THE IMPACT OF AGRICULTURAL POLICIES ON REGIONAL GRAIN AND LIVESTOCK PRICES IN THE EUROPEAN ECONOMIC COMMUNITY

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IN THE EUROPEAN ECONOMIC COMMUNITY

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ABSTRACT

THE IMPACT OF AGRICULTURAL POLICIES
ON REGIONAL GRAIN AND LIVESTOCK PRICES
IN THE EUROPEAN ECONOMIC COMMUNITY

by Donald J. Epp

Because of the importance of European markets for American agricultural products, changes in European farm policies, such as the development of the Common Agricultural Policy of the EEC, have an important impact on U.S. farmers and exporters. This study is part of a larger effort to determine the consumption and production relationships for grain and livestock products in the EEC and to project the impact of the common policies to 1970 and 1975. Three other sub-projects studied the production relationships in different areas of the EEC--Italy, France and Northern EEC--while this report gives the results of the fourth sub-project concerning the changes in the prices and marketing of grains and livestock in the EEC.

One project objective was to describe the farm level prices prior to the introduction of EEC marketing policies. Since the EEC policies provide for intervention at the wholesale level, it is necessary to understand the marketing system to know how the policies will affect the farmer. Thus, another objective was to describe the marketing system that generates the prices received by farmers. The third objective was to estimate the impact of the Common Agricultural Policy on the price surfaces and marketing systems and to project producer prices to 1970 and 1975. This projection also considered the impact of changes in the transportation system on the flow of agricultural products in the EEC.

The EEC was divided into 19 regions and average producer prices were calculated for each region for four time periods--1959-61, 1963-64, 1970 and 1975. The prices in the first two periods came from secondary sources while those for 1970 and 1975 were projected by this study. The price study indicated that (1) French wheat prices will increase about 20 percent and French and Italian feed grain prices will increase from 25 to 35 percent from 1960 to 1970, (2) all areas will have beef, veal and milk price increases ranging from 15 to 55 percent, and (3) price declines for hogs, broilers and eggs in most areas will range from less than 5 percent to over 50 percent from 1960 to 1970.

The movement to a common price policy changed the relative prices of grains so that wheat is overpriced relative to its feeding value. This may contribute to further wheat production and less utilization of wheat for feed. Furthermore, the present surplus production of butter and powdered skim milk in the EEC and the potential surplus of cheese may increase the cost of supporting the milk prices. The increasing Agricultural Fund expenditures due to these developments may require adjustment in EEC policies or intervention price levels.

The Common Agricultural Policy also affects the balance of payments of the member countries and causes income transfers through the European Agricultural Guidance and Guarantee Fund. Net importers of agricultural products, such as Italy and Germany, send agricultural import duties to the Fund and net exporters, such as France and the Netherlands, receive export restitutions from the Fund. Regional differences in commodity price changes due to adopting the EEC policies increase this transfer of funds from the net importing to the net exporting countries.

Drawing upon an EEC study of returns to labor and capital in farming, this report indicates that the greatest increases in product prices are projected for those regions and for the commodities produced by the farms already having the highest incomes. This finding indicates the difficulty of solving low income problems in agriculture using price policy alone and may affect future policy decisions of the EEC.

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By

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CHAPTER I

INTRODUCTION

The signing of the Treaty of Rome by Belgium, France, West Germany, Italy, Luxembourg and the Netherlands on March 25, 1957, created the European Economic Community and touched off a series of changes with world-wide significance. The form of economic integration envisioned in the Treaty of Rome is what Balassa calls a common market.[1] This eliminates all tariff and quantitative trade barriers between members, establishes a common tariff on trade with non-members and abolishes restrictions of factor movements between members. It is the first time that this many advanced economies have been united to this extent and the potential impact of the unification is likely to be felt in many different countries.

The Study of EEC Agriculture

While all areas of economic activity have caused adjustment problems, one of the most troublesome has been devising a common policy for agriculture. The difficulties on this subject even resulted in the French government boycotting the meetings of the EEC during the last half of 1965. The American government has also maintained a close watch on developments in EEC agricultural policy. The formation of the Common

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[1]Bela Balassa, The Theory of Economic Integration (Homewood, Illinois: Richard D. Irwin, Inc., 1961), p.2.

Market unites five of the top ten foreign cash markets for U.S. agricultural products[2] into a single entity, whose policies may influence our future sales abroad. In order to properly guide the development of American production, policy makers and advisors must consider the adjustments that will result from this major change in the market.

To better understand the changes resulting from the shift to a common agricultural policy in the EEC and to learn more about the production and consumption of agricultural products in the EEC, the U.S. Department of Agriculture contracted with the Department of Agricultural Economics at Michigan State University to study the EEC. One objective of the study is to develop better estimates of the relationships between the output of grains and livestock and agricultural prices, market structures, production techniques and farm structure. Another goal is to analyze the development of consumer demand for farm products and project this demand to 1970 and 1975. The third objective is to determine the likely impact of developments in the EEC on the agricultural exports of the United States.

To facilitate the research, the project was divided into four sub-projects, each of which involved the study of a portion of the EEC. The titles of the four sub-projects are as follows:

1. Changes in the livestock and feed economy of the Northern EEC,
2. Changes in the livestock and feed economy of the Southern EEC,
3. Changes in the livestock and feed economy of France,

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[2]The leading dollar markets for U.S. agricultural exports in the 1965-66 marketing year were Japan, Canada, Netherlands, West Germany, United Kingdom, Italy, Spain, Belgium-Luxembourg, France, and Denmark, as reported in U.S. Department of Agriculture, Economic Research Service, <u>Foreign Agricultural Trade of the United States</u> (Washington: November, 1966), p. 35.

4. Changes in prices and marketing of grains and livestock in the EEC.

The results of each sub-project are published separately with a final report of the overall project drawing on the sub-project reports and projections of demand to relate expected changes in EEC agriculture to the trade prospects for U.S. agricultural exports.

The Study of Prices and Marketing

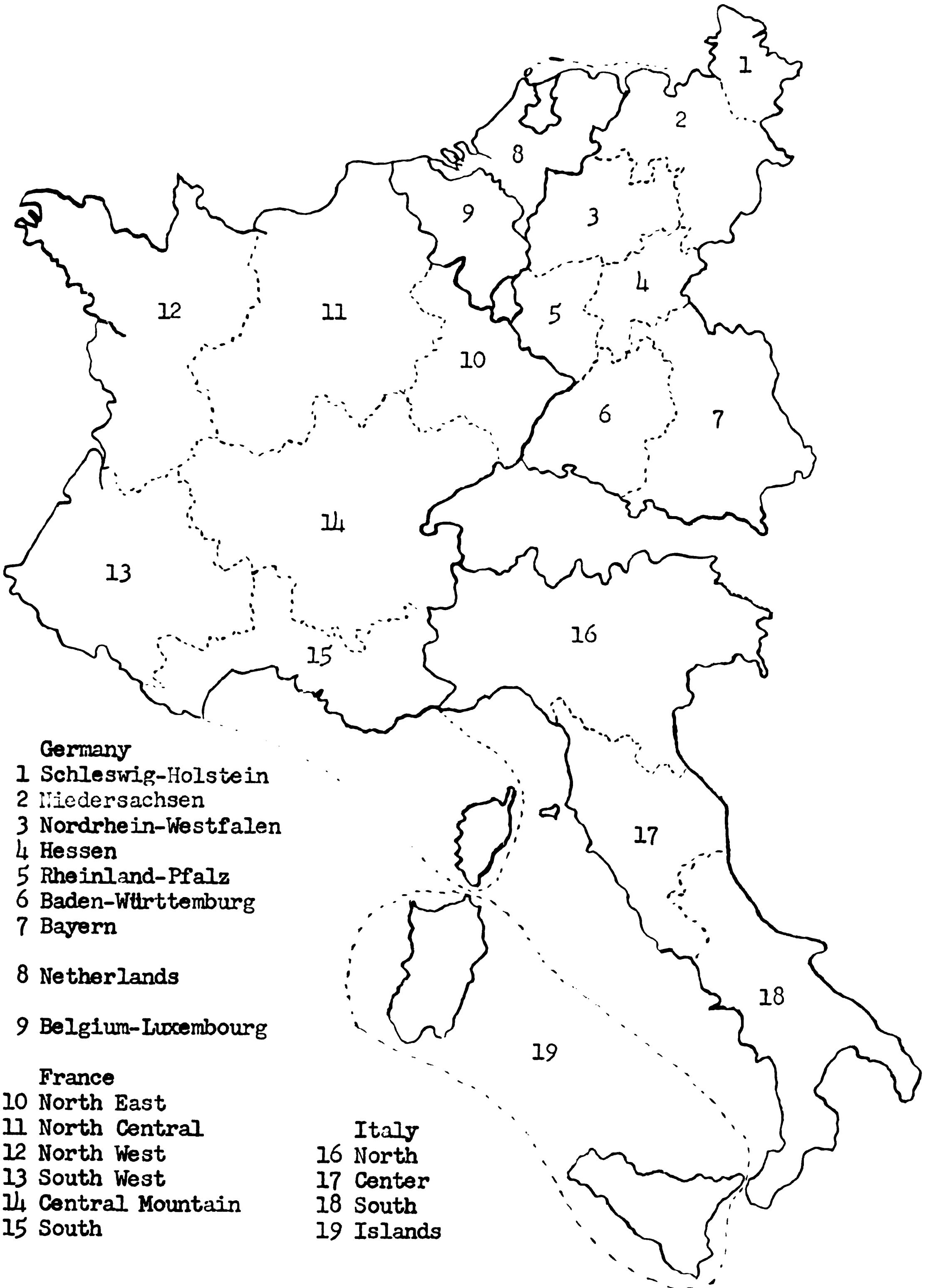
This report gives the results of the fourth sub-project concerning the changes in the prices and marketing of grains and livestock in the EEC. The specific commodities studied were wheat, durum wheat, barley, malting barley, rye, corn, beef cattle, calves, hogs, milk, broilers and eggs. One of the project objectives is to describe the farm level prices for these commodities prior to the introduction of the EEC marketing policies. Since the EEC policies provide for intervention at the wholesale level, it is necessary to understand the marketing system to know how the policies will affect the farmer. Thus, another objective is to describe the marketing system that generates the prices received by farmers. The third objective is to estimate the impact of the Common Agricultural Policy on the price surfaces and marketing systems and to project producer prices to 1970 and 1975. This projection also considers any changes in the transportation system and how such changes will affect the flow of agricultural products in the EEC.

Coordination with the other sub-projects became very important in this study since the production analysis was based on regions within France, Germany, and Italy. This required that the regions established for the production studies be the same as those used for reporting prices so that production projections to 1970 and 1975 could include the effects of price changes. Figure 1 shows the regions of the EEC used in all sub-projects. Since very little grain or livestock is produced in the South region in France, it is given only cursory coverage in the production study of France and no prices were collected for the region.

Organization of the Report

The next chapter describes the market systems for grains and livestock products. Both the organizations that handle the products and the transportation flows are included. Chapter III discusses the Common Agricultural Policy of the EEC and relates it to previous policies of the member countries. The description of the past and projected price surfaces is found in Chapter IV and Appendix II, while the final chapter includes observations on the impact of the new policies on the EEC.

Fig. 1.--The regions of the EEC



Germany
1 Schleswig-Holstein
2 Niedersachsen
3 Nordrhein-Westfalen
4 Hessen
5 Rheinland-Pfalz
6 Baden-Württemburg
7 Bayern

8 Netherlands

9 Belgium-Luxembourg

France
10 North East
11 North Central
12 North West
13 South West
14 Central Mountain
15 South

Italy
16 North
17 Center
18 South
19 Islands

CHAPTER II

THE MARKET FOR FARM PRODUCTS

The marketing aspects of greatest concern in this chapter are the spatial separation of production and consumption and the system of organizations developed to overcome this geographic separation. Most of the chapter discusses the system for moving goods from the area of production to the area of consumption, including the organizations that handle the goods and the flows of these goods from place to place in the Community. Of course, the analysis of commodity movements must include a description of production locations, but these areas are treated in greater detail elsewhere.[1] Thus, the first part of the chapter describes the location of demand in the EEC followed by a discussion of the marketing systems and commodity movements of grains and livestock products.

One aspect of the demand for farm products is the number of people. The location of the population, particularly in large cities, determines many of the flows of agricultural products. Figure 2, showing the population of areas of the EEC as well as the location of the major cities, indicates the concentration of people into the northwestern parts of the Community. Over half of the people in the EEC live north of a line running through Munich and Paris, and nearly one-third are in the triangle having Paris at the apex and the Netherlands and Nordrhein-Westfalen as

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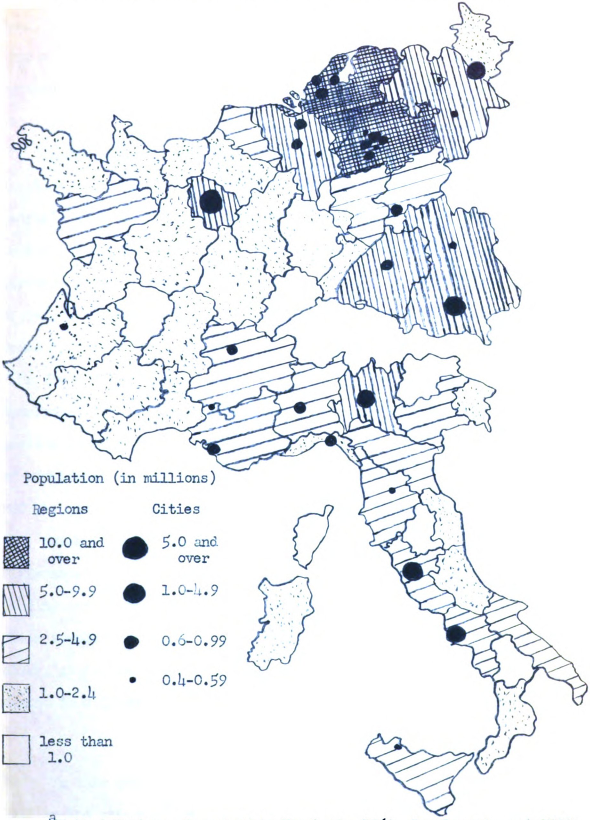
[1]See the reports of the sub-projects covering the Northern EEC, the Southern EEC, and France.

Fig. 2.--Population of regions and major cities in the EEC[a]



[a]United Nations, Demographic Yearbook, 1963, Supplement, and OEEC, Agricultural Regions in the European Economic Community, 1960.

a base. Certainly, the large cities in other areas, such as Milan and Rome, are important demand centers, but the high concentration of people into a relatively small part of the Community, means that much of the movement of internally produced food must be directed toward the Northwest.

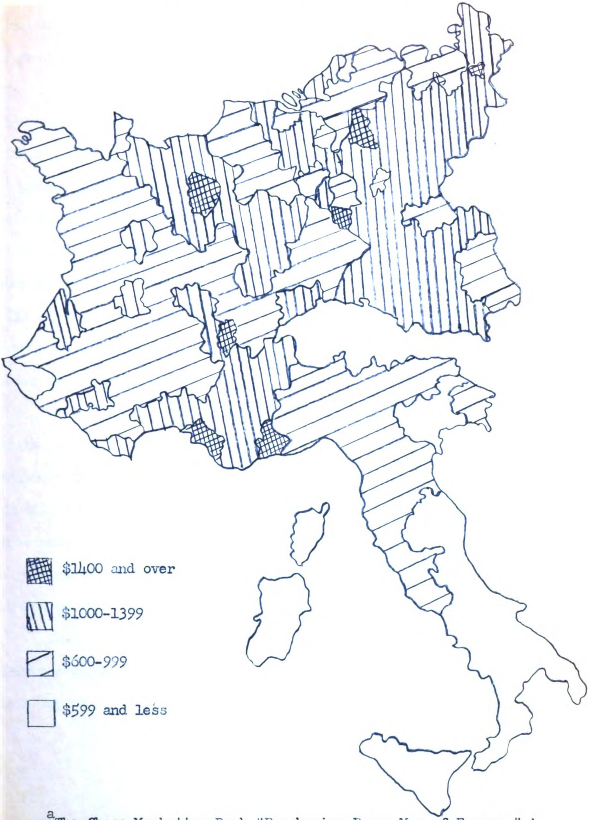
A simple head-count, however, is not sufficient to describe the location of demand for agricultural products. Money also talks by making people's wants effective in the marketplace. Figure 3, showing the per capita income by regions in the EEC, again stresses the importance of the northern parts of the Community. Most of the large population centers of Germany, the Netherlands and Belgium are in areas with per capita incomes equivalent to $1000 or more. The most densely populated area, the Ruhr River valley, has incomes over $1400 as does the Paris area and Saarland. The regions of high per capita incomes in southern France are located in resort areas having small populations. Thus, the combination of population density and high incomes makes the northwestern part of the EEC the most important demand center for farm products.

With further development of the Common Market, many of the income differences may be reduced and the new marketing technology permits storing and transporting perishable commodities to distant areas. While these trends will cause the diets of all areas of the EEC to become more alike, it is likely that the large differences in the kinds of food demanded in different parts of the Community will continue for many years.

The Marketing of Grain

In this section the marketing channels for grains are described as well as the movements of grains between regions of the EEC. The first

Fig. 3.--Annual per capita Income[a]



[a]The Chase Manhattan Bank, "Purchasing Power Map of Europe," A supplement to The European Market, 1964.

part describes the movements of grains between the regions of the EEC. Because one of the primary advantages of a customs union is the unrestricted movement of goods across country boundries, it is believed that one of the important results of the Common Agricultural Policy and the unified market will be an increased interchange of agricultural products within the Community. By examining the most important trade routes used at present and the possible shifts in these routes, it is possible to gain insights into the potential for future movement. Also, the information on the important transportation methods employed will be useful when discussing the future price surface for grains. At that point it will be necessary to adjust price projections to reflect inter-regional transportation costs, which will depend on the routes available and the modes of transportation used.

The second part deals with the outlets available to farmers for grain in the three major grain countries of the EEC--Germany, Italy and France. The discussion follows the marketing channels from the farm to the first processor of the grain, or alternatively, to the exporter. From this discussion of the marketing system it is possible to understand more clearly how the price system operates and how the prices established by EEC policies will be transmitted to the farmer.

Thus, the following material provides a fuller understanding of European markets and a necessary background for subsequent portions of this report.

International Grain Trade of The EEC

Importance

Exports and imports of grain play an important part in the grain trade of the EEC. France is the only member country that exports sizeable quantities of grains, although the Netherlands and Belgium-Luxembourg also export about one-fifth of their wheat production and almost half of the Dutch feed grain production was exported during the early 1960's. (See Table 1.) The nearly three million tons of wheat exported by France and the 2.3 million tons of feed grains accounted for about 85 percent and 77 percent respectively of the average exports of the EEC countries of these grains from 1962 to 1964. Thus, France is the only member country that has a major concern for developing markets in third countries for its grain production. The other countries use most of their production internally, and, as will be shown later, what little they export goes mainly to other EEC countries.

Imports, on the other hand, are an important matter for every country except France. Germany has the biggest average imports of both wheat and feed grains, but Italy, Netherlands and Belgium-Luxembourg all import from 1.5 to 3 million tons of feed grains a year. (See Table 1.) Imports are equal to three-fourths of the annual production in Germany and Italy, are three times annual production in Belgium, and are nearly six times domestic output in the Netherlands. Even though a large portion of the Dutch and Belgian imports of feed grains and wheat is re-exported to other European countries, the remainder contributes significantly to the total domestic supply.

While imports are an important part of the total grain supply for five of the EEC countries, these imports do not come primarily from the

TABLE 1.--Production, imports and exports of grain by EEC member countries, average of 1962-1964[a]

	France	Germany	Italy	Netherlands	Belgium-Lux.
WHEAT					
Production (1000 tons)	12714	4883	8743	615	886
Imports (1000 tons)	685	1685	593	703	512
Percentage of Production	5.4%	34.5%	6.8%	114.3%	57.8%
Exports (1000 tons)	2899	90	32	124	205
Percentage of Production	22.8%	1.8%	0.4%	20.2%	23.1%
FEED GRAINS (including Rye)					
Production (1000 tons)	9672	5263	3900	543	528
Imports (1000 tons)	617	3823	2944	3161	1687
Percentage of Production	6.4%	72.6%	75.5%	582.1%	319.5%
Exports (1000 tons)	2373	216	210	262	22
Percentage of Production	24.5%	4.1%	5.4%	48.2%	4.2%

[a]United Nations, Food and Agriculture Organization, Production Yearbook, 1963, 1964, and 1965, and World Grain Trade Statistics, 1964-1965.

EEC area. The data in Tables 2 and 3 shows that less than 30 percent of the imports of the EEC countries come from the other members and nearly all of this comes from France. The United States is a major supplier of both wheat and feed grains. This includes up to half of the wheat and three-fourths of the feed grain imports of the Netherlands and smaller, but still important, portions for other countries. This dependence on third country suppliers indicates two important points concerning the trade patterns of the EEC. First, the EEC has not traditionally produced enough grains for its own needs, and second, that the exports from France have gone to third country areas to a sizable degree in the past.

The Patterns of Grain Flows

After seeing the importance of imported grains for the various member countries, the next step is to look at the sources and destinations of these grain imports. By identifying the most important trade channels, we can determine the most likely impacts of a unified grain market. A knowledge of trade patterns helps in estimating regional prices since future trade channels are likely to be much like existing ones. The huge fixed capital investment in transportation facilities and the difficulties experienced in developing a unified transportation policy make it highly unlikely that significant shifts will occur before 1975.

Germany

The study of trade flows begins with Germany for two reasons: there is more data available that identifies the region of source and destination, and Germany has the biggest demand for imported grains. An examination of the major trade flows involving Germany will show most of the important grain flows for the entire EEC.

TABLE 2.--Percentage of wheat imported by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports	Imports from U.S.	Imports from EEC		Percentage of EEC Imports from				
	(1000 tons)	(% of total)	(1000 tons)	(% of total)	France	Germany	Italy	Netherlands	Bel.-Lux.
France									
1955-57	819	35.6	48	6.2	--	4.2	83.3	14.6	--
1959-61	450	15.8	14	2.6	--	--	100.0	--	--
1963-65	685	33.9	3	0.4	--	--	--	66.7	33.3
Germany									
1955-57	2768	26.3	440	16.4	94.3	--	5.2	0.5	--
1959-61	2371	13.6	457	19.5	93.4	--	3.7	0.9	1.8
1963-65	1685	21.8	192	11.4	82.8	--	--	2.6	14.6
Italy									
1955-57	641	14.9	4	0.6	100.0	--	--	--	--
1959-61	1029	30.2	--	--	--	--	--	--	--
1963-65	593	9.5	193	32.6	100.0	--	--	--	--
Netherlands									
1955-57	798	52.2	68	8.7	97.1	--	--	--	1.5
1959-61	788	33.2	103	12.7	30.1	20.4	--	--	48.5
1963-65	703	52.8	98	13.3	98.0	--	--	--	2.0
Belgium-Lux.									
1955-57	463	28.5	7	1.4	--	28.6	--	71.4	--
1959-61	450	20.8	4	0.9	25.0	25.0	--	50.0	--
1963-65	512	12.6	103	20.3	99.0	--	--	1.0	--

[a]United Nations, Commodity Trade Statistics, various yearly volumes.

TABLE 3.--Percentage of feed grains imported by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports	Imports from U.S.	Imports from EEC		Percentage of EEC Imports from				
	(1000 tons)	(% of total)	(1000 tons)	(% of total)	France	Germany	Italy	Netherlands	Bel.-Lux.
France									
1955-57	434	29.1	10	1.4	--	--	--	60.0	40.0
1959-61	288	45.4	--	--	--	--	--	--	--
1963-65	617	59.3	99	15.2	--	--	99.0	1.0	--
Germany									
1955-57	2346	20.5	202	8.3	77.7	--	4.5	17.8	--
1959-61	2774	39.3	256	9.4	65.6	--	0.4	34.0	--
1963-65	3823	39.6	1186	30.1	60.8	--	20.6	16.9	1.7
Italy									
1955-57	636	7.1	17	3.0	76.5	17.6	--	5.9	--
1959-61	2144	6.3	281	11.2	78.6	20.6	--	--	--
1963-65	2944	31.4	139	3.0	100.0	--	--	--	--
Netherlands									
1955-57	2017	55.9	137	6.6	64.2	9.5	--	--	26.2
1959-61	2736	67.1	120	4.4	44.2	40.0	--	--	14.2
1963-65	3161	76.7	95	3.1	85.3	1.1	--	--	11.6
Belgium-Lux.									
1955-57	1384	39.2	295	20.8	67.1	8.8	1.0	23.4	--
1959-61	1438	54.8	194	14.0	57.7	16.5	--	24.7	--
1963-65	1687	60.2	253	14.9	83.0	--	--	16.6	--

[a]United Nations, *Commodity Trade Statistics*, various yearly volumes.

About two-thirds of Germany's grain imports arrive by ship, being unloaded at one of the North Sea ports of which Hamburg and Bremen are the most important. (See Table 4.) A little over half of the grain arriving by ship comes from North America and only very small amounts from other EEC member countries. (See Table 5.) France has recently increased sea shipments but these still amount to less than ten percent of the imports by ship.

Of the grain that arrived through the North Sea ports in the early 1960's, about two-thirds was shipped to the interior in barges. This grain moved mainly to the northern areas of Germany (55%) and to the Rhein-Ruhr area (23%). (See Table 6.) The remaining third of the grain was moved by rail and went to other locations within the northern parts of the country (40%), or to Bayern (40%). The movement to Bayern was primarily wheat of high milling quality for blending into bread flour. A national subsidy provided very low freight rates on grains and made possible this shipment over a relatively long distance. In recent years there has been a shift toward moving more of the grain by rail so this mode now accounts for over half of the shipments out of the ports. The most notable change in the destination of the grain has been a dramatic decline in shipments to Bayern (down to 5%) and an increase in shipments to the Eastern Bloc (80%). The decline in shipments to Bayern is due to reductions in the transportation subsidy given to grains, although this subsidy is not yet completely eliminated. The northern area of Germany remains an important recipient of grain from the ports although the amount and relative importance have both declined since the early 1960's.

The remaining third of Germany's grain imports enter the country by barge. Almost all of the barge imports come from EEC member countries

TABLE 4.--German grain imports, by country of origin and mode of transportation, 1962-1964[a]

Country		Mode of Transportation				
		Ship ('62-'63)	Barge ('62-'63)	Rail	Truck	Total ('62-'63)
Netherlands	(a)	20.5	1651.4	4.8	63.9	1733.7
	(b)	1.2	95.2	.3	3.7	100.0
	(c)	.5	73.7	2.2	65.5	25.8
Belgium-Lux	(a)	7.2	154.2	9.0	6.1	172.2
	(b)	4.2	89.5	5.2	3.5	100.0
	(c)	.2	6.9	4.1	6.3	2.6
France	(a)	124.2	378.1	112.1	26.9	629.0
	(b)	19.7	60.1	17.8	4.3	100.0
	(c)	2.9	16.9	50.6[b]	27.6	9.4
Italy	(a)	.6	--	32.2	--	32.9
	(b)	1.8	--	98.2	--	100.0
	(c)	2.9	--	14.6	--	.5
EEC Total	(a)	152.4	2183.7	189.3	96.9	2567.8
	(b)	5.9	85.0	7.4	3.8	100.0
	(c)	3.6	97.4	85.5	99.0	38.2
Other	(a)	4073.5	57.2	32.1	1.1	4157.1
	(b)	98.0	1.4	.8	--	100.0
	(c)	96.4	2.6	14.5	1.1	61.8
Total	(a)	4225.8	2240.9	221.4	97.6	6724.8
	(b)	62.8	33.3	3.3	1.5	100.0
	(c)	100.0	100.0	100.0	100.0	100.0

(a) Average imports (1000 tons)
(b) Percentage of total imports of a country arriving by each mode of transportation
(c) Percentage of total imports brought by a mode of transportation that are destined for each country.

[a] Statistiches Bundesamt, Verkehr (Fachserie H), Wiesbaden, 1965.

[b] 1962-1963 only.

TABLE 5.--Imports of grain by ship to Germany from selected regions, 1962 and 1963[a]

Region of Origin	1962 1000 tons	1962 %	1963 1000 tons	1963 %
Netherlands	21.2	0.4	19.7	0.6
Belgium-Luxembourg	5.1	0.1	9.3	0.3
France				
Near English Channel	24.1	0.5	105.1	3.1
Near Atlantic	4.7	0.1	114.2	3.3
Other	---	---	.2	---
	28.8	0.6	219.5	6.4
Canada				
Near Atlantic	665.5	13.2	796.4	23.3
Near Great Lakes	14.5	.3	19.5	.6
Near Pacific	254.9	5.1	120.4	3.5
	934.9	18.6	936.3	27.4
United States				
Near Great Lakes	566.5	11.3	188.3	5.5
Near Atlantic	116.6	2.3	259.3	7.6
Near Gulf of Mexico	737.1	14.6	498.3	14.6
Near Pacific	276.1	5.6	94.6	2.8
	1696.3	33.7	1040.5	30.5
All Other	2347.7	46.6	1192.3	34.9
Total	5034.0	100.0	3417.6	100.0

[a]Statistiches Bundesamt, Seeschiffahrt (Fachserie H., Verkehr, Reihe 2).

TABLE 6.--Flows of grain from German North Sea ports[a] to the interior[b]

Region	Barge				Rail					
	1962		1963		1962		1963		1964	
	1000 t.	%	1000 t.	%	1000 t.	%	1000 t.	%	1000 t.	%
North-West Germany	1083.6	55.9	553.3	46.6	320.3	39.7	271.2	37.4	237.5	14.0
Rhein-Rhur Area	440.5	22.7	228.3	19.2	44.3	5.5	52.6	7.2	7.9	0.5
Rhein-Main Area	84.0	4.3	32.7	2.8	30.6	3.8	16.9	2.3	6.9	0.4
South-West Germany	183.0	9.4	105.7	8.9	31.9	3.9	34.4	4.7	7.4	0.4
Bayern	20.3	1.0	4.7	0.4	332.4	41.2	128.4	17.7	77.3	4.6
Saarland	--		--		11.1	1.4	2.4	0.3	0.7	0.0
Other Areas[c] and Foreign Countries	126.7	6.5	261.5	22.0	37.0	4.6	220.0	30.3	1360.6	80.1
Total	1938.1	100.0	1186.2	100.0	807.6	100.0	725.9	100.0	1698.7	100.0

[a]Hamburg, Bremen (including Unterweser) and Emden.

[b]Statistisches Bundesamt, Verkehr (Fachserie H).

[c]East Germany and West Berlin.

with the Netherlands providing 73% and France 17%. (See Table 7.) The Rhein-Rhur area is the major grain deficit area and is easily accessable by waterway. Therefore it is the destination of most of the barge imports. While 57% of the barge imports head for the Rhein-Rhur area, another 24% are directed toward the Southwestern area. These two areas are primarily served by imports from the Netherlands with lesser amounts coming from France and Belgium. It is interesting to note the difference in the areas of France serving the two different areas of Germany. Of the imports arriving from France, the Rhein-Rhur area received its grain mainly from the area near the English Channel while the Southwest got its grain from the Strasbourg area of France.

France

Being a surplus grain producer, France exports large amounts of feed grains and wheat. Currently about half of her feed grain exports and about 13 percent of the wheat exports go to EEC member countries, Germany being the primary destination for both. Almost all exports to Germany and the Benelux countries are from the northeastern one-fourth of France where the canals provide cheap transportation to the deficit regions of the importing countries. Grain produced in the western half of France is generally shipped by rail to Atlantic ports and has historically been sold to the United Kingdom and the Scandinavian countries, as well as recent sales to Communist China. After 1962 the price advantages in EEC countries resulted in small shipments to North Sea ports of the Netherlands and Germany and in some wheat shipments to Sicily. Apparently the shipments to Sicily have replaced the traditional movements from northern Italy and are due solely to price differences during the transition period that will be eliminated as the EEC adopts a common price

TABLE 7.--Movement of grain by barge from foreign regions to regions in Germany, average of 1962 and 1963[a]

Destination		Neth.	France				Bel.-Lux.	S.E. Europe	Other	Total
			near Channel	Strasbourg	Northeast	Interior				
North-West	(a)	55.7	7.4	0.5	3.3	11.7	2.2	5.0	0.8	86.4
	(b)	64.5	8.6	.6	3.8	13.5	2.5	5.8	.9	100.0
	(c)	3.4	4.9	.5	6.9	16.1	1.4	19.2	2.6	3.9
Rhein-Rhur	(a)	963.8	132.3	11.3	27.6	47.5	78.9	--	23.7	1284.9
	(b)	75.0	10.3	.9	2.1	3.7	6.1	--	1.8	100.0
	(c)	58.4	88.3	10.9	57.5	65.3	51.1	--	76.0	57.3
Rhein-Main	(a)	178.7	4.4	34.7	6.1	7.6	23.3	--	3.4	257.9
	(b)	69.3	1.7	13.5	2.4	2.9	9.0	--	1.3	100.0
	(c)	10.8	2.9	33.6	12.7	10.4	15.1	--	10.9	11.5
South-West	(a)	414.6	3.5	47.5	7.6	7.9	44.4	--	3.3	529.1
	(b)	78.4	.7	9.0	1.4	1.5	8.4	--	.6	100.0
	(c)	25.1	2.3	46.0	15.8	10.9	28.7	--	10.6	23.6
Bayern	(a)	39.1	0.5	9.4	.7	2.1	5.3	21.0	--	78.0
	(b)	50.1	.6	12.1	.9	2.7	6.8	26.9	--	100.0
	(c)	2.4	.3	9.1	1.5	2.9	3.4	80.8	--	3.5
Saarland	(a)	--	1.2	--	2.3	1.0	0.2	--	--	4.6
	(b)	--	26.1	--	50.0	21.7	4.3	--	--	100.0
	(c)	--	.8	--	4.8	1.4	.1	--	--	.2
Germany	(a)	1651.5	149.8	103.2	48.0	72.8	154.2	26.0	31.2	2240.9
	(b)	73.7	6.7	4.6	2.1	3.2	6.9	1.2	1.4	100.0
	(c)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Amount of grain (1000 tons).
(b) Percentage of total grain shipped to the listed destination.
(c) Percentage of total grain shipped from the listed source.
(Each figure is a separate average and totals may not equal the sum of their components.)

[a]Statistiches Bundesamt, Binnenschiffahrt (Fachserie H, Verkehr, Reihe 1).

surface. With the elimination of the price advantages of shipping to Italy, the destinations of wheat from Atlantic ports can be expected to reflect the traditional flows to the United Kingdom and other world markets outside of the EEC.

France imports small quantities of wheat and feed grains even though it is a surplus producer of both. The United States supplies 60 percent of the feed grain imports and 33 percent of the wheat. Very recently Italy has shipped sizeable quantities of corn to France, although this is probably re-exported corn from third countries since very little domestically produced corn enters commercial channels. The feed grain imports from third countries probably enter France through the English Channel ports for use in the livestock areas of Normandy and the Northeast, while corn imports from Italy enter through the Mediterranean ports destined for the Rhone Valley area. The high quality wheat imported from North America is used by the milling industry centered around Paris and enters through the Channel ports, especially Le Harve.

The internal movement of grain in France is generally toward the center. The wheat milling industry is concentrated around Paris while feed grains are used in the livestock areas that ring the Paris Basin. Since livestock production in the Paris Basin itself is relatively small at present, there is a movement of feed grains produced in the Paris area outward to the livestock areas, but these are short distance movements compared to the longer distance movements of grains from the Southwest to the Northwest and Northeast.

Italy

Italy now is an importer of grains, although she did export fairly large quantities of wheat in the late 1950's and early 1960's. Now, the small export of grains is primarily corn going to France and southern Germany. As indicated in the section on France, it is quite likely that the corn exported has been imported originally from third countries, since most of the domestically produced corn is used on the farm and does not enter commercial channels. Exports to France probably move by ship to ports in southern France and from there to livestock producing areas in the Rhone Valley. Corn shipped to Germany moves by train, mostly into Bayern and Baden-Württemberg. Some grain may also be shipped by train to Basel, Switzerland, and transshipped to barge for movement along the Rhine and its tributaries. The most important of these grain movements from the viewpoint of the recipient is the movement to Bayern, where rail shipments from Italy account for about 40 percent of the grain shipped into the region.

Since livestock feeding is concentrated in Northern Italy, most grain imports are destined for this region with about two-thirds of the corn imports entering through northern ports. (See Table 8.) The major suppliers of imported corn are the United States and Argentina, while barley is supplied by these two countries plus Russia, Canada, and several countries of the Middle East. There is only a small amount of wheat imported into Italy, coming mainly from France. Some is brought into northern Italy by truck or rail, usually to mills that buy in small quantities.

Imported grain is distributed from ports to the using regions primarily by truck with rail being an important supplementary method from Genoa and La Spezia. Genoa, Ravenna, and Venice handle the largest portion of the grain imports. Genoa is the primary supply port for the

TABLE 8.--Regional imports of corn by Italy by area of origin in thousands of tons, average of 1963 and 1964[a]

Region of Port	Plata	North America[b]	Total of All Countries
North	1,349 45.6%	1,058 35.8%	2,958 100%
Center	118 30.6%	136 35.2%	386 100%
South	259 74.4%	4 1.1%	348 100%
Islands	77 68.8%	1 .9%	112 100%
TOTAL	1,803 47.4%	1,199 31.5%	3,804 100%

[a]Romano Graziani, U.S. Feed Grains Council, Rome, from a paper presented at the U.S. Trade Center, Milan, April 20, 1965, Table 2.

[b]Mainly U.S.

upper regions of the Po Valley with Venice and Ravenna generally supplying the lower valley. About 99 percent of the grain leaves Venice and and Ravenna by truck.[2] Genoa, on the other hand, is located outside of the Po River Valley and the railroad is used for about 18 percent of the grain movement over the coastal mountains. The regions of Lombardia and Emilia are supplied by imports from both port areas.

Since the northern parts of Italy grow mostly soft wheat and the South and Sicily mostly durum, there is some shipment of wheat and flour within the country. Forty percent of the durum flour produced in the

[2]Interview with Romano Graziani, U.S. Feed Grains Council, Rome January 9, 1966.

South and the Islands goes to the North and 20 percent to the Center.[3] In return, the South and the Islands usually buy soft wheat flour from the mills in the North, although recently there has been some shift to French sources.

Benelux

Although grain exports from these countries are not very large, the Netherlands does export about half of its malting barley crop to northern Germany and to Denmark. Most of the exporting business involves the re-export of grain from third countries that enter the EEC through the ports of Rotterdam, Amsterdam, and Antwerp. Most of this grain is destined for Germany with smaller amounts going to France. On the other hand, grain imports are large and important to both the importing and exporting countries. The Netherlands imports 50 percent of its wheat and 75 percent of its feed grains from the United States. Belgium-Luxembourg also imports over half of its feed grains and 12 percent of its wheat from the United States. France and Canada also supply significant portions of the wheat imports of the Benelux countries as well as some feed barley.

Marketing Channels

Germany

A discussion of grain marketing in Germany requires knowledge of the proportion of the crop marketed to determine the importance of marketing for farmers. The proportion of the total grain production that is marketed remained fairly constant, increasing from about 38 percent in

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[3]Interview with Dr. Portesi, National Association of Mills and Pasta factories, Rome, May 27, 1966.

the last half of the 1950's to 41 percent in the first half of this decade. (See Table 9.) The percentage varies with different grains ranging from a low of 10.7 percent for oats in 1964-65 to a high of 60 percent for wheat in the same year. About 50 percent of the bread grain production is marketed while only about 30 percent of the feed grain production leaves the farm. A declining proportion of rye is being marketed as rye shifts from a bread use to a feed use.

The proportion of production marketed differs not only among grains, but also among regions of Germany. Generally, the proportion of wheat sold decreases as one moves from north to south in Germany. (See Table 10.) This is probably due to farm size differences with the larger farms in Schleswig-Holstein and Niedersachen using only small amounts of wheat for feed while the smaller farms of the South use larger portions on the farm for livestock feed. The pattern for rye sales appears to indicate that in Schleswig-Holstein and Rheinland-Pfalz rye remains an important bread grain while in the rest of the country it is primarily used as a feed grain on the farm where it is grown. The feed grains and industrial grains present a problem since they are not separated in the data. Schleswig-Holstein again shows a large proportion of these grains being marketed as does Bayern. In Bayern this high percentage of feed and industrial grains marketed can probably be attributed to the sale of brewing barley. For Schleswig-Holstein the explaination probably lies in both sales of brewing barley and to the reliance of livestock feeders in this area on commercially mixed feeds and a corresponding lesser use of home-grown feed grains.

Another important feature of the marketing of grains in Germany is the seasonal pattern of sales by the farmers. As shown in Table 11,

TABLE 9.--Sales of grain as a percentage of production in Germany 1955/1956 to 1964/1965[a]

	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65
Wheat	53.8	56.7	59.3	58.7	59.3	62.5	58.5	61.5	60.8	60.0
Rye	43.0	42.8	45.1	45.0	39.5	37.1	31.9	34.7	38.1	39.1
Bread Grains[b]	48.1	49.4	52.1	51.7	49.9	51.1	47.9	50.6	51.4	51.2
Barley	42.8	44.5	42.9	42.7	45.4	50.9	44.6	50.0	48.6	46.4
Oats	7.3	7.2	6.3	6.7	6.6	7.3	9.3	10.0	11.7	10.7
Feed andIndustrial Grains[c]	20.9	22.2	22.5	22.6	25.6	29.1	26.1	29.9	30.0	29.1
All Grain	36.2	37.5	39.5	39.5	40.1	41.9	37.9	40.4	41.5	41.1

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistisches Jahrbuch.

[b]Wheat and rye.

[c]Barley, oats, maize and sorghum.

TABLE 10.--Percentage of total grain production marketed by regions in Germany 1959/60 - 1964/65[a]

Region		1959/60	1960/61	1961/62	1962/63	1963/64	1964/65
Schleswig-Holstein	(a)	82.3	82.0	83.4	84.0	85.2	76.8
	(b)	53.8	53.4	56.9	54.9	54.1	60.9
	(c)	27.8	31.8	33.4	36.7	40.3	41.4
Niedersachsen	(a)	74.0	73.8	76.1	71.4	77.5	74.0
	(b)	30.3	31.2	26.2	28.1	31.1	33.1
	(c)	19.5	23.5	21.4	20.7	23.7	24.4
Nordrhein-Westfalen	(a)	62.6	67.2	61.7	66.3	60.5	63.2
	(b)	34.7	34.9	29.9	40.0	39.9	41.4
	(c)	16.6	20.3	17.2	20.9	21.8	18.4
Hessen	(a)	65.6	69.1	57.1	63.0	60.7	62.2
	(b)	37.2	37.5	25.8	28.8	36.4	35.4
	(c)	11.0	17.6	13.7	19.3	16.2	19.1
Rheinland-Pfalz	(a)	62.5	65.2	64.1	63.0	52.3	59.4
	(b)	46.8	47.3	39.2	40.6	61.6	58.4
	(c)	29.5	29.5	30.0	33.8	33.0	25.1
Baden-Württemberg	(a)	40.1	43.6	38.2	37.5	44.5	44.6
	(b)	24.3	22.2	22.2	22.9	28.2	27.7
	(c)	22.2	25.2	18.8	25.9	25.8	25.0
Bayern	(a)	53.6	59.1	55.7	60.2	60.0	57.0
	(b)	42.5	42.1	35.2	33.8	35.6	35.3
	(c)	38.8	42.3	37.8	45.2	42.7	41.2
Saarland	(a)	32.4	27.2	31.0	23.2	27.5	28.5
	(b)	33.6	32.1	39.9	42.2	37.8	39.6
	(c)	1.6	1.6	4.6	2.6	3.0	3.3
West Germany	(a)	59.3	62.5	58.4	61.5	60.8	60.0
	(b)	38.3	37.1	31.9	34.8	38.0	39.1
	(c)	25.7	29.2	26.2	30.1	30.2	29.3

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistische Monatsberichte, various issues.

(a) Wheat
(b) Rye
(c) Feed grains and industrial grains (primarily barley)

TABLE 11.--Monthly percentage of total grain sales in Germany[a]

	Wheat		Rye		Feed and Industrial Grains	
	1960[b]	1965[c]	1960[b]	1965[c]	1960[b]	1965[c]
July	3.5	3.9	7.5	9.8	11.8	13.4
August	24.6	33.4	24.4	35.6	25.9	34.5
September	23.3	26.2	17.1	17.4	19.3	21.1
October	12.3	9.1	11.1	6.9	13.0	8.6
November	8.2	6.0	8.4	6.4	8.1	5.2
December	7.9	5.7	7.4	5.4	6.7	4.0
January	6.2	4.4	6.9	4.9	4.2	3.2
February	4.1	3.2	4.7	4.0	2.9	2.5
March	3.0	2.7	4.1	3.2	2.8	2.3
April	2.8	2.5	3.4	2.6	2.4	2.3
May	2.5	1.9	2.7	2.3	1.6	1.6
June	1.5	1.0	2.2	1.7	1.0	1.2
July-September	51.4	63.5	49.0	62.8	57.0	69.0
July-December	79.8	84.3	75.9	81.5	84.8	86.8

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistisches Jahrbuch and Statistische Monatsberichte, various issues.

[b]1960 is the average of crop years 1959/60 - 1961/62.

[c]1965 is the average of crop years 1963/64 and 1964/65.

about 80-85 percent of all grains are sold during the first six months of the crop year. Most sales occur during the first three or four months, or during the crop harvest. Data in Table 12 indicates some important differences between regions in the percentage of the crop sold during the first three months of the crop year. Northern regions tend to dispose of their harvest faster than the southern regions.

Another trend in the marketing of grains in Germany that can be seen from the data in Table 11 is the increasing percentage of the total sales occurring in the first three months of the crop year in all regions, undoubtedly reflecting the increased degree of mechanization in harvesting. But, it also reflects the relatively small amount of on-farm storage. Grains that are not used on the farm are usually sold as soon as they are harvested. This persists despite guaranteed price increases during the crop year designed to induce farmers to store the grain on their farms.

We now examine the kinds of marketing channels used by farmers when selling their grain. Table 13 shows that sales to agricultural cooperatives have increased during the past ten years while the share given to private elevators and sold directly to processing industries has decreased slightly. Figure 4 presents data for a recent period in the form of a flow chart. It should be stressed that the data given in Table 13 and in Figure 4 are for the national average and do not necessarily represent the situation in any given region. As shown in Table 14, about 65-70 percent of the cooperatives are located in the southern part of the country. In these areas the proportion of sales to cooperatives is greater than the national average and, conversely, they receive a smaller proportion in the northern areas.

TABLE 12.--Percentage of total grain marketed that is sold during July-September by regions in Germany, 1959/60 - 1964/65[a]

Region		1959/60	1960/61	1961/62	1962/63	1963/64	1964/65
Schleswig-Holstein	(a)	65.3	49.0	64.8	44.6	68.3	72.4
	(b)	63.3	40.4	55.4	44.6	56.3	66.0
	(c)	63.8	52.4	63.2	50.7	64.1	71.1
Niedersachsen	(a)	43.3	36.1	40.8	36.7	47.9	59.9
	(b)	51.9	36.4	41.2	47.1	54.5	63.7
	(c)	58.4	41.3	54.6	40.8	58.8	66.0
Nordrhein-Westfalen	(a)	53.1	51.0	58.1	53.2	56.9	64.9
	(b)	61.0	49.4	60.8	57.6	62.8	69.6
	(c)	72.3	63.4	71.7	58.0	63.4	70.6
Hessen	(a)	73.1	56.0	69.7	62.8	73.3	79.6
	(b)	72.9	49.7	67.0	59.2	67.2	77.0
	(c)	75.4	69.0	80.5	73.6	82.5	81.2
Rheinland-Pfalz	(a)	65.2	51.1	60.6	63.9	61.7	74.8
	(b)	60.8	39.9	54.4	57.1	58.4	75.8
	(c)	65.7	52.6	66.7	64.0	67.0	75.0
Baden-Württemberg	(a)	49.7	43.5	54.9	50.9	52.4	67.0
	(b)	45.9	41.7	52.3	46.5	46.0	59.3
	(c)	58.0	49.4	57.9	64.7	61.9	75.6
Bayern	(a)	48.4	44.1	54.8	53.0	59.5	68.5
	(b)	48.6	36.9	45.0	44.4	48.8	61.7
	(c)	57.7	50.1	57.2	57.1	67.8	76.0
Saarland	(a)	45.7	25.2	54.9	50.3	49.0	62.5
	(b)	51.6	46.2	70.8	49.6	56.8	75.4
	(c)	37.7	30.0	62.5	60.0	65.6	51.7
West Germany	(a)	54.2	45.8	55.7	50.6	58.6	68.1
	(b)	55.6	41.3	50.8	50.5	57.4	67.3
	(c)	61.1	51.0	60.8	56.5	65.1	72.8

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistiche Monatsberichte, various issues.

(a) Wheat
(b) Rye
(c) Feed grains and industrial grains (primarily barley)

TABLE 13.--Percentage of grain purchased by types of buyer in Germany, 1955/56 to 1964/65[a]

Sales to	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65
Private elevators	43.8	44.3	43.6	43.4	43.6	43.6	43.3	43.1	42.2	40.6
Agricultural cooperatives	40.1	40.0	39.8	40.9	41.4	43.5	42.0	43.0	43.7	45.3
Processing industries	16.1	15.7	16.6	15.7	15.0	12.9	14.7	13.9	14.1	14.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistisches Jahrbuch.

Fig. 4.--Marketing channels for grain in Germany

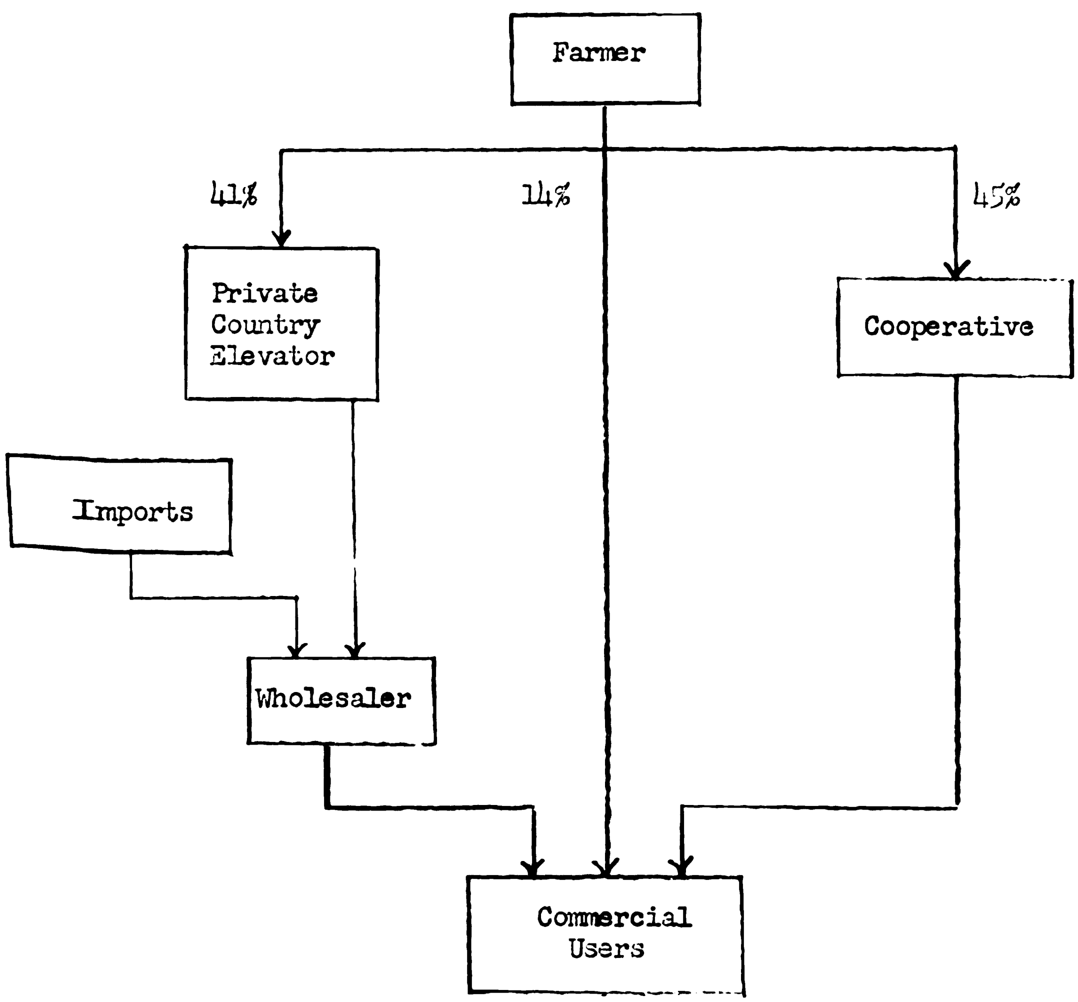


TABLE 14.--Agricultural cooperatives engaged in commodity trade by regions in Germany, 1960 and 1964[a]

Cooperative region	1960		1964	
	Number	Percent	Number	Percent
Hannover	610	5.4	546	5.2
Kiel	431	3.8	396	3.8
Oldenberg	246	2.2	244	2.3
Münster	335	3.0	331	3.1
Köln	472	4.2	419	4.0
Kassel	565	5.0	511	4.8
Frankfurt	1,141	10.2	1,065	10.1
Karlsruhe	1,164	10.4	1,174	11.1
Stuttgart	1,465	13.0	1,407	13.4
München	3,499	31.1	3,242	30.8
Koblenz	644	5.9	614	5.8
Ludwigshafen	439	3.9	410	3.9
Saarbrücken	209	1.9	179	1.7
TOTAL	11,240	100.0	10,538	100.0

[a]Deutscher Raiffeisenverband e.V., Jahrbuch, 1960 and 1964.

The private firms tend to be larger than the coops and are concentrated in the areas of larger farms. Thus, the private elevator channel on the flow chart is most important in Schleswig-Holstein, Niedersachen Nordrhein-Westfalen, and Rheinland-Pfalz. Cooperatives have a long history in Germany, beginning as local bargaining groups for social as well as economic reforms in the rural community. Only recently have they begun to consolidate into larger units. Table 15 shows the trend toward increased membership and fewer numbers of cooperatives.

TABLE 15.--The number of agricultural cooperatives and membership in Germany[a]

Year	Number of Cooperatives	Number of Members (in millions)
1938	26,250	3.13
1957	23,300	3.82
1960	22,900	4.10
1964	21,100	4.52

[a]Deutscher Raiffeisenverband e. V., Jahrbuch, 1964.

The milling industry absorbs much of the wheat and some of the rye produced in Germany. There are two distinct types of mills: the craft mills are primarily concerned with custom milling for farmers while the trade mills buy grain and sell the flour produced. Generally, the craft mills are very small and serve only a local area. These small mills are typically found in the southern areas of the country where farms are also small and use much of their own production.

Table 16 shows that there were a large number of small mills in Germany during the early 1960's, but that they handled only about 10

TABLE 16.--Number of flour mills in Germany by size with proportion of the grain milled[a]

Size	Daily Capacity	Number of Mills	Percentage of total grain milled
Small	5 tons	6,062	10.4
Medium	5-80 tons	1,045	35.5
Large	over 80 tons	56	54.1

[a]F.W. Hardach, "Getreidemühlen," Handwörterbuch der Sozialwissenschaften, Vol. IX (Stuttgart, 1965) p. 461-67.

percent of the grain milled. Of greater importance are the large and medium sized mills. The medium sized mills are usually found in areas with a moderate surplus of grain production over local flour needs, such as in northern Germany with its larger farms and in Bayern where many medium sized mills are found along with the small mills serving local needs.

The large mills are located along transportation routes where large quantities of wheat can be brought in both from imports and from domestic production. Thus, the major locations of large mills are the port cities of Hamburg and Bremen, the lower Rhine valley near the population centers of the Rhur, and the middle Rhine area around Mannheim. The importance of the larger mills has increased as can be seen from Table 17. The proportion of total sales has increased for those firms employing more than 50 employees.

One of the important problems facing the milling industry has been an excess capacity. To aleviate this problem, a law was passed in 1957 which requires government permission to build new facilities or expand

TABLE 17.--Structure of the milling industry in Germany, 1960 and 1964[a]

Number of workers per firm	September 1960				September 1964			
	Firms		Labor Force	Sales	Firms		Labor Force	Sales
	No.	%	%	%	No.	%	%	%
1- 9	142	35.6	3.8	2.5	111	32.5	3.3	2.4
10- 49	177	44.4	25.3	20.9	160	46.8	>17.3[b]	>14.7[b]
50-199	64	16.0	>16.3[b]	>15.8[b]	56	16.4	33.9	37.2
200 and over	16	4.0	>30.6[b]	>36.4[b]	15	4.4	>28.3[b]	>31.7[b]
Total	399	100.0	100.0 (=15,500)	100.0 (=198.2) Mill. DM	342	100.0	100.0 (=14,994)	100.0 (=228.0) Mill. DM

[a]Statistisches Bundesamt, Betriebe, Beschäftigte und Umsatz nach Grössenklassen, (Fachserie D, Industrie und Handwerk; Reihe 4, Sonderbeiträge zur Industriestatistik), and Bunderministerium für Ernährung, Landwirtschaft und Forsten, Statistiches Jahrbuch.

[b]Exact portion not published to avoid revealing position of individual firms.

existing mills and also provides payments for mills going out of business. Studies of the results of this law show that most of the applications for discontinued operation have been from small craft mills and that many of these mills had already ceased operations. Thus, the problem has not been solved and becomes more acute as per capita consumption of flour decreases. It is difficult to say what the impact of the EEC policy will be on this problem. Much of the milling industry is affected by the transportation subsidies given to grain and these probably will be discontinued. This would give local mills an advantage of lower costs for acquiring domestic grain, but the large mills would still enjoy their location advantages for imported grains and for bulk shipments of grains and flour on the major waterways.

The mixed feed industry is the primary buyer of feed grains that are sold by farmers and is growing rapidly. Mixed feed production has increased almost six times since 1952 and has doubled during the six year period of this study. (See Table 18.) The importance of this industry varies for different grains, currently being most important for corn and barley. During the past 10 years the amount of wheat used in mixed feeds fell from 22.6 percent of the grain in feeds to only 8.8 percent. (See Table 19.) Barley has also decreased in importance, falling from 35.5 percent to 22.2 percent, but it is still a major component of mixed feeds. Corn, along with millet, has shown the most dramatic increase jumping from 23.0 percent of the grain in mixed feeds in 1955-56 to 51.2 percent in 1964-65.

Mills are located where they have easy access to grains and additives that go into the feed product and where they have good access to livestock feeding operations. Thus, the most important of the large

TABLE 18.--Production of mixed feed in Germany, 1952/53 to 1964/65[a]

Crop Year	1000 G E[b]	Percentage of total feed	Percentage of concentrated feed
1952/53	880	2.5	9.1
1953/54	1205	3.3	12.4
1954/55	1613	4.3	15.0
1955/56	1911	5.0	17.1
1956/57	2242	5.8	18.5
1957/58	2567	6.4	19.9
1958/59	2922	7.1	22.6
1959/60	3596	8.5	24.2
1960/61	3532	8.1	24.7
1961/62	4489	9.9	28.3
1962/63	5020	10.9	30.7
1963/64	5059	10.7	30.3
1964/65	6023[c]	13.1[c]	31.9[c]

[a]R. Beckmann, "Intensive Tierhaltung erfordert Mischfutter," _Kraftfutter_, Vol. XLIX (1966), p.20. For these figures also compare Bundesministerium für Ernährung, Landwirtschaft und Forsten, _Unterlagen zur Futterwirtschaft_.

[b]G E = Grain Unit.

[c]Preliminary.

TABLE 19.--The composition of the grain component of mixed feeds produced in Germany, 1955/56, 1960/61 and 1964/65[a]

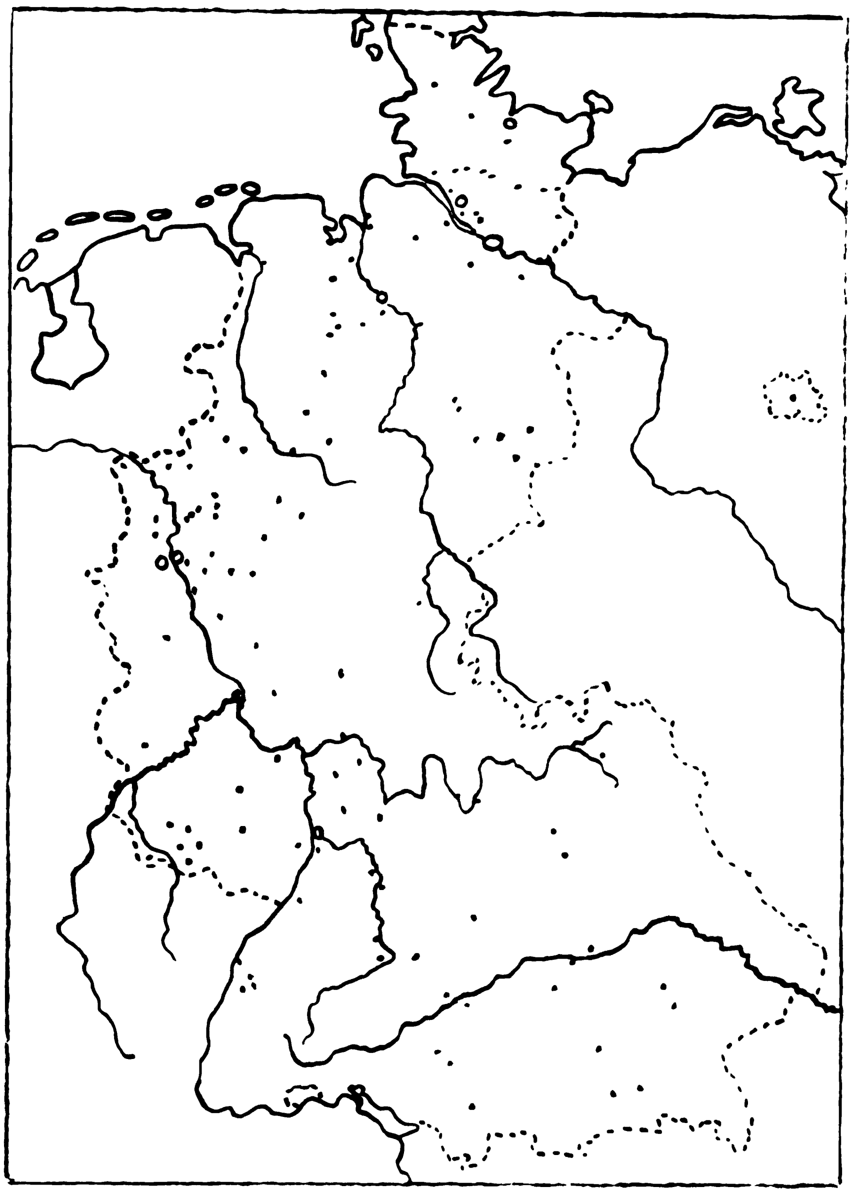
(Percent each grain is of total grain)

Grain	1955/56	1960/61	1964/65
Wheat	22.6	20.6	8.8
Rye	2.1	10.3	3.4
Barley	35.5	24.6	22.2
Oats	16.5	14.0	14.4
Corn and Millet	23.0	30.5	51.2
Total Grain (1000 tons)	782.9	1571.0	2293.2
Total Grain as a percentage of total mixed feed production	39.8	43.9	37.6

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistisches Jahrbuch, various issues.

mills are located in the Hamburg - Schleswig-Holstein area, the Bremen area, around the Rhur valley, and in the Mannheim area. All of these locations have easy access to water transportation for imported or domestic grain, are near industries that have by-products used in mixed feeds, such as fish meals and chemical by-products, and are near major livestock feeding areas. There are, of course, many other feed mills that are either smaller private operations, or are a part of an agricultural cooperative or other industry that has branched into the feed mixing business. Figure 5 shows the geographical locations of the mixed feed mills and Figure 6 shows the total mixed feed production of the different regions of Germany.

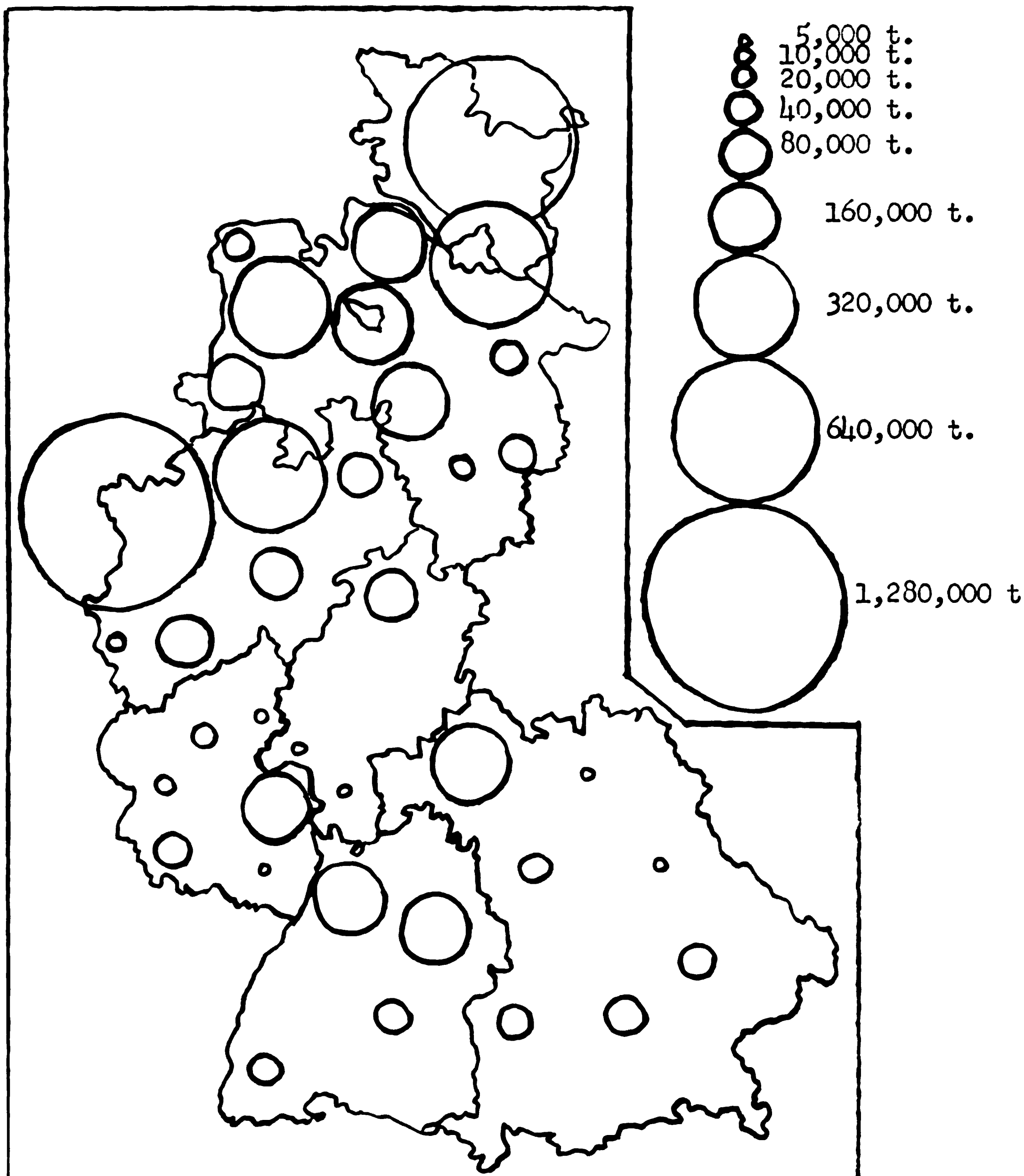
Fig. 5.--Location of mixed feed industry in Germany, 1957[a]



Number of mills per location: • 1-4; o 5-9; O 10 or more

[a]A. Kariger: Die Entwicklung der Mischfutterindustrie in Deutschland, (Veröffentlichungen der Wirtschaftshochschule Mannheim, Reihe I, No. 11), Stuttgart, 1963.

Fig. 6.--Mixed feed production in Germany by regions, 1962/63[a]



[a]D. Tewes, Der Einfluss der Gütertarifpolitik auf die Futtermittelmärkte der Bundesrepublik Deutschland, (Landwirtschaft-Angewandte Wissenschaft, No. 121), Hilrup, 1966.

During the period of this study, the relative proportions of the mixed feed output for different regions has remained fairly stable (See Table 20), but over the 12 year period from 1952 the southern regions (Bayern, Baden-Württemberg, and Rheinland-Pfalz) increased their share of production from about 5 percent to over 20 percent. Leading feed companies have established branch plants in the South and cooperatives have expanded into the production of mixed feeds. The existing proportions are likely to remain stable unless there is a major shift in the location of livestock feeding. Table 21 indicates that the consumption of mixed feed tends to parallel the production, implying that there is very little interregional movement of mixed feeds. One factor which might alter the pattern is the shift to increased feed use by farmers in southern Germany. At present, farmers in northern Germany, especially Schleswig-Holstein, use far more mixed feed for livestock than do farmers in southern Germany. (See Table 22.)

The industry presently consists of about 380 larger mills specializing in the production of mixed feeds and another 1,500 to 1,600 smaller operations that are a branch of some other business. There is very little information available on these branch operations, but it can be seen from Table 23 that the specialized operations have tended to become larger over the past 4 or 5 years.

The brewing industry is another user of German grains, generally buying about 40 percent of the summer barley production. The exact proportion depends on the quality and quantity available from domestic and from imported sources. This demand exhibits large regional differences since the major part of the brewing industry is located in the southern parts of Germany and in Nordrhein-Westfalen. (See Table 24.) With

TABLE 20.--Production of mixed feed by regions and percentage of total production in Germany, 1959/60 to 1964/65[a]

(1000 tons)

Crop year	Schleswig-Holstein	Hamburg	Niedersachsen	Bremen	Nordrhein-Westfalen
1959/60	598.3	326.7	542.9	140.6	1342.8
	16.5%	9.0%	14.9%	3.9%	36.9%
1960/61	609.7	346.6	515.5	138.7	1250.2
	17.0%	9.7%	14.4%	3.9%	35.0%
1961/62	775.3	408.6	679.3	181.7	1634.7
	16.8%	8.9%	14.8%	3.9%	35.5%
1962/63	853.3	422.8	818.1	190.0	1724.9
	17.0%	8.4%	16.3%	3.8%	34.4%
1963/64	843.6	453.2	799.9	200.9	1746.1
	16.5%	8.8%	15.6%	3.9%	34.0%
1964/65	957.7	494.6	930.6	204.7	2105.3
	15.7%	8.1%	15.3%	3.4%	34.6%

Crop year	Hessen	Rheinland-Pfalz	Baden Württemberg	Bayern	West Germany[b]
1959/60	55.2	105.0	237.8	251.8	3633.9
	1.5%	2.9%	6.5%	6.9%	100.0%
1960/61	54.4	113.1	266.4	237.3	3576.1
	1.5%	3.2%	7.4%	6.6%	100.0%
1961/62	83.2	140.3	349.2	300.4	4604.5
	1.8%	3.0%	7.6%	6.5%	100.0%
1962/63	85.5	168.2	360.4	343.8	5015.6
	1.7%	3.4%	7.2%	6.9%	100.0%
1963/64	88.5	170.8	371.4	403.4	5128.4
	1.7%	3.3%	7.2%	7.9%	100.0%
1964/65	100.9	231.8	482.9	530.2	6090.9
	1.7%	3.8%	7.9%	8.7%	100.0%

[a]R. Beckmann, "Intensive Tierhaltung erfordert Mischfutter," *Kraftfutter*, Vol. 49 (1966), p. 20.

[b]Including Saarland and West Berlin

TABLE 21.--Mixed feed production and consumption in percentage by regions of Germany, 1961/62[a]

Region	Production	Consumption
Schleswig-Holstein	16.8	20.7
Hamburg	8.9	0.4
Niedersachsen[b]	18.7	27.1
Nordrhein-Westfalen	35.5	24.3
Hessen	1.8	5.7
Rheinland-Pfalz	3.1	3.3
Saarland	0.9	0.6
Baden-Württemberg	7.6	8.1
Bayern	6.5	9.6
Berlin	0.2	0.2
Germany	100.0	100.0

[a]Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistiche Monatsberichte, various issues.

[b]Including Bremen.

TABLE 22.--Average amounts[a] of mixed feeds fed to dairy cows, hogs and laying hens by regions of Germany, 1963[b]

Region	Dairy cows	Hogs	Laying hens
Schleswig-Holstein	---	220	--
Niedersachsen	270	67	40
Nordrhein-Westfalen	390	64	38
Hessen	240	34	26
Rheinland-Pfalz	100	30	27
Baden-Württemberg	110	29	27
Bayern	90	26	13
Germany	195	66	30

[a]Kilograms per animal or bird per production period.

[b]R. Beckmann, "Intensive Tierhaltung erfordert Mischfutter," Kraftfutter, Vol. 49 (1966).

TABLE 23.--Structure of mixed feed industry in Germany, 1960 and 1964[a]

Number of workers per firm	September 1960				September 1964			
	Firms		Labor Force	Sales	Firms		Labor Force	Sales
	No.	%	%	%	No.	%	%	%
1- 9	173	52.7	7.7	3.7	163	43.1	5.5	2.7
10- 49	105	32.0	23.9	19.3	151	39.9	25.8	16.7
50-199	41	12.5	45.0	48.5	53	14.0	42.4	49.9
200 and more	9	2.7	23.5	28.5	11	2.9	26.3	30.7
Total	328	100.0	100.0 (=9,700)	100.0 (=97.9) Mill.DM	378	100.0	100.0 (=12,427)	100.0 (=205.9) Mill.DM

[a]Statistisches Bundesamt, Betriebe, Beschäftigte und Umsatz nach Grössenklassen. (Fachserie D, Industrie und Handwerk; Reihe 4, Sonderbeitrage zur Industrie-statistik), and Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistisches Jahrbuch.

TABLE 24.--Beer output of breweries[a] by regions in Germany, 1961 and 1964[b]

Region	1961				1964			
	Number of Breweries	Total 1000 hl.	Total %	Per Brewery 1000 hl.	Number of Breweries	Total 1000 hl.	Total %	Per Brewery 1000 hl.
Schleswig-Holstein	9	491	0.9	54.5	8	605	0.8	75.6
Hamburg	6	1648	2.8	274.7	6	2018	2.8	336.4
Niedersachsen	40	3142	5.4	78.5	39	3974	5.5	101.9
Bremen	7	1356	2.3	193.8	7	1549	2.1	221.2
Nordrhein-Westfalen	154	15479	26.6	100.5	151	19672	27.3	130.3
Hessen	59	4017	6.9	68.1	55	5457	7.6	99.2
Rheinland-Pfalz	51	3416	5.9	67.0	48	4203	5.8	87.6
Baden-Württemberg	315	8204	14.1	26.0	307	10181	14.1	33.2
Bayern	1856	17405	30.0	9.4	1676	20844	28.9	12.4
Saarland	12	1200	2.1	100.0	12	1455	2.0	121.3
Berlin	13	1754	3.0	134.9	14	2223	3.1	158.8
Germany	2522	58112	100.0	23.0	2323	72181	100.0	31.1

[a]Tax paying industrial firms

[b]Statistisches Bundesamt, Brauwirtschaft. (Fachserie, Finanzen und Steuern, Reihe 8, Verbrauchssteuer, II. Biersteuer), 1961 and 1964.

continued increases in beer production, it seems likely that the brewing and malting industries will remain an important market for summer barley.

Italy

About 88 percent of the wheat produced is marketed with the remainder used on the farm, primarily for seed and a small amount for feed. (See Figure 7.) On the other hand, feed grains are used primarily on the farm with about 20-30 percent of the corn sold and only about 10 percent of the barley leaving the farm. (See Tables 25 and 26.) However, in the case of corn there is a great deal of variation among regions of the country in the amount that is marketed. Farmers in regions with a large livestock feeding operation coupled with moderate feed grain production, such as Emilia and Toscana, sell only very small portions of their crops, whereas those in regions with only small scale feeding operations, such as Puglia, or with a large surplus of grain production, such as Veneto, market about half of their total production. These figures all indicate the close tie between domestically produced feed grains and the livestock producing operations.

Since the market is most important for wheat, an examination of the marketing channels may indicate what factors affect the demand for the farmer's produce. Figure 7 shows that most wheat is marketed through local merchants, with another important, though smaller, part marketed through the Federconsorzi.[4] Prior to 1962 the Italian policies required that about 20 percent of each year's wheat production be marketed through the Federconsorzi and receive a price set by the government. Even though

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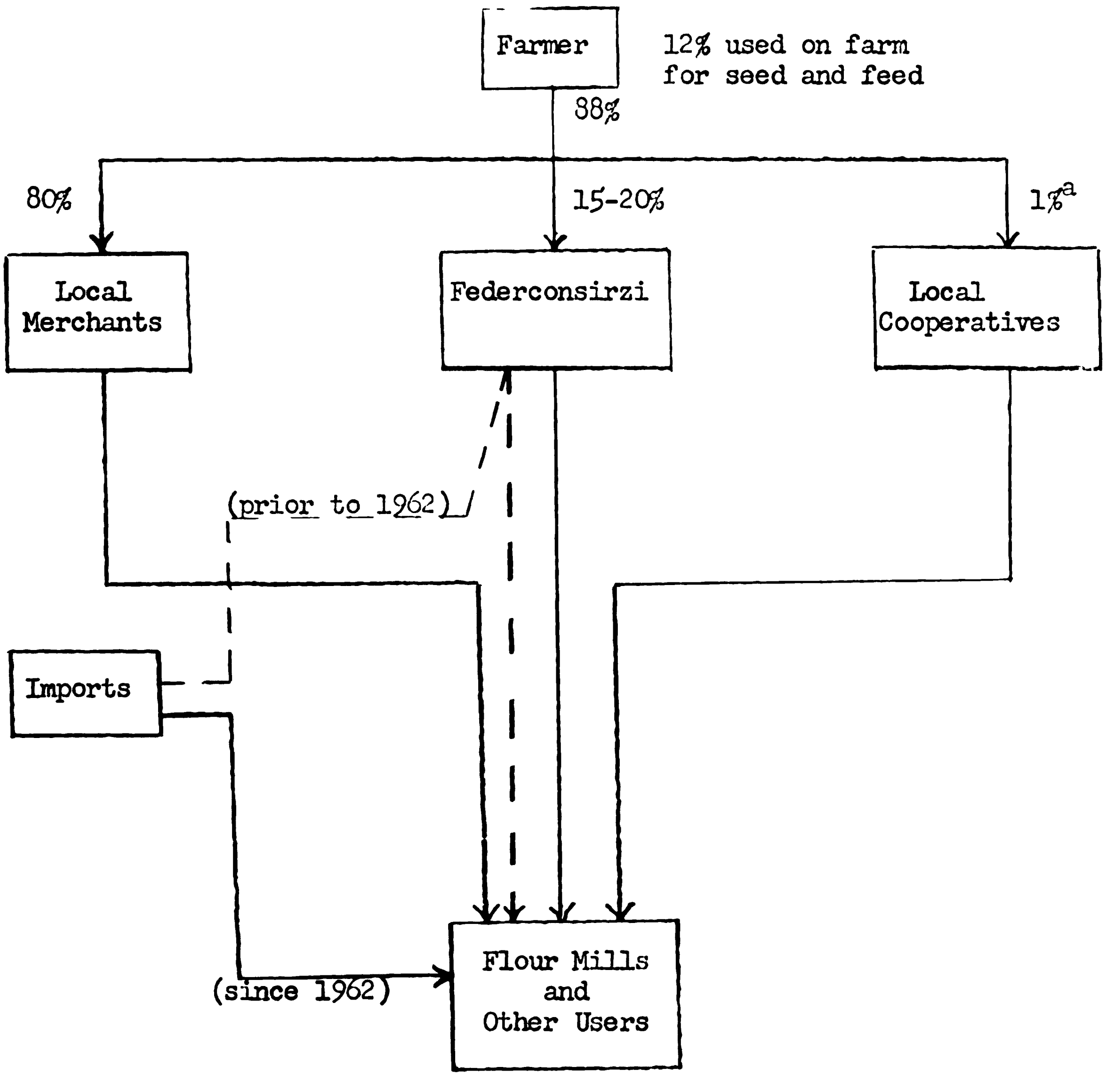
[4]The Federconsorzi is an agency of the Italian government that administers the agricultural commodity support programs.

Fig. 7.--Marketing channels for wheat in Italy



[a]In some areas strong cooperatives account for up to 15% of wheat marketings.

TABLE 25.--The use of domestically produced corn in the regions of Italy, 1964[a]

Region	Production (1000 tons)	Percentage used on the farm			Percentage sold
		Seed	Animal feed	Human food	
Piemonte	556.3	0.7	58.2	6.5	34.6
Valle d'Aosta	0.9	---	55.5	22.2	22.2
Lombardia	988.6	0.6	67.2	6.9	25.3
Trentino	30.1	2.0	47.8	28.9	21.6
Veneto	1011.8	0.5	47.1	8.5	43.9
Friuli	342.0	0.3	48.2	9.3	42.2
Liguria	11.9	2.5	81.5	5.0	10.9
Emilia	119.4	0.5	94.6	3.9	0.9
North	3061.0	0.6	57.8	7.7	34.0
Toscana	107.5	2.1	83.7	4.7	9.5
Umbria	40.0	2.2	86.2	4.5	7.0
Marche	132.6	1.8	85.1	3.2	9.8
Lazio	137.1	2.8	73.9	2.8	20.6
Abruzzi	148.8	2.6	62.2	3.8	31.5
Center	566.0	2.4	76.3	3.6	17.9
Campania	199.1	3.0	69.3	0.5	27.2
Puglia	36.0	3.1	38.1	---	58.9
Basilicata	28.4	3.9	64.1	2.1	29.9
Calabria	31.5	4.1	68.3	1.0	27.0
South	295.0	3.2	64.9	0.6	31.3
Sicilia	3.5	5.7	80.0	---	17.1
Sardegna	3.0	---	53.3	---	43.3
Islands	6.5	3.1	67.7	---	29.2
Italy	3928.7	1.0	61.0	6.6	31.5

[a]Italian Ministry of Agriculture, Instituto per le Ricerche e le Analisi di Mercato, "Rapporto sull'impiego del Granoturco, Orzo ed Avena, sia di Produzione nazionale che d'importazione nel 1964," Rome, 1964, pp. 5-8.

TABLE 26.--The use of domestically produced barley in the regions of Italy, 1964[a]

Region	Production (100 tons)	Percentage used on the farm		Percentage sold
		Seed	Animal feed	
Piemonte	9.4	8.5	91.5	--
Valle d'Aosta	0.6	---	100.0	--
Lombardia	11.2	5.4	94.6	--
Trentino	44.4	10.1	44.8	45.0
Veneto	14.6	6.8	93.2	--
Friuli	65.4	5.2	51.2	43.6
Liguria	1.0	10.0	90.0	--
Emilia	324.0	6.0	87.7	6.3
North	470.6	6.1	75.1	13.9
Toscana	260.0	9.3	83.2	7.7
Umbria	125.6	9.1	80.5	10.4
Marche	135.8	6.8	89.1	4.1
Lazio	153.1	8.2	80.5	11.3
Abruzzi	68.8	9.9	85.9	4.4
Center	743.3	8.7	83.8	3.9
Campania	73.6	9.6	88.6	1.8
Puglia	331.9	12.9	68.4	18.7
Basilicata	154.8	12.4	87.6	--
Calabria	162.0	13.1	79.3	7.7
South	722.3	12.5	76.7	10.4
Sicilia	455.2	11.1	80.5	8.4
Sardegna	123.0	12.3	83.7	4.1
Islands	578.2	11.3	81.2	7.5
Italy	2515.0	10.0	80.2	9.8

[a]Italian Ministry of Agriculture, Instituto per le Ricerche e le Analisi di Mercato, "Rapporto sull'impiego del Granoturco, Orzo ed Avena, sia de Produzione nazionale chi d'importazione nel 1964," Rome, 1964, pp. 16-19.

this delivery requirement has been abolished, the Federconsorzi maintains about the same proportion of the market.

The third group handling the farmer's output is the cooperatives, who are of very little importance when viewed from a national viewpoint, but have considerable importance in certain localities. In areas with strong cooperatives, they account for as much as 15 percent of the total wheat marketings, even though they only account for one percent of the national total marketed.

Although there are some firms that operate at what might be called the wholesale level, generally the initial collector sells the wheat to processing firms. The cooperatives and the Federconsorzi have rather strong central control and can bargain effectively with the large wheat mills, but the small local elevators, or wheat buying merchants, are not in a position to bargain with the large mills. Some people express concern over the impact this imbalance of bargaining power has on the price received by farmers. It is thought that large flour mills may dictate the price paid for wheat, setting it lower than would result with stronger selling groups. Another source of power for these mills is that since 1962 they have been allowed to import wheat directly for mixing in flour rather than having all imports go through the Federconsorzi.

The flour mills which are the primary buyers of wheat are located in the Northern region and in the South, including the island of Sicily. The northern mills primarily make bread flour using the soft wheats produced in that region supplemented by small quantities of durum wheat from Toscana and the South. On the other hand, the southern mills use durum wheat almost exclusively, supplemented with a minimum of soft wheat from the North or from France. The durum flour is especially good for the manufacture of pasta, and some is also used for bread along with the imported soft wheat. Almost 90 percent of the wheat grown in Sicily and the South is ground into flour within the region and used to make pasta or shipped to other regions of Italy as flour. Very little wheat is exported from Italy, so it is apparent that the mills are the major point of disposal for the domestic wheat crop.

As indicated previously, domestically produced feed grains are used primarily on the farms where they are produced. Thus, the commercial markets handle primarily imported feed grains. Since most of the livestock feeding is in the North, most imports are through the ports in northern Italy. Many large feed mills are located in port cities, such as Genoa, Venice, Ravenna, and Ancona. Others are located in the Po valley at Parma and Foli. About 96 percent of the corn and barley that is imported eventually goes into mixed feeds for livestock,[5] although the grain may go through several steps in the marketing system before arriving at the feed mill. Of the corn imported, about 30 percent is sold directly to feed mills, about 55 percent to traders, and the remaining 15 percent goes through other channels to both farm and industrial users. Apparently the major portion of that purchased by traders and by other channels goes to mixed feed mills eventually, since nearly all of the imported corn is ground into livestock feed. However, not all of this would go to the large commercial mills, since there are many family operated, small feed mills. These small firms are not subjected to many of the taxes levied on the larger firms and can sell to local customers at lower prices than can the larger firms.

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[5]Italian Ministry of Agriculture, Instituto per le Ricerche e le Analisi de Mercato, "Rapporto sull' impiego del Granoturco, Orzo ed Avena, sia di Produzione nazionale che d'importazione nel 1964," Rome, 1964.

France

Table 27 indicates the percentage of the total production of each crop sold off-farm over the twelve year period 1950-1962. The proportion of the wheat crop that is marketed has remained relatively stable over the entire period at about 70 percent while for feed grains increasing proportions are being marketed off of the farm. This results from the increased production in the Paris Basin, which is a major grain area with little livestock. Also, the proportion of rye marketed has decreased by about 50 percent over the twelve year period; probably due to decreased human consumption and increased feed uses.

TABLE 27.--Percentage of grain production sold in France, 1950/51, 1960/61 and 1962/63[a]

	1950/51	1960/61	1962/63
Wheat	70	70	72.5
Rye	28	16	14.5
Barley	26	54	48
Corn	3.2	50	49

[a]Information et Documentation Agricoles, Cooperatives LaFayette (Paris, 1964) No. 16, p.37.

The percentage of corn production marketed in various regions of France reflects differences in the utilization of feed grains in different areas. The Paris Basin markets a large proportion of its corn production while the South-East and South-West regions use more of the production on the farm as feed for livestock. (See Table 28.)

TABLE 28.--Production and off-farm sales ("collecte") of corn in certain departments[a]

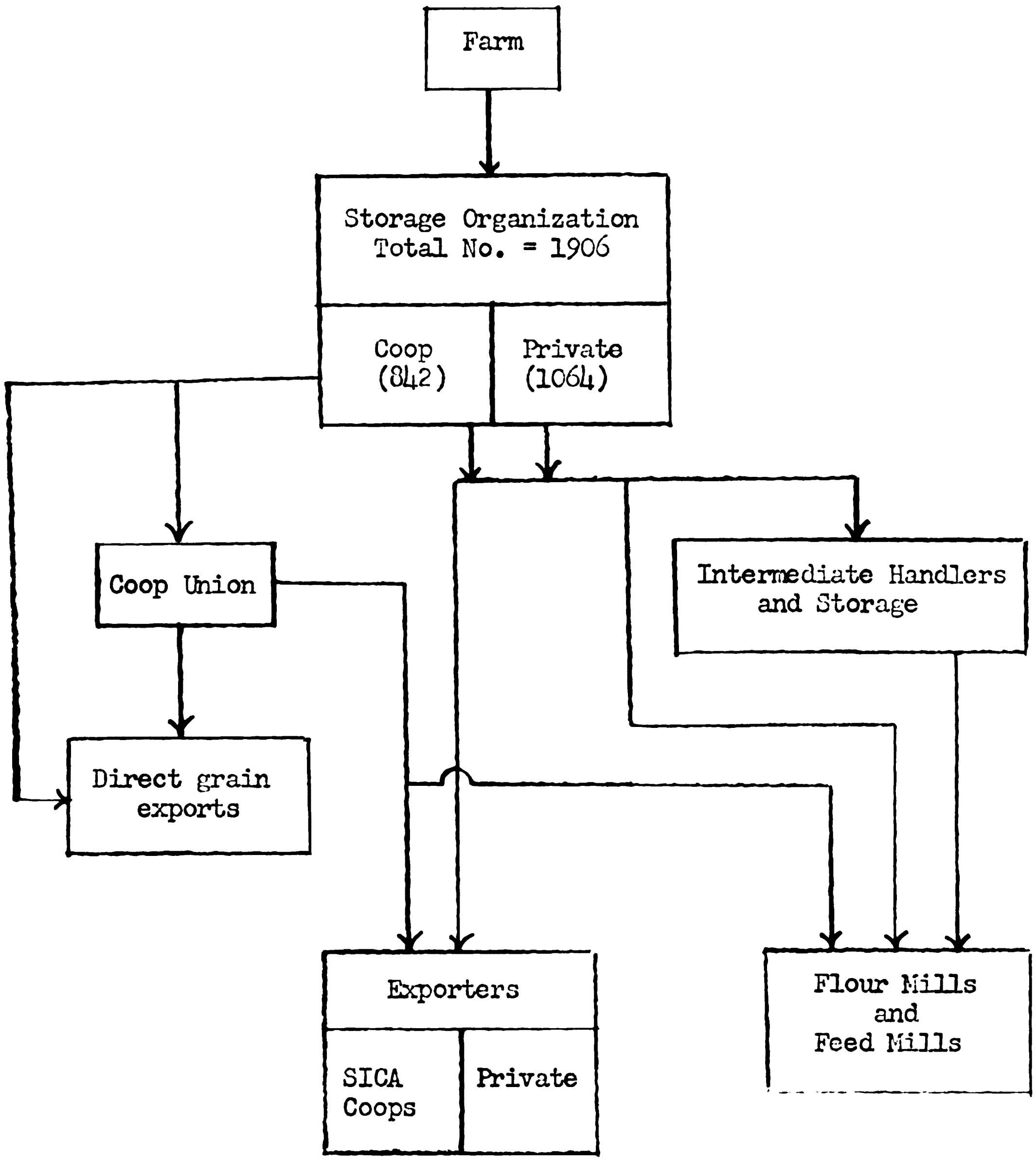
(1000 metric tons)

	Production			Collecte	
	1963-1964	1964-1965	1965-1966	1963-1964	1964-1965
Paris Basin	9,219	4,964	9,216	6,221	4,721
% of Production				67.5	95.0
South-East	2,368	1,253	2,442	1,176	936
% of Production				50.0	75.0
South-West	19,739	10,722	16,729	10,032	5,594
% of Production				51.0	52.0

[a]M.W. Butterwick and E. Neville Rolfe, An Examination of the Market Structure in the BENELUX Ports and their Hinterland for Imported Feed Grains and for Compound Feeds, A Report to the U.S. Feed Grains Council (Washington, D.C., 1966), Appendix Table 13.

The marketing channels for corn are diagramed in Figure 8. The cooperatives are the most important of the two types of local elevators (organismes stockeurs) in terms of the amount of grain they handle. About 75 percent of all the grain marketed are first delivered to a cooperative storage agency with about 80 percent of the wheat going to this type of firm. These groups have several choices for disposing of their grain and the outlet chosen depends on the managerial abilities of the local director and the location of the firm. The two National Cooperative Unions provide an outlet for many of the local cooperatives. The Unions sell grain on the export market or may direct deliveries to private exporters and to feed and flour mills. On the other hand, the local coop manager may, if he desires, sell directly to the mills and private exporters. Some even do their own exporting, although this is unusual.

Fig. 8.--Marketing channels for wheat in France



There has been some movement toward grouping together several local cooperatives to export directly to users in other EEC countries. This tendency is most pronounced in the northern part of the Paris Basin where transportation connections are good to Belgium, Holland, and Germany.[6]

Because France produces a surplus of grain, export channels are important for French farmers. About 25 percent of the wheat produced in France is exported and the proportion of feed grains varies from 25-40 percent, depending on the quality of the crop and the markets abroad. (See Table 29.) Rye is not an important export crop with only about 7 percent of the production going to foreign markets.

Of the wheat used within the country, about 63 percent is eventually consumed by humans while over 28 percent is used in livestock feeds. (See Table 30.) The remainder is used for seed and some industrial purposes. Almost 90 percent of the corn and barley is used for livestock feed with the remainder used for seed and industrial purposes. The barley going to the industrial category is used mostly for brewing while the corn in this classification is used for making starch. Both of these industries are minor users from a national viewpoint, but are important for producers in Northeastern France.

The Marketing of Livestock and Livestock Products

This section describes the movements of livestock products between the countries of the EEC as well as the marketing channels through which products pass from the farm to the consumer. The description is less detailed than the discussion of grain marketing since other information

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[6]From personal interview with Mr. Senechal, Director of the local Cooperative at Pontoise, France, May 16, 1966.

TABLE 29.--Exports as a percentage of grain sold in France, 1958/59, 1960/61 and 1962/63[a]

	1958/59	1960/61	1962/63
Wheat (and flour in wheat equivalent)	10.7%	21.5%	25.0%
Barley[b]	3.5%	36.3%	34.0%
Corn[b]	9.6%	42.0%	27.6%
Rye	13.2%	15.4%	7.2%

[a]Informations et Documentation Agricoles, Cooperatives La Fayette, (Paris, 1964) No. 16, p. 57-61.

[b]There is a large variation from one season to the next in the percent exported.

TABLE 30.--Percentage of crop used for specific purposes in France, 1959/60 - 1961/62[a]

	Wheat	Barley	Corn
Seed	8.2	7.9	1.5
Animal feed	28.4	88.3	89.0
Industrial uses	0.6	3.4	8.3
Human food	62.8	0.1	0.9

[a]Information et Documentation Agricoles, Cooperatives La Fayette (Paris: 1964) No. 16, p. 118.

on livestock marketing is available.

The importance of international trade in livestock products varies greatly among the countries of the EEC and among products. Table 31 indicates that meat exports are important only for the Netherlands where 36 percent of the production enters foreign markets. The international trade data during this period does not indicate the type of meat traded, but the Dutch export mostly pork. Imports of meat into Germany and Italy exceed 10 percent of domestic production and probably consist primarily of beef and veal. The egg trade is important for both the Netherlands and Germany; the former as an exporter and the latter as an importer. For the other EEC members the domestic production meets home needs and very little is imported, with the exception of Belgium-Luxembourg which exports about 15 percent of their egg production. Because most of the trade in milk takes the form of cheese and butter, it is meaningless to compare the volumes traded with the amount of milk produced. The following discussion does, however, include the magnitude of the trade in butter and cheese with the sources and destinations of trade flows within the EEC.

Tables 32 through 35 show the development of trade patterns over time for several categories of livestock products. Internal EEC trade dominates only the French egg imports and Dutch and Belgian cheese imports. In most cases imports from other EEC members contribute less than three-fourths of the total -- in many cases less than one-fourth. For meat imports, this can be explained by the general shortage of beef within the community and the easy access to Denmark, a large supplier of pork and veal. The large share of EEC imports originating in the Netherlands indicates that most of the internal meat trade consists of pork while

TABLE 31.--Production, imports and exports of livestock products by EEC member countries, average of 1959-61[a]

	France	Germany	Italy	Netherlands	Belgium-Lux.
MEAT					
Production (1000 tons)	2,202.6	2,898.9	1,083.0	668.3	442.0
Imports (1000 tons)	69.2	326.2	140.3	37.8	37.3
Percentage of Production	3.1%	11.3%	13.0%	5.7%	8.4%
Exports (1000 tons)	143.5	25.3	8.9	240.8	25.2
Percentage of Production	6.5%	0.9%	0.8%	36.0%	5.7%
EGGS					
Production (1000 tons)	445.1	466.6	348.4	290.0	151.8
Imports (1000 tons)	13.9	289.0	78.2	1.1	1.2
Percentage of Production	3.1%	61.9%	2.2%	0.4%	0.8%
Exports (1000 tons)	3.7	0.1	0.3	187.3	22.1
Percentage of Production	0.8%	---	0.1%	64.6%	14.6%

[a]United Nations, Commodity Trade Statistics, various yearly volumes and Hartmut Schulze, Materialgrundlagen zur regionalen landwirtschaftlichen Produktion in den Ländern der Europäischen Wirtschaftsgemeinschaft, (IFO - Institut für Wirtschaftsforschung: München, 1965).

TABLE 32.--Meat imports by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports (1000 tons)	Imports from EEC (1000 tons)	Imports from EEC (% of total)	Percentage of EEC Imports from France	Germany	Italy	Nether-lands	Belgium-Lux.
France								
1955-57	48.4	19.2	39.7	--	11.0	1.3	74.9	12.3
1959-61	69.2	39.2	56.6	--	22.4	2.9	63.2	13.4
1963-65	212.5	89.2	42.0	--	5.4	2.5	77.7	14.2
Germany								
1955-57	188.3	61.5	32.7	21.3	--	2.4	62.0	14.5
1959-61	326.2	128.3	39.3	31.6	--	0.1	61.5	6.7
1963-65	426.3	198.4	46.5	38.3	--	0.4	52.6	7.9
Italy								
1955-57	99.6	14.9	15.0	54.5	13.2	--	27.3	4.6
1959-61	140.3	25.0	17.9	45.2	10.2	--	36.6	7.8
1963-65	217.8	36.5	16.8	9.3	5.3	--	74.5	9.1
Netherlands								
1955-57	33.0	7.4	22.4	61.0	9.5	0.1	--	32.5
1959-61	37.8	11.7	31.0	64.2	8.2	--	--	26.9
1963-65	66.4	11.8	17.8	28.0	15.0	0.5	--	55.3
Belgium-Lux.								
1955-57	25.5	8.5	33.3	5.9	3.1	0.6	82.2	--
1959-61	37.3	16.0	42.9	15.7	5.1	0.9	76.8	--
1963-65	73.2	22.8	31.1	5.9	2.2	2.2	89.5	--

[a]United Nations, Commodity Trade Statistics, various yearly volumes.

TABLE 33.--Butter imports by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports	Imports from EEC		Percentage of EEC Imports from				
	(1000 tons)	(1000 tons)	(% of Total)	France	Germany	Italy	Nether-lands	Belgium-Lux.
France								
1955-57	8.3	2.5	30.1	--	--	--	100.0	--
1959-61	12.6	4.7	37.3	--	--	--	99.8	0.2
1963-65	8.9	2.7	30.3	--	58.8	--	35.9	5.2
Germany								
1955-57	38.0	8.3	21.8	9.5	--	--	89.6	--
1959-61	25.7	12.3	47.9	43.7	--	--	50.7	4.8
1963-65	18.1	10.5	58.0	71.4	--	0.1	19.6	8.8
Italy								
1955-57	10.7	2.0	18.7	64.0	--	--	35.0	0.5
1959-61	14.4	8.3	57.6	37.4	--	--	43.6	19.1
1963-65	33.9	16.5	48.7	41.7	20.4	--	22.5	15.1
Netherlands								
1955-57	0.0	0.0	--	--	--	--	--	--
1959-61	0.1	0.1	100.0	12.5	--	--	--	87.5
1963-65	2.2	0.5	22.7	76.4	--	--	--	18.0
Belgium-Lux.								
1955-57	7.1	6.1	85.9	--	--	--	100.0	--
1959-61	1.3	0.8	61.5	--	--	--	100.0	--
1963-65	8.6	2.7	31.4	17.8	1.1	7.0	71.8	--

[a]United Nations, Commodity Trade Statistics, various yearly volumes.

TABLE 34.--Cheese imports by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports (1000 tons)	Imports from EEC (1000 tons)	Imports from EEC (% of Total)	Percentage of EEC Imports from France	Germany	Italy	Nether-lands	Belgium-Lux.
France								
1955-57	10.8	4.3	39.8	--	19.1	32.7	46.5	--
1959-61	13.6	5.8	42.6	--	10.0	43.9	45.4	--
1963-65	22.0	13.0	59.1	--	33.3	28.1	36.9	1.1
Germany								
1955-57	73.0	38.0	52.1	1.0	--	1.6	97.0	0.4
1959-61	103.1	52.6	51.0	5.6	--	1.1	91.9	1.2
1963-65	127.9	75.1	58.7	25.0	--	1.2	66.6	4.7
Italy								
1955-57	19.3	5.4	28.0	4.9	76.4	--	21.3	--
1959-61	38.8	10.4	26.8	17.5	69.2	--	13.3	--
1963-65	61.8	24.1	39.0	39.6	49.6	--	8.0	0.2
Netherlands								
1955-57	0.6	0.2	33.3	23.5	13.5	5.5	--	48.5
1959-61	0.9	0.6	66.7	13.9	7.0	1.3	--	49.6
1963-65	5.8	4.4	75.9	20.4	0.9	0.9	--	69.9
Belgium-Lux.								
1955-57	35.0	27.8	79.4	5.9	3.9	1.7	88.6	--
1959-61	34.4	27.6	80.2	8.5	7.0	2.1	81.7	--
1963-65	33.9	26.5	78.2	16.4	9.5	2.2	72.5	--

[a]United Nations, Commodity Trade Statistics, various yearly volumes.

TABLE 35.--Egg imports by EEC member countries from selected origins, 1955-57, 1959-61 and 1963-65[a]

Country of Destination	Total Imports (1000 tons)	Imports from EEC (1000 tons)	Imports from EEC (% of Total)	Percentage of EEC Imports from France	Germany	Italy	Nether-lands	Belgium-Lux.
France								
1955-57	20.1	13.6	67.7	--	0.1	--	78.9	21.7
1959-61	13.9	12.1	87.0	--	--	--	62.4	38.3
1963-65	6.6	6.1	92.4	--	0.8	--	48.1	51.5
Germany								
1955-57	216.9	112.4	51.8	0.4	--	0.1	96.4	3.2
1959-61	289.0	167.6	58.0	0.8	--	--	94.5	5.3
1963-65	147.8	110.8	75.0	3.7	--	0.1	79.2	16.8
Italy								
1955-57	42.6	14.5	34.0	2.5	0.4	--	91.9	4.9
1959-61	78.2	16.5	21.1	4.0	0.5	--	77.3	19.1
1963-65	45.8	9.7	21.2	2.5	1.0	--	66.7	29.7
Netherlands								
1955-57	0.2	0.1	50.0	--	100.0	--	--	--
1959-61	1.1	0.6	54.5	53.7	32.8	--	--	6.0
1963-65	1.2	0.2	16.7	--	40.0	--	--	24.0
Belgium-Lux.								
1955-57	1.4	0.9	64.3	--	5.6	--	92.1	--
1959-61	1.2	0.7	58.3	1.4	--	--	90.1	--
1963-65	0.5	0.2	40.0	1.2	5.7	--	85.9	--

[a]United Nations, Commodity Trade Statistics, various yearly volumes.

beef and veal imports come in large measure from third countries, both in Europe and elsewhere.

In some cases the portion of total butter and cheese imports coming from other EEC members is also low. While this might seem unusual considering the large output of these products in the Netherlands, it probably reflects the short distances to other major producers, such as Denmark and Switzerland. The Dutch do have the largest share of the imports that come from within the EEC. However, the French have greatly increased their share of the German butter and cheese market and both France and Germany have a large part of the Italian market. The large shipments of eggs between EEC members come from the Netherlands, with some additional supplies from Belgium-Luxembourg.

From this brief look at the flow of livestock products in the EEC it is apparent that the Benelux countries, particularly the Netherlands, have the biggest stake in the international market. Much of this trade in the past has been with Germany, but the market is expanding in other member countries. To develop these new markets requires good organization of the marketing system to collect the produce and distribute it throughout the Community. The following section contains a brief review of the major producing regions and how the market system is organized for each product.

The most important livestock areas in France are the regions of Nord, Normandie, Bretagne, and Pays de la Loire as well as the area around the Massif Centrale. But, since the major market for meat is Paris, the animals or the meat must be transported over relatively long distances from the producing areas. Present freight rates for livestock and meats favor transporting live animals up to 300 kilometers and to slaughter the animals in the producing region and ship the meat if the distance is greater than 500 kilometers.[7] There is no clear cut difference in costs for distances between 300 and 500 kilometers. Since Paris is within 300 kilometers of most of the producing regions, and all of the other cities of France are near livestock areas, most of the slaughtering takes place near the centers of consumption.

The marketing channels used to ship the animals to the city markets and process the meat are shown on Figure 9. Nearly all of the livestock sold in France goes to a dealer, sometimes two or more before reaching the final buyer. In some markets the commission men, representing both farmers and dealers, are very important, for example, they handle 50 to 70 percent of the cattle sold on the Paris market. The cooperatives handle only about 5 percent of the meat marketed and are therefore not very important in the total market, but the dealers handle an estimated 65 percent of the livestock with the remaining 30 percent sold directly to the chevillard or to the retail butcher.

The chevillard, or wholesale butcher, buys the animals, slaughters them, and sells the carcass either to wholesale meat dealers or to retail butchers and institutions. The wholesale meat dealers also receive meat from cooperative slaughtering plants and other slaughterers located outside the market city. About 60 percent of the meat sold in Paris is handled by commission men with the other 40 percent sold directly to retail butchers and food chains.

The retail butcher is the traditional outlet for meat, but is

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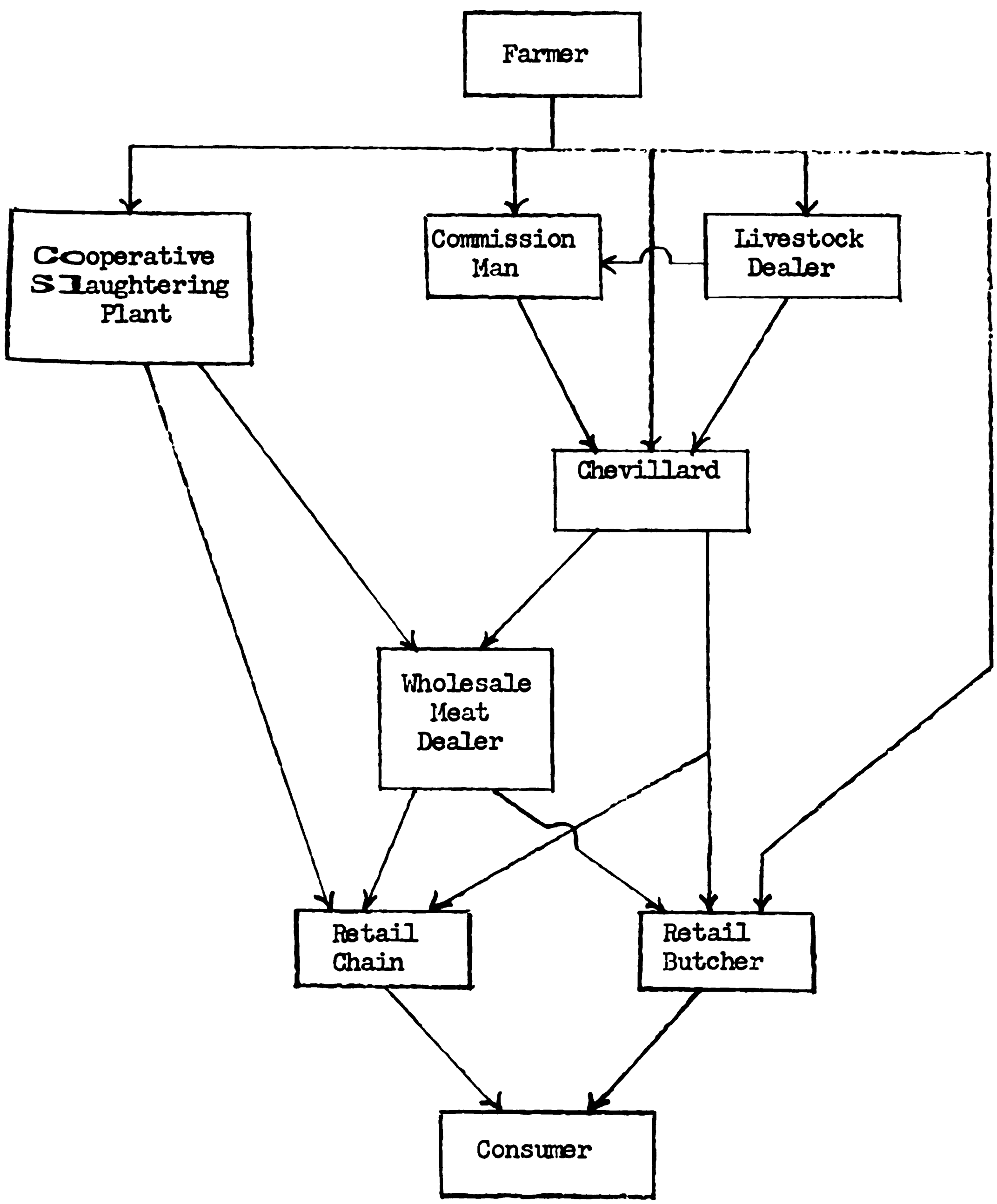
[7]G.A. Peterson and Michel Petit, Current Changes in the Livestock and Grain Economy of France and Their Effect Upon Foreign Trade Patterns, Department of Agricultural Economics, University of Wisconsin, Madison, (mimeographed), p. 6 - 4.

Fig. 9.--Livestock and meat marketing channels in France, 1965[a]



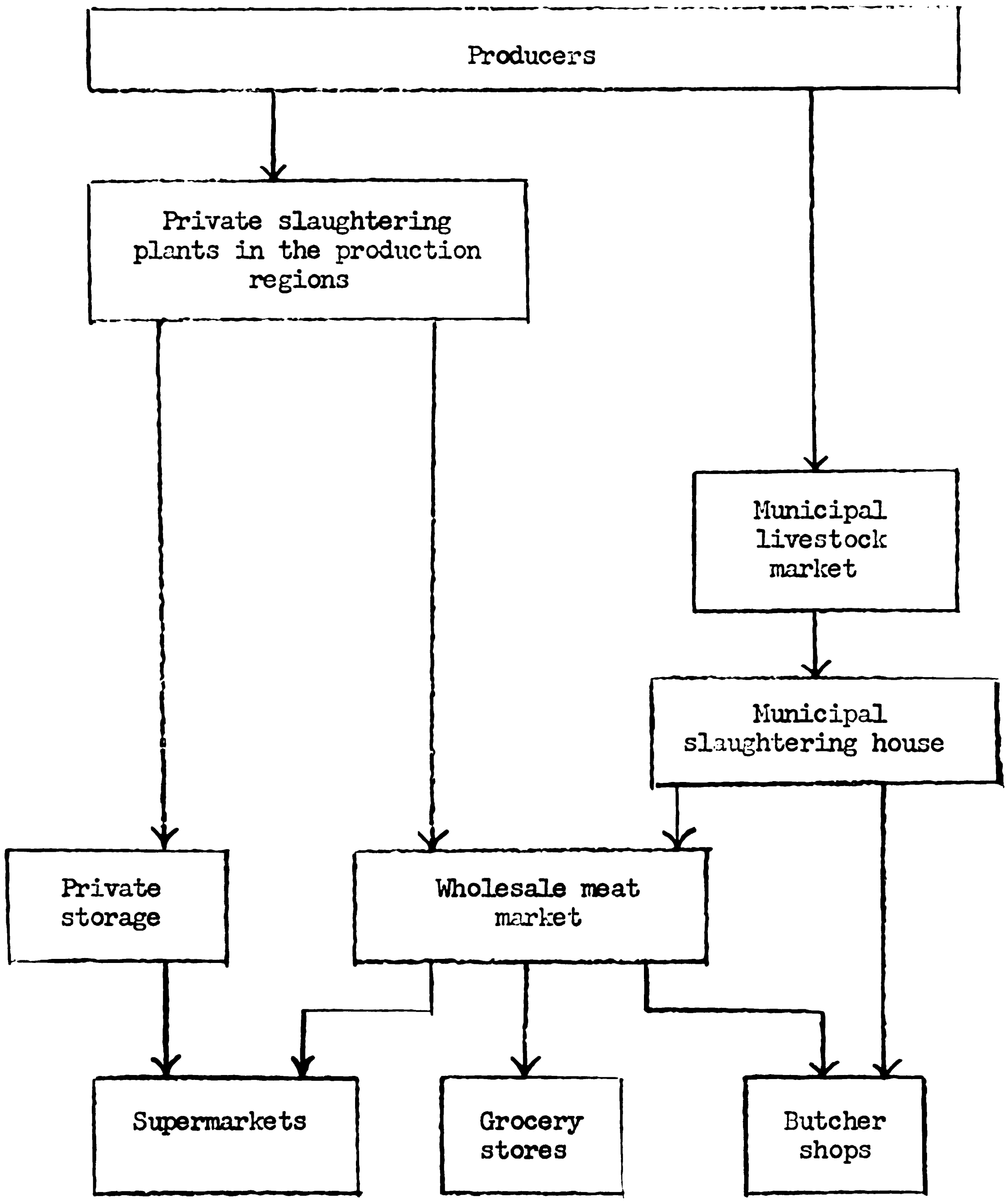
[a]*Ibid.*, Figure VI-1.

facing increased competition from the supermarket chain stores. Many of the butcher shops handle only fresh meat and have little or no refrigerated storage. They must, therefore, buy meat every day or two from a wholesale butcher or through a commission man.

Figure 10 shows the general pattern of marketing for cattle and hogs in the Northern EEC. In Germany, Belgium and the Netherlands, the raising of cattle and hogs is evenly dispursed over most of the area; thus, the animals do not have to be transported over long distances to reach the market. Farmers frequently deliver the animals to the local market where they will be slaughtered and consumed. In large cities, where the wholesale meat market is more important than in the smaller towns, additional supplies of meat may come from outside the immediate area, but long distance shipping is not usually required. In the past, the most commonly used channel of marketing was that shown on the right side of Figure 10. In this channel the farmer delivers his animal to the local livestock market where the local butcher buys it, slaughters it at the municipal slaughtering plant, and takes the carcass to his shop. With the development of multiple-line grocery stores, the channels through the wholesale meat market became more important. It is very likely that the expansion of supermarket chains will result in a larger proportion of the animals being slaughtered in the producing regions and the meat moving through the warehouses of the retail chain organizations into the supermarkets.

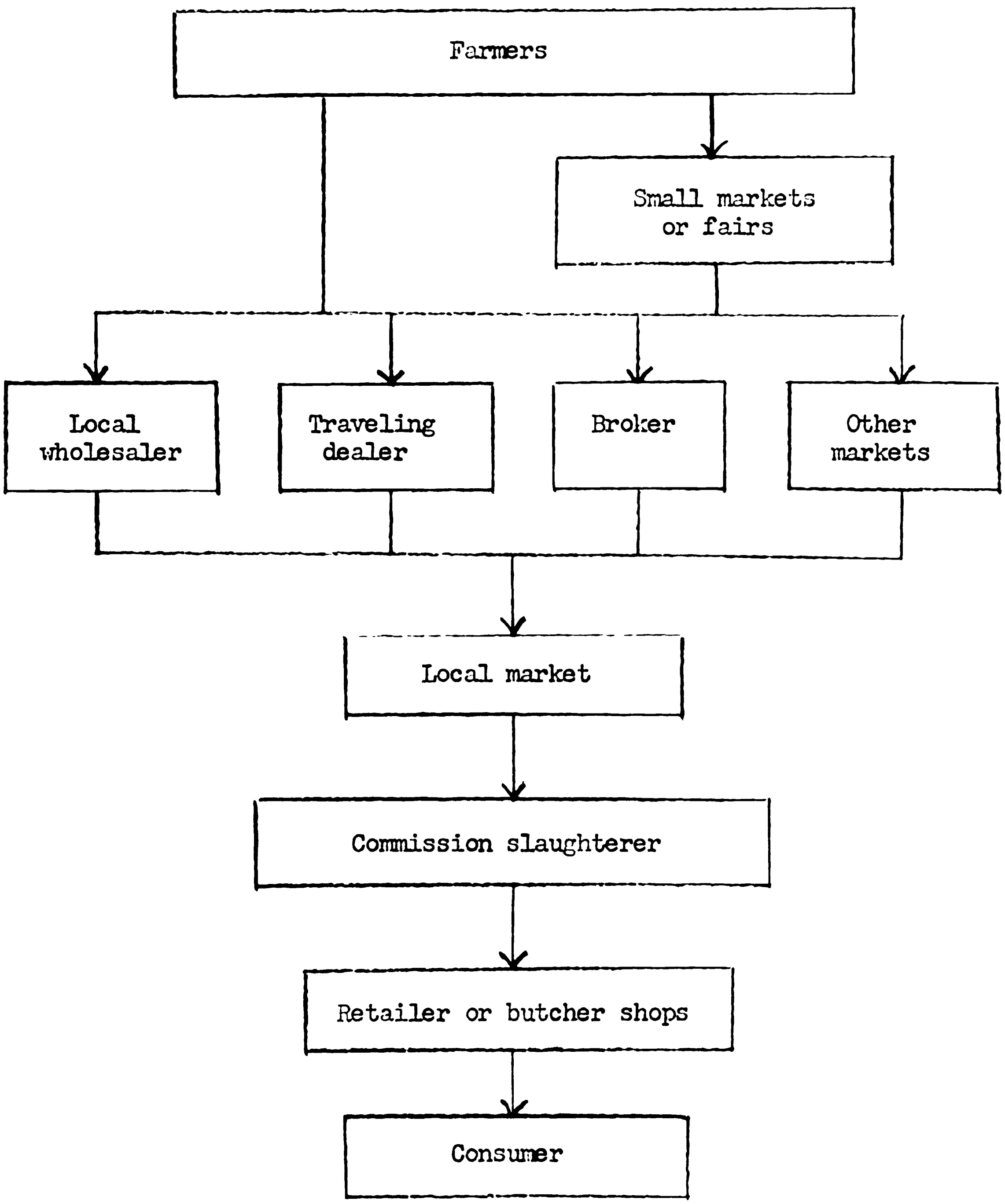
Because of special production arrangements, the markets in Italy for beef and pork differ from those in the other countries. Figure 11 shows the channels used to market beef animals. About 40 percent of the cattle in Italy are sold at the farm usually to travelling dealers who

Fig. 10.--General marketing channels for cattle and hogs in northern Europe[a]



[a]Adapted from O.E.E.C., Documentation in Food and Agriculture, 1959 Series, No. 15, _Marketing and Distribution Margins for Livestock and Meat in O.E.E.C. Countries_ (OEEC: Paris, 1959), p. 20.

Fig. 11.--Marketing channels for beef in Italy[a]



[a]U.S. Feed Grains Council, La Carne Bovina: Produzione E Commercio, (Ufficio Italiano del U.S. Feed Grains Council: Roma, n.d.) p. 61.

then take the animal to the local market.[8] The other 60 percent of the cattle are taken by the farmer to market, either a local market or a small fair or bazaar. From these markets the animals go either to the slaughterer or to other markets in the larger cities where they are slaughtered. The carcasses then go to retailers or to butcher shops where they are cut into retail cuts and sold to the consumer.

The production of pork in Italy is closely associated with cheese making. Much of the pork for salami and other processed products is fed the whey by-product of the cheese factories. Figure 12 shows the central position of the cheese factories in the hog marketing channels. Another feature of the Italian hog system that is unique is the geographical separation of the piglet raising and the hog feeding operations. About 60 percent of the feeder pigs purchased by the cheese factories come from the Central region of Italy and are trucked north to be fed.[9] This movement is accomplished by travelling collectors who buy the pigs on the farm and sell them either to agents of the cheese factories or directly to the factory.

Milk production in the EEC is concentrated in the northern part of the Community. The Netherlands and Belgium are both large milk producing regions as are the northern areas of Germany. Southern Bayern and Baden-Württemberg also produce large amounts of milk. In France, the major producing regions are Nord, Normandie and Bretagne in the North and Franche Comte and the Rhone Alpes in the Southeast. Almost all of the Italian milk production occurs in the Po River Valley of the North.

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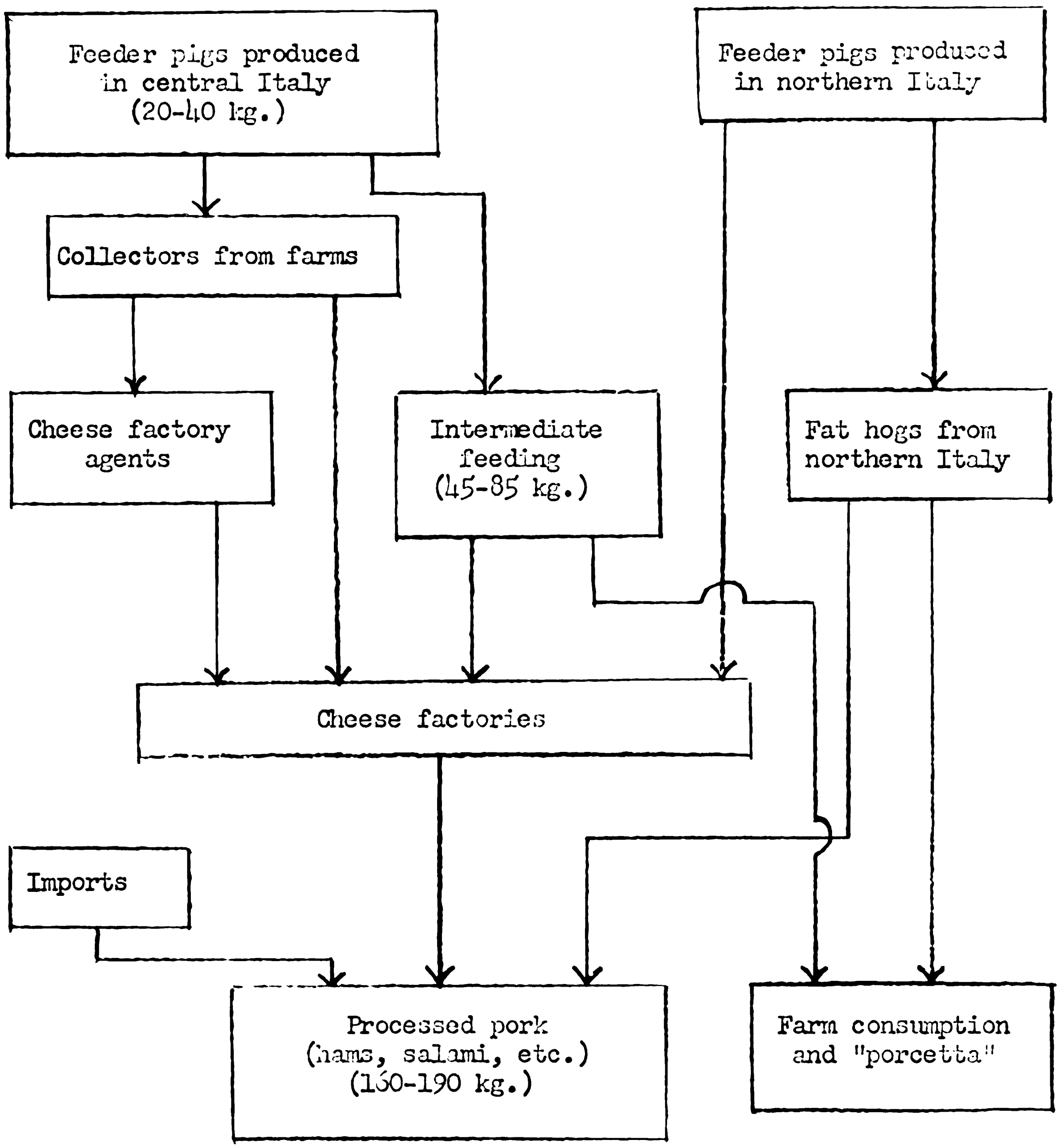
[8] Ibid., p. 59.

[9] Fred A. Mangum, Jr., Changes in the Livestock and Feed Economy of Italy, forthcoming.

Fig. 12.--Hog marketing channels in Italy[a]



[a]*Ibid.*,

All milk producing regions do not, however, produce the same products. The northern areas of France produce most of the fluid milk used in Paris as well as butter. On the other hand, a large proportion of the milk produced in the Central Mountain region is used to make cheese. Cheese is also produced in the Allgäu region of Bayern and Baden-Württemberg, but northern Germany produces butter from the milk not needed for fluid consumption. In the Netherlands, the milk from the western parts of the country is used in the cities for fluid consumption while that from the eastern areas is made into cheese and butter. Much of the Italian milk is made into cheese and butter, but the milk for fluid uses also comes from the same areas of Northern Italy.

The marketing channels for milk in the Netherlands and Belgium are short and uncomplicated compared to those in France or Germany. In the Netherlands the milk produced in the Western areas, primarily Noord and Zuid Holland, is delivered to the city dairies for bottling and delivery to retail stores or direct to the consumer. Since not enough milk is produced in these areas to meet the needs of the large cities, about 30 to 40 percent of the milk supply used by the city dairies comes from country dairies in the eastern areas of the Netherlands. The eastern areas make butter and cheese from the milk that is not sent to the cities. Cooperatives are very important cheese producers, accounting for over 85 percent of the Dutch cheese output. In Belgium, the marketing channels for milk are also very direct, since much of the fluid milk is produced in the areas near Brussels and Antwerp. This milk is delivered to dairies which process it and deliver it either to wholesalers or to independent delivery men. The wholesalers also sell to the delivery men and to the retail stores.

Figure 13 shows the channels used to market fluid milk for Paris. Milk is collected from the producers by the rural dairies, standardized to 3 percent butterfat, and pasteurized. The rural dairies then either deliver the milk to the city dairies which bottle the milk and distribute it to the retailers, or the rural dairies distribute the milk themselves. Both the urban and rural dairies maintain sales depots to supply retailers, who come daily to purchase the quantities needed for that day's sales. Sometimes wholesalers handle this function, especially where the rural dairies deliver large quantities to the city rather than to the urban dairies. A channel of increasing importance is the sale of milk by rural dairies through their own retail stores.

About 40 percent of the milk produced on Italian farms is used on the farm.[10] Of this, about 60 percent is used as feed for livestock and the remainder for making cheese and fluid uses. Of the 60 percent that is delivered to the dairies, about 40 percent is used to make cheese, about the same amount for fluid uses, and the remainder for butter. Rome and the larger cities in the North established municipal collection centers to receive the fluid milk and distribute it within the city, but the remainder of the country does not have such centers to coordinate the activities of the dairies. The collection center in Rome not only receives milk from the surrounding area, but also gets milk from the north, because there is not enough milk produced in the Rome area to supply its needs.

Milk production in Germany is quite different in the northern areas

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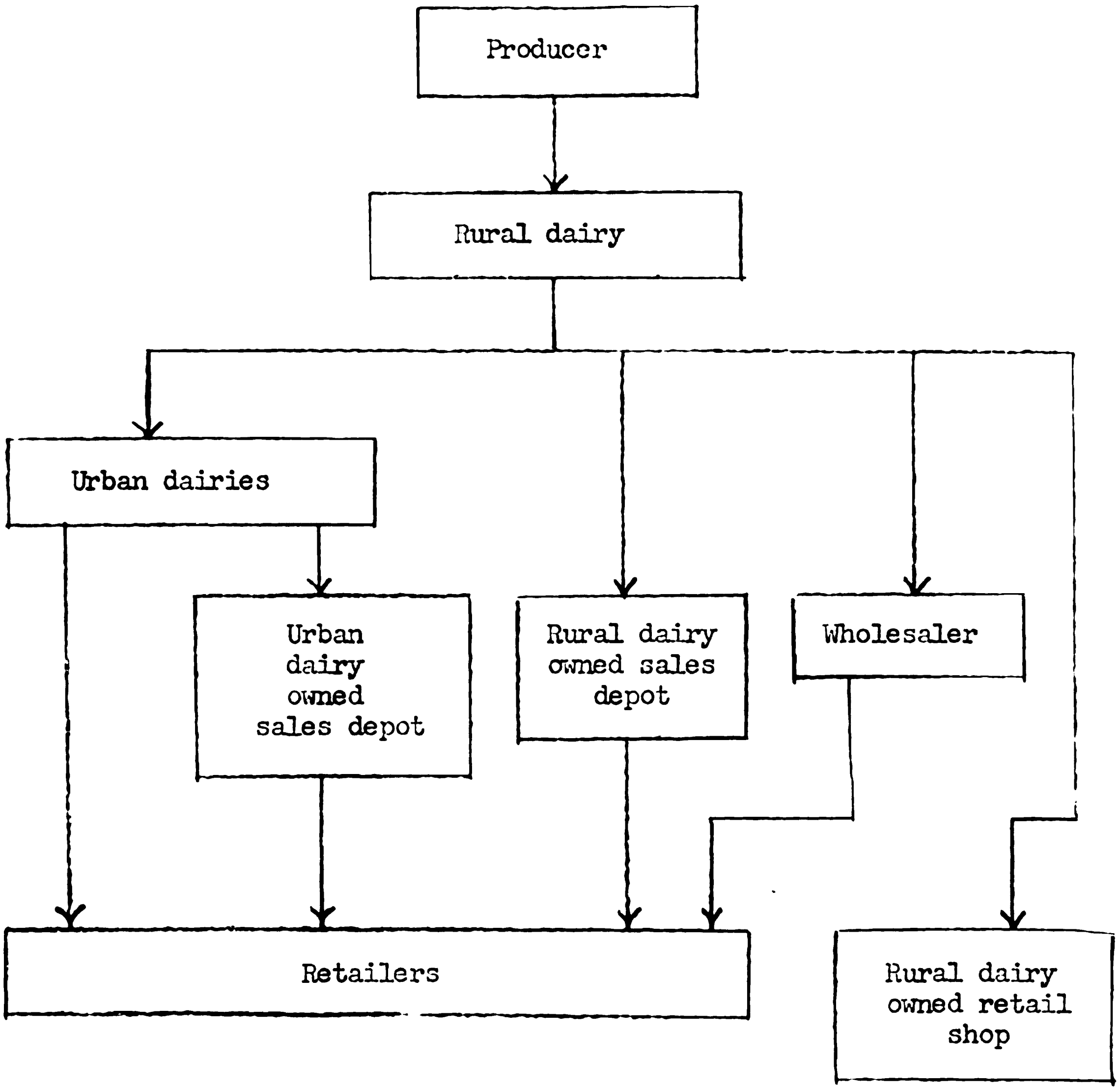
[10] O.E.C.D., Documentation in Agriculture and Food, 1962 Series, No. 55, Organisation and Structure of the Milk Markets in O.E.C.D. Member Countries, (O.E.C.D.: Paris, 1963) pp. 300 and 304.

Fig. 13.--Marketing channels for fluid milk in France[a]



[a] *Ibid.*, p. 277.

than it is in the southern areas. The dairy herds in Schleswig-Holstein and Nordrhein-Westfalen are large, whereas those in Baden-Württemberg, Rheinland-Pfalz, and parts of Bayern are very small. This means that dairies in Nordrhein-Westfalen are larger than those in the South. There is also a difference in the uses these dairies make of the milk delivered to them. The northern dairies use about 22 percent of their milk for fluid sales while southern dairies only use 15 percent.[11] However, the southern dairies produce more cheese, particularly in the foothills of the Alps. Southern dairies use about 11 percent of their milk for making cheese while northern dairies use only about 2 percent. A large proportion of the milk is used to make butter in both the North and in the South.

The typical marketing channels for fluid milk in Germany are shown in Figure 14. Collection centers are found in all parts of Germany, but are particularly important in Baden-Württemburg and Rheinland-Pfalz where the very small farms necessitate a central collection point. In the northern part of Germany, 82 percent of the milk is delivered directly to a dairy, whereas 63 percent of the production in the South passes through a collection center.[12] In some parts of the country, the urban dairies handle all of the fluid milk consumed in the city and may also perform the services handled by the distribution centers. Munich is an example where all the milk comes to the city dairies, either from producers or rural dairies, and is distributed either to the retailers or directly to consumers. The direct channel from the producer to the consumer is still

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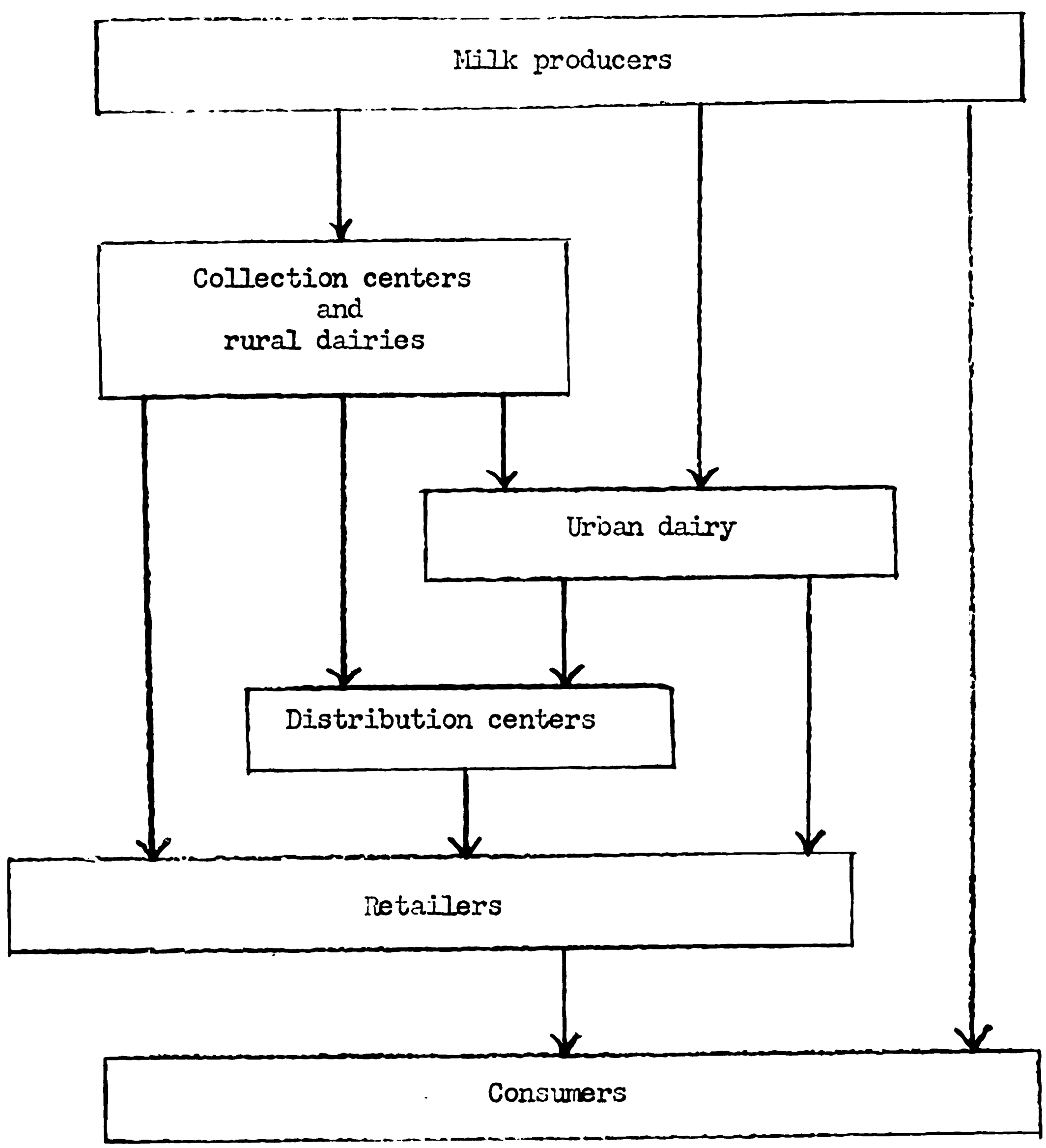
[11]<u>Ibid</u>., p. 234.

[12]<u>Ibid</u>., p. 232.

Fig. 14.--Marketing channels for fluid milk in Germany[a]



[a]*Ibid.*, p. 248.

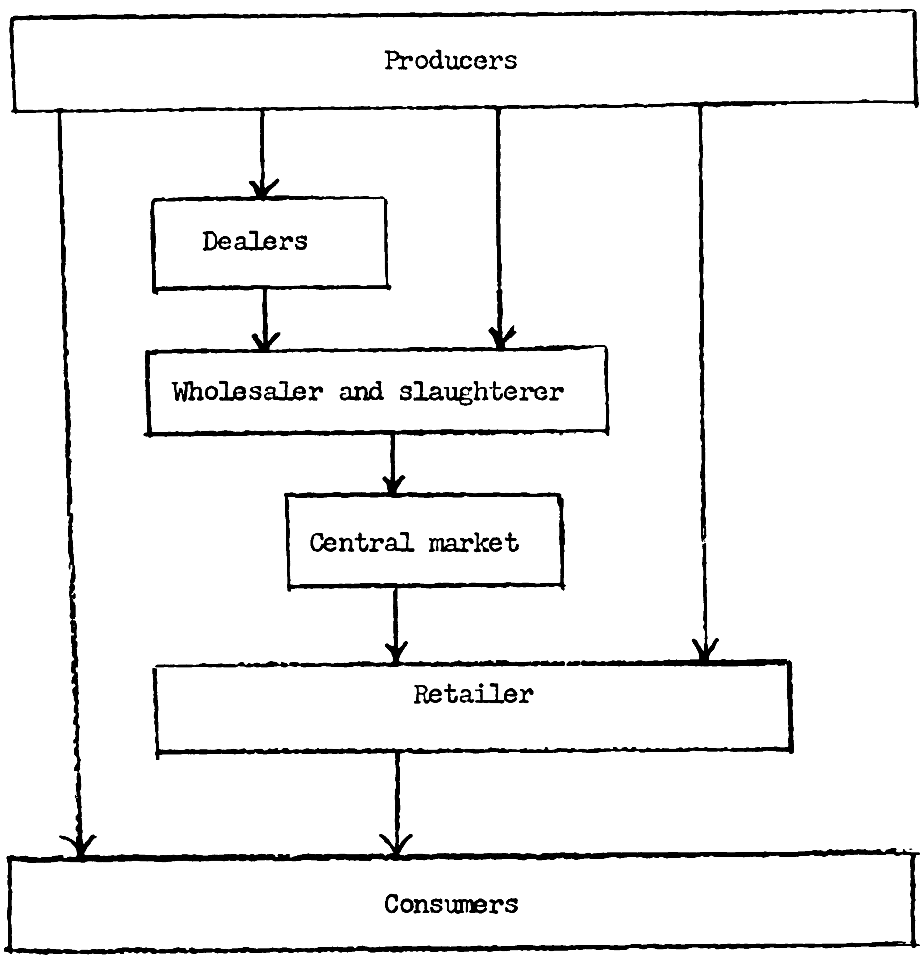
used in some areas, but is being replaced by distribution through the dairies.

Broiler production in the EEC is concentrated in several different areas; one of the biggest producing regions being Bretagne. The Netherlands and Nordrhein-Westfalen in Germany also produce large numbers of birds in commercial operations. The North region in Italy is another important producer with the industry concentrated around Milan and Cuneo in the upper part of the Po Valley and between Venice and Forli in the lower Po Valley. There are several other areas in southwestern and southeastern France that produce broilers as well as in southern Germany and in Belgium.

Figure 15 shows the marketing channels used in the EEC. Certain channels may be more important in one country than in others, but the trend in all countries is to shorten the channels and reduce the number of steps in the marketing process. The larger poultry farmers frequently by-pass the dealers and sell directly to the slaughterer; the vertically integrated operations often have their own slaughtering plant and sell directly to retail outlets. In those countries where imports or exports are important, they enter and leave the flow pattern between the wholesale and retail levels. The central market is very important in some cities, such as Paris, but does not exist in others. Whereas, in the past the sale of live birds directly to the consumer was important in certain regions, it is now almost eliminated.

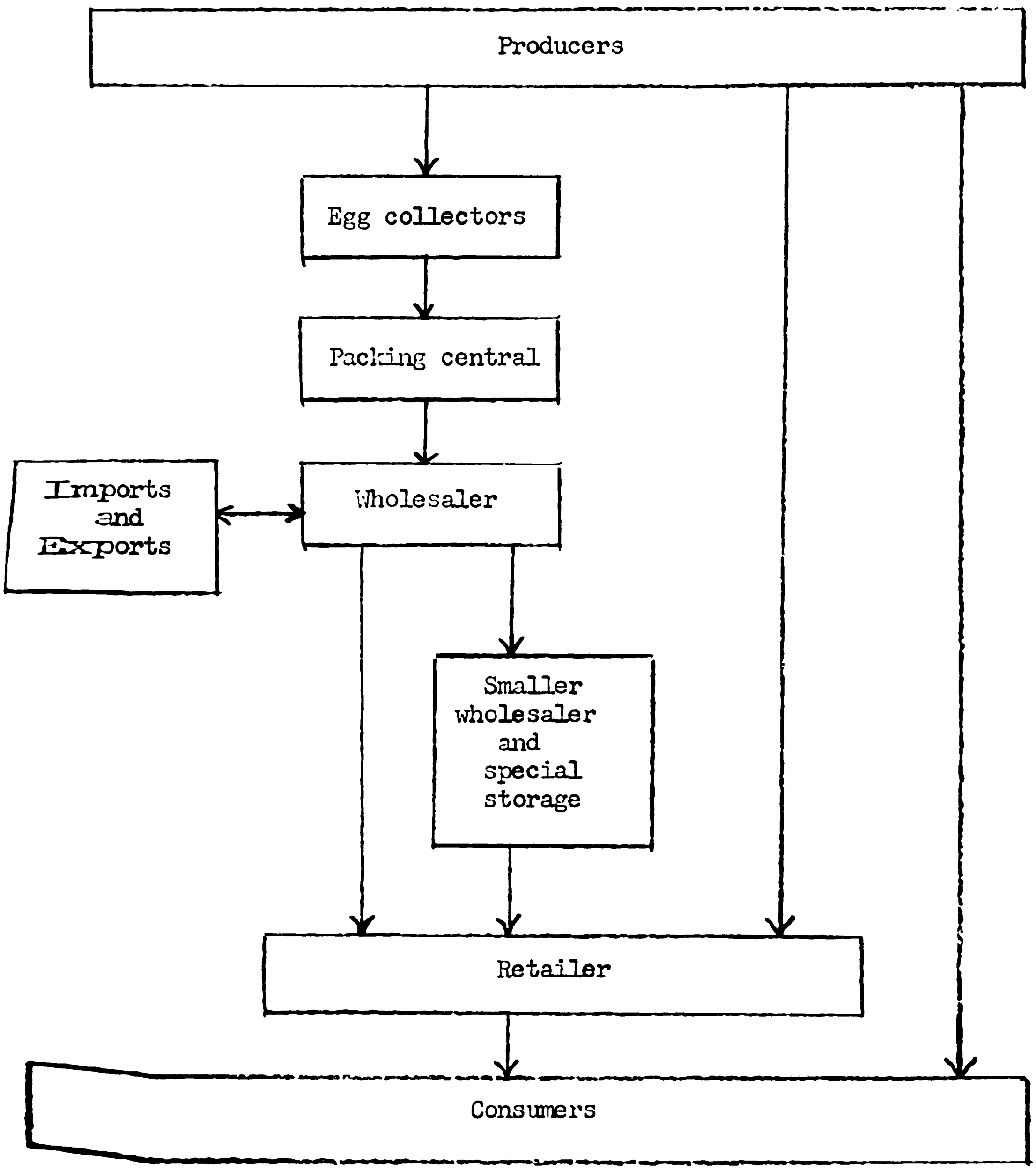
The production of eggs is important in many of the same areas that produce broilers. Large quantities of eggs for export are produced in the Netherlands, since Germany, Italy and France do not produce enough for their own consumption. Figure 16 shows the general pattern of

Fig. 15.--Marketing channels for broilers in Europe[a]



[a]From information in O.E.C.D., Documentation in Food and Agriculture, 1961 Series, No. 58, Survey on the Organization of Marketing Poultry Meat with Special Emphasis on Broilers, (O.E.C.D.: Paris, n.d.).

Fig. 16.--Marketing channels for eggs in the EEC[a]



[a]Compiled from O.E.E.C., Documentation in Food and Agriculture, 1959 Series, No. 16, Marketing and Distribution Margins for Eggs in O.E.E.C. Countries, (O.E.E.C.: Paris, 1959).

marketing channels in the EEC. Direct sales from the producer to the retailer or the consumer are still important in many smaller cities and towns, although an increasing volume moves through other channels. In some countries, steps may be omitted or functions indicated in Figure 16 may be performed by two different types of firms. Thus, several channels may be created at certain points. But, the most important flow is the collection of eggs from the producer and channeling them through the wholesale market either to exporters or to the retail firms.

CHAPTER III

MARKETING AND PRICE POLICIES

Fundamental to agriculture in all developed economies today is the significant role played by government policies. They attempt to guide farm production, determine a minimum price for farm products, help farmers obtain needed inputs, and support market development efforts. All of these policies developed over a long period of time in response to problems faced by agriculture and the belief that a stable agricultural economy was essential to the well-being of the nation. Even though the policies differ from one country to the next in the breadth of their application and in the strength of their control, all of the national governments of the advanced economies in Europe and North America have followed a program of assistance to the agricultural sector.[1] It is the objective of this chapter to present the major features of the Common Agricultural Policy and indicate which changes from the previous policies will affect agricultural production, consumption and trade.

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[1]For details of the history of agricultural policies in Western Europe see, Michael Tracy, Agriculture in Western Europe (New York: Frederick A. Praeger, 1964), Helen C. Farnsworth, "Determinants of French Grain Production, Past and Prospective," Food Research Institute Studies, IV (1964), pp. 225-272, and Karen J. Friedmann, "German Grain Policies and Prices, 1925-1964," Ibid., V (1965), pp. 31-98.

The Common Agricultural Policy

To move from the variety of policy measures employed prior to the Treaty of Rome to a major reliance on price policy involves much analytical and diplomatic effort. The task was eased somewhat by choosing to rely on price policy rather than production controls, since production did not then have to be allocated between member states; one decision could be made on an overall price level and market forces would produce the rest of the price surface.

The nearly exclusive reliance on price policy by the EEC has several implications for this study. First, by studying the possible changes in product prices we can estimate the probable changes in quantities demanded by consumers. Second, assuming that product prices are important in farmers' production decisions, we can learn something of the possible production changes from examining the likely price changes. These estimates of supply demand in the EEC permit trade flow projections, both within the Community and with third countries. Third, farm incomes can be projected from the production and price estimates and, because of the political importance of the farm income situation, possible changes in policies may be foreseen.

Due to the great diversity of policies used by the six member countries prior to 1957 and to the large differences in price levels for different products, a transition period was established where each country would retain control of the policies affecting agriculture, but would agree to move toward common goals. This began in July, 1962, for cereals, pork and poultry products and by 1966 the basic regulations had been prepared for beef and dairy products as well. While it is possible for the basic provisions of the regulations to be changed before the end of the transition period on 1972, it is assumed that such changes will be minor. Thus, the remainder of this section reviews the most important provisions of the Common Agricultural Policy as it exists in early 1967.

Grains

The foundation of the internal price policy for grains is provided by the target price, sometimes called the indicative price. This price goal for a standard quality product is set by the Council of Ministers for commodities of major importance to the Community - soft wheat, rye, barley and corn. Because of the size of the Community, the same price would not be appropriate for all areas and derived indicative prices are established for marketing centers within a country if the difference in price between the areas of greatest surplus and greatest deficit exceeds 5 percent. France, Germany and Italy selected derived intervention points within their boundaries and calculated target prices for these points. In addition to this regionalization of target prices, the EEC adjusts prices during the marketing year to induce farmers to store their grain on the farm for marketing later in the year.

To insure that actual prices received by farmers do not fall too far below the target goals, the Commission determined and designated agencies to buy grains offered for sale at the intervention price. For countries with derived target prices, intervention prices are also derived for the same points or regions. Each intervention price must be between 5 and 10 percent below its corresponding target price

The intervention agency may dispose of any grain purchased in three different ways. They may store the grain and sell it later on the domestic market when the price rises above the indicative price, or sell it on the world market, or denature the surplus and sell it as a feed grain. As an alternative to the third method, private grain handlers may be paid a premium for denaturing wheat and incorporating it in mixed feeds for livestock. But, all of the disposal methods cost money, either for storing the grain or by selling the grain for a lower price than was paid for it. The Guidance and Guarantee Fund, discussed later in this section, pays these costs.

Since the target levels for grain prices in the EEC are substantially higher than world prices, it is necessary to protect the domestic market from excessive imports at prices lower than the indicative price. A threshold price, or minimum import price, provides this protection for grains. It includes an adjustment for any difference from the EEC standard quality and deducting marketing and transportation costs from Rotterdam to Duisburg. Then the Community adds a specified amount (montant forfaitaire) to the price to give domestically produced grains a price advantage in domestic markets. Resulting threshold price for the specified type of grain indicates the minimum price at which it may be imported.

Similarily, to prevent excessive imports of grain products made from lower priced grain in third countries, the EEC calculates a threshold price for items which do not have an indicative price. The computation of this price considers the value of the grain in the product, the milling margin, an allowance for protecting the domestic milling industries, and the value of the by-products obtained in making the grain product to be imported. In essence, the threshold price represents what the imported product would have cost if the grain were priced at domestic prices plus some protection for the home industry.

To allocate grain imports from third countries and to tax the windfall gain resulting from the threshold price being above the world price, the EEC calculates a c.i.f. price on the basis of the lowest offer price at Rotterdam, adjusted for any quality differences. Having determined the minimum offer price of third country suppliers (c.i.f. price) and the minimum import price allowed (threshold price), the EEC computes a levy equal to the difference between the two which must be paid at any EEC port or border crossing point.

Without special provisions, exports of grain would cease under a policy of domestic price levels being higher than world prices. This is particularly important for France, which traditionally exports substantial quantities of wheat to third countries. In order to maintain a competitive position in the world markets, the EEC pays an export restitution or refund equal to the difference in world prices and EEC prices. Or, the exporter may receive permission to import an equal amount of grain without paying the levy.

Beef

The internal market policies for beef in the EEC center on the guide price, which serves the same function as the target price in the grain policies. That is, the weighted average beef price for the country, giving consideration to seasonal variations and quality differences, should be close to the guide price. But, even with a community-wide price goal, each member government may choose either to support the price by intervention or not. If intervention is desired, an intervention price between 93 and 96 percent of the guide price is established. When the internal market price, computed by weighting the price of specific

qualities of beef animals (but not calves) on specified representative markets, falls below the intervention price for seven or more consecutive days, the designated intervention agency may purchase live beef animals and fresh or chilled beef carcasses, sides or quarters until the internal market price is above the intervention price. Any stock purchased by the intervention agency may not normally be sold for a period of thirty days, and then, only if the internal market price is above 98 percent of the guide price.

The primary measure for protecting the internal market from beef imports is a customs duty developed from the duties in effect before the common policy, and applied to beef and beef products brought into any member country. This has been set at 16 percent for live animals, except for certain quotas of breeding animals, and from 20 to 26 percent for beef products.

Protective levies may also be charged on imports to supplement the customs duty when the price at importation plus the duty is less than the guide price. The price at importation is computed weekly by weighting the price of beef animals in Denmark, the United Kingdom and Ireland, and calf prices in Denmark. In essence, this calculation presents what the EEC thinks is the normal price at which third country exporters can offer beef for import. The levy is equal to the difference between the guide price and the price at importation increased by the duties. But, no levy is charged if the internal market price exceeds the guide price by more than five percent, and only half of the levy applies if the internal price is above the guide price by not more than five percent. Levies on beef products relate to the levy on live animals through a table of conversion coefficients.

Because the levy is based on the actual market prices in selected markets outside the EEC and not on the actual offer prices of importers, some problems have developed which appear to be depressing the market prices in the EEC. Imports from East European and certain other countries with export promotion programs for frozen and chilled beef have depressed some EEC beef prices causing the EEC Commission to propose a change in the calculating procedure by considering the lowest import offer price when establishing the levy.[3] The Council of Ministers has not yet acted on this proposed change.

In order to protect the share of the export market to some third countries supplied by EEC members, a refund is granted on beef exports to offset the price increasing effects of internal market support. This equals the difference between the average internal market price and the average price at importation not including the allowance for transportation.

Grain consuming livestock

The EEC regulations concerning pork, eggs and poultry differ from other parts of the Common Agricultural Policy since they do not provide any direct support of the internal market, such as that found in the grain and beef regulations. For these grain converting livestock products, the primary price measures attempt to insure that imports are kept above a specified minimum price. The EEC Commission recently proposed a new policy for pork that would include a "base price" and support buying of pork carcasses and certain wholesale cuts if market prices fell below an intervention price, but the proposal has not been acted upon by

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[3] Agra-Europe, No. 195, December 7, 1966, p. EN/5.

the Council of Ministers.[4] Therefore, these markets continue to operate without a Community-wide intervention mechanism.

Computing the levy on pork imports from third countries requires adjusting for differences in feed costs between EEC producers and third country producers as well as non-feed cost and processing cost differences. The feed cost adjustment uses a standard feed mix, the difference in price of grains between the world market and the EEC, and a uniform feed conversion ratio to compute the difference in feed costs for a kilogram of pork between third countries and the EEC. The higher non-feed costs and processing costs in the EEC are covered by a flat fee equal to 7 percent of the sluice-gate price for the preceding year.

The EEC protects its producers from foreign competition not only by a levy, but also by a sluice-gate price to insure that no foreign exporter offers pork at below his estimated cost of production. The sluice-gate price considers the cost of feed and other inputs in the major producing countries and applies a representative feed conversion ratio to compute the costs of production. Adding representative costs for transporting pork to the EEC gives the minimum price possible to offer pork for import to the EEC and still cover costs. In the event that imports should be offered at less than the sluice-gate level, an additional levy is added equal to the difference between the offer price and the sluice-gate price. Normally the pork imports from every third country pay this additional levy, although countries which take action to keep offers above the sluice-gate price may be exempted from the additional levy.

Granting refunds to offset the higher feed grain costs of producers

[4]Agra-Europe, No. 201, January 25, 1967, p. EN/3.

encourages exports to third countries. These refunds may be as large as the difference in product price in the exporting member country and the world price. But the refund cannot be greater than the levy on imports from third countries.

Poultry and egg policies are very similar to pork policies, relying on import levies based on similar elements of adjustment. The feed conversion ratios and the feed rations are supposed to reflect the state of technology in the Community and the computation of the protective elements and export refunds proceeds in a nearly identical manner.

Milk and Dairy Products

The internal milk market policy establishes a target price which insures an adequate income for farm producers. It is calculated on the basis of 3.7 percent butterfat content and applies to all milk delivered to the dairies, whether for fluid consumption or manufacturing uses. To help maintain milk prices at the target level and to avoid an undesirable fall in butter prices, an intervention agency will purchase all first quality butter offered at the intervention price. This was initially set at the average wholesale price for 1963 with government buying to begin when market prices fall to a level slightly above this price.

For protection against low-priced imports of dairy products, the EEC instituted a system of threshold prices and levies. All dairy products are grouped into thirteen categories of similar products plus single listings for butter, cheddar cheese and Tilsit cheese. The threshold price for the pilot product in each group includes a preferential amount (montant fortaitaire) to give products from member countries a price advantage in the Community markets.

To determine the import levy, a free-at-frontier price is calculated weekly representing the most favorable purchase possibility determined by the Commission from offerings to the member countries and from prices in markets of third countries. The free-at-frontier price is applicable to all member countries except for a few cases where Italy may have a higher price due to greater transportation costs. The difference between the free-at-frontier price and the threshold price determines the amount of the levy charged on imports from all third countries.

For refunds on exports to third countries, the EEC determines an f.o.b. price equal to the free-at-frontier price for the exporting member, but it is calculated using fixed charges for internal transportation rather than the actual cost used to determine the free-at-frontier price. The maximum amount of the refund equals the difference between the f.o.b. price and the free-at-frontier price for imports from third countries increased by an amount to compensate for transportation costs to the country of destination.

The Guidance and Guarantee Fund

To supervise the financial resources needed to implement the various parts of the Common Agricultural Policy, the EEC established a Guidance and Guarantee Fund. As its name implies, this fund's two functions deal with the guaranteed price supports and the obligations of the EEC to improve the structure of agriculture. The expenditures eligible for support from the fund include: refunds on export subsidies, market support intervention buying, any other market intervention carried out under EEC rules, and structural improvements undertaken to increase agricultural productivity or marketing efficiency. The first two relate most directly to this paper, since they finance the policies discussed above.

The regulations of the Agricultural Fund state that expenditures can only be made for products that have a marketing organization and policy in effect. As the policies for additional products are agreed upon and put into effect during the transition period from 1962 to 1970, the proportions of the money spent on different products and in different countries will shift substantially.[5] But the important point for this discussion is that after the Common Agricultural Policy is in full effect the financing of the support buying and export restitutions will come from a common fund rather than from the individual country treasuries.

In the final, unified market the revenue for the fund comes from import levies. During the transition stage, however, the money comes partly from import levies and partly from contributions by the member governments. The contributions are based on percentages established in the agreement which created the Agricultural Fund and the overall contribution of any member is limited to a specified percent of the total budget of the fund in a regulation adopted by the Council of Ministers.

Significant Policy Changes

Having examined the major features of the EEC policies for agriculture, the next task is to select the changes that influence the most important segments of European agriculture and appraise their potential impact. In this section the impact of the grain policies in three countries and the changes in hog and milk policies are analyzed in detail and compared to the policies that existed prior to the EEC.

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[5]See Byron L. Berntson, The European Agricultural Guidance and Guarantee Fund, U.S. Department of Agriculture, ERS-Foreign-144 (Washington: June, 1966).

One of the most significant policy changes in the EEC will be the revision in grain policies and prices in France. Prior to the introduction of the Common Policy, all grain produced in France was marketed through agents specified by the Office National Interprofessional des Cereales (ONIC). Not only was the delivery point specified, but the price was carefully controlled, being uniform throughout the country. A quantum tax levied on all wheat and barley sales had the effect of lowering the price received on individual farm production above a specified amount. This quantum system was supposed to discourage production of crops that were in surplus and to pay the costs of exporting any surplus that did result.

Prices under the previous French grain policies were lower than in any other EEC member country, so the move to a unified price brought a price increase throughout the country. Yet, because of the distance from most of the producing areas of France to the deficit areas of the EEC, the overall price rise is less than might at first be assumed. Of even greater significance in its effect on the prices to be received by farmers is the elimination of the quantum taxes which reduce the price for large marketings by over 20 percent. Obviously, an increase in the product price of such magnitude may have a considerable impact on the total grain production in France in the future.

Another important change in grain price policies occurs in Germany, where the previous system established prices in four different regions with transportation subsidies and milling regulations that helped support the price of grains. The prices set under the old system were not always determined by economic forces, but more frequently, reflected the political power of farm groups in certain areas of the country. When the EEC system replaced the political considerations with transportation cost calculations, the southeastern parts of Germany changed from the region with the highest grain prices to the region with the lowest. Compounding this shift in relative prices is the lowering of the general level of German grain prices to conform with the common price. Also, the elimination of subsidies on rail shipments of grain will further lower the price received in these areas furthest from the consumption centers along the Rhur River. It seems that the readjustments in the relative prices of grains in the different regions of Germany may have a large effect on the future production of grains and livestock there.

In addition to the changes in grain policies, important adjustments will occur in the price policies for milk and dairy products in Germany. The previous regulations provided a uniform milk price for farmers throughout Germany through a government price equalization fund. The price of milk received support from consumption subsidies and government purchases of butter and powdered skim milk. On the other hand, under the EEC regulations the prices in different areas will reflect the market conditions of that area and only butter will be purchased by price supporting agencies. A priori, one would expect that greater regional price differences will result, possibly altering the patterns of milk production. But, the level of the intervention price is important, since a high intervention price would mean that most milk would receive the intervention price, resulting in a uniform price surface for the country. In view of the near surplus position of the EEC at this time, this policy change and the intervention price established are both important.

Italy also faces an important shift in grain policies. Previously, the Italian government followed a policy of supporting wheat prices at

high levels relative to feed grains and depended on imported feeds to support the livestock feeding industry. Consequently, Italy's feed grain prices must be substantially increased to reach the common price level. This has two important effects on Italian agriculture. First, it alters the relative prices of wheat and feed grains, so that feed grains become more attractive crops to produce. Second, it alters the profitability of livestock feeding, which has become an important source of income for farmers in northern Italy. Because of the importance of the sectors of agriculture affected by these policy changes and because of the magnitude of the changes, this policy revision ranks high in the list of significant impacts of the move to a Common Market.

A final change that should be mentioned here is the revision of the pork policies in the Netherlands. Under the previous policies the Netherlands and the United Kingdom had a trade agreement whereby the Netherlands controlled the amount of pork exported to the U.K. and set the prices paid to farmers for their hogs. Due to the EEC policies on internal pricing for hogs and for foreign trade in agricultural products, the agreement with the U.K. expired and the market price for hogs is now only protected from low priced imports. In view of the fact that pork production in the Netherlands exceeds domestic consumption by more than 60 percent, this is no support at all. In fact, by eliminating the special arrangement with the United Kingdom, the EEC diverted a substantial amount of pork for sale in the other EEC countries where Dutch pork has a preference over imports from third countries. But, this increase in sales from the Netherlands will tend to depress prices in other member countries, thus affecting their producers. This could be one of the products which demonstrates the inadequacy of the EEC support mechanism for pork, eggs and poultry.

One policy change that may be very important to the future of the agricultural policies of the EEC affects all countries and all products covered in the regulations. This is the shift to a common fund to finance the operations supporting the agriculture of the Community. Although the idea of paying for support measures from the revenues received on import levies may not immediately seem controversial, it may easily become a major source of friction. France and the Netherlands are both important exporters of crops organized under the Common Agricultural Policy: France sells wheat and the Netherlands exports dairy products. The producers in these two countries can expect valuable price support for their products from the export restitutions given by the Agricultural Fund. On the other hand, Germany imports large amounts of agricultural products for domestic consumption and Italy imports feeds for her livestock feeding industry. Both groups will have to pay higher prices due to the levies imposed on these imports. It is possible that the spirit of economic cooperation in the EEC may not be strong enough to withstand the political pressures likely to result from these inter-country financial transfers. If such pressures develop, it is very likely that policies will be changed or price levels adjusted to reduce the imbalances in the net positions of the various members with respect to the Agricultural Fund.

Certainly the policy changes mentioned here are not a complete list of changes that must occur as the Common Agricultural Policy replaces the previous policies of the six member nations. Almost all country policies or price levels must be adjusted in those products with EEC market regulations and these may seem very important to the producers and the countries involved. But, only those that appear to have the greatest impact on EEC agriculture have been discussed.

CHAPTER IV

COMMODITY PRICES

The first step in the study of agricultural product prices was to analyze past prices. The three year period centered on 1960 was selected as the base period since it preceded the introduction of the EEC policies. Prices in that period, hereafter referred to as 1960 prices, indicate the pre-EEC relationships between regions. Also, prices were assembled from the most recent two or three years for which data was available, usually 1963 and 1964, although in some cases 1965 data was included. These prices, called 1964 prices in the rest of this report, serve two purposes: they indicate price developments during the transition period, and they provide a current reference point for future price and production estimates.

Public sources were used for most price information, usually from ministries of agriculture, although publications of trade groups and commodity associations were used as were the publications of the Statistical Office of the European Communities. Some unpublished sources were used to calculate average prices for sub-regions of the bigger countries. Where several different price sources existed, we compared several to insure that the prices are representative. The prices determined by EEC policies are reported in the Bulletin of the EEC for grain commodities, and in Agra-Europe and the Daily Bulletin of the Europe Agence Inter-

nationale Information pour la Presse for livestock products.[1]

In every case an attempt was made to get prices that the producer received. In some countries producer prices are published, but in others they must be calculated from published market prices. In such cases, adjustment was based on marketing margins obtained from government and university research people. Converting all prices to the producer level was an attempt to insure comparability between the different countries and to estimate prices more relevant to the production decisions of producers.

Weighted average prices were calculated for each region where marketing volume or production data could be used for weighting the prices reported in the region. In other cases an unweighted average of the reported prices was used. Since some regions do not have a market for certain commodities, an average of nearby markets represents the average producer price in the region. For example, none of the 24 reporting livestock markets in Germany is located in Rheinland-Pfalz, although Cologne, Frankfurt and Karlsruhe are near its border. The prices in these three markets were averaged to represent the Rheinland-Pfalz price as well as being included in the average for their own regions.

The French quantum price system for wheat and barley required a special adjustment to make French prices comparable to those in other countries. This was accomplished by calculating the proportions of grain sold that paid the higher quantum tax.[2] Recalculating the average price for each French region to consider the differential return from

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[1]Sources for individual prices are listed with the price tables in Appendix II.

[2]See the Appendix for the details of this adjustment.

different sizes of marketings gives a price that more accurately represents the income from grain enterprises. Other examples of special adjustments are the weighting of milk prices to include both fluid consumption and manufacturing purposes and the weighting of cattle prices to include various quality grades. In all of these cases the resulting price estimates better reflect the returns to the farmer than do the unadjusted prices reported in the statistical sources.

The price policies and price levels determined by the EEC for the unified market provide the basis for projecting prices for each region to 1970. Assumptions about possible price policy goals were included when extending the projections to 1975, resulting in a high and a low projection for that year.[3] The remainder of this chapter includes a review of the prices existing in 1960 and 1965, including a discussion of inter-regional price relationships, and the results of the 1970 and 1975 price projections.

When examining the potential impacts of the EEC on European production, it is useful to consider groups of related products. One such group is the grains, where the relevant questions concern the impact of the Common Policy on the production of various cereals. Another related group of commodities is beef, veal and milk, which are joint products of the cattle enterprise in Europe. The big question is whether adequate supplies of beef and veal can be produced without creating a surplus of milk and milk products. A third group is the livestock products requiring large quantities of feed grains--pork, broilers and eggs. The most interesting questions relating to this group involve determining

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[3]The projection procedures are described in detail in the Appendix.

the levels of production and the corresponding levels of grain use. Perhaps a look at likely price changes in these commodity groups will give some insights on these problems.

Grains

The cereal of most interest to many observers is wheat, because the EEC produces large amounts of wheat as is shown in Table 36. Also, about one-fourth of the wheat produced in the EEC comes from the Paris Basin area of France, while another fourth is grown in other parts of France. This means that the large changes in price policy in France affect an important part of the wheat production of the EEC.

Appendix Table 1 shows that Italy and Germany had the highest wheat prices in the 1960 period, averaging over 100 u.a. per ton. The Benelux countries had prices of about 85 u.a. and France had the lowest wheat prices with 77 u.a. per ton. By 1964 the relative positions had not changed, although the highest prices (in Germany, Italy and Belgium-Luxembourg) had increased by only a small percentage while French and Dutch prices had increased about 12 percent from 1960. The major exception to this trend was the price in the Paris Basin area where the wheat price increased only 4.5 percent from 1960 to 1964, due to the greater incidence of the quantum taxes on sales in the Paris area, most of which come from large grain farms. Thus, after two to three years of adjustment toward the new grain policies the prices for wheat became more uniform throughout the EEC.

With the prices projected for 1970 the price surface for wheat in the EEC will be even more uniform. Prices in Germany will fall by about 10 percent from 1964-70 and Italian prices will fall by about 3.5 percent.

TABLE 36.--Average annual production of grains by regions of the EEC for 1960-62 and percentage of total EEC production[a]

Region		Wheat 1000 tons	%	Barley 1000 tons	%	Rye 1000 tons	%	Corn 1000 tons	%	Durum 1000 tons	%
	1	318.4	1.3	251.2	2.5	245.9	6.0	0.1	b	--	--
	2	641.0	2.7	491.1	4.9	1,058.9	26.0	0.6	b	--	--
	3	579.0	2.4	422.4	4.2	670.0	16.5	0.8	b	--	--
	4	406.9	1.7	195.4	2.0	275.9	6.8	2.0	b	--	--
	5	357.6	1.5	240.7	2.4	177.4	4.4	1.3	b	--	--
	6	739.7	3.1	466.2	4.7	72.4	1.8	17.8	0.3	--	--
	7	1,484.3	6.3	1,159.1	11.7	580.9	14.3	5.8	0.1	--	--
Germany total		4,526.9	19.1	3,226.1	32.5	3,081.4	75.8	28.4	0.5	--	--
Netherlands	8	558.3	2.4	369.0	3.7	366.8	9.0	0.7	b	--	--
Belgium-Lux.	9	826.6	3.5	448.8	4.5	151.5	3.7	2.7	b	--	--
	10	563.0	2.4	467.8	4.7	31.0	0.8	35.5	0.6	--	--
	11	5,978.9	25.3	3,320.9	33.4	66.2	1.6	471.1	7.6	3.1	0.2
	12	2,502.2	10.6	1,043.7	10.5	31.5	0.8	168.9	2.7	0.8	0.1
	13	949.2	4.0	213.6	2.1	35.7	0.9	1,435.2	23.0	16.2	1.1
	14	1,313.0	5.6	592.4	6.0	195.8	4.8	219.8	3.5	5.0	0.3
France total		11,306.3	47.8	5,638.4	56.7	360.2	8.9	2,330.5	37.4	25.1	1.7
	16	3,555.5	15.0	48.2	0.5	79.3	2.0	3,075.1	49.3	--	--
	17	1,838.7	7.8	65.5	0.7	7.4	0.2	414.8	6.6	68.7	4.6
	18	973.4	4.1	83.0	0.8	10.9	0.3	376.6	6.0	607.9	41.0
	19	30.0	0.1	66.3	0.7	0.4	b	9.5	0.2	781.5	52.7
Italy total		6,397.6	27.1	263.0	2.6	98.0	2.4	3,876.0	62.5	1,458.1	98.3
EEC total[c]		23,615.7	100.0	9,945.3	100.0	4,057.9	100.0	6,238.3	100.0	1,483.2	100.0

[a]From Hartmut Schulze, Materialgrundlagen zur regionalen landwirtschaftlichen Produktion in den Ländern der Europäischen Wirtschaftsgemeinschaft (IFO-Institut für Wirtschaftsforschung: München, 1965).

[b]Less than 0.05 percent.

[c]Does not include Languedoc and Provence - Cote d'Azur - Corse which were excluded from this study.

But Dutch and French prices are projected to increase with the largest rise occurring in the Paris area. In the 10 years from 1960 to the full implementation of the EEC policy the wide differences in wheat prices between areas of the EEC will have been eliminated. In the process, wheat prices in Germany will have fallen from 6 to 11 percent, Belgian and Italian prices will have remained about constant, Dutch prices will have increased about 17 percent and the regions in France will have had prices rise between 18 and 22 percent. The sustained increase, averaging about 2 percent per year, in the regions producing over half of the wheat in the EEC is an important development in the shift to a common policy.

Barley is another important grain in the EEC, with much of its production concentrated in France and Germany. In 1960 the highest prices in the EEC were received by German farmers and the lowest by French farmers, with Italian, Belgian and Dutch prices in between.[4] This pattern remained the same in 1964, although the total gap was narrowed by the more rapid increase in French prices than in other areas. The projected prices for 1970 show that most of the inter-regional differences will be eliminated with an 8 to 11 percent drop in the different regions of Germany and continued increases in prices elsewhere, especially the North East and North Central regions of France. The overall change from 1960-70 shows Germany with an 8-9 percent decline in barley prices with all other areas showing a marked increase. The biggest improvement in barley prices comes in France where the annual average increase is 3.5 to 4 percent over the 10 years. This large increase in the major producing area of the Community is an important result of the new policies.

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[4]See Appendix Table 2.

France and Italy are the only important producers of corn in the EEC with about 60 percent being produced in Italy and the remainder in France. In 1960 the price received by French producers was a little higher than that received by Italians, but by 1964 they were about the same.[5] The projections for 1970 show a slight fall in corn prices in France due to lower intervention prices under the EEC policies than was used in the past. At the same time, Italian corn prices will increase nearly 15 percent from 1964-70 so that the increase from 1960-70 averages about 3.5 percent a year.

In the northern countries of the EEC, rye is used both as a bread grain and a feed grain, but it is only a feed grain in France and Italy. In 1960 rye prices were highest in Germany and lower in the Benelux countries and in France.[6] Italy had high rye prices, but produced very little rye. From 1960-64 prices in Germany remained fairly stable with slight rises in Belgium-Luxembourg and France and large increases in the Netherlands and Italy. The 1970 projections have continued increases in the Netherlands and in France with smaller increases in Belgium-Luxembourg and about 12-13 percent decreases in prices in Italy and Germany. The resulting price surface for 1970 is nearly uniform throughout the community with slightly higher prices in Italy. Since about three-fourths of the EEC production of rye is in Germany, the sustained decrease in German prices from 1960-70 is the most important feature of the new policies. However, the demand for feed grains results in increased prices in other areas of the Community and may influence its production depending on the use of rye in feeding rations in the future.

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[5]See Appendix Table 3.

[6]See Appendix Table 4.

Because of their importance in certain parts of the EEC, malting barley prices and durum wheat prices were also studied. Although much of the French barley may be used for malting, the production of barley varieties especially suited for malting is more important for the northern EEC countries. In 1960 the prices for malting barley in Germany were much greater than in the Netherlands and Belgium-Luxembourg.[7] By 1964 this difference had been reduced only slightly. The projections for 1970, however, indicate an approximately uniform price surface between these three areas. This is primarily due to the more uniform price surface for feed quality barley, which has a definite price relationship to malting barley because of the ease with which land may be switched from producing one to the other.

The only regions producing durum wheat in important amounts are the South and Islands regions of Italy. The price has been about the same in both areas and is projected to remain constant from 1964-70 after having had a slight increase from 1960-64.[8]

Another way of looking at the important changes in grain prices in the EEC is to look at the major producing regions and compare price developments in them. For wheat the most important regions are the North Central and North West regions of France, the North, Center and South regions of Italy and Bayern in Germany. The wheat prices in the three regions of Italy remain almost constant during the 10 years from 1960-70, but the effective producer price increases almost 20 percent in the two French regions. The wheat prices in Bayern fall, not only in relation

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[7]See Appendix Table 5.

[8]See Appendix Table 6.

to those in the French and Italian regions, but also in relation to other regions in Germany. The equalization of prices in Bayern and the Paris Basin is the greater change, but the reduction of Bayern prices relative to the northern German prices also indicates the internal adjustments caused by the Common Agricultural Policy.

Three of the important wheat regions are also the most important barley regions: the North Central and North Western regions of France and Bayern. The barley prices increased by 10-16 percent in the French regions from 1960-64 but only about one percent in Bayern. From 1964-70 the French prices continue to increase while the Bayern prices are projected to fall by almost 11 percent. Thus, in 1960 the Bayern price for barley was nearly 50 percent greater than in the major producing regions in France, but will be slightly lower than the French prices in 1970.

Not only are the prices of the grains important, but the prices of one grain relative to the prices of others also influences the production and use of grains in the EEC. The ratio of wheat price to barley price falls in most areas of the Community with only a slight shift in Germany and the Benelux countries, but a larger change in France and Italy.[9] The price shift in France results in a 12 percent decline in the wheat/barley price ratio from 1960-70 while in Italy the decline is about 20 percent.

The wheat/corn price ratio exhibits a different shift for France than for Italy.[10] In France the price of wheat increases relative to the price of corn over the entire period of the study, which may have important implications in the northern grain areas where corn production has

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[9]See Appendix Table 7.

[10]See Appendix Table 8.

been increasing. In Italy, on the other hand, there is a continued shift in the price ratio in favor of corn. The 12 percent drop in the wheat/corn price ratio from 1960-64 is projected to be followed by a 16 percent drop from 1964-70. Since corn and wheat are both important crops in the northern region of Italy, this price shift could have important implications for grain production in Italy.

The barley/corn price ratio exhibits a time pattern similar to that of the wheat/corn price ratio.[11] The price of barley increases relative to corn in France from 1960-64 and the projected trend continues to 1970. Over the 10 year period the barley/corn price ratio increases about 40 percent. In Italy, however, corn prices increase relative to barley prices, mostly from 1960-64 when the barley/corn price ratio declined 15 percent. There is very little further decline in the ratio projected for 1970, leaving a 15 percent decline over the 10 years from 1960-70. The most significant feature of these relative price changes is that they coincide with the shifts in the wheat/corn price ratio. The changes in these ratios encourages the production of corn in Italy and wheat and barley in France.

Considering the total picture, the most important price changes are the increases in barley prices outside of Germany and the increases in corn prices in Italy. Both of these reflect the new EEC policies which changed the former price ratios.

Beef, Veal and Milk

Another important series of questions concerns the impact of the Common Agricultural Policy on the production of beef and veal as well as

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[11]See Appendix Table 9.

the possible surplus of milk. Because most cattle are dual purpose animals in Europe, beef and milk are joint products of the same production enterprise. Efforts to expand the meat supply may aggravate the surplus of milk, and conversely, efforts to reduce the milk surplus reduce the supply of meat. Therefore, the unified market for these products may have serious consequences for the EEC.

Table 37 shows that the most important beef producing areas are the North Central and North West regions of France, the North region in Italy, and Bayern in Germany. In France and Italy the price of beef cattle increased 40 percent from 1960-64, an average of 8 percent per year over the period.[12] In the parts of these countries producing fewer cattle as well as in the Netherlands and Belgium-Luxembourg the prices increased by only about 20 percent for the five years. All of Germany had very small increases in beef prices from 1960-64, which meant that Bayern prices fell behind the prices in the other major beef producing areas.

The projections to 1970, however, indicate that Germany will have greater beef price increases than the other countries of the EEC. With the low projection of 1970 prices, the increase from 1964 in Germany will be 26.5 percent and it will be over 46 percent with the high projection. In contrast, France is projected to have only an 11 percent increase under the low assumption and Italy has a drop in price of 4 percent. Even the high projection does not bring these two countries up to the levels projected for Germany, since the prices increase only 28.5 percent in France and 11.4 percent in Italy. The different rates of change result in a uniform price surface throughout the EEC by 1970. There appears to

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[12] See Appendix Table 10.

TABLE 37.--Average annual production of livestock products by regions of the EEC for 1960-62 and percentage of total EEC production[a]

Region		Beef 1000 tons	Beef %	Veal 1000 tons	Veal %	Milk 1000 tons	Milk %	Pork 1000 tons	Pork %	Broilers[b] 1000 birds	Broilers[b] %
	1	87.5	3.14	10.8	1.79	1,883.8	3.09	182.6	4.74		
	2	176.5	6.33	15.5	2.57	4,084.6	6.69	550.6	14.28		
	3	122.2	4.38	10.8	1.79	3,194.7	5.23	332.6	8.63		
	4	58.8	2.11	5.5	0.91	1,319.8	2.16	147.3	3.82		
	5	55.0	1.97	5.5	0.91	1,073.6	1.76	92.5	2.40		
	6	126.6	4.54	13.0	2.15	2,584.0	4.23	207.0	5.37		
	7	271.0	9.72	37.1	6.15	5,926.8	9.71	390.5	10.13		
Germany total		897.5	32.20	98.2	16.27	20,067.3	32.87	1,903.1	49.37	19,983	6.4
Netherlands	8	205.4	7.37	47.3	7.84	7,020.0	11.50	415.6	10.78	35,667	11.5
Belgium-Lux.	9	189.1	6.78	20.6	3.41	4,147.0	6.79	232.3	6.03	42,216	13.6
	10	78.2	2.81	17.5	2.90	2,170.8	3.56	76.7	1.99		
	11	230.1	8.26	48.7	8.07	5,220.0	8.55	201.7	5.23		
	12	345.7	12.40	84.8	14.05	7,694.1	12.60	318.3	8.26		
	13	85.1	3.05	66.4	11.00	2,115.5	3.47	115.3	2.99		
	14	187.1	6.71	93.6	15.51	5,335.2	8.74	205.3	5.33		
France total[c]		926.2	33.23	311.0	51.53	22,535.6	36.91	917.3	23.79	147,667	47.5
	16	312.8	11.22	84.8	14.05	5,879.8	9.63	229.3	5.95		
	17	135.9	4.88	23.7	3.93	528.3	0.87	70.0	1.82		
	18	77.7	2.79	12.8	2.12	536.4	0.88	72.4	1.88		
	19	42.5	1.52	5.2	0.86	344.1	0.56	14.8	0.38		
Italy total		568.9	20.41	126.5	20.96	7,288.6	11.94	386.5	10.03	65,500	21.1
EEC total[c]		2,787.1	100.00	603.6	100.00	61,058.5	100.00	3,854.8	100.00	311,033	100.0

[a]Beef, veal, milk and pork are from Hartmut Schulze, Materialgrundlagen zur regionalen landwirtschaftlichen Produktion in der Ländern der Europäischen Wirtschaftsgemeinschaft (IFO-Institut für Wirtschaftsforschung: München, 1965). Broilers are from EEC, Organisation der Erzeugung und des Vertriebs von Fleischhühnern in den EWG-Staaten, Hausmitteilungen über Landwirtschaft, No. 4, May, 1965, p.22.

[b]Only "industrial broilers."

[c]For beef, veal, milk and pork these totals do not include Languedoc and Provence-Cote d'Azure-Corse.

be a price incentive for increased production in most of the major beef producing regions.

Veal is also an important meat in Europe and several areas in the EEC are major producers of veal. The North region in Italy and all regions in France, except the North East are large producers of veal. In 1960 the price of calves was highest in the North region of Italy and in the Central Mountain and the South West regions of France.[13] Prices in Germany and the Netherlands were a little lower than in France and Italy. By 1964, however, the prices in southern France and the North region of Italy had increased 31 percent from 1960-64 and the increase ranged from 13 to 31 percent in Italy while German prices remained almost constant. But from 1964-70, the prices in Germany are projected to increase 19.6 percent with the low assumption of 38.5 percent with the high. This contrasts sharply with the decreases in price projected for Italy and France under the low projections and the slight increases under the high. Although calf prices will go up substantially in all areas of the EEC from 1960-70, this increase has already occurred in France and Italy, but is still taking place in Germany.

With both calf prices and beef prices increasing rapidly it is important to examine the relative prices for any incentive to shift production from one product to the other. In all important calf and beef producing areas the price of calves falls relative to beef prices during the 10 year period from 1960-70.[14] In Bayern and the Central Mountain region in France the price ratio remained nearly constant from 1960-64 before declining from 1964-70, but the other regions had declines in the calf/

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[13]See Appendix Table 11.

[14]See Appendix Table 12.

beef price ratio throughout the period. In North Italy and North West and South West France the decline in the calf/beef price ratio is over 2 percent per year for the 10 year period, which is a significant change in the price relationships in major producing regions.

Milk, the third product in this commodity group, has had price increases in every region from 1960-64 and is projected to increase in price from 1964-70.[15] The regions producing the most milk in the EEC are the North Central, North West and Central Mountain regions of France, the Netherlands, the North region in Italy and Bayern in Germany. Several regions in northern Germany also produce important amounts of milk. The highest prices for milk in 1960 were received by farmers in Germany, with Italian and Dutch prices being nearly as high and French and Belgian prices being somewhat lower. From 1960-64 the prices in France and Italy increased about 25 percent while those in other regions increased about 10 to 15 percent. The projections for 1970 indicate another increase in France and Belgium-Luxembourg of nearly 25 percent while the prices in Italy and Germany are projected to remain nearly constant. The result of the different rates of increase is a more uniform price surface in 1970 than in 1964.

The ratio of milk prices to beef and calf prices has several possible implications for production of these products, the mix of which is so important to the EEC. In most of the important producing regions the price of beef increases faster than does the price of milk between 1960 and 1970.[16] For Germany the price of milk has increased faster than

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[15]See Appendix Table 13

[16]See Appendix Table 14

beef from 1960-64, but the large increase in beef prices projected for the 1964-70 period will offset this. In Germany the calf price also increases faster than the milk price during the 10 year period, but in the major producing areas of the Netherlands, France and Italy, the price of milk increases faster than calf prices.[17] The relative rise in beef and milk prices should encourage (1) an increase in the number of dairy cows, (2) feeding calves to heavier weights, and (3) using feed grains or other feeds to substitute for milk in calf feeding rations.

Another set of price relationships has relevance to the discussion of the production of beef, veal, and milk: that is the ratio of product prices to feed prices. Appendix Tables 16 and 17 show that beef prices are rising relative to barley and corn prices through most of the 1960-70 period. The biggest jump in the beef/barley price ratio comes in Germany between 1964 and 1970 under both the low and the high projections for 1970. The same pattern holds for Belgium-Luxembourg and for the North region in Italy, although reductions in the ratio in Italy from 1965-70 reduce the overall gain by 1970. Although there is a small improvement in the beef/barley price ration in France, it is not large and is not likely to be important. The largest price incentives for feeding barley to beef animals in the important producing regions comes in Germany and North Italy. Corn, on the other hand, becomes more attractive as a feed in France, especially in the North Central, North West, and South West regions. These are all important corn growing regions and the first two are major cattle producing regions. Thus, grain feeding of beef cattle will be encouraged by price developments, with barley

[17]See Appendix Table 15.

having the advantage in the Northern EEC and Italy and with corn being most attractive in France.

In the veal producing regions, the price of calves declines relative to the price of barley over the 10 year period from 1960-70.[18] Both France and Italy had increasing calf/barley price ratios from 1960-64, but the decreases projected from 1964-70 are large, even under the high price assumptions for calves in 1970. This results in little incentive to increase grain feeding of calves in the areas producing the most veal in the past. In Germany, however, the price of calves relative to barley increases substantially, both from 1964-70 and for the longer period from 1960-70. While Germany has not been a major producer in the past, it is possible that the attractive price relationships may cause increased grain feeding of calves in the future.

While forage is the major portion of the feed inputs in milk production, feed grains have an important influence on milk output per cow, and can thus influence the total production of milk. All of the important milk producing regions in the EEC had increasing milk prices relative to barley prices from 1960-64.[19] For Germany, the prices projected for 1970 result in an even greater increase for the 10 year period from 1960-70. However, the Netherlands, France and Italy can expect declining milk/barley price ratios from 1964-70, resulting in only small increases from 1960-70. Belgium-Luxembourg, which produces sizable quantities of milk even though not one of the leaders, can expect a large increase in the price ratio for the 10 year period, and may increase the amount of grain

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[18]See Appendix Table 18.

[19]See Appendix Table 19.

fed to milk cows.

The projected impact of the EEC price policies on beef, veal and milk is a rise in the prices received by farmers for all three commodities. Not only do the prices of the commodities rise, but in most areas they rise in relation to the prices of feed grains, too. This improvement in the relationship between product prices and feed prices is particularly strong in Germany and Belgium-Luxembourg, where the prices projected indicate increased incentives for the use of barley in producing all three livestock products. The final impact on the production of meat and milk and the amount of feed grains used is analyzed in the production sub-projects. However, the price changes favor increased output through the use of more feed grains.

Grain consuming livestock

The third major commodity group of interest is the products of grain consuming livestock. This includes pork, broilers and eggs. Several features of the production conditions and policies make these products similar. They are all being produced in quantities close to the requirements of the EEC and are covered by similar EEC policies. Even though the policies differ from those for other commodities, the relevant questions are the same: what will the prices be and what happens to the relationship with feed prices?

For hogs, the most important price development is the projected drop in Germany, the most important producer. While hog prices remained stable from 1960-64 the decrease projected from 1964-70 causes a drop from the 1960 level by 1970.[20] In the rest of the EEC the prices for

[20]See Appendix Table 20.

hogs increased substantially from 1960-64. For the Netherlands and Italy, the increase continues for the 1964-70 period, resulting in a 30 percent increase in hog prices over the entire 10 year period. Since these countries each produce about 10 percent of the hogs in the EEC, this large increase in price may significantly affect the total supply of hogs in the Community. The prices in France and Belgium-Luxembourg are projected to fall about 5 to 10 percent from 1964-70 which results in only a moderate increase from 1960-70.

The ratio of hog prices to feed grain prices does not change greatly in any area during the 10 year period from 1960-70. There was a small increase in the hog/barley price ratio in Italy and Belgium-Luxembourg from 1960-64, while the ratio was constant in the other regions.[21] Projected decreases in the ratio from 1964-70 result in a long run decrease for France, a slight increase for Italy, and stable ratios in the other areas. The decline in the hog/barley ratio in France may reduce the amount of barley fed to hogs in the future, causing a shift to corn since the hog/corn price ratio is projected to increase slightly in the important hog producing regions from 1960-70.[22]

Broiler prices have been falling throughout the EEC and are projected to fall more in the next 3 to 8 years.[23] From 1960-64, broiler prices fell about 11 percent in Germany, 3 percent in France and Italy and 2 percent in the Benelux countries, widening the differences in prices between countries of the EEC. But, the projections to 1970

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[21]See Appendix Table 21.

[22]See Appendix Table 22.

[23]See Appendix Table 23.

indicate that prices will even out over the entire Community with no change in the Dutch prices from 1964-70, a 10 percent drop in Belgium-Luxembourg, a 15 to 20 percent fall in Germany and Italy and a decrease of 50 percent in France. Such drastic changes in prices are certain to have production implications. However, the production of broilers in Europe has shifted from small farm flocks to large, factory-type operations, frequently integrated with feed plants or poultry processing plants, producing large numbers of birds at very low cost per bird. It is likely that the reductions in price will not cause a reduction in production, but a shift to low-cost producing units.

Because of the very large decreases in broiler prices, there is also a drop in the ratio of broiler prices to feed grain prices. From 1960-64 the broiler/barley price ratio fell about 10 to 15 percent in all regions except Italy, where the change was negligible.[24] The prospects for 1970 result in a smaller decline in the ratio for Germany, but a much larger decline in Italy and in France. The 57 percent drop projected for France from 1964-70 means an average annual decline of over 11 percent. Similar changes are expected in the ratio of broiler prices to corn prices in France and Italy.[25] The decline in the broiler/corn price ratio is projected to be 50 percent from 1960-70 in France and almost 40 percent in Italy. These large drops in the broiler/feed grain price relationships will also force the adoption of efficient production technologies.

The price of eggs was stable in the northern EEC and Italy from

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[24]See Appendix Table 24.

[25]See Appendix Table 25.

1960-64 and increased 21 percent in France, but the prospects are for large decreases in prices from 1964-70.[26] The projections for 1970 indicate constant prices for the Netherlands, a drop of 40 percent in Germany, and a drop of 20 percent in the rest of the EEC. The net effect of these changes for the 1960-70 period is that prices will be about the same in 1970 as they were in 1960 in France and the Netherlands, will be about 20 percent lower in Italy and Belgium-Luxembourg, and will be 40 percent lower in Germany.

The relationships between egg prices and feed grain prices follow a time path similar to that of egg prices. The egg/corn[27] and egg/barley[28] price ratios in France increased from 1960-64 and are projected to decrease for 1964-70. The relationship with barley decreases more than the one with corn so that for the 10 years from 1960-70 the egg/corn ratio remains nearly the same, while the egg/barley ratio falls nearly 30 percent. In the other countries of the EEC the egg/barley ratio decreases sharply from 1964-70, giving a down trend over the longer period from 1960-70. The egg/corn price ratio in Italy also has a decline of about 40 percent from 1960-70. Thus, the price relationships indicate a reduced profit margin for eggs in all areas of the EEC. But, as in the case of broilers, it is quite likely that this will result in increased adoption of more efficient technology rather than reduced egg production.

Changes from 1970-75

The assumed price changes from 1970-75 for grains were no change in

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[26]See Appendix Table 26.

[27]See Appendix Table 27.

[28]See Appendix Table 28.

price as the low assumption and a 15.9 percent increase for the high assumption. Because there was no price change with the low assumption, the only impact it had was to spread any changes occurring up to 1970 over an additional 5 years. But, the high assumption did result in significant price changes in France and the Netherlands for wheat, barley and rye. Wheat and barley prices are projected to increase from 40-60 percent between 1960 and 1975 and rye prices may increase by 68 percent. In Italy the barley price is projected to increase 45 percent while the corn price increases 57 percent over the 15 year period. In all of these cases the assumption of increasing prices from 1970-75 resulted in greater increases than had been projected for the period up to 1970.

For beef and veal, prices increase 5 percent from 1970 to 1975 with the low projection and 27.5 percent with the high estimate. Milk prices are increased only 15.9 percent with the high assumption and are left at the 1970 levels for the low figure. Even the low projection gives significant increases in prices for beef in France, amounting to 60 percent from 1960-75. The high projections, of course, give even greater increases for France (up to 131 percent above 1960 levels), and they are important for all of the EEC countries. Not only are beef prices projected to increase by amounts exceeding 80 percent of the 1960 prices, but calf prices also are projected at 80 percent above 1960 in all countries. Milk prices too, increase by 50-80 percent in all countries except Germany under the high assumptions.

There is no change in the ratio of milk to feed grains in the 1975 projections since both sets of prices change the same percentage. But, in France the beef/corn price ratio is projected to increase under both the high and low assumptions for 1975 with an 80-106 percent increase

for the various regions from 1960 to 1975. Barley also becomes more attractive as a feed for beef under the 1975 projections, decreasing in price relative to beef in Germany by 80 percent and in the North West region of France by 45 percent and in North Italy by 55 percent from 1960. Even calf feeding with barley in Germany appears more profitable with the 1975 high projections since the calf/barley price ratio increases 70 percent over 1960. All of these increases are for products and areas that showed significant increases from 1960 to 1964 and 1970.

For eggs, broilers and hogs the 1975 prices for both the high and low projections are calculated from feed grain prices projected under the corresponding high or low assumption. This resulted in different percentage changes for various countries from 1970-75 depending on the movements of grain prices. For example, the price of eggs is projected to decline 21 percent from 1970 under the low projection in France and Italy, but only by about 8 percent in the other countries. Even with this large fall in prices projected for France, the total change in prices from 1960 to 1975 was only significant in Germany where changes in price from 1970-75 coupled with earlier price changes produce a fall of nearly 50 percent during the 15 years. The change in the egg/barley price ratio, on the other hand, was important in all countries of the Community. Both the high and low projections indicate a decline in the ratio ranging from 35 to 45 percent in the regions of the Community.

Broiler prices are projected to drop by 19 percent from 1970-75 in all countries under the low assumptions and by 6.4 percent with the high projection. During the 15 years following 1960, prices fall 42 percent in Germany and 60 percent in France with the low projection. Even the high projection shows a significant fall in prices in France, 53 percent.

These large declines in broiler prices also reduce the broiler/feed grain ratios. The broiler price falls 59 percent more than the corn price in France from 1960-75 and 50 percent in Italy over the same period. The broiler/barley price ratio also declines in all countries, by 70 percent in France and by about 40 percent elsewhere. In total, the trends projected for earlier periods continue under the 1975 projections, with long term declines being particularly great in France.

The projected changes in hog prices for 1975 are less severe than those for eggs or broilers, being a fall of 5.8 percent from 1970-75 under the low assumptions and an increase of 9.2 percent with the high projection. These small changes cause an important long-term price change only in the North region of Italy where hog prices increase 45 percent from 1960-75 with the high projection. There are no important changes in the relationships between hog prices and those for feed grains.

To summarize, the most important price developments as the Community shifts from individual policies to a common policy are, the increasing prices for feed grains, the improvement in beef prices relative to veal and milk, the very large decreases probable in broiler and egg prices, and the decrease in hog prices in Germany accompanied by an increase in the Netherlands and Italy. The projected price changes may cause some shifts in the areas with a production advantage in certain products, but this usually means the elimination of an advantage held by a particular region in the past and now spread to all parts of the EEC. One production characteristic which seems to be encouraged by the expected price developments is the expansion of feed-livestock enterprises. This trend is consistent with expectations in an advanced, high income economy.

CHAPTER V

THE IMPACT OF PRICE POLICIES

This chapter contains observations on some of the most critical problems arising from the introduction of the Common Agricultural Policy. Three issues warrant comment: the problem of moving increased quantities of grain from France to the Northern EEC, the transfer of funds between member countries through the operations of the European Agricultural Guidance and Guarantee Fund, and the problems developing in the commodity price policies.

The Movement of Grain

The price relationships in various areas of the EEC and the projected changes in these relationships indicate increased production of feed grains in the Paris Basin and increased amounts of grain fed to livestock in the Netherlands and northwestern Germany. The combination of these two projections leads to the expectation of increased movement of feed grains from central France to the northwestern EEC regions. Since this flow pattern accounted for about 40 percent of French feed grain exports from 1963-65, the question is naturally raised about the capacity of the marketing and transportation system to handle increased flows of grain. The analysis of prices alone is insufficient to estimate the amounts of grain likely to be moved over the routes between France and the livestock feeding areas, but some general comments are possible. The study of the

grain marketing system reported in Chapter II showed that the facilities and organizations are adequate to organize the grain flows. The question which cannot be answered is whether the transportation facilities are adequate to handle the necessary volumes. Certainly the very small size of French canals, which limits the size of barges to less than 300 tons capacity, raises the costs of moving large quantities of grain and may cause a bottleneck in the physical flows. This may be especially critical if large volumes of grain must move within a short time period. A more detailed study of the transportation system is necessary before such questions can be answered.

If problems arise in the movement of French grain to markets in the lower Rhine valley, French producers may face increased competition from farmers in Bayern. Two canals are proposed that will provide the grain areas of southern Germany with cheaper transportation to the demand areas in the Northwest. A canal from Ulm to Stuttgart will connect with the Neckar River leading to the Rhine and the canal from Bamburg to Regensburg will connect the Main-Rhine network with the Danube River. By reducing the transportation charges for moving grain to the deficit region, these canals will result in higher grain prices for farmers in Bayern. The increased competition from these areas may provide an incentive to improve the canals in France.

Financing the Agricultural Fund

Under the current regulations, duties collected on agricultural imports covered by the marketing regulations of the EEC will be sent to the Agricultural Fund in Brussels, rather than being retained by the government of the importing country. Any export restitutions allowed under the EEC regulations as well as payments for structural reform will be paid from the Agricultural Fund. This financial arrangement leads to income transfers and possibly to balance of payments problems because some countries are net importers of agricultural products and others are net exporters. The Germans and the Italians import large quantities of feed grains as well as poultry and dairy products. On the other hand, the French export large amounts of wheat. The Dutch import large quantities of feed grains, but export dairy and pork products. What does this trade balance have to do with the Fund? It means that the Italians and Germans are likely to contribute more to the Fund than they receive while the French, and possible the Dutch, will receive more from the Fund for export restitutions than they contribute in import duties.

Importing has always involved the loss of foreign exchange to purchase the commodities. But, any duty levied on the imports stayed within the country, being sent to the government. In essence, import duties are a transfer of wealth from the purchasers of imported goods to the recipients of government expenditures. This basic fact does not change, but because the taxing agency is the Agricultural Fund rather than the national government, the duty becomes an additional foreign exchange loss. The transfer of wealth goes from the purchaser of imports to the recipient of Agricultural Fund expenditures. The potential problem lies in the fact that most of the recipients will live in a different country than the majority of the contributers. The consumers in countries requiring large imports of agricultural products will contribute the most to the Fund while the producers of surplus commodities requiring support purchases and export restitutions will receive most from the Fund.

The analysis so far has been concerned only with the change of paying the duties to the Agricultural Fund rather than to national governments. It has not considered any changes in the amount of the duty. But, the prices as they are currently established by the EEC regulations increase the transfer of funds from importing countries to surplus producing countries. Grain policies are an example. Since Italy is a large importer of feed grains, the increase in feed grain prices in Italy results in higher duties and greater payments to the Agricultural Fund than would have been the case under Italy's former tariff rates. At the same time, prices will increase in France resulting in larger export subsidies to permit the surplus grain to compete on world markets. This means that the French exporters and farmers receive more from the Agricultural Fund than would have been the case under the former French tariffs. While this example is the most obvious, similar cases can be developed around Germany's imports of grains and livestock products and the Dutch exports of dairy products. In essence, the financing of the Agricultural Fund causes a transfer of funds from net importing countries to net exporting countries and establishing a common price level increases the magnitude of this transfer.

The transfer of funds between countries has already caused some difficulties in negotiating the Common Agricultural Policy. Several temporary measures were adopted to offset the impact of this transfer and gain the acceptance of the policy by all member governments. An initial adjustment was made by having part of the income of the Fund come from budgetary contributions, rather than relying solely on import duties. These budget funds are contributed by the member governments according to a formula separate from the foreign trade balance. In addition, the total contribution of any one member to the Fund was limited to stated percentages of the total Agricultural Fund budget. Even with these provisions, the Italians and the Germans will contribute a large portion of the money in the Fund.

In addition, the timing of certain policies was designed to help redress the balance. The olive oil policy was agreed on before the policy for other fats and oils to give Italy additional payments from the Fund during the transition period. Expenditures from the Guidance section, although supposedly allocated on a "fair and equitable" basis, can also be used to redress some of the imbalance in the Guarantee section. The special payment to Germany, Italy and Luxembourg is to compensate the income losses suffered by farmers in these countries when the start of the unified grain policies is speeded up.[1] All of these measures give temporary adjustment, but do not change the eventual situation where the consumers in Germany and Italy will be subsidizing the French wheat farmers and the Dutch dairy farmers. This transfer problem has caused policy changes during the transition period to obtain political acceptance. There is every reason to expect further problems with political acceptability in the future.

Problems with the Price Policies

As the EEC moves closer to the full implementation of the Common Agricultural Policy, several critics have indicated needed changes in the regulations. In some cases the changes are suggested to correct inequities in the existing regulations; in other cases the objective is to prevent distortions of trade flows and production patterns. This section

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[1]For further details of these measures, see Byron L. Berntson, The European Agricultural Guidance and Guarantee Fund, U.S. Department of Agriculture, ERS-Foreign-144 (Washington: June, 1966).

reviews some of these criticisms and raises a few others for examination in light of the price projections included in this study.

Because of the wide difference in the previous price levels, one of the difficult decisions for agricultural policy makers was to determine the common price for the unified market. For most commodities a price somewhere between the highest and lowest previous prices was designated as the common goal and other prices were adjusted to reach this goal, giving due consideration to transportation costs and other factors where pertinent. In the process, say several critics, the price relationships among various commodities were distorted. Langen argues that wheat prices are too high in relation to feed grain prices if relative feeding values are considered.[2] He contends that the wheat/feed grain ratio should be 100:90 or less while a wheat/corn ratio of 100:102 and a barley/corn ratio of 100:115 reflect the various feeding values. While Langen is correct to point out that the policy prices, particularly the threshold prices, give too high a price for wheat, the projected producer prices in this study are more nearly in line with his ideal ratios because the projected prices for feed grain are above the intervention levels while wheat prices are projected to be near the intervention price. The point that Langen makes, however, is valid. By adjusting the price ratios to reflect feeding values, the EEC would encourage greater utilization of wheat for livestock feed and reduce the necessity of supporting the prices of surplus production.

A second concern deals with the policies for grain consuming live-

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[2]H. Langen, "Some Comments on the Shaping of the New European Market Regulations for Cereals," Agrarwirtschaft (Hannover: April, 1966) Vol. XV, No. 4, pp. 130-137 (translated and summarized at Oxford University for the U.S.D.A.)

stock products. The existing regulations for hogs, broilers and eggs do not include intervention mechanisms to support the internal price if surpluses are produced. Such a surplus has already appeared in broilers, making import restrictions ineffective for supporting internal prices.[3] It is anticipated that similar surpluses will develop in pork and egg production. The EEC Commission has already proposed a new policy for hogs which would include establishing target and intervention prices, with support buying of hog carcasses when market prices fall below the intervention levels.[4] Several farm organizations have urged similar proposals in the past and the central associations of both the farmers' organizations and the agricultural cooperatives have called for support buying schemems for pork.[5] While it is true that such a support system might be very expensive for the Agricultural Fund, there is strong support for it.

Additional problems are beginning to arise in the operation of the dairy policies. Butter stocks in the Community have continued to grow, increasing 51 percent from 1965-66 and 11 percent from 1966-67, to give a total of 152,700 tons of butter in storage on January 1, 1967.[6] These large stocks have forced expanded export efforts as well as sales of cold-storage butter at low prices within the Community. Increasing amounts of milk are also being devoted to cheese making. This increased production of cheese coupled with the increased threshold prices for

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[3] Agra-Europe, No. 210, January 25, 1967, p. MI/2.

[4] Ibid., p. EN/3.

[5] Ibid., No. 195, December 7, 1966, p. EN/4.

[6] Ibid., No. 205, February 22, 1967, pp. MI/5-7.

cheese that take effect within the next year have led to forecasts of an export surplus of cheese in the EEC.[7] To the problems with cheese and butter are added the development of surpluses of powdered skim milk requiring export programs. What effect the cost of these programs will have on future policy decisions remains a matter of conjecture. However, the planners in the Commission and the representatives to the Council of Ministers can hardly ignore the mounting costs.

Another potential source of conflict that has not been discussed widely is the correlation of the greatest price increases and the highest farm incomes. A recent survey of family farm incomes in the EEC[8] combined with the results of this study indicate that prices will increase most in those areas and for those commodities produced by farms with the highest returns to labor and capital. The farm survey found that the highest annual returns to capital and labor per full-time labor unit were earned on large crop farms and specialized dairy farms in northern France and the coastal regions of Belgium and the Netherlands. These farms returned about 2,000 u.a. or more per full-time labor unit on the labor and capital used. The livestock and mixed farms of the middle altitudes of France and Germany returned between 1,250 and 1,750 u.a. per full-time labor unit while the poorest returns were to small farms in central and southern Italy where returns ranged from 750 u.a. per full-time labor unit to less than 500 u.a. per year. The study attributed these income differences primarily to the number of workers per farm. Farms with high returns to labor and capital per full-time labor unit used fewer workers

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[7]Ibid., No. 202, February 1, 1967, p. MI/2.

[8]CEE - Commission, Informations internes sur L'Agriculture. No. 13, Les Conditions de Productivite et la Situation des Revenus d'Exploitations Agricules Familiales dans les Etats Membres de la CEE, (CEE: Brussels, 1966)

than low income farms. The study also found that general economic conditions were better in areas of high farm incomes, permitting excess family labor to leave the farm for urban jobs. Although not indicated in the EEC study, the fact that high returns to labor and capital per full-time work unit occur in areas characterized by large farms, either in terms of total land operated or number of animals raised, would suggest that large farms make better use of available family labor than small farms.

How do the price changes projected in this report fit into this pattern of farm returns to labor and capital? The large increases in beef and milk prices benefit most the large dairy farms that produce the largest amounts of these products. It has already been shown that the areas producing the most milk and beef are in the Netherlands and northern France.[9] Thus, it will be the areas producing the largest amounts of beef and milk and the farms with the highest returns to labor and capital that will benefit most from the changes in livestock prices. The same pattern appears for grains. The largest price increases for wheat and barley occur in the northern regions of France, which produce over one-third of the wheat in the EEC and nearly half of the barley. The Paris Basin will be especially benefited because the price change is affected by eliminating the quantum tax. Again, the farms producing these grains have been identified by the EEC study as having the highest returns per labor unit in the Community.

A third example is the pattern of price changes for hogs and broilers. Hog prices will increase most rapidly in the Netherlands and in northern Italy where hogs are produced on large, well managed operations.

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[9]See Chapter IV, Table 36.

Much of the Italian pork, however, is produced in conjunction with the cheese factories rather than on family farms and the benefits will go to non-farmers. Even in Germany, with price declines projected, the decline is greater in the southern areas where hogs are grown on small farms than in the North with its larger hog farms. Broiler prices too, fall most in western France and decline the least in the Netherlands. Both of these regions produce large quantities of broilers, but Bretagne is one of the low income areas of the Community that has received special assistance from the French government in the past.

The purpose of the comparison of price changes and incomes is not to suggest that prices ought to increase most for the lowest income farms. Rather, it is intended to show that the price increases may be greatest for those farmers who produce large amounts to begin with and are therefore in a position to benefit most from price increases. These farmers also earn the best returns on their labor and capital. Thus, the disparity in the earnings of different groups of producers will be magnified by the projected price changes, not diminished. This condition is likely to have implications regarding the political support for any changes proposed in the price policies. The evaluation of the relative political strengths of different interest groups, however, is beyond the scope of this investigation.

The price projections to 1975 are based on two alternative assumptions about policy objectives. The low projection assumed that price policies would remain as presently written for the unified market. The high projection assumed that price levels would be adjusted to give approximately a constant real price. What effect do these two policy assumptions have on the problems discussed? Neither assumption changes the ratios of grain prices to reflect feeding values and, while the high projection reduces the decline in hog and broiler prices compared to that with the low projection, neither policy alternative can be said to solve the problem identified earlier.

Where the different policy alternatives do make a difference, however, is in their impact on the surpluses of milk and grains produced and on the disparity between incomes of different groups of farmers. While the low projections for 1975 do not eliminate the need for support purchases of milk products and wheat, they do reduce the cost of selling surplus production on the world market. The lower domestic prices may also result in greater consumption and lower production within the Community than would be expected with the high projection.

The income disparity problem cannot be corrected with either of the two assumptions. Certainly all farmers will receive more gross income with high prices than with low prices. However, with the high projection for 1975 it appears that the high income farmers will benefit much more than the low income farmers, simply because they sell more products. The fact that their prices are projected to increase more than those of low income farmers only compounds the basic condition. Thus, if it is desired to adjust the difference between the incomes of different farm groups, the price policy should be established to return an appropriate income to the large farms, and separate income policies not tied to production would have to be created for the low income farmers.

BIBLIOGRAPHY

Books, Articles and Periodicals

"A Guide through Mansholt's Maze," The Economist, March 13, 1965, p. 1164.

Abel, Martin E. "Price Discrimination in the World Trade of Agricultural Commodities," Journal of Farm Economics, XLVIII, No. 2 (May, 1966) pp. 194-208.

Agra-Europe, London (published weekly).

Balassa, Bela. The Theory of Economic Integration, Homewood, Illinois: Richard D. Irwin, Inc., 1961.

Chase Manhattan Bank. "Purchasing Power Map of Europe," a supplement to The European Markets, 1964.

Deutscher Raiffeisenverband e.V. Jahrbuch, Bonn.

Europe Agence Internationale Information pour la Presse. Daily Bulletin (Brussels), No. 2472, July 25, 1966.

European Community Information Service. European Community Bulletin, Washington, D.C. (published monthly).

Farnsworth, Helen C. "Determinants of French Grain Production, Past and Prospective," Food Research Institute Studies, IV, No. 3, 1964, pp. 225-272.

Friedmann, Karen J. "German Grain Policies and Prices, 1925-1964," Food Research Institute Studies, V, No. 1, 1965, pp. 31-98.

______ and Farnsworth, Helen C. "Grains in German Farming: Past Developments and Prospects for 1970 and 1975," Food Research Institute Studies, VI, No. 1, 1966, pp. 3-64.

Haberler, Gottfried. "Integration and Growth of the World Economy in Historical Perspective," American Economic Review, LIV, No.2, Part 1, March, 1964, pp. 1-22.

Hirsch, Hans B. "The Uniform Grain Price in the European Economic Community," Foreign Agricultural Trade of the United States, February, 1965, pp. 5-11.

Hardach, F.W. "Getreidemühlen," Handwörterbuch der Sozialwissenschaften, IX, Stuttgart, Germany, 1965, pp. 461-467.

IFO - Institut für Wirtschaftsforschung. "Berichte zur Wirtschaftlage," Schnelldienst, München, Germany, June 4, 1965.

Landbouw-Economisch Instituut. Prijsstatestiek, Den Haag, Netherlands (published monthly).

Langen, H. "Some Comments on the Shaping of the New European Market Regulations for Cereals," Agrarwirtschaft, XV, No. 4, April, 1966, pp. 130-137. (Translated at Oxford University for the USDA).

Learn, Elmer W. "Long-term Effects of Common Market Grain Policies," Foreign Agricultural Trade of the United States, January, 1963, pp. 5-22.

_______. "The Impact of European Integration on American Agriculture," Journal of Farm Economics, XLV, No. 5, December, 1963, pp. 983-991.

Muller, G. and Schnieders, R. "Problems of the Grain Economy within the EEC," IFO - Institut für Wirtschaftsforschung, München, Germany, March, 1960, mimeographed (Summarized and translated at Oxford University for the USDA).

Plate, R. and Woermann, E. "Landwirtschaft im Strukturwandel der Volkswirtschaft," Agrarwirtschaft, Sonderheft 14, 1962.

Sandberg, Lars G. "International Trade in Grains: Projections and United States Policy, "The Review of Economics and Statistics, XLVIII, No. 2, May, 1966, pp. 161-71.

Shepherd, Geoffrey S. Agricultural Price Analysis, 5th ed., Ames, Iowa: Iowa State University Press, 1963.

Tracy, Michael. Agriculture in Western Europe, New York: Frederick A. Praeger, 1964.

U.S. Feed Grains Council. La Carne Bovina: Produzione E Commercio, Roma: Ufficio Italiano del U.S. Feed Grains Council, n.d.

Bulletins, Reports and Theses

Butterwick, M.W. and Rolfe, E. Neville. An Examination of the market Structure in the Benelux Ports and their Hinterland for Imported Feed Grains and for Compound Feeds, a report to the U.S. Feed Grains Council, Washington, D.C., 1966, mimeographed.

Clarke, Robert H. and Goodman, Richard J. Grain Marketing in the EEC: France - Germany, Rotterdam: Great Plains Wheat, Inc., September, 1963, mimeographed.

Fox, Roger William. "Some Possible Production and Trade Effects of the EEC's Common Agricultural Policy for Grains," unpublished Ph.D dissertation, Department of Agricultural Economics, Michigan State University, 1965.

Graziani, Romano. "Import and Destination of U.S. Corn in Italy," a paper presented at the U.S. Trade Center, Milan, Italy, April 20, 1965.

IFO - Institut für Wirtschaftsforschung. "Thesen zur landfristigen Projecktion des Bruttosozialprodukts, des Verbrauchs und der Erzeugnung landwirtschaftliche Produkte in der Bundesrepublik Deutschland," München, Germany, 1965, unpublished.

Informations et Documentation Agricoles. Numero Special, "Le Marche Cerealier dans la C.E.E. Perspectives francaises," Paris: Cooperatives La Fayette, 1964.

Kariger, A. Die Entwicklung der Mischfutterindustrie in Deutschland, Veröffentlichungen der Wirtschaftshochschule Mannheim, Reihe I, No. 11, Stuttgart, Germany, 1963.

Landbouw-Economisch Instituut. Dutch Agriculture, Supply and Demand of Selected Agricultural Products in 1970 and 1975, Den Haag, Netherlands, 1966, a report prepared under contract with the U.S. Dept. of Agriculture, Economic Research Service.

Orlando, Guiseppe. La Politica dei Mercati Agricoli, Roma: Centro di Studi e Piani Economici, 1965.

Peterson, G.A. and Petit, Michel. Current Changes in the Livestock and Grain Economy of France and Their Effect Upon Foreign Trade Patterns, Department of Agricultural Economics, University of Wisconsin, n.d. mimeographed.

Rustemeyer, Friedrich Christoph. "Marketing and Prices of Grains in Germany," August, 1966, unpublished report.

Schmidt. S.C. Commodity Structure and Regional Distribution of EEC Imports: The Formative Years 1951-59, Department of Agricultural Economics, University of Illinois, Research Report AERR-70, February, 1965.

Schulze, Hartmut. Materialgrundlagen zur regionalen landwirtschaftlichen Produktion in den Ländern der Europäischen Wirtschaftsgemeinschaft, IFO - Institut für Wirtschaftsforschung, München, Germany, 1965.

Tewes, D. "Der Einfluss der Gutertarifpolitik auf die Futtermittelmärkte der Bundesrepublik Deutschland," Landwirtschaft - Angewandte Wissenschaft, No. 121, Hiltrup, Germany, 1966.

Public Documents and Reports

Berntson, Byron L. The European Agricultural Guidance and Guarantee Fund, U.S. Dept. of Agriculture, Economic Research Service, ERS-Foreign-144, Washington, D.C., June, 1966.

Bundesministerium für Ernährung, Landwirtschaft und Forsten. Ergebnisse der betriebswirtschaftlichen Meldungen, Bonn, Germany.

______. Erzeugerpreise der Landwirtschaft, Bonn, Germany, (published annually).

______. Statistischer Bericht über die Milch- und Molkereiwirtschaft im Bundesgebiet, Bonn, Germany.

______. Statistische Monatsberichte, Bonn, Germany.

______. Statistisches Jahrbuch, Bonn, Germany.

______. Unterlagen zur Futterwirtschaft, Bonn, Germany.

Deutschen Bundesbahn. Deutscher Eisenbahn - Gütertarif, Teil II, Heft A. Hannover, Germany, 1966.

European Economic Community. Bulletin of the EEC, Brussels, (published monthly).

______, Commission. Les Conditions de Productivite et la Situation des Revenus d'Exploitations Agricoles Familiales dans les Etats Membres de la CEE, (Informations internes sur L'Agriculture, No. 13), Brussels, 1966.

______, Commission. Organisation der Erzeugung und des Vertriebs von Fleischhühnern in den EWG-Staaten, (Hausmitteilungen über Landwirtschaft, No. 4) Brussels, 1965.

______, Official Spokesman of the Commission. "Common Price Level for Milk, Milk Products, Beef and Veal, Sugar, Rice, Oil-seeds and Olive Oil from 1967/68," Information Memo, March, 1966, Brussels.

Federazione Italiana dei Consorzi Agrari. Campagna di Commercializzazione Grano 1965-66: Pressi d'Intervento e Indicativi, Roma, 1965.

General Agreement on Tariffs and Trade. GATT Programme for Expansion of International Trade, Report of Committee II on the consultation with the European Economic Community, Geneva, 1962.

______. Trade in Agricultural Products, Reports of Committee II on consultations with the European Economic Community, the United States of America and the United Kingdom, Geneva, 1965.

Instituto Centrale di Statistica. Annuario di Statistica Agraria, Rome.

______. Bulletino Mensile de Statistica, Rome.

Instituto per le Richerche e le Analisi di Mercato. Rapporto sull 'impiego del Granoturco, Orzo ed Avena, sia di Produzione Nazionale che d'importazione nel 1964, Rome, n.d.

Journal Officiel des Communautes Europeennes, Brussels, 27 Fevier 1964, p. 571/64.

Murray, Kenneth L. France's Key Role in the Grain Sector of the European Common Market, U.S. Dept. of Agriculture, Foreign Agricultural Service, FAR-122, Washington, D.C., April, 1963.

Organization for Economic Cooperation and Development. Agricultural and Food Statistics: 1952-1963, Paris, 1965.

______. Survey on the Organization of Marketing Poultry Meat with Special Emphasis on Broilers, (Documentation in Food and Agriculture, 1961 Series, No. 58), Paris, n.d.

______. Organization and Structure of the Milk Markets in O.E.C.D. Member Countries, (Documentation in Agriculture and Food, 1962 Series, No. 55), Paris, n.d.

______. Food Consumption in the OECD Countries, Paris, 1966.

Organization for European Economic Cooperation. Agricultural Policies in Europe and North America, First report of the Ministerial Committee for Agriculture and Food, Paris, May, 1956.

______. Agricultural Policies in Europe and North America, Price and Income Policies, Second report of the Ministerial Committee for Agriculture and Food, Paris, July, 1957.

______. Slaughterhouse Facilities and Meat Distribution in O.E.E.C. Countries, (Documentation in Food and Agriculture, 1959 Series, No. 12), Paris, 1959.

______. Marketing and Distribution Margins for Livestock and Meat in O.E.E.C. Countries, (Documentation in Food and Agriculture, 1959 Series, No. 15), Paris, 1959.

______. Marketing and Distribution Margins for Eggs in O.E.E.C. Countries, (Documentation in Food and Agriculture, 1959 Series, No. 16) Paris, 1959.

______. Marketing and Distribution Margins for Milk and Milk Products in O.E.E.C. Countries, (Documentation in Food and Agriculture, 1960 Series, No. 24), Paris, 1960.

______. Agricultural Regions of the European Economic Community, (Documentation in Food and Agriculture, 1960 Series, No. 27), Paris, 1960.

______. Organization of the Wholesale Meat Markets in Europe, (Documentation in Food and Agriculture, 1961 Series, No. 42), Paris, 1961.

______. Problems in Agricultural Policy, Fourth report on Agricultural Policies in Europe and North America, Paris, March, 1960.

Organization for European Economic Cooperation. Trends in Agricultural Policies Since 1955, Fifth report on Agricultural Policies in Europe and North America, Paris, July, 1961.

Schertz, L.P. Basic Provisions of European Economic Community Grain Regulations, U.S. Dept. of Agriculture, Foreign Agricultural Service, FAS-M-147, Washington, D.C., June, 1963.

______. "World Grain Prices and Outlets for French Grain," Agricultural Economics Research, XIX, No. 1, January, 1967, pp. 15-19.

Statistical Office of the European Communities, Agrarpreise, Brussels, (published monthly).

______. Agrarstatistik, Brussels, (published monthly).

Statistisches Bundesamt. Betriebe, Beschäftigte und Umsatz nach Grössenklassen, (Fachserie D, Reihe 4), Wiesbaden Germany, 1965.

______. Binnenschiffahrt, (Fachserie H, Verkehr, Reihe 1), Wiesbaden, Germany, 1965.

______. Brauwirtschaft, (Fachserie, Reihe 8, No. II), Wiesbaden, Germany.

______. Seeschiffahrt, (Fachserie H, Verkehr, Reihe 2), Wiesbaden, Germany, 1965.

______. Verkehr, (Fachserie H), Wiesbaden, Germany, 1965.

Treaty establishing the European Economic Community and connected documents, (an unofficial English translation). Published by the Interium Committee for the Common Market and Euratom, Brussels.

United Nations. Commodity Trade Statistics, New York, (published annually).

______. Demographic Yearbook, 1963, Supplement, New York, 1963.

______, Food and Agriculture Organization. "Agricultural Commodities--Projections for 1970," a special supplement to Commodity Review, 1962.

______. "Long-term Developments and Contrasts in the Wheat and Coarse Grain Situations," Monthly Bulletin of Agricultural Economics and Statistics, XV, January, 1966, pp. 10-15.

______. National Grain Policies, Rome, (published annually since 1959).

______. Production Yearbook, Rome.

______. "The Common Grain Policy of the European Economic Community," Monthly Bulletin of Agricultural Economics and Statistics, XIV, No. 3, 1965, pp. 19-24.

United Nations. World Grain Trade Statistics, Rome, (published annually since 1952).

U.S. Dept. of Agriculture, Economic Research Service, Agricultural Policies of Foreign Governments, Including Trade Policies Affecting Agriculture, Agricultural Handbook No. 132, Washington, D.C., Rev. March, 1964.

______. The Grain-Livestock Economy of the European Economic Community: A Compendium of Basic Statistics, Statistical Bulletin No. 351, Washington, D.C., November, 1964.

______. "The Uniform Grain Price in the European Economic Community," Foreign Agricultural Trade of the United States, February, 1965, pp. 5-11.

U.S. Dept. of Agriculture, Foreign Agricultural Service. Common Market Grain Production and Trade Statistics, 1950-51 through 1961-62, Washington, D.C., March, 1963.

______. Foreign Agriculture, Washington, D.C.

APPENDIX I

WEIGHTS, MEASURES, MONETARY EQUIVALENTS AND ABBREVIATIONS

Weights

1 short ton = 2,000.0 pounds
1 long ton = 2,240.0 pounds
1 metric ton = 2,204.622 pounds

1000 kilograms or kilo = 1 metric ton
100 kilograms = 1 quintal
10 quintals = 1 metric ton

1 metric ton of wheat = 36.7437 bushels of wheat
1 metric ton of barley = 45.9296 bushels of barley
1 metric ton of corn = 39.36825 bushels of corn

Square Measures

1 hectare (ha) = 2.47 acres
1 acre = 0.4047 hectare

Official Exchange Rates

1.00 Unit of Account (u.a.) = $1.00 (U.S.)
1.00 u.a. = DM 4.00 (Germany)
1.00 u.a. = FF 4.93706 (France)
1.00 u.a. = L. 625 (Italy)
1.00 u.a. = fl. 3.62 (Netherlands)
1.00 u.a. = BF 50.00 (Belgium)

Abbreviations

Benelux
: Belgium, Luxembourg and the Netherlands

EEC
: European Economic Community. Also known as the Common Market, the Community and the Six. Member countries are Belgium, the Netherlands, Luxembourg, France, West Germany and Italy.

ERS
: Economic Research Service, a branch of the U.S. Dept. of Agriculture.

FAO
: The Food and Agriculture Organization, a specialized agency of the United Nations.

FAS

Foreign Agricultural Service, a branch of the U.S. Dept. of Agriculture.

OECD

Organization for Economic Cooperation and Development, formerly the OEEC, see OEEC.

OEEC

Organization for European Economic Cooperation. Member countries were Austria, Belgium, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey, the United Kingdom, and after 1959, Spain. Yugoslavia was represented by an observer. The United States and Canada were associate members. The OEEC was succeded in September, 1961, by the OECD, with the members listed above, but with the United States and Canada as full members.

USDA

United States Department of Agriculture

c.i.f.

cost, insurance and freight. A term denoting that a given figure includes, in addition to the value of the merchandise shipped, the insurance paid on it and the carrier's charges.

f.o.b.

free on board. A term denoting that a given price includes loading costs, but does not include transportation charges.

ha

hectare, see measures

u.a.

Unit of Account. An accounting measure established by the EEC for expressing monetary values. For conversion to monetary units see Official Exchange Rates.

APPENDIX II

PRICE TABLES AND COMPUTATIONAL PROCEDURES

APPENDIX TABLE 1.--Wheat prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	101.40[d]	105.61[d]	95.25	95.25	110.39	4.2	-9.8	0	15.9
2	103.42	108.22	97.00	97.00	112.42	4.6	-10.4	0	15.9
3	102.90	108.88	96.42	96.42	111.75	5.8	-11.4	0	15.9
4	101.02	102.93	92.41	92.41	107.10	1.9	-10.2	0	15.9
5	104.82	105.28	93.33	93.33	108.17	0.4	-11.4	0	15.9
6	107.12	109.16	97.36	97.36	112.84	1.9	-10.8	0	15.9
7	105.10	106.02	94.50	94.50	109.53	0.9	-10.9	0	15.9
8	83.91[e]	95.55[e]	98.13	98.13	113.73	13.9	2.7	0	15.9
9	93.60[f]	95.74[f]	96.18	96.18	111.47	2.3	0.5	0	15.9
10	77.39[g]	86.17[hi]	94.37	94.37	109.37	11.3	9.5	0	15.9
11	77.39	80.91	92.14	92.14	106.79	4.5	13.9	0	15.9
12	77.39	87.64	91.33	91.33	105.85	13.2	4.2	0	15.9
13	77.39	87.05	91.94	91.94	106.56	12.5	5.6	0	15.9
14	77.39	87.44	94.28	94.28	109.27	13.0	7.8	0	15.9
15	--	--	--	--	--	--	--	--	--
16	106.48[j]	111.07[j]	106.59	106.59	123.54	4.3	-4.0	0	15.9
17	107.22	112.22	108.46	108.46	125.71	4.7	-3.4	0	15.9
18	106.34	112.80	109.17	109.17	126.53	6.1	-3.2	0	15.9
19	--	--	--	--	--	--	--	--	--

[a]Footnotes for all price tables follow Appendix Table 28.

APPENDIX TABLE 2.--Barley prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	97.70[d]	99.44[d]	90.75	90.75	105.18	1.8	-8.7	0	15.9
2	95.78	99.11	88.49	88.49	102.56	3.5	-10.7	0	15.9
3	93.67	96.54	85.34	85.34	98.91	3.1	-11.6	0	15.9
4	90.67	92.48	82.26	82.26	95.34	2.0	-11.1	0	15.9
5	90.22	92.44	81.91	81.91	94.93	2.5	-11.4	0	15.9
6	94.48	95.79	85.75	85.75	99.38	2.5	-10.5	0	15.9
7	91.90	93.10	83.14	83.14	96.36	1.3	-10.7	0	15.9
8	69.61[e]	76.38[e]	86.70	86.70	100.49	9.7	13.5	0	15.9
9	72.85[f]	78.00[f]	80.89	80.89	93.75	7.1	3.7	0	15.9
10	63.11[g]	69.70[h,i]	87.20	87.20	101.06	10.6	25.0	0	15.9
11	63.11	69.42	85.13	85.13	98.67	10.0	22.6	0	15.9
12	63.11	73.30	86.55	86.55	100.31	16.1	18.1	0	15.9
13	63.11	72.85	85.07	85.07	98.60	15.4	16.8	0	15.9
14	63.11	73.41	87.72	87.72	101.67	16.3	19.5	0	15.9
15	--	--	--	--	--	--	--	--	--
16	83.10[j]	83.65[j]	95.62	103.12	110.82	0.7	14.3	7.8	15.9
17	72.59	79.57	91.19	98.69	105.69	9.6	14.6	8.2	15.9
18	70.58	78.58	89.96	97.46	104.26	11.3	14.5	8.3	15.9
19	77.82	81.28	93.31	100.81	108.15	4.4	14.8	8.0	15.9

APPENDIX TABLE 3.--Corn prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	74.59[g]	77.21[hi]	73.43	73.43	85.11	3.5	-4.9	0	15.9
11	74.59	77.21	73.43	73.43	85.11	3.5	-4.9	0	15.9
12	74.59	77.21	73.43	73.43	85.11	3.5	-4.9	0	15.9
13	74.59	75.79	71.99	71.99	83.44	1.6	-5.0	0	15.9
14	74.59	80.05	77.32	77.32	89.61	7.3	-3.4	0	15.9
15	--	--	--	--	--	--	--	--	--
16	66.21[j]	78.18[j]	89.77	97.27	104.04	18.1	14.8	8.4	15.9

APPENDIX TABLE 4.--Rye prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	92.62[d]	97.58[d]	86.00	86.00	99.67	5.4	-11.9	0	15.9
2	93.76	97.78	85.50	85.50	99.09	4.3	-12.6	0	15.9
3	92.32	97.24	84.21	84.21	97.60	5.3	-13.4	0	15.9
4	92.39	94.66	81.92	81.92	94.95	2.5	-13.5	0	15.9
5	95.38	94.64	82.18	82.18	95.25	-0.8	-13.2	0	15.9
6	98.15	100.55	86.91	86.91	100.73	2.4	-13.6	0	15.9
7	95.93	97.64	84.75	84.75	98.23	1.8	-13.2	0	15.9
8	61.47[e]	71.60[e]	89.00	89.00	103.15	16.5	24.3	0	15.9
9	69.53[f]	73.43[f]	81.70	81.70	94.69	5.6	11.3	0	15.9
10	59.87[g]	65.78[g]	88.00	88.00	101.99	9.9	33.8	0	15.9
11	59.87	65.26	85.13	85.13	98.67	9.0	30.4	0	15.9
12	59.87	66.24	86.55	86.55	100.31	10.6	30.7	0	15.9
13	59.87	66.83	85.07	85.07	98.60	11.6	27.3	0	15.9
14	59.87	66.11	87.72	87.72	101.67	10.4	32.7	0	15.9
15	--	--	--	--	--	--	--	--	--
16	83.63[j]	108.77[j]	95.62	95.62	110.82	30.1	-12.1	0	15.9
17	--	--	91.19	91.19	105.69	--	--	0	15.9
18	76.75	88.05	89.96	89.96	104.26	14.7	2.2	0	15.9
19	--	--	93.31	93,31	108.15	--	--	0	15.9

APPENDIX TABLE 5.--Malting barley prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[a]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	107.82[dk]	105.95[d]	98.01	98.01	113.59	-1.7	-7.5	0	15.9
2	107.82	105.96	95.57	95.57	110.77	-1.7	-9.8	0	15.9
3	109.10	106.12	92.17	92.17	106.83	-2.7	-13.1	0	15.9
4	107.85	104.56	88.84	88.84	102.97	-3.1	-15.0	0	15.9
5	107.82	105.11	88.46	88.46	102.53	-2.5	-15.8	0	15.9
6	107.82	108.78	92.61	92.61	107.33	0.9	-14.9	0	15.9
7	108.22	106.99	89.79	89.79	104.07	-1.1	-16.1	0	15.9
8	77.59[e]	82.06[e]	93.64	93.64	108.53	5.8	14.1	0	15.9
9	72.95[f]	78.15[f]	87.36	87.36	101.25	7.1	11.8	0	15.9

APPENDIX TABLE 6.--Durum wheat prices by region in the EEC

Region	Prices (in u.a. per ton)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
18	133.73[j]	144.40[j]	145.00	145.00	168.05	8.0	0	0	15.9
19	136.02	144.74	145.00	145.00	168.05	6.4	0	0	15.9

APPENDIX TABLE 7.--The ratio of wheat price to barley price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	1.0	1.1	1.0	1.0	1.0	2.3	-1.2	0	0
2	1.1	1.1	1.1	1.1	1.1	1.1	0.4	0	0
3	1.1	1.1	1.1	1.1	1.1	2.7	0.2	0	0
4	1.1	1.1	1.1	1.1	1.1	-0.1	0.9	0	0
5	1.2	1.1	1.1	1.1	1.1	-2.0	0	0	0
6	1.1	1.1	1.1	1.1	1.1	-0.6	-0.4	0	0
7	1.1	1.1	1.1	1.1	1.1	-0.4	-0.2	0	0
8	1.2	1.3	1.1	1.1	1.1	3.8	-9.5	0	0
9	1.3	1.2	1.2	1.2	1.2	-4.5	-3.1	0	0
10	1.2	1.2	1.1	1.1	1.1	0.7	-12.4	0	0
11	1.2	1.2	1.1	1.1	1.1	-5.0	-7.1	0	0
12	1.2	1.2	1.1	1.1	1.1	-2.5	-11.7	0	0
13	1.2	1.2	1.1	1.1	1.1	-2.6	-9.6	0	0
14	1.2	1.2	1.1	1.1	1.1	-2.9	-9.8	0	0
15	--	--	--	--	--	--	--	--	--
16	1.3	1.3	1.1	1.0	1.1	3.6	-16.0	-7.3	0
17	1.5	1.4	1.2	1.1	1.2	-4.5	-15.7	-7.6	0
18	1.5	1.4	1.2	1.1	1.2	-4.7	-15.5	-7.7	0
19	--	--	--	--	--	--	--	--	--

APPENDIX TABLE 8.--The ratio of wheat price to corn price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	1.0	1.1	1.3	1.3	1.3	7.6	15.2	0	0
11	1.0	1.0	1.3	1.3	1.3	1.0	19.7	0	0
12	1.0	1.1	1.2	1.2	1.2	9.4	9.6	0	0
13	1.0	1.1	1.3	1.3	1.3	10.7	11.2	0	0
14	1.0	1.1	1.2	1.2	1.2	5.3	11.6	0	0
15	--	--	--	--	--	--	--	--	--
16	1.6	1.4	1.2	1.1	1.2	-11.7	-16.4	-7.7	0

APPENDIX TABLE 9.--The ratio of barley price to corn price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	0.8	0.9	1.2	1.2	1.2	6.8	31.4	0	0
11	0.8	0.9	1.2	1.2	1.2	6.3	28.9	0	0
12	0.8	0.9	1.2	1.2	1.2	12.2	24.2	0	0
13	0.8	1.0	1.2	1.2	1.2	13.6	22.9	0	0
14	0.8	0.9	1.1	1.1	1.1	3.4	23.7	0	0
15	--	--	--	--	--	--	--	--	--
16	1.3	1.1	1.1	1.1	1.1	-14.8	-0.4	-0.5	0

APPENDIX TABLE 10.--Beef cattle prices by region in the EEC

Region	Prices (in u.a./100 kg.)						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	49.41[l]	50.72[l]	64.20	74.34	67.47	94.82	2.7	26.6	46.6	5.1	27.5
2	51.45	53.27	67.44	78.10	70.88	99.61	3.5	26.6	46.6	5.1	27.5
3	51.45	53.41	67.58	78.26	71.03	99.82	3.8	26.5	46.5	5.1	27.5
4	51.78	53.14	67.24	77.86	70.67	99.31	2.6	26.5	46.5	5.1	27.5
5	52.16	53.62	67.88	78.61	71.34	100.26	2.8	26.6	46.6	5.1	27.5
6	52.88	53.84	68.17	78.94	71.65	100.69	1.8	26.6	46.6	5.1	27.6
7	47.92	49.68	62.87	72.80	66.08	92.86	3.7	26.5	46.5	5.1	27.6
8	52.48[e]	62.42[ep]	64.96	75.22	68.27	95.95	18.9	4.1	20.5	5.1	27.6
9	46.28[m]	55.80[m]	66.25	76.72	69.63	97.85	20.6	18.7	37.5	5.1	27.5
10	43.21[n]	54.46[n]	60.46	70.01	63.54	89.30	26.0	11.0	28.6	5.1	27.6
11	41.13	54.86	60.91	70.53	64.02	89.96	33.4	11.0	28.6	5.1	27.5
12	39.29	55.26	61.31	71.00	64.44	90.55	40.6	10.9	28.5	5.1	27.5
13	42.80	60.27	66.90	77.47	70.31	98.81	40.8	11.0	28.5	5.1	27.5
14	55.27	68.33	75.82	87.80	79.69	111.99	23.6	11.0	28.5	5.1	27.6
15	--	--	--	--	--	--	--	--	--	--	--
16	48.43[o]	70.37[o]	67.66	78.35	71.11	99.93	45.3	-3.9	11.3	5.1	27.5
17	52.45	64.30	61.82	71.59	64.97	91.31	22.6	-3.9	11.3	5.1	27.5
18	51.75	65.34	62.86	72.79	66.07	92.84	26.3	-3.8	11.4	5.1	27.5
19	56.86	69.73	67.08	77.68	70.50	99.08	22.6	-3.8	11.4	5.1	27.5

APPENDIX TABLE 11.--Calf prices by region in the EEC

Region	Prices (in u.a./100 kg.)						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	70.20[l]	69.68[l]	83.32	96.48	87.57	123.06	-0.7	19.6	38.5	5.1	27.5
2	70.87	71.34	85.29	98.77	89.64	125.97	0.7	19.6	38.4	5.1	27.5
3	78.26	76.80	91.83	106.34	96.51	135.63	-1.9	19.6	38.5	5.1	27.5
4	76.38	77.52	92.72	107.37	97.45	136.95	1.5	19.6	38.5	5.1	27.5
5	78.12	78.70	94.11	108.98	98.91	139.00	0.7	19.6	38.5	5.1	27.5
6	77.99	80.59	96.39	111.62	101.31	142.37	3.3	19.6	38.5	5.1	27.5
7	69.72	73.10	87.44	101.26	91.90	129.15	4.8	19.6	38.5	5.1	27.5
8	70.87[e]	87.99[ep]	87.78	101.65	92.26	129.65	24.2	-0.2	15.5	5.1	27.5
9	78.84[m]	93.56[mp]	89.50	103.64	94.06	132.19	18.7	-4.3	10.8	5.1	27.5
10	66.74[n]	87.62[np]	81.68	94.59	85.85	120.64	31.3	-6.8	8.0	5.1	27.5
11	67.23	88.27	82.29	95.29	86.49	121.54	31.3	-6.8	8.0	5.1	27.5
12	67.72	88.91	82.82	95.91	87.04	122.33	31.3	-6.8	7.9	5.1	27.5
13	73.86	96.97	90.38	104.66	94.99	133.49	31.3	-6.8	7.9	5.1	27.5
14	83.74	109.94	102.43	118.61	107.65	151.29	31.3	-6.8	7.9	5.1	27.6
15	--	--	--	--	--	--	--	--	--	--	--
16	83.62[o]	94.57[o]	92.11	106.66	96.81	136.05	13.1	-2.6	12.8	5.1	27.6
17	76.92	92.73	90.36	104.64	94.97	133.46	20.6	-2.6	12.8	5.1	27.5
18	67.13	83.32	81.15	93.97	85.29	119.86	24.1	-2.6	12.8	5.1	27.6
19	67.80	89.27	86.94	100.68	91.37	128.41	31.7	-2.6	12.8	5.1	27.5

APPENDIX TABLE 12.--The ratio of calf price to beef price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	1.4	1.4	1.3	1.3	1.3	1.3	-3.3	-5.5	-5.5	0	0
2	1.4	1.3	1.3	1.3	1.3	1.3	-2.8	-5.6	-5.6	0	0
3	1.5	1.4	1.4	1.4	1.4	1.4	-5.5	-5.5	-5.5	0	0
4	1.5	1.5	1.4	1.4	1.4	1.4	-1.1	-5.5	-5.5	0	0
5	1.5	1.5	1.4	1.4	1.4	1.4	-2.0	-5.5	-5.5	0	0
6	1.5	1.5	1.4	1.4	1.4	1.4	1.5	-5.5	-5.5	0	0
7	1.5	1.5	1.4	1.4	1.4	1.4	1.1	-5.5	-5.5	0	0
8	1.4	1.4	1.4	1.4	1.4	1.4	4.4	-4.1	-4.1	0	0
9	1.7	1.7	1.4	1.4	1.4	1.4	-1.6	-19.4	-19.4	0	0
10	1.5	1.6	1.4	1.4	1.4	1.4	4.2	-16.0	-16.0	0	0
11	1.6	1.6	1.4	1.4	1.4	1.4	-1.6	-16.0	-16.0	0	0
12	1.7	1.6	1.4	1.4	1.4	1.4	-6.7	-16.0	-16.0	0	0
13	1.7	1.6	1.4	1.4	1.4	1.4	-6.8	-16.0	-16.0	0	0
14	1.5	1.6	1.4	1.4	1.4	1.4	6.2	-16.0	-16.0	0	0
15	--	--	--	--	--	--	--	--	--	--	--
16	1.7	1.3	1.4	1.4	1.4	1.4	-22.2	1.3	1.3	0	0
17	1.5	1.4	1.5	1.5	1.5	1.5	-1.7	1.4	1.4	0	0
18	1.3	1.3	1.3	1.3	1.3	1.3	-1.7	1.2	1.2	0	0
19	1.2	1.3	1.3	1.3	1.3	1.3	7.4	1.2	1.2	0	0

APPENDIX TABLE 13.--Milk prices by region in the EEC

Region	Prices (in u.a./100 kg.)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	8.08[q]	9.20[qr]	9.75	9.75	11.30	13.9	6.0	0	15.9
2	8.28	9.15	9.75	9.75	11.30	10.5	6.6	0	15.9
3	9.22	9.92	9.75	9.75	11.30	7.6	-1.7	0	15.9
4	8.55	9.48	9.75	9.75	11.30	10.9	2.8	0	15.9
5	8.80	9.62	9.75	9.75	11.30	9.3	1.4	0	15.9
6	8.22	9.40	9.75	9.75	11.30	14.4	3.7	0	15.9
7	8.15	9.05	9.75	9.75	11.30	11.0	7.7	0	15.9
8	7.30[e]	8.52[e]	9.56	9.56	11.08	16.7	12.2	0	15.9
9	6.81[m]	7.83[m]	9.75	9.75	11.30	15.0	24.5	0	15.9
10	6.18[s]	7.71[si]	9.58	9.58	11.10	24.8	24.3	0	15.9
11	6.29	7.84	9.58	9.58	11.10	24.6	22.2	0	15.9
12	6.38	7.96	9.58	9.58	11.10	24.8	20.4	0	15.9
13	--	--	--	--	--	--	--	--	--
14	7.08	8.84	9.58	9.58	11.10	24.9	8.4	0	15.9
15	--	--	--	--	--	--	--	--	--
16	7.01[o]	9.41[o]	9.55	9.55	11.07	34.2	1.5	0	15.9
17	8.38	10.13	9.55	9.55	11.07	20.9	-5.7	0	15.9
18	7.29	9.08	9.55	9.55	11.07	24.6	5.2	0	15.9
19	--	--	--	--	--	--	--	--	--

APPENDIX TABLE 14.--The ratio of beef price to milk price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	6.1	5.5	6.6	7.6	6.9	8.4	-9.8	19.4	38.3	5.1	10.1
2	6.2	5.8	6.9	8.0	7.3	8.8	-6.3	18.8	37.6	5.1	10.1
3	5.6	5.4	6.9	8.0	7.3	8.8	-3.5	28.7	49.1	5.1	10.1
4	6.1	5.6	6.9	8.0	7.2	8.8	-7.4	23.0	42.5	5.1	10.1
5	5.9	5.6	7.0	8.1	7.3	8.9	-6.0	24.9	44.7	5.1	10.1
6	6.4	5.7	7.0	8.1	7.3	8.9	-11.0	22.1	41.4	5.1	10.1
7	5.9	5.5	6.4	7.5	6.8	8.2	-6.6	17.5	36.0	5.1	10.1
8	7.2	7.3	6.8	7.9	7.1	8.7	1.9	-7.3	7.4	5.1	10.1
9	6.8	7.1	6.8	7.9	7.1	8.7	4.9	-4.7	10.4	5.1	10.1
10	7.0	7.1	6.3	7.3	6.6	8.0	1.0	-10.7	3.5	5.1	10.1
11	6.5	7.0	6.4	7.4	6.7	8.1	7.0	-9.1	5.2	5.1	10.1
12	6.2	6.9	6.4	7.4	6.7	8.2	12.7	-7.8	6.8	5.1	10.1
13	--	--	--	--	--	--	--	--	--	--	--
14	7.8	7.7	7.9	9.2	8.3	10.1	-1.0	2.4	18.6	5.1	10.1
15	--	--	--	--	--	--	--	--	--	--	--
16	6.9	7.5	7.1	8.2	7.4	9.0	8.2	-5.3	9.7	5.1	10.1
17	6.3	6.3	6.5	7.5	6.8	8.2	1.4	2.0	18.1	5.1	10.1
18	7.1	7.2	6.6	7.6	6.9	8.4	1.4	-8.5	5.9	5.1	10.1
19	--	--	--	--	--	--	--	--	--	--	--

APPENDIX TABLE 15.--The ratio of calf price to milk price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	8.7	7.6	8.6	9.9	9.0	10.9	-12.8	12.8	30.7	5.1	10.1
2	8.6	7.8	8.8	10.1	9.2	11.2	-8.9	12.2	29.9	5.1	10.0
3	8.5	7.7	9.4	10.9	9.9	12.0	-8.8	21.7	40.9	5.1	10.0
4	8.9	8.2	9.5	11.0	10.0	12.1	-8.5	16.3	34.7	5.1	10.1
5	8.9	8.2	9.6	11.2	10.1	12.3	-7.8	18.0	36.6	5.1	10.0
6	9.5	8.6	9.9	11.4	10.4	12.6	-9.6	15.3	33.5	5.1	10.1
7	8.6	8.1	9.0	10.4	9.4	11.4	-5.6	11.0	28.6	5.1	10.0
8	9.7	10.3	9.2	10.6	9.6	11.7	6.4	-11.1	3.0	5.1	10.0
9	11.6	12.0	9.2	10.6	9.6	11.7	3.2	-23.2	-11.0	5.1	10.1
10	10.8	11.4	8.5	9.9	9.0	10.8	5.2	-25.0	-13.1	5.1	10.1
11	10.7	11.4	8.6	10.0	9.0	11.0	5.3	-23.7	-11.7	5.1	10.1
12	10.6	11.2	8.7	10.0	9.1	11.0	5.2	-22.6	-10.4	5.1	10.1
13	--	--	--	--	--	--	--	--	--	--	--
14	11.8	12.4	10.7	12.4	11.2	13.6	5.1	-14.0	-0.4	5.1	10.1
15	--	--	--	--	--	--	--	--	--	--	--
16	11.9	10.0	9.6	11.2	10.1	12.3	-15.7	-4.0	11.1	5.1	10.0
17	9.2	9.2	9.5	11.0	9.9	12.1	-0.3	3.4	19.7	5.1	10.0
18	9.2	9.2	8.5	9.8	8.9	10.8	-0.4	-7.4	7.2	5.1	10.0
19	--	--	--	--	--	--	--	--	--	--	--

APPENDIX TABLE 16.--The ratio of beef price to barley price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	5.1	5.1	7.1	8.2	7.4	9.0	0.9	38.7	60.6	5.1	10.1
2	5.4	5.4	7.6	8.9	8.0	9.7	0.1	41.8	64.2	5.1	10.0
3	5.5	5.5	7.9	9.2	8.3	10.1	0.7	43.1	65.8	5.1	10.1
4	5.7	5.7	8.2	9.5	8.6	10.4	0.6	42.3	64.7	5.1	10.1
5	5.8	5.8	8.3	9.6	8.7	10.6	0.3	42.9	65.5	5.1	10.0
6	5.7	5.6	8.0	9.2	8.4	10.1	-0.6	41.4	63.8	5.1	10.1
7	5.2	5.3	7.6	8.8	7.9	9.6	2.3	41.7	64.1	5.1	10.1
8	7.5	8.2	7.5	8.7	7.9	9.5	8.4	-8.3	6.2	5.1	10.1
9	6.4	7.2	8.2	9.5	8.6	10.4	12.6	14.5	32.6	5.1	10.0
10	6.8	7.8	6.9	8.0	7.3	8.8	14.0	-11.2	2.9	5.1	10.1
11	6.5	6.5	7.2	8.3	7.5	9.1	21.3	-9.5	4.8	5.1	10.0
12	6.2	7.5	7.1	8.2	7.4	9.0	21.1	-6.0	8.8	5.1	10.0
13	6.8	8.3	7.9	9.1	8.3	10.0	22.0	-4.9	10.1	5.1	10.0
14	8.8	9.3	8.6	10.0	9.1	11.0	6.3	-7.1	7.5	5.1	10.1
15	--	--	--	--	--	--	--	--	--	--	--
16	5.8	8.4	7.1	8.2	6.9	9.0	44.3	-15.9	-2.6	-2.5	10.0
17	7.2	8.1	6.8	7.8	6.6	8.6	11.8	-16.1	-2.8	-2.9	10.0
18	7.3	8.3	7.0	8.1	6.8	8.9	13.4	-16.0	-2.7	-3.0	10.1
19	7.3	8.6	7.2	8.3	7.0	9.2	17.4	-16.2	-3.0	-2.7	10.0

APPENDIX TABLE 17.--The ratio of beef price to corn price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
10	5.8	7.0	8.2	9.5	8.7	10.5	21.8	16.7	35.2	5.1	10.0
11	5.5	7.1	8.3	9.6	8.7	10.6	28.9	16.7	35.2	5.1	10.0
12	5.3	7.2	8.3	9.7	8.8	10.6	35.9	16.7	35.1	5.1	10.0
13	5.7	8.0	9.3	10.8	9.8	11.8	38.6	16.9	35.3	5.1	10.0
14	7.4	8.5	9.8	11.4	10.3	12.5	15.2	14.9	33.0	5.1	10.1
15	--	--	--	--	--	--	--	--	--	--	--
16	7.3	9.0	7.5	8.7	7.3	9.6	23.1	-16.3	-3.0	-3.0	10.1

APPENDIX TABLE 18.--The ratio of calf price to barley price by region in the EEC

Region	Price Ratio						Percentage Change[a]				
	1960[b]	1964[c]	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
1	7.2	7.0	9.2	10.6	9.6	11.7	-2.5	31.0	51.7	5.1	10.1
2	7.4	7.2	9.6	11.2	10.1	12.3	-2.7	33.9	55.1	5.1	10.0
3	8.4	8.0	10.8	12.5	11.3	13.7	-4.8	35.3	56.6	5.1	10.0
4	8.4	8.4	11.3	13.0	11.8	14.4	-0.5	34.5	55.7	5.1	10.1
5	8.7	8.5	11.5	13.3	12.1	14.6	-1.7	35.0	56.3	5.1	10.1
6	8.3	8.4	11.2	13.0	11.8	14.3	0.8	33.6	54.7	5.1	10.1
7	7.6	7.8	10.5	12.2	11.0	13.4	3.5	33.9	55.1	5.1	10.0
8	10.2	11.5	10.1	11.7	10.6	12.9	13.2	-12.1	1.8	5.1	10.0
9	10.8	12.0	11.1	12.8	11.6	14.1	10.8	-7.8	6.8	5.1	10.1
10	10.6	12.6	9.4	10.8	9.8	11.9	18.7	-25.4	-13.6	5.1	10.0
11	10.6	12.7	9.7	11.2	10.2	12.3	19.4	-24.0	-12.0	5.1	10.0
12	10.7	12.1	9.6	11.1	10.1	12.2	13.0	-21.1	-8.6	5.1	10.1
13	11.7	13.3	10.6	12.3	11.2	13.5	13.7	-20.2	-7.6	5.1	10.0
14	13.3	15.0	11.7	13.5	12.3	14.9	12.9	-22.0	-9.7	5.1	10.1
15	--	--	--	--	--	--	--	--	--	--	--
16	10.1	11.3	9.6	11.1	9.4	12.3	12.4	-14.8	-1.3	-2.5	10.1
17	10.6	11.7	9.9	11.5	9.6	12.6	10.0	-15.0	-1.5	-2.9	10.0
18	9.5	10.6	9.0	10.4	8.8	11.5	11.5	-14.9	-1.5	-3.0	10.1
19	8.7	11.0	9.3	10.8	9.1	11.9	26.1	-15.2	-1.8	-2.7	10.0

APPENDIX TABLE 19.--The ratio of milk price to barley price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	0.8	0.9	1.1	1.1	1.1	11.9	16.1	0	0
2	0.9	0.9	1.1	1.1	1.1	6.8	19.3	0	0
3	1.0	1.0	1.1	1.1	1.1	4.4	11.2	0	0
4	0.9	1.0	1.2	1.2	1.2	8.7	15.6	0	0
5	1.0	1.0	1.2	1.2	1.2	6.7	14.4	0	0
6	0.9	1.0	1.1	1.1	1.1	11.6	15.9	0	0
7	0.9	1.0	1.2	1.2	1.2	9.6	20.6	0	0
8	1.0	1.1	1.1	1.1	1.1	6.4	-1.1	0	0
9	0.9	1.0	1.2	1.2	1.2	7.4	20.1	0	0
10	1.0	1.1	1.1	1.1	1.1	12.8	-0.6	0	0
11	1.0	1.1	1.1	1.1	1.1	13.3	-0.4	0	0
12	1.0	1.1	1.1	1.1	1.1	7.4	1.9	0	0
13	--	--	--	--	--	--	--	--	--
14	1.1	1.2	1.1	1.1	1.1	7.3	-9.3	0	0
15	--	--	--	--	--	--	--	--	--
16	0.8	1.1	1.0	0.9	1.0	33.4	-11.2	-7.3	0
17	1.2	1.3	1.0	1.0	1.0	10.3	-17.7	-7.6	0
18	1.0	1.2	1.1	1.0	1.1	11.9	-8.1	-7.7	0
19	--	--	--	--	--	--	--	--	--

APPENDIX TABLE 20.--Hog prices by region in the EEC

Region	Prices (in u.a./100 kg.)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	58.55[t]	66.22[t]	60.23	56.74	65.76	6.3	-3.2	-5.8	9.2
2	59.49	62.46	59.30	55.86	64.74	5.0	-5.1	-5.8	9.2
3	61.28	65.01	57.69	54.34	62.98	6.1	-11.3	-5.8	9.2
4	60.90	63.48	55.70	52.47	60.81	4.2	-12.3	-5.8	9.2
5	61.90	65.24	55.66	52.43	60.77	5.4	-14.7	-5.8	9.2
6	61.60	63.94	58.39	55.01	63.75	3.8	-8.7	-5.8	9.2
7	60.79	60.24	56.71	53.42	61.91	-0.9	-5.9	-5.8	9.2
8	47.87[e]	55.79[e]	60.58	57.06	66.14	16.5	8.6	-5.8	9.2
9	49.68[m]	62.76[m]	56.55	53.27	61.74	26.3	-9.9	-5.8	9.2
10	54.49[g]	65.42[g]	58.16	54.79	63.50	20.1	-11.1	-5.8	9.2
11	50.54	61.47	56.92	53.62	62.15	21.6	-7.4	-5.8	9.2
12	49.62	60.56	57.37	54.05	62.64	22.0	-5.3	-5.8	9.2
13	52.87	63.80	56.67	53.38	61.87	20.7	-11.2	-5.8	9.2
14	52.60	63.53	58.79	55.38	64.18	20.8	-7.5	-5.8	9.2
15	--	--	--	--	--	--	--	--	--
16	51.65[o]	60.74[o]	68.44	69.15	75.28	17.6	12.7	1.0	10.0

APPENDIX TABLE 21.--The ratio of hog price to barley price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	6.0	6.3	6.6	6.3	6.3	4.4	6.1	-5.8	-5.8
2	6.2	6.3	6.7	6.3	6.3	1.5	6.3	-5.8	-5.8
3	6.5	6.7	6.8	6.4	6.4	2.9	0.4	-5.8	-5.8
4	6.7	6.9	6.8	6.4	6.4	2.2	-1.4	-5.8	-5.8
5	6.9	7.1	6.8	6.4	6.4	2.9	-3.7	-5.8	-5.8
6	6.6	6.7	6.8	6.4	6.4	1.3	2.0	-5.8	-5.8
7	6.6	6.5	6.8	6.4	6.4	-2.2	5.4	-5.8	-5.8
8	6.9	7.3	7.0	6.6	6.6	6.2	-4.3	-5.8	-5.8
9	6.8	8.0	7.0	6.6	6.6	18.0	-13.1	-5.8	-5.8
10	8.6	9.4	6.7	6.3	6.3	8.6	-28.9	-5.8	-5.8
11	8.0	8.9	6.7	6.3	6.3	10.6	-24.5	-5.8	-5.8
12	7.9	8.3	6.6	6.2	6.2	5.1	-19.8	-5.8	-5.8
13	8.4	8.8	6.7	6.3	6.3	4.5	-23.9	-5.8	-5.8
14	8.3	8.7	6.7	6.3	6.3	3.8	-22.6	-5.8	-5.8
15	--	--	--	--	--	--	--	--	--
16	6.2	7.3	7.2	6.7	6.8	16.8	-1.4	-6.3	-5.1

APPENDIX TABLE 22.--The ratio of hog price to corn price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	7.3	8.5	7.9	7.5	7.5	16.0	-6.5	-5.8	-5.8
11	6.8	8.0	7.8	7.3	7.3	17.5	-2.6	-5.8	-5.8
12	6.7	7.8	7.8	7.4	7.4	17.9	-0.4	-5.8	-5.8
13	7.1	8.4	7.9	7.4	7.4	18.8	-6.5	-5.8	-5.8
14	7.1	7.9	7.6	7.2	7.2	12.5	-4.2	-5.8	-5.8
15	--	--	--	--	--	--	--	--	--
16	7.8	7.8	7.6	7.1	7.2	-0.4	-1.9	-6.8	-5.1

APPENDIX TABLE 23.--Broiler prices by region in the EEC

Region	Prices (in u.a./100 kg.)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	67.00[u]	58.50[d]	48.89	39.49	45.76	-12.7	-16.4	-19.2	-6.4
2	67.00	59.75	49.01	39.59	45.88	-10.8	-18.0	-19.2	-6.4
3	67.00	59.50	48.40	39.10	45.31	-11.2	-18.6	-19.2	-6.4
4	67.00	59.50	46.91	37.89	43.92	-11.2	-21.2	-19.2	-6.4
5	67.00	59.44	47.10	38.04	44.09	-11.3	-20.8	-19.2	-6.4
6	67.00	59.38	48.71	39.34	45.60	-11.4	-18.0	-19.2	-6.4
7	67.00	58.62	47.58	38.43	44.55	-12.5	-18.8	-19.2	-6.4
8	47.23[e]	45.99[e]	46.16	37.29	43.22	-2.6	0.4	-19.2	-6.4
9	47.80[u]	47.14[u]	42.41	34.25	39.70	-1.4	-10.0	-19.2	-6.4
10	82.64[u]	80.01[u]	41.14	33.23	38.51	-3.2	-48.6	-19.2	-6.4
11	82.64	80.01	40.77	32.93	38.17	-3.2	-49.0	-19.2	-6.4
12	82.64	80.01	40.82	32.97	38.22	-3.2	-49.0	-19.2	-6.4
13	82.64	80.01	40.25	32.51	37.68	-3.2	-49.7	-19.2	-6.4
14	82.64	80.01	42.53	34.35	39.81	-3.2	-46.8	-19.2	-6.4
15	--	--	--	--	--	--	--	--	--
16	56.00[v]	54.40[v]	46.68	40.85	43.70	-2.9	-14.2	-12.5	-6.4

APPENDIX TABLE 24.--The ratio of broiler price to barley price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	6.9	5.9	5.4	4.4	4.4	-14.2	-8.4	-19.2	-19.2
2	7.0	6.0	5.5	4.5	4.5	-13.8	-8.1	-19.2	-19.2
3	7.2	6.2	5.7	4.6	4.6	-13.8	-8.0	-19.2	-19.2
4	7.4	6.4	5.7	4.6	4.6	-12.9	-11.4	-19.2	-19.2
5	7.4	6.4	5.8	4.6	4.6	-13.4	-10.6	-19.2	-19.2
6	7.2	6.2	5.7	4.6	4.6	-13.5	-8.4	-19.2	-19.2
7	7.3	6.3	5.7	4.6	4.6	-13.6	-9.1	-19.2	-19.2
8	6.8	6.0	5.3	4.3	4.3	-11.3	-11.6	-19.2	-19.2
9	6.6	6.0	5.2	4.2	4.2	-7.9	-13.3	-19.2	-19.2
10	13.1	11.5	4.7	3.8	3.8	-12.4	-58.9	-19.2	-19.2
11	13.1	11.5	4.8	3.9	3.9	-12.0	-58.4	-19.2	-19.2
12	13.1	10.9	4.7	3.8	3.8	-16.6	-56.8	-19.2	-19.2
13	13.1	11.0	4.7	3.8	3.8	-16.1	-56.9	-19.2	-19.2
14	13.1	10.9	4.8	3.9	3.9	-16.8	-55.5	-19.2	-19.2
15	--	--	--	--	--	--	--	--	--
16	6.7	6.5	4.9	4.0	3.9	-3.5	-24.9	-18.8	-19.2

APPENDIX TABLE 25.--The ratio of broiler price to corn price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	11.1	10.4	5.6	4.5	4.5	-6.5	-45.9	-19.2	-19.2
11	11.1	10.4	5.6	4.5	4.5	-6.5	-46.4	-19.2	-19.2
12	11.1	10.4	5.6	4.5	4.5	-6.5	-46.4	-19.2	-19.2
13	11.1	10.6	5.6	4.5	4.5	-4.7	-47.0	-19.2	-19.2
14	11.1	10.0	5.5	4.4	4.4	-9.8	-45.0	-19.2	-19.2
15	--	--	--	--	--	--	--	--	--
16	8.5	7.0	5.2	4.2	4.2	-17.7	-25.3	-19.2	-19.2

APPENDIX TABLE 26.--Egg prices by region in the EEC

Region	Prices (in u.a./100 kg.)					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	80.10[d]	78.30[d]	51.24	47.01	54.48	-2.2	-34.6	-8.3	6.3
2	79.20	76.05	51.37	47.13	54.62	-4.0	-32.5	-8.3	6.3
3	88.20	87.30	50.73	46.54	53.94	-1.0	-41.9	-8.3	6.3
4	88.20	89.20	49.17	45.11	52.28	1.1	-44.9	-8.3	6.3
5	93.15	94.05	49.37	45.29	52.49	1.0	-47.5	-8.3	6.3
6	88.20	87.30	51.05	46.84	54.28	-1.0	-41.5	-8.3	6.3
7	76.50	76.05	49.87	45.75	53.03	-0.6	-34.4	-8.3	6.3
8	52.02[e]	49.85[e]	47.62	43.69	50.63	-4.2	-4.5	-8.3	6.3
9	55.08[m]	55.42[m]	44.43	40.76	47.24	0.6	-19.8	-8.3	6.3
10	53.30[u]	64.53[u]	52.63	41.38	47.96	21.1	-18.4	-21.4	-8.9
11	53.30	64.53	51.72	40.66	47.13	21.1	-19.9	-21.4	-8.9
12	53.30	64.53	52.05	40.92	47.43	21.1	-19.3	-21.4	-8.9
13	53.30	64.53	51.40	40.41	46.84	21.1	-20.3	-21.4	-8.9
14	53.30	64.53	53.52	42.08	48.77	21.1	-17.1	-21.1	-8.9
15	--	--	--	--	--	--	--	--	--
16	73.30[o]	69.65[o]	57.84	49.22	52.70	-5.0	-17.0	-14.9	-8.9

APPENDIX TABLE 27.--The ratio of egg price to corn price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	7.1	8.4	7.2	5.6	5.6	17.0	-14.2	-21.4	-21.4
11	7.1	8.4	7.0	5.5	5.5	17.0	-15.7	-21.4	-21.4
12	7.1	8.4	7.1	5.6	5.6	17.0	-15.2	-21.4	-21.4
13	7.1	8.5	7.1	5.6	5.6	19.2	-16.1	-21.4	-21.4
14	7.1	8.1	6.9	5.4	5.4	12.8	-14.1	-21.4	-21.4
15	--	--	--	--	--	--	--	--	--
16	11.1	8.9	6.4	5.1	5.1	-19.5	-27.7	-21.5	-21.4

APPENDIX TABLE 28.--The ratio of egg price to barley price by region in the EEC

Region	Price Ratio					Percentage Change[a]			
	1960[b]	1964[c]	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
1	8.2	7.9	5.7	5.2	5.2	-4.0	-28.3	-8.3	-8.3
2	8.3	7.7	5.8	5.3	5.3	-7.2	-24.3	-8.3	-8.3
3	9.4	9.0	5.9	5.5	5.5	-4.0	-34.3	-8.3	-8.3
4	9.7	9.6	6.0	5.5	5.5	-0.8	-38.0	-8.3	-8.3
5	10.3	10.2	6.0	5.5	5.5	-1.5	-40.8	-8.3	-8.3
6	9.4	9.1	6.0	5.5	5.5	-3.4	-34.7	-8.3	-8.3
7	8.3	8.2	6.0	5.5	5.5	-1.9	-26.6	-8.3	-8.3
8	7.5	6.5	5.5	5.0	5.0	-12.7	-15.8	-8.3	-8.3
9	7.6	7.1	5.5	5.0	5.0	-6.0	-22.7	-8.3	-8.3
10	8.4	9.2	6.0	4.7	4.7	9.5	-34.7	-21.4	-21.4
11	8.4	9.3	6.1	4.8	4.8	10.1	-34.6	-21.1	-21.4
12	8.4	8.8	6.0	4.7	4.7	4.2	-31.7	-21.4	-21.4
13	8.4	8.9	6.0	4.8	4.8	4.9	-31.8	-21.4	-21.4
14	8.4	8.8	6.1	4.8	4.8	4.1	-30.6	-21.4	-21.4
15	--	--	--	--	--	--	--	--	--
16	8.8	8.3	6.0	4.8	4.8	-5.6	-27.4	-21.1	-21.4

Footnotes to the Price Tables

[a] The percentage change was calculated prior to rounding the prices or price ratios.

[b] Average of 1959, 1960 and 1961 prices.

[c] Average of 1963 and 1964 prices.

[d] Calculated from producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Erzuegerpreise der Landwirtschaft, Bonn, annual issues.

[e] From unpublished producer prices supplied by the Ministerie van Landbouw en Visserij and in Landbouw-Economisch Instituut, Prijsstatistiek, Den Haag, selected monthly issues.

[f] From producer prices in Statistical Office of the European Communities, Agrarpreise, Brussels, various issues.

[g] Producer prices obtained from the Ministere de l'Agriculture, Paris.

[h] From prices received by country elevators obtained from the Office National Interprofessionel des Cereales (ONIC), Paris. For procedure used to convert to producer level prices, see the discussion following these notes.

[i] Average of 1964/65 and 1965/66 prices.

[j] From producer prices in Instituto Centrale di Statistica, Annuario di Statistica Agraria, Rome, various issues.

[k] Price for 1961/62 only.

[l] Calculated from producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistische Monatsberichte, Bonn, various issues.

[m] From producer prices in Statistical Office of the European Communities, Agrarstatistik, Brussels, various issues.

[n] Calculated by the author.

[o] From prices received by producers as reported in Instituto Centrale di Statistica, Bulletino Mensile de Statistica, Rome, various issues.

[p] Average of 1964 and 1965 prices.

[q] From producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistischer Bericht über die Milch- und Molkereiwirtschaft im Bundesgebiet, Bonn, various issues.

[r] Average of 1962/63 and 1963/64 prices.

[s] Calculated by the author.

[t] From producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Ergebnisse der betriebswirtschaftlichen Meldungen, Bonn, various issues.

[u] Calculated from producer level prices given in Statistical Office of the European Communities, Agrarpreise and Agrarstatistik, various issues.

[v] Based on information obtained by Fred A. Mangum, Jr. in interviews with Italian poultry experts, including the poultry feeding specialists at the University of Turin and at Agangelini Corporation's mixed feed mill.

Procedures Used to Compute Farm Level Prices for 1959-61 and 1963-64

French grain prices

In most cases the prices obtained for the 1959-61 and 1963-64 periods were prices received by farmers.[1] They usually were reported for a small administrative area, such as a province or department, and could be averaged to obtain the regional average price reported in the price tables of this appendix.

For wheat, barley and corn prices in France, it was impossible to obtain producer level prices for points or areas within the country during the 1963-64 period. Thus, it was necessary to use local elevator prices provided by the Office National Interprofessionel des Cereales and adjust them to producer level prices. First, a regional average price received by the local elevators was calculated from the information obtained. Next, an approximate margin for transportation and local handling was deducted. Information for this calculation came from interviews with M. Senechal, Director of the cooperative elevator at Pontoise, France, and M. Tetu and Dr. Michel Petit of the Institut National de la Recherche Agronomique in Paris. In order to obtain the final price received by the farmer, an adjustment for the quantum tax was necessary.

With the start of the transition period for grains in 1962, the French price support system shifted from having a uniform price for the entire country to one with regional price differences. The quantum system, however, was retained to prevent prices from increasing too rapidly, encouraging surplus production that was costly to sell on the world

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[1] The sources used for all commodities other than French grains indicated that the prices given were those received by producers.

market. Because the quantum tax varied depending on the quantities marketed, the impact of this tax differed from one region to another, according to the size of the farms in the region. To account for the quantum tax and get a better estimate of the returns to the farmer, wheat and barley prices for the 1963-64 period in France were adjusted by a computed incidence of the quantum tax.

Since no information was available on the proportion of marketings paying the higher quantum tax, an approximate proportion was calculated for each region based on farm size and grain production data. Table 29 shows the amount of land in farms of different sizes for each region as well as the percentage of the total land that is in each size group. These figures were calculated from data on the numbers of farms in each size group by assuming an average size of farm within each group. Applying the proportions shown in Table 1 to data on wheat and barley production by region gives the total production in each size group shown in Tables 30 and 31.

In order to determine the proportion of the production that was sold without paying the higher quantum tax, the average production was calculated for each size group. Then the proportion of this average production falling within the 7.5 ton quantum allowance was determined. Applying that proportion to the total production of each region gave the amount that could be sold within the quantum. The figures in Tables 30 and 31 indicate the large difference in impact of the quantum tax on different regions. Finally, the producer prices for each region were

APPENDIX TABLE 29.--Amount and percentage of land in each farm size group by region in France, 1963[a]

Farm Size Group (in hectares)	Region North East ha.	North East percent	North Central ha.	North Central percent	North West ha.	North West percent	South West ha.	South West percent	Central Mountain ha.	Central Mountain percent
less than 2	30,180	0.7	39,770	0.3	73,918	0.7	41,505	0.5	51,390	0.4
2 - 4.9	102,552	2.4	132,965	1.1	355,920	3.2	170,892	1.9	266,815	2.1
5 - 9.9	193,998	4.5	270,825	2.3	840,292	8.0	558,962	6.7	845,512	6.6
10 - 19.9	361,900	8.3	838,950	7.1	2,654,131	25.1	1,685,600	19.2	2,158,975	16.8
20 - 49.9	934,150	21.5	2,396,700	20.4	4,895,600	46.4	2,703,425	30.8	3,660,950	28.5
50 - 99.9	746,375	17.2	2,304,750	19.6	1,114,554	10.6	654,500	7.5	1,626,625	12.7
100 and over	1,972,855	45.4	5,778,945	49.1	640,485	6.1	3,021,871	34.4	4,240,332	33.0
Total	4,342,000	100.0	11,762,900	100.0	10,554,900	100.0	8,789,700	100.0	12,850,600	100.0

[a]Calculated from G.A.Peterson and Michel Petit, Current Changes in the Livestock and Grain Economy of France and Their Effect upon Foreign Trade Patterns, (Department of Agricultural Economics, University of Wisconsin, Madison, mimeographed), Appendix B, Table 7.

APPENDIX TABLE 30.--Production of Wheat in each region in France and average production per farm by farm size group, 1963[a]

Farm Size Group (in hectares)	North East total (1000 tons)	North East average (tons)	North Central total (1000 tons)	North Central average (tons)	North West total (1000 tons)	North West average (tons)	South West total (1000 tons)	South West average (tons)	Central Mountain total (1000 tons)	Central Mountain average (tons)
less than 2	4.11	0.2	15.81	0.4	14.98	0.3	5.48	0.2	3.80	0.1
2 - 4.9	14.10	0.6	57.98	1.5	68.48	0.8	20.83	0.5	19.95	0.3
5 - 9.9	26.44	1.2	121.24	3.4	171.20	1.7	73.46	1.1	62.70	0.6
10 - 19.9	48.77	2.4	374.25	6.7	537.14	3.4	210.51	2.2	159.59	1.3
20 - 49.9	126.34	5.8	1,075.32 (598.95)	13.5	992.96 (918.49)	8.1	337.69	5.3	270.74	3.1
50 - 99.9	101.07 (63.98)[b]	11.9	1,033.15 (230.39)	33.6	226.84 (100.26)	17.0	82.23 (56.08)	11.0	120.64	6.5
100 and over	266.78 (16.81)	119.1	2,588.14 (88.00)	219.2	130.54 (11.36)	85.9	377.16 (130.50)	21.7	313.49 (25.71)	91.4
Total	587.63 (300.55) (51.1%)	4.9	5,271.16 (1,486.62) (28.2%)	18.0	2,139.99 (1,821.91) (85.1%)	4.0	1,096.40 (834.55) (76.1%)	3.6	949.96 (663.13) (69.8%)	2.2

[a]See note, Appendix Table 29.

[b]The figure in parentheses indicates the portion of the production that is within the quantum.

APPENDIX TABLE 31.--Production of barley in each region in France and average production per farm by farm size group, 1963[a]

Farm Size Group (in hectares)	Region									
	North East		North Central		North West		South West		Central Mountain	
	total (1000 tons)	average (tons)	total (1000 tons)	average (tons)	total (1000 tons)	average (tons)	total (1000 tons)	average (tons)	total (1000 tons)	average (tons)
less than 2	4.16	0.2	12.66	0.3	9.59	0.2	1.41	0.1	3.37	0.1
2 - 4.9	14.26	0.6	46.42	1.2	43.84	0.5	5.37	0.1	17.70	0.3
5 - 9.9	26.74	1.2	97.06	2.7	109.60	1.1	18.93	0.3	55.61	0.6
10 - 19.9	49.32	2.4	299.63	5.4	343.87	2.2	54.24	0.6	141.57	1.1
20 - 49.9	127.75	5.8	860.92 (597.48)	10.3	635.68	5.2	87.02	1.4	240.16	2.8
50 - 99.9	102.20 (63.88)[b]	12.0	827.16 (230.78)	26.9	145.22 (99.91)	10.9	21.19	2.8	107.02	5.6
100 and over	269.76 (16.73)	120.4	2,072.12 (89.10)	175.5	83.57 (11.37)	55.0	97.19 (13.02)	55.9	278.07 (25.58)	81.1
Total	594.19 (302.84) (51.0%)	5.0	4,220.20 (1,373.13) (32.5%)	14.4	1,370.00 (1,253.86) (91.5%)	2.5	282.52 (201.18) (71.2%)	0.9	842.65 (591.01) (70.1%)	2.0

[a]See note, Appendix Table 29.

[b]The figure in parentheses indicates the portion of the production that is within the quantum.

adjusted to reflect the incidence of the quantum tax.[2]

Beef cattle and calf prices

The beef and calf prices reported usually applied to a specified quality grade of animal and no single grade truly represented the average price received by the producer. Since data on the number of animals or the total weight sold in different classes was not available, the weighting system employed by the EEC Commission was used to average the various prices.

The EEC marketing policy for beef and calves requires intervention measures when the average market price in representative markets falls below the intervention price. In order to consider the various quality classes, a set of coefficients was established for weighting the market prices reported for each class. Table 32 shows the coefficients, which are based primarily on the relative amounts marketed under normal conditions, but have been adjusted by the EEC in some cases to reflect the particular importance of a specific grade in a certain country. Weighting the prices in the past periods using the weights to be applied by the EEC in the future improved the comparability of the various price series.

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[2]The quantum tax for 1965-66 was FF 8.50 (1.72 u.a.) per metric ton for the first 7.5 tons of wheat or barley delivered by a farmer and FF 73.90 (14.97 u.a.) per metric ton for any deliveries of wheat above 7.5 tons. For barley deliveries above 7.5 tons the tax was FF 29.10 (5.89 u.a.) per metric ton.

APPENDIX TABLE 32.--Coefficients for computing national average prices of beef and calves[a]

Beef Cattle		Calves	
Quality Grade	Coefficient	Quality Grade	Coefficient
	Germany		
Bullen A	21.6	Kälber A	42.0
Ochsen A	3.0	Kälber B	36.0
Färsen A	17.7	Kälber C	17.0
Bullen B	11.0	Kälber D	5.0
Ochsen B	0.7		
Färsen B	5.0		
Kühe A	11.0		
Bullen C	1.4		
Kühe B	16.1		
Färsen C	1.0		
Kühe C	9.5		
Kühe D	2.0		
	Belgium		
Boeufs et genisses 60%	18.0	Extra blancs	2.0
Taureaux 60%	9.0	Bon veaux	7.0
Boeufs et genisses 55%	21.0	Ordinaires	76.0
Taureaux 55%	13.0	Mediocres	15.0
Vaches 55%	10.0		
Taureaux lourds	1.0		
Vaches 50%	21.0		
Betail de fabrication	7.0		
	Italy		
Vitelloni 1st qual.	27.0	Vitelli 1st qual.	60.0
Vitelloni 2nd qual.	22.0	Vitelli 2nd qual.	40.0
Buoi 1st qual.	7.0		
Buoi 2nd qual.	11.0		
Vacche 1st qual.	8.0		
Vacche 2nd qual.	15.0		
Vacche 3rd qual.	10.0		

TABLE 32.--Continued.

Beef Cattle		Calves	
Quality Grade	Coefficient	Quality Grade	Coefficient
	France		
Vaches extra	12.0	Veaux extra	27.0
Boeufs extra	15.0	Veaux 1st qual.	35.0
Taureaux extra	1.0	Veaux 2nd qual.	26.0
Bouefs 1st qual.	21.0	Veaux 3rd qual.	12.0
Vaches 1st qual.	12.0		
Taureaux 1st qual.	2.0		
Boeufs 2nd qual.	3.0		
Vaches 2nd qual.	23.0		
Boeufs 3rd qual.	2.0		
Vaches 3rd qual.	9.0		
	Netherlands		
Slachtrunderen extra	10.0	Kalveren 1st qual.	25.0
Slachtrunderen 1st qual.	40.0	Kalveren 2nd qual.	55.0
Slachtrunderen 2nd qual.	32.0	Kalveren 3rd qual.	20.0
Vette stieren	3.0		
Slachtrunderen 3re qual.	10.0		
Worstkoeien	5.0		
	Luxembourg		
Genisses, boeufs and Taureaux AA	65.0	Veaux	100.0
Vaches AA	3.0		
Genisses, boeufs and Taureaux A	11.0		
Vaches A	14.0		
Genisses, boeurs and Taureaux B	1.0		
Vaches B	6.0		

[a] Journal Officiel des Communautes Europeennes, Brussels, 27 Fevrier 1964, p. 571/64.

APPENDIX III

PROCEDURES FOR PROJECTING PRODUCT PRICES

Chapter IV develops and projects product prices over the period 1960-1975. This appendix contains the assumptions that provide the foundation for the results as well as details of the procedure for projecting prices to 1970 and 1975. The assumptions and the projections made give only a preliminary estimate of the product prices for 1970 and 1975. More realistic assumptions and a more accurate estimate will result from the combining of these preliminary results with the demand and production estimates of other sub-projects in this study. The procedure outlined here, however, does provide a starting point for further work.

The projection procedures used assume first, that the basic form of agricultural policies as they are now written and scheduled to take full effect between 1967 and 1970 will continue unchanged through 1975. It is possible that projected results for 1970 will indicate a need to relax this assumption for 1975, which can be done for subsequent projections if desired. Second, the specific price levels set for the various commodities are assumed constant at the published 1967 level through 1970. Any additional assumptions made for specific commodities are listed in the sections that follow where the details of the procedures are discussed.

Cereals

The price projection procedure selected for cereal prices depends on (1) the prior use of government support policies by all of the EEC countries and (2) the intervention prices for 1967 that have been published for many points in the area. The actual projection procedure for grains was in two steps. First, the past relationship between producer prices and policy prices was used to make a preliminary estimate for the 1967/68 crop year that was projected unchanged to 1970. Then, the interregional price differences were compared with transportation costs between regions and the preliminary regional average prices adjusted. The following section discusses the estimating procedure followed by the methods used in the transportation cost adjustment.

Preliminary estimates

Germany had the highest grain prices in the EEC prior to the price unification, so it was the only country faced with a substantial drop in cereal prices. But, much of the impact of the shift to the EEC system occurred when the Germans switched to the new scheme of regionalizing prices in 1962, the beginning of the transition period. Thus, the regional pattern is established and only the price level needs changing. The national average intervention prices for wheat, barley and rye in 1967/68 will be 12.50 units of account (u.a.) per ton below the intervention prices in the 1965 period. Maintaining the past relationship between intervention price and producer prices results in an 11.00 u.a. per ton decrease in producer prices. Also, the number of intervention points will fall from over 200 to about 50 for the entire country, causing additional transportation costs of 1.00 to 2.00 u.a. per ton when moving the grain from the farm to the intervention agency. Thus, the total impact of lower intervention prices and fewer intervention points on the national average producer price is estimated to be 12.50 u.a. per ton.

Two previous studies in Germany have included grain price projectins for 1970, one by Plate and Woermann[1] and the other by the IFO Institute[2] in Munich. The national average price projections for the three major cereals in this study were within 2.50 u.a. of the estimates made by these German researchers.

APPENDIX TABLE 33.--Comparison of cereal price estimates for 1970 with results of other studies

(National average prices in units of account per ton)

	Wheat	Barley	Rye
This study	93.50	85.00	85.00
Plate-Woermann	92.50	82.50	82.50
IFO	94.50	85.50	---

Having determined the national average producer price for each of the cereals, the next step was to calculate a producer price for each region in Germany. This involved determining the relationship of the regional prices to the national average price in the 1965 period and then applying these relationships to the calculated average price for 1970. Since the national average price will decline from 1965 to 1970, this procedure results in a narrower absolute price difference between regions, but it does maintain the relative price differences. This step completed the preliminary estimate of regional average producer prices for Germany.

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[1]R. Plate and E. Woermann, "Landwirtschaft im Strukturwandel der Volkswirtschaft," Agrarwirtschaft, Sonderheft 14, 1962.

[2]IFO - Institut für Wirtschaftsforschung, "Thesen zur landfristigen Projektion des Bruttosozialprodukts, des Verbrauchs und der Erzeugung landwirtschaftliche Produkte in der Bundesrepublik Deutschland," 1965, (Unpublished).

For the Netherlands, the intervention prices under the EEC system are above the support prices under previous Dutch policies. Since the EEC intervention level is for sales by the local elevator, it is reasonable to assume that this agent will also take a portion of the increase in price. Thus, the projection of producer prices is made with the assumption that the producer price will retain the same percentage relationship to the intervention price as had existed in the most recent period. For wheat the producer was receiving, on the average, a price equal to the intervention price, so the new producer prices were assumed equal to the intervention price. For feeding barley and rye the producer prices were 94 and 97 percent of the intervention prices in the base period, respectively. Thus, the new intervention prices were multiplied by these factors to get the new producer prices. Malting barley prices have usually been above intervention levels, so this relationship was maintained in the projections. Since the Netherlands is treated as one region in our study, there was no need to determine prices for sub-regions within the country.

The projection procedure for Belgium-Luxembourg was the same as for the Netherlands. That is, the relationship between producer prices and intervention prices, rather than the absolute difference, was maintained. For wheat, the producer price equaled the intervention price, while barley and rye were slightly under the intervention levels and malting barley prices slightly above the intervention price.

In Italy, the producer price for wheat and barley has been above the policy prices in the past. For wheat, the projection procedure was the same as that used in other countries where the relationship between each regional average producer price and the corresponding intervention price was determined and that ratio applied to the new intervention price to determine the new producer price. However, for barley the Italian govenment had not established an intervention price in the past, although they did set a target price. In order to relate the farmer's price to a policy price, it was necessary to compute a target price for Italy for 1967/68 by relating it to the EEC intervention price in the same way that the target and intervention prices in Duisburg are related. The producer prices in each of the four regions of Italy were projected to maintain the past relationship between producer price and target price. Then the price for barley was decreased by 7.50 u.a. to take into account the reduced levies on imported barley granted to Italy for 1970, under the EEC decision of December 15, 1964.

Only the northern region of Italy produces enough corn for a market price to be listed in the statistical data. The producer price there has been above the target price for corn, so this relationship was maintained in 1970. The projected price was then reduced by 7.50 u.a. to allow for the lower import price on corn due to the special levies granted to Italy.

The estimation of cereal prices for France posed a special problem since the quantum taxes that were to be abolished accounted for a significant portion of the price prior to the EEC. For barley, the ratio of the producer price for each region to the intervention price in that region was calculated for 1965 and used to calculate the producer price for 1967/68. After this price was calculated, an amount equal to the average quantum tax in 1964/65 was added to the price to adjust for the elimination of the quantum. This procedure depends on the assumption that the entire amount of the quantum tax will go to the producer. Because the price was previously calculated with the tax explicitly taken from the farmer's returns, it seems reasonable that this will now be given to the farmer.

For wheat the size of the price increase due to increases in the intervention price and the removal of the quantum tax is much larger than for barley. The quantum tax alone was 20 percent of the farmer's receipts for deliveries above 7.5 tons. If the producer price was first adjusted to keep the same relation to intervention price as in the past and then the quantum tax was removed and this amount added to the producer's returns, the implied sales price of the local elevator would increase substantially. Since it is unlikely that there will be much increase in the demand for wheat and France is already a surplus producer of wheat in most years, it seems reasonable to assume that the price received by the storage agency when it sells the grain will remain the same as it was in the 1965 period. From this price the producer price in 1967/68 can be calculated by subtracting the margin of the storage agency and the other taxes which will continue to be charged. Thus, the new producer price is greater than the former price by the amount of the quantum tax and is approximately equal to the intervention price listed for France for 1967/68.

Because there is an intervention price for rye for only one market in France, it was not possible to follow the usual projection method. As a substitute measure, the price of rye in France was set equal to the price for barley since rye is used there as a feed grain. While rye is not an important product for French farmers, corn has been an important crop in the Southwest and is increasing in importance in the Paris Basin and in the Rhone River Valley. To project the 1967/68 prices for corn, the 1965 ratio of producer price to intervention price was calculated for each region and the intervention price for 1967/68 was multiplied by this ratio.

Transportation cost adjustment

One significant feature of the EEC is that products will move freely from one country to another. This means that where tariffs and other barriers formerly prevented flows, it will now be possible to move grains whenever the price in another region is enough higher to pay the moving costs. Because of this freedom of movement, it is necessary that all prices within the EEC be consistent with the internal transportation costs. No region can maintain an exceptionally high price for long without attracting grains from surrounding regions that will tend to reduce the higher price in the one region and raise the prices in the surrounding regions. Thus, we picture a system with regional prices related by the transportation costs.

In order to accurately project 1970 prices for the EEC it was necessary to adjust the prices estimated above, which are based on relationships existing in the formerly protected national markets. Several problems had to be surmounted before an approximation could be made to the adjustment necessary to account for grain movements. First, many transportation rates fluctuate widely during the year. This is especially true of barge rates. Since grain moves during most of the year, the decision was made to use the basic freight rates, realizing that in some cases the transportation costs would thus be underestimated.

Second, the rates are not uniform for a given distance, but vary depending on the origin and destination and the route followed. Again, this is more of a problem for barge movements, but also exists to a certain extent for train and truck movement. The direction of travel, is, of course, important for barge rates since upstream rates are higher than for downstream.

A third problem concerned the lack of recent data on the rates and other charges for moving the grain. By using data that was available and concentrating on the most important channels of grain movement, it was possible to construct a table of transport costs between regions of the EEC. Since the grain prices used are an average for a region, the transportation cost table was modified to allow for the possible costs of moving the grain from points within the region to the central location from which the basic transportation costs were figured. The unmodified transportation costs provided a maximum estimate of the adjustments in regional prices needed while the modified costs gave a minimum adjustment.

The first step in adjusting a regional grain price was to calculate the difference between the prices of each region and the regions adjoining it. If this difference was greater than the transportation costs between pairs of regions, the two prices were adjusted. The difference between the interregional price differential and the interregional transportation cost was divided by two and the result applied to each price in the appropriate direction. This process was continued until all interregional price differences were less than the interregional transportation costs.

A similar calculation was made using transportation costs augmented to consider the costs of assembling the grain within each region. This augmentation added the costs of railroad freight for the average distance travelled in bringing grain to the central point in the region, which was set at 125 kilometers for large regions and 80 kilometers for small ones.

The rates used were either French or German rates since they were the most recent data available. Previous information indicated that Italian and Dutch railroad rates are at about the same level as the French rates while Belgium-Luxembourg rates approximate the higher German rates. The table below shows the rates applied to the transportation costs for each region.

APPENDIX TABLE 34.--Augmentation rates for transportation costs

Large Regions	France - NC, NW & CM Italy - N & S	2.50 u.a. per ton
Small Regions	France - NE & SW Italy - C & I Netherlands	1.85 u.a. per ton
	Germany - all regions Belgium - Luxembourg	2.40 u.a. per ton

The actual computation of the augmented transportation cost between two regions included the cost between the two central points and the regional assembly cost listed above for each region. The comparison of interregional price differences with interregional transportation costs was repeated using the augmented figures to determine the minimum adjustment needed. In many cases where adjustment was indicated using the unaugmented transportation costs, the new costs showed the regional price differences to be acceptable without adjustment.

For all regions that had new prices calculated to correct for differences greater than transportation costs to another region, the average of the price with maximum adjustment and the price with minimum adjustment was used as the final price. It is possible that some cases may have resulted in final interregional price differences that were slightly

greater than the transportation costs between the regions, but the differences are small and the benefit gained from further adjustment would be slight.

Two different projections were made for each grain commodity for 1975, a high projection and a low one. The low projection assumes that the nominal price of the commodity would remain constant at the 1970 level, whereas the high assumption called for a 3 percent per year increase in the nominal price or approximately a constant real price. Since the special provisions for Italy allowing lower threshold prices for barley and corn expire in 1972, the 1975 Italian prices for these products under the low projection were increased 7.50 u.a. over the 1970 projected prices.

Grain Consuming Livestock

Hogs, broilers, and eggs present a problem for projecting prices since there is no intervention mechanism currently in the marketing regulations for these products. Support is based on a sluice-gate price system to insure that imports do not enter below a certain price, but this does not insure a given price within the EEC because the Community is self-sufficient, or nearly so, in all three of these products. It is more likely that in the next three to eight years the EEC will be faced with a surplus of these products and a low price rather than a high price and dependance upon imports.

The method chosen to project prices to 1970 assumes that prices will be related to commercial production costs for these products. For broilers this means complete specialization in factory type units and for eggs and pork a continued movement toward larger more efficient units.

Thus, we assume that the production pressures will result in prices that are near the minimum in relation to industry organization and production costs.

Since feed grains are important components of the costs of producing these products, our calculations of expected cost changes are based on the feed grain prices and expected levels of feed grain utilization. General production relationships were included to relate the feed grain costs to total production costs. For poultry products, these calculations required the following assumptions. First, the regional average feed grain utilization rate[3] in all areas of the EEC in 1975 will equal the corresponding 1960 rates in the leading poultry producing states in the United States. This implies that the total industry will be comparable to the more efficient units currently in operation in the leading European producing countries. For 1970, the utilization rates will be half-way between the current and 1975 rates. Second, the mix of feed grains used is assumed to remain constant throughout the period of the projections and the feed grain costs will represent the same proportion of total costs throughout. Third, because of a lack of technical data for some areas of the EEC, it is assumed that the feed rations and cost data reported for the Netherlands and Italy are representative of all of the EEC, at least for the commercially important segments of the production.

For projecting broiler prices, a feed grain utilization rate of 1.9 kilograms of feed grain per kilogram of poultry produced was used for

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[3]The feed grain utilization rate is similar to, but not identical with, a feed conversion ratio. The feed grain utilization rate relates the kilograms of feed grains needed to produce a kilogram of product, whereas a feed conversion ratio includes all feeds, not just the feed grains. The feed conversion ratio will never be smaller than the feed grain utilization rate and will usually be larger.

1970 and a ratio of 1.5 for 1975. The cost of the feed grain for poultry was calculated using the weighting factors given in the table below. Since feed grain costs are 36.5 percent of the total costs of producing broilers,[4] the total costs were computed using this factor.

APPENDIX TABLE 35.--Feed ration weights for calculating feed costs for broilers

Country	Wheat	Barley[a]	Corn
Germany	0.5	0.28	0.2
Italy	-	-	1.0
Netherlands France Belgium-Luxembourg	0.116	0.116	0.667

[a]Where the total weights do not sum to 1.0, the weight for barley includes a calculation for oats in the ration. Since no projections have been made for oats prices, the amount of oats in the rations is converted to barley cost equivalent using a conversion of costs of oats price = 0.95 barley price.

Egg production costs were calculated in a similar manner. Assumptions about the evolution of feeding technology and the applicability of Dutch and Italian feed data to all countries of the EEC similar to those for broilers were made for eggs. The feeding rations with the relative cost weights and the feed grain utilization rates used are given in the following tables. Using this data, the feed cost of producing a kilogram of eggs can be computed and the total cost derived by dividing by .55, the proportion of total costs attributable to feed grain costs. Thus, the production costs are calculated for each region and this cost is

[4]These cost relationships were obtained from farm records studied by the Landbouw-Economisch Instituut, The Hague, Netherlands, and from commercial broiler producers in Italy.

APPENDIX TABLE 36.--Feed ration weights for calculating feed costs for eggs

Country	Wheat	Barley	Corn
Germany	0.5	0.28	0.2
Italy	-	0.2	0.8
Netherlands France Belgium-Luxembourg	0.2	0.48	0.3

APPENDIX TABLE 37.--Kilograms of feed grain reguired per kilogram of eggs

Country	1965	1970	1975
Netherlands Germany Belgium-Luxembourg	3.25	3.00	2.75
Italy France	4.25	3.50	2.75

used as the basis for estimating 1970 and 1975 prices.

The price estimating procedure for hogs uses the same general assumptions about the application of feeding rations and cost information data from the Netherlands and Italy to the other countries of the EEC as were used in the case of poultry products. An additional assumption concerning the trend in feed grain utilization rates was, that the rates in Italy would remain higher than in other parts of the EEC, even through 1975. This is due to the Italian preference for heavier hogs which may decrease in the future, but not reach the level found in other parts of the EEC. The feeding rations and feed grain utilization rates used in projecting hog costs for 1970 and 1975 are given in the following tables. Feed grain costs represent 55 percent of the total production costs.

APPENDIX TABLE 38.--Feed ration weights for calculating feed costs for hogs

Country	Wheat	Rye	Barley[a]	Corn
Germany	0.1	0.25	0.62	--
Italy	0.19	--	0.2	0.61
Netherlands France Belgium-Luxembourg	0.2	0.2	0.38	0.2

[a]Where the total weights do not sum to 1.0, the weight for barley includes a calculation for oats in the ration. Since no projections have been made for oats prices, the amount of oats in the rations is converted to barley cost equivalent using a conversion of costs of oats price = 0.95 barley price.

APPENDIX TABLE 39.--Kilograms of feed grain required per kilogram of hog

	1970	1975
Italy	4.0	3.8
Other EEC	3.8	3.6

Beef, Veal, and Milk

Because of the supply and demand situations likely to evolve in milk markets and in the beef and veal markets, the price projection procedures were different for these products. It is anticipated that the prices of beef and veal will increase rather rapidly during the period of the projections because of the expected increase in the demand for beef relative to the probable supply. For this reason a high and a low price were projected both for 1970 and 1975 for these commodities. The high projection for both 1970 and 1975 begins with 1967 prices and increases by 5 percent compounded annually. The minimum estimate for 1970 is equal to the 1967 producer level price, which was calculated from the past relationship between producer prices and policy prices in the various regions and applied to the guide price for 1967. The minimum estimate for 1975 is equal to the 1970 estimate increased by 1 percent per year. National average prices projected for beef and veal were regionalized using regional price relationships from the 1964 period. This is the same period used by the EEC for establishing weights to be applied to each quality grade when calculating a national average price.

For milk, on the other hand, it is expected that the production will exceed demand at the guide price, so the producer price will equal the guide price, and this price will be maintained only because of the intervention mechanism in the milk product market.