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Tariffication Under the Uruguay Round of GATT: The Case of Swiss Asparagus Trade

Thomas Worley, Raymond Folwell and Gian Luca Bagnara

Switzerland has been a growing export market for U.S. fresh green asparagus during recent years. Swiss consumers display a preference for large diameter spears of fresh asparagus. The Swiss are willing to pay a premium price for large diameter product which U.S. exporters have difficulty selling in most other export markets. Japan is the number one export market for fresh U.S. asparagus accounting for about 75 percent of total exports in recent years. However, Japanese consumers demand small diameter asparagus spears. Therefore the Swiss market is important as an outlet for the large diameter spears that must be sorted out of the asparagus destined for Japan. Switzerland is the third most important export market for U.S. asparagus following Japan and second ranked Canada. The share of total U.S. exports to Switzerland have averaged about 10 percent during the 1991-1994 period.

Swiss asparagus production is relatively minor in comparison to imports, reaching only 200 metric tons, or 2.5 percent of domestic consumption, in 1992. The U.S. has supplied between 80 and 95 percent of all imports into Switzerland since 1989 (Table 1). Exports to Switzerland from the U.S. have increased 2.6 fold since 1989, an average annual growth rate of 17 percent. France and Spain are the other main suppliers of Swiss imports. The peak sales season in Switzerland coincides with the end of the California season and beginning of the Washington State asparagus season. Washington's harvest season generally runs from mid-April through mid-June.

Swiss Agricultural Policy

Agriculture producers in Switzerland are supported by the General Farming Ordinance (GFO)

Thomas Worley and Raymond Folwell are from the Department of Agricultural Economics, Washington State University; and Gian Luca Bagnara is with the Horticultural Research Institute, Forli Branch, Italy.

Table 1. Quantity of Swiss Imports of Fresh Green Asparagus, 1989-1995.

	Total	USA	USA
	--- 000 kg ---		%
1989	1633	1317	81
1990	2149	1911	89
1991	2890	2545	88
1992	2958	2682	91
1993	3477	3236	93
1994	3641	3463	95
1995	3852	3416	89

Source: Ammann and Phan-huy.

of 1953. The goal of this policy is to keep Swiss farmers on the land so that they can conserve the natural qualities of the land and water. Income guarantees are used to accomplish this purpose which includes a system of guiding prices set for each commodity covered by the GFO. These domestic prices are generally higher than import market prices. Import controls are used to prevent foreign competition from undercutting the higher domestic prices. Asparagus was added to the list of commodities covered by the GFO in 1985. Prior to this asparagus was not produced in Switzerland due to the lack of adapted varieties. Swiss producers have relied on quantitative restrictions on imports during their harvest season to control competition from imports.

Prior to conclusion of the Uruguay round of GATT negotiations the Swiss import control system for asparagus was divided into three phases. Phase I covered those periods when there was little or no domestic supply. Importers were required to obtain a "general import license" which provided governmental means to collect data on import volumes. There were no quantitative restrictions associated with licenses granted under phase I of the program. This phase was important, however, because licenses granted under phase II were based on volumes imported during phase I. A very low

tariff of 7 SFR per 100 kg was also levied during phase I.

Phase II was initiated when domestic supplies of asparagus became available and Swiss producers needed to market their production. During phase II an informal "consultative" group made up of importers, retailers, government officials, and producers decided the level of weekly quotas on fresh asparagus imports. Recipients of the licenses under the import quota were then obligated to purchase a percentage of their overall quantity supplied from Swiss producers at the government established guiding price. This guiding price was as much as double the CIF price for imported asparagus during 1994 (Ammann and Phan-huy). Each importer was granted a minimum allocation with permission to import additional quantities based upon quantities imported during phase I of the preceding two years. For example, licenses granted in the 1993 phase II period were based on imports in phase I of 1992 and 1991 of green asparagus. The import duty remained at 7 SFR per 100 kilos under phase II.

Although limited quantities of imports continued during phase II, the much lower quality domestic product on the market tended to falsely signal the extremely quality-conscious Swiss consumers that the production season for fresh green asparagus had concluded. This quality change severely dampened consumer demand.

Under phase III of the system no imports were permitted. This phase was implemented when domestic production was adequate to meet the demand. This was never the case in Switzerland, therefore a complete cutoff of imports never occurred.

Uruguay Round of GATT Negotiations

The U.S. had little bargaining leverage concerning changes to the Swiss import regime under the Uruguay round of GATT negotiations. The Swiss import licensing system was protected within the agricultural provisions Switzerland initially negotiated to become a member of the GATT. However, under the terms of the GATT Uruguay Round negotiations, the phase II Swiss licensing system was regarded as a non-tariff barrier to be tariffed and reduced over the six-year reform period.

Under the Uruguay Round rules on agriculture a price gap calculation is made in order to convert non-tariff barriers to tariff equivalents. This calculation reflects the difference between the average CIF import price over the 1986-88 reference period and the average domestic wholesale price. The resulting tariff equivalent (TE) is assumed to reflect all trade-distorting policies in place during the reference period. The green asparagus calculation used by the Swiss was based on high internal (1,261 SFR per 100 kilos) and low external (397 SFR per 100 kilos) reference prices. The difference between these prices resulted in a tariff-equivalent of 864 SFR per 100 kilos, which is to be reduced by at least 15% over the six-year reform period. This tariff is applied to asparagus imports that are over and above the quota during the period when phase II of the licensing system was normally invoked. The much lower tariff of 7 SFR per 100 kilos is applied to imports that are within the quota.

Under a special bilateral agreement, Switzerland agreed to two additional modifications of the post-Uruguay round asparagus regime in exchange for concessions from the U.S. First, the year-round tariff of 7 SFR per 100 kilos was eliminated. Second, the Swiss agreed to limit the period that the tariff equivalent may be invoked on U.S. fresh green asparagus to May 1 to June 15. Previously, the Swiss could invoke phase II or phase III any time between April 1 and June 30 each year.

According to Swiss traders, the level of protection provided by the TE would prohibit imports during the weeks it is invoked. Currently, the average import price is 5.60 SFR per kilo (CIF Zurich). Adding the 8.64 SFR per kilo tariff equivalent to the CIF price results in a wholesale price of 14.24 SFR per kilo (\$9.80 U.S. dollars per kilo). Swiss importers believed that consumers will not pay more than 11 SFR per kilo for fresh green asparagus.

During the negotiations there was considerable disagreement between Swiss and U.S. interests concerning the effects of the TE on U.S. exports. The following theoretical argument is put forth to show the effects of the high tariff on Swiss producers, consumers and U.S. exporters.

The Optimum Tariff for the Swiss Asparagus Market

It was the premise of the U.S. asparagus industry that the maximum tariff equivalent calculated on fresh green asparagus imported into Switzerland during the Swiss Domestic season would completely prohibit imports. U.S. interests therefore argued that the tariff should be set at level much lower than the maximum allowed under the Uruguay Round agreement. The following analysis further explains this argument. The analysis is based on finding the optimum tariff level that would be a non-prohibitive tariff from the Swiss and U.S. producer points of view.

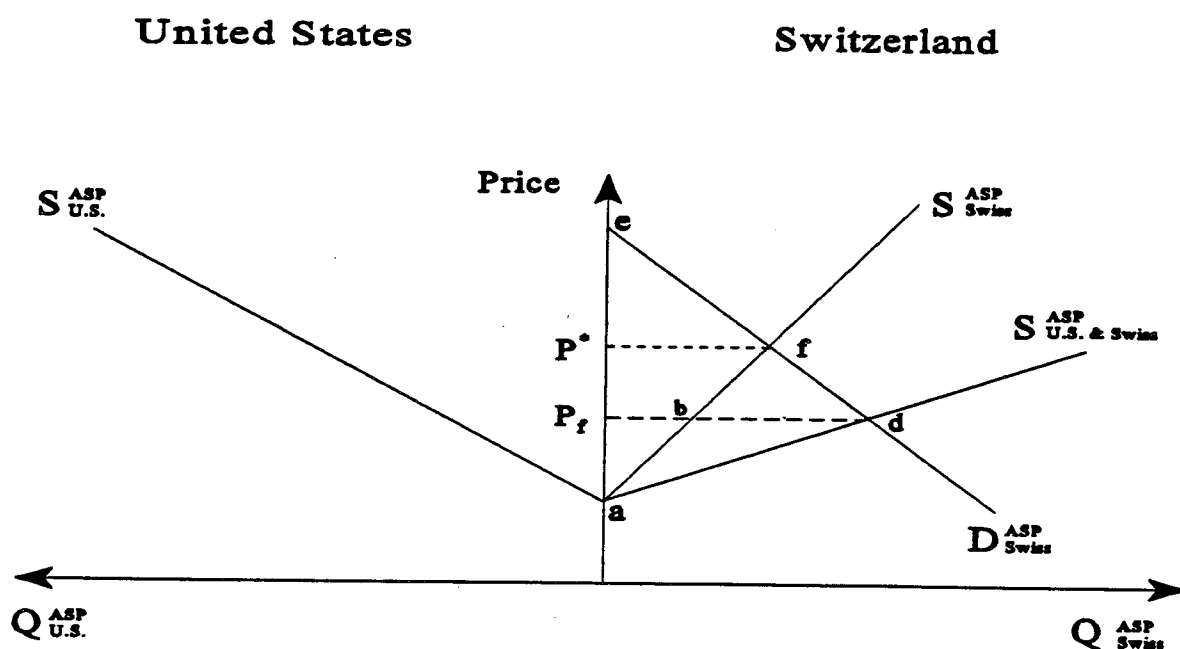
Extreme Price Quantity Relations in the Absence of Trade

Figure 1 contains the theoretical U.S. supply function for fresh green asparagus in the U.S. ($S_{U.S.}^{ASP}$); the supply and demand functions for fresh green asparagus in Switzerland (S_{Swiss}^{ASP} and D_{Swiss}^{ASP}) and the aggregate supply schedule from both the U.S. and Switzerland ($S_{U.S. \& Swiss}^{ASP}$).

If free trade existed in fresh green asparagus between the U.S. and Switzerland, the aggregate supply function ($S_{U.S. \& Swiss}^{ASP}$) intersects the Swiss demand function at point d and the market clearing price would be P_f . If there were no trade, the Swiss market price would be P^* where the Swiss demand function (S_{Swiss}^{ASP}) and supply function (S_{Swiss}^{ASP}) intersect. Thus, a prohibitive tariff that would not allow trade would be $P^* - P_f$.

Given the two extremes of free trade vs. no trade, what is the overall economic welfare of Swiss asparagus producers and consumers? Their welfare can theoretically be measured by the concepts of producer and consumer surplus. In Figure 1, when no trade takes place, the Swiss producer surplus or rents are the area afP^* , and the consumer surplus is $P^*fe. Under free trade, the Swiss producer surplus is abP_f , which is less than with no trade by the area P_fbfP^* . However, Swiss consumer surplus increases to P_fde with free trade or by the area P^*fdP_f . It should also be noted that with no trade, there is a net loss to the Swiss society of fdb . In summary then, free trade benefits Swiss consumers more than it disadvantages Swiss producers.$

Figure 1. Equilibrium model of free trade and a trade prohibitive tariff.

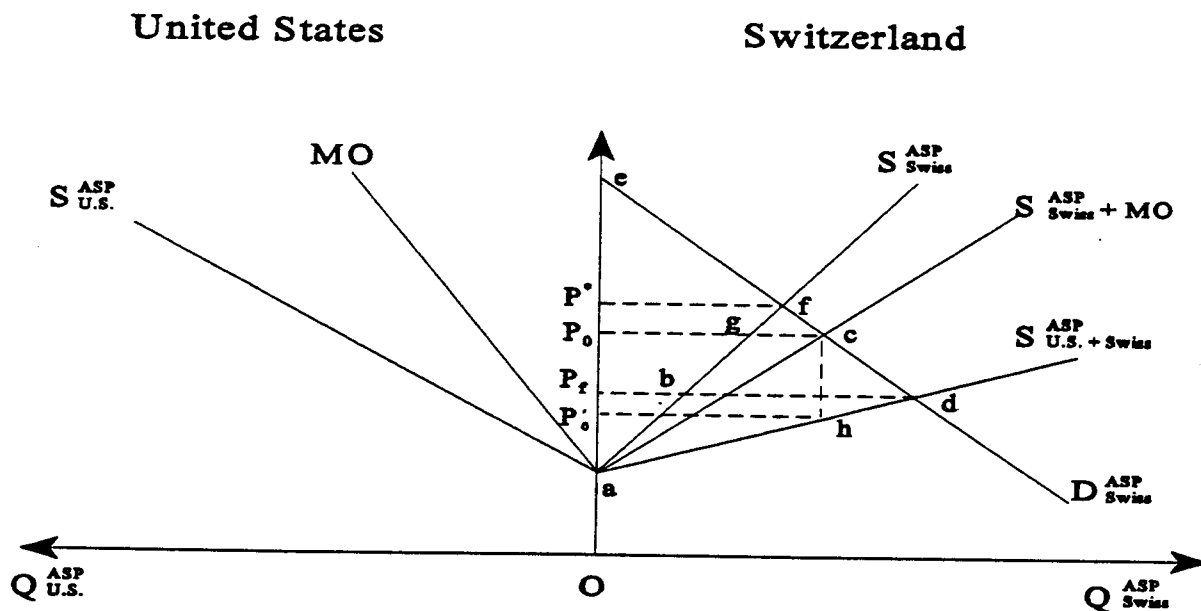


The Optimum Non-prohibitive Tariff From the Swiss Perspective:

The optimum tariff from the Swiss point of view would be based upon the aggregate Swiss supply function and the marginal costs or outlays for imports from the U.S. (MO) and the Swiss demand function. The aggregate Swiss supply function and the marginal outlay for imports from the U.S. are shown as $(S_{\text{Swiss}}^{\text{ASP}} + \text{MO})$ in Figure 2. All other supplies, demand and prices are the same as in Figure 1.

The resulting prices would be P_0 in Switzerland and P_0' for the U.S. imports. The tariff would then be $P_0 - P_0'$ and would be the optimum non-prohibitive level from Swiss and U.S. producer standpoints. The Swiss producer surplus would be P_0ga which is greater than with free trade but less than when no trade is allowed. The consumer surplus is P_0ce which is less than with free trade but greater than when no trade is allowed. Overall, the aggregate Swiss welfare is increased because the increase in Swiss producer surplus and Swiss government revenue (from the tariff) more than offsets the decrease in Swiss consumer surplus.

Figure 2. Equilibrium model of a non-prohibitive tariff.



Summary and Conclusions

The arguments put forward by the U.S. interests were not successful in getting the Swiss to reduce the TE of 8.64 SFR per kg. This rate was applied to the fresh green asparagus imports that were over and above the weekly quotas established in 1995. Imports that were within quota were levied at the much lower rate of .07 SFR per kg. U.S. asparagus exports to Switzerland declined 2.8 percent during the 1995 season. This is the first decline in recent years (Table 1). It is not possible to attribute the decline solely to the new tariff equivalent because many other factors including exchange rate fluctuations, size of crops in other exporting nations and conditions in the U.S. and its other export markets have influence on the level of U.S. exports to Switzerland.

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