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FS 00-18

November, 2000

**U.S.-EU BANANA WAR: IMPLICATIONS OF
RETALIATORY TARIFFS ON PECORINO CHEESE**

Vahe Heboyan, Glenn C.W. Ames, and James E. Epperson

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CHEESE

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Paper presented at

Southern Agricultural Economics Association
Annual Conference, Fort Worth, TX
January 30, 2001

The previous version of the paper was presented at the Caribbean Agro-Economic Society's
23rd West Indies Agricultural Economics Conference in Nassau, The Bahamas
November 15-18, 2000.

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U.S.-EU BANANA DISPUTE: A CASE STUDY OF RETALIATORY TARIFFS ON PECORINO CHEESE

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ABSTRACT

This paper illustrates the economic impact of the U.S. countervailing trade policy because of the European Union's failure to adhere to the dispute panel findings of the World Trade Organization (WTO) in the banana dispute. The United States subsequently imposed prohibitive tariffs (100% ad valorem) on imports of selected EU products as countervailing policy. The estimated loss in consumer surplus for Pecorino cheese was \$4.96 million per year as a result of the U.S. retaliatory trade policy. Tariff revenue and deadweight losses were \$1.86 and \$3.10 million, respectively. Italian producers are expected to lose \$8.55 million in revenue due to reduced exports to the United States. Thus, the estimated welfare loss for Italian producers is nearly twice that for U.S. consumers.

Key words: U.S. countervailing duties, economic impact, WTO

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Implications of Retaliatory Tariffs on Pecorino Cheese

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This paper illustrates the economic impact of the U.S. countervailing trade policy because of the European Union's failure to adhere to the dispute panel findings of the World Trade Organization (WTO) in the banana dispute. The United States subsequently imposed prohibitive tariffs (100% *ad valorem*) on imports of selected EU products as countervailing policy. The estimated loss in consumer surplus for Pecorino cheese was \$4.96 million per year as a result of the U.S. retaliatory trade policy. Tariff revenue and deadweight losses were \$1.86 and \$3.10 million, respectively. Italian producers are expected to lose \$8.55 million in revenue due to reduced exports to the United States. Thus, the estimated welfare loss for Italian producers is nearly twice that for U.S. consumers.

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INTRODUCTION

Bananas are the fifth most important product in world trade. In the postwar era, European banana imports were divided into two classes. Some countries, such as Great Britain, France and Spain, mostly imported from their former colonies in Jamaica, Dominica, St. Lucia, the Ivory Coast, and Cameroon. Germany, which is the largest banana consuming country in Europe, offered a free market for bananas (Barlett and Steele, 2000).

At that time, seventy African, Caribbean, and Pacific (ACP) countries negotiated preferential agreements on trading rights with the European Economic Community (now the European Union or EU). The European Community established a system which gave its former colonies preferential trading terms for bananas, sugar, and other tropical products. These agreements are popularly known as the Lomé Conventions.

The first Lomé Convention started in 1975 with renegotiation at five-year intervals. The current, fourth Lomé Convention, which took affect in 1990 (Lomé IV) has a life of ten years. The trade provisions of the Lomé Convention exempt Caribbean and other ACP countries' imports from import duties. Successive banana protocols have guaranteed and maintained these advantages, which the Caribbean and other ACP states have traditionally enjoyed in certain European markets, especially in the United Kingdom, France, and Italy (The Caribbean Banana Exporters Association).

Domestic EU production is mostly concentrated in Crete, the Canary Islands, Madeira, the Azores, and the French Overseas Departments of Guadeloupe and Martinique. The EU's banana production accounted for only 21% of domestic consumption in 1990. The remaining balance is imported.

“Dollar bananas” are principally produced in Latin America and marketed by Chiquita, Del Monte, and Dole which are U.S.-based multinational corporations. Latin American bananas are much cheaper than those of the ACP countries (Grant, 1997, p. 135). ACP bananas are grown on small family farms with little or no mechanization or irrigation. Banana yields are below those in Honduras, Ecuador, and Guatemala. The cost of banana production in the Caribbean is twice that in Latin American countries. Great Britain and France insisted that banana production in ACP countries is crucial for the economic growth and social welfare of the ACP countries.

The economies of most ACP countries depend on banana production. In the small island nations, by the late 1980s, about 30% of the work force was employed in banana plantations. In the Windward Islands, bananas provide year-round income to farmers. (Barlett and Steele, 2000).

On July 1, 1993, the European Union established its current banana regime (Grant, 1997). Instead of an open market, which Chiquita hoped for, the EU continued its old regime, providing preferential trading rights to ACP countries (Barlett and Steele, 2000).

Pressure from the World Trade Organization (WTO) forced the EU to make a series of changes in its banana regime. On July 28, 1998 the Council of Ministers of the EU modified the banana regime and adopted the new 1637/98 Council Regulation. The new regulation maintained the EU General Agreements on Tariffs and Trade (GATT) bound tariff quota of 2.2 million tons at the in-quota tariff rate of 75 European Currency Units (ECU) and zero for ACP imports and limited the quantity of traditional ACP banana imports eligible for zero tariff to 857,000 tons.

In October 1998, the EU adopted a new regulation on banana imports to fulfill its obligation to reform its banana regime with the WTO. In accordance with WTO rules, quota allocations are given to all substantial banana suppliers to the EU: Ecuador (26.17%), Costa Rica (25.61%), Colombia (23.03%), and Panama (15.76%). The goal of this regulation is to have a more open market for banana imports. The share of the tariff-rate quota reserved for the “newcomers” will be increased to 8%, up from 3.5% under present import policy (Directorate General for Trade, 1998).

Some members of the EU, such as France, Spain, and Portugal, are still in favor of the old banana regime, but others, such as Germany, the major banana importer, as well as the Benelux countries, Austria, Denmark, Finland and Sweden want a more efficient and open market for bananas (MacPherson, 1999). Fragmentation in EU member countries over the banana issue continues. Countries that have their own interests in ACP countries still protect them from competition (Grant, 1997).

On September 10, 1999, the European Commission agreed to a “tariff-only” system as a possible solution to the dispute with the United States and Latin American countries over the EU’s banana import regime (*Journal of Commerce*, September 10, 1999). On December 16, 1999, the president of the EU, Romano Prodi, announced that the EU did not intend to make changes in its current tariff-rate quota policy on Central American bananas.

EU import licenses were allocated in relation to the activities of primary importers, secondary importers and marketing polices. Banana import quotas for Chiquita, Del Monte, and Dole, the U.S. multinational corporations, were allocated according to three categories in relation to the activities of primary imports, secondary

imports and marketing. “It appears that part of the aim of this complex arrangement was to enable the ACP companies to cross-subsidize their more expensive ACP bananas from the profits of dollar bananas” (Grant, 1997, p. 135).

The World Bank reported that the EU banana regime was costing European consumers \$2.3 billion per year, while under the old regime it was \$700 million per year. Reportedly, the difference went to the European companies as monopoly profits (Grant, 1997, pp. 134-136).

U.S. companies objected to the EU’s restrictive banana import regime and the exclusion of U.S. firms from market growth. Thus, the U.S. participated in bringing a petition before the WTO alleging discrimination and loss of market share because of the EU banana policy. Both alleged losses are actionable under the Trade Act of 1974.

OBJECTIVES

The objectives of this paper are: (1) to describe the origin of the U.S.-EU banana dispute and (2) to analyze the estimated impact of imposition of 100% *ad valorem* duties on Pecorino cheese, a specialty item imported from Italy, identified for retaliation under Section 301 of the Trade Act of 1974. The Pecorino cheese case is one of many targeted commodities imported from the EU and it is used as an example to illustrate the effect, if any, of the U.S.’s retaliatory tariff policy.

EUROPEAN UNION BANANAS IN THE WTO

On April 6, 1999 the WTO found that the EU's new banana import regime, which went into force on January 1, 1999 as part of the common organization of the market in bananas, does not comply with WTO rules in three respects:

- a. The preferential import rights for bananas from the ACP countries constitute discrimination against other banana importing companies,
- b. The distribution of the tariff-rate quota among supplier countries in South America is based on out-of-date and non-representative reference quantities, and
- c. The distributions of import licenses are based on an old, discriminatory system.

The WTO Dispute Settlement Body (DSB) also authorized the United States to take retaliatory action in the form of 100% *ad valorem* duties on imports of targeted European products (Zervoudaki, 1999). On April 19, 1999, the U.S. Trade Representative imposed prohibitive tariffs in the form of 100% *ad valorem* on nine EU products (Table 1). The United States currently imposes duties equivalent to \$191 million per year on selected EU products, the amount of alleged losses from the EU's discriminatory trade policy (Daly, Stilwell, and Glass, 2000).

THE U.S. BANANA INTERESTS

The United States has its own interests in Latin America and the Caribbean. U.S. and Caribbean countries have common goals such as security, orderly movement of citizens and control of migration, trade and investment expansion, and protection of the environment. Thus, the U.S. Government's goals include (1) promotion of economic growth in both regions; (2) elimination of the EU's discriminatory regulations against

U.S. and Latin American companies; (3) negotiation of EU compliance with WTO commitments; (4) acceptance of WTO consistent alternative regulations; and (5) to encourage economic diversification in Caribbean countries. The Caribbean countries are not competitive because of their limited natural resource base and EU protectionist regulations that have smothered incentives for the Caribbean islands to be competitive (The United States Trade Representative, 1996).

DEVELOPMENT OF THE DISPUTE

Twice, Colombia, Costa Rica, Guatemala, Nicaragua, and Venezuela petitioned the GATT, arguing that the EU was discriminatory in its banana regime. Twice, GATT panels found that the EU banana regime was not GATT consistent, in 1993 and 1994. In both cases the EU ignored the GATT panel's decisions and continued its banana regime (Ziegler and Klasky, January 14, 1999).

In 1996, the United States, Guatemala, Honduras, Mexico, and Ecuador again took the case to the WTO. In May 22, 1997, the WTO panel found that the EU banana regime violated WTO rules. During 1997, the EU tried to prove that its "banana regime" was WTO consistent. The EU ignored WTO reports and the U.S. request for negotiation (Ziegler and Klasky, December 21, 1998).

On May 22, 1997, the WTO panel again found that the EU banana regime violated WTO rules and the Appellate Body sustained that decision on September 9, 1997 (Daly, Stilwell, and Glass, May 26, 2000).

On January 8, 1998, the WTO gave the EU until January 1, 1999 to comply with WTO decisions. On June 26, the European Agricultural Council made some changes in its banana regulations and declared them WTO consistent.

Throughout the 1990's, the EU ignored all suggestions made by the United States, some Latin American countries, as well as the WTO, and declared its banana policy WTO and GATT consistent (Ziegler and Klasky, December 21, 1998).

As a result of the EU's failure to comply with WTO's DSB rulings, the DSB authorized the United States on April 19, 1999 to impose 100% *ad valorem* duties in the amount of \$191.4 million per year on nine selected products imported from EU (Daly, Stilwell, and Todd, May 26, 2000, p. 4).

U.S. POLICIES AND WTO REGULATIONS REGARDING THE EU BANANA DISPUTE

Section 301 of the Trade Act of 1974 authorizes the United States Trade Representative's Office (USTR) to take responsive actions when another WTO member country fails to implement DSB rulings in dispute settlement proceedings. In the banana case, the USTR used its authority to impose prohibitive tariffs in the form of 100% *ad valorem* duties on goods imported from the EU.

Section 407 of the Trade and Development Act of 2000, which went into force on May 18, 2000, amended Section 301 by requiring the USTR to review the actions taken under Section 301 and make changes, if any. Section 407 provides standards for making changes that would result in implementation of the DSB rulings and achievement of a satisfactory resolution of the dispute.

On May 26, 2000, the USTR announced intentions to modify the list of European products subject to increased tariffs as a result of the EU's failure to comply with DSB rulings in the banana and beef cases. The USTR is considering raising the currently imposed tariffs seeking comments on whether currently imposed duties are high enough to be called prohibitive (Daly, Stilwell, and Glass, 2000). The actual and prospective product lists that are subject to prohibitive tariffs regarding the banana case are shown in the Tables 1 and 2, respectively.

The modifications to the list of products targeted for prohibitive tariffs is authorized by Section 407 of the Trade and Development Act of 2000 which went into force on May 18, 2000. This section applies to the EU - U.S. dispute over banana and beef imports by the EU. Section 407 authorizes levels of retaliation within those specified by the DSB (Daly, Stilwell and Glass, May 26, 2000).

MODEL SPECIFICATION AND DATA

Imports of Pecorino cheese from Italy account for about 20-40% of total U.S. imports of this specific variety thus providing a clear understanding of its importance in the U.S. market. Any change in Pecorino imports will have an impact on the U.S. Pecorino cheese market, and thus, U.S. consumers and European producers and exporters. The purpose of this study is to measure the effects of *ad valorem* tariffs on the U.S. import market.

Pecorino cheese is made primarily in southern Italy, more specifically on the island of Sardinia. The best-known variety is Pecorino Romano which is made from sheep's milk. This type of cheese is primarily used on pasta dishes and consumed with

red wine. Pecorino is a semi-hard, granular cheese, the color of straw, with a 36% fat content, encased in a smooth rind coated in oil. Pecorino cheese is used in many of the same menu applications as Parmesan, especially when a stronger flavor is desired (Reluctant Gourmet, 2000). The annual imported quantities and values of this specialty cheese are shown in Figures 1 and 2, respectively.

For this analysis, the monthly quantity of Pecorino cheese imports from Italy is specified as a function of the monthly price of imports to the United States, monthly price of Romano cheese, monthly price of Parmesan cheese, exchange rate (Italian Lira/U.S.dollar), U.S. per capita Gross Domestic Product, lagged imports and a trend variable. The functional form, based on goodness of fit, is specified as follows:

$$(1) \quad \text{LN}(Q_t) = \beta_0 + \beta_1 P_{\text{PEC}} + \beta_2 P_{\text{ROM}} + \beta_3 \text{LN} P_{\text{PARM}} + \beta_4 \text{EX} + \beta_5 I_{\text{PC}} + \beta_6 Q_{\text{PC}(t-1)} + \beta_7 T + U_t,$$

where

$\text{LN}(Q_t)$ – Natural log of monthly imported quantities of Pecorino cheese from Italy in pounds (U.S. Department of Agriculture, FAS, 2000),

P_{PEC} – Real per unit price of Pecorino cheese in cents per pound, calculated using monthly data of imported quantity and value, deflated by the 1982-84 CPI base (U.S. Department of Agriculture, FAS, 2000, U.S. Department of Labor, BLS, Series ID CUUR0000SAO, 2000),

P_{ROM} – Real per unit price of domestically made Romano cheese in cents per pound, deflated by the 1982-84 CPI base (U.S. Department of Agriculture, AMS, 1997-2000),

- LNP_{PARM} - Natural log of real price of domestically made Parmesan cheese (U.S. Department of Agriculture, AMS, 1997-2000), deflated by the 1982-84 CPI base (U.S. Department of Labor, Series ID CUUR0000SAO),
- EX - Real exchange rate - Italian Lira per U.S. dollar (FXHistory, 2000), deflated by the 1982-84 CPI base for the United States and Italy (U.S. Department of Labor, BLS, Series IDs CUUR0000SAO and INN0000IT1, 2000),
- I_{PC} - Real U.S. per capita GDP, deflated by the 1982-84 CPI base (U.S. Department of Commerce, BEA, 2000; U.S. Department of Commerce, PEP; U.S. Department of Labor, BLS, Series ID CUUR0000SAO, 2000),
- $Q_{\text{PC}(t-1)}$ - Monthly imported quantities of Pecorino cheese lagged one month (U.S. Department of Agriculture, FAS, 2000), and
- T - Trend variable.

Monthly data from January 1996 through April 2000 are used in this study. The data are collected from governmental and public sources. Then the data are converted to real terms using a 1982-84 CPI base. Data for Pecorino, Romano and Parmesan prices for January through April 2000 are calculated using 5-year averages of the respective months because of the lack of data for the most recent period, i.e. January 2000 is estimated by averaging January data for 1995 – 1999, and so on.

ESTIMATION RESULTS

The model estimation results are depicted in Table 3. All of the coefficient signs were as expected except two: the price of Romano cheese (P_{ROM}) and per capita income

(I_{PC}), both negative though not significant. Coefficients significant at the 10% level were those for the own price of Pecorino cheese (P_{PEC}), the exchange rate (EX), and the lagged quantity of Pecorino cheese ($Q_{PC(t-1)}$). The positive sign for the exchange rate (EX) coefficient indicates that as the quantity of Lira per dollar rises (i.e., or the value of Lira falls) Pecorino cheese becomes relatively cheaper in dollars and, thus more is imported. The positive coefficient for the lagged quantity of Pecorino cheese ($Q_{PC(t-1)}$) indicates a consistent relationship from month to month, i.e., if more is imported this month, more likely will be imported next month. The trend variable (T) may reflect a general rise in the U.S. consumers' taste for Pecorino cheese.

TARIFF RESULTS

U.S. consumer welfare is impacted when an 100% *ad valorem* tariff is imposed on Italian imports. The own-price coefficient for Pecorino Cheese (P_{PEC}) was used to calculate the loss in consumer surplus because of the tariff imposition, holding all other variables constant at mean values for the last 12 months, Table 3. The U.S. Trade Representative announced the list of products under consideration for tariff imposition on April 19, 1999. Areas A and B in Figure 3 represent the loss in consumer surplus. The method for computing loss in consumer surplus is as follows (Varian, 1992):

where

$$(2) \quad \int_{P_1}^{P_0} LN(Q_t) dQ_t$$

P_0 , P_1 , and Q_t , correspond to the same values in Figure 3.

The calculated loss in consumer surplus for Pecorino cheese was \$4.96 million per year as a result of the U.S. retaliatory policy regarding the banana dispute with the EU. The U.S. collects \$1.86 million in tariff revenue (area A, Figure 3) and \$3.10 million is the dead weight loss (area B, Figure 3). Italian producers lose \$8.55 million in revenue from the decline in exports to the United States (area E, Figure 3). Thus, the welfare loss to Italian producers is 1.72 times greater than for U.S. consumers.

CONCLUSIONS AND IMPLICATIONS

The EU banana regime, which began after World War II and resulted in the U.S.-EU banana trade dispute, does not appear to be slated for termination anytime soon. Two powerful sides of the dispute have their own interests in the world banana trade. Unfortunately, their interests do not appear to be compatible. The EU continues to protect its former colonies giving them preferential trading rights in bananas. The United States, on the other hand, supports multinational companies on the grounds of free trade using the dispute settlement vehicles of the WTO and GATT. To combat preferential treatment in the EU market and the loss of market share.

Under authorization of the WTO, the United States is retaliating against EU member countries by imposing prohibitive tariffs on imports of selected European products. The intention of the United States is to eliminate imports of targeted products, thus urging the EU to revise its banana trade policy to be WTO and GATT consistent. Currently the United States collects duties in the form of 100% *ad valorem* on nine products imported from the EU (Daly, Stilwell, and Glass, 2000).

Scores of European products were originally targeted for retaliatory tariffs. However, aggressive lobbying by large corporations, trade groups and members of Congress resulted in the removal of most of the threatened import products from the retaliatory list (Barlett and Steele, 2000).

With the United States targeting a specific list of European goods, the EU is more able to persevere through aid to a limited number of affected companies. If the target list were to be revised frequently, the economic pressure on the EU would intensify (Rogers, 2000).

Given the U.S. experience thus far, in the trade dispute, the Office of the United States Trade Representative is reviewing the efficiency of imposed retaliatory duties on EU products in order to modify the list (Daly, Stilwell, and Glass, May 26, 2000). Reportedly, the new list will change the mix of products and perhaps double the rate of prohibitive tariffs on some products (Winestock, 2000, p. A15).

With a 100% *ad valorem* tariff, the Pecorino cheese case estimates losses to Italian companies at 1.72 times that of U.S. consumer. Certainly, the Pecorino cheese case alone is of limited consequence. However, a similar scenario over a wide array of imported goods, changing at sufficiently frequent intervals for maximum effect, can mount enormous economic pressure on the EU to eventually reach an amicable settlement of the banana war.

Table 1. List of Products Currently Subject to Increased Duties

HTS ^a Number	Product Description
33073050	Bath preparations, other than bath salts
42022215	Handbags, with or without shoulder straps or without handle, with outer surface of sheeting of plastics
42023210	Articles of a kind normally carried in the pocket or handbag, with outer surface of reinforced or laminated plastics
48055000	Uncoated felt paper and paperboard in rolls or sheets
48192000	Folding cartons, boxes and cases of noncorrugated paper or paperboard
49119120	Lithographs on paper or paperboard, not over 0.51 mm in thickness, printed not over 20 years at time of importation
63022190	Bed linen, not knit or crochet, printed, of cotton, not containing any embroidery, lace, braid, edging, trimming, piping or appliqué work, not napped
85072080	Lead-acid storage batteries other than of a kind used for starting piston engines or as the primary source of power for certain electric vehicle principally designed for the transport of up to nine persons
85167100	Electrothermic coffee or tea makers, for domestic purposes ^b

^a Harmonized Tariff Schedule of the United States.

^b Except produced in Italy.

Source: Daly, Stilwell, and Glass (2000)

Table 2. List of Products under Consideration for the Imposition of Increased Duties

HTS ^a Number	Product Description
02101900	Meat of swine, other than hams, shoulders, bellies (streaky) and cuts thereof, salted, in brine, dried or smoked
04069057	Pecorino cheese, from sheep's milk, in original loaves, not suitable for grating
19053000	Sweet biscuits; waffles and wafers
33073050	Bath preparations, other than bath salts
34060000	Candles, tapers and the like
39202000	Nonadhesive plates, sheets, film, foil and strip, noncellular, not reinforced or combined with other materials, of polymers of propylene
42022215	Handbags, with or without shoulder straps or without handle, with outer surface of reinforced or laminated plastics
48055000	Uncoated felt paper and paperboard in rolls or sheets
48192000	Folding cartons, boxes and cases of noncorrugated paper or paperboard
49090040	Printer cards (except postcards) bearing personal greetings, messages or announcements, with or without envelopes or trimmings
49119120	lithographs on paper or paperboard, not over 0.51 mm in thickness, printed not over 20 years at time of importation
61101010	Sweaters, pullovers, sweatshirts, waistcoats (vests) and similar articles, knitted or crocheted, wholly of cashmere
63022190	Bed linen, not knit or crochet, printed, of cotton, not containing any embroidery, lace, braid, edging, trimming, piping or appliqué work, not napped
85072080	Lead-acid storage batteries other than of a kind used for starting piston engines or as the primary source of power for certain electric vehicle principally designed for the transport of up to nine persons
85167100	Electrothermic coffee or tea makers, for domestic purposes ^b
94051080	Chandeliers and other electric ceiling or wall lighting fittings (other than used for public spaces), not of base metal

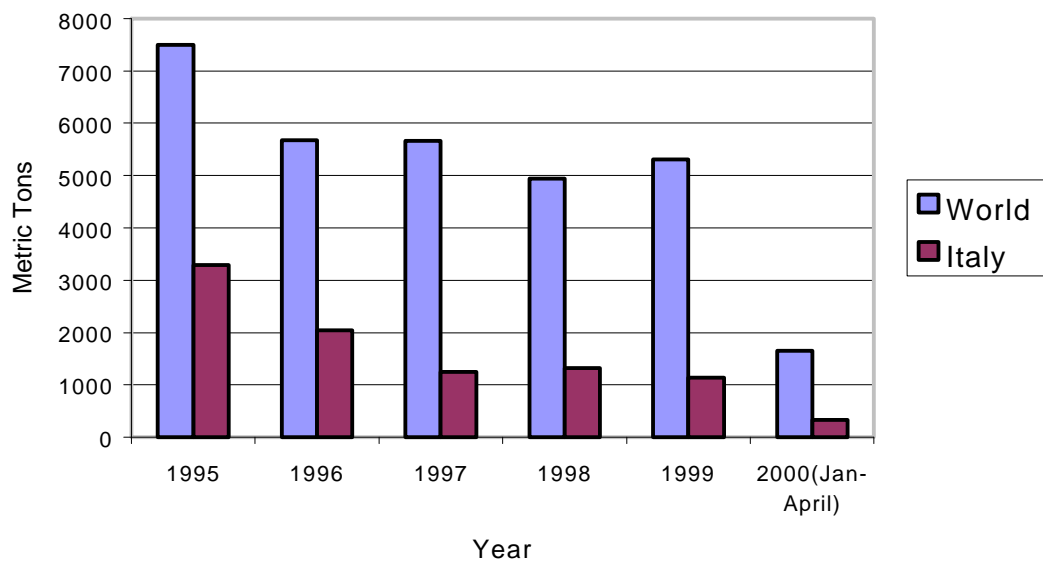
^a Harmonized Tariff Schedule of the United States.

^b Except produced in Italy.

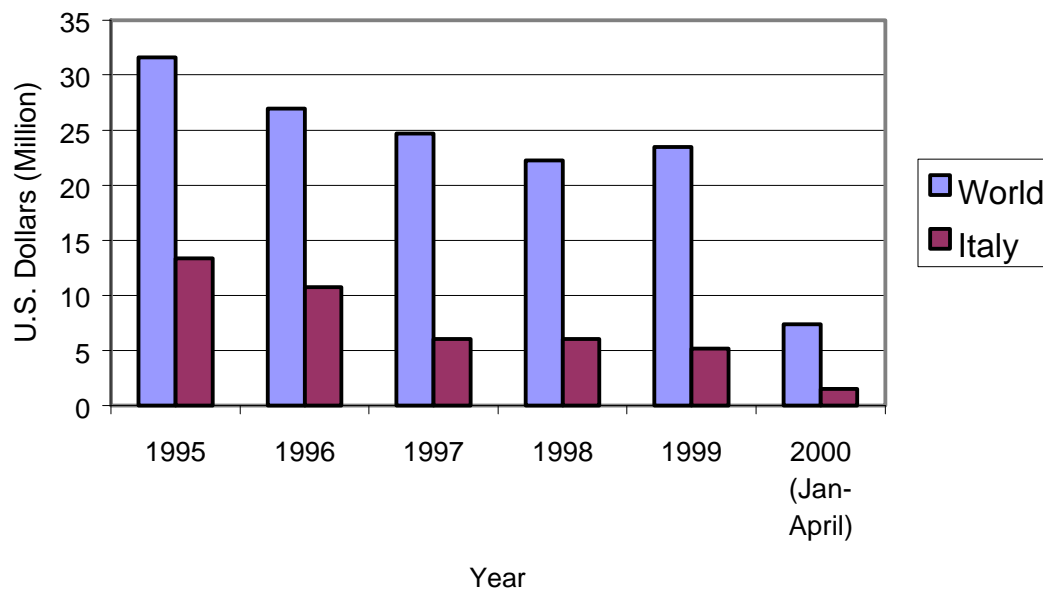
Source: Daly, Stilwell, and Glass (2000)

Table 3. Parameter Estimates for the Model

Variable	Parameter Estimate	t-value	Probability
INTERCEPT	7.13	0.445	0.6587
P _{PEC}	-1.30	-2.119	0.0399
P _{ROM}	-0.55	-1.237	0.2227
EX	11948.00	1.814	0.0766
I _{PC}	-1.02E-3	-1.227	0.2263
Q _{PC(t-1)}	965.43	2.544	0.0146
LNP _{PARM}	1.36	0.862	0.3937
T	0.06	1.535	0.1322
N	52		
DF	45		
R-square	0.37		
F Value	3.67		
P-Value	0.0034		

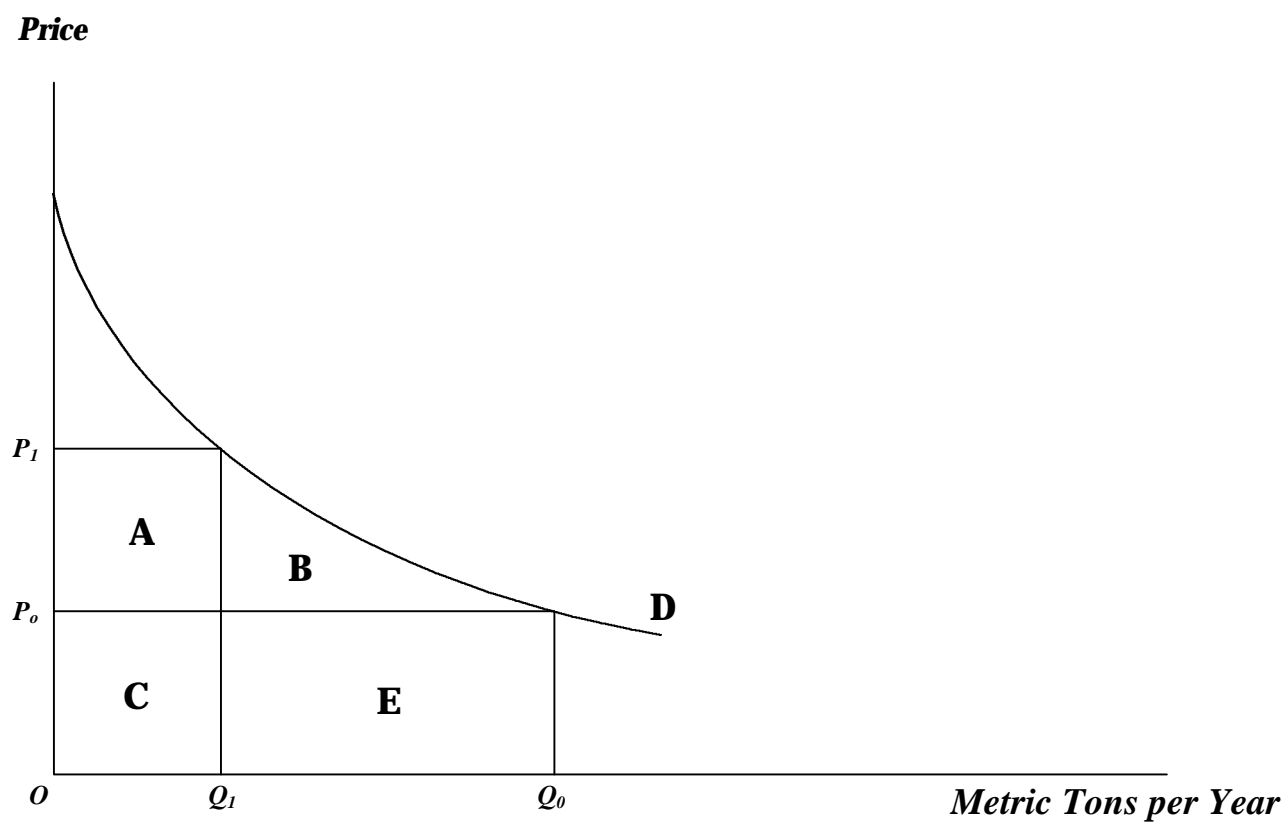
Figure 1. U.S. Pecorino Cheese Imports (Quantity)

Source: U.S. Department of Agriculture, FAS, 2000

Figure 2. U.S. Pecorino Cheese Imports (Value)

Source: U.S. Department of Agriculture, FAS, 2000

Figure 3. Loss in U.S. Consumer And Italian Producer Surplus Due to the Increased Tariff



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