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Introduction

One of the most debated issues in recent years in international trade of farm products has been the European Community's Common Agricultural Policy (CAP) and its effects, in particular, on United States agricultural exports. While a number of descriptive studies[1] have addressed themselves to this problem, no quantitative estimates are available of the magnitude of CAP's impact on U.S. trade on the basis of ex post data. It is the objective of this study to develop an econometric model consisting of estimated U.S. export demand functions for seventeen temperate zone agricultural products[2] to the E.E.C. in order to provide a quantitative estimate of the export loss incurred by the U.S. as a result of the implementation of the CAP in the Common Market.

The analysis proceeds as follows. The first section presents a brief description of the various policy instruments and mechanisms of the CAP. Next, the econometric model utilized is introduced and the main empirical results are presented and analyzed. The conclusions appear in the fourth section.

I. EEC's Common Agricultural Policy

The CAP, which was introduced in 1962 and became fully operative by 1968, was designed to assure the maintenance of high farm incomes through a complex framework of interrelated regulations that differ from commodity to commodity. These measures constitute the CAP's "market or price" policy

and involve support prices fixed well above world market prices, variable levies on imported agricultural products from extra-EEC sources and the granting of export subsidies (or "restitutions"), enabling certain Common Market goods to compete in the world market.

Some common features in the "market" policy of the CAP equalize the effects of state intervention in the agricultural sector by ensuring free access by all producers to all markets within the EEC, by establishing free factor movements within it, by operating a common system of protection against third countries and a common price and income policy for all individuals within the union.[3] This common price and income policy for agriculture basically involves a "variable levy" system of protection.

The calculation of the "variable levies" to be applied on imports from extra-EEC countries involves three steps: (1) a target or indicative price is determined and is a theoretical price towards which the common market price should tend;[4] (2) a threshold price is fixed at which imports from non-member countries can enter the EEC and which is lower than the target price by the transportation cost from the port of entry;[5] and (3) the import levy is computed on a daily basis as the difference between the threshold price for a commodity and the world price.

Along with the variable levies, intervention prices are employed to ensure that a satisfactory level of prices is achieved in the EEC. The intervention price is between 90-95% of the target price and constitutes a guaranteed price at which government agencies will undertake support buying if the market price shows a tendency to fall below the intervention price. In conclusion, the CAP keeps market prices within two limits; the upper limit

is the threshold price and the lower limit is the intervention price. If excess demand or rising costs in the market for an agricultural commodity tend to raise the market price above the threshold price, then imports from extra-EEC sources enter the community to fill the gap in demand. If an excess supply causes the market price to fall below the intervention price, the EEC Commission will have to enter the market and support the price.

One effect of the adoption of the CAP has been to raise internal producer prices (threshold prices) above world market (or import) prices, which approximates the degree of import protection in the EEC. As shown in Table 1, the degree of protection has shown more marked increases for dairy products, grains, sugar and tobacco. In addition to resulting in higher prices for farm products and a higher degree of protection, the adoption of the CAP has stimulated domestic production. As a result the overall degree of self-sufficiency has increased for most agricultural commodities as can be seen in Table 1 and growing surpluses have accumulated for grains, dairy products and sugar. The increase in agricultural self-sufficiency, the rise in the degree of import protection and the removal of nearly all trade barriers between member nations has reduced net import requirements of temperate zone goods from non-members, while the growing surpluses of several commodities and the policy of export restitutions has stimulated agricultural exports.

A number of studies (Tontz [20]; Carney [2]; Bernston, Goolsby and Nohre [1]; Knox [7]; Krause [8]; Fox [5]; Sorenson and Hathaway [18]; Thorbecke and Pagoulatos [19]) have suggested, on the basis of actual performance, that the adoption of the CAP--especially the "variable levy" system of protection--has slowed down U.S. and other third countries' farm exports to

Table 1: EEC and World Market Prices and European Community Self-Sufficiency in Agricultural Products, 1958/59-1971/72

Commodity	EEC Producer Prices as a Percentage of World Market Prices			Degree of EEC Self-Sufficiency		
	1958/59	1968/69	1971/72	1958/59	1968/69	1971/72
Beef and Veal	147	169	157	93	89	90
Pig Meat	118	135	131	100	99	101
Poultry	-	147	155	93	98	101
Total Meat	134	148	147	96	95	95
Milk	130	169	180	100	100	101
Cheese	179	167	152	99	102	102
Butter	208	504	172	102	113	113
Eggs	130	137	162	90	99	100
Wheat	156	205	234	90	109	99
Barley	134	197	185	84	107	92
Maize	158	178	176	64	52	66
Rice	151	138	205	84	88	103
Rye	-	181	198	98	94	94
Oats	-	140	181	92	95	88
Fish	116	113	-	86	84	73
Oilseeds	115	203	147	17	12	-
Sugar	131	355	145	99	104	106
Fruits	116	115	-	94	90	88
Vegetables	112	113	-	104	103	99
Tobacco	123	130	207	-	-	-

Sources: The studies by Berntson, Goolsby and Nohre [1], Knox [7], Kruer and Berntson [9], Malmgren and Schlechty [12], the O.E.C.D. report [14] and my estimates.

the EEC. These studies, though, did not provide a quantitative estimate of the magnitude of trade diversion in U.S.--EEC agricultural trade as a result of the implementation of the CAP. The remaining sections of this study provide such an estimate at an individual commodity level of disaggregation.

II. The Model

In order to capture the effect of the adoption of the CAP on U.S. exports of temperate zone agricultural products to the EEC some estimate is required of what these exports might have been at the absence of the CAP. For this purpose U.S. export demand functions were estimated for seventeen agricultural commodities. The EEC demand for U.S. exports is specified in the simplest form; that is, the value of exports of the i^{th} commodity is related to the level of domestic income in the EEC and to the level of the U.S. export price for that product.[6] The general form of the estimated export demand equation was:

$$X_{it} = \alpha_1 + \alpha_2 Y_t + \alpha_3 P_{it} \qquad (1)$$

where:

X_{it} = the value of U.S. exports of commodity i to the EEC in year t (t=1953-1972) expressed in million U.S. dollars. Data for U.S. exports were obtained from available O.E.C.D. statistics [15].

Y_t = the EEC Gross National Product at market prices in billion U.S. dollars for year t, obtained from O.E.C.D. National

Accounts Statistics [16].

P_{it} = the U.S. export price of commodity i in year t, taken from available F.A.O. publications [4].

In order to account for the effect of the CAP on U.S. exports a dummy variable (D_t) was included in equation (1):

$$X_{it} = \beta_1 + \beta_2 D_t + \beta_3 Y_t + \beta_4 D_t Y_t + \beta_5 P_{it} + \beta_6 D_t P_{it} \quad (2)$$

The dummy variable (D_t) takes the value zero for the period before the the adoption of the CAP (t = 1953-1962) and the value of one for the period following the implementation of the CAP (t= 1963-1972). Since the CAP was implemented at a latter date for a number of agricultural products, the demarcation year for dairy products and rice was 1964 and for sugar, oilseeds and tobacco was 1967. Because it is believed [1, p.39] that the full impact of the CAP for grains (with the exception of barley) upon U.S. exports has not been felt until after the adoption by the EEC of a unified market in 1967, an additional equation (2) was estimated for wheat, rice, maize and other cereals utilizing a dummy with 1967 as the demarcation year.

The use of dummy variables in this model allows the detection of shifts in both the slope and the intercept of equation (1). If the CAP had not been adopted in 1962, then relationship (1) would have been the true import demand equation for the whole (1953-72) sample period. But, if the implementation of the CAP caused a significant shift in both the slope and intercept of the import equation, the true relationship becomes equation (2), which is equivalent to two separate regression equations, one for each of the two subperiods. For the pre-CAP period (1953-1962) equation (2)

reduces to:

$$X_{it} = \beta_1 + \beta_3 Y_t + \beta_5 P_{it} \qquad (3)$$

while for the post-CAP (1963-1972) period it becomes:

$$X_{it} = (\beta_1 + \beta_2) + (\beta_3 + \beta_4)Y_t + (\beta_5 + \beta_6)P_{it} \qquad (4)$$

In order to evaluate the overall impact of the CAP on Common Market imports from the United States, an F-test was undertaken. [7] The error sum of squares was computed for the restricted form of the model (without dummy variables) and for the unrestricted form (with dummy variables). The significance of the CAP effect on U.S.-EEC trade was then determined by an F-test for the reduction in error sum of squares between the restricted and unrestricted regression models.

III. Empirical Results and Policy Simulations

The model presented in the previous section was estimated on the basis of annual observations covering the 1953-1972 period. The estimated equations are presented in the Appendix at the end of this study. The coefficient of determination (R^2) and the Durbin-Watson (D.W.) statistic are given for each estimated equation, while the t values for each estimated coefficient are presented in parentheses below it. Serial correlation, as reflected by the Durbin-Watson statistic, has been found for a number of equations and was corrected by the Cochrane-Orcutt [3] method.

An examination of the estimated export equations indicates relatively high coefficients of determination (given the low number of degrees of freedom) with about 37% of the estimated equations having an R^2 above .90, 34% between

.70 and .90 and only 14% with an R^2 below .50. The least successful equations in terms of the coefficient of determination are the equations for wheat, probably because of irregular trends due to aggregation (hard vs. soft wheat), and the equations for sugar. Finally, in terms of significance of the individual estimated coefficients the income coefficients were significant in about all equations. More specifically, about 72% of the income coefficients and 43% of the price coefficients were at least significant at the 10% level.

Out of the 38 equations estimated, the coefficient of the income variable exhibits the expected positive sign in all but four cases of which only the income coefficient for barley and other cereals had a negative and significant sign in equations estimated over the whole 1953-1972 sample period. This result could be explained with negative income elasicities of demand for these products experienced in the EEC as reported by D. Gale Johnson [6, pp. 89-92]. The expected negative sign of the export price coefficient occurs in all but twelve equations, but this coefficient was positive and statistically significant only in the case of maize, oilseeds and tobacco. Although in a few cases the export price seems to be as effective as the domestic demand variable in explaining U.S. exports, a general overview of results suggests that the export price variable does not display great explanatory power. While this study attempts a significant degree of commodity disaggregation, an ever greater degree of disaggregation would have been necessary in order to more fully account for price factors in U.S.-EEC farm trade.

The dummies introduced to capture the effects of the CAP on U.S. agricultural exports to the EEC reveal that the implementation of the CAP has had a trade diverting effect--as indicated by a significant (at the

10% level) F-test--in seven out of seventeen commodities included in the sample. The commodity groups exhibiting a significant F-test were dairy products, eggs, rice, barley, maize, other cereals, and tobacco. It is no coincidence that the first six of these have been subjected to the variable-levy system of protection.

The estimated equations (3) of these seven commodity groups were utilized in obtaining projections for 1968 and 1972 under the assumption that the pre-CAP agricultural protection policies would have continued in the post-CAP Period ($D_t = 0$). If X' denotes the estimated hypothetical export figure and X indicates the actual value, the effect of the CAP on U.S.-EEC farm trade is measured by the difference $(X - X')$. Table 2 presents the actual and hypothetical estimates of U.S. exports to the EEC.

The results of the policy simulations, as reported in Table 2, indicate an annual loss to U.S. trade of the order of 68 million dollars in 1968 and 575 million dollars in 1972. This loss in trade has become increasingly more severe, since it represented only about 5 percent of actual exports of all goods included in this study in 1968 and approximately 27 percent of actual total trade by 1972. More severely affected, as expected, was the trade of variable levy commodities. Total variable levy goods exhibited a trade loss of about 14 percent of actual exports in 1968 as compared to 92 percent in 1972. These results confirm the a priori prediction made by Krause in a book published in 1968 [8]. His prediction, based on a multiple regression aggregate model for the EEC, was that by 1970, trade diversion due to the adoption of the CAP would run in the neighborhood of 500 million dollars per year.

In terms of the individual commodity groups, it appears that only

Table 2--Actual and Hypotetical United States Farm Exports to the EEC in 1968 and 1972

(Million U.S. Dollars)

Commodity Group	Actual X 1962	Actual X 1968	Hypothetical X' 1968	CAP Effect X - X' 68	Actual X 1972	Hypothetical X' 1972	CAP Effect X - X' 72
1. Live Animals	1.8	2.8	2.8	0.0	9.1	9.1	0.0
2. Meat	68.2	46.2	46.2	0.0	75.1	75.1	0.0
3. Dairy Products	3.4	0.3	9.5	-9.2	1.1	58.9	-57.8
4. Eggs	3.4	1.4	7.0	-5.6	1.8	10.3	-8.5
5. Wheat	50.6	83.0	83.0	0.0	94.0	94.0	0.0
6. Rice	14.3	26.0	26.0	0.0	16.9	41.9	-25.0
7. Barley	69.1	4.7	57.6	-52.9	4.7	66.4	-61.7
8. Maize	166.5	313.4	313.4	0.0	378.1	696.4	-318.3
9. Other Cereals	105.8	20.8	20.8	0.0	17.4	93.6	-76.2
Total Variable Levy Goods	483.1	498.6	566.3	-67.7	598.2	1145.7	-547.5
10. Fruits & Vegetables	92.7	62.2	62.2	0.0	130.5	130.5	0.0
11. Sugar	4.1	3.1	3.1	0.0	1.7	1.7	0.0
12. Oilseeds	174.0	301.1	301.1	0.0	649.4	649.4	0.0
13. Tobacco	105.5	128.5	128.5	0.0	157.8	185.5	-27.7
14. Fish	1.9	7.8	7.8	0.0	22.9	22.9	0.0
15. Animal Feeds	61.9	212.9	212.9	0.0	340.1	340.1	0.0
16. Hides, Skins & Furs	28.9	45.0	45.0	0.0	54.7	54.7	0.0
17. Wood, Cork & Pulp	77.6	151.6	151.6	0.0	203.0	203.0	0.0
Total Non-Variable Levy Goods	546.6	912.2	912.2	0.0	1560.1	1587.8	-27.7
Total All Goods	1029.7	1410.8	1478.5	-67.7	2158.3	2733.5	-575.2

exports of dairy products, eggs and barley have been affected by 1968, while by 1972, when the full impact of the adoption of the CAP was experienced, the commodities more seriously affected by the variable-levy were dairy products, barley, eggs, maize and other cereals. The annual trade loss in these goods for the United States amounted to 57.8, 61.7, 8.5, 318.3 and 76.2 million dollars by 1972, respectively. In particular, trade in barley and dairy products may have been affected by large surpluses and increased exports by the Common Market promoted since 1967 by means of export subsidies (restitutions). While the above results conform in general with the findings of other researchers [1,20], the magnitude of trade loss experienced in U.S. exports of dairy products to the EEC as suggested by the methodology of this study appears to be exaggerated in the light of a more careful examination of the evidence, because, with the exception of the 1956-1957 and 1963-1965 periods, the Common Market has not been a major market for U.S. exports of milk (mainly dried milk and cream) and butter.

The above evidence suggests that the formation of the CAP has affected the pattern of farm trade flows--especially the variable-levy goods--between the Common Market and the United States. It is important, though, to emphasize the approximate nature of the empirical results of this paper by providing some qualifications. First, the empirical framework is designed to arrive at only a "static" estimate of trade loss due to the CAP, without considering the possible "dynamic" impact of economic integration in the EEC.[8] Secondly, the partial equilibrium nature of the model limits the possibilities of estimating the third-country effects of the CAP on U.S. farm trade.[9] Furthermore, the F-test, developed here, cannot distinguish between intercept and slope shifts as

would have been appropriate in the case of oilseeds and tobacco. Finally, value figures for imports were utilized in order to arrive at a dollar estimate of trade loss, which does not allow to take into account divergent price and quantity trends for different commodities.

IV. Conclusions

In this paper a methodology has been developed, combining an econometric model of U.S. exports to the EEC and a dummy variable approach, that was utilized to estimate the farm trade loss incurred by the United States as a result of the adoption of the CAP. The main conclusion reached by this analysis is that the establishment of the variable-levy system of protection under the CAP has led to a considerable trade diversion in EEC-U.S. agricultural trade flows. The empirical results indicate an annual loss to U.S. trade of the order of 68 million dollars in 1968 and 575 million dollars in 1972.

Footnotes

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1. These include studies by Berntson, Goolsby and Nohre [1], Carney [2], Fox [5], Knox [7], Krause [8], Learn [11], Sorenson and Hathaway [18], and Tontz [20].
2. The temperate zone goods considered in this study, with the corresponding United Nations' Standard International Trade Classification number in parenthesis, include: Live animals (001), Meat and meat products (011), Dairy products (022, 023, 024), Eggs (025), Wheat (041), Rice (042), Barley (043), Maize (044), Other cereals and preparations (045, 046 047, 048), Fruits and vegetables (05), Sugar (06), Oilseeds (22), Tobacco (121), Fish and fish products (03), Animal feeds (081), Hides, skins, and furs (21) and Wood, cork and pulp (24, 25).
3. A more detailed description of the institutional arrangements of the CAP can be found in Riesenfeld [17], Marsh and Ritson [13], Wharley [21], Berntson, Goolsby and Nohre [1], and in a recent O.E.C.D. report [14].
4. These prices are known as "target (or indicative) prices" for cereals, oils and fats, milk, sugar and tobacco; "basic prices" for pigmeat, fruits and vegetables and wine; and "guide prices" for cattle and calves.
5. "Threshold prices" are minimum duty-paid import prices for cereals, dairy products, beef and veal, sugar and olive oil; "sluicegate prices" for pigmeat, poultry meat, wine and eggs; and "reference prices" for fruit and vegetables.

6. For a more detailed discussion of this specification of the export demand function see Leamer and Stern [10, pp. 7-55].

7. The test of whether the true relation is equation (1) or (2) in the text is an F-statistic calculated as follows:

$$F = [(SSRR - SSRU)/m]/[SSRU/(n-k)]$$

where SSRR and SSRU are the sums of squared residuals in equations (1) and (2) respectively, m is the number of additional parameters estimated in equation (2), n is the sample size and k is the number of estimated parameters.

8. A recent attempt to provide a quantitative estimate of the "dynamic" effects of the CAP has been made by Thorbecke and Pagoulatos [19].

9. For example, D. Gale Johnson [6, pp. 127-160] has estimated that the agricultural support and protectionist policies in the EEC and other industrial countries have depressed world prices for butter, sugar and rice.

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Appendix: Regression Results of United States Exports to the EEC of Temperate Zone Agricultural Products

(t-values in parentheses)

Commodity Group (S.I.T.C.)	Year		Intercept	D	Y	D·Y	P	D·P	R^2	D.W.	RHO
1. Live Animals (001)	53-72		-10.02[b]		.030[a]		-.040[c]		.93	1.55	.942
			(2.31)		(6.09)		(1.33)				
	53-62	D = 0	-19.80[b]	12.72[b]	.060[b]	-.030	.024	-.112[b]	.95	2.00	.930
	63-72	D = 1	(2.30)	(1.90)	(2.38)	(1.25)	(.531)	(1.86)			
			F(3,14) = 1.65 not significant at 10%								
2. Meat and meat products (01)	53-72		90.38[b]		.105[b]		-.707[c]		.77	2.04	.747
			(2.35)		(2.38)		(1.69)				
	53-62	D = 0	-25.47	84.12	.535[a]	-.485[a]	-.332	.146	.85	2.11	.467
	63-72	D = 1	(.489)	(1.24)	(3.87)	(3.08)	(.573)	(.176)			
			F(3,14) = 2.35 not significant at 10%								
3. Dairy Products (022,023,024)	53-72		216.38[a]		.063[c]		-1.66[a]		.51	1.92	.305
			(3.08)		(1.68)		(2.86)				
	53-64	D = 0	321.96[b]	-218.04[c]	.289[a]	-.296[b]	-2.85[a]	2.19[b]	.70	2.27	.515
	65-72	D = 1	(2.54)	(1.45)	(2.94)	(2.59)	(2.86)				
			F(3,14) = 3.09 significant at 10%								
4. Eggs (025)	53-72		4.35[b]		-.0017		-.0305		.44	1.92	.610
			(1.79)		(.425)		(.793)				
	53-62	D = 0	15.36[b]	-12.90[c]	.017	-.0188	-.292[a]	.291[b]	.67	2.01	-.072
	63-72	D = 1	(1.96)	(1.58)	(1.23)	(1.32)	(2.72)	(2.52)			
			F(3,14) = 3.32 significant at 10%								
5. Wheat, Unmilled (041)	53-72		62.97		-.029		-19.99[a]		.35	1.86	
			(.741)		(.369)		(2.58)				
	53-62	D = 0	184.70	-154.09	.154	-.163	-42.34[a]	28.24[c]	.49	1.95	.299
	63-72	D = 1	(.844)	(.647)	(.330)	(.334)	(3.40)	(1.48)			
			F(3,14) = 1.45 not significant at 10%								
	53-67	D = 0	-14.53	273.74	.062	-.145	-21.25[b]	-14.89	.37	1.92	
	68-72	D = 1	(.914)	(.194)	(.286)	(.169)	(2.28)	(.125)			
			F(3,14) = .204 not significant at 10%								
6. Rice	53-72		-2.49		.025		.527		.74	2.29	.726
			(.104)		(.956)		(.450)				
	53-64	D = 0	-7.78	-130.39	.112[a]	-.126[b]	-.282	9.16[c]	.82	1.99	.292
	65-72	D = 1	(.278)	(1.21)	(3.07)	(2.50)	(.204)	(1.48)			
			F(3,14) = 1.86 not significant at 10%								
	53-67	D = 0	-12.09	-191.04[c]	.087[a]	-.152[a]	.144	13.48[b]	.89	2.03	.113
	68-72	D = 1	(.570)	(1.41)	(5.74)	(4.43)	(.147)	(1.88)			
			F(3,14) = 6.42 significant at 1%								
7. Barley, Unmilled (043)	53-72		135.14[a]		-.054[b]		-16.70[b]		.33	1.70	
			(2.86)		(1.86)		(1.94)				
	53-62	D = 0	209.42[a]	-223.21[a]	.102	-.170	-34.43[a]	44.76[a]	.71	2.56	
	63-72	D = 1	(3.11)	(2.65)	(.771)	(1.22)	(3.52)	(3.29)			
			F(3,14) = 5.94 significant at 1%								
8. Maize, Unmilled (044)	53-72		-56.55		.536[b]		20.11		.89	1.90	.793
			(.462)		(2.47)		(.919)				
	53-62	D = 0	-226.87	271.01	1.54[b]	-1.26[b]	7.64	18.84	.92	1.99	.377
	63-72	D = 1	(.745)	(.790)	(2.41)	(1.85)	(.153)	(.325)			
			F(3,14) = 1.45 not significant at 10%								
	53-67	D = 0	-408.88[a]	546.74[a]	1.48[a]	-1.08[a]	47.96[a]	-55.16[c]	.96	3.05	
	68-72	D = 1	(4.31)	(3.03)	(13.66)	(5.52)	(2.81)	(1.48)			
			F(3,14) = 5.97 significant at 1%								
9. Other Cereals and Preparations (045,046,047, 048)	53-72		113.85[c]		-.159[c]		.077		.51	1.92	.614
			(1.53)		(1.36)		(.004)				
	53-62	D = 0	13.26	34.28	.503	-.862[b]	-6.80	38.83	.59	1.94	.289
	63-72	D = 1	(.086)	(.164)	(1.24)	(1.90)	(.303)	(.879)			
			F(3,14) = 1.01 not significant at 10%								
	53-67	D = 0	164.09[a]	-161.80	.140[a]	.124	-26.93[a]	4.27	.77	2.37	-.431
	68-72	D = 1	(4.28)	(1.24)	(2.80)	(.399)	(3.79)	(.083)			
			F(3,14) = 5.33 significant at 5%								

Continued

Commodity Group (S.I.T.C.)	Year	Intercept	D	Y	D·Y	P	D·P	R^2	D.W.	RHO
10. Fruits and Vegetables (05)	53-72	85.56[b]		.208[a]		-2.69		.75	2.01	.445
		(2.48)		(2.96)		(1.27)				
	53-62 D = 0	44.32	100.06	.155	.117	-.312	-5.46	.78	2.15	.320
	63-72 D = 1	(.835)	(1.25)	(1.15)	(.628)	(.088)	(1.05)			
			F(3,14) = .549 not significant at 10%							
11. Sugar (06)	53-72	7.59[a]		.001		-.344[c]		.27	1.96	.315
		(2.79)		(.287)		(1.43)				
	53-67 D = 0	5.43[c]	4.30	.007[c]	-.006	-.277	-.218	.43	2.10	.085
	68-72 D = 1	(1.71)	(.516)	(1.60)	(.645)	(.998)	(.293)			
			F(3,14) = 1.25 not significant at 10%							
12. Oilseeds (22)	53-72	-138.33[a]		1.00[a]		7.66[b]		.98	1.60	
		(4.75)		(16.84)		(1.95)				
	53-67 D = 0	-64.30	-253.01[a]	1.12[a]	.507[b]	-2.78	-1.28	.99	2.48	
	68-72 D = 1	(1.23)	(3.21)	(14.33)	(1.94)	(.440)	(.138)			
			F(3,14) = 2.50 not significant at 10%							
13. Tobacco (121)	53-72	-8.97		.125[b]		58.94		.87	1.79	
		(.176)		(2.27)		(1.21)				
	53-67 D = 0	-33.35	408.67[a]	.194[a]	.195[c]	66.91[b]	-304.58[a]	.95	2.55	
	68-72 D = 1	(.927)	(3.28)	(3.89)	(1.43)	(1.90)	(2.86)			
			F(3,14) = 7.81 significant at 1%							
14. Fish and Fish Products (03)	53-72	-7.12[a]		.046[a]		-.0002		.96	1.69	.569
		(4.36)		(5.92)		(.018)				
	53-62 D = 0	-.520	8.23[b]	.017	.023	-.0054	.019	.97	2.00	.350
	63-72 D = 1	(.161)	(2.08)	(.697)	(.834)	(.271)	(.663)			
			F(3,14) = 1.29 not significant at 10%							
15. Animal Feeds	53-72	-59.38[b]		.811[a]		-14.89[b]		.98	1.78	.657
		(2.40)		(10.48)		(2.16)				
	53-62 D = 0	-130.51[c]	100.58	.455[b]	.360[b]	19.02	-38.25[b]	.99	1.94	.188
	63-72 D = 1	(1.56)	(1.13)	(2.58)	(1.87)	(.987)	(1.84)			
			F(3,14) = 1.25 not significant at 10%							
16. Hides, Skins and Furs (21)	53-72	30.40[a]		.041[a]		-.164		.48	1.80	.265
		(2.73)		(2.70)		(.491)				
	53-62 D = 0	15.12	46.71[b]	.005	.011	.498	-1.34[b]	.65	2.20	.190
	63-72 D = 1	(.903)	(2.01)	(.064)	(.124)	(1.12)	(2.14)			
			F(3,14) = 2.33 not significant at 10%							
17. Wood, Cork and Pulp (24,25)	53-72	68.59[a]		.541[a]		-6.26[a]		.95	1.79	.248
		(2.77)		(10.69)		(3.61)				
	53-62 D = 0	-22.37	100.47	.517[b]	.038	-1.05	-5.85	.96	2.07	.247
	63-72 D = 1	(.147)	(.647)	(2.37)	(.153)	(.145)	(.762)			
			F(3,14) = 0.34 not significant at 10%							

Note: a indicates that the coefficient is significant at the 1% level while b and c indicate significance at the 5% and 10% level respectively.

D.W. is the Durbin-Watson statistic. RHO is the RHO-value estimated by the Cochrane-Orcutt iterative process presented in [3]