

The Agreement on Agriculture and the CAP: The Reform of the Fruit & Vegetable Import Regime

Abstract

The import regime resulting from the tariffication under the Agreement on Agriculture of the minimum import price scheme protecting fruit & vegetables in the European Union, gives rise to discontinuities in the excess demand, creates competition for rents, and does not allow the full effect of tariffication to be felt.

Keywords: minimum import price, fruits & vegetables, tariffication, Agreement on Agriculture
JEL Classification: F13

Elisa Martin*
317 Warren Hall
tel. 607/255-0970
fax. 607/255-9984
em56@cornell.edu

and

Harry de Gorter
447 Warren Hall
tel. 607/255-8076
fax. 607/255-6696
hd15@cornell.edu

Department of Agricultural, Resource and Managerial Economics
Cornell University
Ithaca, NY 14850

*Martin is a graduate research assistant and de Gorter is an Associate Professor. Paper prepared for discussion at the American Agricultural Economics Association Annual Meeting, Nashville, Tennessee, August 8-11, 1999. The authors thank Richard Boisvert for his comments.

Copyright 1999 by Elisa Martin and Harry de Gorter. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Introduction

The reform of the EU import regime for fresh fruits & vegetables resulting from the last round of GATT negotiations has gone largely unnoticed (Swinbank and Ritson) even though the European Union accounts for 50% of the world's imports of fresh produce. In 1997, the European Union imported 48,482,690 metric tons of fruits & vegetables, valued at over 38 billion dollars (FAO). Under the Agreement on Agriculture, the European Union committed to a 15% reduction per import tariff line and to the tariffication of minimum import prices, both by the year 2001 (Swinbank and Ritson). The Agreement also stipulated that market access for imports be at least 5% of domestic consumption by that year. Given that market access exceeded 5% during the base period (1986-88) and that for a large part of the year the import of fruits & vegetables is already governed exclusively by tariffs, it is surprising that the European Union undertook any modification of its import regime at all.

This paper provides background on the European Union's old minimum import price system, called the 'reference price system,' examines the effects of the new 'entry price system' on the competitive behavior of importers and exporters as well as on EU welfare, and concludes that though tariffication was not implemented as required by the WTO, a significant step has been taken in the direction of trade liberalization.

The Old Regime

Having signed the Agreement, the European Union faced the task of converting into tariffs a system of variable levies which had a peculiar characteristic: that of increasing with every day that the imported product's entry price was below the minimum import price. The reference price system applied to 16 fruits & vegetables considered too sensitive to price fluctuations during certain periods of the year to be protected only by the overarching *ad valorem* conventional tariff (CVT). Its variable levies, called 'compensatory taxes,' were the

difference between the minimum import or ‘reference’ price, and a proxy for the world price called ‘entry price.’ International traded prices of fruits & vegetables fluctuate widely on account of the season and the variations in quality and variety, making a realistic estimate of the world price hard to obtain. For this reason the European Commission (EC) calculated an entry price as the minimum of the mean of the prices on the representative import markets and based all import tariffs on it.

Each day the entry price of a given product from a given country was compared to the reference price. If the entry price were above the reference price, the importer only paid the CVD. If the entry price were below the reference price then the next day the compensatory tax was applied to imports from that country. Any imports up to the day when the reference price was transgressed were not taxed but for every day that the entry price remained below the reference price, the amount of the compensatory tax was added to the reference price. This continual increase in the reference price and the compensatory duty was called the ‘spiral or multiplier effect’ (Swinbank and Ritson; Timermans). The compensatory tax stopped being added to the reference price and being paid by the importer if the exporter’s entry price was above the reference price for 2 or 3 consecutive days or if there were no exports from that country for 6 days.

The spiral or multiplier effect of the reference price system provided a strong incentive for the exporter to sell at the reference price. The rents generated by the difference between the entry price and the actual cost price provided an equally strong incentive.¹ In order to capture those rents, the exporter had to keep the price of all consignments exported at or above the

¹ The cost price can be thought of as the unobserved world price, defined as the price of a commodity landed in the European Union if perfect competition exists amongst importing and exporting firms and there are no incentives by EU policy to encourage higher or lower landed prices.

reference price and as well as be able to set the price at which to sell to the importer. It would also be in the importers' best interests to keep the entry price at the reference price in order to pay the least tax. To capture some of the rents, importers had to be able to buy from exporters at a price lower than the reference price and sell to wholesalers at the reference price. If there were competition among the exporting firms of a given country, then each firm would have to offer part of the rents in order to make itself more attractive than the others to importers. Consequently, many countries exporting to the European Union established marketing boards and state trading enterprises (Swinbank and Ritson).

Tarification of the reference price system was complicated because of these potential agreements between importers and exporters to keep the entry price at reference price level. The European Union considered the two alternative tariffication methods set out in the Agreement Modalities but settled on a third.

The Modalities first proposed that the tariff equivalent of a non tariff barrier be calculated as the "actual difference between internal and external prices." The external price is defined as the "actual average cif unit value for the importing country," and the internal price is defined as a "representative wholesale price ruling in the domestic market." Tariff equivalents for the reference price system calculated in this manner would have been very small, or even negative, because both the wholesale prices and the cif prices converge on the reference price (Grethe). This method of tariffication was unacceptable to the EU producers who saw their level of protection reduced.

To attempt to circumvent this problem, the EC considered a second definition of the external price which was provided by the Modalities. The cif unit value can be "estimated from average fob unit values of appropriate major exporters." Tariff equivalents calculated using the

fob unit values as the external price would capture the protective effect of the reference price system but would redirect the rents from exporters and importers to the EU government (Grethe). This outcome was unacceptable for the European Union's trading partners.

The New Regime

In creating a new import regime relying only on tariffs, the EC was faced with the task of balancing the level of protection offered to EU producers with the size of the rents flowing to exporting countries. Rejecting the two tariffication methods in the Modalities, the EC proceeded by calculating the tariff equivalent to the compensatory tax as the difference between the highest reference price and the intra trade unit value (Grethe).² This tariff equivalent was bound as a specific tariff called the 'maximum tariff equivalent' (MTE). In order for exporting countries to continue capturing the policy rents, the EC retained a minimum import price, now renamed the 'minimum entry price' (MEP), and created two extra tariff lines (Grethe, Van Eesbeek). Thus, import duties are now determined according to the following:

- If the entry price (EP) is greater than or equal to the MEP, then the importer pays the CVT.
- If the entry price is greater than 92% of the MEP but less than the MEP, then the importer pays the CVT and a tariff equivalent (TEQ) equal to the difference between the entry price and the MEP.
- If the entry price is less than 92% of the MEP, then the importer pays the CVT and the maximum tariff equivalent MTE.

Figure 1 shows the effects of this new entry price system (EPS) on the European Union's excess demand curve. The *ad valorem* CVT takes precedence so the excess demand first pivots

² As Grethe explains, the reference price was intended to be the internal price and the intra-trade unit value was intended to be the external price. The approach makes more political than economic sense because the reference prices have the effect of inflating the tariff equivalent, while the intra-trade unit values have the effect of deflating it.

downward from ED_0 to ED_1 . The bold line segment ab of ED_1 is the effective excess demand for entry prices above the minimum entry price MEP. This schedule is the quantities the importer would be willing to buy under the CVT, that is, consumer demand if the domestic price were $DP = EP(1+CVT)$. For prices between the MEP and 92% of the MEP, effective excess demand is the bold vertical line segment bc in Figure 1 because the tariff equivalent (a variable levy) is operational only in this price range.³ The domestic price of import quantity M is $DP = (EP+TEQ) + [(EP+TEQ)*CVT] = MEP*(1+CVT)$. For entry prices below 92% of the MEP, the excess demand shifts to the left from ED_1 to ED_3 because the maximum tariff equivalent (MTE, a fixed specific tariff) is greater than the maximum value of the tariff equivalent. The bold line segment de of ED_3 in Figure 1 is the effective excess demand over this price range and tells us the quantities the importer would be willing to supply if he had to pay both the CVT and the MTE and therefore sell at $DP = (EP+MTE) + [(EP+MTE)*CVT]$. The circle at the intersection between line segment de and the price line for 92% of the MEP indicates that line segment de starts infinitesimally below that price. Mathematically, if the free trade excess demand is:

$$ED_0: EP = -\alpha M + \beta$$

where EP is the entry price, M the quantity imported, α the slope and β the intercept, then the three segments of the excess demand curve are:

$$ED_1: EP = -\alpha(1 - CVT)M + \beta(1 - CVT)$$

$$ED_2: M = M^* \text{ for } 0.92MEP < EP < MEP$$

$$ED_3: EP = -[\alpha/(1 + CVT)]M + [\beta/(1+CVT)] - MTE$$

The complexity of the new import regime leads to the discontinuity in the effective

³ Under the reference price system this vertical portion of the demand curve would have extended from the MEP (then the reference price) over the rest of the price range, as denoted by the dotted line segment in Figure 1.

excess demand between points c and d because the MTE, being the tariff equivalent of the reference price system, is significantly larger than the maximum variable levy. The higher level of protection causes a decrease in the import demand at any given price. This shift in the excess demand curve toward the vertical axis, which we term a ‘recoil discontinuity,’ is the distance between M and M_d in Figure 1, and it is a direct consequence of the method which EC used to carry out the tariffication of the reference price system.

At first glance, it seems the EC has, through a dubious method of tariffication, reshaped its excess demand curve and recreated a level of protection and a pattern of rent distribution equivalent to that of the reference price system. There is reason to believe, however, that this is not entirely so. The EC has modified the import regime in two ways which have affected the competitive behavior of importers and exporters: first, the importer now chooses the method of entry price verification, and second, administration of the new regime is on a consignment rather than a country basis. In addition, welfare analysis shows that the EPS could be beneficial to the consumer. These three issues are examined more carefully below.

The Effect of Tariffication on Competitive Behavior

Although the EPS has replaced the spiral effect with a recoil discontinuity there are still strong incentives for exporters to set the price of their consignments at the MEP in order to maximize the rents generated by the difference between the cost price and the price at which they sell to the importer. The importer also continues to want to buy at a price close to the cost price, not the MEP. The differential effects on behavior derive from two changes in the administration of the import regime. First, rather than accepting the EC’s daily calculations, the importer now chooses between three different methods of declaring a consignment’s entry price. These three methods are:

1. *The standard import value method*: the importer accepts as an entry price the standard import value (SIV) calculated by the EC each working day for each product and origin.
2. *The invoice method*: the importer declares as an entry price the fob price of the product in its country of origin plus the costs of insurance and freight up to the borders of the European Union. In certain instances the importer may have to lodge a security equal to the difference between the duty he would have paid based on the SIV and the duty he paid based on the invoice entry price.
3. *The deductive method*: the importer declares as an entry price the customs value (pre-tariffs) based on the unit price for which the imported goods for identical or similar imported goods are sold within the European Union in the greatest aggregate quantity to persons not related to the sellers. In this case, the importer must lodge a security equal to the amount of duty which he would have paid based on the SIV.

The distribution of the rents may continue to be a matter of bargaining between importers and exporters, but importers have gained considerable power from having the choice between three different methods of entry price declaration. The deductive method in particular is advantageous for the rentseeking importer who is willing to take a chance on proving that the final selling price of the consignment was the declared entry price.

The second change in the import regime administration is that, because the EPS is monitored on a consignment instead of on a country basis like the reference price system, all exporters from a given country are no longer penalized for the transgression of one firm. For this reason, it is less likely that a country will have to remove all its produce from the EU market in order for its entry price to return to the MEP level, and market access should effectively increase (Grethe). There is also less reason now for export supply to be concentrated under marketing boards or state trading enterprises. An individual exporting firm can assume responsibility for the entry price of its consignments and may capture more of the rents by negotiating an invoice price directly with the importer rather than selling on commission or joining a marketing board or state trading enterprise. Undoubtedly, countries with marketing boards or state trading enterprises still have market power, but the existence of smaller competitors certainly encourages

more flexible bargaining with importers. Therefore, even though the incentive structure of the EPS is nearly identical to that under the reference price system, importers and exporters are more likely to share the rents than before.

Regardless of the European Union's reason for adopting such an unorthodox tariffication method, the EPS does improve competition between importers and exporters. The increase in competition, however, has come at a high administrative cost that may very well mitigate the effect of the reform. The majority of importers are choosing the SIV because it avoids the red tape and because it tends to be above the MEP (Van Eesbeek). Under the SIV method of entry price verification the EPS is most similar to the reference price system. Indeed, the calculation of the SIV is based on the calculation of the old entry price, and the taxes paid are identical as long as the entry price is not below 92% of the MEP. The only real difference is that the SIV is applied by consignment as opposed to by origin.

The Welfare Effects of Tariffication

We now use welfare analysis to establish the benefits and costs of the reform to society and to the consumer in particular. The net welfare effect of the change from the reference price system to the EPS is determined by the level of the entry price, the difference between the reference price and the MEP and by the disappearance of the spiral effect. Without developing a myriad of scenarios it is hard to asses the consequences of the latter two factors so, for the purposes of this paper, we assume that the MEP is equal to the reference price and that a country withdraws all produce from the EU market after being subject to the compensatory tax for one day. Welfare analysis under these restrictions will bias the results against the EPS because the MEP tends to be lower than the reference price and the MTE is triggered less frequently than the spiral effect was. The following is a conservative evaluation of the welfare effects of the reform as determined by the level of the entry price.

In Figure 2, the excess demand under the EPS is made up of the familiar three bold line segments ab , bc and de and the excess demand under the reference price system is made up of the bold line segments ab and bcf . If the entry price were above 92% of the MEP, the domestic price under both policies would be equal whether the entry price were above the MEP or between the MEP and 92% of the MEP. There would be no change in producer surplus, consumer surplus or government revenue rendering the net welfare effect of the policy reform zero.

If the entry price were below 92% of the MEP but above P^* , defined as the MEP minus the amount of the specific tariff MTE, replacing the reference price system with the EPS would cause the domestic price to increase because the MTE is greater than the compensatory tax and the CVT is based on a higher price under the EPS than under the reference price system. Higher domestic prices would cause consumers to lose surplus and producers to gain it, as well as changing the government revenue. Though the net welfare effect cannot be determined analytically, in this scenario the policy change does increase the tax on consumers.

If the entry price were below P^* , as shown in Figure 2, replacing the reference price system with the EPS would cause the domestic price to decrease because the MTE would be less than the compensatory tax and the CVT would be based on a lower price under the EPS than the reference price system. Lower domestic prices would cause consumers to gain surplus equal to area $g + h$ in Figure 2 and producers to lose surplus equal to area g . The change in government revenue would equal the shaded areas $i-j$ and the net welfare effect would be $h+i-j$. Though it is an empirical question whether this area is greater than, equal to, or less than zero, in this scenario the consumer benefits from the policy change.

This brief welfare analysis has shown that the import regime reform may have left the consumer equally well, worse or better off. Given that the entry price tends to be above the MEP, the net welfare effect of the reform is probably small but the consumer may not be indifferent. The increase in market access due to the disappearance of the spiral effect, the progressive reduction, as mandated by the Agreement, of the MEP, MTE and CVT, and the increase in competition between importers and exporters may well be benefiting the consumer by lowering the domestic price.

Conclusion

We learn from stylized partial equilibrium analysis that there are unmistakable similarities between the reference price system and the EPS. Both policies make use of minimum import prices and variable levies, both create and distribute rents between importers and exporters in the same way, both have similar welfare effects. We also learn that the European Union took important steps toward the liberalization of the fruit & vegetable market by implementing a specific tariff, providing a choice of three methods of entry price declaration and administering the policy on a consignment basis. It is impossible to determine whether liberalization outweighed protectionism in this reform, however, without first establishing the magnitude of the rents and welfare effects. Empirical work is under way to evaluate the impact of the reform on the fresh orange market. Fresh oranges are considered representative because they are a highly traded commodity which is also produced in the European Union by Spain, Italy and Greece. Until there are empirical results, we can conclude that in the Uruguay Round, the European Union succeeded in avoiding political confrontation and in lengthening the transition into an fruit & vegetable market protected exclusively by tariffs.

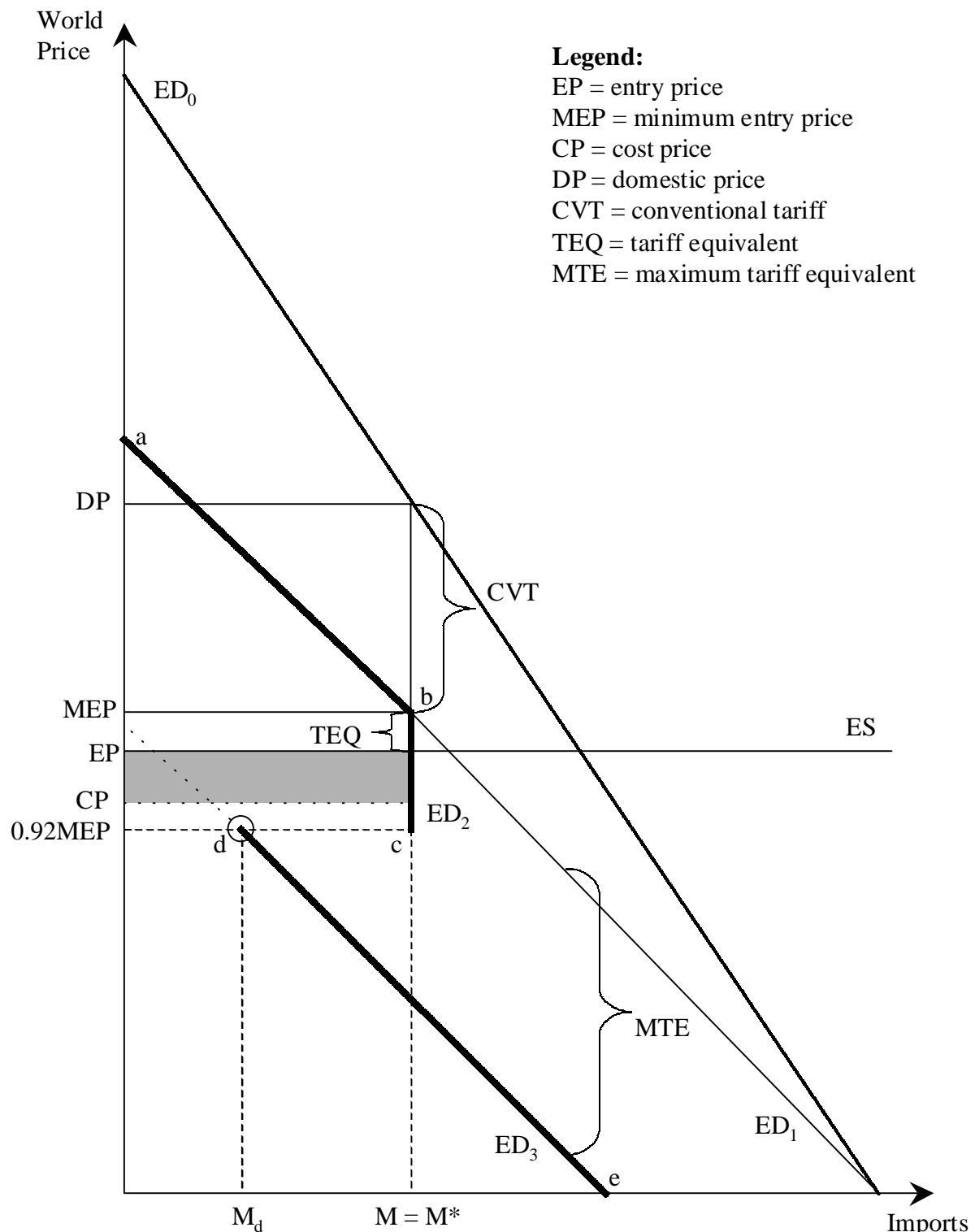


Figure 1: Entry Price System:
 Entry Price is between the Minimum Entry Price and
 92% of the Minimum Entry Price

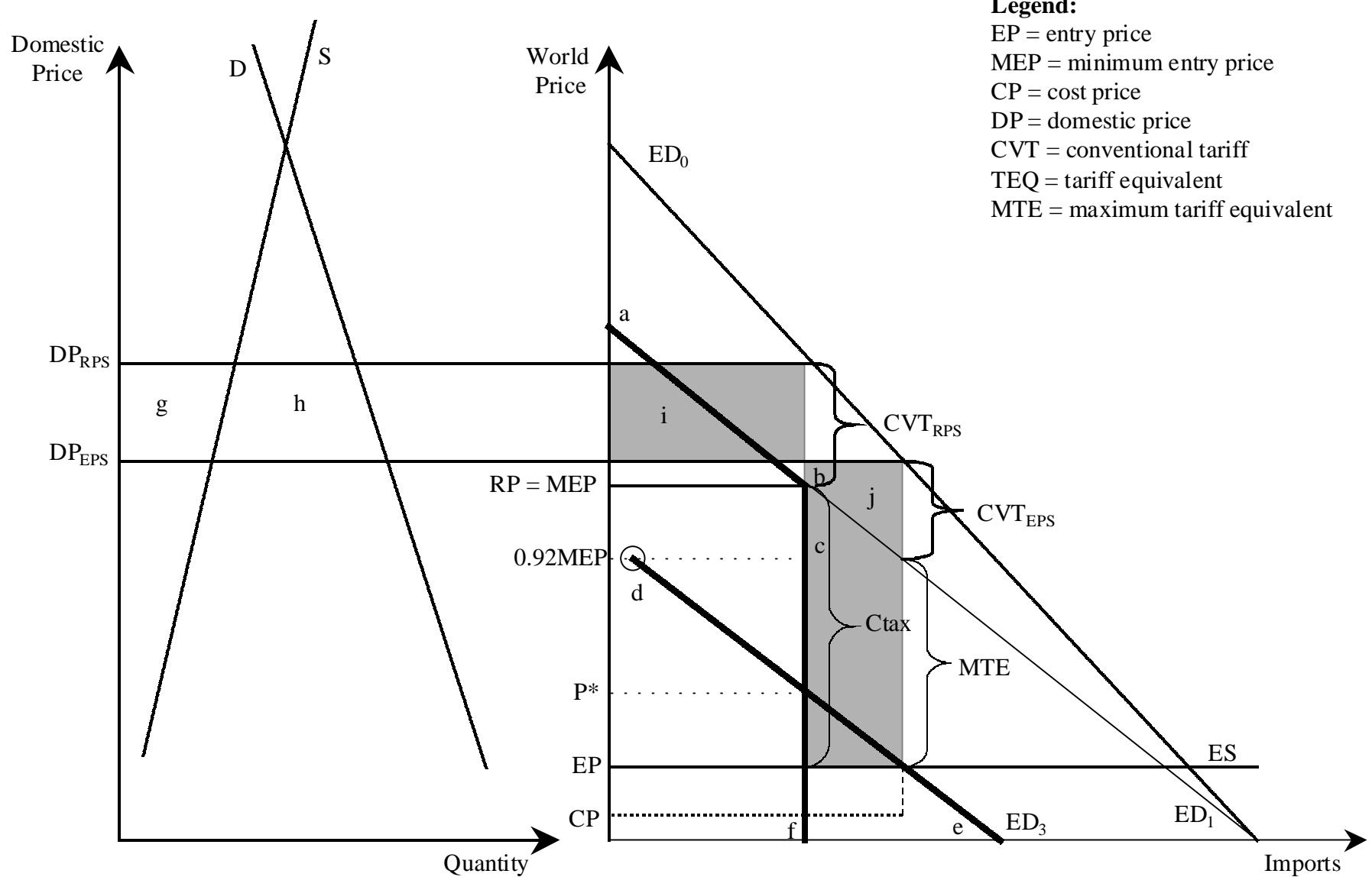


Figure 2: Welfare Analysis: Entry Price below the Minimum Entry Price minus the Maximum Tariff Equivalent

References

Faostat Database (1999), <http://apps.fao.org>.

Grethe, H. and Tangermann, S. *The EU Import Regime for Fresh Fruit and Vegetables after Implementation of the Results of the Uruguay Round*. Paper prepared for the Commodities and Trade Division of the FAO Economic and Social Department. October, 1998.

Official Journal of the European Communities. Brussels, 1972-98.

Swinbank, A. and Ritson, C. *The Impact of the GATT Agreement on EU Fruit and Vegetable Policy*. Food Policy. 1995 v.20 (4) pp: 339-357.

Timermans, C. *Frutas y Hortalizas y sus Transformados*. Obtained in personal interview, July 1998.

Van Eesbeek, Y. European Commission, DGI. Personal communication, 12 November, 1998.