

# Western Europe's Beef Production, Consumption, and Trade

## SITUATION AND OUTLOOK



ECONOMIC  
RESEARCH  
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## ABSTRACT

A conservative forecast of a 10-percent increase in 1974 West European beef and veal production (with continued depressed consumption) would result in more than a 650,000-metric ton fall in the net import requirements of the region. Beef production could easily go higher, equaling or even exceeding consumption.

Outside suppliers--mainly Latin America, Eastern Europe, and to a lesser extent, Oceania--will likely bear the brunt of this decline in imports, as actions by the West European countries to end the meat "glut" have been characterized by import embargoes, levies, and tariffs and restrictive import licensing. As suppliers seek to divert exports, the U.S. market will receive increased pressure. However, sanitary and health regulations will prohibit the major suppliers of the West European market from shipping fresh, chilled, or frozen beef to the United States. Only cooked beef is allowed.

The 1974 surge in beef production in Western Europe results from the large herd buildup over the past 2 years, which was stimulated by improved profitability in the dairy sector and a jump in beef prices. Production forecasts for 1974 will not cut significantly into herd size, so high production levels can be expected to continue into 1975 and 1976.

Keywords: Beef, Veal, Western Europe, Production, Consumption, Exports, Imports, Forecasts.

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## SUMMARY

West European imports of beef and veal will fall sharply in 1974, as beef consumption remains depressed and production continues to increase. A conservative forecast of a 10-percent increase in production would result in a more than 650,000-metric ton fall in net West European import requirements. An even sharper decline is possible, as 1974 beef production could easily go higher.

Imports from non-West European suppliers--mainly Latin America, Eastern Europe, and to a lesser extent, Oceania--will likely bear the brunt of the decline. Actions so far by the West European governments to end the meat "glut" have been strongly oriented toward reduction of these imports. In addition to reimposing tariffs and levies, the European Community (EC) has several times this year authorized the imposition of import embargoes on beef and veal imports from third countries. On July 16, the Community announced a ban on imports of beef, veal, and live cattle until the end of October. Other West European countries have also taken restrictive action. For example, Norway and Greece have imposed import embargoes on beef.

The sharp drop in West European imports will put increased pressure on the U.S. market, as suppliers seek to divert exports. For example, U.S. beef imports (mainly canned beef) from Argentina--a major supplier to Western Europe--were up by 54 percent in the first half of 1974. However, sanitary and health regulations will prohibit the major suppliers of the West European market from shipping fresh, chilled, or frozen beef to the United States--only cooked beef is allowed. Also, these same regulations will restrict U.S. imports from most of the West European countries.

The surge in 1974 beef production in Western Europe results from the large herd buildup that has taken place over the past 2 years. Cattle numbers at the end of 1973 were over 7 million head higher than 2 years earlier. This herd buildup was stimulated by improved profitability in the dairy sector and the large jump in beef prices in 1972 and early 1973. In the latter half of 1973, widespread holding of market-weight cattle in hopes of a price rebound further augmented herd numbers. Due to this herd buildup, cattle slaughterings fell sharply--in 1973 they were at their lowest level since the 1950's. Beef and veal production in 1972 and 1973 was 7 and 9 percent lower, respectively, than the record levels of 1970 and 1971.

Beef and veal consumption has traditionally paralleled beef production in Western Europe. However, 1974 beef consumption is not expected to show much change from the low 1973 level because of: (1) the slowdown in most West European economies in 1974, combined with steep inflation; (2) the severe balance-of-payments problems facing a number of countries, which may generate attempts to cut back imports (such as has already occurred in Italy); (3) the failure of Europe's beef prices to fall significantly due to retail price rigidity, implementation of policies of internal stabilization, and increases in governmental support prices; and (4) strong competition from other meats, which are also in ample supply this year and which generally have more price flexibility than beef.

Per capita consumption of beef and veal in total, after increasing sharply during the 1960's, has been declining since 1970 in Western Europe (veal since 1969). Beef consumption as a share of total meat consumption has also declined. However, there are wide variations by country in beef consumption levels and trends.

The drop in beef consumption since 1970 would appear to be primarily due to increased retail beef prices. In 1973, however, prices of pork and poultry rose more than did beef prices, but this did not cause a shift to beef consumption. Consumers in many West European countries, faced with sharply rising food budgets, apparently chose to economize by purchasing more pork and poultry--still considerably cheaper than beef on a per pound basis.

The rates of increase now being forecast for beef and veal production in 1974 will not cut significantly into herd size. Thus, high levels of production can be expected to continue into 1975 and 1976. Although consumption should recover somewhat in the medium term, particularly if economic growth rates pick up, the same pressures operative in 1974 will probably make for low levels of beef imports.

Projections of long-term developments in the West European beef situation show great variation and no general consensus as to the size or direction of net imports. Increases in herd size are generally thought to be constrained by the "linkage" of beef and milk production. Currently, about 90 percent of West European beef production comes from dairy or dual-purpose cattle. Thus, unmanageable dairy surpluses could result from large herd increases. On the other hand, there is substantial room for increased beef production through increases in carcass weights, improvements in calving rates, and particularly, further reductions in calf slaughterings. Strong growth in West European beef consumption is expected in the long run, given continued economic progress in the region. The income elasticity for beef is thought to be much higher than that for other meats, and current West European consumption levels are still quite low compared with U.S. and Canadian beef consumption.

# Western Europe's Beef Production, Consumption, and Trade

## SITUATION AND OUTLOOK

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### INTRODUCTION

Since late 1973, Western Europe has been experiencing a "glut" on the beef market, characterized by falling prices, a tightening of import restrictions, and support purchases. The European Community (EC) 1/ has taken increasingly stringent measures to reduce imports, including temporary embargoes and export subsidies. Other West European countries have adopted similar measures. Still, EC intervention (support) stocks of beef were estimated at over 125,000 metric tons in July, severely straining storage capacity.

West European beef production, which had fallen by 8 percent in 1972 from the record 1971 level and had continued at low levels throughout most of 1973, began to increase sharply in the last quarter of 1973. The potential for a substantial jump in production has been created by the widespread buildup of cattle herds in 1972 and 1973. On the other hand, there are several forces acting to constrain beef consumption--the unfavorable economic situation, retail price rigidity, and sharp competition from other meats.

In view of the current West European situation, the objectives of this report are:

1. To examine and explain recent developments in the West European beef market--in particular the causes of the current "glut."
2. To estimate the probable levels of beef production, consumption, and trade in Western Europe in 1974, taking into account the policy measures implemented by West European governments. The impact of changes in West European trade on the world market and on U.S. trade will also be examined.
3. To review the medium- and long-term outlook for beef production, consumption, and trade in Western Europe. In particular, the probable impact of developments in 1974 on beef production in 1975 and 1976 will be examined.

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1/ The European Community is an economic and customs union consisting of Belgium, Luxembourg, France, Italy, West Germany, the Netherlands, and as of January 1, 1973, Denmark, Ireland, and the United Kingdom.

2/ Agricultural economists, Foreign Demand and Competition Division, Economic Research Service, U.S. Department of Agriculture.

PRODUCTION

Long-Term Upward Trend Evidenced

Beef and veal production in Western Europe during 1960-73 showed an upward trend, marred by significant dips in 1964 and 1965 and again in 1972 and 1973 (fig. 1 and table 1). Despite this last drop, average production for 1970-73 was nearly 20 percent above the average of 1960-64. However, beef and veal's share of total meat production declined by roughly 6 percentage points, standing at 28 percent in 1973 (table 2).

Pork continues to be the leading meat produced in Western Europe, and its share of total meat production, at 43 percent in 1973, is still rising. Poultry meat production, however, has displayed the fastest growth, doubling in the past 10 years. Poultry now accounts for 17 percent of all meat produced, up from 9 percent in 1960.

Beef and veal production in Western Europe has remained heavily concentrated in the EC countries (83 percent in 1973). However, the share of the other West European countries has increased somewhat due to the more rapid growth of beef and veal production in Spain, Portugal, and Greece. Within the EC, Ireland and Italy have shown the fastest rates of increase, although Italian production is now falling sharply.

Since 1970, the share of veal in total beef and veal has declined significantly. In 1973, this share was estimated at 14 percent. Throughout the 1960's, it held at about 16 to 17 percent. The decline in the number of calves slaughtered has been much greater than indicated by these shifts. However, the sharp rise in calf slaughter weights has largely offset this decline. Nevertheless, veal production is still very important in a number of countries. For example, in the Netherlands and Denmark, the two largest producers for the export market, veal accounts for 35 to 40 percent of total beef and veal production.

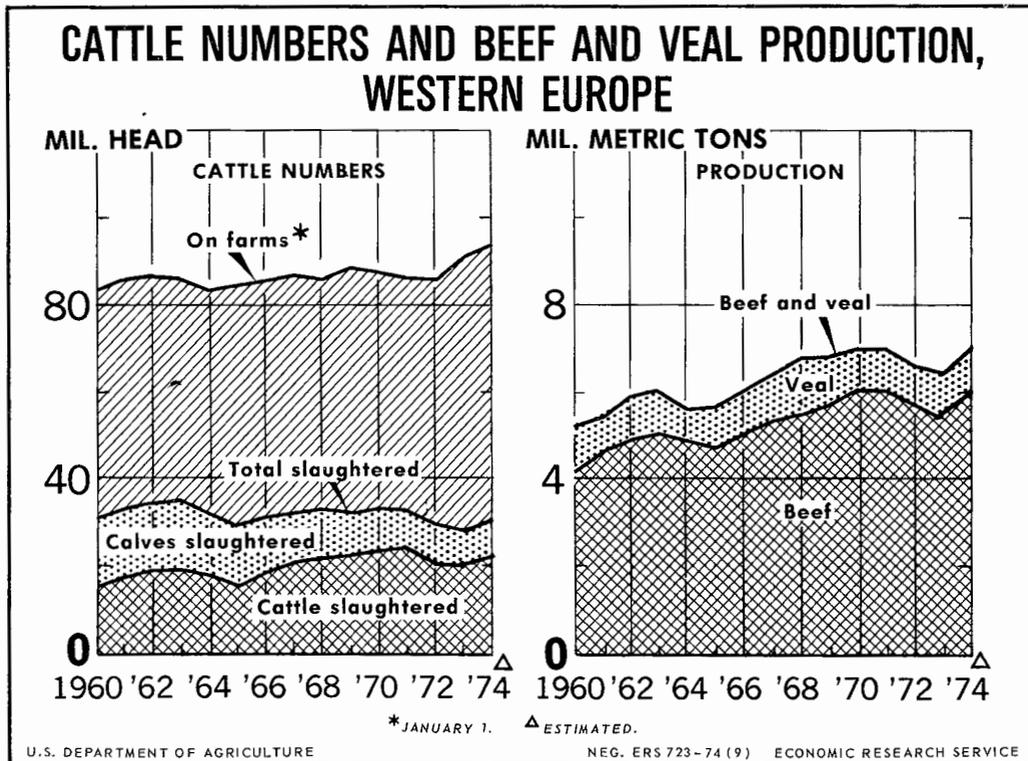


Figure 1

Table 1--Beef and veal production 1/, by West European country, selected years

Country	1960-64	1965-69	1970	1971	1972	Preliminary 1973
	1,000 metric tons					
Belgium . . . . .	211	227	261	270	258	257
Luxembourg . . . . .	9	10	9	9	9	10
France . . . . .	1,418	1,527	1,565	1,600	1,455	1,454
Germany, West . . . . .	1,139	1,202	1,356	1,376	1,203	1,193
Italy . . . . .	651	876	1,059	1,013	1,049	855
Netherlands . . . . .	262	274	326	322	268	259
EC-6 . . . . .	3,690	4,116	4,576	4,590	4,242	4,028
Denmark . . . . .	162	194	192	195	171	185
Ireland . . . . .	125	173	216	236	205	210
United Kingdom . . . . .	893	879	949	953	909	876
EC-3 . . . . .	1,180	1,244	1,357	1,384	1,285	1,271
EC-9 . . . . .	4,870	5,365	5,933	5,974	5,527	5,299
Austria . . . . .	137	151	154	160	160	158
Finland . . . . .	82	94	106	109	106	98
Greece . . . . .	40	76	90	88	91	97
Norway . . . . .	55	56	57	56	54	59
Portugal . . . . .	47	64	89	76	74	78
Spain . . . . .	180	217	308	324	303	350
Sweden . . . . .	146	162	164	146	130	135
Switzerland . . . . .	110	120	136	134	126	127
Other Western Europe	797	941	1,104	1,093	1,044	1,102
Western Europe . . .	5,667	6,306	7,037	7,067	6,571	6,401

1/ Production from animals slaughtered in the individual country. For Italy, production includes animals slaughtered immediately after import, equivalent to (1,000 metric tons): 1970, 259; 1971, 199; 1972, 296; 1973, 145 (preliminary).

Source: Meat Balances in OECD Member Countries, 1959-72. Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr.

A few salient features of the West European beef industry which should be noted are:

1. Approximately 90 percent of the beef and veal production comes from dairy or dual-purpose cattle. Sizable numbers of cattle bred exclusively for beef production are found only in France (25 percent of the breeding herd in 1973), Ireland (33 percent), and the United Kingdom (34 percent). Thus, events in the dairy sector are of crucial importance in determining trends in beef output.
2. Small farms with only a few head of cattle are the general rule throughout most of Western Europe. These farms are major barriers to developing a specialized beef industry, for the small farmers find it uneconomic to rely solely on meat production for income from their herds. Also, feedlot-type operations have developed to an important extent only in Italy where they are based mainly

on imported cattle. Elsewhere, they have not been profitable--largely because of the high cost of grains.

Table 2--Meat production, by type, Western Europe, selected years 1/

Item	1960-64	1965-69	1970	1971	1972	Pre-liminary 1973
<u>Red meat</u> (1,000 M.T.) . . . . .	13,618	15,415	17,045	17,715	17,337	17,451
Percent of total meat. . . . .	81.0	78.2	76.8	77.1	75.7	75.0
<u>Beef and veal</u> (1,000 M.T.) . . . . .	5,669	6,304	7,038	7,066	6,604	6,401
Percent of red meat. . . . .	41.6	40.9	41.3	39.9	38.1	36.6
Percent of total meat. . . . .	33.7	31.9	31.7	30.7	28.8	27.5
<u>Pork</u> (1,000 M.T.) . . . . .	6,979	8,158	9,068	9,714	9,799	10,112
Percent of red meat. . . . .	51.2	52.9	53.2	54.8	56.5	57.9
Percent of total meat. . . . .	41.5	41.4	40.9	42.3	42.8	43.4
<u>Mutton, lamb, and goat</u> (1,000 M.T.) . . . . .	726	761	761	771	774	794
Percent of red meat. . . . .	5.3	4.9	4.5	4.4	4.5	4.5
Percent of total meat. . . . .	4.3	3.9	3.4	3.4	3.4	3.4
<u>Horsemeat</u> (1,000 M.T.) . . . . .	244	192	178	163	159	144
Percent of red meat. . . . .	1.8	1.3	1.0	0.9	0.9	0.8
Percent of total meat. . . . .	1.5	1.0	0.8	0.7	0.7	0.6
<u>Poultry</u> (1,000 M.T.) . . . . .	1,722	2,645	3,291	3,377	3,640	3,884
Percent of total meat. . . . .	10.2	13.4	14.8	14.7	15.9	16.7
<u>Edible offals</u> (1,000 M.T.) . . . . .	1,130	1,263	1,360	1,398	1,393	1,403
Percent of total meat. . . . .	6.7	6.4	6.1	6.1	6.1	6.0
<u>Other meat</u> (1,000 M.T.) . . . . .	287	402	484	501	511	540
Percent of total meat. . . . .	1.7	2.0	2.2	2.2	2.3	2.3
<b>Total.</b> . . . . .	<b>16,758</b>	<b>19,725</b>	<b>22,181</b>	<b>22,991</b>	<b>22,902</b>	<b>23,278</b>

1/ Includes Iceland, except for 1973.

Source: Meat Balances in OECD Member Countries, 1959-72, Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr., 1973 only.

#### 1974 To Show Surge in Production

Most of the forecasts of 1974 West European beef and veal production made earlier in the year predicted increases within the range of 5 to 8 percent. However, increases in production in the first part of the year have been much greater than foreseen. French beef production, for example, was reported to be up by 25 percent in the first 5 months of 1974, while West German cattle slaughterings were reported to be up 23 percent in the first half. Production is generally expected to slow in the latter part of 1974--in part due to measures taken by the EC and national governments. The EC has initiated a system of slaughter subsidies aimed at encouraging cattle raisers to delay marketing until early 1975. But it now appears that West European beef and veal

production will increase by at least 10 percent in 1974. Production could go substantially higher. The EC Commission has forecast a 14- to 16-percent increase in Community beef and veal production in 1974.

Most of the increase in production will occur in the European Community. Beef and veal production outside the EC, which did not decline in 1973 as did EC production, is forecast to rise at a much lesser rate. Production outside the EC rose by 5 percent in 1973, while dipping 4 percent within the Community. Spain, the largest producer outside the EC, accounted for most of this increase, as poor feed conditions led to a record slaughter.

The largest gains in beef and veal output are expected in France, the United Kingdom, and West Germany. Only in Italy and Spain is current-year production expected to fall below 1973 levels--due to the reduction in cattle herds last year, and in the case of Italy, to a further reduction in imports of feeder and slaughter cattle.

Cattle numbers have reached record highs. Increases of 4 percent in both 1972 and 1973 have resulted in a herd expansion of 7.3 million to reach an estimated total inventory of 94.1 million head in January 1974 (table 3). Buildup within the European Community during 1973 far exceeded that in countries outside the EC--4.6 percent, compared with 1.2 percent. Of the EC countries, only Italy showed a drop in 1973. The Netherlands, Ireland, and the United Kingdom--up 12, 8, and 7 percent, respectively--showed the largest herd increases in 1973.

Table 3--Cattle numbers by West European country, 1972-74 1/

Country	1972	1973	Preliminary 1974	Change 74/73
	<u>1,000 head</u>			<u>Percent</u>
Belgium . . . . .	2,643	2,750	2,890	+5.1
Luxembourg . . . . .	192	204	210	+2.9
France . . . . .	21,697	22,455	23,600	+5.1
Germany, West . . . . .	13,638	13,892	14,374	+3.5
Italy . . . . .	8,669	8,818	8,450	-4.2
Netherlands . . . . .	3,783	4,117	4,600	+11.7
EC-6 . . . . .	50,624	52,236	54,124	+3.6
Denmark . . . . .	2,678	2,810	2,956	+5.2
Ireland . . . . .	5,516	5,946	6,408	+7.8
United Kingdom . . . . .	12,917	13,760	14,725	+7.0
EC-3 . . . . .	21,122	22,516	24,085	+7.0
EC-9 . . . . .	71,733	74,752	78,213	+4.6
Austria . . . . .	2,488	2,514	2,624	+4.4
Finland . . . . .	1,735	1,712	1,690	-2.3
Greece . . . . .	998	1,065	1,100	+3.3
Norway . . . . .	926	947	963	+1.7
Portugal . . . . .	1,080	1,122	1,150	+2.5
Spain . . . . .	4,249	4,475	4,450	-0.6
Sweden . . . . .	1,828	1,886	1,900	+0.7
Switzerland . . . . .	1,841	1,908	1,946	+2.0
Other Western Europe <u>2/</u> . . . . .	15,227	15,700	15,894	+1.2
Western Europe . . . . .	86,960	90,452	94,107	+4.0

1/ Census taken December of previous year. 2/ Total includes Iceland, Malta, and other. Source: Foreign Agr. Serv., U.S. Dept. Agr.

Several factors motivated the herd expansion. In the first place, there was an initial need to rebuild herds after successive reductions in cattle numbers in 1969, 1970, and 1971. These reductions occurred in response to a deteriorating profitability situation in the dairy sector as well as government actions to reduce dairy cow herds. (For example, the EC paid premiums for the slaughter of about 235,000 cows in 1970.) Subsequent increases in support and market prices for dairy products caused a reversal of this trend.

Further incentive for herd expansion was provided by the large jump in beef prices in 1972 and early 1973 and by widespread expectation of a chronic world beef shortage. In addition, herd building in the United Kingdom, Denmark, and particularly Ireland was encouraged by the prospect of entry into the Community, with its promise of higher livestock prices and lucrative market outlets unfettered by import restrictions. Finally, it appears that even the drop in prices in the latter half of 1973 (widely seen as a short-lived phenomenon) encouraged herd expansion--due to the speculative holding back of market-weight cattle from the market in hopes of a price rebound (fig. 2).

The herd buildup was of course, accomplished through a reduction in slaughterings. At 28.3 million in 1973, combined cattle and calf slaughterings were down 14 percent from the 1971 level--the lowest since the 1950's, despite a surge in fourth-quarter slaughterings to 12 percent above the 1972 level (table 4). The slaughter rate (number of slaughterings as a percentage of total cattle numbers) fell to 33 percent in 1972 and then to 31 percent in 1973, compared with levels of 37 to 38 percent during 1967-71. Although this decline was due in large part to a sharp drop in calf slaughterings, the slaughter rate for adult cattle also showed a substantial drop.

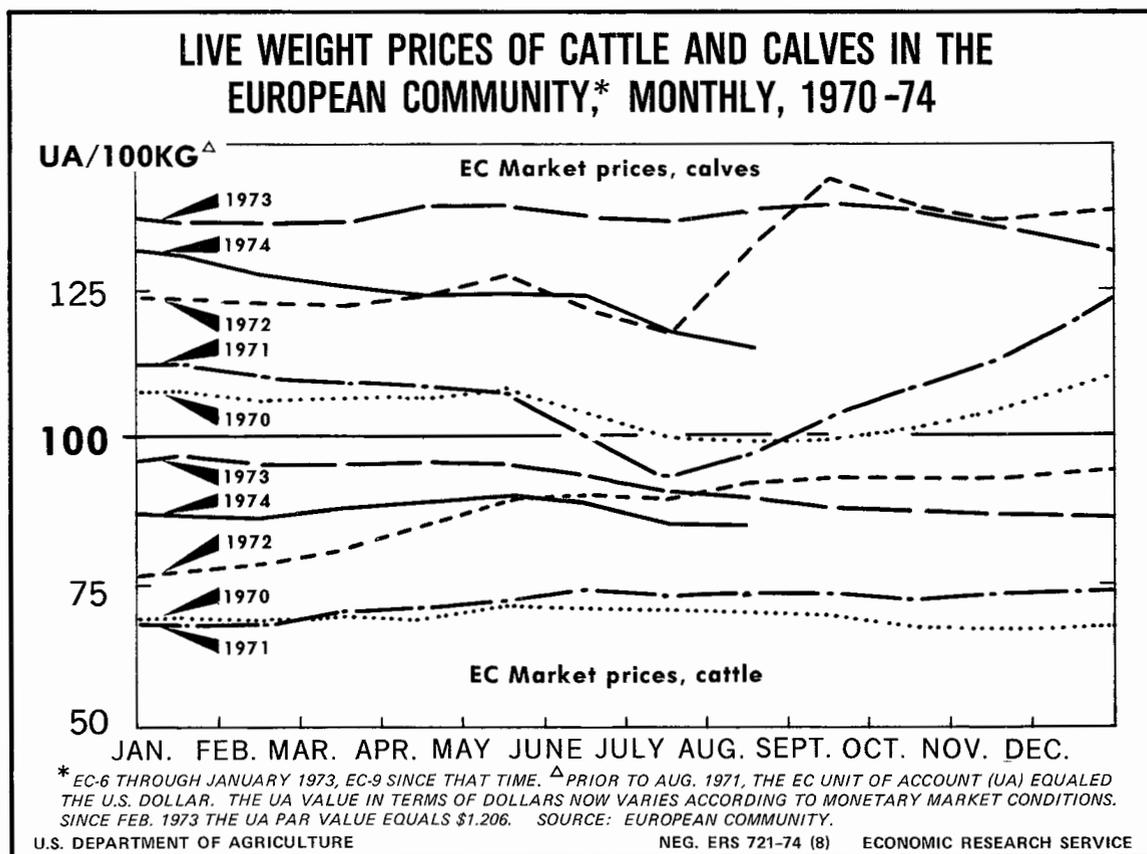


Figure 2

Table 4--Cattle numbers, production, and average carcass weights, Western Europe, 1960-73

Year	Cattle numbers	Cattle slaughtered	Cattle slaughtered as percent of total herd	Beef production	Beef as percent of total beef and veal production	Average carcass weight (beef)	Calves slaughtered	Calves slaughtered as percent of total herd	Veal production	Veal as percent of total beef and veal production	Average carcass weight (veal)	Cattle and calves slaughtered as percent of total herd	Total beef and veal production
	1,000 hd.		Percent	1,000 M.T.	Percent	Kilograms	1,000 hd.	Percent	1,000 M.T.	Percent	Kilograms	Percent	1,000 M.T.
1960.	80,683	16,489	20.4	4,290	83.2	260	13,616	16.9	689	16.8	64	37.3	5,159
1961.	83,006	18,111	21.8	4,685	83.8	259	13,592	16.4	899	16.1	66	38.2	5,593
1962.	84,782	19,351	22.8	5,943	83.7	255	14,163	16.7	961	16.3	68	39.5	5,904
1963.	84,220	18,640	23.3	5,009	83.5	255	14,102	16.7	991	16.5	70	40.0	5,999
1964.	82,003	18,239	22.2	4,722	83.1	259	12,509	15.3	958	16.9	77	37.5	5,680
1965.	83,332	17,669	21.2	4,666	83.2	264	11,610	13.9	944	16.8	81	35.1	5,610
1966.	85,538	19,093	22.3	5,068	83.2	265	12,172	14.2	1,020	16.8	84	36.5	6,088
1967.	87,050	20,349	23.4	5,412	83.6	266	12,421	14.3	1,065	16.4	86	37.7	6,477
1968.	87,210	20,815	23.9	5,558	83.7	267	12,145	13.9	1,082	16.3	89	37.8	6,640
1969.	89,043	20,913	23.5	5,614	83.9	268	11,513	12.9	1,080	16.1	94	36.4	6,693
1970.	88,468	22,240	25.1	5,982	85.0	269	11,037	12.5	1,055	15.0	96	37.6	7,037
1971.	87,053	22,371	25.7	6,028	85.3	268	10,573	12.1	1,039	14.7	98	37.8	7,067
1972.	86,960	20,217	23.2	5,651	86.0	278	8,760	10.1	920	14.0	104	33.3	6,571
1973 <sup>1/</sup>	90,452	20,058	22.2	5,511	86.1	276	8,208	9.1	890	13.9	109	31.3	6,401

<sup>1/</sup> Preliminary.

Sources: Organ. for Econ. Coop. and Develop., selected national publications, and Foreign Agr. Serv., U.S. Dept. Agr.

Assuming a proportional increase in both beef and veal production <sup>3/</sup>, a 10-percent increase in their combined production would imply an increase in total slaughtering to over 31 million head--more than 33 percent of the total herd. The slaughter rate for adult cattle would rise from 22.2 to about 23.7 percent, while that for calves would rise to 9.5 percent. These slaughter rates are not especially high in comparison with previous years; in fact, the 33-percent slaughter rate for cattle and calves combined is well below historical levels.

Table 5 (EC data only) shows that increases in the slaughter rate could result in very large production increases in 1974. For example, an increase in the slaughter rate for adult cattle to 25 percent (combined with a 9-percent slaughter rate for calves) could generate a 19-percent increase in EC beef and veal production in 1974.

#### High Production Levels To Continue

Continued high levels of beef production can be expected in 1975 and 1976 in Western Europe. Evidence of this can be determined by focusing on the situation in the EC, where 80 percent of the West European cattle slaughter takes place (table 5). Estimates of EC production were developed for 1974, 1975, and 1976, using three different slaughter rates. For each condition, several standard assumptions were made:

1. The breeding herd (cows and heifers 2 years old and over) will remain at the 1972-74 average of 45 percent of total cattle numbers.
2. Calving rates will be an estimated 78 percent.
3. Carcass weights will remain at present trend levels of 283 kilograms for beef and 110 kilograms for veal.
4. Number of calves slaughtered as a percentage of the total herd will hold steady at 9 percent for 1974-1976 (slightly higher than 1973), despite a long term downward trend.

Assumption (a)--Total slaughter rates for 1974-76 will rise only slightly to 32 percent (23 percent cattle and 9 percent calves). Under this condition, total cattle numbers would continue to increase at a substantial rate (3 percent). EC beef and veal production under this assumption would increase 11 percent in 1974. This figure might be construed as a minimum possible production level for 1974. It is below the lower estimate of the EC Commission. Production would be up 3 percent in 1975 and 1976 under this assumption.

Assumption (b)--Total slaughter rates for 1974 will increase to 34 percent of total herd size (25 percent cattle and 9 percent calves) and remain at that level in 1975 and 1976. This slaughter rate is near the 1970 level for cattle, when calf slaughter was near 12 percent. This rise in the slaughter rate during 1974-76 would bring the annual growth rate in total cattle numbers down to about 1 percent. The quick boost in slaughter would generate a 19-percent surge in beef and veal production in 1974, with increases of about 1 percent in 1975 and 1976. Production in 1974 under this assumption is higher than the maximum predicted by the EC--and still herd growth continues.

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<sup>3/</sup> Also assuming some drop in carcass weights for adult cattle from the unusually high levels of 1972 and 1973 and about the same carcass weight for calves.

Table 5--Cattle and calf numbers, slaughter numbers and rates, and beef and veal production, European Community <sup>1/</sup>, 1972, 1973, and estimates for 1974, 1975, and 1976

Year <sup>2/</sup>	Cattle numbers (beginning of year)	Cattle slaughtered	Cattle as percent of herd	Calves slaughtered	Calves as percent of herd	Production			Cows and heifers 2 years old and over	Changes during year			Total cattle numbers (end of year)
	1,000 head	Percent	1,000 head	Percent	1,000 metric tons			1,000 head	Calves born	Cattle and calves slaughtered	Number increase/decrease		
1972 . . .	71,733	16,519	23.0	6,873	9.6	4,784	703	5,527	33,497	26,128	23,392	+2,736	74,752
1973 . . .	74,752	16,264	21.8	6,296	8.4	4,649	669	5,299	33,788	26,355	22,560	+3,795	78,213
1974 (a) . .	78,213	17,989	(23.0)	7,039	(9.0)	5,091	774	5,865	35,196	27,453	25,028	+2,425	80,638
(b) . . .	78,213	19,553	(25.0)	7,039	(9.0)	5,533	774	6,307	35,196	27,453	26,592	+861	79,074
(c) . . .	78,213	21,118	(27.0)	7,039	(9.0)	5,976	774	6,750	35,196	27,453	28,157	-704	77,509
1975 (a) . .	80,638	18,547	(23.0)	7,257	(9.0)	5,249	798	6,047	36,287	28,304	25,804	+2,500	83,138
(b) . . .	79,074	19,768	(25.0)	7,117	(9.0)	5,594	783	6,377	35,583	27,755	26,885	+870	79,944
(c) . . .	77,509	20,927	(27.0)	6,976	(9.0)	5,922	767	6,689	34,879	27,206	27,903	-697	76,812
1976 (a) . .	83,138	19,122	(23.0)	7,482	(9.0)	5,412	823	6,235	37,412	29,181	26,604	+2,577	85,715
(b) . . .	79,944	19,936	(25.0)	7,195	(9.0)	5,656	791	6,447	36,975	28,060	27,181	+879	80,823
(c) . . .	76,812	20,739	(27.0)	6,913	(9.0)	5,869	760	6,629	34,565	26,961	27,652	-691	76,121

<sup>1/</sup> EC-9.

<sup>2/</sup> Estimate (a) assumes an annual cattle slaughter rate of 23 percent and calf slaughter rate of 9 percent of herd total in 1974-76.

Estimate (b) assumes an annual cattle slaughter rate of 25 percent and calf slaughter rate of 9 percent of herd total in 1974-76.

Estimate (c) assumes an annual cattle slaughter rate of 27 percent and calf slaughter rate of 9 percent of herd total in 1974-76.

Assumption (c)--Total slaughter rates for 1974, 1975, and 1976 will increase to 36 percent of total herd size (27 percent cattle and 9 percent calves). Although adult cattle slaughter has not previously reached 27 percent, when combined with calf slaughter, the 36-percent total is still generally below the slaughter rate prior to 1972. Although such a high slaughter rate seems unlikely, it would be necessary to attain this rate before total cattle numbers would decline (assuming static calf slaughter/veal production). Under this assumption, a 27-percent increase in beef and veal production would occur in 1974. Even then, the decrease in cattle numbers and meat production in 1975 and 1976 would be very small--only 1 percent.

Two alternatives to avert this medium-term high production potential exist. Should market prices remain depressed and feed costs high, farmers will be encouraged to market fed cattle at lighter weights and to reverse the present trend and switch back to greater veal production. These developments could result in a substantial reduction of herd growth with smaller increases in production than those shown in table 5

Projections of the long-term trend in beef production vary considerably. Agricultural Projections for 1975 and 1985 (4), 4/ published by the Organization for Economic Cooperation and Development (OECD) in 1968, shows a relatively small rate of annual increase--about 1.2 percent. Subsequent projections show a higher rate of growth. For example, both the projections made by Michigan State University (1) which deal only with the EC and those made by the Food and Agriculture Organization of the United Nations (FAO) (2) show an annual rate of about 2.3 percent. Both of these studies were published in 1971. USDA's Economic Research Service (ERS) (8) in 1973 show an even higher average annual rate of growth--2.8 percent.

Table 6--Projections of West European beef and veal production, 1980 and 1985

Source	Year	Production	Calculated annually	
			Rate	For the period
		1,000 M.T.	Percent	
FAO (2)	1980	7,802	2.3	1965-80
MSU (1)	1980	<u>1/7,123</u>	2.3	1968-80
OECD (4)	1985	7,614	1.2	1962-85
ERS (8)	1985	9,805	2.8	1970-85

1/ EC-9 only. By comparison, the FAO projection of 1980 beef and veal production in the EC is 6.6 million metric tons.

More recently, OECD (5) polled member countries for their forecasts of beef and veal production in 1975 and 1978. The aggregate 1978 forecast for Western Europe--7.7 million metric tons--is close to the FAO projection for 1980. The 1978 forecast for the EC is 6.4 million metric tons.

For the most part, the studies cited see increases in carcass weights, improvements in the calving rates, and a reduction in calf slaughterings as the major factors generating increased West European beef production. However, no radical technological advances such as "twin calving" are taken into account in the projections. Obviously, such advances could dramatically alter the production outlook. Although the number of

4/ Underscored numbers in parentheses refer to items in Literature Cited.

calves slaughtered in Western Europe has been steadily declining, there is still considerable opportunity for an increase in beef production through a further reduction in calf slaughtering. About 30 percent of West European calves were slaughtered for veal (in 1973), as opposed to less than 6 percent in the United States. However, because of the strong consumer appreciation of veal in Europe, calf slaughterings will probably stay well above the U.S. level.

Increases in breeding herds are expected to be a less important factor in most West European countries because of the aforementioned interrelationship between the dairy and beef sectors. Although specialized beef herds are expected to become more important, the number of beef cattle is likely to remain relatively small. And substantial increases in dairy herds would tend to generate intolerable surpluses of dairy products. However, substantial increases in herd size are expected in the three new EC members due to the stimulus of high EC prices and also in several Mediterranean countries (Spain, Portugal, and Greece) where the livestock industry is still relatively undeveloped.

Here again, the outlook could be greatly altered by a more rapid and widespread development of specialized beef farming than is now anticipated. A number of West European governments have instituted programs to encourage this development. For example, the EC provides premiums for the conversion of dairy herds to beef herds. The ERS projections (8) for 1985 are postulated on a significant break in the "linkage" between dairy and beef production. The stronger growth rate for beef production noted in these projections is largely due to this assumption.

#### CONSUMPTION

##### After Decade of Increase, Consumption Drops

Both per capita and total consumption of beef and veal increased steadily in Western Europe in the 1960's, showing declines in only 1964 and 1965. Total consumption in 1970 was about 37 percent above the 1960 level, while per capita consumption was up 27 percent. Beef consumption increased considerably more than veal during this period.

A decline in total beef and veal consumption in Western Europe began in 1971 (table 7). In 1973, it was estimated to be down 3.3 percent from 1972. Combined beef and veal consumption peaked at 7.7 million metric tons in 1970 but fell to 7.2 million metric tons in 1973. Veal consumption was actually at its peak in 1969, beginning a decline in consumption 1 year sooner and at a faster pace than beef.

Total beef consumption did not decline for some West European countries between 1972 and 1973. In fact, eight of the 16 countries (Belgium-Luxembourg combined) registered an increase. However, among the four major consuming countries, accounting for three-fourths of Western Europe's beef consumption--France, West Germany, Italy, and the United Kingdom--only France showed an increase (3 percent), while the other three countries combined showed a 7-percent decline.

Aggregate veal consumption in Western Europe appears to have dropped about 3 percent between 1972 and 1973--a substantial leveling off from the 13-percent decline a year earlier. Practically all of the 1972-73 decline was confined to France, West Germany, and Italy--the three major consumers. Veal is a preferred meat among many West European consumers, but the high price has apparently sharply curtailed effective demand.

With annual population increases of about 0.8 percent in Western Europe, even sharper declines have been registered in per capita consumption of beef and veal. In 1973, per capita consumption averaged 21.2 kilograms, a decline of slightly less than

Table 7--Consumption of beef and veal, by West European country, selected years

Country	1960-64	1965-69	1970	1971	1972	1973
	<u>1,000 metric tons</u>					
Belgium-Luxembourg . . . . .	233	247	270	275	270	<u>2/273</u>
France . . . . .	1,335	1,462	1,565	1,613	1,456	<u>1,488</u>
Germany, West . . . . .	1,206	1,350	1,496	1,517	1,442	<u>2/1,353</u>
Italy . . . . .	817	1,149	1,349	1,330	<u>1/1,386</u>	1,251
Netherlands . . . . .	232	243	257	251	240	223
EC-6 . . . . .	3,823	4,452	4,937	4,986	4,794	4,588
Denmark . . . . .	80	93	99	97	82	72
Ireland . . . . .	46	50	56	57	59	58
United Kingdom . . . . .	1,342	1,268	1,305	1,273	<u>1/1,233</u>	1,170
EC-3 . . . . .	1,467	1,411	1,460	1,427	1,374	1,300
EC-9 . . . . .	5,291	5,863	6,397	6,413	6,168	5,888
Austria . . . . .	138	153	168	169	<u>1/167</u>	<u>2/165</u>
Finland . . . . .	84	93	97	96	102	104
Greece . . . . .	58	116	158	<u>1/141</u>	<u>1/140</u>	<u>2/149</u>
Norway . . . . .	55	57	55	60	61	60
Portugal . . . . .	56	80	97	102	108	97
Spain . . . . .	212	314	407	<u>1/358</u>	<u>1/381</u>	426
Sweden . . . . .	148	149	152	139	<u>1/126</u>	137
Switzerland . . . . .	133	153	164	<u>1/171</u>	<u>2/168</u>	169
Other Western Europe	883	1,114	1,298	<u>1,236</u>	<u>1,253</u>	1,307
Western Europe . . . . .	6,174	6,977	7,695	7,649	7,421	7,195

1/ Estimate, Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr.

2/ Estimate, Econ. Res. Serv., U.S. Dept. Agr.

Source: Data for 1960-72--Meat Balances in OECD Member Countries: 1959-1972. Organ. for Econ. Coop. and Develop. Paris. 1974. Data for 1973--Foreign Agr. Serv., U.S. Dept. Agr.

1 kilogram from 1972 (table 8). Most of the decline was in beef--down from 19.4 to 18.7 kilograms. Consumption of veal dropped 0.1 kilogram to 2.6 kilograms. Per capita consumption of beef dropped in half of the West European countries (Belgium-Luxembourg combined) in 1973, but the declines were sharpest in Italy and Denmark. Eleven of the 16 countries appear to have reduced or just held veal consumption stable.

Western Europe's total production and consumption of beef and veal were closely correlated for the 1960-73 period (fig. 3). Thus, declines in domestic production seem to have generated comparable declines in consumption, as imports have not fully compensated for the drop in output. As noted earlier, total production of beef and veal declined in 1972 and 1973.

There are large variations by country in the amount of beef and veal consumed in Western Europe. Table 8 shows 1973 per capita beef and veal consumption ranging from 28.5 kilograms per head in France to 12.3 kilograms per head in Portugal.

Table 8--Per capita consumption of beef and veal, West European countries, 1970-73

Country	Beef and veal				Beef				Veal			
	1970	1971	1972	1973	1970	1971	1972	1973	1970	1971	1972	1973
	Kilograms											
Belgium-Luxembourg . . . . .	27.0	27.3	26.9	27.2	24.3	24.6	24.5	24.6	2.7	2.7	2.4	2.5
France . . . . .	29.9	29.6	28.5	28.5	22.3	22.2	<u>1/22.0</u>	22.4	7.6	7.4	6.5	6.1
Germany, West . . . . .	24.7	24.8	23.4	21.8	22.5	22.5	21.5	20.2	2.2	2.2	1.9	1.6
Italy . . . . .	25.1	24.6	<u>1/25.5</u>	22.8	<u>2/20.8</u>	<u>2/21.2</u>	<u>2/22.5</u>	19.9	<u>2/4.3</u>	<u>2/3.4</u>	3.0	2.9
Netherlands . . . . .	19.7	19.0	18.0	16.6	19.0	18.4	<u>1/17.6</u>	<u>2/16.2</u>	0.7	0.6	0.4	0.3
EC-6 . . . . .	26.2	26.3	25.1	23.8	21.8	21.9	21.8	20.7	4.2	3.9	3.4	3.2
Denmark . . . . .	19.7	19.3	16.2	14.4	13.8	13.9	12.4	10.4	5.9	5.4	3.8	3.9
Ireland . . . . .	19.0	19.1	19.6	<u>2/19.0</u>	19.0	19.1	19.6	<u>2/19.0</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>
United Kingdom . . . . .	23.5	22.9	22.1	20.9	23.3	22.7	<u>1/21.9</u>	<u>2/20.7</u>	0.2	0.2	0.2	<u>2/0.2</u>
EC-3 . . . . .	23.1	22.4	21.5	20.3	22.4	21.8	21.1	19.8	0.6	0.6	0.5	0.5
EC-9 . . . . .	25.4	25.3	24.2	22.9	22.0	21.9	21.6	20.5	3.3	3.1	2.7	2.5
Austria . . . . .	22.7	22.7	<u>1/22.3</u>	21.9	19.9	19.8	<u>1/19.9</u>	<u>2/19.3</u>	2.8	2.8	2.4	2.6
Finland . . . . .	21.1	20.8	22.1	22.4	18.9	19.2	<u>1/20.3</u>	<u>2/20.6</u>	2.2	1.5	<u>1/1.8</u>	<u>2/1.8</u>
Greece . . . . .	18.0	16.3	16.9	<u>2/16.5</u>	9.7	7.8	7.3	<u>2/7.6</u>	8.3	8.5	9.6	<u>2/8.9</u>
Norway . . . . .	14.2	15.4	15.5	15.0	12.4	13.3	13.2	13.3	1.8	1.8	1.8	1.7
Portugal . . . . .	11.4	12.1	12.9	12.3	9.4	10.3	11.1	10.2	2.0	1.7	1.7	2.0
Spain . . . . .	12.2	<u>1/10.6</u>	<u>1/11.2</u>	<u>2/12.4</u>	9.8	<u>1/8.2</u>	<u>1/9.9</u>	10.9	2.5	2.4	<u>1/1.3</u>	<u>2/1.5</u>
Sweden . . . . .	18.9	17.2	<u>1/15.4</u>	16.8	17.3	15.8	<u>1/14.4</u>	<u>2/15.8</u>	1.6	1.4	1.0	<u>2/1.0</u>
Switzerland . . . . .	25.6	<u>1/26.6</u>	<u>1/26.0</u>	<u>2/25.9</u>	18.7	<u>1/19.8</u>	<u>1/19.6</u>	<u>2/19.8</u>	6.9	6.8	6.3	<u>2/6.1</u>
Other Western Europe . . . . .	16.1	15.2	15.3	15.9	12.8	12.0	12.7	13.1	3.3	3.2	2.7	2.8
Western Europe . . . . .	23.2	22.9	22.0	21.2	19.7	19.5	19.4	18.7	3.3	3.1	2.7	2.6

1/ Estimate, Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr.

2/ Estimate, Econ. Res. Serv., U.S. Dept. Agr.

3/ Negligible.

Sources: Data for 1970-72--Meat Balances in OECD Member Countries: 1959-1972. Organ. for Econ. Coop. and Develop. Paris, 1974. Data for 1973--Foreign Agr. Serv., U.S. Dept. Agr.

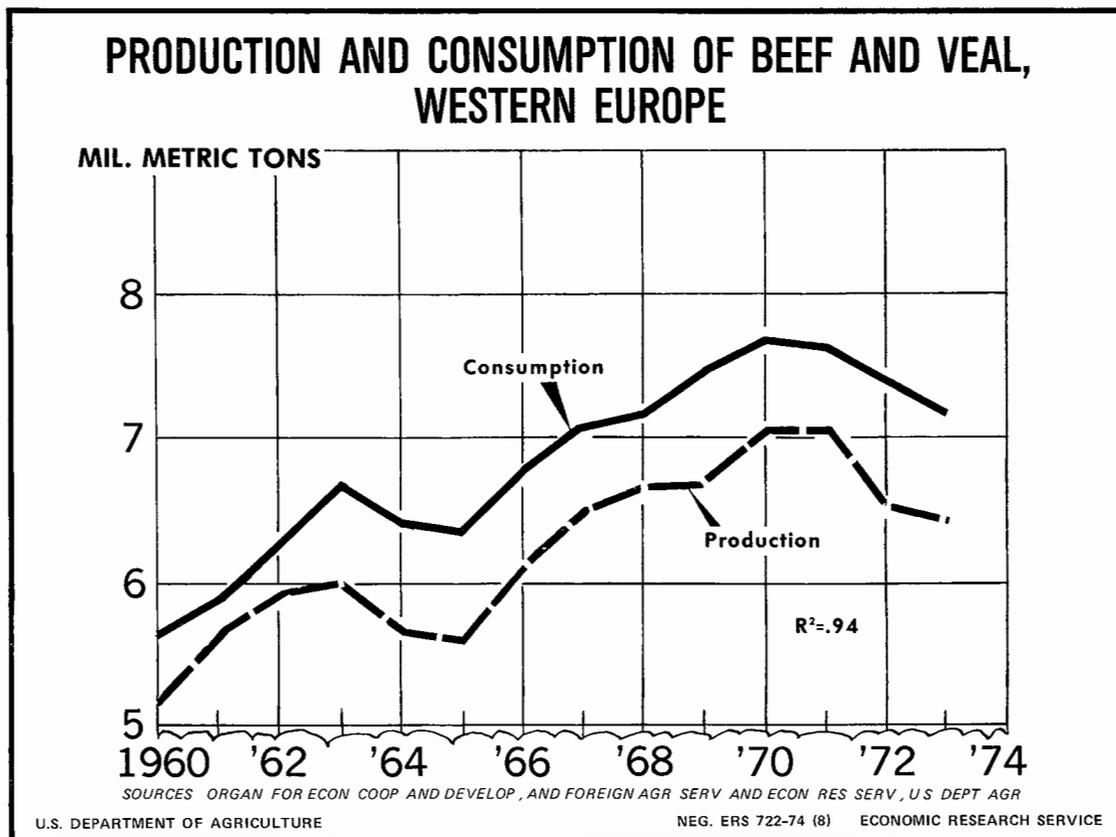


Figure 3

However, the per capita consumption gap between the lowest consuming countries (Greece in 1960 and Portugal in 1973) and the highest consuming country (France) was cut 28 percent between 1960 and 1973.

Even more striking are the differences in trends in beef consumption by country. Per capita consumption of beef and veal in 1973 was actually below 1960 levels in Denmark, the Netherlands, Sweden, and the United Kingdom. Mediterranean countries showed the largest percentage increase in per capita consumption of beef and veal.

#### Share of Total Meat Consumption Declines

Per capita total meat consumption in Western Europe increased 18.7 kilograms between 1960 and 1972 (table 9)--slightly more than a one-third rise. Beef and veal consumption rose only 3.9 kilograms, for an increase of slightly over one-fifth. As a consequence, the share of beef and veal in total per capita meat consumption fell more than 3 percentage points for the whole of Western Europe over the 12-year period.

All West European countries except Austria, Greece, Portugal, and Spain showed a decline in the share of beef and veal in total meat consumption. The increases for Greece and Portugal were quite significant--about 10 percentage points between 1960 and 1972. All four countries tended to be at the lower end of the income spectrum for West European countries and apparently possessed a high income elasticity for beef and veal.

Per capita consumption of poultry meat rose the most spectacularly between 1960 and 1972. The average in Western Europe went from 4.7 to 10.8 kilograms. Most countries more than doubled their per capita consumption, while a few more than tripled

Table 9--Per capita total meat consumption and beef and veal consumption, West European countries, 1960 and 1972

Country	1960 consumption			1972 consumption		
	Total meat	Beef and veal	Beef and veal as percent of total meat	Total meat	Beef and veal	Beef and veal as percent of total meat
	- Kilogram -		Percent	- Kilogram -		Percent
Belgium-Luxembourg	63.6	23.0	36.2	83.6	26.9	32.2
France . . . . .	76.4	27.4	35.9	96.3	28.5	29.6
West Germany . . .	65.1	19.7	30.3	86.9	23.4	26.9
Italy . . . . .	31.6	13.6	43.0	61.8	25.4	41.1
Netherlands . . .	48.1	17.6	36.6	60.9	18.0	29.6
Denmark . . . . .	62.4	16.2	26.0	63.5	16.2	25.5
Ireland . . . . .	62.1	15.2	24.5	86.0	19.6	22.8
United Kingdom . .	71.6	24.6	34.4	77.6	22.5	29.0
EC-9 . . . . .	60.6	20.9	34.5	79.4	24.3	30.6
Austria . . . . .	64.4	17.5	27.2	80.8	22.4	27.7
Finland . . . . .	45.8	16.3	46.8	54.7	21.8	39.9
Greece . . . . .	23.5	4.9	20.9	54.0	16.9	31.3
Norway . . . . .	37.4	14.2	38.0	44.2	15.5	35.1
Portugal . . . . .	26.7	5.8	21.7	41.2	12.9	31.3
Spain . . . . .	23.3	5.6	24.0	43.7	11.5	26.3
Sweden . . . . .	49.6	18.7	37.7	50.7	15.8	31.2
Switzerland . . .	56.9	21.7	38.1	76.7	26.3	34.3
Western Europe <sup>1/</sup>	54.1	18.3	33.8	72.8	22.2	30.5

<sup>1/</sup> Includes Iceland.

Sources: Organ. for Econ. Coop. and Develop., and Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr.

per capita intake. Lesser increases were evidenced for pork than for poultry, but advances in per capita consumption of pork were shown for all countries except Denmark.

Pork is still the major meat consumed in nearly all West European countries. Exceptions in 1972 were Italy (beef) and Greece (mutton, lamb, and goat). Table 10 shows that beef and veal accounted for one-fifth of Western Europe's per capita increase in meat consumption between 1960 and 1972, while pork and poultry individually accounted for about one-third of the increase.

#### Price, Incomes, Consumer Tastes Affect Consumption

The major determinants of the demand for beef are price, income, and consumer tastes or preferences. Although it is impossible in this brief overview to give detailed attention to these factors, some general comments follow.

1. The relationship between beef consumption and income is generally conceded to be quite strong. FAO states that "generally the average income elasticity of demand

Table 10--Per capita consumption of meat, by type, Western Europe, 1960 and 1972

Item	1960	1972	Difference 1960 to 1972	Distribution in 1972
: - - - - Kilogram - - - -				
				Percent
Total meat . . .	54.1	72.8	18.7	100.0
Beef and veal	18.3	22.2	3.9	20.9
Pork . . . . .	21.8	29.0	7.2	38.5
Poultry . . .	4.7	10.8	6.1	32.6
Other . . . .	9.3	10.8	1.5	8.0

Sources: Organ. for Econ. Coop. and Develop., and Foreign Agr. Serv. and Econ. Res. Serv., U.S. Dept. Agr.

for beef and veal (0.5) is believed to be higher than for any other kind of meat." <sup>5/</sup> The "composite" elasticities <sup>6/</sup> calculated by OECD (4) for beef and veal were substantially higher for the lower income than the higher income countries. Figure 4, however, shows only a weak positive correlation ( $R^2 = .20$ ) between per capita private consumption expenditure and the level of per capita beef and veal consumption for West European countries. But the correlation rises to a significantly higher level ( $R^2 = .64$ ) when Denmark, Norway, and Sweden--all with policies resulting in comparatively high retail beef prices and a relatively high per capita consumption of fish--are excluded from the calculation.

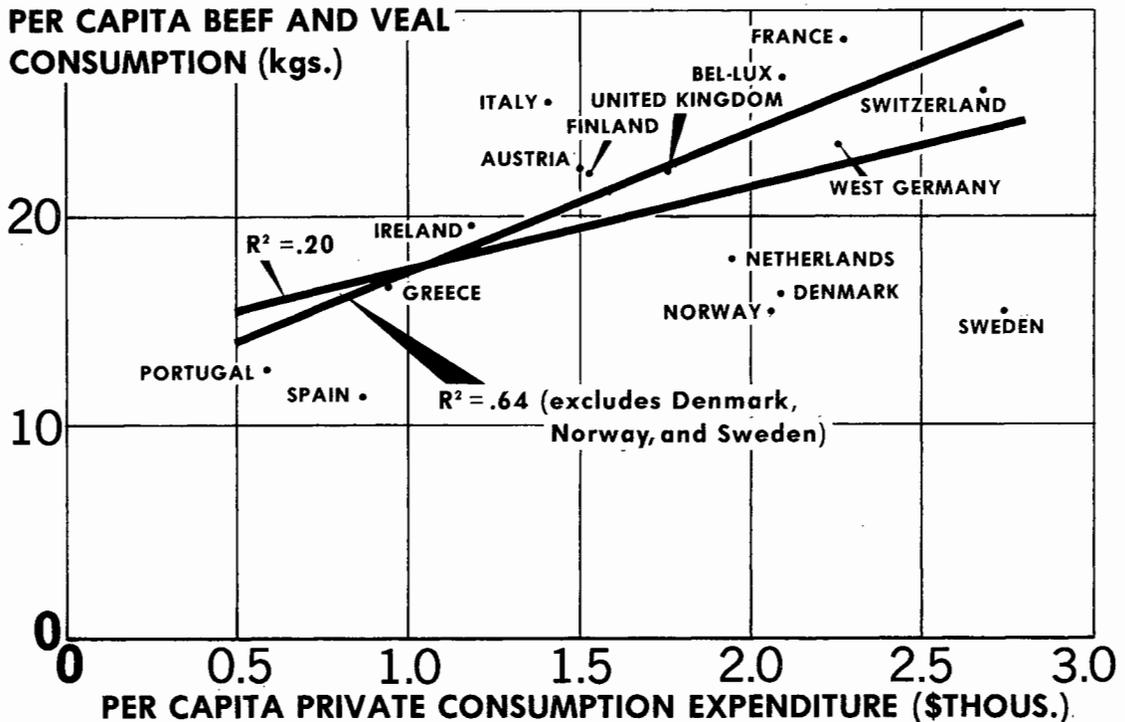
2. An adverse evolution of the price relationship between beef and veal and other meats has occurred. Particularly in the case of poultry, modern production technology has permitted a large increase in supplies at sharply lower prices. During 1968-72, retail prices widely turned against beef in favor of pork and poultry meat (table 11). Retail prices of all meats rose significantly in 1973 as feed costs jumped to unprecedented levels. In fact, pork and poultry meat prices rose faster than beef prices that year. However, this shift did not cause a rise in consumption of beef relative to other meats. Faced with sharply rising food budgets, many West European consumers apparently chose to economize by purchasing more pork and poultry--still considerably cheaper than beef on a per pound basis. This price effect seems to have largely offset the high income elasticity for beef. The OECD composite elasticities for poultry meat, with a few exceptions, were sharply higher than those for beef and veal. Elasticities for pork also tended to be higher than those for beef and veal but less than for poultry.

3. Consumer tastes in meat vary between countries. In the Mediterranean countries, for example, there is a strong preference for beef and veal, which caused per capita consumption to double or triple between 1960 and 1973. West Germans and Austrians have

<sup>5/</sup> (2), p. 127.

<sup>6/</sup> The "composite" elasticities implicitly take into account other factors in addition to income, resulting in a greater diversity of elasticities among countries, since prices and changes in consumer tastes may develop in quite different ways among countries.

## PER CAPITA CONSUMPTION OF BEEF AND VEAL IN RELATIONSHIP TO PRIVATE CONSUMPTION EXPENDITURE,\* WESTERN EUROPE, 1972\*\*



\* CURRENT PRICES AND EXCHANGE RATES. \*\* 1971 FOR PORTUGAL, DENMARK, AND LUXEMBOURG.  
 SOURCES: ORGAN. FOR ECON. COOP. AND DEVELOP., AND FOREIGN AGR. SERV. AND ECON. RES. SERV., U.S. DEPT. AGR.

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NEG. ERS 724-74 (8) ECONOMIC RESEARCH SERVICE

Figure 4

traditionally preferred pork, while U.K. consumers have shown a fondness for mutton and lamb. These traditional preferences explain much of the striking variation in meat consumption patterns between West European countries.

### 1974 Consumption To Remain Depressed

The first step in estimating beef and veal consumption in Western Europe in 1974 was to carry out a calculation of the traditional production-consumption relationship ( $R^2 = .94$ ) (fig. 3). During 1960-73, consumption of beef and veal averaged 110.2 percent of domestic production. Assuming a conservative 10-percent increase in 1974 production, this relationship would indicate a rise in total and per capita consumption to 7.8 million tons and 22.7 kilograms in 1974. (See set I below.) Per capita consumption of beef and veal in Western Europe averaged 21.2 kilograms in 1973.

The most likely estimate, however, is that actual per capita beef and veal consumption in 1974 will average close to 21.0 kilograms (set II below), or over 7 percent below the estimated 22.7 kilograms in set I.

Table 11--Retail price ratios for beef/pork and beef/poultry, selected West European countries, 1968-73

Item	1968	1969	1970	1971	1972	1973
Beef/pork retail price ratio:						
France (Paris market) . . . . .	1.14	1.06	1.14	1.29	1.44	1.26
West Germany <u>1/</u> . . . . .	1.29	1.22	1.19	1.25	1.34	n.a.
Italy <u>2/</u> . . . . .	1.05	1.01	0.97	0.81	1.17	<u>5/</u> 1.28
Portugal <u>3/</u> . . . . .	1.10	1.28	1.09	1.02	1.16	0.91
Beef/poultry retail price ratio:						
France (Paris market) <u>4/</u> . . . . .	1.32	1.30	1.37	1.50	1.74	1.69
West Germany <u>1/</u> . . . . .	2.33	2.43	2.51	2.63	3.06	n.a.
Italy <u>2/</u> . . . . .	2.80	2.72	2.87	2.88	2.84	3.20
Portugal <u>3/</u> . . . . .	0.80	1.12	1.15	1.11	1.29	<u>5/</u> 1.15

- 1/ Comparison of retail prices for roasting beef, pork cutlet, and roasting chicken.  
2/ Comparison of retail prices in province of Varense for first-grade boneless beef, pork with bone, and poultry.  
3/ Comparison of retail prices for first-grade beef and veal, pork chops, and poultry.  
4/ Rabbit and poultry.  
5/ December 1973.

Sources: France--Bulletin Mensuel de Statistique. Institut National de la Statistique et des Etudes Economique, Paris, Sept. 1972. West Germany--Statistisches Jahrbuch 1973 (taken from Statistisches Bundesamt). W. Kohlhammer. Italy--Bol. Mensile di Statistics della Province Varense. Various issues, Rome. Portugal--Anuarios Estatisticos. Instituto Nacional de Estadistica, various issues, Lisbon.

<u>Year and projection set</u>	<u>Total consumption</u> 1,000 metric tons	<u>Per capita consumption</u> Kilograms
1973 (preliminary)	7,197	21.2
1974 (forecast)		
Set I	7,760	22.7
Set II	7,176	21.0

This decline in consumption is likely for the following reasons:

1. The slowing of Western Europe's economic growth and severe inflation. It has been estimated that Western Europe's real gross national product (GNP) will increase only 1.7 percent in 1974. 7/ Unemployment is expected to show a significant increase in some countries, and despite the economic slowdown, inflationary rates in 1974 are expected to be in two-digit figures in most West European countries.

7/ The Agricultural Situation in Western Europe, ERS-Foreign 359, Econ. Res. Serv., U.S. Dept. Agr., April 1974, p. 21.

2. Severe balance-of-payments problems.

Most West European countries are highly dependent on imported petroleum for energy. Several countries have inadequate foreign reserves to cover the sharply increased cost of petroleum supplies and are being forced to borrow heavily in international money markets and to tighten import restrictions. For example, on May 1, Italy imposed a 50-percent cash deposit on many imported commodities, including all meats and live animals (p. 26). 8/

3. EC increase in beef target prices.

The EC Council, in its March 23 price decision, decided to raise beef "orientation" or target prices by 12 percent for the 1974/75 marketing year. This price increase, combined with those of the preceding 3 years, amounts to a 40-percent price increase since 1970. 9/ Since target prices are backed by an established system of market intervention (price support), retail prices of beef will tend to remain high. Moreover, European retail beef prices have shown little response to falling wholesale prices.

4. Competition from other meats.

There is an ample supply of pork and poultry in Western Europe this year, and wholesale prices of these products have already fallen considerably more than beef prices. Prices for these meats will tend to stay more attractive than beef prices because the price support mechanisms for these products are weaker than those for beef. There is no support buying for poultry meat; instead export subsidies are used to boost prices. In the case of pork, there is provision for support buying. However, the base price for pork was raised by only 8 percent for the 1974/75 marketing year (compared with 12 percent for beef), and this price hike will not come into effect until November 1974. (For beef, the price increase went into effect in March 1974.)

The conclusion is that per capita consumption of beef and veal in Western Europe in 1974 will probably be near 1973 consumption levels. Only in the event of a decision by the European Community to let beef prices fall sharply below intervention levels--because of mounting stocks--or to directly subsidize beef consumption, would per capita intake of beef and veal rise substantially above the 1973 level. The Community has thus far shown little inclination to follow this approach. 10/ Instead, the thrust of their actions has been to reduce beef imports.

Medium- and Long-Term Consumption Picture Cloudy

Both the medium- and long-term outlook for West European beef and veal consumption are greatly complicated by the profound economic uncertainties now facing the developed world. World-wide inflation and the threat of severe balance-of-payments problems in

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8/ Italy has since agreed to remove this restriction from agricultural imports other than beef. A 25-percent prior-deposit requirement will remain in force for beef imports.

9/ In terms of units of account.

10/ However, the Community has taken some measures to dispose of beef through "welfare" channels.

many countries call into question the assumption of strong and steady economic growth which has been built into most analyses of the consumption outlook. Obviously, a general slowdown in the rate of economic growth would have a major impact on beef consumption in view of the presumed high income elasticity for beef. The United Kingdom offers an example of this relationship between economic growth and beef consumption. Beef and veal consumption in that country, after peaking in 1963, has shown a general decline since that time. Also, since 1963, the real economic growth rate in the United Kingdom--only 3 percent annually--has been the lowest in Western Europe.

The recent deterioration of the economic situation will probably hold down beef consumption to some degree--at least in the medium term. This prospect, combined with the consumer resistance to high beef prices experienced in recent years, inspires a more sober view of the consumption outlook than the more optimistic expectations prevalent in the late 1960's. The OECD forecasts (5) for 1975 and 1978 strongly reflect this pessimism. West European beef consumption in 1975 is forecast at only 2 percent above the 1970 level. Consumption in 1978 is forecast at only 6 percent above the 1970 level, and a number of countries (France, the United Kingdom, Denmark, and Sweden) expect a decline in total consumption during 1970-78. In the case of the United Kingdom, the adoption of high EC beef prices will have a dampening effect on beef demand.

Nevertheless, assuming that West European economies withstand the shocks to the economic system reasonably well, there are a number of good reasons for supposing that beef consumption will reverse its recent decline and resume its upward trend. As noted previously, little or no increase in consumption is expected in 1974, but in the medium term, the following factors should encourage greater beef consumption:

1. Competition from other meats, which have a much shorter production cycle than beef, may lessen. Continuing weak prices will probably cause a cutback in their production by 1975 or sooner.
2. The effects of recent hikes in beef support prices may be largely eroded by inflation. The high beef prices of today may not appear so high to the consumer of 1975, and the difficult market situation in 1974 will probably make West European governments reluctant to grant further large support price increases.
3. As discussed previously, the medium-term outlook is for substantial increases in beef production. The strong positive relationship between beef production and consumption has already been noted. A more settled economic situation, in combination with the two factors just mentioned, should permit this relationship to become operative again.

In the long term, there is no strong reason to suppose that the marked consumer preference for beef (and consequently its high income elasticity) has changed fundamentally. The FAO study states that in Western Europe the demand for beef and veal through 1970 will still predominate "even if future price relationships favor poultry and pig meat." 11/ And the market is not close to saturation if the example of North America is at all relevant. Per capita consumption levels of beef and veal (as well as total meats) in all West European countries are still well below the levels attained in the United States and Canada. Per capita beef and veal consumption in the United States and Canada in 1972 was 140 and 94 percent, respectively, above the average West European level.

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11/ (2), p. 127. However, the FAO projects much faster growth in poultry meat consumption than in beef consumption.

Table 12 compares several long-term projections of West European beef and veal consumption. Although they vary considerably, they are noticeably closer together than the production projections shown in table 6.

Table 12--Projections of West European beef and veal consumption, 1980 and 1985

Source	Year	Consumption	Calculated annually		
			Rate	For the period	
		1,000 M.T.	Percent		
FAO (2)	1980	9,434	2.6		1965-80
MSU (1)	1980	1/7,296	2.1		1968-80
OECD (4)	1985	9,062	1.6		1962-85
ERS (8)	1985	10,607	2.5		1970-85

1/ EC-9 only. By comparison, the FAO projection of 1980 beef and veal consumption in the EC is 7.6 million metric tons.

## TRADE

### Trade Increases Substantially During 1960-73

West European trade in fresh, chilled, and frozen beef increased substantially during 1960-73 (table 13). Beef exports (essentially intra-West European trade) registered the largest gain. Average exports for 1970-73 were about double the average 1960-64 level. Average imports, on the other hand, increased by only 62 percent over the same period. Thus, the gain in net imports (virtually identical to imports from outside Western Europe) was much smaller--up only 30 percent over this period.

The growth in net imports was quite erratic during 1960-73. Declines in net imports (from the previous year) of more than 15 percent were registered in 4 of those years. However, increases of 25 percent or more occurred in 4 years, and in 2 of the years (1963 and 1972), net imports increased by more than 65 percent above the previous year's total.

Western Europe's self-sufficiency ratio in beef displayed no strong trend throughout 1960-73, despite significant year-to-year variations. During 1960-64, this ratio averaged about 92 percent. The average of 1970-73 was about 90 percent. But 1974's ratio should be close to 100 percent--the highest level yet attained. The self-sufficiency ratio in beef and veal varies significantly by country; the range in 1973 was from less than two-thirds self-sufficiency in Greece to a high of nearly four times domestic requirements in Ireland (table 14).

Major shifts in the distribution of beef imports occurred during 1960-63 (table 15). Most striking is the downtrend in U.K. imports, giving way in 1970 to Italy as Western Europe's largest importer of beef and veal. At the same time, EC-6 12/ imports,

12/ The six original members of the European Community--Belgium, Luxembourg, France, West Germany, Italy, and the Netherlands. The EC-3 refers to the three new members--Denmark, Ireland, and the United Kingdom, who joined on January 1, 1973. The EC-9, or EC, refers to all nine member countries.

Table 13--West European trade in fresh, chilled, and frozen beef and veal, and self-sufficiency ratio, 1960-73

Year	Imports	Exports	Net imports	Self-sufficiency ratio
:- - - 1,000 metric tons - - - -				Percent
1960.	668.2	247.9	420.3	91.9
1961.	550.7	265.0	285.7	95.1
1962.	680.4	356.7	323.7	94.1
1963.	911.5	369.4	542.1	90.0
1964.	973.0	295.6	677.4	88.3
1965.	951.5	293.0	658.5	88.3
1966.	946.1	345.5	600.6	90.1
1967.	1,052.2	491.9	560.3	91.4
1968.	1,024.2	535.6	488.6	92.5
1969.	1,180.9	536.0	644.9	89.5
1970.	1,103.4	566.4	537.0	91.4
1971.	1,039.5	607.4	432.1	92.0
1972.	1,350.9	588.7	762.2	88.0
1973 <u>1/</u>	1,420.3	687.8	732.5	89.2

1/ Preliminary.

Sources: Food and Agr. Organ. Trade Yearbook; Organ. for Econ. Coop. and Develop. Statistics of Foreign Trade; selected national trade publications; and U.S. agricultural attache reports.

particularly those of Italy and West Germany, registered strong increases especially in 1972 and 1973. Beef imports by other West European countries (outside the EC), led by Spain and Greece, showed strong increases until the late 1960's. Since then, they have been relatively stable, due primarily to a drop in Spanish imports in the 1970's.

West European imports of fresh, chilled, and frozen beef come from four major areas (table 16):

1. Latin America (mainly Argentina, Brazil, and Uruguay) has normally accounted for a little less than 40 percent of West European imports in recent years. In the early 1960's, their share was more often near or above 50 percent. The actual quantities supplied, however, have not trended downward despite wide year-to-year fluctuations. Most of the Latin American beef now goes to the EC-6, particularly to Italy and West Germany. Throughout most of the 1960's, the United Kingdom was the dominant market.
2. Other West European Countries, mainly France, the Netherlands, Denmark, and Ireland, usually account for about 40 percent of total West European beef imports.

Table 14--Self-sufficiency ratio 1/ of beef and veal, by West European country, 1960 and 1973

Country	1960	1973
Belgium-Luxembourg. . . . .	97.2	98.2
France. . . . .	105.8	97.7
Germany, West . . . . .	96.0	88.4
Italy . . . . .	79.6	68.3
Netherlands . . . . .	116.8	118.4
EC-6. . . . .	97.7	88.0
Denmark . . . . .	208.0	256.9
Ireland . . . . .	262.8	381.0
United Kingdom. . . . .	63.6	74.9
EC-3. . . . .	77.4	98.6
EC-9. . . . .	91.8	90.3
Austria . . . . .	100.1	95.8
Finland . . . . .	100.0	94.2
Greece. . . . .	60.6	65.1
Norway. . . . .	98.0	98.3
Portugal. . . . .	84.3	80.4
Spain . . . . .	93.6	82.2
Sweden. . . . .	92.1	98.5
Switzerland . . . . .	86.3	75.1
Other Western Europe. . . . .	92.4	84.3
Western Europe. . . . .	91.9	89.2

1/ Consumption divided by production and multiplied by 100.

3. Eastern Europe's share of West European imports has varied between 6 and 18 percent, with a general upward trend both in this share and the actual quantities exported. The bulk of East European exports (mostly Yugoslavian) go to Italy.
4. Australia and New Zealand accounted for nearly 6 percent of beef imports in 1972. Their importance has greatly fluctuated, reaching a peak in the mid-1960's. The great majority of shipments from Oceania to Europe are taken by the United Kingdom.

Imports from the United States are very small, ranging from about 2,000 to 4,000 metric tons a year.

Trade in canned beef and in slaughter cattle is also of considerable importance to Western Europe. The United Kingdom is the major market for canned beef, most of which originates in Argentina, Australia, and Brazil. In 1973, U.K. imports of canned beef (excluding tongues) totaled 58,000 metric tons. Western Europe became a large net importer of slaughter cattle in the 1970's due almost entirely to the growth of Italian imports. Net imports of feeder and slaughter cattle amounted to nearly 200,000 metric tons (meat equivalent) in 1972.

Table 15--Imports of fresh, chilled, and frozen beef and veal, by selected West European countries and areas, 1960-73

Year	EC-6			United Kingdom	Other Western Europe			Total Western Europe
	Total	West Germany	Italy		Total	Spain	Greece	
	1,000 metric tons							
1960.	252	65	137	358	58	11	12	668
1961.	182	84	54	293	76	4	12	551
1962.	248	106	95	332	100	43	17	680
1963.	403	91	258	364	145	83	28	912
1964.	327	118	284	350	95	19	22	973
1965.	502	147	252	294	156	69	31	952
1966.	487	126	277	290	169	88	29	946
1967.	565	134	324	273	213	107	39	1,052
1968.	543	172	250	261	220	109	45	1,024
1969.	606	193	261	345	228	112	55	1,181
1970.	610	185	290	265	226	99	68	1,103
1971.	627	178	317	253	157	34	47	1,040
1972.	858	258	334	278	214	78	41	1,351
1973.	920	238	396	270	228	76	70	1,420

Sources: Food and Agr. Organ. Trade Yearbook; Organ. for Econ. Coop. and Develop. Statistics of Foreign Trade; selected national trade publications; and U.S. agricultural attache reports.

#### Governmental Policies, Particularly EC, Affect Trade

West European countries maintain a variety of restrictions on imports. In many cases, they provide subsidies for export or aids to domestic producers as well. These import restrictions and other measures are administered with considerable flexibility and explain, in large part, the large fluctuations in beef imports. For example, in 1973--a time of high prices and scarce supplies--there was widespread relaxation of import barriers. In 1974, the reverse has been occurring. Existing barriers have been tightened up or reimposed, export subsidies have been increased, and, in some cases, new barriers have been established.

The most important policies are, of course, those pursued by the European Community. In 1973, the Community accounted for nearly 85 percent of West European beef and veal imports and 97 percent of West European exports. The Common Agricultural Policy (CAP) provides for both tariff and variable levy protection against imports of cattle, beef, and veal. A tariff rate of 16 percent is imposed on cattle and calves, while a rate of 20 percent applies to beef and veal. The variable levy is determined on the basis of the difference between the orientation price for cattle fixed by the EC and a weighted average of import prices for meat (converted to live-weight basis) and live animals. If the average EC market price is below the orientation price, the full levy applies. If it is higher, the levy is phased out by steps. When market prices are more than 6 percent higher than the orientation price, no levy is collected.

Table 16--West European imports of fresh, chilled, and frozen beef and veal, by area of origin, quantity, and percentage of total, 1960-72

Year	Western Europe	Latin America	Eastern Europe	Oceania				
	1,000 M.T.	Per-cent	1,000 M.T.	Per-cent	1,000 M.T.	Per-cent	1,000 M.T.	Per-cent
1961.	159	29.4	275	50.8	33	6.1	45	8.3
1962.	198	29.1	347	51.0	61	9.0	44	6.5
1963.	270	29.5	514	56.4	82	9.0	21	2.3
1964.	261	26.8	469	48.2	82	8.4	134	13.8
1965.	254	26.7	369	38.8	109	11.5	167	17.6
1966.	233	24.8	388	41.4	108	11.5	107	11.4
1967.	432	41.1	374	35.6	124	11.8	30	2.8
1968.	405	39.6	266	26.0	181	17.7	38	3.7
1969.	484	41.0	457	38.7	171	14.5	38	3.2
1970.	475	43.1	434	39.4	107	9.7	51	4.6
1971.	519	49.9	294	28.3	121	11.6	51	4.9
1972.	545	40.4	518	38.4	119	8.8	76	5.6

Sources: Organ. for Econ. Coop, and Develop. Statistics of Foreign Trade, and Food and Agr. Organ. Trade Yearbook.

A transitional system is in force for two of the three new EC members. (Denmark has already adopted EC prices.) The full CAP for beef will not be applied until 1978 in Ireland and the U.K. The orientation prices for cattle for the 1974/75 marketing year (effective April 1, 1974) are:

EC	965.00	units of account/M.T.
United Kingdom	745.00	"
Ireland	820.00	"

Both levies and duties were suspended throughout most of 1972 and 1973. Special levy and duty reductions on young cattle and calves for fattening and partial or full suspension of levies on frozen beef imports were also granted.

A steady tightening of the import system has been underway since September 1973, when full import duties were reimposed. In November 1973, falling prices brought the levy back into effect. In May 1974, the full tariff on young cattle for fattening and the full levy on frozen beef for processing were restored by the Community. (This last action was in contravention of agreements concluded with Argentina and Uruguay.) Also, the period of validity for beef import licenses for Southern Hemisphere suppliers was reduced from 90 days to 35 to 45 days. In addition, new measures were taken. In December 1973, subsidies for beef and veal exports were granted for the first time. In late February 1974, France, Italy, and Belgium-Luxembourg were permitted to impose embargoes on fresh and chilled beef from outside the Community. (These embargoes lasted through March 31, 1974.) An EC-wide embargo on beef and veal imports was put into effect for the week of April 29 to May 7, 1974. Effective May 8, issuance of beef import licenses became contingent upon importer agreements to buy equal amounts from intervention stocks. An embargo on imports of fresh and chilled beef and veal and

live cattle from other European countries was imposed from June 27 to July 12. On July 16, the Community banned all imports of beef, veal, and live animals (except quantities specified in quotas agreed to under the General Agreement on Tariffs and Trade). This ban is to last through October.

The prior-deposit scheme introduced unilaterally by the Italian Government on May 1 is also expected to adversely affect imports. This system required no-interest, 6-month deposits of 50 percent of the value of a large number of imported products, including beef, veal, and live cattle. Under pressure from other EC countries, Italy agreed on June 4 to abolish prior-deposit requirements for agricultural products other than beef. For beef, these requirements were reduced to 25 percent of value.

The countries outside the Community employ a variety of devices--tariffs, levies, and restrictive licensing--to control beef and cattle imports. In Portugal and Spain, these commodities are, to an extent, subject to State trading. The widespread use of licensing makes it easy to expand or contract in response to changes in domestic market conditions or government policy. As in the EC, there has been a marked tightening of import restrictions in the other West European countries in 1974. Norway has placed an embargo on beef imports; Greece has placed an embargo on imports of essentially all meat and live animals; Spain has reimposed duties and levies which were relaxed in 1973; and Austria has increased export subsidies on slaughter cattle and beef by 33 to 50 percent.

#### 1974 Net Imports To Plunge

Net imports of beef are expected to plunge in 1974. In 1973, production was nearly 800,000 tons lower than estimated consumption. Assuming that 1974 production rises by 10 percent (a conservative estimate) and consumption remains about the same, this difference will fall to only about 100,000 metric tons in 1974. If the higher levels now being predicted by some observers are experienced, West European beef and veal output could equal or exceed consumption.

Total imports will not fall by as much as net import requirements. West European beef exports are expected to increase considerably--almost all to other West European countries. Most of these exports go into intra-Community channels and benefit from varying degrees of preference. Thus, imports from suppliers outside Western Europe should bear the brunt of the decline. Clearly, a reduction in these imports has been the major aim of the policy measures so far taken by West European governments. However, imports from non-West European suppliers will not fall to the extent indicated by the rise in the self-sufficiency ratio; the EC alone reported more than 250,000 metric tons of such imports in the first half of 1974. During the same period, the Community accumulated beef support stocks of over 125,000 metric tons. They have recently stepped up efforts to export beef outside the EC and have reportedly negotiated the sale of 50,000 metric tons to the U.S.S.R. With the imposition of the import ban in July, the levels of imports in the second half of 1974 will be quite low.

The major shift in trade is expected to occur in France, which is expected to move from a net import position to a large net export position. Similarly, large increases in Irish and Danish exports are anticipated. Substantial decreases in Italian and British imports are expected. Outside the EC, a small decrease in net imports is expected--mainly because of a decline in Greek imports. However, some increase in imports by Spain, Portugal, and Sweden is anticipated.

#### Imports From Outside Western Europe To Remain Low

The medium-term picture strongly suggests that beef imports from outside Western Europe will stay at low levels in the near future. Consumption may pick up in 1975, but this increase appears unlikely to substantially exceed the high levels of production

expected in 1975 and 1976. Also, countries with severe balance-of-payments problems may seek to curb "nonessential" imports. Replacement of beef imports by domestic beef or other meats offers one such alternative. OECD forecasts (5) for 1975 support this conclusion, showing the net West European import requirement to be well below the record levels of 1972 and 1973.

In the long term, the situation is less clear. Projections show a great divergence of expectations as to the future development of Western Europe's net trade position for beef and veal.

Table 17--Projections of West European net trade in beef and veal, 1980 and 1985

Source	Year	Net imports	Calculated annually		
			Rate	For the period	
		1,000 M.T.	Percent		
FAO (2)	1980	1,502	5.4	1965-80	
MSU (1)	1980	1/109	-3.0	1968-80	
OECD (4)	1985	1,525	5.0	1962-85	
ERS (8)	1985	802	0.3	1970-85	

1/ EC-9 only. By comparison, the FAO projection of 1980 net imports of beef and veal by the EC is 1 million metric tons.

FAO (2) and OECD (4) have projected large and growing beef deficits. The Economic Research Service's (8) projections show EC import requirements remaining about the same level, while Michigan State University (1) predicts a sharp decline in EC imports. The OECD forecasts (5) for 1978 also show a decline in net imports by Western Europe--to about 400,000 metric tons.

#### IMPACT ON WORLD MARKET

West European imports average about 55 to 60 percent of total world beef and veal imports. The United States, the world's largest importing country, is the only other beef and veal importer of comparable importance. Even excluding intraregional trade, Western Europe still accounts for over 40 percent of world beef and veal imports. Fluctuations in Western Europe's net import demand for beef thus have a major impact on the world market.

Table 18 compares changes in net West European imports with a representative "world price"--in this case, the Smithfield Market (U.K.) price for Argentine chilled beef quarters. This price shows a general tendency to move in the same direction as net imports, but as other factors are involved, this is not true in every year. However, marked exceptions to this tendency can usually be explained by the offsetting effects of large changes in Argentine production. The continued rise of the Smithfield price in 1973, despite a weakening of the West European beef market, probably reflects the fact that although imports were somewhat below the 1972 level, they remained at very high levels throughout most of the year.

The impact of the forecasted drop in net West European imports on world prices in 1974 is likely to be severe. All other major elements in the world market will tend

to accentuate, rather than offset, the depressing effects of the downturn in West European imports. So far, supplies in all the major exporting countries are up substantially this year. Also, production is up in the United States--the other major market--and demand in the United States, Japan, and other important markets outside Western Europe appears to be depressed by the unfavorable economic situation.

The reduction in net West European imports in 1974 is likely to put increasing pressure on the U.S. market. In particular, South American suppliers will probably try to shift exports from Europe to the United States. As U.S. veterinary regulations prohibit imports of fresh, chilled, or frozen beef from these areas, this will require a shift into cooked beef. 13/

Table 18 shows that there has traditionally been an inverse relationship between net West European beef imports and U.S. imports from Argentina. Thus, a decline in net West European imports tends to generate an increase in shipments to the United States. There have been a number of exceptions to this relationship--usually caused by offsetting trends in Argentine production. However, early 1974 trade data suggest a strong reaction to the tightening up of the West European market. U.S. beef imports from Argentina in the first half of 1974 were over 26,000 metric tons--about 54 percent higher than in the first half of 1973.

West European exports of beef directly to the United States are not likely to be very significant. Sanitary and health restrictions prevent U.S. imports of fresh, chilled, or frozen beef from most of these countries. However, U.S. beef imports from Ireland (which has traditionally supplied small quantities of beef to the United States) surpassed 15,000 metric tons in the first half of 1974, compared with less than 1,000 metric tons in that period of 1973.

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13/ U.S. regulation requires that beef imports from South America be heat treated to 156<sup>o</sup> Farenheit for a minimum of 2 hours to ensure that viruses are killed.

Table 18--Net West European beef imports, "world" beef prices, and U.S. beef imports from Argentina, 1960-73

Year	Net West European beef imports		Price of Argentine chilled beef hind quarters, Smithfield market, U.K.		U.S. beef imports from Argentina		Index of Argentine beef production
	1,000 M.T.	Percent of 1960	Units of account <u>1/</u> 100 kg.	Percent of 1960	1,000 M.T.	Percent of 1960	Percent of 1960
1960. . . .	420	100	75.08	100	<u>2/</u> 25.2	100	100
1961. . . .	286	68	70.03	93	<u>2/</u> 29.6	117	113
1962. . . .	324	77	73.75	98	<u>2/</u> 25.4	100	126
1963. . . .	542	129	67.53	90	<u>2/</u> 39.7	157	138
1964. . . .	677	162	86.00	115	24.7	98	108
1965. . . .	658	159	91.95	122	24.9	99	105
1966. . . .	601	141	85.65	114	36.5	145	165
1967. . . .	560	134	83.83	112	49.1	195	133
1968. . . .	489	117	NA	NA	58.4	231	135
1969. . . .	645	154	<u>3/</u> 86.11	115	57.3	227	154
1970. . . .	537	128	207.17	<u>5/</u> 100	64.0	253	139
1971. . . .	432	103	241.38	<u>5/</u> 117	39.6	157	106
1972. . . .	762	182	254.23	<u>5/</u> 134	42.4	168	116
1973. . . .	733	175	<u>4/</u> 334.65	<u>5/</u> 162	36.7	146	114

NA = not available.

1/ Equal to dollar prior to December 1971 revaluation. Current par value 1 unit of account equals \$1.207.

2/ Estimate based on assumption that imports from Argentina under the category "other meats" prepared or preserved, consist entirely of beef.

3/ Average of January-October data.

4/ Average of January-September data.

5/ New series (bone-out price) starts 11/69. Index numbers from 1970 on are computed on the basis of 1970=100. Earlier prices on a bone-in basis.

Sources: (1) Net West European imports: see table 13; (2) Argentine beef production: Indices of Agricultural Production for the Western Hemisphere. Econ. Res. Serv., U.S. Dept. Agr, various issues. (3) U.S. beef imports from Argentina: Foreign Agricultural Trade of the United States. Econ. Res. Serv., U.S. Dept. Agr., various issues; (4) Price, Argentine Beef: Prix Agricoles, Statistical Office of the European Communities, various issues.



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