

## TRQ Administrative Methods

The World Trade Organization identifies seven principal methods of TRQ administration (see table 1). Member nations must notify WTO about how they administer tariff quotas in their tariff schedules. Of the 1,368 notified tariff quotas in 1999, roughly half were not enforced. Rather, all imports were allowed at the in-quota tariff. The over-quota tariff may be re-applied at will however. Of the TRQs that were enforced, almost half were allocated by license on demand.

### Article XIII and Nondiscrimination

Article XIII of the GATT, “Non-Discriminatory Administration of Quantitative Restrictions,” governs the administration of tariff quotas. A reading of Article XIII and other related documents suggests that the GATT advocates two criteria to judge tariff quotas’ proper administration—quota fill and distribution of trade.

*Quota fill* requires that imports of the in-quota volume be allowed if market conditions permit. That is, tariff quota administrators should not impose impediments to imports beyond payment of the in-quota tariff. Quota fill has a two-part test: First, was the quota filled? If the quota was not filled, a second question is

posed: Did market conditions permit imports? (See figure 1 for an explanation of “market conditions permit” in this context.) Suppose demand curve 3 represents normal import demand, but there is an unusually large domestic harvest. Domestic supply expands and reduces excess demand for the product. The new excess or import demand, 1, is drawn so that the domestic market-clearing price equals one (the world price), and imports are zero. In this case, the quota is not filled for a legitimate reason—there is insufficient domestic demand under current market conditions. Were domestic demand to increase slightly to 2, imports would satisfy excess demand, partially filling the quota, an instance of legitimate underfill. In practice, the simplest second-stage test asks if the domestic price is less than the world (border) price plus the in-quota tariff. If so, there is clearly no excess demand for imports. If the domestic price is greater than  $1 + t$  and the quota is not filled, profitable arbitrage opportunities are not realized, and it is then appropriate to inquire why. Legitimate transaction costs might be the cause, as might the method of TRQ administration.

### Patterns of Quota Fill

The WTO Secretariat routinely reports the fill rates of notified TRQs. The reports calculate the average quota-

**Table 1—Methods of TRQ administration**

Method of TRQ administration	Explanation	Percent of all TRQs
Applied tariff	Unlimited imports are allowed at or below the in-quota tariff rate: that is, the quota is not enforced.	47
License on demand	Licenses are required to import at the in-quota tariff. If the demand for licenses is less than the quota, Q, the system operates like a first-come, first-served system. Usually, if demand exceeds Q, the import volume requested is reduced proportionally among all applicants.	25
First-come, first-served	The first Q units of imports to clear customs are charged the in-quota tariff, all subsequent imports are charged the over-quota tariff.	11
Historical	The right to import in-quota tariff is allocated in proportion to import market shares in a base period.	5
Auction	The right to import at the in-quota tariff is auctioned.	4
State trader Producer group	The right to import in-quota is granted wholly or primarily to a state trading organization or an organization representing domestic producers of the controlled product.	2
Mixed	A combination of two or more of the seven methods above.	4
Other or not specified	Methods that do not correspond to the seven methods above or are not specified in WTO notifications.	2

fill rates by administrative method and commodity group (dairy, grain, etc.) among other factors. Fill rates by administrative method are provided in figure 2. The reports do not go beyond reporting these basic descriptive statistics. They refrain from drawing inferences from quota-fill data about the relative merits of the various administrative methods. Such restraint is appropriate. It is tempting to draw conclusions from quota-fill statistics; but caution is advised because the data are incomplete. For example, quota-fill rates are significantly higher for historical allocation and state trading organizations than for auction allocation. There is a political economy of administrative choice. Governments choose an administrative method for each commodity. Thus, fill rates reflect factors determining a government's choice of method as well as the intrinsic properties of the administrative method used and the commodity market conditions during the period of observation—factors difficult to identify and separate.

The more politically sensitive imports of a commodity are, the greater the probability that administration will be by discretionary methods; that is, by state trading or by producer groups. In the Uruguay Round, many WTO members agreed to construct minimum access TRQs to allow imports for a specific proportion of domestic consumption. In cases where imports had been banned previously, minimum access TRQs present a serious challenge to domestic producers. In almost all cases, domestic prices greatly exceeded world prices, and it was obvious the TRQ would fill. Some governments have delegated the authority to import in-quota, in part or in whole, to the domestic industry, thus giving the industry some compensation in the form of quota rents. For this reason, TRQs administered by state trading organizations and producer groups reveal higher rates of quota fill than TRQs administered by other methods. Furthermore, discretionary methods tend to attract the scrutiny of potential exporters and their governments, so these TRQs are especially well policed and, as a consequence, are generally enforced to the letter of the law.

Imports that are not particularly sensitive are generally administered by market or quasi-market methods, or by the most liberal means, by not imposing the over-quota tariff at all, that is, by the so-called applied tariff method. Likewise, for TRQs that are unlikely to fill because the domestic price is generally below the world price, the risk of import disruption is low and so is the need to manage imports through discretionary means.

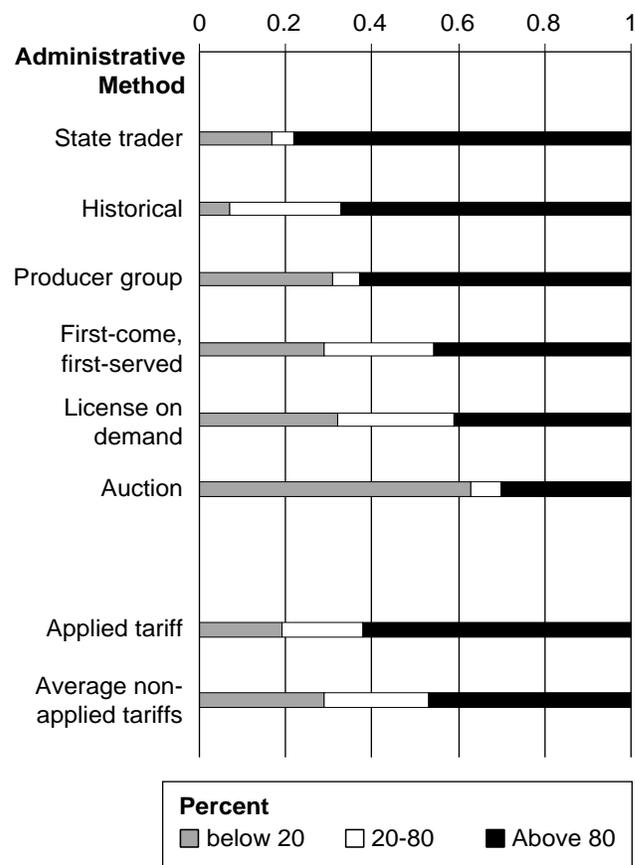
## Distribution of Trade

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. . .

This language implies the construction of a free trade or tariff-equivalent counterfactual. That is, the parties must attempt to determine the distribution of trade (supplier market shares) likely to prevail if a tariff were employed to restrict imports to  $Q$ . The administration of the tariff quota is then evaluated by how closely the distribution of the restricted volume of trade (under tariff quota) approaches the counterfactual distribution. Basically, a pie chart of supplier market shares under a nondiscriminatory tariff quota should look identical to the tariff equivalent pie chart. The economic principle underlying the distribution of trade criterion is the minimization of trade distortions, given

Figure 2  
Distribution of quota fill-rates by administrative method



the tariff quota constraint. The GATT principle of nondiscrimination asserts that trade shares should be determined by the relative efficiency of suppliers and not by alternative, discriminatory criteria. Clearly, market allocation is the principle of distributive justice governing TRQ administration under Article XIII: 2.

The risk of a biased distribution of trade from TRQ administration requires an examination of the supply side of the rationing problem. The supply side of a quota-constrained market is shown in figure 3. Suppose two kinds of firm can supply a market—low-cost and high-cost. With no rationing, low-cost firms supply the entire market of  $Q+$  at the price  $P_L$ . High-cost firms will not enter the market. They either shut down or do something else. When a quota of  $Q$  is imposed, the demand price increases to  $P_H$ . At  $P_H$ , it is profitable for high-cost firms to enter the market. How access to the market is administered determines which firms supply the quota-rationed market. If access were restricted so that only low-cost firms supplied the market, then a subset of low-cost firms would produce  $Q$  and gain a rent of  $P_H - P_L$  on each unit sold. If market access is granted on a first-come, first-served basis, the distribution of sales by firm will depend on being “early” rather than on being low-cost and efficient. Figure 3 shows one possible outcome of first-come, first-served quota-rationed market. The model assumes each firm is equally likely to be early, thus each type gains an equal market share. Exactly half the area,  $Q \cdot (P_H - P_L)$ , is used to cover the costs of high-cost firms, which represents an unnecessary use of

resources. It is less efficient than if low-cost firms alone supply the market.

One could restrict demand to  $Q$  by imposing a tax of  $t = P_H - P_L$ . Such a tax or tariff results in a net price to suppliers of  $P_L = P_H - t$ . Only firms inframarginal to  $P_L$  enter; that is, only low-cost firms supply the market. Auctioning the right to sell to a quota-restricted market will result in a similar outcome: low-cost firms will outbid high-cost firms for the right to sell at  $P_H$ . Tariffs and auctions remove the incentive for extramarginal suppliers—high-cost firms—to enter the market.

From the point of view of welfare analysis and of GATT Article XIII, which low-cost firms or countries inframarginal to  $P_L$  gain market access within the TRQ is of little consequence. Random displacement of inframarginal supply by other sources of inframarginal supply is not a problem. In an international trade context, displaced inframarginal suppliers can export to other markets at the world price. If rents are not fully absorbed through auction, tariff, or other means, suppliers extramarginal to  $P_L$  will have an incentive to enter the market, which poses a risk of extramarginal suppliers’ displacing inframarginal suppliers.

There are two plausible counterfactual distributions of trade implied by Article XIII. The first is the free-trade counterfactual, the distribution of trade among competing suppliers if trade were unrestricted. The free-trade counterfactual constructed above shows that only low-cost firms supply the market. The second is the tariff-equivalent counterfactual, which is constructed by restricting the volume of trade to the quota-constrained volume with a tariff. The GATT/WTO allows tariffs and forbids quantitative restrictions. Replacing a quota with its tariff-equivalent results in an identical volume of trade, but, as shown above, a very different expected distribution of trade. Both the free-trade and tariff-equivalent counterfactuals result in low-cost firms’ supplying all imports.

GATT Article XIII sets forth two normative criteria to administer tariff-rate quotas—quota fill and distribution of trade. The two criteria raise two evaluative questions. Which methods of allocation are most likely to result in quota underfill? Which methods of allocation are most likely to result in a discriminatory distribution of trade? The following section employs the GATT criteria to evaluate various tariff-rate quota administrative methods.

Figure 3  
Distribution of trade with a binding quota

