data from EUROSTAT (1998) and EUROPEAN COMMISSION.

varying harvest seasons across countries, leading to lower fill-rates. More importantly, the introduction of export certificates led to a reduction of quota rent for the importing firms. Therefore, banana imports under the global “other” quota share from other Latin American countries were relatively more profitable [OSÓRIO-PETERS (1998); WTO (1999)]. This probably explains most of the difference in fill-rates between BFA signatories and non-signatories.

Rising overall fill-rates occurred once market participants adjusted to the administrative burdens imposed by the CMOB. Rules on licensing and the arbitrary distribution of licenses to market participants, who had never imported bananas before, damaged existing business

relations. These had to be rebuilt over time. Some importers could only reach their pre-CMOB quantities by buying licenses from those favored by the licensing regime.

12.4 The WTO Panel Report on the Implementation of TRQs in the Banana Case

Article XIII GATT

The most recent WTO Panel Report on the EU's banana regime ruled that the MFN tariff quota of 2,553,000 t and the 857,700 t reserved for duty free traditional imports from ACP countries constitute separate regimes, and so are inconsistent with Article XIII. The EU's view was that the 857,700 t are not a tariff quota but an upper limit for the zero-tariff preference granted to traditional imports from ACP countries.

The Panel also finds that the Lomé waiver¹⁾ does not overcome inconsistencies with Article XIII of the GATT. It then decides that the general requirement of non-discrimination of Art. XIII:1 has been violated on the ground that individual suppliers from traditional ACP countries and non-substantial suppliers from non-traditional ACP or third countries are not equally restricted, since the first can also import under the MFN quota while the second cannot import under the ACP quota. Furthermore, Art. XIII:2 requires that the distribution of trade within the quota is as close as possible to the distribution in a hypothetical free trade situation. To this end, an importing country can either set up a global quota or allocate country-specific shares. In this latter case, XIII: 2(d) provides that the importing country should seek an agreement with all substantial suppliers to fix their country-specific shares²⁾. If this is not practicable, the importing country can impose these unilaterally, based upon the respective proportions supplied during a previous representative period. In cases where there is no representative period, it is still possible either to have a global tariff quota or to find country-specific allocations by agreement. In the here relevant representative period, the ACP quota share was filled, on average, only up to about 80%, whereas the MFN quota share always had a

¹⁾ The purpose of the Lomé waiver is to enable the EU to follow its obligations resulting from the Lomé Convention that grants former colonies of European countries in Africa, the Caribbean and some Pacific Islands (ACP countries) preferential trade relations with the EU. Regarding the general question to which extent WTO inconsistent measures are waived, see next paragraph.

²⁾ This is a main reason why the Framework Agreement had been criticized before: Country-specific allocations were only introduced to some, but not all substantial suppliers.

fill rate of more than 95%. From this, it is deduced that the free trade distribution of imports would be different from this quota allocation imposed by the EU, which is therefore found to be inconsistent with the proportionality requirement Art. XIII: 2.

Article I GATT: Extent of Lomé Waiver with respect to MFN Clause

There is a legal distinction between traditional and non-traditional imports from ACP countries in Article I GATT regarding the Lomé Waiver with respect to the MFN clause. According to previous WTO interpretations, it is only to traditional banana imports that the provision of Art. 183 Lomé Convention applies. This in turn demands that no ACP State should be worse-off with respect to market access to its traditional markets and “advantages” on these markets. In contrast to this, Art. 168 provides that imports from ACP countries which are subject to the EU’s common agricultural policy, i.e. also non-traditional banana imports, are to be granted more favorable treatment than imports from third countries.

The Panel mainly decides that the Lomé waiver does not cover quantities exported by a particular ACP country in excess of its individual pre-1991 best ever level. Therefore, the preferential tariff on such excess volumes is inconsistent with Art. I:1. Since the European Communities abolished country-specific allocations within the 857,700 t quota share for traditional imports from ACP countries, such excess quantities of more competitive countries at the expense of less competitive ones are possible.

Licensing Procedures and the General Agreement on Trade in Services (GATS)

Violations of the GATS were found, for the first time, in the 1997 Panel Report. The EU essentially maintained that its licensing regime governed trade in goods and not trade in services¹⁾ and that the provisions of GATT and GATS were mutually exclusive. The

¹⁾ Article I:2 of GATS defines its coverage as including four modes of supply of services: cross-border supply, consumption abroad, commercial presence and presence of natural persons. [...]

Article I:2 of GATS provides:

"For the purposes of this Agreement, trade in services is defined as the supply of a service:

- (a) from the territory of one Member into the territory of any other Member;
- (b) in the territory of one Member to the service consumer of any other Member;
- (c) by a service supplier of one Member, through commercial presence in the territory of any other Member;
- (d) by a service supplier of one Member, through presence of natural persons of a Member in the

complainants²⁾ argued that the banana regime's licensing procedures were aimed at modifying competitive conditions in favor of EU and ACP wholesale firms.

The Panel found that the licensing regime was inconsistent with the MFN as well as the national treatment clause of GATS, because it favors EU and ACP firms. Even though the EU claimed that the distribution of quota rent was discretionary and not within the scope of WTO rules, the Panel implicitly rebutted this view. The fact, that firms in the complainants' countries (mostly category A), had to purchase licenses from EU/ACP firms, which were mostly category B operators, in order to maintain their previous market share within the sector of Latin American Bananas, modified, according to the Panel, competitive conditions in a GATS inconsistent way. Therefore, the EU licensing system for bananas was found to be inconsistent with its obligations with respect to wholesale trade services under GATS.

In the revised system, import licenses are allocated to traditional operators¹⁾ on the basis of reference quantities, which in turn consist of "actually" imported quantities in 1994-96. To prove that one has "actually" imported bananas, one has to prove payment of customs duties. The crucial question is whether allocation of licenses based on this criterion prolongs the de facto discrimination found before. This is the claim made by Ecuador in the latest dispute.

Overall, the Panel argued that the previous regime was discriminatory and that today's license holders are those favored by that regime, so that Noboa, an Ecuadorian service supplier that provides wholesale services, and other third country suppliers are at a competitive disadvantage. Consequently, there are carry-over effects of GATS inconsistent aspects of the previous regime. The European Commission itself had acknowledged in a Working Document that an allocation on the basis of the "license usage method" would "fossilize license allocation". As a result, there is a presumption that the revised license allocation system is inconsistent with Art. II GATS (MFN clause) and Art. XVII GATS (national treatment clause). Given that Ecuador could show that its service suppliers had in cases to enter contracts that did not allow them proof of customs duties, it was up to the EU to bring sufficient evidence to rebut above

territory of any other Member".

²⁾ Ecuador, Guatemala, Honduras, Mexico and the United States

¹⁾ In order to be eligible as a traditional operator, firms must have been established in the EU during the respective reference period and must have imported a minimum quantity of bananas.

presumption, which it did not. So the Panel concluded that there is de facto discrimination in violation of Art. II and Art. XVII of GATS.

Therefore, the degrees of freedom that an importing country has in designing an administrative system of TRQ's quota can also be limited if there has been found discrimination in the past. Rules that perpetuate the economic effects of the old system are not allowed, even though they may be legitimate under WTO rules.

12.5 Economic Impacts of TRQ Administration and Licensing Procedures

The impacts on trade distortions, quota rents and economic inefficiency depend on the size of the MFN and ACP quotas, and the fill rates. Dollar-banana exporters may not be worse-off compared with the pre-CMOB situation. These exporters lost sales on the formerly liberalized markets like Germany but gained access on formerly more protectionist markets like France (GUYOMARD/LAROCHE/LE MOUÏL, 1999). Foreign trading firms lost sales volumes on former free-trade markets due to the quantitative restrictions but gained "windfall profits" in the form of quota rents. Losses to dollar-banana producers in exporting countries may coincide with welfare gains for multinational firms trading those bananas.

The analysis above suggests that quota rents under the TRQ administration of the CMOB remained in the importing countries or went to multinational firms, which are vertically integrated and have subsidiaries in the EU. The latter aspect enabled non-European firms to participate in the import license allocation. These firms were mostly category A operators and primary importers. Firms in exporting countries that do not have subsidiaries in the EU had been excluded from the license allocation under the original TRQ administration.

This pattern changed, as explained in section 12.1, with the introduction of the Framework Agreement. The signatories could issue export licenses that were required for A and C importers in order to receive import licenses. So part of the quota rents was redistributed to some, but not all exporting countries. The move from the Framework Agreement to the 1998 reform of the CMOB exacerbated the market position of these exporting countries, and led to a redistribution of quota rents back to importing countries and vertically integrated multinational firms, because now only import licenses are used as in the original scheme. So the 1997 Panel

decision that rightly criticized discriminatory elements of the CMOB's licensing system, has nevertheless led to a system change that reduced the welfare of exporting countries.

Apart from these effects on the distribution of income among countries and market participants, there are several aspects that concern the economic efficiency of the CMOB. Inefficiencies are caused, for instance by the overall allocation of TRQs towards banana imports from ACP countries as opposed to Latin American countries. We have seen earlier that the fill-rates of the TRQs for traditional banana imports from ACP countries were always well below 100%. The fill rates for the imports from the dollar-banana suppliers have been close to 100% but did not exceed 100% because the out-of-quota tariff for imports from third countries was prohibitive. This pattern of differential fill-rates across differing TRQs holds true for the initial administration of TRQs as well as for the later modifications in the CMOB. This indicates inefficient TRQ allocation. The overall size of the third-country quota is too low compared with the size of the quota for traditional imports from ACP countries.

Furthermore, adjustment costs have been high as a consequence of frequent policy changes within the first six years of the CMOB. Quota allocation, license allocation and administrative procedures have been changed several times. Adjustment costs are visible in fluctuating fill-rates of the quotas. It was revealed earlier that the fill-rates decreased in general with the policy change from the original rules to the Framework Agreement. Adjustment costs were borne by multinational trading firms, too, due to the preference for imports from ACP versus Latin American countries in the EU. Investments in African countries were realized, in particular in Côte d'Ivoire and Cameroon, in order to take advantage of the preference for ACP bananas.

Adjustment costs were also caused by the dominating "historical" allocation rule in the import-licensing process for all market participants at the import stage. Some unprofitable out-of-quota imports occurred as an "investment" in future quota rents, since they increased the importer's reference quantities for future license allocations.

Substantial transaction costs added to the inefficiencies. Under the original rules of the CMOB, the shares of activity groups in the license allocation did not coincide with trade patterns in a hypothetical free-trade situation. This caused an intensive trade with licenses, which,

besides redistributing income, causes significant resources and so diminishes the overall size of the quota rent captured by importers. In general, firms had to invest time and money in understanding and applying a difficult licensing scheme, and spent resources which could have been used more effectively from the society's point of view in production, processing and trading activities.

Furthermore, rent-seeking has risen enormously due to the introduction of TRQs in general and, partly, due to the specific rules of TRQ administration. Due to the lasting trade dispute around the rules of the CMOB, which has occurred since the beginning of the 1990s, all market participants in the EU banana economy engaged in the political market and in rent-seeking. PEDLER (1994) documented in detail the lobbying process prior to the introduction of the original CMOB and elaborated how the fruit companies influenced the outcome. A recent article in TIME magazine reports how Chiquita lobbied with a lot of perseverance and money in order to get the US Administration to complain at the WTO [TIME, Feb. 7, 2000]. This ultimately led to the Panel report of 1997.

12.6 Implications of the WTO Panel Report

Many of the rulings from the Panel have significant implications for the export/import licensing procedures and the country export quota allocation schemes for all 1,370 agricultural TRQs registered in the WTO. The most important lessons from the WTO Panel Reports on Bananas seem to be the following two:

- (i) The administration of quantitative restrictions has to be non-discriminatory.
- (ii) TRQs are GATS-relevant and will often be inconsistent with GATS rules.

Non-discriminatory Administration of Quantitative restrictions

Under TRQs, the distribution of trade within the quota shall be as close as possible to the distribution in a hypothetical free trade situation. As explained earlier, an importing country may implement this rule by setting up a global quota or by allocating country-specific shares by agreement with all substantial suppliers. Lessons can be drawn from the regulations in the CMOB, which were seen as inconsistent with GATT Article XIII:

- Violations of this rule exist if a third country is restricted more than others. Ecuador claimed this successfully in its case against the CMOB.
- Benchmark years for quota allocation cannot be years which trade was already distorted by quantitative restrictions. Either there are such years of free trade or adjustments must be made. However, no one has yet answered the question how these adjustments are to be made in practice.
- Preferential trade agreements do not provide an automatic waiver for preferential treatment granted through country-specific allocations that are inconsistent with the requirements of Art. XIII.

The GATS-Relevance of TRQs

The most surprising result of the WTO Panel Report on Bananas is that the CMOB is GATS-relevant and so may have implications for all other TRQs in agriculture. There is no clear-cut argument for why a TRQ should be GATS-relevant. A major question is whether "trade in services" is involved in banana trade. Services can be defined either the demand- or supply-side. If we use a demand-oriented definition of services, the usual distinction is between demand for goods and services. Goods are separated in nondurable or consumer goods and durable goods. Bananas as well as all foods would be classified as consumer goods and not services. Consumer expenditures for bananas in their full amount would be expenditures for consumer goods, although services may be involved in the value of the final good. Hence, trade regulations in the banana market would be GATT- and not GATS-relevant.

From a supply-oriented point of view, transport services on the way from the exporting country to the importing country could be involved and supplied by transport firms, i.e. the service sector. It has to be taken into account, however, that sea transport of bananas is combined with ripening and has the character of a processing activity. Most often, own vessels of multinational firms carry out this transport and processing activity. Only at a later stage, after ripening, services are added in the importing country to the final product. At the border, bananas are typically in the ripening process. Based on this view, the European Commission has argued that licenses under the CMOB refer to green bananas at the border and thus to a good which is still "processed". This suggests that the CMOB would only be GATT-relevant.

The Panel has taken a much broader view and argued that the licensing regime was inconsistent with GATS as it changes competitive conditions in favor of firms of EU or ACP origin. The term of Art. 1 GATS “measures...affecting trade in services” is interpreted to include measures which do not directly govern trade in services but which indirectly have an impact on competitive conditions in a service sector which is linked to trade in goods. Consequently, the administration of TRQs and the resulting distribution of quota rents is not left to the importing country’s discretion if it is discriminating in a WTO inconsistent manner.

It follows, from all this, that the value of an imported good contains the value of services which might or might not be imported, and if they are, the service provider might or might not be from the exporting country. Consequently, the net distinction that rights to rents are either allocated to the exporting country or to the importing country cannot be maintained.

There are two main conclusions from the WTO Panel on Bananas for other TRQs:

- The Panel's conclusions suggest that it is expected that a large part of quota rents will be captured by the wholesale and thus service sector. Therefore, a TRQ does not only protect local production but also connected service sectors. Their protection, however, should not occur in a discriminating way, since this kind of protection happens rather incidentally and is not the declared and legitimate purpose of TRQs.
- One cannot mix arguments about competition policy with the allocation of import licenses.

It is the conclusion of the Panel Report that the allocation of licenses for imports from dollar-banana exporters and for nontraditional imports from ACP countries favored EU firms as opposed to foreign firms. Various authors had argued [MCQUEEN (1999); BORRELL (1994)] that production costs are much higher in ACP than in Latin American countries. Therefore, with a uniform market price for the varieties, quota rents would have been much higher for trade in dollar bananas. With a historical rather than a discretionary allocation of import licenses in the original CMOB, foreign firms would have received a much higher license share according to the Panel's view. Companies, which were categorized as A operators, namely, according to the Complainants, Chiquita Brands (US), Dole Foods (US), Noboa (Ecuador), Del Monte (Mexico), Uniban (Colombia) and Banacol (Colombia), would benefit by far most from the quota rent. According to the Panel, the EU wanted to let European companies share in those

benefits. Those companies, whose origin countries were those that formerly had protected market¹⁾, closely monitored and tried to influence the originating Common Market legislation. However, the Panel Report of 1997 made clear that such kind of antitrust policy with the means of an import licensing system is not legitimate by WTO standards. At least not, if a country has made GATS commitments for the wholesale sector as the EU had done. As the Panel has made clear as well, the MFN clause of GATS always applies, but the National Treatment clause applies only if the respective sector is included in the country's schedule. Consequently, a country can protect its importers, but it would have to bargain over such protection on a specific market at multilateral negotiations.

12.7 Summary

The TRQ system under the Common Market Organization for Bananas (CMOB) is a special and very interesting case among the many agricultural TRQs introduced in recent years. Several Panel Reports repeatedly found inconsistencies of the TRQ administration with various GATT and GATS rules. Even though some of these findings surely apply only to the very particular administrative design of the CMOB, others, in contrast, are of a much more fundamental nature: Many other TRQ's do also not meet the criteria set up by the Panel.

The administration of TRQs has changed several times. A complicated system of quota and license allocation was introduced in the original CMOB of 1993. Preferential access is given to imports from ACP countries, with reference to the Lomé waiver. The allocation of quotas and licenses did not follow consistently historical patterns, because important discretionary elements interfered as well. The unstable policy framework led to fluctuating fill-rates. Fill-rates have been higher for dollar-banana imports that reached almost 100% in several years. Fill-rates for traditional imports from ACP countries are generally much lower and typically reach about 80%. This suggests an inefficient quota allocation with strong economic impacts on resource allocation and income distribution. Quota rents are high and untargeted, with multinational firms, European importing firms and exporting countries lobbying for the rents.

¹⁾ "Operatos classified in Category **B** for most of their past trade volume: e.g., Geest (UK), Fuffes (Ireland), Pomona (France), Compagnie Fruitière (France), CBN/Durand (France), Gipam (France), Coplaca (Spain), Bargaso SA (Spain). (Information submitted by the Complainants)". [WTO (1997), p.380)].

The Panel has clarified that two issues are crucial in the evaluation of TRQs: (i) The administration of TRQs has to be non-discriminatory. (ii) TRQs are GATS-relevant and may not discriminate against foreign firms of connected service sectors. The Panel Report indicated that the WTO thinks primarily in terms of market-shares, which may or may not be correlated with welfare effects. It is most likely that many agricultural TRQs do not fulfil these two criteria emphasized by the Panel. Discriminatory components in TRQs are as likely as the fact that competitive conditions in associated service sectors will be altered at the expense of at least some foreign firms.

13. Assessment

TRQs have become an important instrument affecting international agricultural trade, as signatories to the URAA endeavor to meet their obligations to increase international access to their markets. The overall purpose of this Consortium paper is to increase understanding of how TRQs work, both in principle and in practice, specific attention being paid to issues such as methods of quota administration, quota fill, and appropriate means of achieving trade liberalization in the presence of TRQs.

Several policy implications for future negotiations can be identified from the discussion of TRQs outlined in this Commissioned Paper. The results of previous chapters show that the TRQ system is working reasonably well in terms of fulfilling market access commitments, quota fill rates and transparency. However, in some cases economic inefficiencies and discriminatory practices remain in the administration methods adopted by individual countries in allocating the rights to import and export agricultural products. Some additional conditions and restrictions on import licenses are often made, at times resulting in costly and cumbersome import procedures.

In addition to the indirect effect of increasing imports through improved administration of TRQs on imports, liberalizing market access directly by reducing tariffs and expanding quotas can do a good deal more. Placing emphasis on liberalizing TRQs as well as changing their methods of administration will ensure that the negotiations are focused on the process of improving market access as opposed to merely mediating disputes over who has the rights to the quota rents.

As is now generally accepted, implementation of the URAA did not actually result in a significant degree of trade liberalization. Countries were meant to steadily increase the quotas and decrease out-of-quota tariffs, thereby facilitating a smooth transition to free trade over time. TRQs, originally designed to ensure a minimum degree of market access, have actually resulted in a large number of quantitative import restrictions being institutionalized under the rubric of the GATT, along with the associated quota rents. These quota rents have been consolidated formally in the URAA through the use of TRQs, which have continued rent-seeking behavior. This occurred even though the URAA was to convert quantitative restrictions, and other non-

tariff barriers to trade into transparent tariffs, which could then be successively reduced through trade negotiations.

Essentially, the implementation of TRQs following the URAA has institutionalized rents for certain exporters, which in turn has ensured that they will resist any attempts to reallocate those rents. It would be unfortunate if the WTO negotiations were to get embroiled in refereeing disputes over who should get these rents rather than focusing on liberalizing the very instruments that are creating the rents in the first place. In summary, the policy principle the negotiators should follow is to significantly reduce out-of-quota tariffs and increase (or eliminate) quotas at the same time. The objective of the negotiations should then be on liberalizing trade directly, so that real progress is made toward free trade in agricultural and food products. Simultaneous efforts should be made to introduce more efficient methods of quota allocation in order to minimize the possibility of future disputes over rent allocation.

The distribution of rents, and the attendant rent-seeking behavior that goes with it, is what drives the politics of TRQ administration. GATT Article XIII does allow, in principle, for the reallocation of quota rights if a specific exporter suffers a loss of comparative advantage such that a lower cost supplier should be allocated the quota rights. However, this ignores the fact that once agents are vested with the rights to rents, they will seek to keep those rights, and historically, no reallocation under Article XIII has ever taken place. As a consequence of this, negotiating quota allocation in the WTO will simply have the structure of a zero-sum game, and is unlikely to generate any real progress toward trade liberalization. In fact, it has the potential to tie up the negotiations altogether. Legislating the auctioning of quota rights and allowing trade in licenses would minimize future disputes over allocation as they are based on a market solution to the rights allocation problem.

The success of TRQS in increasing market access is mixed, and varies substantially between countries. In the EU, for example about half of the TRQs were instituted to maintain preferential trade arrangements where existing negotiated arrangements existed. In both the EU and the US, as in most other cases, TRQs were applied to politically sensitive commodities and permitted continuation of trade policy regimes similar to existing regimes. For example, TRQs in the US permit continuation of sugar import quotas given to historical importers. The greatest

degree of liberalization was probably found for the developing countries, who in many cases reduced tariff and experienced significant increases in imports. But in many of those cases applied tariffs are well below bound tariffs, so that this liberalization is not guaranteed under GATT to remain in force. This is in sharp contrast to the US and EU, where applied tariffs are generally at bound levels, but those levels do not often represent significant reductions from domestic reforms that preceded the GATT agreement (the 1991 US farm bill and the 1992 McSharry reforms). It is interesting to note that in the developing countries where there has been liberalization, TRQS are not instituted as in rich countries. Applied tariff often implement the regime so quantitative restrictions do not arise. Their notifications are indented to indicate that they are complying with their minimum access commitments.

Given only minimal market access has been ensured by the implementation of TRQs following the URAA, what is the appropriate objective for the trade negotiators to adopt? As is laid out very clearly in Chapter 2, it is critical for trade negotiators to identify which of the three instruments within a TRQ is actually effective in order to maximize the initial impact of trade liberalization. It is also particularly important for negotiators to identify how soon an instrument becomes redundant after liberalization, as the binding instrument may change quickly with liberalization. While reducing the very high out-of-quota-tariffs may seem an attractive political option to negotiators, due to the fact that there is a significant amount of “water” in many of these tariffs, the net result will be little or no increase in the degree of trade liberalization if either the quota or in-quota-tariff is actually the effective instrument. But as long as a two-tiered tariff regime remains, so does the possibility of quotas and so rent seeking. Therefore, it may be better to reduce the out-of quota tariff significantly and eliminate quotas all together. For example, reducing the out-of-quota tariff will expand imports in those cases where the tariff equivalent of the quota is very close to it, and even then, decreasing tariffs and increasing quotas will maximize the gains from liberalization. If however, the tariff equivalent of the quota is significantly below the out-of-quota tariff, increasing the size of the quota will have an immediate effect.

The choice among liberalization alternatives depends to some extent on how resigned one is to continued managed trade, and the need for compromise to make any progress at all in

negotiations. Particularly OECD countries have used this instrument to maintain management of trade where that was felt to be politically necessary or desirable.

The efficacy of increasing quotas is based on the premise that the chosen method of quota allocation does not itself generate distortions. But if a quota is allocated to high cost producers on the basis of historical shares, increasing that quota may actually result in a decline in quota fill, as the relevant market price will not be high enough to provide high cost suppliers with an incentive to meet the quota. This result simply reinforces the notion that negotiators should consider liberalizing the quota and out-of-quota tariff significantly and at the same time, in conjunction with changes in the methods of allocating the rights to import and export.

The latter point raises the issue of whether negotiations in the WTO should largely focus on the issue of how TRQs are administered, and how to minimize trade disputes over the allocation of quota rents. On the face of it, reviewing, and seeking change in the administration of TRQs is a worthy objective for the negotiators. As pointed out in Chapter 3, the WTO is only concerned with how the administration of TRQs influences the volume and distribution of trade. But inefficient allocation of the right to import and export can in itself have an impact on trade flows. Therefore, reforming administration of TRQs in such a way as to promote the use of more efficient allocation methods, such as auctioning and tradable licenses, may generate short-term welfare gains through increased fill rates of TRQs and substitution of low cost for high cost exporters. At a minimum, reduction of the use of historical shares as an implementation mechanism would reduce the inefficiencies and favoritism now inherent in this instrument. In addition, this would minimize both the economic distortions caused by TRQs and the resulting discrimination with arbitrary allocation methods.

It was argued above that the overall principle of the trade negotiations should be the liberalization of international trade. Within this overall principle, negotiations within the WTO should focus, at a minimum, on achieving the following in terms of developing disciplines on market access:

- Develop rules on the administration of quota licenses such as auctioning, tradability between firms, and the supervision of first-come-first-serve situations to minimize unnecessary costs

- Eliminate country specific export quotas or allow them to be tradable.
- Liberalize trade by significantly reducing tariffs and by increasing (or eliminating) quotas

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