

International Agricultural Trade
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European Economic Integration and
the Consequences for U.S. Agriculture

by

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Working Paper # 91-7

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October 1991

European Economic Integration and the Consequences for U.S. Agriculture

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ABSTRACT

The pace of political-economic change in former East Bloc nations of Europe defies accurate prediction. Some events such as more price-directed markets are predictable enough but integration of former East Bloc countries into the European Community remains a matter of speculation. Analysis indicates that the economics of agriculture favors acceptance by the European Community of members of the European Free Trade Association before former members of the East Bloc. Analysis also indicates the considerable agricultural production potential of Central and East Europe will be unleashed first by market-directed economies and later by integration with the EC -- if the latter occurs. US consumers gain more than producers lose so the economic welfare of Americans is raised modestly.

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European Economic Integration and the Consequences for U.S. Agriculture

The political and economic face of Europe is changing at a pace not seen since the aftermath of World War II. The uneasy balance characterized by an East-West ideological standoff and separate, hostile economic blocs no longer holds.

The forces reshaping Europe involve Western as well as Eastern Europe. Strides toward a single preferential market by the European Community (Europe 1992) have caused serious concern in neighboring Western European countries. Since December, 1989 representatives of the twelve member¹ European Community (EC) and the six member² European Free Trade Association (EFTA) have been meeting to forge a common economic and political alliance. Some members of EFTA have made formal application for EC membership.

There is no less interest in EC membership on the part of emerging democracies in Eastern Europe. Within weeks of forming democratic governments, Eastern nations were talking openly of membership in the European Community. Hungary formalized relations with the EC and adopted EC food standards long before the Iron Curtain was dismantled in 1989.

¹Germany, France, Britain, Netherlands, Belgium, Luxembourg, Denmark, Italy, Ireland, Greece, Spain, and Portugal.

²Switzerland, Austria, Norway, Sweden, Finland, and Iceland.

Despite the turbulent European environment, there are clear signs that the new Europe will include greater political and economic integration. Even trade relations outside Europe point to greater European economic integration. The New International Economic Order is expected to include three major trading blocs: the North American Free Trade Area; an Asian trade area with Japan as the core; and the European Community (Tweeten, Zulauf, and Rask).

Since late summer of 1990, the former German Democratic Republic (East Germany or GDR) has been a part of the European Community; its full integration is well under way. There is a real possibility that all six EFTA countries and at least the northern East Bloc countries³ eventually will become full EC members (see Figure 1). Even where formal membership does not exist, European countries will align their economies and production standards with the EC if they expect to prosper. The purpose of this study is to estimate the impacts of European integration on world agricultural markets with special emphasis on the consequences to the US food and agriculture sector.

European Economic Alliances

The Common Agricultural Policy (CAP) of the European Community constitutes one of the most formidable systems of commodity price support and market isolation in the world. The CAP has been the central political, economic and administrative feature of the EC since its inception in 1958. The CAP budget comprises over 70 percent of the total EC

³Poland, Czechoslovakia, and Hungary.

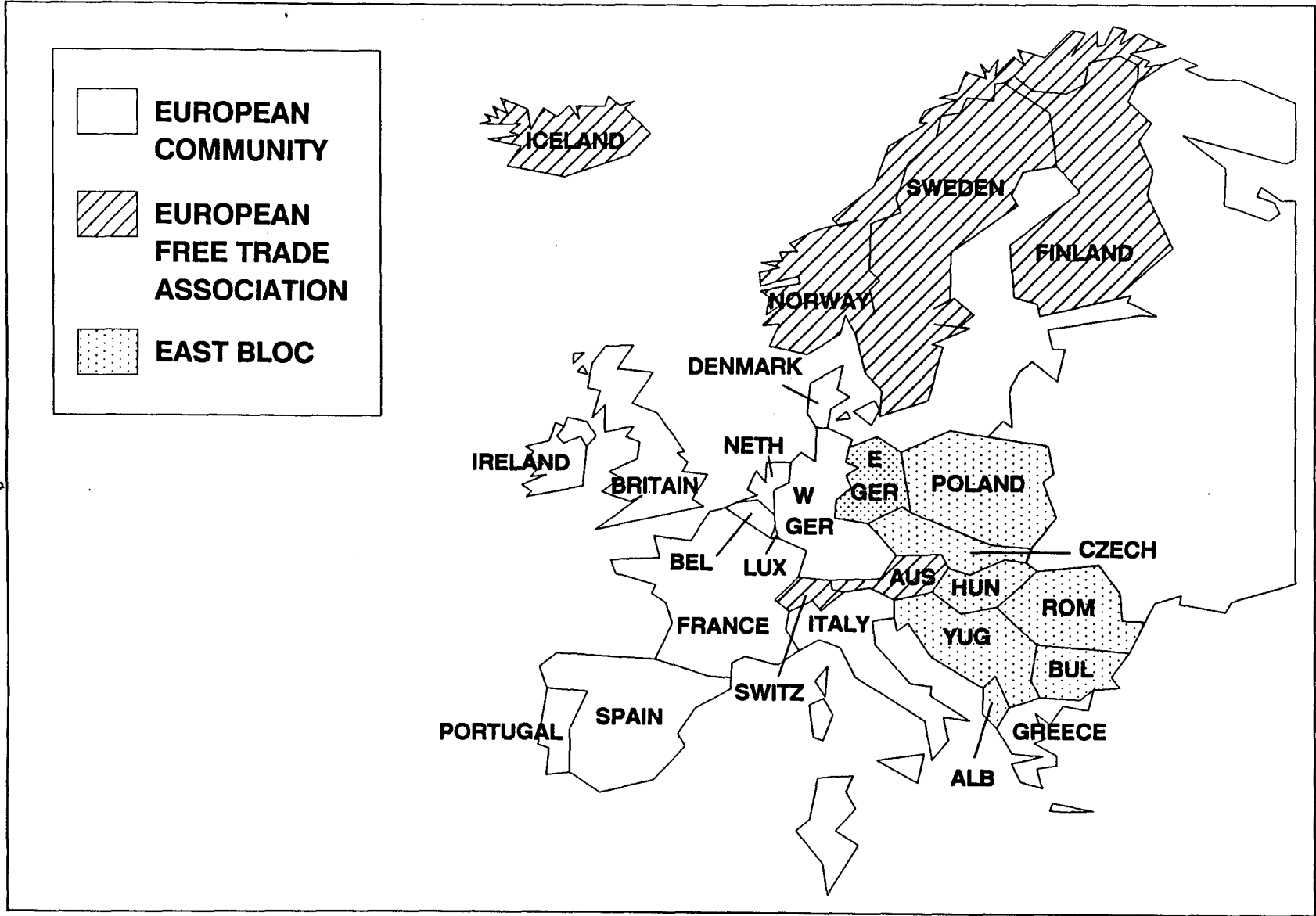


Figure 1. European Economic Regions.

budget most years. Variable levies and export restitutions provide high interior prices which benefit Community producers and isolate them from world prices. In such a system, all internal shocks are not absorbed locally but are transmitted to world markets.

EC consumers and taxpayers must pay the higher market price plus huge export subsidy costs. New member countries moving inside Common Agricultural Policy barriers will conform to the current pricing scheme. Where prices are significantly different from CAP prices, market impacts in these new member countries may be important. Additionally, by virtue of their proximity to the European Community, East Bloc countries are experiencing changes in consumer good availability, technology transfer, labor efficiency and input availability. The emergence of price-directed markets with resulting productivity gains and consumption declines are independent of membership in the EC but will still impact world markets.

Information in Table 1 provides some comparisons between regions in Europe and the United States. Prosperity, as measured by per capita income, is high in Western Europe (EC and EFTA) but low in East Bloc countries. East German per capita income was and remains low by Western standards, but the country was the most prosperous in Eastern Europe. The combined 1989 income of an integrated Europe (\$4,625 billion) exceeded US GNP; the 494 million citizens of an integrated Europe contrast with a US population of 250 million. The numbers provide clues to the potential size of an integrated European economy. If it achieved US-level per capita income, European economic size would be more than double that of the United States. Arable land (142 million hectares in Europe or three-fourths that of the US) indicates that capacity for production in an integrated

Europe is sizable, especially considering that livestock productivity in Western Europe is on par with the US. Crop yields are higher in Europe.

Table 1. Population, Land, and Economic Comparisons, 1989.

Region	Population	Arable Land	Income	Income per Capita
	(Million)	(Million Hectares)	(\$ Billion)	(\$)
European Community (12)	323	79	3,468	12,000
European Free Trade Area (6)	32	9	514	15,800
German Democratic Republic (former)	17	5	118	6,900
East Bloc Countries (7)	122	49	525	4,200
United States	241	190	4,239	17,600

Sources: OECD, FAO, and Statistisches Jahrbuch der DDR, 1989.

European agricultural production and food consumption are heterogeneous. East European farm size, structure and efficiency as well as the prominence of price-directed markets varies among countries. Hungary has a favorable climate and soils along with a predominance of large, technologically advanced collective farms. Hungarian markets are relatively well-developed by Eastern standards. Poland and Yugoslavia differ from other countries by having small, privately-owned, technologically backward farms and chronic shortages of food. Farms of the former German Democratic Republic are huge collectives which yield about one-half that of the tiny West German farms per hectare and use three times as much labor input per hectare. The driving force behind East Bloc food and

agriculture policy since World War II has been self-sufficiency in conjunction with highly subsidized consumer pricing.

The EFTA countries are similar to the EC as a whole, and they are almost indistinguishable from the northern EC countries in terms of farm structure, productivity and consumption patterns. EFTA countries tend to support commodity prices at high levels to producers, in most cases higher than CAP price levels.

The size and diversity in an integrated Europe does not necessarily constitute complementary in commodity production or huge gains from free trade. All regions produce abundant meat, milk, grains and sugar. All regions are deficient in oil products. Almost half the 1987 EC agricultural imports of \$16 billion was for oilseed and oilseed products. A fully integrated Europe would continue to show vast differences in farm structure between East and West.

Although the European Commission recently recommended differential pricing based on farm size, the Council of Ministers rejected the proposal. All farms, including huge East German collectives, continue to access the high common support prices. Current surpluses in livestock products and grain, as well as deficiencies in oilseed products, would be enlarged in an integrated Europe. Changes would affect world markets and Europe's major trading partners, including the United States. The European Community is our second largest customer for agricultural products and our biggest competitor in world grain markets.

Estimating possible impacts from European integration begins with a theoretical framework. Simulations of market emergence and integration in this study are made using neoclassical economic conceptual and quantitative models.

Emergence of price-directed commodity markets in the former GDR and in other East Bloc countries is ongoing and independent of other events. Market emergence in these countries is presumed -- independent of integration scenarios.

European economic integration simulations will be reported in order of likelihood: The integration of the former GDR into the EC, which is a matter of fact rather than speculation; the integration of the EFTA countries into EC-GDR; the integration of the northern East Bloc countries (Poland, Czechoslovakia, and Hungary) into the EC-GDR-EFTA merger; and finally a full European integration, with the southern East Bloc countries (Romania, Bulgaria, Yugoslavia and Albania) joining the rest of Europe.

Conceptual Framework

The effects of emerging price-directed markets are conceptualized in the graphical model depicted in Figure 2. A traditional commodity (i.e. grain or livestock) market for an East European country is illustrated in the left panel of the figure; the policy impact on the US is depicted in the right panel. Pre-liberalization self-sufficiency is presumed in the European country with production and consumption quantity q_0 at the world price of P_w . Lower personal income along with greater availability and lower prices of substitutes cause food demand to shift from d to d' . Greater availability and quality of production inputs, technological transfer, and scale adjustments combine to shift supply from s to s' . The East Bloc country goes from self-sufficiency to exporting quantity $q_s - q_d$ in the left panel. As a result, world price falls from P_w to P'_w . US exports are reduced from $Q_s - Q_d$ to $Q'_s - Q'_d$ in the

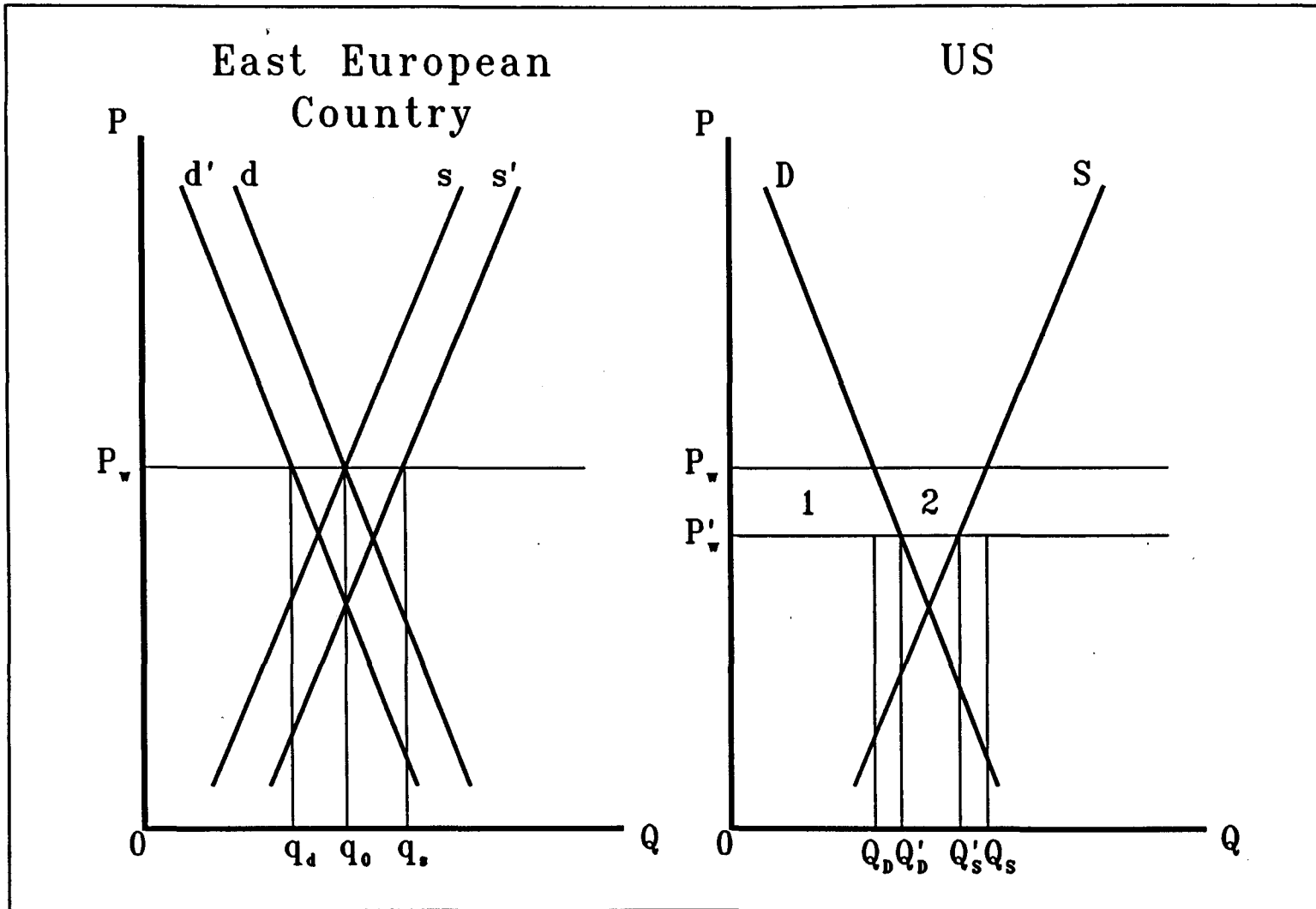


Figure 2. East European Price-Directed Market Emergence.

right panel. US consumers benefit by area 1 while producers are worse off by area 1+2, leaving a net loss to the US of area 2.

The effects of integrating a new member with higher price supports into the European Community CAP is conceptualized in the graphical model of Figure 3. Traditional commodity markets for the European Community and a new member country are illustrated in the left and center panels. The new member's initial support price, P_{NM} , is higher than the CAP support price, P_{EC} , both of which are higher than the world price P_w . As the lower CAP price supports are adopted, the new member's exports shrink from $q_s - q_d$ to $q'_s - q'_d$. The overall effect of less exports is to increase world price P_w to P'_w , benefitting US producers by area 1+2 in the right panel. US consumers lose area 1, leaving a net US benefit of area 2.

Figure 4 conceptualizes the integration of a country with initial price supports lower than those of the CAP. As the higher price supports of the Community are adopted, the new country imports shrink from $q_d - q_s$ to $q'_d - q'_s$. The reduction in imports lowers the world price from P_w to P'_w , benefitting US consumers in the right panel by area 1. US producers lose area 1+2, leaving a net US loss of area 2.

The simple conceptual framework cannot reveal the overall consequences of price-directed market emergence and European integration. For example, if the US were a net importer, results would be quite different than those in Figures 2, 3, and 4. The individual partial equilibrium graphs cannot account for the impacts of the several countries and regions or the interactions of numerous commodities. These are best estimated with a

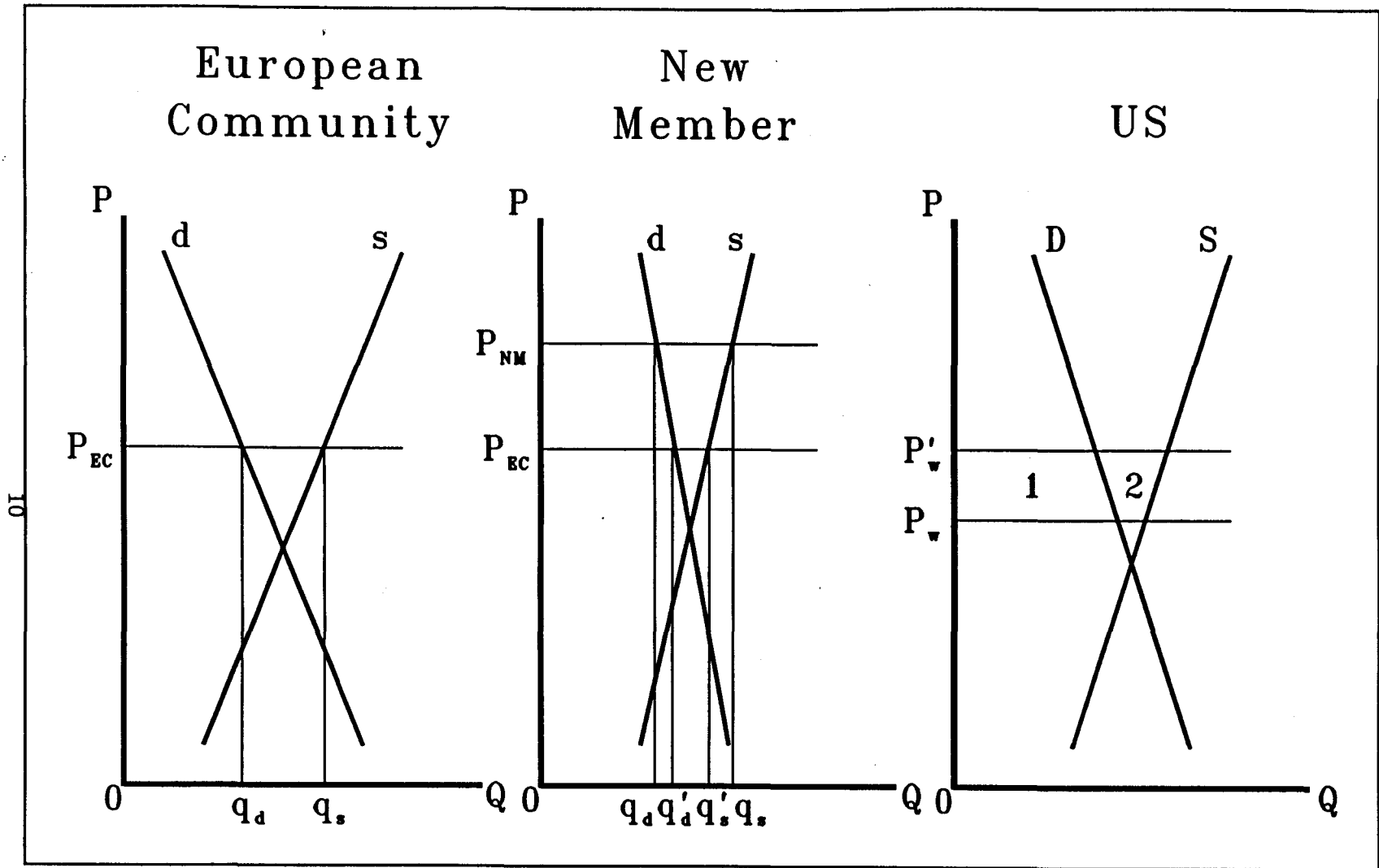


Figure 3. Integration of New EC Member with Higher Support Price.

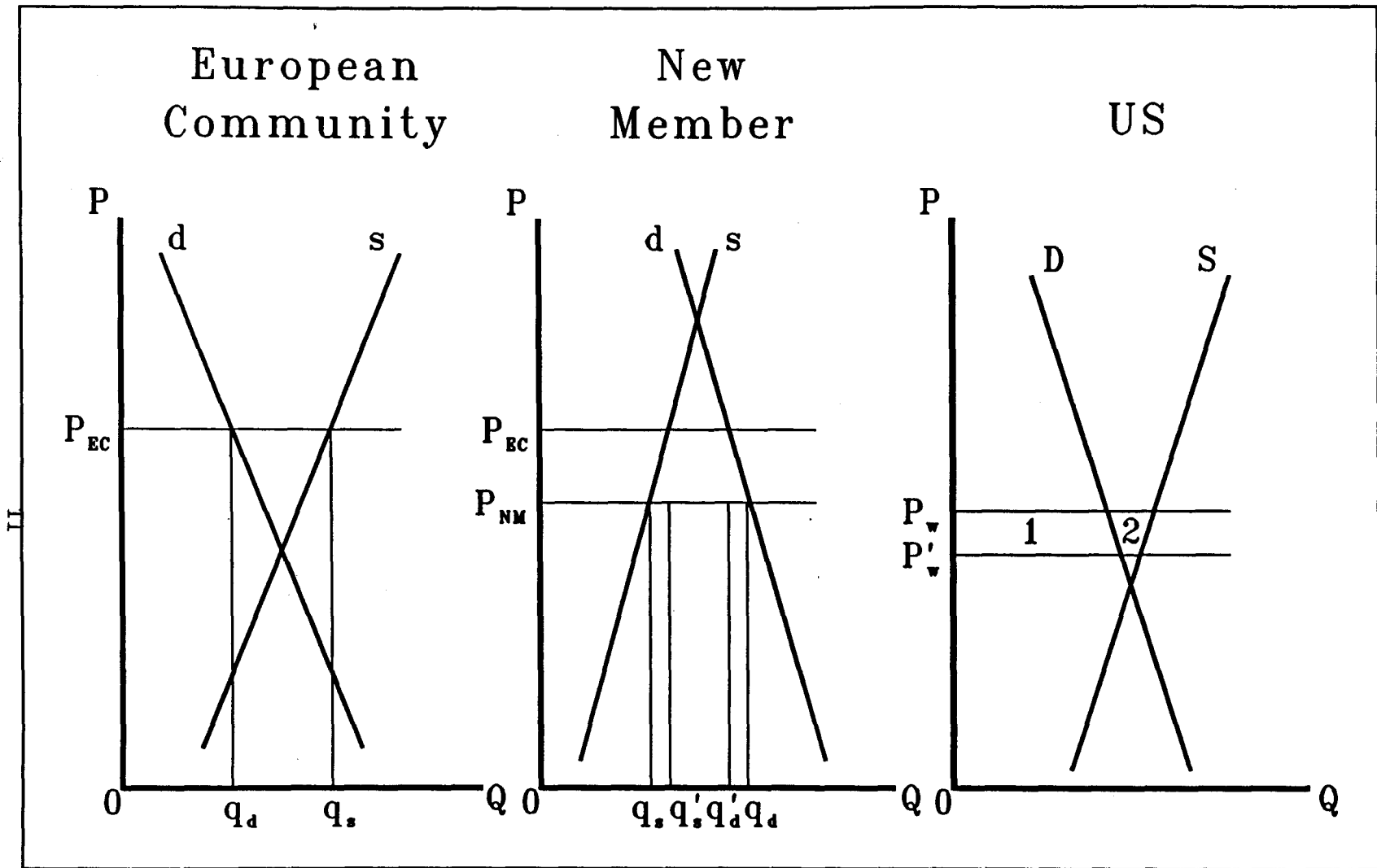


Figure 4. Integration of New EC Member with Lower Support Price.

quantitative world trade model. Impacts of European integration are simulated and quantified in the next section.

Quantitative Analysis

Impacts of East European market emergence and European integration are estimated using a world trade simulation model incorporating the assumptions of neoclassical trade theory (see Roningen *et al.*, March 1991). Data for 1989 were used to initialize the model. Results reflect changes from 1989 conditions and are in 1989 prices. The behavioral coefficients in constant elasticity equations simulate outcomes after an intermediate-run adjustment period of 4 to 6 years. The model simultaneously estimates changes in markets for nine commodities: beef, pork, poultry meat, wheat, corn, coarse grains (other than corn), oilseeds (soybeans, rapeseed, and sunflower seed), oilmeal and sugar. Cross-effects among commodities and input-output relationships between field crop and livestock production are accounted for by substitution and complementary coefficients in behavioral equations.

The emergence of price-directed markets in Eastern European countries is simulated by shifting demand and supply similar to the graphical illustration in Figure 2. Each East Bloc country's functions are shifted individually depending on the estimated effects of market emergence. These shifts represent only partial (5 year) adjustments to efficiency gains and substitution effects. Overall, East European demand is estimated to shrink approximately 5 percent and supply increase 13 percent. The shifts in supply and demand for each commodity were estimated by East European specialists in the Centrally Planned

Economies Branch of USDA-ERS. These specialists also estimated exchange rates which allow comparison of East European prices with European Community prices for all commodities in the model (Cochrane, August 1989 and August 1990). The shifts and price changes used to simulate Eastern market emergence and EC integration are presented in Table 2. The numbers on the right side of Table 2 indicate what would happen to domestic prices in each Eastern region were it to adopt CAP prices under 1989 conditions.

As stated earlier, the impact of market emergence and integration is reported in order of their perceived likelihood beginning with the merger of the former GDR, followed by the addition of the six EFTA countries, the three northern East Bloc countries and the five southern East Bloc countries. Each simulation assumes continuation of previous new integration, hence results are cumulative. Estimated trade and welfare impacts are summarized in Tables 3 through 5.

Except for pork, estimates of world price changes in Table 3 are negative. Estimated prices generally fall further as more East Bloc countries are included in the European Community.⁴ All four scenarios reflect medium-term production efficiency gains and consumption reductions in Eastern Europe as well as integration with EC.

⁴To give some idea of relative magnitude for comparison, simulations of full *world-wide* agricultural trade liberalization in the late 1980s indicated wheat price changes of only 5 to 18 percent, depending on the base year and model used (Roningen and Dixit, August 1989).

Table 2. Production and Price Changes Used to Simulate Market Emergence and EC Integration.

	East European Productivity Shifts (5 year)			East European Adoption of CAP Prices					
	East Germany	Northern East Bloc	Southern East Bloc	East Germany		Northern East Bloc		Southern East Bloc	
				Producers	Consumers	Producers	Consumers	Producers	Consumers
	(Percent)			(Percent increase in domestic prices)					
Beef	16	11	28	20	416	10	169	91	122
¹ Pork	5	11	15	-45	163	-30	38	38	0
Poultry Meat	0	11	6	-16	182	-17	81	-33	60
Wheat	10	15	19	-10	135	6	37	14	-30
Corn	13	4	15	19	55	29	57	-6	26
Coarse Grains	6	16	24	-6	212	21	53	-23	5
Oilseeds	5	6	6	44	3	11	-14	41	12
Oilmeal	7	5	7	-5	19	0	42	2	28
Sugar	25	16	12	45	186	44	142	21	63

World prices are estimated to fall 2 to 8 percent with East German merger into the European Community agricultural support system (column one, Table 3). These declines are currently underway but are sometimes obscured by stock accumulation, supply control, or abnormal weather in the EC. About 80 percent of the price declines in the first column are due to supply and demand adjustments all across Eastern Europe with the remaining 20 percent of the decline due to East German adoption of EC prices.

Table 3. World Price Changes at Different Levels of Integration, Intermediate Run from 1989 Prices.

Commodity	Market Emergence in Eastern Europe; also East Germany Joins EC	EFTA Joins EC and East Germany	Northern East Bloc Joins EC, East Germany, and EFTA	Full European Integration
	(Percent increase)			
Beef	-4.69	-4.07	-6.80	-8.51
Pork	-4.45	-1.26	1.87	2.31
Poultry Meat	-3.02	-2.37	-2.14	-1.47
Wheat	-5.74	-5.11	-7.75	-7.24
Corn	-4.75	-4.08	-7.31	-8.53
Coarse Grains	-8.30	-9.13	-17.75	-17.69
Oilseeds	-1.78	-1.95	-3.03	-3.63
Oilmeal	-2.02	-2.13	-3.57	-4.25
Sugar	-4.82	-4.61	-8.20	-9.06

Including the EFTA countries in the integration scheme (second column of Table 3) dampens the adverse impact on world price in most cases. EFTA production falls because domestic price support levels drop somewhat when these countries come under the CAP.

Reduced production and increased consumption in EFTA nations moderate East European impacts.

The merger of other East European regions with the European Community (third and fourth columns) places further downward pressure on world prices in most commodities. CAP price effects result in a net increase of production over consumption in all commodities except pork and poultry meat.

European economic welfare impacts for the four simulations are presented in Table 4. Welfare data for the former GDR and the two East Bloc regions are integration impacts (resulting from price and other impacts of becoming part of the CAP). The impacts recorded in Table 4 result from the adoption of CAP prices (Table 2, right side) and are over and above the price-directed market impacts which all East Bloc regions experience independent of their integration into the EC.

The simulations are not progressive. Each scenario simulates a specified level of European Community integration in 1989. The left columns of Table 4 separate the producer and consumer impacts of the addition to the EC merger.

As the first simulation (top block in Table 4) illustrates, agricultural markets in the original 12 EC countries are little affected by the merger of East Germany into the CAP. CAP border measures, designed to insulate member markets, work. Impacts on East German producers are mixed whereas the once-subsidized East German consumers are exposed to higher prices in every commodity upon moving into the CAP system. Data in the second block of Table 4 show that EFTA producers are made worse off by integration into the CAP because they lose their prior high price supports. Northern East Bloc and

Table 4. European Welfare Impacts of Increasing Levels of Integration.

Commodity	Gains from Integration to:					CAP Budget	Total
	Additional Members		Other EC Members				
	Producers	Consumers	Producers	Consumers			
(\$ Million)							
<i>East Germany Joins EC</i>							
	GDR		EC-12				
Beef	347	-1,183	9	0	-232		
Pork	-1,582	-1,610	14	0	-243		
Poultry Meat	-51	-211	7	0	-19		
Wheat	-50	-437	11	0	-288		
Corn	2	-73	0	0	80		
Coarse Grains	-25	-801	4	0	-146		
Oilseeds	64	-3	-53	125	-60		
Oilmeal	-4	-70	-58	146	0		
Sugar	98	-368	0	0	-60		
Total	-1,200	-4,754	-67	271	-967		-6,717
<i>EFTA Joins EC and GDR</i>							
	EFTA		EC-12 and GDR				
Beef	-666	333	356	-1,183	-199		
Pork	-1,537	3,678	-1,567	-1,610	265		
Poultry Meat	-133	112	-49	-211	36		
Wheat	-234	275	-39	-437	-205		
Corn	-38	15	2	-73	44		
Coarse Grains	-32	-33	-21	-801	-264		
Oilseeds	126	2	5	134	-187		
Oilmeal	-1	0	-64	84	0		
Sugar	-120	-143	98	-368	-13		
Total	-2,635	4,241	-1,272	-4,463	-522		-4,651

Table 4 cont.

Commodity	Gains from Integration to:					CAP Budget	Total
	Additional Members		Other EC Members				
	Producers	Consumers	Producers	Consumers			

(\$ Million)

Northern East Bloc Joins EC, GDR, and EFTA

	Northern East Bloc		EC-12, GDR, and EFTA			
Beef	348	-3,021	-303	-850	-615	
Pork	-2,227	-2,696	-3,094	2,069	391	
Poultry Meat	-383	-791	-171	-99	-76	
Wheat	213	-1,429	-266	-162	-798	
Corn	318	-515	-36	-57	-294	
Coarse Grains	844	-1,396	-50	-834	-979	
Oilseeds	98	124	96	216	-621	
Oilmeal	0	-282	-111	199	0	
Sugar	477	-1,372	-22	-511	-201	
Total	-313	-11,379	-3,958	-28	-3,191	-18,869

Full European Integration

	Southern East Bloc		EC-12, GDR, EFTA, and Northern East Bloc			
Beef	1,232	-1,195	49	-3,870	-1,056	
Pork	1,056	-95	-5,316	-628	213	
Poultry Meat	-540	-574	-551	-890	-113	
Wheat	607	1,849	-49	-1,591	-1,049	
Corn	-191	-859	281	-573	-525	
Coarse Grains	-305	-70	795	-2,230	-989	
Oilseeds	328	-90	167	389	-1,003	
Oilmeal	-3	-158	-133	-24	0	
Sugar	102	-525	455	-1,883	-200	
Total	2,284	-1,718	-4,303	-11,298	-4,721	-19,756

Southern East Bloc producers have mixed results if they join, whereas consumers lose in almost every case when their consumption is taxed in the EC.

Because Community border measures minimize impacts on the EC, the real costs of integration are evident in the budget column of Table 4. Much of the \$967 million CAP cost of German unification will be borne by the Federal Republic of Germany. The EFTA merger adds less to the CAP budget than does the GDR integration alone. Less production and more consumption in EFTA absorb some of the EC surpluses. EFTA is a net contributor to the CAP even without a budget donation.

Including other East European regions in an expanded Common Agricultural Policy quickly increases the budget. The 1989 CAP budget expenditure to support prices of the nine modeled commodities was \$3.6 billion. If all Eastern Europe were to move into the CAP, the price support bill would increase by 130% (to \$4.7 billion, Table 4). Because many of the Eastern regions are impoverished and eligible for special assistance in addition to that for commodities, the full integration scenario could greatly expand CAP budget requirements. The burden of financing CAP for an agricultural sector roughly twice the size of the present EC-12 would fall squarely on the shoulders of the original 12 members; none of the new Eastern countries is likely to become a net contributor in the near term. Including the EFTA countries in the integration scheme would spread costs among more strong economies.

None of the mergers results in overall welfare benefits (last column, Table 4). Welfare losses arise in part because consumers face high prices for foods produced at high

cost. In other cases, improved technology and producer price supports generate surpluses costly to the CAP.

Because higher-priced West European commodities currently are flowing east at record rates, one might not expect large consumer price impacts with integration. However, the current situation is transitory and current commodity flows are sometimes the result of subsidies or food aid. An important basic point remains: Merging agricultural sectors with similar comparative advantage does not result in welfare gains.

Table 5 summarizes impacts on US markets of the changes in Europe. Although every integration scheme appears to be almost welfare-neutral for the US as a whole, American producers (or taxpayers) are worse off from lower world prices. Depending on the target prices and loan rates in effect when prices fall, all or part of producers' losses might be transferred to taxpayers. Supply control and price enhancement mechanisms (as opposed to direct compensation) would shift costs to consumers, reducing their gains from those in Table 5.

As expected, EFTA integration mitigates some of the loss from Eastern market emergence and German unification. Northern and Southern East Bloc mergers bode progressively worse for US producers. From Table 5 it could be inferred that the worst case for American farmers would be East European integration without the EFTA merger. It is cautioned however, that these are intermediate-term impacts. Long-term and non-price consequences of European integration may result in a different assessment. A restructuring of CAP policies toward supply control or lower price supports could alter the results from those in this report based on 1989 conditions.

Table 5. US Welfare Impacts of Increasing Levels of European Integration.

Commodity	Welfare Gains to US:			
	Producers (or Taxpayers) ^a		Producers (or Taxpayers) ^a	
	Consumers	Consumers	Consumers	Consumers
	(\$ Million)			
	<u>East Germany Joins EC</u>		<u>Northern East Bloc Joins EC, GDR, and EFTA</u>	
Beef	-491	585	-711	856
Pork	-392	508	354	-211
Poultry Meat	-233	261	-133	184
Wheat	-217	106	-269	144
Corn	-454	371	-699	579
Coarse Grains	-142	121	-309	268
Oilseeds	-146	132	-248	224
Oilmeal	-98	108	-176	197
Sugar	-29	41	-50	71
Total	<u>-2,202</u>	<u>2,233</u>	<u>-2,241</u>	<u>2,312</u>
Net Welfare		31		71
	<u>EFTA Join EC and GDR</u>		<u>Full European Integration</u>	
Beef	-426	508	-901	1,078
Pork	-57	143	422	-260
Poultry Meat	-178	205	-65	127
Wheat	-190	95	-235	134
Corn	-383	320	-830	676
Coarse Grains	-159	135	-307	266
Oilseeds	-166	146	-304	269
Oilmeal	-102	116	-208	236
Sugar	-27	39	-57	78
Total	-1,688	1,707	<u>-2,485</u>	<u>2,604</u>
Net Welfare		19		119

^a If decoupled direct payments compensate for producers' losses, dollars are interchangeable 1:1 between producers and taxpayers (government).

Conclusions

The extent of future European integration remains a matter of speculation, but adjustments to price-directed markets in Eastern Europe and to German unification are not. Recent events in Europe have unleashed forces that eventually will lower world prices over a broad spectrum of agricultural commodities. The impacts on some US agricultural markets will be significant. Policy makers, producers and the food industry should be prepared for substantial change.

Expanding the European Community to include the European Free Trade Association countries is shown to be advantageous for EC agricultural sector markets and the CAP budget. EFTA countries currently are better prepared to share CAP and other EC expenses than any other nations in Europe. Such an expansion would moderate world price declines and dampens negative impacts of European changes on US producers, at least in the intermediate term.

Further mergers of East Bloc countries would burden the EC price support budget. The Community, already facing a crisis in financing agricultural programs, could need to restructure the CAP.

East Bloc integration would reduce world prices and US farm income (or raise government commodity program costs). However, US consumers gain a little more than producers lose so overall US welfare is raised modestly by further European integration. Producers of corn and beef could lose the most while consumers of these products could gain the most.

Despite the budget difficulties which would result with current CAP producer supports, the political momentum for stabilizing and integrating Eastern Europe with Western Europe could result in full membership of several additional East European countries in the EC by the end of the century. But a conclusion of this study is that the economics of agriculture will encourage the EC to accept membership from EFTA more quickly than from former East Bloc countries.

References

- Cochrane, Nancy. August 1990. Trade liberalization in Yugoslavia and Poland. Staff Report No. AGES 9058. Washington, DC: Economic Research Service, US Department of Agriculture.
- Cochrane, Nancy. July 1989. Agricultural statistics of Eastern Europe and the Soviet Union, 1965-85. Bulletin SB-778. Washington, DC: Economic Research Service, US Department of Agriculture.
- Cochrane, Nancy and Miles Lambert. August 1989. Agricultural performance in Eastern Europe, 1988. Staff Report No. AGES 89-38. Washington, DC: Economic Research Service, US Department of Agriculture.
- Gleckler, James and Luther Tweeten. 1990. US investment opportunities in East German agriculture after unification. ESO 1744. Columbus: Department of Agricultural Economics and Rural Sociology, The Ohio State University.
- Roningen, Vernon, Praveen Dixit, John Sullivan, and Trace Hart. March 1991. Overview of the static world policy simulation modeling framework. Staff Report AGES 9114. Washington, DC: Economic Research Service, US Department of Agriculture.
- Roningen, Vernon and Praveen Dixit. August 1989. Economic implications of agricultural policy reforms in industrial market economies. Staff Report AGES 89-36. Washington, DC: Economic Research Service, US Department of Agriculture.

October 15, 1991

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