

RESEARCH REPORT NO. 4

CHANGES IN REGIONAL GRAIN AND LIVESTOCK PRICES under the European Economic Community Policies

Donald J. Epp



INSTITUTE OF INTERNATIONAL AGRICULTURE Food · Nutrition · Rural Development MICHIGAN STATE UNIVERSITY





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Foreword

This report is one of a series of five. The other reports are:

The Grain-Livestock Economy of West Germany with Projections to 1970 and 1975 by George E. Rossmiller

The Grain-Livestock Economy of Italy with Projections to 1970 and 1975 by Fred A. Mangum, Jr.

The Grain-Livestock Economy of France with Projections to 1970 and 1975 by Michel J. Petit and Jean-Baptiste Viallon

The Grain-Livestock Economy and Trade Patterns of the European Economic Community with Projections to 1970 and 1975 by Vernon L. Sorenson and Dale E. Hathaway

This research was carried out in cooperation with the Economic Research Service and the Foreign Agriculture Service, U.S. Department of Agriculture. The views expressed in this study are the author's and do not necessarily reflect those of the USDA.

The studies of the grain-livestock economy of West Germany, Italy, and France and the study of regional grain livestock prices were undertaken in cooperation with the following research institutes respectively:

Institut für Landwirtschaftliche Betriebslehre, Göttingen, Germany, under the direction of Professor E. Woermann

Istituto di Economia e Politica Agraria della Universita di Perugia, Italy and Istituto Nazionale di Economia Agraria, Rome, Italy, under direction of G. Guerrieri and Professor M. Bandini, respectively

Institut National de la Recherche Agronomique Paris, France, under the direction of Professor D. Bergman

Institut für Landwirtschaftliche Marktlehre, Göttingen, Germany, under the direction of Professor A. Hanau

Direct supervision of each subproject was with the listed author(s) and overall leadership of the project was in the hands of Dr. Dale E. Hathaway and Dr. Vernon L. Sorenson at Michigan State University.

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. The general purpose of this study is to provide a better understanding of the relationships between agricultural policies and agricultural commodity prices in the EEC.

One specific 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. I wish to acknowledge the assistance provided by several individuals in the Economic Research Service and the Foreign Agricultural Service, USDA, and my colleagues who worked on other phases of the total project. A large number of people in Europe provided information and advice -- public officials, university research people, grain company officials, representatives of U.S. marketing organizations, and the Office of the Agricultural Attache at the American Embassies in the EEC member countries. Dr. Friedrich-Christoph Rustemeyer, Institut für Landwirtschaftliche Marktlehre, Göttingen, Germany, Dr. Michel Petit, Institut National de la Recherche Agronomique, Paris, and Dr. Giudio Adilardik Istituto di Economia e Politica Agraria, Rome, helped with locating and analyzing data and in interviewing people in their countries. Professor Arthur Hanau in Göttingen and Professor Mario Bandini in Rome were especially helpful in arranging contacts with other researchers in Europe.

Even though a great many people were contacted in the course of this study, I did not always heed their advice. Therefore, I alone am responsible for the contents of this document.

Pennsylvania State University June, 1968

Donald J. Epp

Chapter 1

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 nonmembers 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.

While all areas of economic activity have caused adjustment problems, one of the most troublesome has been devising a common policy for agriculture. The American government has also maintained a close watch on developments in EEC agricultural policy, since the formation of the Common Market unites five of the top ten foreign cash markets for U.S. agricultural products² 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.

The Study of Prices and Marketing

This report gives the results of the study concerned with changes in the prices and marketing of grains and livestock in the EEC. The specific commodities studies 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 consid-

^IBela Balassa. The Theory of Economic Integration, (Homewood, Illinois: Richard D. Irwin, Inc., 1961), p. 2.

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

ers any changes in the transportation system and how such changes will affect the flow of agricultural products in the EEC.

Coordination with the other subprojects 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 subprojects. 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 -- both the organizations that handle the products and the transportation flows are included. Chapter 3 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 4 and Appendix A, while the final chapter includes observations on the impact of the new policies on the EEC.



Chapter 2

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.²

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 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 North.

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 dif-

¹See the reports of the subprojects covering the Northern EEC, the Southern EEC, and France. They are Report Numbers 1 and 2 in this series.

²The marketing system for livestock products is extensively covered in available literature and is not repeated in this report. Readers interested in detailed discussions of these markets are referred to the bibliography of this report, especially the publications of the OEEC and the OECD.





ferences 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.³

The Marketing of Grain

In this section the marketing channels for grains are described as well as the movements of grains between regions in the EEC. The first 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 boundaries, 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 interregional 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 sizable 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 during the early 1960's. (See Table 1) The nearly 3.0 million tons of wheat exported by France and the 2.3 million tons of feed grains

³For a more detailed analysis see Vernon L. Sorenson and Dale E. Hathaway, The Grain-Livestock Economy and Trade Patterns of the European Economic Community with Projections to 1970 and 1975, Michigan State University Mimeo, 1967. It will appear as Report Number 5 in this series.

			(1000 tons)		
	France	Germany	Italy	Netherlands	Belgium-Lux,
Wheat					
Production	12714	4883	8743	615	886
Imports	685	1685	593	703 ²	512 ²
% of Production	5.4%	34.5%	6.8%	I	1
Exports	2899	06	32	124	205
% of Production	22.8%	1.8%	0.4%	20.2%	23.1%
Feed Grains (including Rye)			37 a 197 a 1		
Production	9612	5263	3900	543	528
Imports	617	3823	2944	3161 ²	1687 ²
% of Production	6.4%	72.6%	75.5%	ł	ł
Exports	2373	216	210	262	22
% of Production	24.5%	4.1%	5.4%	48.2%	4.2%
¹ United Nations, Food and Statistics, 1964-1965.	d Agriculture Organ	nization, Production	Yearbook, 1963, 196	4, and 1965, and <i>Worl</i>	d Grain Trade
^c Imports include an unsp	ecified amount that	t is transshipped to	other countries.		

accounted for about 85 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 largest average import of both wheat and feed grains; but Italy, The Netherlands and Belgium-Luxembourg all import from 1.5 to 3.0 million tons of feed grains per year. (See Table 1) These imports equal three-fourths of the annual production in Germany and Italy.

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 EEC area. The data in Tables 2 and 3 show 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, 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.

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

Table 2. Percentag	e of Wheat Im	ported by EEC	Member Countrie	es from Sele	cted Origi	ins, 1955-	-57, 1959	-61 and 196:	3 - 65 ¹
Country of Destination	Total Imports (1000 tons)	Imports from U.S. (% of Total)	Impor from ((1000 tons)	ts EEC (% of Total)	France	Percenta Germany	ge of EEC Italy N	. Imports fr	om BelLux.
France 1955-57 1959-61 1963-65	819 450 685	35.6 15.8 33.9	48 14 3	6.2 2.6 0.4		4.2	83.3 100.0	14.6 66.7	33.3
Germany 1955-57 1959-61 1963-65	2768 2371 1685	26.3 13.6 21.8	440 457 192	16.4 19.5 11.4	94.3 93.4 82.8		5.2 3.7	0.5 2.6 2.6	- 1.8 14.6
Italy 1955-57 1959-61 1963-65	641 1029 593	14.9 30.2 9.5	4 - 193	0.6 32.6	100.0 - 100.0				
Netherlands 1955-57 1959-61 1963-65	798 788 703	52.2 33.2 52.8	68 103 98	8.7 12.7 13.3	97.1 30.1 98.0	20.4			1.5 48.5 2.0
Belgium-Luxembourg 1955-57 1959-61 1963-65	463 450 512	28.5 20.8 12.6	7 4 103	1.4 0.9 20.3	25.0 99.0	28.6 25.0		71.4 50.0 1.0	
¹ United Nation Research Branch, Fc Agriculture, Washin	s, C <i>ommodity</i> reign Developn gton, D.C.	Trade Statisti ment and Trade	cs, various ye Division, Eco	arly volumes nomic Resear	; and Inte ch Service	ernationa e, U.S. De	l Monetar epartment	y and Trade : of	

Table 3. Percentag	e of Feed Gra	ins Imported b	y EEC Member C	ountries fro	n Selected	1 Origins,	1955-57,	1959 - 61 an	d 1963-65 ¹
Country of Destination	Total Imports (1000 tons)	Imports from U.S. (% of Total)	Impor from (1000 tons)	ts EEC (% of Total)	France	Percentac Germany	e of EEC Italy Ne	Imports fro therlands	m BelLux.
France 1955-57 1959-61 1963-65	434 288 617	29.1 45.4 59.3	01 - 99	1.4 15.2			0*66	60.0 1.0	40.0
Germany 1955–57 1959–61 1963–65	2346 2774 3823	20.5 39.3 39.6	202 256 1186	8.3 9.4 30.1	77.7 65.6 60.8		4.5 0.4 20.6	17.8 34.0 16.9	2:
Italy 1955-57 1959-61 1963-65	636 2144 2944	7.1 6.3 31.4	17 281 139	3.0 3.0 3.0	76.5 78.6 100.0	17.6 20.6		2 . 9	
Netherlands 1955–57 1959–61 1963–65	2017 2736 3161	55.9 67.1 76.7	137 120 95	6.6 3.1	64.2 44.2 85.3	9.5 40.0 1.1			26.2 14.2 11.6
Belgium-Luxembourg 1955-57 1959-61 1963-65	1384 1438 1687	39.2 54.8 60.2	295 194 253	20.8 14.0 14.9	67.1 57.7 83.0	8.8 16.5	2	23.4 24.7 16.6	
lunited Nation Research Branch, Fo Washington, D.C.	s, Commodity 1 reign Developn	<i>rade Statisti</i> ment and Trade	cs, various ye. Division, Eco	arly volumes; nomic Researc	, and Inte ch Service	ernational •, U.S. De	Monetary	and Trade of Agricult	ure,

Table 4. German Grai	n Imports,	by Country of Origin a	nd Mode of Transp	ortation, 196	2-19641
		Mode of Transp	ortation		
Country	Ship ('62-'6	Barge 3) ('62-'63)	Rail	Truck	Total ('62-'63)
Netherlands (a, (b)	20.5	1651.4 95.2	4.8	63.9 3.7	1733.7
(c) Belgium-Luxembourg (a)	d. 7.2	/3./ 154.2 80.5	2.2 0.0	65.5 6.1 3.5	172.2 172.2
	.2	6.9	4.1	6.3	2.6
France (a) (b) (c)	124.2 19.7 2.9	378.1 60.1 16.9	112.1 17.8 50.6	26.9 4.3 27.6	629.0 100 9.4
Italy (a) (b) (c) (c)	.6 1.8 2.9		32.2 ² 98.2 14.6		32.9 100 .5
EEC Total (a) (b) (c)	152.4 5.9 3.6	2183.7 85.0 97.4	189.3 7.4 85.5	96.9 3.8 99.0	2567.8 100 38.2
0ther (a) (b) (c)	4073.5 98.0 96.4	57.2 1.4 2.6	32.1 .8 14.5	212	4157.1 100 61.8
Total (a) (b) (c)	4225.8 62.8 100	2240.9 33.3 100	221.4 3.3 100	97.6 1.5 100	6724.8 100 100
lstatistiches Bur 21962-63 only. (a) Average imports (b) Percentage of to (c) Percentage of to	desamt, Verk (1000 tons) tal imports tal imports	<pre>ehr (Fachserie II), W of a country arriving brought by a mode of</pre>	iesbaden, 1965. by each mode of transportation de:	transportatio stined for ea	n ch country

comes from North America and only very small amounts from EEC member countries. (See Table 5) France has recently increased sea shipments but these still amount to less than 10 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-Rhur 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%), and 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 with The Netherlands providing 73 percent and France 17 percent. (See Table 7) The Rhein-Rhur area is the major grain deficit area and is easily accessible by waterway. Therefore, it is the destination of most of the barge imports. While 57 percent of the barge imports head for the Rhein-Rhur area, another 24 percent 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

Region of	1 1962		1963	
Örigin	1000 tons	%	1000 tons	%
Netherlands	21.2	0.4	19.7	0.6
Belgium-Luxembourg	5.1	0.1	9.3	0.3
France Near English Channel Near Atlantic Other	24.1 4.7 28.8	0.5 0.1 <u></u> 0.6	105.1 114.2 <u>.2</u> 219.5	3.1 3.3 6.4
Canada Near Atlantic Near Great Lakes Near Pacific	665.5 14.5 <u>254.9</u> 934.9	13.2 .3 <u>5.1</u> 18.6	796.4 19.5 <u>120.4</u> 936.3	23.3 .6 <u>3.5</u> 27.4
United States Near Great Lakes Near Atlantic Near Gulf of Mexico Near Pacific	566.5 116.6 737.1 <u>276.1</u> 1696.3	11.3 2.3 14.6 <u>5.6</u> 33.7	188.3 259.3 498.3 <u>94.6</u> 1040.5	5.5 7.6 14.6 <u>2.8</u> 30.5
All Other	2347.7	46.6	1192.3	34.9
Total	5034.0	100.0	3417.6	100.0

Imports of Grain by Shin to Germany From Selected Regions 1962 and

Table 5

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 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 sizable quantities of corn to France, although this is probably reexported corn from third countries since very little domestically-produced corn enters the 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

Table	6. Flows	of Grai	n from G	erman No	rth Sea	Ports ¹ t	o the In	terior ²		
		Barg	e				Rail	1		
Region	196		196:	_	196		196	3	196	
	1000 t	%	1000 t	8	1000 t	8	1000 t	89	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 - Ruhr 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	17.71	77.3	4.6
Saarland	1	1	1		r.ii	1.4	2.4	0.3	0.7	0.0
Other Areas ³ 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	1186.2	100	807.6	100	725.9	100	1698.7	100
¹ Hamburg, Bremen ² Statistisches B ³ East Germany an	l (includi Sundesamt, Id West Ben	ng Unter Verkehr rlin.	weser), (Fachsei	and Emde rie H).	÷					
										Ĩ

		Table 7	 Movement Germany, 	of Grain by Average of 1	Barge from F 962 and 1963	preign Reg	ions to Rec	țions in		
				France						
Destination	_	Neth.	Near Channel	Strasbourg	Northeast	Interior	Bel.Lux	S.E. Europe	0ther	Total
North-West	(a)	55.7 64.5	7.4 8.6	0.5 6	3.3 3.3	13.5	2.2	5.0 8	8°0	86.4 100
	0	3.4	4.9	2	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	I	23.7	1284.9
	<u> </u>	58.4	10.3 88.3	10.9	57.5	5.3 65.3	51.1		76.0	57.3
Rhein-Main	(a)	178.7	4.4	34.7	6.1	7.6	23.3	I	3.4	257.9
		10.8	2.9	13.5 33.6	2.4	2.9 10.4	9.0 15.1		1.3	11.5
South-West	(a)	414.6	3.5	47.5	<u>7</u> .6	7.9	44.4	1	3.3	529.1
	<u> </u>	/8.4 25.1	2.3	46.0	15.8	6°01	8.4 28.7		10.6	23.6
Bayern	(a)	39.1	0.5	9.4	Ľ.	2.1	5.3	21.0	ł	78.0
	<u>)</u>	2.4	•	1.2 1.6	1.5	2.9	3.4	80.8		3.5
Saarland	(a)		1.2	1	2.3	1.0	0.2	ł		4.6
21	(c)		26.1 .8		50.0 4.8	21.7	4.3 .1			100 •2
Ge rmany	(a)	1651.5	149.8	103.2	48.0	72.8	154.2	26.0	31.2	2240.9
	(c)	100	100	4.b 100	100	3.2 100	100	100	100	100
¹ Stati: ² Each 1 (a) Amount	stich figur t of	es Bunde e is a s grain (1	esamt, <i>Binne</i> separate ave 1000 tons)	unschiffahrt (rage and tota	Fachserie H. Is may not e	, Verkehr, l equal the su	Reihe 1). um of their	components.		
(b) Percer (c) Percer	ntage ntage	e of tota	al grain shi al grain shi	ipped to the lipped from the	isted destine is listed source	nation. rce.				

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 movement 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 the ports of Genoa and La Spezia. Genoa, Ravenna and Venice handle the largest portion of the grain imports. Genoa is the primary supply port for the upper regions of the Po Valley with Venice and Ravenna generally supplying the lower valley. About 99 percent of the grain leaves Venice and Ravenna by truck.⁴ Genoa, on

⁴Interview with Romano Graziani, U.S. Feed Grains Council, Rome, January 9, 1966.

		(1000 tons)	TOTAL
Region of	Plata Are	a of Origin North America ²	- (All Countries)
North	1,349	1,058	2,958
	45.6%	35.8%	100%
Center	118	136	386
	30.6%	35.2%	100%
South	259	4	348
	74.4%	1.1%	100%
Islands	77	1	112
	68.8%	.9%	100%
TOTAL	1,803	1,199	3,804
	47.4%	31.5%	100%
¹ Graziani, ed at the U.S. ² Mainly U.S	Romano, U.S. Fee Trade Center, Mil S.	d Grains Council, Rome, an, April 20, 1965, Tab	from a paper present- le 2.

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 grow mostly durum, there is some shipment of wheat and flour within the country. Forty percent of the durum flour produced in the South and the Islands goes to the North and 20 percent to the Center.⁵ 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

⁵Interview with Dr. Portesi, National Association of Mills and Pasta factories, Rome, May 27, 1966.

United States. Belgium-Luxembourg also imports over half of its feed grains and 12 percent of its wheat from the United States, and Canada supplies significant portions of the wheat imports of the Benelux countries as well as some feeding 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 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 Niedersachsen 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 explanation 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 homegrown 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, 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.

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 occur-

Table 5	9. Sales	of Grain 1955-	as a Percen -1956 to 19	tage of Pr 64-1965	roduction .	in Germany				
	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 ₂ Grain ²	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	7.8	9.3	10.0	11.7	10.7
Feed and Industrial Grain ³	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
lBundesministeriu ² Wheat and rye. ³ Barley, oats, mu	um für Eri aize and :	nährung, Li sorghum.	andwirtscha	ift und For	rsten, S <i>ta</i>	tistisches	.Tahrbuch.			

Table 10. Percent 1959-60	of To - 196	tal Grain 4-65	Producti	on Market	ed By Reg	ions in G	ermany ¹ ,
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
Bavern	(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

¹Bundesministerium für Ernährung, Landwirtschaft und Forsten, S*tatistis*che Monatsberichte, various issues.

(a) Wheat

- (b) Rye
- (c) Feed Grains and Industrial Grains (primarily barley)

	2 WF	neat	I F	ye	Feed and Indu	ustrial Grains
	19602	19653	19602	19653	19602	1965 ³
July	3.5	3.9	7.5	9.8	11.8	13.4
Augus t	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
Apri 1	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
¹ Bundesmini ches Jahrbuch an ² 1960 is th ³ 1965 is th	isterium f nd <i>Statisa</i> ne average	für Ernähr tische Mon e of crop	ung, Lanc atsberich years 195 years 196	wirtscha te, vari 9-60 - 1	aft und Forste ous issues. 1961-62.	en, Statistis-

ring 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.

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 the 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.

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

By Region	ns in	Germany,	1959-60	- 1964-65			
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

'Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistiche Monatsberichte, various issues.

(a) Wheat

(b) Rye

(c) Feed Grains and Industrial Grains (primarily barley)



Table 12 Bourse	nt of Cu	dowing min	T vd bose	D to some	i i nom	nucumo o	DEE_EE +0	106A 65		
anie 13. rerce	11 01 aL	am rurch	aseu by I	d in sarik	nyer III a	ermany,	01 00-006	. 00-+061		
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	100	100	100	100	100	100	100	100	100
¹ Bundesministerium für	· Ernähru	ng, Landw	irtschaft	und Fors	ten, Stat	istische	s Jahrbuch			
Cooperative	19	60	196	54'						
--------------	--------	---------	--------	---------						
Region	Number	Percent	Number	Percent						
Hannover	610	5.4	546	5.2						
Kiel	431	3.8	396	3.8						
01denberg	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	10,538	100						

chart is most important in Schleswig-Holstein, Niedersachsen, 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.

		101 - COMPANY - COMPANY COMPANY COMPANY COMPANY - COMPANY COMPANY COMPANY
Year	Number of Coops	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

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 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.

Table 16.	Number of Flour M Grain Milled ¹	ills i	n Germany by	Size Wit	n Proportion of th
	Dai Capac	y ty	Numi M	per of ills	% of Total Grain Mille
Small	5	tons	6	,062	10.4%
Medium	5-80	tons	1	,045	35.5%
Large	over 80	tons		56	54.1%

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 Ruhr, 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 alleviate this problem, a law was passed in 1957 which requires government permission to build new facilities or expand 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

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Table 1	17. Sti	ructure o	f the Milling]	Industry in	Germany, 196	50 and	1964	
		Se	ptember 1960			Septe	mber 1964	
Number of workers		irms	Labor Force	Sales	Firms		Labor Force	Sales
per firm	No.	%	%	%	No.	%	%	%
1 - 9	142	35.6	3.8	2.5	111 3	32.5	3.3	2.4
10 - 49	177	44.4	25.3	20.9	160 4	16.8	>17.3 ²	> 14.7 ²
50 - 199	64	16.0	>16.3 ²	> 15.8 ²	56 1	16.4	33.9	37.2
200 and more	16	4.0	> 30 . 6 ²	> 36.4 ²	15	4.4	>28.3 ²	> 31 . 7 ²
Total	399	100	100 (=15 , 500)	100 (=198.2) Mill.DM	342 10	g	100 (=14 ,994)	100 (=228.0) Mi11.DM
¹ Statistische: D, Industrie und Hi für Ernährung, Land ² Exact portion	s Bundes andwerk dwirtsch n not pu	samt, <i>Bet</i> ; Reihe 4 haft und ublished	riebe, Beschäfr , Sonderbeiträ Forsten, S <i>tati</i> to avoid revea	tigte and Um ge zur Indus stickes Jahn 1 ing positic	satz nach Cr triestatisti buch. n of indivic	tösser ik,) a dual 1	<i>le Lassen</i> . (l ind Bundesmii irms.	Fachserie nisterium

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 the study, 1959-1965. (See Table 18) The importance of this industry varies for different grains, currently being most important for corn and barley. During the past ten years the amount of wheat used in mixed feeds has fallen from 22.6 percent of the grain in feeds to only 8.8 percent. (See Table 19) Barley has also decreased in importance, from 35.5 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 mills are located in the Hamburg and Schleswig-Holstein area, the Bremen area, around the Ruhr 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 byproducts, and are near major livestock feeding areas. There are, of course,

Table 18.	Production of Mixe	d Feed in Germany, 1952-	53 to 1964-65 ¹
		Production of Mixed Feed	1
Crop Year	1000 G E ²	in % of Total Feed	in % 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 ³	13.1 ³	31.9 ³

¹Beckmann, R., "Intensive Tierhaltung erfordert Mischfutter," Kraftfutter, Vol. 49 (1966), p. 20. For these figures also compare Bundesministerium für Ernährung, Landwirtschaft und Forsten, Unterlagen zur Futterwirtschaft. ²G E = Grain unit. ³Preliminary.

Table 19. The Composition of Germany, 1955-56, (Percent e	the Grain Component 1960-61 and 1964-65 each grain is of tota	; of Mixed Feeds	s Produced in
	1955-56	1960-61	1964-65
Wheat	22.6	20.6	8.8
Rye	2.4	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 percent of total mixed feed production	n 39.8	43.9	37.6
¹ Bundesministerium für E	Ernährung, Landwirtsc	haft und Forst	en. Statistis-

ches Jahrbuch, various issues.

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.

During the period of this study, the relative proportions of the mixed feed output for different regions has remained fairly stable (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





Table 20.	Production o tion in Germa	f Mixed Feed ny, 1959-60 to	By Regions and Po 1964-651	ercent of Tot	al Produc-
		1000 (Per	tons cent)		
Crop Year	Schleswig- Holstein	Hamburg	Niedersachsen	Bremen	Nordrhein- Westfalen
1959-60	598.3	326.7	542.9	140.6	1342.8
1960-61	(16.5) 609.7 (17.0)	(9.0) 346.6 (9.7)	(14.9) 515.5 (14.4)	(3.9) 138.7 (3.9)	(36.9) 1250.2 (35.0)
1961-62	775.3	408.6	679.3	181.7	1634.7
1962-63	853.3	422.8	818.1	190.0	1724.9
1963-64	843.6	453.2	799.9	200.9	1746.1
1964-65	957.7 (15.7)	494.6 (8.1)	930.6 (15.3)	204.7 (3.4)	2105.3 (34.6)
Chan Yoan	Hosson	Rheinland-	Baden	Payana	West 2
1050_60		105.0	227 0	251 9	2622.0
1939-00	(1.5)	(2.9)	(6.5)	(6.9)	(100.0)
1960-61	54.4	113.1	266.4	237.3	3576.1
1961-62	83.2	140.3	349.2	300.4	4604.5
1962-63	85.5	168.2	360.4	343.8	5015.6
1963-64	88.5	170.8	371.4	403.4	5128.4
1964-65	100.0 (1.7)	231.8 (3.8)	482.9 (7.9)	530.2 (8.7)	6090.9 (100.0)
¹ Beck ter, Vol.	mann, R., "Int 49, (1966), p	ensive Tierhal . 20.	tung erfordert	Mischfutter,'	Kraftfut-
[^] Incl	uding Saarland	and West Berl	in.		

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 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 food. (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

Table 21.	Mixed Feed Produc Germany, 1961-62	ction and Consumm	tion Regional	Shares in Percent'
Regi	on	Product	ion:	Consumption
Schleswig-	Holstein	16.8	3	20.7
Hamburg		8.9)	0.4
Niedersach	sen ²	18.7	1	27.1
Nordrhein-	Westfalen	35.5	5	24.3
Hessen		1.8	3	5.7
Rheinland-	Pfalz	3.1		3.3
Saarland		0.9)	0.6
Baden-Würt	temberg	7.6	i	8.1
Bayern		6.5	;	9.6
Berlin		0.2	?	0.2
Germany		100		100
-Incl	uding Bremen.			
Table 22.	Average Amounts' Hens By Regions of	of Mixed Feeds Fe of Germany, 1963 ²	d to Dairy Co	ws, Hogs and Laying
	(kilograms per a	animal or bird per	production p	eriod)
Regi	on	Dairy Cows	Hogs	Laying Hens
Schleswig-	Holstein		220	
Niedersach	sen	270	67	40
Nordrhein-	Westfalen	390	64	38
Hessen		240	34	26
Rheinland-	Pfalz	100	30	27
Baden-Würt	temberg	110	29	27
Bayern		90	26	13
Germany		195	66	30
¹ Kilo ² Beck ter, Vol.	grams per animal o mann, R., "Intens 49, (1966).	or bird per produc ive Tierhaltung e	tion period. rfordert Misc	hfutter," Kraftfut-

udu t	n Germany, 1960	and 1964 ¹	
Morkers Firms Labor Sales Mo. %	Sep.	tember 1964	
No. %	Sales Firms	Labor Force	Sales
173 52.7 7.7 3.7 105 32.0 23.9 19.3 41 12.5 45.0 48.5 9 2.7 23.5 28.5 328 100 100 (=97.9) 328 100 (=9,700) (=97.9) sches Bundesamt, Betriebe Beschäftigte und 110.0M	% No. %	%	%
105 32.0 23.9 19.3 41 12.5 45.0 48.5 9 2.7 23.5 28.5 328 100 100 100 328 100 100 100 328 100 100 100 schnes Bundesamt, Betriebe Beschäftigte und mill.DM	3.7 163 43.1	5.5	2.7
41 12.5 45.0 48.5 9 2.7 23.5 28.5 328 100 100 100 328 100 100 (=97.9) Sches Bundesamt, Betriebe Beschäftigte und Mill.DM	19.3 151 39.9	25.8	16.7
9 2.7 23.5 28.5 328 100 100 100 328 100 100 (=9,700) 328 8.5 (=9,700) (=97.9) Sches Bundesamt, Betriebe Beschäftigte und und Handwerk; Reihe 4, Sonderbeitrage zur I 100	48.5 53 14.0	42.4	49.9
328 100 100 100 328 100 (=9,700) (=97,9) (=1,10) (=9,700) (=97,9) sches Bundesamt, Betriebe Beschäftigte und und Handwerk; Reihe 4, Sonderbeitrage zur I	28.5 11 2.9	26.3	30.7
sches Bundesamt, Betriebe Beschäftigte und und Handwerk; Reihe 4. Sonderbeitrage zur I	100 378 100 (=97.9) (=12.42: Mill.DM		00 =205.9) Hill.DM
nährung, Landwirtschaft und Forsten, S <i>tatis</i>	te und Umsatz nach Grössev e zur Industrie statistik Statistisches Jahnbuch.	iklassen. (F), und Bundes	achserie minis-

Table 2	24. Beer Out	tput of Br	eweries ^l b	y Regions in	n Germany, 1961	and 1964 ²		
			1961				1964	
Region	Number of	Total		Brewery	Number of	Total		Per Brewerv
	Breweries	1000h1	%	1000h1	Breweries	10001	%	1000h1
Schleswig-Holstein	6	491	6*0	54.5	8	605	0.8	75.6
Hamburg	9	1,648	2.8	274.7	9	2,018	2.8	336.4
Niedersachsen	40	3,142	5.4	78.5	39	3 , 974	5.5	101.9
Bremen	7	1,356	2.3	193.8	7	1 ,549	2.1	221.2
Nordrhein-Westfalen	154	15,479	26.6	100.5	151	19,672	27.3	130.3
Hessen	59	4,017	6.9	68.1	55	5,457	7.6	99.2
Rheinland-Pfalz	51	3,416	5.9	67.0	48	4 ,203	5.8	87.6
Baden-Württemberg	315	8,204	14.1	26.0	307	10,181	14.1	33.2
Bayern	1,856	17,405	30.0	9.4	1,676	20,844	28.9	12.4
Saarland	12	1,200	2.1	100.0	12	1,455	2.0	121.3
Berlin	13	1,754	3.0	134.9	14	2,223	3.1	158.8
Germany	2,522	58,112	100	23.0	2,323	72,181	100	31.1
¹ Tax paying indust ² Statistisches Bun Verbrauchssteuer, II. E	rial firms. desamt, Bhauw Biersteuer),	virtschaft 1961 and	. (Fachse 1964.	rie, Finanze	en und Steuern,	Reihe 8,		



			Jsed on the Far	m	
Region	Production	Seed	Animal Feed	Human Food	Sold
	(1000 Tons)		(Percent)		
Piemonte Valle d'Aosta Lombardia Trentino Veneto Friuli Liguria Emilia	556.3 .9 988.6 30.1 1011.8 342.0 11.9 119.4	0.7 0.6 2.0 .5 .3 2.5 .5	58.2 55.5 67.2 47.8 47.1 48.2 81.5 94.6	6.5 22.2 6.9 28.9 8.5 9.3 5.0 3.9	34.6 22.2 25.3 21.6 43.9 42.2 10.9 .9
North	3061.0	.6	57.8	7.7	34.0
Toscana Umbria Marche Lazio Abruzzi	107.5 40.0 132.6 137.1 148.8	2.1 2.2 1.8 2.8 2.6	83.7 86.2 85.1 73.9 62.2	4.7 4.5 3.2 2.8 3.8	9.5 7.0 9.8 20.6 31.5
Center	566.0	2.4	76.3	3.6	17.9
Campania Puglia Basilicata Calabria	199.1 36.0 28.4 31.5	3.0 3.1 3.9 4.1	69.3 38.1 64.1 68.3	0.5 2.1 1.0	27.2 58.9 29.9 27.0
South	295.0	3.2	64.9	.6	31.3
Sicilia Sardegna	3.5 3.0	5.7	80.0 53.3		17.1 43.3
Islands	6.5	3.1	67.7		29.2
Italy	3928.7	1.0	61.0	6.6	31.5

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 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

		Used on the Farm	n	
Region	Production	Seed	Animal	Sold
	(1000 tons)	(Per	rcent)	
Piemonte	9.4	8.5	91.5	
Valle d'Aosta	.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

Table 26. The Use of Domestically Produced Barley in the Regions of Italy,

produce. Figure 7 shows that most wheat is marketed through local merchants with another important, though smaller, part marketed through the Federconsorzi.⁶ 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 this delivery requirement has been abolished, the Federconsorzi maintains about the same proportion of the market.

⁶The Federconsorzi is the agency designated by the Italian government to administer the agricultural commodity support programs.

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 principal 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 Forli. About 96 bercent of the corn and barley that is imported eventually goes into mixed feeds for livestock⁷ 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 in-

¹Instituto 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.

dustrial 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.

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, barley and corn, 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. This is probably due to decreased human consumption and increased feed uses.

Table 27.	Percent of 1962-631	Grain Production	Sold in France,	1950-51, 1960-61 and
		1950-51	1960-61	1962-63
Wheat		70.0	70.0	72.5
Rye		28.0	16.0	14.5
Barley		26.0	54.0	48.0
Corn		3.2	50.0	49.0

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 Southeast and Southwest regions use more of the production on the farms as feed for livestock. (See Table 28)

The marketing channels for wheat are diagrammed 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 handled. About 75 percent of all the grains 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



Table 28. Production and Off-Farm Sales ("collecte") of Corn in Certain Departments1

	(1000 metric	tons)		
	1	Production		Colle	ecte
	1963-1964	1964-1965	1965-1966	1963-1964	1964-1965
Paris Basin % of Production	921.9	496.4	921.6	622.1 67.5	472.1 95.0
South-East % of Production	236.8	125.3	244.2	117.6 50.0	93.6 75.0
South-West % of Production	1973.9	1072.2	1672.9	1003.2 51.0	559.4 52.0

¹Butterwick, M. W. 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 local coons. 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 coon manager may, if he desires, sell directly to the mills and private exporters. Some even do their own exporting, although this is unusual. 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.⁸

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 cron and the markets abroad. (See Table 29) Rye is not an important export cron 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.

⁸From personal interview with Mr. Senechal, Director of the local Cooperative at Pontoise, France, May 16, 1966.

Table 29.	Exports as a 1962-631	Percent	of Grain	Sold in	France, 1958-	59, 1960-61 and
			1958-59		1960-61	1962-63
Wheat (and wh. equiv	flour in .)		10.7%		21.5%	25.0%
Barley ²			3.5%		36.3%	34.0%
Corn ²			9.6%		42.0%	27.6%
Rye			13.2%		15.4%	7.2%
l _{Infor} (Paris, 196	mations et 54), No. 16,	Document pp. 57-6	tation A 1.	gricoles	, Cooperative	s La Fayette,
² There exported.	e is a large	variation	n from on	e season	to the next	in the percent

Table 30.	Percent 1960 -	age of Crop 1961-19621	Used For	Specific Purp	oses in Fra	ance, 1959-
		1	lheat	Barl	ey	Corn
Seed			8.2	7.	9	1.5
Animal Fee	d		28.4	88.	3	89.0
Industrial	Uses		.6	3.	4	8.3
Human Food			62.8		1	.9
l _{Info} (Paris: 1	rmation 964), No	et Documen . 16, p. 118	tation Ag. •	ricoles, Coope	ratives La	Fayette,

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Chapter 3

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 wellbeing 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 of the European Economic Community (EEC) and indicate which changes from the previous policies will affect agricultural production, consumption, and trade.

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 and 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

¹For details of the history of agricultural policies in Western Europe see, Michael Tracy, Agriculture in Western Europe (New York: Frederick A. Praeger, 1964 and 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.

common goals. This began in July, 1962, for cereals, pork and poultry products and by 1964 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 in 1970,² 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 1968.

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 five 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 upward 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 five and ten 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

 $^{^2}$ A change did occur in the pork policies in the Summer of 1967 when provisions were added to allow intervention purchases by price support agencies when prices fall below a specified level.

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 may⁴ be imported.

Similarly, 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 for Rotterdam on the basis of the lowest offer price on Community and other world markets 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 a similar 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 prices. 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 weighing the price of specific qualities of beef animals (but not calves) on specified representative markets, falls below the intervention price for

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7 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 30 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 weighing 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 duties and transportation. 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 eggs and broilers 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 poultry products, the primary price measures attempt to in-

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

sure that imports are kept above a specified minimum price.

From 1962 to 1967 the policies concerning pork were similar to those for the poultry products. But in June, 1967, the Council of Ministers authorized intervention agencies to purchase slaughtered hogs, pork bellies or bacon when the average price of slaughtered hogs on specified markets fell below a base price. The Council of Ministers sets the base price annually for the marketing years beginning on November 1 and each member country may decide whether to intervene and at what price within the specified limits of 85 to 92 percent of the base price. The introduction of market intervention did not, however, change the basic method of protecting domestic prices: it is only a supplement to handle emergencies. Levies and sluice-gate prices still provide the day to day assurance of adequate prices.

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 nonfeed 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 nonfeed costs and processing costs in the EEC are covered by a flat fee equal to seven 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 a price which is below the 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 the estimated 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 must 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 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 is designed to give 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 fell 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 13 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 proportion of the money spent on different products and in different countries will shift substantially.⁴ 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.

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 (except corn prices in Italy), so the move to a unified price brought a price increase throughout the country. Yet, because of

⁴See Byron L. Berntson, *The European Agricultural Guidance and Guarantee Fund*, U.S. Department of Agriculture, ERS-Foreign-144 (Washington: June, 1966).

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. The elimination of the quantum taxes, however, is of greater significance than the direct effect of the unified price in its effect on the prices to be received by farmers. The quantum taxes previously reduced the actual price received 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 farthest 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, the elimination of the special arrangement with the United Kingdom diverts 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. While the intervention mechanism introduced in 1967 may prevent prices from falling to extremely low levels, the crucial variable in its operation is the level of the base price set by the Council of Ministers. Initially (June 1967) this price was set at 73.50 u.a. per 100 kilograms. If base prices in the future are set at similarly low levels, intervention purchases can be expected only in cases of seasonal surplus and low price and not as a long-run, price-supporting measure.

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 4

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 regions of the larger 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 Internationale 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

^ISources for individual prices are listed with the price tables in the appendix.

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 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 1964, including a discussion of interregional 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 grain, 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 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 31. 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 A-1 shows that Italy and Germany had the highest wheat prices in the 1960 period, averaging over 100 units of account (u.a.) per ton. The Benelux countries had prices of about 85 u.a. and France had the lowest

²See Appendix A for the details of this adjustment.

³The projection procedures are described in detail in Appendix D.

Table 31. Average An	nual Producti	on of Gra	ins by Regio	ons of the	e EEC for 19	60-1962 a	ind Percenta	ge of Tot	al EEC Produc	tion
	Whe	at	Barl	ey	Υ.	/e	5	orn	Dur	m
Region ⁴	1000 tons	8	1000 tons	%	1000 tons	%	1000 ton	s %	1000 tons	%
-	318.4	1.3	251.2	2.5	245.9	6.0	0.1	~ ~	:	1
2	641.0	2.7	491.1	4.9	1,058.9	26.0	0.6	20	:	1
3	579.0	2.4	422.4	4.2	670.0	16.5	0.8	10	1	1
4	406.9	1.7	195.4	2.0	275.9	6.8	2.0	10	1	1
<u>م</u>	35/.6	<u>د.</u>	240./	2.4	1/1.4	4.4	· · ·		1	1
0 1	1.454	- ° '	1 150 1	4. L	12.4	2.0	2.1		:	1
Germany Total	4,526.9	1.61	3,226.1	32.5	3,081.4	75.8	28.4	0.5	11	
Netherlands 8	558.3	2.4	369.0	3.7	366.8	0.0	0.7	2	ł	1
Belgium- Luxembourg 9	826.6	3.5	448.8	4.5	151.5	3.7	2.7	2	ł	ł
10	563.0	2.4	467.8	4.7	31.0	0.8	35.5	0.6	1	:
=	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	8.0	1 425 2	2.7	0.8	1.0
51	1 313 0	4 u	502 A	- 0	105 8	4.0	2.004,1	2.0	10.4	
France Total ³	11,306.3	47.8	5,638.4	56.7	360.2	8.9	2,330.5	37.4	<u>25.1</u>	<u></u>
15	3,555.5	15.0	48.2	0.5	79.3	2.0	3,075.1	49.3	1	I
16	1,838.7	7.8	65.5	0.7	7.4	0.2	414.8	6.6	68.7	4.6
28	30.0	4 c	83.U	8.0	0.0	0.3	3/0.0	0.0	781 5	41.U
Italy Total	6,397.6	27.1	263.0	2.6	98.0	2.4	3,876.0	<u>62.1</u>	1,458.1	<u>98.3</u>
EEC Total	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
¹ From Hartmut Sc	hulze, Materi	algrundla	igen zur regi	onalen lu	andwirts chaf	tlichen F	roduktion i	n den Länı	dern der Euro	pàis-
² Less than 0.05	percent ³ Doe	s not inc	cuche Langued	loc and Pi	rovenceCote	e d'Azur-	-corse ⁴ s	ee Figure	l for map of	regions
			,							-

wheat prices with 77 u.a. per ton. By 1964 the relative positions had not changed, although the highest prices (in Germany, Belgium-Luxembourg, and Italy) 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 4.6 percent from 1960 to 1964, due to the greater incidence of the quantum taxes on sales in the Paris area, most of which came from large grain farms. Thus, after two or 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 10.0 percent from 1964-70 and Italian prices will fall by about 5.0 percent. 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 4.0 to 10.0 percent, Belgian and Italian prices will have remained about constant, Dutch prices will have increased about 17.0 percent and the regions in France will have had prices rise between 20.0 and 24.0 percent. The sustained increase, averaging about 2.0 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 interregional differences will be eliminated with a five to eight percent price drop in the different regions of Germany and continued increases in prices elsewhere, especially the Northeast and North Central regions of France. The overall change from 1960-70 shows Germany with a four to six 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 about four percent over the ten years. This large increase in the major producing area of the Community is an important result of the new policies.

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

⁴See Appendix Table A-2.

received by Italians, but by 1964 they were about the same.⁵ The projections for 1970 show an increase in corn prices in France of 15 to 20 percent due to higher intervention prices under the EEC policies than were used in the past.

At the same time, Italian corn prices will increase nearly 12 percent from 1964-70 so that the increase from 1960-70 averages about 3.5 percent per year in Italy and about 2.5 percent per year in France.

In the northern countries of the EEC, rye is used both as a bread grain and as feed grain, but it is only a feed grain in France and Italy. In 1960 rye prices were highest in Germany and lowest 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 show continued increases in The Netherlands and in France with smaller increases in Belgium-Luxembourg and a 20 percent decrease in prices in northern Italy. The German rye prices are projected to fall from 5 to 10 percent between 1964 and 1970. The resulting price surface for 1970 is nearly uniform throughout the Community. Since about three-fourths of the EEC production of rye is in Germany, the 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 rye production depending on its use in feeding rations in the future.

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

⁵See Appendix Table A-3.

⁶See Appendix Table A-4.

See Appendix Table A-5.

⁸See Appendix Table A-6.

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 Northwest 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 20 percent in the two French regions. The wheat prices in Bayern fall, not only in relation 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 Northwestern regions of France and Bayern. The barley prices increased by 10-16 percent in the French regions from 1960-64 but only about 1 percent in Bayern. From 1964-70 the French prices will continue to increase while the Bayern prices are projected to fall by about 7 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 influence 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 13 to 15 percent decline in the wheat/barley price ratio from 1960-70 while in Italy the decline is about 17 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 from 1960 to 1964, but falls from 1964 to 1970, leaving the ratio in 1970 about what it was in 1960. 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 14 percent drop from 1964-70. Since corn and wheat are both important crops in the northern region of Italy, this price shift could encourage corn production in Italy.

The barley/corn ratio increases in France from 1960-64 and is projected to continue to increase until 1970 giving a 15 percent gain over the 10-year period.¹¹ In Italy, however, corn prices increase relative to barley prices mostly from 1960-64 when the barley/corn price ratio declined 15 percent.

⁹See Appendix Table A-7.

¹⁰See Appendix Table A-8.

¹¹See Appendix Table A-9.

There is a further decline of 7.5 percent in the ratio projected for 1970, leaving a 20 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 in Italy. The changes in these ratios encourage the production of corn in Italy 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 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 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 may reduce the supply of meat. Therefore, the unified market for these products may have serious consequences for the EEC.

Table 32 shows that the most important beef producing areas are the North Central and Northwest regions of France, the North region in Italy, and Bayern in Germany. In parts of 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 about 30 percent and it will be over 50 percent with the high projection. In contrast, France is projected to have only a 14 percent increase under the low assumption and Italy has a drop in price of 1.0 percent. Even the high projection does not bring the rate of increase for these two countries up to the rates projected for Germany, since the prices increase only 32 percent in France and 14.5 percent in Italy. The different rates of change result in a uniform price surface throughout the EEC by 1970. There appears to 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

¹²See Appendix Table A-10.
roduction ¹	roilers			6.4	11.5	13.6			47.5			21.1	100.0	uktion in oilers are andwirt-	I
e of EEC P	8			19,983	35,667	42,216			147.667	5		65,500	311,033	ichen Prod 1965). Br gen über L	
Percentag	Pork	4.74 14.28 8.63 3.82	2.40 5.37	49.37	10.78	6.03	1.99 5.23	8.26	5.33	5.95	1.82	. <u>38</u> 10.03	100.00	virtschaftl München, smitteilun zur-Corse	
1960-62 and 1000 tons		182.6 550.6 332.6	92.5 207.0 300.5	1,903.1	415.6	232.3	76.7 201.7	318.3	205.3 917.3	229.3	72.4	14.8 386.5	3,854.8	nalen Landw forschung: itaaten, Haw eCote d'A	
e EEC for	4i 1k	3.09 6.69 5.23 2.16	1.76	32.87	11.50	6.79	3.56 8.55	12.60	8.74 36.91	9.63	.88.	.56 11.94	100.00	irtschafts irtschafts den EwG-S nd Provenc	
egions of the 1000 tons		1,883.8 4,084.6 3,194.7 1,310,8	1,073.6 2,584.0 5,026,8	20,067.3	7,020.0	4,147.0	2,170.8 5,220.0	7,694.1	2,115.5 5,335.2 22.535.6	5,879.8	528.3	344.1 7,288.6	61,058.5	ialgrundlage stitut für W Shhühnern in Languedoc ar	
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ion of Liv	ef	3.14 6.33 4.38 2.11	1.97	32.20	7.37	6.78	2.81 8.26	12.40	6.71 6.71 33.23	11.22	4.88 2.79	1.52 20.41	100.00	rre from Ha schaftsger ng und des rk these t ions	
ual Product 1000 tons	Be	87.5 176.5 122.2 58 8	55.0 126.6	- 897.5	205.4	189.1	78.2 230.1	345.7	187.1	312.8	135.9	42.5 568.9	2,787.1	t and pork a ticschen Wirt der Erzegu 165, p. 22. 1 broilers" milk and po • map of reg	
2. Average Anr	ion	- 0 6 4	יסמי	any Total —	etherlands 8	3elgium- .uxembourg 9	21	12	13 14 16 Total	15	16	aly Total 18	EEC Total ³	eef, veal, mill devn dex Europi C, Organisation No. 4, May, 15 nly "industria or beef, veal, se Figure 1 for	
Table 32	Reg			Germé	Ne	<u> </u>			Frar			Ita		1 _{B1} from EE(from EE(schaft. 3 _F S ₆	

France, except the Northeast, are large producers of veal. In 1960 the price of calves was highest in the North region of Italy and in the Central Mountain region of France.¹³ The remaining regions of France and Italy had the lowest prices with German and Dutch prices falling between these limits. By 1964 the price disparity between countries had increased due to a 31 percent increase in French prices and Italian price increases of 13 to 31 percent while German prices remained constant. But from 1964-70, the prices in Germany are projected to increase 22 percent with the low assumption or 41.5 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. Thus, while calf prices will go up substantially in all areas of the EEC from 1960-70, the 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 ten-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 most other regions had declines in the calf/beef price ratio throughout the period. In North Italy and Northwest and Southwest France the decline in the calf/beef price ratio is over two percent per year for the tenyear 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, with two exceptions, is projected to increase in price from 1964-70.¹⁵ The regions producing the most milk in the EEC are the North Central, Northwest 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

¹³See Appendix Table A-11.

¹⁴See Appendix Table A-12.

¹⁵See Appendix Table A-13.

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 beef from 1960-64, but the large increase in beef prices projected for the 1964-70 period will reverse this. In Germany the calf price also increases faster than the milk price during the ten-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) increasing 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 A-16 and A-17 show that beef prices are rising relative to barley and corn prices over the 1960-70 period. The biggest jump in the beef/barley price ratio comes in Germany and Belgium-Luxembourg between 1964 and 1970 under both the low and the high projections for 1970. Although there is a small improvement in the beef/barley price ratio 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, Northwest, and Southwest 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 having the advantage in the northern EEC and Italy and with corn being most attractive in France.

In the veal-producing regions of France, the price of calves declines relative to the price of barley over the ten-year period from 1960-1970.¹⁸ The calf/barley price ratio in France increased from 1960-64, but the decreases projected from 1964-70 are large, even under the high price assumption for calves in 1970. In Italy, the increase in the calf/barley price ratio from 1960-64 is only partially offset by reductions from 1964-70, resulting in slight increases in the ratio over the ten-year period 1960-70. These results provide very 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 pro-

¹⁶See Appendix Table A-14.

¹⁷ See Appendix Table A-15.

¹⁸See Appendix Table A-18.

ducer 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 Germány, the prices projected for 1970 result in even greater increases for the ten-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 for all regions except northern Italy. Belgium-Luxembourg, which produces sizable quantities of milk even though not one of the leaders, and northern Italy can expect large increases in the price ratio for the ten-year period, and may increase the amount of grain 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 subproject reports. 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 grainconsuming livestock -- 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, an important price development is the relatively constant price projected for Germany, the most important producer. While hog prices increased slightly from 1960-64, the decrease projected from 1964-70 causes a small drop from the 1960 level by 1970.²⁰ In the rest of the EEC the prices for hogs increased substantially from 1960-64. For The Netherlands and Italy, the increase continues for the 1964-70 period, resulting in nearly a 30 percent increase in hog prices over the entire ten-year period. Since these countries each produce about 10 percent of the hogs in the EEC, this

¹⁹See Appendix Table A-19.

²⁰See Appendix Table A-20.

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 percent from 1964-70 which results in only a moderate increase from 1960-70.

The ratio of hog prices to feed grain prices is constant in The Netherlands and Germany during the ten-year period from 1960-70. Belgium-Luxembourg, North Italy, and North Central France had increases between 1960 and 1964. The decrease in the ratio projected for The Netherlands cancels most of the previous increase, while large decreases are projected in all of France for the 1960-70 period. In the North Italy region continued increases in the hog/barley price ratio results in a 22.3 percent increase from 1960 to 1970.²¹ The large 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 decrease only 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 the countries of the EEC. But, the projections to 1970 indicate that prices will even out over the entire Community with slight increases in the Dutch and Belgian prices from 1964-70, a 16 to 20 percent fall in Germany and Italy, and a decrease of 40 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 52 percent drop projected for France from 1964-70 means an average annual decline of over 10 percent. Similar changes are expected in the ratio of broiler prices to corn prices in France and Italy.²⁵ The

²¹See Appendix Table A-21. ²²See Appendix Table A-22. ²³See Appendix Table A-23 ²⁴See Appendix Table A-24. ²⁵See Appendix Table A-26.

decline in the broiler/corn price ratio is projected to be 53 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 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 10 to 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, 24 percent lower in Italy and Belgium-Luxembourg, and 40 percent lower in Germany.

The relationships between egg prices and feed grain prices follows a time path similar to that of egg prices. The egg/corn²⁷ and egg/barley²⁸ 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 price ratio falls about 14 percent, while the egg/barley ratio falls nearly 25 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 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 35-65 percent between 1960 and 1975 and rye prices may increase by 75 percent. In Italy the barley price is projected to increase 35 percent while the corn price increases 48 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.

²⁶See Appendix Table A-25.
²⁷See Appendix Table A-27.
²⁸See Appendix Table A-28.

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 a low figure. Even the low projections give significant increases in prices for beef in France, amounting to 69 percent from 1960-75. The high projections, of course, give even greater increases for France (up to 137 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 a 20-60 percent increase for the various regions from 1960-1975. Barley also becomes more attractive as a feed for beef under the 1975 projections, decreasing in price relative to beef in Germany by 75 percent, in the Northwest region of France by 40 percent and in North Italy by 80 percent from 1960. Even calf feeding with barley in Germany appears more profitable with the 1975 high projection since the calf/ barley price ratio increases 60 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. Since the projected percentage change in feed grain prices in Italy is less than in the other countries and since the feed grain conversion rates are projected to change at different rates for the various countries, the product prices also exhibit different rates of change between countries from 1970-75. For example, the price of eggs is projected to decline 21 percent from 1970 under the low projection in France and 14.6 percent in Italy, but only be 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 were 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 to 16 percent with the high projection. During the 15 years following 1960 prices fall 42 percent in Ger-

many and 55 percent in France with the low projection. Even the high projection shows a significant fall in prices in France, 46 percent. These large declines in broiler prices also reduce the broiler/feed grain ratios. The broiler price falls 61 percent more than the corn price in France from 1960-75 and 46 percent in Italy over the same period. The broiler/barley price ratio also declines in all countries, by 67 percent in France and by 20 to 35 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 to 16 percent with the high projection. These changes cause an important long-term price change in the North region of Italy, Northwest and North Central France, and the Benelux countries, where hog prices increase from 36 to 50 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 5

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 2 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 new canal from Ulm to Stuttgart will connect with the Neckar River leading to the Rhine and an enlargement of 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 possibly 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 contributors. 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 or changes of trade flows and production patterns. This section reviews some of these criticisms and raises a few others for examination in light of the price projections included in this study.

¹For 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).

Because of the wide difference in previous price levels, one of the difficult decisions for agricultural policy makers was to determine the common price for the unified market. For most grain products 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 livestock 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 Council of Ministers has adopted a new policy for hogs which authorizes price support purchases of slaughtered hogs, pork bellies, and bacon at a price between 85 and 92 percent of the base price set by the Council. With the current level of the base price and the projected product prices in this study, there is little likelihood of major intervention purchases, although seasonal support may be accomplished. Since 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 schemes for pork,⁴ it is reasonable to expect political pressure on the Council to raise the base price if the current level provides insufficient support. While it is true that an increased base price might be very

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

³Agra-Europe, No. 201, January 25, 1967, p. MI/2.

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

expensive for the Agricultural Fund, there is strong support for protecting the income of hog producers.

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, 1967.⁵ 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 cheese that take effect within the next year have led to forecasts of an export surplus of cheese in the EEC.⁶ 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.⁷

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 EEC⁸ 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 fulltime 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 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

⁵Ibid., No. 203, February 22, 1967, pp. MI/5-7.

^bIbid., No. 202, February 1, 1967, p. MI/2.

 $⁷_{\text{Recent}}$ EEC concern on this topic was reported by Clyde H. Farnsworth in the *New York Times*, April 1, 1968, p. 69, where he indicated that current policies might result in cold storage surpluses of 750,000 tons within four years at a cost to the Agricultural Fund of \$800 million per year.

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

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. 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

⁹See Chapter 4, Table 31.

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 projections, 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.

Summary

The price study indicated that during the 10 years from 1960 to the full implementation of the EEC policy in 1970 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 4 to 10 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 20 and 24 percent. During this same period feed grain prices will have fallen about 5 percent in Germany, but will have increased from 15 to 22 percent in Belgium, from 10 to 30 percent in Italy, about 35 percent in The Netherlands and from 20 to 50 percent in France. Considering the total picture, the most important grain 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 former price ratios.

The projected impact of the EEC price policies on beef, veal and milk is

a rise in 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 a 20 to 40 percent increase in the ratio of livestock prices to barley prices indicates increased incentive for the use of barley in producing beef, veal and milk.

For hogs, the most important price development is the relatively constant price projected for Germany, which produces about half of the hogs in the EEC. The prices in Belgium-Luxembourg and France are projected to increase slightly from 1960 to 1970 while prices in The Netherlands and Italy increase about 30 percent. Since these latter two countries produce about 20 percent of the hogs in the EEC, the large price increases may be expected to affect the total supply of hogs in the Community even when increased feed grain costs are included in the calculation.

Broiler and egg prices are projected to fall in most areas of the Community between 1960 and 1970. There is a slight increase for broiler prices in Belgium and The Netherlands, but projected declines range from about 18 percent in Italy to around 28 percent in Germany and a 43 percent decline in France. French egg prices, however, remain about constant. Egg prices in The Netherlands are projected to decline by about 5 percent, by 12 percent in Belgium, by 24 percent in Italy and by 40 percent in Germany. Such drastic price changes are certain to have production implications. But, the production of broilers and eggs in Europe has shifted from small farm flocks to large, factory-type operations producting large volumes at very low cost per unit. It is likely that the reduction in price will not cause a reduction in production, but a shift to low-cost producing units.

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 resulting in surpluses which must be paid a denaturing premium for feed uses or an export restitution for sale on the world market. 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 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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Appendix Tab	le A-1. Wheat	Prices by Reg	ion in the EE					ی ار م	
Region ²	1960 ³	Prices (in 1964 ⁴	n U.A. per tor 1970	1975L	1975H	60-64	Percer 64-70	itage Change ¹ 70-75L	70-75H
	Ľ	Ľ							
-	101.40	105.61^{3}	96.73	96.73	112.11	4.2	-8.4	0.0	15.9
2	103.42	108.22	97.00	97.00	112.42	4.6	-10.4	0.0	15.9
ę	102.90	108.88	97.37	97.37	112.85	5.8	-10.6	0.0	15.9
4	101.02	102.93	97.27	97.27	112.74	1.9	-5.5	0.0	15.9
ъ 2	104.82	105.28	97.99	97.99	113.57	0.4	-6.9	0.0	15.9
9	107.12	109.16	97.36	97.36	112.84	1.9	-10.8	0.0	15.9
7	105.10	106.02	95.04	95.04	110.15	0.9	-10.4	0.0	15.9
ß	83.91 ⁶	95.55 ⁶	98,13	98.13	113.73	13.9	2.7	0.0	15.9
6	93 . 60 ⁷	95.74 ⁷	97.67	97.67	113.20	2.3	2.0	0.0	15.9
10	77.39 ⁸	86.179,10	95.83	95.83	20,111	11.4	11.2	0.0	15.9
1	77.39	80.91	93.72	93.72	108.62	4.6	15.8	0.0	15.9
12	77.39	87.64	93.48	93.48	108.34	13.2	6.7	0.0	15.9
13	77.39	87.05	93.38	93.38	108.23	12.5	7.3	0.0	15.9
14	77.39	87.44	94.28	94.28	109.27	13.0	7.8	0.0	15.9
15	ı	ı	1	ı	1	•	•	•	•
16	106.48	11,02,111	106.25	106.25	123.14	4.3	-4.3	0-0	15.9
17	107.22	112.22	106.25	106.25	123.14	4.7	-5.3	0.0	15.9
18	106.34	112.80	106.25	106.25	123.14	6.1	-5.8	0.0	15.9
19	ı	1		,	ï	T	1	1	,
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APPENDIX A

ab	le A-2. Barley	Prices by Regi	ion in the EEC						
	1	Prices (U.A. per ton)	1727	11450		Percen	tage Change ¹	
	900~	1964	1970	19/5L	H6/61	60-64	64-70	/0-/2F	/0-75H
5	17.70 ⁵	99.44 ⁵	93.94	93.94	108.88	1.8	-5.5	0.0	15.9
0,	95.78	99.11	91.68	91.68	106.26	3.5	-7.5	0.0	15.9
ຕ	3.67	96.54	88.53	88.53	102.61	3.1	-8.3	0.0	15.9
0.	90.67	92.48	86.61	86.61	100.38	2.0	-6.4	0.0	15.9
0.	90.22	92.44	87.36	87.36	101.25	2.5	-5.5	0.0	15.9
01	14.48	95.79	88.94	88.94	103.08	1.4	-7.2	0.0	15.9
0,	06.10	93.10	86.33	86.33	100.06	1.3	-7.3	0.0	15.9
	59.61 ⁶	76.38 ⁶	88.53	88.53	102.61	9.7	15.9	0.0	15.9
	72.85 ⁷	78 . 00 ⁷	84.08	84.08	97.45	۲.٦	7.8	0.0	15.9
	53.11 ⁸	69.78 ⁹ .10	90.39	90.39	104.76	10.6	29.5	0.0	15.9
	63.11	69.42	88.32	88.32	102.36	10.0	27.2	0.0	15.9
	63.11	73.30	89.74	89.74	104.01	16.2	22.4	0.0	15.9
	63.11	72.85	88.26	88.26	102.29	15.4	21.2	0.0	15.9
	63.11	73.41	16.02	16.06	105.36	16.3	23.8	0.0	15.9
				ı		ı	1	ı	•
	83.10 ¹¹	83 . 65 ¹¹	86.94	86.94	97.27	0.7	3.9	0.0	11.9
	72.59	79.57	86.94	86.94	97.27	9.6	9.3	0.0	11.9
	70.58	78.58	86.94	86.94	97.27	11.3	10.6	0.0	11.9
	11.82	81.28	80.94	80.94	12.16	4 • 9	1.0	0.0	6.11

Annendix Tah	le A-3 Com Pri	icas hv Radion	in the FFC						
	•••••			-					
		Prices (i	n U.A. per 1	(uo:			Percentag	e Change ^l	
Region ²	1960 ³	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
10	74 . 59 ⁸	77.219,10	91.74	91.74	106.33	3.5	18.8	0*0	15.9
Ľ	74.59	77.21	90.18	90.18	104.52	3.5	16.8	0.0	15.9
12	74.59	77.21	93,00	93,00	107.79	3.5	20.5	0.0	15.9
13	74.59	75.79	90.02	90.02	104.33	1.6	18.8	0.0	15.9
14	74.59	80.05	92.40	92.40	107.09	7.3	15.4	0.0	15.9
15	'	1	ĩ	ı		1	,	ī	ı
16	66.21 ¹¹	78.18 ¹¹	87.44	87.44	97.79	18.1	11.8	0.0	11.8

Appendix Tab'	le A-4. Rye Pr	rices by Regio	on in the EEC						
	c	Pri ces	s (in U.A. per	ton)			Perce	entage Chang	el
Region ²	19603	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
-	02 622	07 605	00 76	00 7E	20 101	L L	c	c	1.0
- 0	32.00	00.16	03.13 80 25	03.75 80 25	104.02	0. 4 • •	-8.0		10.0
1 6	92.32	01.70	63.60 89.62	69 68	103 87	, t. , t.	-0-1		15.0
4	92.39	94.66	89.62	89.52	103.75	2.5	-5.4	0.0	15.9
2	95.38	94.64	90.39	90.39	104.76	-0.8	-4.5	0.0	15.9
9	98.15	100.55	90.66	90.66	105.07	2.5	-9.8	0.0	15.9
7	95.93	97.64	88.50	88.50	102.57	1.8	-9.4	0.0	15.9
œ	61.47 ⁶	71.60 ⁶	89.00	89,00	101.37	16.5	24.3	0.0	13.9
6	69 . 53 ⁷	73 . 43 ⁷	85.45	85.45	99.04	5.6	16.4	0.0	15.9
10	59.87 ⁸	65.78 ⁸	91.19	91.19	105.69	6.6	38.6	0.0	15.9
11	59.87	65.26	88.32	88.32	102.36	0.6	35.3	0.0	15.9
12	59.87	66.24	89.74	89.74	104.01	10.6	35.5	0.0	15.9
13	59.87	66.83	88.26	88.26	102.29	11.6	32.1	0.0	15.9
14	59.87	66.11	90.91	16.06	105.36	10.4	37.5	0.0	15.9
15	1	ľ	ı	ı	I	•	ı	•	ı
16	83.63 ¹¹	108 . 77 ¹¹	86.94	86.94	97.27	30.1	-20.1	0.0	11.9
17	•	,	86.94	86.94	97.27	1	1	0.0	11.9
18	76.75	88.05	86.94	86.94	97.27	14.7	-1.8	0.0	11.9
16	ľ		86.94	86.94	97.27	ŀ	•	0.0	11.9

Appendix Tat	ole A-5. Malting	l Barley Price	es by Region	in the EEC					
		Pri ces	(in U.A. per	· ton)			Perc	entage Chang	Jel
Region ²	1960 ³	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
-	107.825,12	105.95 ⁵	98.01	98.01	113.59	-1.7	-7.5	0.0	15.9
2	107.82	105.96	95.57	95.57	110.77	-1-7	-9.8	0.0	15.9
e	109.10	106.12	92.17	92.17	106.83	-2.7	-13.1	0.0	15.9
4	107.85	104.56	88.84	88.84	102.97	-3.1	-15.0	0.0	15.9
5	107.82	105.11	88.46	88.46	102.53	-2.5	-15.8	0.0	15.9
9	107.82	108.78	92.61	92.61	107.33	0.9	-14.9	0.0	15.9
7	108.22	106.99	89.79	89.79	104.07		-16.1	0.0	15.9
8	77.59 ⁶	82.06 ⁶	93.64	93.64	108.53	5.8	14.1	0.0	15.9
6	72.957	78 . 15 ⁷	87.36	87.36	101.25	۲.۲	11.8	0.0	15.9
Appendix Ta	tble A-6. Durum	Wheat Prices	by Region in	the EEC					
18	133.73 ¹¹	144.40 ¹¹	145.00	145.00	168,05	8.0	0.0	0.0	15.9
19	136.02	144.74	145.00	145.00	168.05	6.4	0.0	0.0	15.9

		70 - 75H		3.6 3.6 3.6
	Change ¹	70-75L		0.00-0
	Price	64-70		- 8.0 - 13.4 - 14.9
EEC.		60-64		3.6 -4.5 -4.7
egion in the		1975H	°	
y Price by Re		1975L		1.2
rice to Barle	Ratio	1970	°	1.2
io of Wheat P	Price	1964 ⁴		1.3 1.4 1.4
A-7. The Rati		1960 ³	01111211 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.55
Appendix Table		Region ²	-004500 8 555555	16 17 18 19

					- 11 I			
ĺ		70-75H	0000	0.0 - 3.6			0.0	0.0.0
	e Change ¹	70-75L	0000	0.0			0.0	0.0
	Percentage	64-70	-7.1 -1.0 -11.7 -12.2	-6.4 - 14.1			10.0 8.9 1.1	2.1 7.6 -7.5
EEC.		60-64	7.6 1.0 9.4 10.7	5.3 - 11.7		EEC.	6.8 6.3 12.2	13.6 8.4 -14.8
ion in the		1975H	0000	1.0		gion in the	0.11.0	0.1.0.1
Price by Reg		1975L	0.000	1.0		n Price by Reg	1.0	0.1.0.1
Price to Corn	Ratio	1970	0.0.0	1.0		Price to Corr	1.0	0.1
tio of Wheat	Price F	1964 ⁴	2222	1.1 - 1.4		cio of Barley	0.9 0.9 1.0	0.0 0.0 1.1
A-8. The Ra	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	19603	0.000	1.0		A-9. The Rat	6°0	0.9
Appendix Table		Region2	0112	14 15 16		Appendix Table	11	13 16 16

		70H-75H	27.6	27.6	27.6	27.6	27.6	27.5	27.5	27.6	27.6	27.6	27.6	27.6	27.6	27.5	,	27.5	27.6	27.6	27.5
	e_	70L-75L	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	ı	5.1	5.1	5.1	5.1
	tage Chang	64-70H	50.6	50.4	50.3	50.3	50.4	50.4	50.6	23.8	41.1	32.3	32.3	32.1	31.9	31.5	•	14.2	14.5	14.5	14.3
	Percen	64-70L	30.0	29.9	29.8	29.8	29.9	29.9	30.1	6.9	21.9	14.2	14.2	14.1	13.9	13.5	•	-1.4	l. -	[.]-	-1.3
		60-64	2.7	3.5	3.8	2.6	2.8	1.8	3.7	18.9	20.6	26.0	33.4	40.7	40.8	23.6	•	45.3	22.6	26.3	22.6
e EEC.		1975H	97.41	102.19	102.40	101.90	102.84	103.27	95.44	98.53	100.44	91.88	92.55	93.14	101.40	114.57	•	102.52	93.89	95.43	101.66
n in the	kg)	1975L	69.31	72.72	72.87	72.51	73.18	73.49	67.92	11.07	71.47	65.38	65.86	66.28	72.15	81.52	•	72.95	66.81	67.90	72.34
by Regio	oer 100	1970H	76.37	80.12	80.28	79.89	80.63	80.97	74.83	77.25	78.74	72.03	72.56	73.02	79.50	89.83	•	80.38	73.61	74.82	17.07
cle Prices	(in U.A.	1970L	65.95	69.19	69.33	68.99	69.63	59.92	64.62	66.71	68,00 ¹⁴	62.21 ¹⁵	62.66	63.06	68.65	77.57	•	69.41 ¹⁶	63.57	64.61	68.83
. Beef Catt	Prices	1964 ⁴	50.72 ¹³	53.27	53.41	53.14	53.62	53.84	49.68	62.42 ⁶ ,17	55.80 ¹⁴	54.46 ¹⁵	54.86	55.26	60.27	68.33	•	70.37 ¹⁶	64.30	65.34	69.73
Table A-10.		1960 ³	49.41	51.45	51.45	51.78	52.16	52.88	47.92	52 . 48 ⁶	46.28	43.21	41.13	39.29	42.80	55.27	•	48.43	52.45	51.75	56.86
Appendix		Region ²	-	2	e	4	5	9	7	œ	6	10	E	12	13	14	15	16	17	18	19

		70H-75H	27.6	27.5	27.5	27.6	27.5	27.5	27.6	27.6	27.5	27.6	,	27.6	27.6	27.6	27.6
		70L-75L	5.1	5.1 5.1	5.1	5°.1	5.1	5.1	5.1 5.1	5.1	5.1	5.1	,	5.1	5.1	5.1	5.1
	change ¹	64-70H	41.7	41.4	41.4	41.3	18.1	13.2	10.5	10.4	10.3	6.6		15.2	15.3	15.5	15.3
	ercentage	64-70L ⁶	22.4	22.1	22.1	22.0	2.0	-2.3	-4.6	-4.7	-4.7	-5.1	•	-0.5	-0.5	-0.3	-0.4
		60-64	-0.7	-1- 0-1-	0.7	3.3	24.2	18.7	31.3	31.3	31.3	31.3	•	13.1	20.6	24.1	31.7
		1975H	125.94	138.51	141.88	145.25	132.53	135.07	123.52	125.20	136.37	154.17		138.93	136.34	122.74	131.29
EEC.	100 kg)	1975L	89.62 91.69	98.56 90.50	100.96	103.36	94.30	96.11	87.90 88.54	89.09	97.04	109.70	•	98,85	97.02	87.34	93.42
on in the	U.A. per	H0701	98.74 101.02	108.60	111.24	113.88	103.91	105.90	96.84 97.55	98.16	106.92	120.87	ı	108.92	106.89	96.23	102.93
s by Regi	ices (in	1070L	85.27 87.24	93.78 94.67	90.06	98.34 89.34	89.73	91.45	83.63 84.24	84.77	92.33	104.38	•	94.06	92.31	83.10	88.89
Calf Price	Pr	1964 ⁴	69.68 ¹³ 71.34	76.80	78.70	80.59 73 10	87,99 ⁶ ,17	93.56 ^{14,17}	87.62 ¹⁵ ,17 88.27	88.91	96 ° 97	109.94		94 . 57 ¹⁶	92.73	83.32	89.27
Table A-11.	10	1960 ³	70.20 ¹³ 70.87	76 38	78.12	77.99	70.87 ⁶	78.84 ¹⁴	66.74 ¹⁵ 67.23	67.72	73.86	83.74	1	83.62 ¹⁶	76.92	67.13	67.80
Appendix		Region ²	1	с ч	- 10	9		6	0[12	13	14	15	16	17	18	19

I											
Table A-12. The Ratio of Calf Price to Beef Price by Region in the EEC.	Percentage Change ¹	70H-75H	0.0	0.0	0.0	0.0	0*0	0*0	0.00	0.0	0.000
		70L-75L	0.0	0.0	0.0	0.0	0*0	0*0	0.00	000	0000
		64-70H	-5.9 -5.9	-5.9	-6.0	-6.0	-4.6	-19.8	-16.4 -16.4 -16.5	-16.4 -16.4	0.0 0.0 0.0
		107-70L	-5.9	-5.9	-6.0	-6.0	-4.6	-19.8	-16.4 -16.5 -16.5	-16.4 -16.4	0.0
		60-64	-3.3	-5.5	-2.0		4.4	-1.6	4.2 -1.6	6.2	-22.2 -1.7 -1.7 7.4
	Price Ratio	1975H	1.3	1.4	4.1	1.4	1.4	1.3		1.3	33.354
		1975L		1.4	1.4	1.4	1.4	1.3		1.3	33354
		H0791	1.3	1.4	1.4	1.4	1.4	1.3		1.3	
		1070L		1.4	4.1	1.4 1.4	1.4	1.3		6.4	33554
			-								
		1964 ⁴	1.4	1.5	1.5		1.4	1.7	1.6 1.6	1.6	
			12								
		1960 ³	1.4	د. 1.5	1.5	1.5	1.4	1.7	1.5	1.7	1.5
Appendix		Region ²	- 01	ک 4	ц С	7	8	6	212	141	2 11 118 118 118
Appendix Tab	le A-13. Milk F	Prices by Regio	n in the EE								
---------------------	--------------------	--------------------	-------------	-----------	-------	--------------	-------------	--------------	-----------------		
		Prices	(in U.A. pe	r 100 kg)			Perc	entage Chang	Jel		
Region ²	1960 ³	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70 - 75H		
	0.5	01.01									
-	8,0818	9.2018,19	9.75	9.75	11.30	13.9	6.0	0.0	15.9		
2	8.28	9.15	9.75	9.75	11.30	10.5	6. 6	0.0	15.9		
ę	9.22	9.92	9.75	9.75	11.30	7.6	-1.7	0.0	15.9		
4	8.55	9.48	9.75	9.75	11.30	10.9	2.9	0.0	15.9		
2	8.80	9.62	9.75	9.75	11.30	9 . 3	1.4	0.0	15.9		
9	8.22	9.40	9.75	9.75	11.30	14.4	3.7	0.0	15.9		
7	8.15	9.05	9.75	9.75	11.30	11.0	7.7	0.0	15.9		
ø	7.30 ⁶	8.52 ⁶	9.56	9.56	11.08	16.7	12.2	0.0	15.9		
6	6.81 ¹⁴	7.83 ¹⁴	9.75	9.75	11.30	15.0	24.5	0.0	15.9		
10	6.18 ⁴	7.7110.20	9.58	9.58	11.10	24.8	24.3	0.0	15.9		
Ξ	6.29	7.84	9.58	9.58	11.10	24.6	22.2	0.0	15.9		
12	6.38	7.96	9.58	9.58	11.10	24.8	20.4	0.0	15.9		
13	1	•	•	•		•	•	,	,		
14	7.08	8.84	9.58	9.58	11.10	24.9	8.4	0.0	15.9		
15	1	•	ı	1	1	1	•	·	·		
JG	7.0116	9 AJ16	9 55	9 55	20 11	34.2	и Г		15 0		
17	8.38	10.13	9.55	9.55	11.07	20.9	-5.7	0.0	15.9		
18	7.29	9.08	9.55	9.55	11.07	24.6	5.2	0.0	15.9		
19		,		ı	•	ï	·	,	•		

Appendix	Table A-14	1. The Rati	io of Beef	Price to	Milk Pri	ce by Re	jion in t	he EEC.			
			Price	Ratio				Percer	ntage Char	lgel	
Region ²	1960 ³	1964 ⁴	1970L	1970H	1975L	1975H	60-64	64-70L	64-70H	70L-75L	70H-75H
		1									
	6.1	5.5	6.8	7.8	1.1	8.6	-9-9	22.7	42.1	5.1	10.1
2	6.2	5.8	1.7	8.0	7.5	0.0	-0.3	21.9	41.2		10.1
04	0°0	2°4		2.0	C. /	-0	0°C-	26.96	26.20	 	
- LO	5.9	5.6	7.1	8.3	7.5	6.6	-6.0	28.1	48.4	5.1	10.1
9	6.4	5.7	7.2	8.3	7.5	9.1	-11.0	25.2	45.0	5.1	10.1
7	5.9	5.5	6. 6	7.7	7.0	8.5	-6.6	20.7	39.8	5.1	10.1
8	7.2	7.3	7.0	8.1	7.3	8.9	1.9	-4.8	10.3	5.1	10.1
6	6.8	۲.٦	7.0	8.1	7.3	8.9	4.9	-2.1	13.3	5.1	10.1
10	7.0	۲.٦	6.5	7.5	6.8	8.3	1.0	-8.1	6.4	5.1	10.1
F	6.5	7.0	6.5	7.6	6.9	8.3	7.0	-6.5	8.2	5.1	10.1
212	6.2	6.9	6.6	7.6	6.9	8.4	12.7	-5.2	9.8	5.1	10.1
2	• •		• 5		• •		• _	•	- 10	1	
± <u></u>	0.1	1.1	••	1.4	c•0	c •0		c •+	C•17		1.01
0	ı		•		•		•		•	•	•
16	6.9	7.5	7.3	8.4	7.6	9.3	8.2	-2.8	12.6	5.1	10.0
17	6.3	6.4	6.7	7.7	7.0	8.5	1.4	4.9	21.4	5.1	10.0
8	7.1	7.2	6.3	7.3	۲.۱	8.6	1.4	-6.0	8.9	5.1	10.0
6	•	•	1				•		•	•	•

Т		Γ					_								200							T
		70H-75H	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	•]	10.1	ı	10.0	10.0	10.0	ï	
	-	70L-75L	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	ı'	5.1		5.1	5.1	5.1	,	
	age Change	64-70H	33.7	32.9	43.9	37.5	39.5	36.2	31.4	5,3	-9.1	l.II-	-9.6	-8.3	ſ,	1.5	ŗ	13.5	22.3	9.8	ı	
the EEC.	Percenta	64-70L	15.5	14.8	24.2	18.7	20.4	17.6	13.5	-9.1	-21.5	-23.2	-21.9	-20.8	ı,	-12.4	•	-2.0	5.6	-5.2	ï	
gion in t		60-64	-12.8	-8.9	-8.8	-8.5	-7.8	-9.6	-5.6	6.4	3.2	5.2	5,3	5.2	I	5.2	ı	-15.8	-0.3	-0.4	1	
ice by Re		1975H	11.2	11.4	12.3	12.4	12.6	12.9	11.7	12.0	12.0	1.11	11.2	11.3	l.	13.9		12.6	12.3	1.11	•	
Milk Pr		1975L	9.2	9.4	10.1	10.2	10.4	10.6	9.6	6*6	6.6	9.2	9.2	9.3	•	11.5	ı	10.4	10.2	9.2	ı	
Price to	e Ratio	H0701	10.1	10.4	1.11	11.2	11.4	11.7	10.6	10.9	10.9	10.1	10.2	10.3	•	12.6	•	11.4	11.2	10.1	•	
atio of Calf Pi		1070L	8.8	9.0	9.6	9.7	6. 0	10.1	9.2	9.4	۰,4	8.7	8.8	8.9	•	10.9	•	6° 6	9.7	8.7	,	
5. The Rat	Price	1964 ⁴	7.6	7.8	7.7	8.2	8.2	8. 6	8.1	10.3	12.0	11.4	11.3	11.2	•	12.4	•	10.1	9.2	9.2	•	
Table A-1		1960 ³	8.7	3.6	8.5	8.9	8.9	9.5	8.6	9.7	11.6	10.8	10.7	10.6	1	11.8	ľ	11.9	9.2	9.2	•	
Appendix		Region ²	-	2	e	4	2	9	2	¢	6	10	11	12	13	14	15	16	17	18	19	

Appendi	<pre>< Table A-1</pre>	17. The Ri	atio of Beef	Frice t	o Corn P	rice by F	kegion in	the EEC.			
		Price	Ratio				Per	centage (change ¹		
Region ²	1960 ³	1964 ⁴	1970L	1970H	1975L	1975H	60-64	64-70L	64 - 70H	70L-75L	70H-75H
10 11 13 13 16	5.8 5.5 7.4 7.3 7.3	7.1 7.1 7.2 8.5 8.5 9.0 9.0	6.8 7.0 7.6 8.4 7.9	7.9 8.1 8.8 9.7 9.2	7.1 7.1 8.0 8.8 8.8	8.6 8.9 8.6 9.7 10.7 10.5	21.8 28.9 35.9 38.6 15.2 23.1	-4.7 -2.9 -5.7 -1.9 -14.5	11.3 9.7 11.1 13.9 2.1	۳ ۲ ۲ ۲. ۳ ۲ ۲ ۲ ۲ ۲ ۲ ۲	101 101 101 101 101 1.01

		70H-75H	1.01 1.01	10.01	10.0	10.1	1.01 1.01 1.01 1.01	14.0 14.0 14.0
	el	70L-75L	5.1 5.1	2. 2. 2. 2.	5.1	5.1	۳.۰۰۰ ۱.۱.۱	ۍ ۲.۰۰۰ ۲.۰۰۰
	tage Chang	64 - 70H	50.0 53.1 54.2	52.2 52.7	1.9	5.0	-14.7 -13.1 -9.8 -9.0 -11.2	10.8 5.5 7.8
the EEC.	Percen	64-70L	29.5 32.2 33.2	29.2 31.4 31.9	-12.0	-9.3	-26.3 -25.0 -22.1 -21.4 -23.3	-4- -8-9-9-9-9-9-9-9-9-9-9-9-9-9-9-9-9-9-9
egion in		60-64	-2.5 -2.7	-1.7 3.5	13.2	10.8	18.7 19.4 13.0 13.7 12.9	12.4 10.0 11.5 26.1
rice by Re		1975H	11.6 12.1 13.5	14.0 14.1 13.2	12.9	13.9	11.8 12.2 13.3 14.6	14.3 14.0 12.6 13.5
arley Pr		1975L	9.5 10.0	11.6	10.7	11.4	9.7 10.0 9.9 11.0	11.4 11.2 10.1 10.8
Price to E		1970H	10.5 11.0	12.7 12.8 12.0	11.7	12.6	10.7 11.1 10.9 13.3	12.5 12.3 11.1 11.8
io of Calf !	ce Ratio	1970L	9.1 9.5 10.6	0.11 1.11 4.01	10.1	10.9	00000 10000	10.8 10.6 9.6 10.2
18. The Rat	Pri	1964 ⁴	7.0 7.2 8.0	8.5 8.5 7.9	11.5	12.0	12.6 12.7 12.1 13.3 15.0	11.3 11.7 10.6 11.0
Table A-		1960 ³	7.2 7.4 8.4	8.7 8.3 7.6	10.2	10.8	10.6 10.7 10.7 11.7 13.3	10.1 10.6 9.5 8.7
Appendix		Region ²	-005	7004	8	6	1243212	16 17 18 19

т

	-	70 - 75H	000000000000000000000000000000000000000	0.0	0*0 0*0	3.6 3.6 3.6
	ntage Change	70-75L	0000000	0*0	000.0.	0.00
	Perce	64-70	15.2 9.8 11.7 16.2	-3.2 15.5	04.1 -4.0 -1.7 -12.5	-2.4 -13.7 -4.9 -
gion.		60-64	11.9 6.8 8.7 7.8 12.8 9.6	6.4 7.4	12.8 13.3 7.4 7.3	33.4 10.3 11.9
he EEC by Reg		1975H	°	1.1	222+2+	222+
ey Price in th		1975L	°	1.1	333 (3)	333 1
Price to Barl	Ratio	1970	°	1.1	333+3+	222 '
atio of Milk	Price	1964 ⁴	6.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	1.1		1.1
e A-19. The R		1960 ³	8.00 0.00 0.00 0.00 0.00	1.1 0.9	00.1 1.1 1.1	0.8 1.2 1.0
Appendix Table		Region ²	-004500	ω σ	110	16 17 18 19

Appendix Tat	ble A-20. Hog	Prices by Reg	jion in the EE						
		Price	e (in U.A. per	100 kg)			Percent	age Change ¹	
Region ²	19603	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70-75H
-	58.55	62.22	62.34	58.73	68.07	6.3	0.2	-5.8	9.2
2 6	59.49 61.28	62.46 65.01	61.31 60.05	57.76	69.94	5.0	-1.8	-5.8	14.1
4	60.90	63.48	59.20	55.77	68.62	4.2	-6.7	-5.8	15.9
20	61.90 61 an	65.24 63 04	59.73 60.41	56.26 56.00	69.22	5.4	-8.5 -5.5	-5.8 -5.8	15.9 15.0
2	60.79	60.24	59.61	55.35	68.10	6.0-	-1.1	-7.2	14.2
ß	47.87	55.79	61.93	58.34	71.77	16.5	11.0	-5.8	15.9
6	49.68	62.76	60.42	56.92	70*03	26.3	-3.7	-5.8	15.9
10	54.49	65.42	62.17	58.57	67.88	20.1	-5.0	-5.8	9.2
1	50.54	61.47	60.72	57.20	66.30	21.6	-1.2	-5.8	9.2
12	49.62 52 87	60.56 63 80	61.65 60.63	58.07	67.31 66.20	22.1		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.2
14	52.60	63.53	62.14	58.54	67.85	20.8	-2.2	-5.8	9.2
15	ı	1	•	•	1	•	1	1	•
16	51.65	60.74	60.09	66.92	70.73	17.6	8.8	1.3	7.0
17		•	ľ			•	•	•	1
20 0	•	•			'	•	•	ı	
61	1	•	•		•	•	•		

1	1			
		70 - 75H		
	itage Change	70-75L		
	Percer	64-70	6.1 6.1 -3.4 -3.1 -3.1 -3.1 -3.1 -3.1 -3.1 -3.1 -10.7 -21.0 -21.0 -21.0	
EEC.		60-64	4.4 1.5 2.2 2.2 2.2 1.9 6.2 1.3 8.6 3.8 3.8 3.8 3.8 5.1 5.1 10.6 5.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2	
egion in the		1975H	7 66666 7 7 666663 66666 7 7 666663 7 96666 7 7 9	
y Price by Re		1975L	6.9 6.4 6.6 6.5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Price to Barle	e Ratio	1970	7 99999 7 9 99999 7 9 999999 7 9 999999 9 9 9	
atio of Hog P	Price	1964 ⁴	7.3 8.5 8.3 8.8 8.8 8.8 8.8 8.8 8.8 8.4 8.7 7 .4 7 .4	
e A-21. The K		19603	6.20 6.30 7.30 8.4 7.90 6.9 7.90 7.90 7.90 7.90 7.90 7.90 7.90 7.	
Appendix Tabl		Region ²	-084997 8 6 0-2849 9	17 18 19

70-75H -5.8 -5.8 -5.8 -5.8 -5.8 -4.3 ı 70-75L -5.8 -5.8 -5.8 -5.8 -5.8 1.3 Percentage Change¹ 1 64-70 -15.5 -20.0 -15.4 -20.0 -15.4 -2.7 1 60-64 17.5 18.8 16.0 17.9 12.5 -0.4 I The Ratio of Hog Price to Corn Price by Region in the EEC. 1975H 6.3 6.4 6.4 6.3 6.2 7.2 1 1975L 6.3 6.2 6.4 6.4 6.3 7.7 1 1970 6.8 6.7 9.9 6.7 7.6 6.7 1 Price Ratio 1964⁴ 8.0 7.8 8.4 7.8 8.5 7.9 ı 1960³ Appendix Table A-22. 6.8 7.8 7.3 6.7 7.1 7.1 1 Region² 10 12 13 15 Ξ 14 16

		70-75H	0000000	0.0 0.0 0.0 -19.2 -19.2 -19.2	-19.3
	tage Change ¹	70-75L	-19.2 -19.2 -19.2 -19.2 -19.2	-19.2 -19.2 -19.2 -19.2	- 12.3
	Percen	64-70	-11.9 -12.4 -11.9 -14.3 -15.1 -12.7 -13.3	-8.0 -4.3 -53.8 -53.8 -51.6 -51.5	
EEC.		60-64	-15.1 -13.8 -13.8 -12.6 -12.6 -12.6	-11.3 -7.9 -12.4 -12.6 -16.1 -16.8	
Region in the		1975H	ດີດ 4 ທີ່ດີ 4 ພ.ທ ທີ່ 4 ທີ່ທີ່ 4 ພ.ທ	5.5 5.8 4.3 4.3 4.3	
ey Price by I		1975L	444444 96499444 46499444	4.4 4.3 4.3 4.4 4.4 4.4 4.4 4.4 4.4 4.4	4 • 6
^o rice to Barl	io	0261	ດ ຕ ຈ ດ ດ ດ ດ ດ ຕ ອ ດ ດ ອ ດ ດ	ດີດ ເດີດ ເດີດ ເດີດ ເດີດ ເດີດ ເດີດ ເດີດ	2°-2
of Broiler I	Price Rati	1964 ⁴	000000 0004000 0004000	6.0 6.0 111.5 111.0 110.9 111.0	• • • • • •
24. The Ratic		1960 ³	6.9 7.7 4.7 8 .7 .7 .3	6.8 6.6 13.1 13.1 13.1 13.1	
able A-		8			
Appendix Ta		Region ²	-004500	8 01110 ⁹ 8	ci 118 118 19

		70-75H	6.3 6.3		6.3	6.3 -8.9	0000 880 800 800 800 800 800 800 800 80	- 12. l
	e Change ¹	70-75L	80 80 80 80 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 9		-8.3	-8.2 -21.4	-21.4 -21.4 -21.4	- 14.6 - 1
	Percentag	64-70	-34.8 -33.2 -42.3	-45.9 -46.4 -35.0	6.0-	-13.1 -11.2	-13.1 -11.6 -13.2 -11.1	-20.2
		60-64	-2.3 -4.0 -1.0	0.01	-4.2	0.6 21.1	21.12 21.12 21.12	· · · · 2· 0 - 22 · 0
		1975H	54.27 53.99 53.58	53.24 53.57 53.65 52.55	52.50	51.21 52.20	51.11 51.96 51.02 52.28	- 48.84 -
	(6	1975L	46.83 46.58 46.23	45.93 46.22 46.29 45.34	45.30	44.19 45.04	44.10 44.84 44.02 45.11	- 47.42 -
in the EEC.	A. per 100 kg	1970	51.04 50.77 50.39	50.07 50.38 50.45 49.42	49.38	48.16 57.29	56.09 57.03 56.00 57.38	55.55
ces by Region	Price (in U.	1964 ⁴	78.30 ⁵ 76.05 87.30	89.20 94.05 87.30 76.05	49.85 ⁶	55.42 ¹⁷ 64.53 ²²	64.53 64.53 64.53 64.53	- 69.65 ¹⁶ - -
-25. Egg Pri		1960 ³	80.10 ⁵ 79.20 88.20	88.20 93.15 88.20 76.50	52.02 ⁶	55.08 ⁻⁷ 53.30 ²²	53, 30 53, 30 53, 30 53, 30	- 73,30 ¹⁶ -
Appendix Table A		Region ²	- 0.6	0450N	ø	9 01	11 12 14	15 17 19 8

hpendix Table A-	-26. The Rat	tio of Broiler	Price to Cor	n Price by Re	egion in the	EEC.				A
		Price F	latio				Per	centage Chan	gel	
keg i on2	1960 ³	1964 ⁴	1970	1975L	1975H	60-64	64-70	70-75L	70-75H	
10	1.11	10.4	5.2	4.2	4.2	-6.5	-49.6	-19.2	-19.2	
11		10.4	5.2	4.2	4.2	-6.5	-49.7	-19.2	-19.2	
13		10.4	5. 2 2	4.2	4.2	-0-5	-50.1	-19.2	-19.2	
14	1.11	10.0	5.2	4.2	4.2	-9.8	-48.0	-19.2	-19.2	
15	١	ı	•	1	T	ı	ı	ı	ı	
16	8.5	7.0	5.2	4.6	4.2	-17.7	-25.3	-12.3	-19.2	
77 Jahrandiv Tahlo 27	The Datio	of Ead Duice	to Coun Duic	t Docion	in the CEC					
				a ny region	וו מופ ררה.	-				
10	7.2	8.4	6.2	4.9	4.9	17.0	-25.3	-21.4	-21.4	
E	7.2	8.4	6.2	4.9	4.9	17.0	-25.6	-21.4	-21.4	
12	7.2	3.4	6.1	4.3	4.8	17.0	-26.6	-21.4	-21.4	
5	2.1	8°5	0.2	4°0	4°0	19.2	-20.9	-21.4	4°12-	
+ L	- -	1.0	7.0	4•.4	t. 1	0*71		+•17-	+•12-	
2		•		I	1	i		I		
16	I.II	8.9	6.4	5.4	5.0	-19.5	-28.7	-14.6	-21.4	

o of Egg Price to Barley Price by Re Price Ratio 1964 ⁴ 1970 1975L 7.9 5.4 5.0 9.7 5.8 5.3 9.7 5.3 5.3 9.1 5.7 5.3 8.2 5.6 5.1 7.1 5.7 5.3 9.3 6.4 5.0 8.8 6.4 5.0 8.9 6.4 5.0 8.9 6.4 5.0	tio of Egg Price to Barley Price by Region in the EEC.	Price Ratio	1964 ⁴ 1970 1975L 1975H 60-64 64-70 70-75L 70-75H	7.9 5.4 5.0 5.0 -4.0 -31.0 -8.3 -8.3 7.7 5.5 5.1 5.1 -7.2 -27.8 -8.3 -8.3	9.0 5.7 5.2 5.2 -4.0 -37.1 -8.3 -8.3 9.7 5.8 5.3 5.3 -0.9 -40.1 -8.3 -8.3	10.2 5.3 5.3 5.3 -1.5 -43.3 -8.3 -	6.5 5.6 5.1 5.1 -12.7 -14.5 -8.3 -8.3	7.1 5.7 5.3 5.3 -6.0 -19.4 -8.2 -8.2	9.3 6.3 5.0 5.0 9.5 -31.5 -21.4 -21.4 9.3 6.4 5.0 5.0 10.1 -31.7 -21.4 -21.4 8.8 6.4 5.0 5.0 4.2 -27.8 -21.4 -21.4	8.9 6.3 5.0 5.0 4.9 -28.4 -21.4 -21.4 8.8 6.3 5.0 5.0 4.1 -28.2 -21.4 -21.4 	8.3 6.4 5.5 5.0 -5.6 -23.3 -14.6 -21.4
	<pre>< Table A-28. The Rati</pre>		1960 ³	8.2 8.3	9.4	10.3 9.3 8.3	7.5	7.6	ດ ດ ດ ເລັດ ເລ	່ ອີສ ອີສີ ອີສີ	3*3 3

¹The percentage change was calculated prior to rounding the prices or price ratios.

²For map of regions see Figure 1, page 3.

³Average of 1959, 1960, and 1961 prices.

⁴Average of 1963 and 1964 prices.

 $^5 \rm Calculated$ from producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Erzuegerpreise der Landwirtschaft, Bonn, annual issues.

⁶From unpublished producer prices supplied by the Ministerie van Landbouw en Visserij and in Landbouw-Economisch Istituut, *Prijsstatistiek*, Den Haag, in selected monthly issues.

⁷From producer prices in Statistical Office of the European Communities, Agranpreise, Brussels, various issues.

⁸Producer prices obtained from the Ministere de l'Agriculture, Paris.

⁹From prices received by country elevators obtained from the Office National Interprofessional des Cereales (ONIC), Paris. For procedure used to convert to producer level prices, see the discussion in the following appendixes.

¹⁰Average of 1964/65 and 1965/66 prices.

¹¹From producer prices in Istituto Centrale di Statistica, Annuario di Statistica Agraria, Rome, various issues.

¹²Price for 1961/62 only.

¹³Calculated from producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistische Monalsberichte, Bonn, various issues.

¹⁴From producer prices in Statistical Office of the European Communities, Agrarstatistik, Brussels, various issues.

¹⁵Computed by the author.

¹⁶From prices received by producers as reported in Istituto Centrale di Statistica, Bollettino Mensile de Statistica, Rome, various issues.

¹⁷Average of 1964 and 1965 prices.

¹⁸From producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Statistischer Bericht über die Milch- und Molk-ereiwirtschaft im Bundesgebiet, Bonn, various issues.

¹⁹Average of 1962/63 and 1963/64 prices.

²⁰Computed by the author.

²¹From producer level prices given in Bundesministerium für Ernährung, Landwirtschaft und Forsten, Ergebnisse der Betriebswirtschaftlichen Meldungen, Bonn, various issues.

 $^{22}{\rm Calculated}$ from producer level prices given in Statistical Office of the European Communities, Agrarpreise and Agrarstatistik, various issues.

²³Based on information obtained by Fred A. Mangum, Jr. in interview with Italian poultry experts, including the poultry feeding specialists at the University of Turin and at Agangelini Corporation's mixed feed mill.

АРР	ENDIX B				
WEIGHTS, MEASURES, MONETARY EQUI	VALENTS AND ABBREVIATIONS				
Weights	Square Measures				
1 short ton = 2,000.0 pounds	l hectare (ha) = 2.47 acres				
1 long ton = $2,240.0$ pounds	1 acre = 0.4047 hectare				
1 metric ton = 2,204.622 pounds	Official Exchange Rates				
1000 kilograms = 1 metric ton	1.00 U.A. = \$1.00 (U.S.)				
100 kilograms = 1 quintal	1.00 U.A. = DM 4.00 (Germany)				
10 quintals = 1 metric ton	1.00 U.A. = FF 4.93706 (France)				
1 metric ton wheat = 36.7437 bushels	1.00 U.A. = L. 625 (Italy)				
1 metric ton barley = 45.9296 bushels	1.00 U.A. = fl. 3.62 (Netherlands)				
1 metric ton corn = 39.36825 bushels	1.00 U.A. = BF 50.00 (Belgium)				
Abbreviations					
Benelux = Belgium, Luxembourg and The	Netherlands				
EEC = European Economic Community. A	lso known as the Common Market, the Com-				
munity and the Six. Member cou	ntries are Belgium, The Netherlands, It-				
aly, Luxembourg, France, and We	st Germany.				
ERS = Economic Research Service, a br	anch of the U.S. Department of Agriculture.				
FAO = The Food and Agriculture Organi	zation, a specialized agency of the United				
Nations.					
FAS = Foreign Agricultural Service, a	branch of the U.S. Department of Agricul-				
ture.					
OECD = Organization for Economic Coop see OEEC.	eration and Development, formerly the OEEC,				
OEEC = Organization for European Econ	omic Cooperation. Member countries were				
Austria, Belgium, Denmark, France, Germany, Greece, Iceland, Ireland,					
Italy, Luxembourg, The Netherlands, Norway, Portugal, Sweden, Switzer-					
land, Turkey, the United Kingdom, and after 1959, Spain. Yugoslavia					
was represented by an observer	. The United States and Canada were as-				
sociate members. The OEEC was	succeeded 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 Ag	riculture				
c.i.f. = cost, insurance and freight.	A term denoting that a given figure in-				
cludes, in addition to merch	andise value shipped, the insurance paid				
on it and the carrier's char	ges.				
f.o.b. = free on board. Price includ	es loading costs but not transportation				
charges					
U.A. = Unit of Account. An accountin	g measure established by the EEC for ex-				
pressing monetary values. See	Official Exchange Rates.				
ha = Hectare, see <u>Measures</u>					

APPENDIX C

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. 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 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 retion based on farm size and grain production data. Table C-1 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 C-1 to data on wheat and barley production by region gives the total production in each size group shown in Tables C-2 and C-3.

Appendix Table	C-1. Amount and	Percentage of	Land i	n Each Farm Size	Group by Region in	France, 1963 ¹
Farm Size	Northeast	North Cen	tral	North West	South West	Central Mountains
Group (in ha.)	Per- Ha. cent	Ha. C	er- ent	Per- Ha. cent	Per- Ha. cent	Per- Ha. cent
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.	335,920 3.2	170,892 1.9	266,815 2.1
5-9.9	193,988 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	۲.۱	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	0.4	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	9.6	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 4	٩.١	640,485 6.1	3,021,871 34.4	4,240,332 33.0
Total	4,342,000 100	11,762,900 10	00	10,554,900 100	8,789,700 100	12,850,600 100
ן Calculate of France and of Wisconsin,	d from G. A. Pete Their Effect Upon Madison Mimeograpi	rson and Michel Foreign Trade hed. Appendix 1	Petit. Pattew B. Tabl	, Current Changes Ws, Department of le 7.	in the Livestock a Agricultural Econo	nd Grain Economy mics, University

Appendix Tabl	le C-2. Pr Si	oduction ze Group	of Wheat in , 1963 ¹	Each Regi	on in France	e and Avera	age Product	ion Per	Farm by Fa	E
	North	East	North Cel	ntral	North We	est	South W	est	Central Mo	untains
Farm Size Group (in ha.)	Total (1000 tons)	Aver- age (tons)	Total (1000 tons)	Aver- age (tons)	Total (1000 tons)	Aver- age (tons)	Fotal (1000 tons)	Aver- age (tons)	Total (1000 tons)	Aver- age (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	9.0	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 2 (63.98) ²	9.11	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)	1.911	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
1 See note 2 Where on	., Table 29 1v part of	the pro	duction is w	ithin the	ouantum. the	figure ir	, namenthes	es indic	ates the n	ortion
within the qua	ntum.									

endix Tabl	e C-3. Proc	duction o up, 1963 ¹	f Barley in I	Each Regi	on in France	and Aver	age Product	tion per	Farm by Far	m Size
Size up a.)	North Ed Total (1000 tons)	ast Aver- age (tons)	North Centi Total (1000 tons)	ral Aver- age (tons)	North Wes Total (1000 tons)	t Aver- age (tons)	South We Total (1000 tons)	st Aver- age (tons)	Central Mc Total (1000 tons)	untains Aver- age (tons)
than 2	4.16	0.2	12.66	0.3	9.59	0.2	1.41	1.0	3.37	0.1
6.	14.26	0.6	46.42	1.2	43.84	0.5	5.37	1.0	17.70	0.3
6.0	26.74	1.2	91,06	2.7	109.60	I .1	18,93	0.3	55.61	0.6
9.9	49.32	2.4	299.63	5.4	343.87	2.2	54.24	0.6	141.57	۱.۱
19. 9	127.75	5.8	860.92 (597.48)	10.8	635.68	5.2	87.02	1.4	240.16	2.8
6.66	102.20 (63.88) ²	12.0	827.16 (230.78)	26.9	145.22 (99.91)	10.9	21.19	2.8	107.02	5.6
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
otal	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%)	6.0	842.65 (591.01) (70.1%)	2.0
l See not 2 Where c in the qu	e, Table 29. nly part of nantum.	the prod	uction is wi	thin the	quantum, the	figure i	n parenthes	ies indic	ates the po	rtion

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 C-2 and C-3 indicate the large difference in impact of the quantum tax on different regions. Finally, the producer prices for each region were adjusted to reflect the incidence of the quantum tax. 1

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 C-4 shows the coefficients, which are based primarily on the relative amounts marketed under normal conditions, but have been altered by the EEC in some cases to reflect the particular importance of a specific grade in a certain country. Weighting the prices from the past using the weights now employed by the EEC improved the comparability of the various price series.

 $^{^{1}}$ 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 C-4. Co	efficients for	Computing National	Average Prices of
Bee	ef and Calves		
Beef Cat	tle	Calve	S
Quality Grade	Coefficient	Quality Grade	Coefficient
	Germa	any	
Bullen A Ochsen A Färsen A Bullen B Ochsen B Färsen B Kühe A Bullen C Kühe B Färsen C Kühe D	21.6 3.0 17.7 11.0 0.7 5.0 11.0 1.4 16.1 1.0 9.5 2.0 Belo	Kälber A Kälber B Kälber C Kälber D	42.0 36.0 17.0 5.0
	berg	i un	
Boeufs et genisses 60% Taureaux 60% Boeufs et genisses 55% Taureaux 55% Vaches 55% Taureaux lourds Vaches 50% Betail de fabrication	18.0 9.0 21.0 13.0 10.0 1.0 21.0 7.0	Extra blancs Bon veaux Ordinaires Mediocres	2.0 7.0 76.0 15.0
		.,	
Vitelloni 1st qual. Vitelloni 2nd qual. Buoi 1st qual. Buoi 2nd qual. Vacche 1st qual. Vacche 2nd qual. Vacche 3rd qual.	27.0 22.0 11.0 8.0 15.0 10.0	Vitelli 1st qual. Vitelli 2nd qual.	60.0 40.0
	Frai	nce	
Vaches extra Boeufs extra Taureaux extra Bouefs 1st qual. Vaches 1st qual. Boeufs 2nd qual. Vaches 2nd qual. Boeufs 3rd qual. Vaches 3rd qual.	12.0 15.0 21.0 12.0 2.0 3.0 23.0 2.0 9.0	Veaux extra Veaux 1st qual. Veaux 2nd qual. Veaux 3rd qual.	27.0 35.0 26.0 12.0

F

Appendix Table C-4 conti	nued.		
Beef Cat	tle	Calves	
Quality Grade	Coefficient	Quality Grade	Coefficient
	Nether	lands	
Slachtrunderen extra Slachtrunderen 1st qual. Slachtrunderen 2nd qual. Vette stieren Slachtrunderen 3rd qual. Worstkoeien	10.0 40.0 32.0 3.0 10.0 5.0	Kalveren 1st qual. Kalveren 2nd qual. Kalveren 3rd qual.	25.0 55.0 20.0
Genisses, boeufs and Taureaux AA Vaches AA Genisses, boeufs and Taureaux A Vaches A Genisses, boeufs and Taureaux B Vaches B	65.0 3.0 11.0 14.0 1.0 6.0	Veaux	100.0

¹ Journal Officiel des Communautes Europeennes, Brussels, 27 Fevrier 1964, p. 571/64.

APPENDIX D

PROCEDURES FOR PROJECTING PRODUCT PRICES

Chapter 4 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 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 ratio of producer prices to 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 projections for 1970, one by Plate and Woermann¹ and the other by the IFO Institute² 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.

	APP	ENDIX TABL	E: D-1,			_
CC (Nationa)	OMPARISON OF 1970 WITH 1 Average Pr	CEREAL PR RESULTS OF ices in Un	ICE ESTIMA OTHER STU its of Acc	TES FOR DIES ount per T	īon)	
		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 1964 period and then applying these relationships to the calculated average price for 1970. Since the national average price will decline from 1964 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.

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

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

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

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 government 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 Duisberg 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 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 lowest 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 inter-

vention 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.

When this study was conducted, there was only one market in France with an intervention price for rye. Thus, it was impossible 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. The subsequent expansion in the number of intervention points with an intervention price for rye does not invalidate the method used, since target prices for rye and barley have been set close together in most French markets.

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 traveled 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 andlied to the transportation costs for each region.

	AUGME	APPENDIX TABLE: D-2.	ON COSTS
Large	Regions	France - NC, NW & CM Italy - N & S	2.50 u.a. per ton
Sma11	Regions	France - NE & SW Italy - C & I Netherlands	1.85 u.a. per tor
		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 dependence 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 totol production costs. For poultry products, these calculations required the following assumptions. First, the regional average feed grain utilization rate³ 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 halfway 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 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.

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. Us-

³The 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.

⁴These 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: D-3-

FEED RATIONS WITH WEIGHTS FOR CALCULATING FEED COSTS FOR BROILERS

Country	Wheat	Feed Barley*	Corn
Germany	0.5	0.28	0.2
Italy	-	-	1.0
Netherlands			
France	0.116	0.116	0.667
Belgium-Luxembourg			

*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.

ing 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 used as the basis for estimating 1970 and 1975 prices.

	APPENDIX TABLE:	D-4.	
FEED RATIONS WITH	WEIGHTS FOR CALCUL	ATING FEED COSTS FOR EG	GS
Country	Wheat	Feed 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: D-5.						
KILOGRAMS OF FE	ED GRAIN REQUIRED	PER KILOGRAM	OF EGGS	2 °n		
Country	1965	1970		1975		
Netherlands, Germany,				0.75		
Beigium-Luxembourg	3.25	3.00		2.75		
Italy, France	4.25	3.50		2.75		

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 table below. Feed grain costs represent 55 percent of the total production costs.

APPENDIX TABLE: D-6-								
FEED RATION WEIGHTS FOR CALCULATING FEED COSTS FOR-HOGS								
Country	Wheat	Rye	Barley*	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				
*Where the total weights do not sum to 1.0, the weight for barley in- cludes a calculation for oats in the ration. Since no projections have beer made for oats prices, the amount of oats in the rations is converted to bar- ley cost equivalent using a conversion of costs of oats price = 0.95 barley price.								
APPENDIX TABLE: D-7,								
KILOGRAMS OF FEED GRAIN REQUIRED PER KILOGRAM OF HOG (liveweight)								
		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 five 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 one 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 target 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.



