

ECONOMIC ADJUSTMENT TO  
THE INTERNATIONAL WHEAT AGREEMENT  
BY WEST GERMANY

by

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## THE PROBLEM

The most recent International Wheat Agreement became effective August 1, 1956. Is it, in its present form, the new beginning or the "beginning of the end" of intergovernmental cooperation in wheat trade? Opinions among experts are varied.

One could put the same question in another way; did the world use the opportunity given by the earlier IWA's to develop stable conditions in the world wheat market? If not, why not? Will the world reject agreements like the IWA in the future? Will it go back to "laissez-faire" in wheat trade? Or will some other policy emerge? What future policy would be possible and realistic?

For the first time in history, a world-wide agreement was reached in 1933 guarantying the exchange of certain quantities of wheat at a fixed maximum and minimum price to all interested countries who signed the agreement. But this first attempt did not get much attention because soon after ratification years of low crop production and preparations for war diverted attention toward other, more immediate problems.

Such an agreement is possible only between governments which control the wheat planning in their countries because the guaranteed quantities must be available in time and subsidies must be paid if needed in order to meet export commitments. In order to fulfill import agreements the countries must take the guaranteed quotas and are obligated to oversee the financing of these imports in the appropriated currency. These problems apparently cannot be handled through normal private channels or by free enterprise without government intervention in some manner.

In the beginning of world-wide wheat trade there was an uncounted number of producers and suppliers who were available to an innumerable multitude of buyers and consumers all over the world in more-or-less free competition. In most cases the supply and demand met at an equilibrium price. This situation changed following World War I as more governments undertook to regulate wheat.

Today world trade is limited to relatively few groups either governments or government created monopolies. The main supply is represented by only four to six countries. Monopolistic conditions are present in the world wheat market. The demand side shows a similar picture. Instead of thousands of individual buyers, acting through importers, there are only forty to sixty nations importing wheat. Selling and buying is now the task of governments!

Does this world-wide development guarantee a free market mechanism and a price reflecting the supply and demand situation? Obviously not. In order to show how these changes have taken place there is here presented a theoretical framework explaining the development in world wheat trade from pure competition to governmental trade, dictated largely by political reasons. Intermediate steps were monopolistic competition and monopoly or oligopoly.

Chamberlin defined pure competition as: "involving a relatively large number of buyers and sellers of a perfectly standardized product."<sup>1</sup>

The time before World War I is usually considered to fulfill these conditions best. The price of wheat was determined by the supply of a large number of sellers and the demand by a large number of buyers. The product was nearly standardized.

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<sup>1</sup>E. Chamberlin, The Theory of Monopolistic Competition, p. 16.

This situation had the following advantages: (1) the market was cleared at an equilibrium point and (2) the single buyer or seller had no price influence on the market through alteration of the quantity he offered to buy or to sell.

In Plate I, Fig. 1 pure competition is demonstrated. The demand and supply curves "dd" and "ss" equate at the equilibrium price "HE". The quantity "GE" will be sold. Applied to the wheat market, it shows the quantity of wheat which will be purchased under pure competition at an equilibrium price corresponding to a given demand and supply condition. This was approximately a true picture for agriculture before World War I. Fig. 2 indicates the situation of one individual wheat producer under pure competition whose demand curve "dd" infinitely is elastic.

The main disadvantage of this purely competitive market was the large fluctuation of farm incomes, due to unforeseeable growing conditions and economic considerations. Large crops with usually lower prices and small crops with consequently higher prices to the producer under assumed similar demand indicated the dilemma at those times of a free competitive market.

After World War I, social and political reasons combined with the tendency of agricultural production to meet falling prices with increasing output due to high fixed cost per acre or unit led to changes in the competitive market structure. Some governments began to assure farmers higher prices than could be realized at the world market. From this, monopolistic governmental intervention developed in wheat trade. Triffin defined monopolistic conditions "The competing monopolists have the choice between either determining the price and letting the buyer decide on the quantity demanded, or leaving the price to be worked out on the market by the competitive bidding of buyers."<sup>1</sup>

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<sup>1</sup>Triffin, Monopolistic Competition and General Equilibrium Theory, p. 52.

## EXPLANATION OF PLATE I

- Fig. 1. Pure Competition. Supply and demand determine price and quantity at an equilibrium point.
- Fig. 2. Pure Competition. Infinitely elastic demand curve for output of a "single" competitor (no price influence).
- Fig. 3. Monopoly. Price is determined by the shifted supply curve  $ss$  to  $s's'$  by one monopolist.
- Fig. 4. Price agreement. Price is determined by agreement in market shares between two monopolistic suppliers.

PLATE I

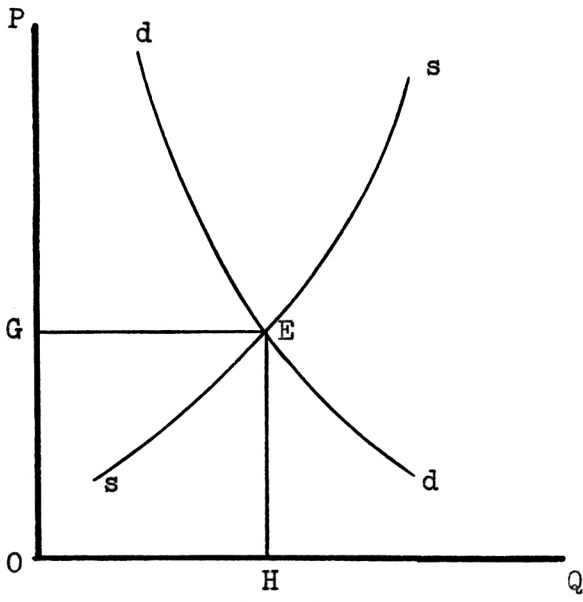


Fig. 1.

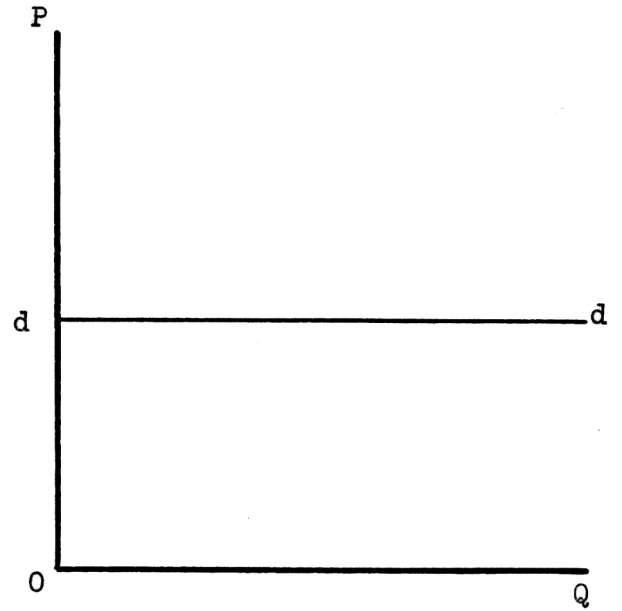


Fig. 2.

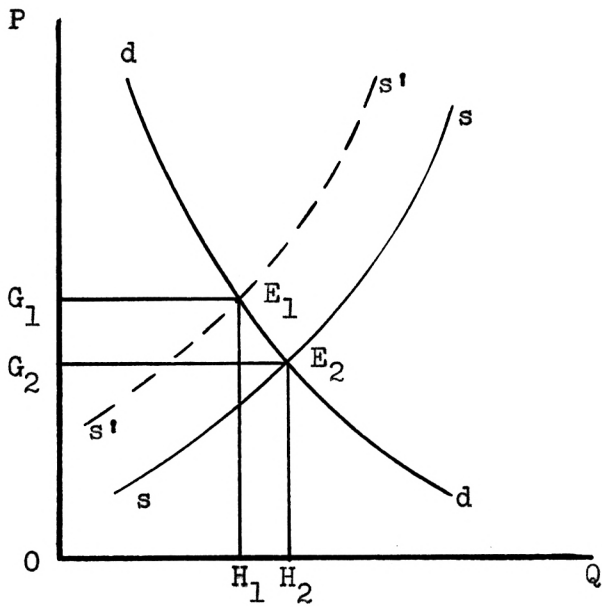


Fig. 3.

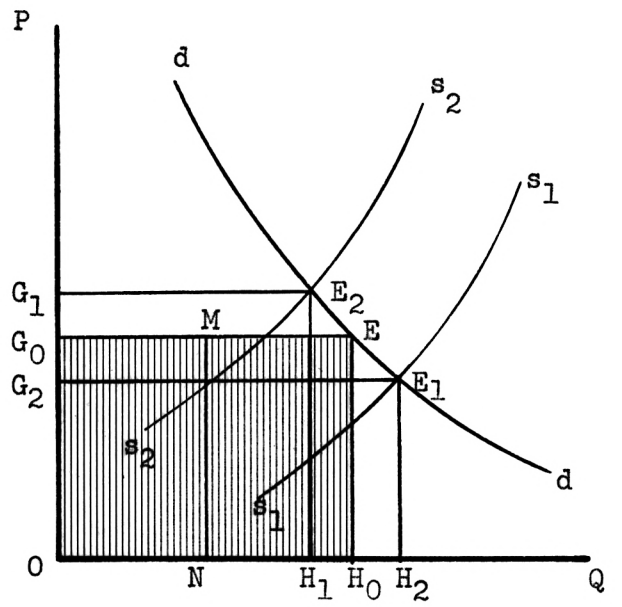


Fig. 4.

Plate I, Fig. 3 shows the shift of supply by one monopolist from "ss" to "s's" resulting in the smaller quantity " $G_1E_1$ " and the higher price " $H_1E_1$ ". Under wheat trade conditions a governmental monopoly affected the available quantity through storage programs and price and credit supports, etc., which limited the supply of wheat at certain times and raised the price to an artificial level.

In Plate I, Fig. 4 a system of oligopoly is shown where two monopolistic competitors participate in the market. It indicates the open or tacit agreement between two oligopolists represented by two supply curves " $s_1s_1$ " and " $s_2s_2$ " which meet the same demand curve "dd". Oligopolist I shifts his original supply curve " $s_1s_1$ " up, thereby offering less quantity but gaining a higher price. Oligopolist II decreases his original price from " $E_2$ " to the final equilibrium price "E" in the effort to share an equal market with his competitor. They each offer half of " $OH_0EC_0$ " at the price " $H_0E$ ".

Under the real conditions of the world wheat market after World War I this theoretical fact was actually accomplished by the strong monopolistic position some governments had gained by influencing wheat production and market supply. The example of the two oligopolists in Fig. 4 indicates the possible price fixing behavior between important export countries. But this picture was only acceptable under the assumption that the trade partners sought to maximize their economic gain.

Political developments led to a relegation of this important basic idea to a position of less significance. Fig. 1 shows the influence of these facts on the IWA which shares in the aggregate wheat market and their pricing systems are indicated by the line "BFE" lying between a maximum (Ma) and minimum (Mi) price range. This picture is hardly explained by economic theory. The



reasons are: (1) Member governments of the IWA do not necessarily seek to maximize profits as individual firms usually do. In most cases welfare and political reasons determine the purchase and storage of wheat through public agencies. (2) An individual monopolist can set only price or quantity, if he intends to maximize his profits. A governmental monopoly can set both at the same time through quota and price fixing, demonstrated by the IWA. Only governments have the power and resources for such a policy.

In Fig. 1 the present world wheat market situation is presented by an intersection of the world demand "dd" and the aggregate wheat supply "ss" at an equilibrium price "E". The remaining supply, the carryover "DG", does not enter the market because of available holding actions by governments of exporting countries. The IWA quantity "OC" is one-fourth to one-third of the

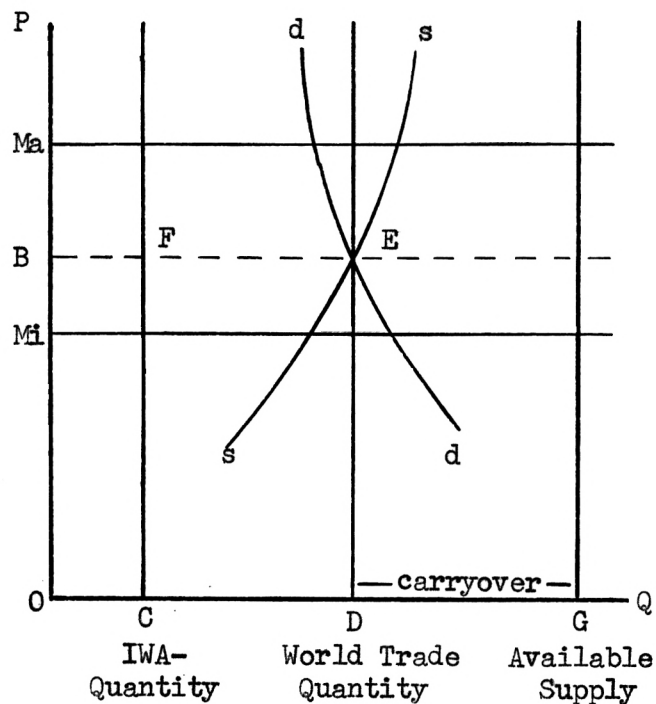


Fig. 1. Present world wheat market. One-third of the traded wheat is purchased under the IWA to the free world market price lying between the maximum and minimum prices of the IWA.

present total world trade quantity "OD" in wheat, purchased at the price "CP" which is in this instance equal to "DE". Inside the IWA the price is allowed to fluctuate between a minimum (Mi) and maximum (Ma) level. When the free world market price on the line "DE" moves below or above the "Mi" and "Ma" lines, the IWA price will be fixed at those levels.

Based on this theoretical framework, the thesis outlines the steps which led to the IWA and attempts to relate them to the effects of the agreements upon exporting and importing countries. Particularly, it explains the adjustment of one important European wheat importer, West Germany, to the analyzed problem.

#### STEPS LEADING TO THE IWA

##### Export Countries

It is the common goal of the IWA to overcome hardships to producers caused by burdensome surpluses during some seasons and hardships to consumers caused by short supplies during other seasons. Thus the goal of the IWA is to introduce an element of stability into the world wheat trade.

The supply situation looks critical in the present period since the heavy wheat demand has diminished in some European and other countries which were in desperate need of food after World War II. Table 1 shows the development of wheat production and carryover in the four main exporting countries in world wheat market since 1945.

Rising surpluses led the exporting countries to the necessity of looking for markets and making these markets as sure as possible. One solution was provided through the International Wheat Agreement. World-wide acceptance of such agreement promised to help put the domestic agricultural programs

Table 1. Wheat production and carryover in U.S.A., Canada, Australia and Argentina in millions of bushels, 1945-1956.

Year	United States <sup>2</sup>		Canada <sup>3</sup>		Australia <sup>3</sup>		Argentina <sup>3</sup>	
	Production	Carryover	Production	Carryover	Production	Carryover	Production	Carryover
Millions of Bushels								
1945	1,107.6	279.2	316.3	258.1	142.4	11.3	143.6	90.0
1946	1,152.1	100.1	411.6	73.6	117.3	20.0	206.3	45.0
1947	1,358.9	83.8	338.5	86.1	220.1	13.3	238.8	40.0
1948	1,294.9	195.9	381.4	77.7	190.7	26.3	191.0	70.0
1949	1,098.4	307.3	366.0	102.4	218.2	19.0	189.0	55.0
1950	1,019.3	424.7	466.5	112.2	184.2	43.8	213.0	15.0
1951	988.1	399.9	553.6	189.2	159.7	19.4	77.2	20.0
1952	1,306.4	256.0	701.9	217.2	195.2	16.9	280.5	5.0
1953	1,173.1	605.5	614.0	383.2	198.0	37.7	227.8	72.0
1954	983.9	933.5	308.9	601.7	168.6	94.9	282.6	60.0
1955 <sup>1</sup>	934.7	1,036.2	494.1	499.7	195.6	95.0	192.9	85.0
1956 <sup>1</sup>	997.2	1,033.4	537.8	540.6	130.0	87.0	262.0	42.0

Source: USDA - Statistical Bulletin No. 159, Agricultural Marketing Service, "Grain and Feed Statistics," May 1957, pages 52, 61.

<sup>1</sup> Preliminary.

<sup>2</sup> Period July-December each year.

<sup>3</sup> Year beginning August 1.

in export countries on a basis determined by home consumption and a stable foreign market. The amount of future exports seemed to be more certain and wheat programs could be planned for a longer period. The first IWA absorbed the average production from over 10 million United States acres every year thus securing a much needed market for a part of the surplus production. After the decision to maintain a prosperous agricultural economy, the government of the United States supported the planning and ratification of the IWA, hoping that this agreement would provide a workable method of achieving the described goals.

But it must be remembered that the reasons for the planning of the IWA were not only economic. The IWA has to be considered in relation to the anticipated foreign policy of the United States, the leading political world power and leading wheat export country. It is obvious that only political causes justify the large sum of subsidy costs which are paid by the United States since the start of the first IWA in 1949 (Table 2).

This fact suggests a look into the history of United States assistance to the wheat economy. Early governmental intervention stressed orderly marketing rather than action to encourage production. After 1933, the United States government tried to restore a greater degree of balance between production and home utilization. On the international level Argentina and Australia developed, at first, aid programs which led to surpluses. They were primarily directed at maintaining and perhaps expanding their wheat exports. In contrast, Canadian efforts to aid the wheat producers focused upon holding operations: wheat was to be isolated from domestic markets in an effort to force prices upward. Following this development, the assistance programs of the main exporters became a more and more important factor in

Table 2. United States, yearly export payments under the IWA, 1949-56.

Fiscal year	:	Export payments under the IWA
1949-50		\$ 77,794,567
1950-51		178,179,517
1951-52		166,928,526
1952-53		125,865,268
1953-54		58,696,561
1954-55		98,482,077
1955-56		89,679,957
		<u>\$795,626,473</u>

Source: USDA - Commodity Stabilization Service, Grain Division (Letter of June 10, 1957, in the IWA Files, D - 12) Grain Marketing Office, Department of Agricultural Economics, Kansas State College.

their national budgets. The four overseas countries with wheat surpluses spent more than \$210 million to aid the producers in coping with the effects of the wheat crop of 1938-39, just before World War II.

But the situation today, some years after this war, is more difficult than ever before. Increasing subsidies connected with growing stocks are marking the dilemma. Will the IWA show a way for the exporting countries to overcome their problems? Is it possible to bring surplus wheat in export countries to economical use in import countries at sufficient prices?

#### Import Countries

The purpose of the IWA for importing countries is to provide and to assure supplies of wheat at equitable and stable prices.

Import countries depend on the fluctuating wheat supply at the world market. If these countries are not sure that they can obtain at relatively stable prices adequate wheat supplies from abroad over a period of time, they tend to grow their own wheat, even though they cannot grow it as cheaply as the overseas exporter can.

Political developments, the sometimes attractive idea of self-sufficiency, and economic pressure in foreign trade balances introduced again and again during the last decades programs of national wheat independency regardless of the supply condition at the world market. Often it was a question of national existence whether or not domestically produced grain was available to feed the people in times of economic and political emergency.

Historically, protective measures began on a large scale with the Great Depression during the 1920's. The major importing countries closed their borders through the use of trade barriers which were more or less successful in isolating domestic markets from those of the world. Unemployment and widespread poverty demanded immediate action; little attention was given to the long run problem.

In an attempt to maintain prices and to support producers, many forms of assistance were used. Malenbaum reported:

Attempts were made to expand demand by stimulating various forms of domestic utilization and by subsidizing exports. Prices were to be raised by isolating large surpluses from the market mechanism, by keeping low-cost producers out of certain markets, and by government purchases; efforts were made to reduce distributive costs in order to increase the farmers' share of the consumer's dollar. On the cost side, fixed charges were reduced, cooperative buying was encouraged. Generous loans and grants helped fill the gap created by the low prices.<sup>1</sup>

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<sup>1</sup>W. Malenbaum, The World Wheat Economy 1885-1939, p. 12.

All these facts, together with growing international insecurity, led to the development of a protected national production in every country independent from the world market situation. In addition, high tariffs, milling quotas, and political and monetary trade controls brought, especially to Europe, a controlled trade system more restrictive than ever before. Only Belgium, Denmark, and the Netherlands allowed free imports at a world market price.

Then came World War II. Acreage, yields, and production in wheat increased to unexpected levels all over the world and all wheat produced was consumed. The following adjustment to normal demand in peaceful times created difficult problems. Surpluses in world production built up faster than could be handled by a free market mechanism.

How must the large stocks of wheat be used? Which countries must at first decrease their production to lower the supply? It would seem that high-cost areas should restrict at first to favor production in areas with low costs. This means that most importing countries have to cut their home production and have to buy the cheaper wheat from abroad. Why do not these countries do so?

One of many possible answers is that their governments fear the influence of such radical changes would be more dangerous in the domestic policy of their countries than the production of expensive wheat. This is said in relation to farm income, highest possible use of agricultural resources inside a country, political security, and economic independence in times of emergency. Theoretical reasons do not fit always in this picture.

To overcome these problems in importing countries, the IWA offered its help. It should assure that they could buy their needed wheat in guaranteed quantities and within a range of fixed prices. The following pages will

attempt to show how the IWA was expected to work and will give a picture of the results reached in the period under the first and second agreements.

## THE AGREEMENTS

### Goals and Basic Principles

After some conferences attempting to stabilize conditions in world wheat trade before World War II, an effort to overcome the wheat problems was made through an "International Wheat Agreement". The first post-war IWA became effective August 1, 1949.

Malenbaum described the agreement with the following sentences:

It guaranteed the export sale in each year of a stipulated volume of wheat, primarily by Australia, Canada, and the United States, to some 40 other countries now on an import basis. While specific import and export quotas are assigned to individual countries, there are provisions for adjustments to be warranted. The exporters have agreed to sell their quotas at a price which is not in excess of a stipulated maximum level; importers have also undertaken to pay for their "Agreement" imports, prices not below certain minimum levels.<sup>1</sup>

This was the first time that governments of so many countries agreed to put a large share, and a very vital one, of their economic activity under an international agreement. It is the opinion of some experts that the years of successful operation during the period of the first agreement demonstrate the real possibilities for international cooperation in the trade of this commodity. But in a comparative view it shall be seen later that special reasons led to this conclusion, because political matters influenced wheat trade more in those years than economic ones.

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<sup>1</sup>Op. cit., W. Malenbaum, p. 192.



It is essential to know first some details of the background of the IWA, so it may be easier to understand the changes in participation, quotas, and prices, which occurred in 1953 and 1956.

On the basis of the IWA in 1949 the participating export countries accounted for approximately 85 percent of the total world exports of wheat. The participating import countries accounted for about 65 percent of world wheat imports. At the beginning of the agreement, Germany and Japan did not participate; their share of 15 percent was added later to the importing countries.

The yearly total of 456 million bushels of wheat under the first IWA was approximately one-half of the total 1949 world wheat trade.

It was possible for non-members to join the agreement later by votes of two-thirds of the wheat council, which was established under the IWA with 1,000 votes for exporting and 1,000 votes for importing countries. Also, there were some escape clauses for both partners:

An exporting country may be relieved of all or part of its obligation in a particular crop year by reason of a short crop. An importing country may be relieved of all or part of its obligations for a particular crop year by reason of the necessity to safeguard its balance of payments or monetary reserve, (after taking in account the opinion of the International Monetary Fund).<sup>1</sup>

Provision was also made for any exporting or importing country which considers its national security to be endangered by the outbreak of hostilities to withdraw from the agreement. The trade quantity for each country was determined by a process of negotiation; no country was required to buy or to sell to a fixed trade partner. All countries were allowed to fulfill their guaranteed quantities through private trade channels.

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<sup>1</sup>USDA, Office of the Secretary, April 25, 1949, "Some Questions and Answers Relating to the 1949 IWA."

There have been no important changes of these basic principles through the three agreements 1949, 1953, and 1956. However, it may be noticed that since 1956 non-member nations are allowed to participate in discussing world wheat problems through the World Wheat Council. This especially should make it easier for Great Britain to come back in line of the agreement nations.

#### Change in Participating Nations

At first it is of some interest to note the change of nations participating in the IWA (Table 3).

On the side of exporting countries the addition of Argentina and Sweden is important. Argentina did not attend the first and second agreement. At those times Argentina suffered lower production due to a favored industrial policy and also was engaged in bilateral trade. Today, Argentina tries to reach the traditional position again of a strong export country in wheat, and it seems the government thought that participating in the IWA served the best interest of the nation.

On the side of importing countries which participated in the first agreement the outstanding factor is that the United Kingdom, the world's largest importer, did not renew the second and third agreement. The British point of view concerning world wheat problems changed during the four years of the 1949 agreement and that government participates no longer. The altered British opinion was the following: In the face of increasing surpluses one should not put more trade power to governments through agreements like the IWA. That is no way to solve the problem! The only possibility to bring supply and demand to an equilibrium point is the free and open market system. It would take care that the sources for the huge wheat surpluses would be reduced.

Table 3. Transactions in wheat and flour recorded under the IWA, 1949-56.

1,000 Bushels ; Importing Country	1949 International Wheat Agreement					1953 International Wheat Agreement				1956
	Quota (Annual)	Quantity actually bought				Quota (Annual)	Quantity actually bought			Quota (Annual)
	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56			(Annual)
Austria	11,023	11,054	11,008	10,947	10,495	9,185	—	4,955	2,115	3,674
Belgium	20,209	19,838	20,258	20,089	20,222	23,883	15,204	20,000	12,598	16,535
Bolivia	2,756	1,448	2,711	2,831	2,801	4,041	1,263	717	3,882	4,042
Brazil	13,228	1,606	8,079	13,132	13,228	13,227	3,872	7,452	216	7,349
Ceylon	6,614	4,409	6,614	6,570	6,613	10,288	10,288	5,723	7,622	—
Costa Rica	1,213	1,113	1,180	1,113	1,207	1,286	1,324	1,284	1,180	1,470
Cuba	7,422	6,018	7,422	7,405	7,395	7,422	5,371	7,272	—	7,422
Denmark	1,617	1,606	1,674	1,637	1,621	1,837	—	—	1,509	1,837
Dom. Republic	876	719	838	875	871	955	867	946	1,096	1,102
Ecuador	1,286	1,091	1,294	1,323	1,281	2,388	2,401	2,251	1,215	1,837
Egypt	14,697	7,905	13,627	14,861	14,844	14,697	1,887	889	6,710	11,023
El Salvador	404	482	453	388	400	734	727	729	731	919
Germany	66,139	31,788	59,372	65,676	66,335	55,115	37,482	54,753	46,758	55,116
Greece	15,726	15,836	15,220	15,617	13,540	12,860	4,854	12,012	9,655	11,023
Guatemala	919	417	919	920	920	1,286	1,095	802	805	1,470
Haiti	1,029	1,018	1,048	1,102	1,029	1,837	1,634	1,848	1,765	2,204
Honduras	367	—	230	366	370	734	518	473	420	919
Iceland	404	—	23	377	338	404	286	53	40	73
India	55,116	38,273	55,253	55,052	55,086	36,743	2,647	24,868	19,261	7,349
Indonesia	3,674	—	3,618	3,938	3,539	6,246	4,577	5,283	6,350	5,144
Ireland	10,104	8,080	10,052	10,132	10,232	10,104	2,656	5,959	4,530	5,512
Israel	5,879	5,461	5,888	5,887	5,894	8,267	5,915	8,413	4,950	8,267
Italy	40,418	13,017	30,047	36,099	34,582	3,674	—	—	2,604	3,674
Japan	18,372	—	—	17,328	18,536	36,743	36,945	36,849	36,331	36,744
Lebanon	2,388	150	2,402	2,464	2,405	2,755	33	2,083	866	2,756
Jordan	—	—	—	—	—	2,939	—	—	208	—
Korea	—	—	—	—	—	1,469	1,064	1,422	625	2,205
Liberia	37	6	36	36	34	73	45	49	48	73
Mexico	12,860	9,186	12,861	12,859	12,658	14,697	2,945	150	3,967	3,674
Netherlands	24,802	27,446	22,975	24,938	24,783	24,802	17,219	27,998	15,909	25,721
New Zealand	4,593	3,046	4,565	4,592	4,592	5,878	5,853	5,878	5,877	5,879
Nicaragua	331	280	326	328	326	367	356	366	360	367
Norway	7,716	7,715	7,708	7,724	7,755	8,451	6,826	5,333	8,016	6,614

Table 3 (concl.)

1,000 Bushels :		1949 International Wheat Agreement				1953 International Wheat Agreement				1956
Importing	Quota	Quantity actually bought				Quota	Quantity actually bought			Quota
Country	(Annual)	1949-50	1950-51	1951-52	1952-53	(Annual)	1953-54	1954-55	1955-56	(Annual)
Panama	625	485	626	623	647	734	651	678	674	1,102
Peru	5,512	5,247	5,390	5,648	5,621	7,348	676	729	62	7,349
Philippines	7,202	4,523	7,195	7,199	7,203	8,671	8,653	8,696	8,804	6,063
Portugal	5,626	5,145	5,372	5,603	5,608	7,348	4,043	2,969	4,975	5,879
Saudi Arabia	1,837	730	1,146	1,826	1,806	2,572	1,451	923	892	3,674
Spain	4,373	—	3,722	2,204	4,482	9,185	9,316	1,620	1,907	4,593
Sweden	2,756	1,007	2,122	2,808	2,751	—	—	—	—	—
Switzerland	6,430	6,431	6,478	6,430	6,469	7,899	6,966	7,110	5,498	6,981
Union of S.										
Africa	11,023	7,901	8,315	10,274	10,618	13,227	7,633	7,603	6,052	5,512
United Kingdom	177,068	177,012	177,101	177,066	177,070	—	—	—	—	—
Vatican State	—	—	—	—	—	551	551	559	551	551
Venezuela	6,246	4,593	5,788	5,897	6,041	6,246	6,240	6,253	6,246	6,246
Yugoslavia	—	—	—	—	—	3,674	2,338	3,633	3,733	3,674
Exporting										
Country	Quota	Quantity actually sold				Quota	Quantity actually sold			Quota
Argentina	—	—	—	—	—	—	—	—	—	14,246
Australia	88,700	80,805	87,285	71,252	86,673	44,355	27,777	41,512	44,918	29,328
Canada	235,000	185,447	190,883	241,586	231,078	150,842	90,894	109,202	75,650	99,737
France	4,089	3,306	3,885	4,085	3,380	338	367	375	363	16,026
Sweden	—	—	—	—	—	—	—	—	—	6,232
United States	253,128	162,560	248,920	255,279	251,137	193,652	106,152	139,510	134,076	128,042
Totals	580,000	432,120	530,974	572,203	572,268	389,189	225,192	290,601	255,007	293,613

Source: World Wheat Statistics, issued by The International Wheat Council, Haymarket House, London, S.W.1. Volume I, April 1955, pp. 42-46; Volume II, January 1956, pp. 58-63.  
The Wheat Review, Canada, Dominion Bureau of Statistics, Ottawa, December 1956, pp. 2, 4-5.

## Quota Variations

The transactions in wheat and flour recorded under the IWA show an interesting picture especially when compared with the total quantity of world trade in wheat during the same years. The following table (Table 4.) projects very clearly the declining trend in IWA trade as a part of the aggregate world market.

Table 4. World and IWA transactions in wheat and flour (1,000 bushels), 1949-57.

Year	Total world	Actual IWA sales	IWA quotas
1949-50	845,950	432,120	580,000
1950-51	932,776	530,974	580,000
1951-52	1,065,273	572,203	580,000
1952-53	957,792	572,268	580,000
1953-54	852,539	225,192	389,189
1954-55	951,659	290,601	389,189
1955-56	1,016,000	255,007	389,189
1956-57	--	--	293,613

Source: (1) World Wheat Statistics, Volume I, April 1955, pp. 25, 42-46; Volume II, January 1956, pp. 37, 63.

(2) The Wheat Review, December 1956, pp. 2, 4-5.

Far from reaching the total world trade quantity, but also far from the agreed quotas, the IWA sales covered only one-fourth of the world wheat trade in 1955-56. An explanation of the continuous decline of the IWA transactions is not always easy. Some countries, like the United Kingdom, refused to participate farther because of differences in opinion about the economic value of such an agreement.

Other countries cut their first quotas considerably because of rising production at home, bilateral agreements with non-IWA exporters, or wheat receipts through different kinds of support programs (especially by the United States government). The general line of these nations can be illustrated by the examples of India, Italy, and Brazil.

In India it was the main problem of the new independent government in 1948 to feed the people. The government took the opportunity to get wheat, 55 million bushels annually under the first IWA, with the help of the Western nations which supported these purchases. Eighty percent of the population of this country live in rural areas and villages, and the success or failure of the government would be judged by its agricultural policy. So the Indians began their "battle for food" under the first Five Year Plan in 1950. During that plan agricultural production increased by approximately 20 percent as compared with 1949-50. This improved food situation encouraged the government to allow the export of certain food grains during 1955. India reduced her IWA quota to 7 million bushels in 1956.<sup>1</sup>

In Italy the government tried to force a steady development of agriculture. A 12-year Recovery Program for the undeveloped, mainly agricultural, areas in the South went into action in 1950.<sup>2</sup>

Although wheat was formerly the major import product, today's production is almost sufficient for requirements. In seeking the remainder, priority would be given to purchases for payment in clearing agreements or in English pounds. So the Italian government reduced its IWA quotas from 40 million

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<sup>1</sup>Agriculture Abroad, Department of Agriculture, Vol. XI, No. 3, June, 1956, Ottawa (Canada).

<sup>2</sup>Ibid, Vol. XI, No. 1, February, 1956.

bushels in 1949 to three million in 1956 and obtained the rest of what it needs through bilateral agreements with Argentina, Turkey, USSR, and the United States under Public Law 480.

The situation in Brazil is characterized by increasing activity on the part of the government to develop domestic production. The IWA quota was reduced from 13 million bushels in 1949 to 7 million bushels in 1956. This indicates that the government's assistance and encouragement to the farmer to use his land to better advantage is bearing fruit. The best example is indeed wheat production, which has increased by 60 percent in the past five years; the yields per acre in the same time by 55 percent. These results can be traced directly to the government through guaranteed prices, making available mechanized equipment at cost price and a long-term credit program, the encouragement to use fertilizers, and better seed selection. In addition, the government has continued its program of building increased storage and silo facilities and of guaranteed minimum prices for other crops.<sup>1</sup>

The examples of these three countries might have shown enough causes for declining quotas and declining total demand under the IWA since 1949. They confirm the opinion among some world wheat experts that the IWA may sometime die of malnutrition.

#### Price Differences

The first agreement established a maximum price of \$1.80 (Basis: No. 1 Manitoba Wheat at Fort William/Port Arthur) and a minimum price of \$1.50 for the first year with downward gradations in the minimum to \$1.20 in the fourth

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<sup>1</sup>Ibid., Vol. XI, No. 4, August, 1956.

and final year. The maximum remained at \$1.80 for the duration of the agreement. This price was set surprisingly low in view of the then prevailing situation and the wheat importing countries, mostly supported by Marshall Plan Funds, had reason to find these prices attractive.

On the other hand,

It is less clear why the officials of three major exporting countries should have been willing to sign a four-year Agreement with a price range so far below current levels. For these countries, however, a dominant element was certainly fear--fear of an early contraction of import markets, fear of increased export competition and fear of resulting unbearable strains on their own national wheat-marketing system.<sup>1</sup>

Under these circumstances the IWA functioned properly during a period of high world market prices, forced by a heavy demand because of the Korean War, bad crops, and because of financial support by exporting nations. The importers were satisfied; the exporters absorbed their great losses incurred on IWA sales by their treasuries with the exception of Canada. This situation could only happen because in general the exporting nations were wealthier than the importing countries.

But with their huge losses in mind the exporters argued at the time of the negotiation for a new agreement in 1953:

That the price of wheat should be in accordance alone with the farmers' cost of production, regardless of the international factors of supply and demand, and that this cost of production is represented by the USA parity system of price support.<sup>2</sup>

The question is: Who can judge the price? In opposition to the opinion of the export countries, the United Kingdom as the largest importer, pointed

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<sup>1</sup>Helen C. Farnsworth, "Int. Wheat Agreements and Problems, 1949-1956," The Quarterly Journal of Economics, Vol. LXX, May, 1953, p. 222.

<sup>2</sup>Searle Grain Company, Limited, Grain Market Featurer, Winnipeg, Manitoba, May 6, 1953, No. 9, p. 2.



out that in the light of the current abundant wheat supplies, the price at a \$1.80 maximum and \$1.20 minimum is a fair reflection of the value of wheat in conditions of a free market in 1953.

But the accepted new agreement insisted on a higher price range from \$2.05 to \$1.55 for the three following years. So the United Kingdom refused to sign the second IWA. It was the conviction of the British government that this price range would lead only to more burdensome surpluses and would not avoid the basic causes of the world wheat problem.

One important immediate effect, after deciding upon this price range, was recognized: domestic wheat prices were raised and larger wheat plantings encouraged for 1953 and 1954 in a number of wheat importing nations, and also in France, an IWA exporting country. This encouragement to self-production through higher IWA prices, together with the lack of dollars brought the consequence that several countries reduced their imports under the IWA and sought relief under more bilateral agreements.

Table 1 shows that the opinion of the British government was right. The surpluses grew each year. The world wheat crop in 1955 was 7,300 million bushels, only slightly below the all-time record. In connection with these growing surpluses the opinions about a further need and the level of price range of an IWA became more and more different.

The last year of renewing was 1956. The negotiations were difficult and it was only possible to guarantee sales and purchases in an amount of 293 million bushels of wheat in 1955-56. The new maximum and minimum prices, \$2.00 and \$1.50 a bushel, are only five cents under the 1953 level, despite the large stocks which have built up in the meantime. But the reduced total amount and the absence of the United Kingdom show that these prices were

determined more by agreements between the monopoly exporters than by a true equilibrium between buyers and sellers at the world market.

Helen C. Farnsworth made a fundamental statement of the problem of an advanced price range:

Advance negotiation of a four year price range for international wheat transaction is inevitably risky. At the time such a price range is established even the best informed experts cannot foresee the peculiarities of crop weather and the general economic and international political developments that will characterize the contract period. If the Agreement prices are set too low for a four-year period the maximum price will become the fixed price, persistently penalizing participating, but not non-participating exporters. If the Agreement prices are set too high, then the minimum price is likely to become the fixed price, penalizing importing countries that take up their guaranteed quantities.<sup>1</sup>

The four-year price range refers only to the first IWA, 1949-1953.

These problems make it difficult for an observer of the IWA to judge what should be the "right" wheat policy for an exporting or for an importing country.

Because it is only the further task of this thesis to examine the facts and the points of view of an importing wheat country, an attempt is made in the next chapters to explain the decision of the parliament and the government of the Federal Republic of Germany, the second largest European importer, as to how the wheat problems in their country were met.

## AGRICULTURAL POLICY IN GERMANY

### Agriculture in General

West Germany has an area of 94,700 square miles, about the size of Oregon. It consists of: arable land, 35 percent; permanent meadows and pastures, 23 percent; forests, 28 percent; and non-agricultural, 14 percent.

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<sup>1</sup>Op. cit., Helen C. Farnsworth, pp. 233-234.

The farm population is about one-eighth of the total of 52 million people. The principal agricultural product is livestock which makes up three-fourths of the value of the total agricultural output. The main grains are rye, wheat, oats, and barley. Potatoes and sugar beets are also important.

Since World War II agriculture has revived and has surpassed its pre-war output. It is now thought to be producing about 70 percent of the country's requirements. The family type farm is predominant. The average size is 17 acres and in the South often badly fragmented. In this view, a main problem is a sound land consolidation and the development of larger farm units. Mechanization and advanced methods are satisfactorily developed on farms larger than the average. Fertilizer input is high above the European average.

The climate in most parts is favorable for intensive agriculture and high yields, but it does not always produce best qualities, i.e. in wheat.

#### Economic Situation<sup>1</sup>

The recovery of the German economy is finished. Aided by a stable political situation and the absence of significant labor disputes, the economic expansion proceeds at a rapid pace. Home investment, consumption, and foreign trade are at a high level. The economic development might be seen in the gold and dollar reserves held by the German government. The amount experienced an increase from the year 1951 with \$357 million to 1954 with \$1,503 million and to December 31, 1956, with \$3,341 million, the highest amount held

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<sup>1</sup>USDA, Foreign Agricultural Service, FAS-M-9, July, 1956; FATP-1-57, January 4, 1957; FATP-16-57, April 25, 1957.

in a foreign country. This strong payment position has put Germany in the forefront of countries favoring easy convertibility and the rejection of quantitative import controls. The reasons that this should not immediately include agricultural products on a broad front are explained in the following pages.

Other information is needed to understand the economic policy in Germany since the establishment of the Federal Republic in 1949.

The food consumption level is about 2,950 calories per person per day which is a little less than in pre-war times. Consumption of high protein products and fruits is increasing, grain and potato use is going down. The dependence on agricultural imports is about the same percentage-wise as the pre-war figure for the same territory, although the population has increased by more than 10 million in 10 years. Imports today provide one-third of the calorie value of the food supply for West Germany. The country is the world's third largest importer of agricultural products. The principal goods are wheat, feed grains, cotton, oils and fats, coffee, wool, and tobacco. Hops, some kinds of meat products, and beer are only minor agricultural exports. Germany trades manufactured goods which are produced by highly developed industries for a large part of its food and raw material requirements.

At this point it is the place to raise some questions which go deep into the problem of the IWA: Why does not Germany buy wheat in low-production-cost countries to give the millions of people in its industries the cheap food resource which they need? Why is the IWA unable to convince this importing country of its advantages by taking more wheat under the agreement? The next discussions will make this clearer.

## Bread Grain Production

Grain is grown in all parts of West Germany. Rye and wheat are the major types. Because a large part of the German people like to eat rye bread, the cultivation of this grain is very important. Another reason that rye takes the first place in grain production in Germany is that the yields of rye are higher on poorer soils than are the yields of wheat. Rye covers all the less fertile areas in the North, East, and mountain regions, while wheat is cultivated on better soils with remarkably high yields. All wheat types are soft, and there are significant differences in quality due to climate conditions. These gradually influence the protein content from the North to the South. The production figures are shown in Table 5 indicating the importance of rye and wheat in German agriculture.

Germany ranks first in rye production in Europe and follows Italy, France, Spain, and Yugoslavia in wheat production. These four countries are growing more surplus wheat from year to year providing at the same time export markets to other European countries which need to import wheat.

Grain is the basic crop of nearly all German farming systems. It is the standard plant for most rotations with changing shares from 33-66 percent of the planted acreage on a farm. This part of grain in each rotation provides some advantages; as better labor management throughout the year, using of effective machinery for planting and harvesting, and using the winter moisture through fall seedings. The other crops like potatoes, sugar beets, clover, alfalfa, etc., must have grains sharing in their rotation to prevent diseases and unhealthy soil conditions. Another important reason for grain seeding is the big demand for straw for manure production. The fertility of

Table 5. Rye, wheat: acreage, yields, production in Germany - 1935-1939 and 1945-1949 average, 1954-1956 annually.

	1935-1939	1945-1949	1954	1955	1956
<b>Acreage (1,000 acres)</b>					
Rye	4,080	3,480	3,780	3,643	3,664
Wheat	2,785	2,283	2,735	2,875	2,830
<b>Yield per acre in bushels</b>					
Rye	29.2	28.4	42.7	37.8	40.1
Wheat	33.2	29.5	38.9	43.0	45.1
<b>Production (1,000 bushels)</b>					
Rye	119,000	98,900	161,330	137,800	147,040
Wheat	92,400	67,420	106,260	123,570	127,500

Source: Foreign Agricultural Circular, FG 15-56.

many of the European soils depends largely on the permanent addition of organic substance to avoid too heavy diminution of fertility under the humid climate of Northern Europe with high moisture content in the air and rainfall during the whole year. Most farms have both field production and livestock raising, feeding or milking. This requires a large investment in houses and buildings, machinery, fertilizer, manpower, and improved seeds and breeds.

At first one should look for the number of farms connected with grain production in comparison with the total number of farms in West Germany (Table 6).

Table 6. Number of farms producing grain, West Germany, 1939 and 1949.

	Total	With grain	With rye	With wheat
1939	2,009,743	1,812,306	1,445,073	1,085,734
1949	1,978,090	1,792,031	1,413,340	1,235,669

Source: Statistisches Jahrbuch 1955, pp. 128 and 131, reporting census data.

The table shows a slight decrease in total numbers of farms as compared to the pre-war level, but an increase of wheat planting farms. This might be explained by the introduction of new varieties which grow on poorer soils and through the better price which is paid for wheat.

The close connection of grain and livestock production in the mixed farm system is significant for the larger number of German farms. In this view the straw production wins an important position in the considerations of farmers' planning.

Table 7. Number of farms producing livestock, West Germany, 1939 and 1949.

	Total	With horses	With cattle and milk cows	With hogs	With sheep
1939	2,009,743	615,710	1,554,789	1,585,672	139,518
1949	1,978,090	605,703	1,559,268	1,601,945	532,758

Source: Statistisches Jahrbuch, 1955, p. 131.

The decreasing number of farms with horses indicates not only the introduction of tractors but at the same time the converting of oats acreage to some other use, mainly for wheat and cash crops. Especially for small farms with a higher percentage of livestock, the yields and absolute amounts of straw are important factors. This straw is used to strew in cow-sheds and pig-stys, etc., to keep the animals clean and warm, but the main reason is to make manure. In a humid climate, where biological transfers are too quick, the manure is vitally important for high fertility of the soils. To this question the European farmer has to pay more attention, because there are all possible soils in use with regard to the dense and growing population on that continent. Since most European agricultures are highly intensive in view of

soil production (per acre basis), it seems that there is no way to overlook the importance of natural manure even though much work is connected with its production. This means the time and labor for harvesting, transportation, storage, and strewing of straw and then loading, transportation, and distribution of the manure.

The average straw crop in Germany shows high figures, outstanding through sufficient rain and intensive use of nitrogen, as shown in Table 8.

Table 8. Wheat straw crops, West Germany; average yield per hectar in kg; total in metric tons, 1952-54.

Wheat	Average kg/ha	Total production in metric tons(t)
1952	4020	4,796,446
1953	4120	4,755,184
1954	4100	4,533,103

Source: Statistisches Jahrbuch, 1955, pp. 142-143.

Conversion: (a kg = 2.205 pounds  
a ha = 2.471 acres  
a t = 0.984 long ton or 2204.62 pounds).

After the second World War the grain production quickly exceeded the pre-war level. Beside the price incentive, which shall be discussed later, the most determining factor of the decision to put emphasis on own high grain production at most German farms was the possibility of mechanization and reduction of labor in this field of agricultural production.

Grain production is sometimes referred to as "wages extensive". The mechanical development of grain production reduced the share of wages for planting and harvesting grain to a relatively unimportant point. So the expense gap between grain and other field crops, like potatoes, sugar beets, feed grains and grasses, clover, alfalfa, etc., is wider than ever before.



And it seems that the technical development of grain production will take the first place in efficiency and cheapness in the future too. The consequence is that grain production from this point of view will increase or at least be equal to the present acreage and yields. If other agricultural production fields with high demand of hand labor would suffer under increasing wages, grain production will be relatively invulnerable. The emphasis on wages for agricultural workers is important because of the competition of agriculture and industry at the labor market. The neighborhood of both is so close all over the country that the farmers have to virtually match industrial wages to get a sufficient number of workers.

#### Wheat Policy

The Post-World War I Period until 1925. After the war, Germany had in her changed area a population of around 65 million people. Ten million metric tons of bread grain were used to meet the demand of the country. Half of this amount was rye, and half was wheat, with the post-war tendency in favor of the latter. The German farmers produced rye in a sufficient quantity; an occasional surplus went into the export or was fed to livestock. But the wheat supply showed a deficit from one to two million metric tons, varying from year to year, which had to be covered by imports. This was in line with the pre-war practice, as Germany was one of the foremost wheat importing countries in Europe.

The German wheat production did not go untouched out of the changed world situation after the war. Before 1914, import duties on grain and other agricultural products were high enough to secure the domestic producer a sufficient price level for his wheat. At the beginning of the war, these tariffs

were abolished. Partly because of provisions in the Versailles Treaty, they were not reestablished until after the postwar inflation period. Thus, in 1923 through 1925 domestic wheat prices were considerably below the world price. Two main reasons provided this result.

First, the competition of rye and potatoes with wheat for human consumption introduced a price-depressing influence quite independent of foreign supply; secondly, technical progress, thorough soil preparation, efficient crop rotation, certified seed, and application of large quantities of manure and artificial fertilizers enabled Germany to rank among the countries with the highest yields per acre. This was in spite of the generally moderate quality of the soils used for wheat. The average yield per acre increased from 1894-98 with 23 bushels to 30 bushels in 1925.

The described depressed price situation led to the first state intervention, which used first of all import tariffs to restrict foreign competition. This was the starting point for an active agricultural policy by the government after the war, the effects of which are described on the next pages.

Malenbaum categorized the various protection measures in three groups: (1) Simple tariffs (from around 1880-1929); (2) Supplementary measures directed toward making the tariff barriers more effective (from 1929 to about 1934); (3) Complete market and foreign trade controls (from 1934 into the war years). This list became significant for most national economies in Europe.

The Post-Inflation Period until 1933. This period of German wheat policy was determined by tariffs and supplementary measures of quotas and regulations to overcome the difficult problems of the economy. Germany then found itself involved in several pressing difficulties, for example, the inability to balance the trade budget, disequilibrium in the international account, instability

of currency and banking, agrarian distress, unemployment of urban workers, and political instability.

Hard pressed by these problems most countries in Europe evolved programs leading to "economic nationalism." Those policies were applied with special vigor to wheat, which led as a consequence to an expansion of wheat production and to the reduction of Europe's imports. To buy as little from the outside world as possible to improve the balance of the national budget was the declared policy of that time.

Agricultural distress became universal in Europe and around the world. Low prices and high costs coexisted. In Germany, one of the major items in high cost had been the oppressive rate of interest; since the war the country changed from a creditor to a debtor, lacking sufficient cheap long-term capital.

Increasing taxation, oppressive rate of interest and wholesale prices raised the living cost. Rural wages increased despite large scale urban unemployment. The index of farm wages on a prewar base rose from 116 in 1924-25 to 154 in the average of 1927 to 1930, while the index of wheat prices in the same years averaged only 119. High fixed cost tended to favor greater production per acre in order to spread the cost over a larger number of units. One exception in the increasing cost of production means was artificial fertilizer. It was much cheaper than wheat in comparison to the prewar average. This fact induced the farmers to raise the yield per acre as much as possible by large applications of the cheapest item--in this instance, artificial fertilizers.

During the great depression unemployment rose to extraordinary proportions. The consumption level, especially for the more expensive wheat products, decreased. The food consumption of wheat, after having increased by

approximately 25 million bushels from 1924 to 1929, declined by about 40 million bushels from 1929 to 1933. The considerable reduction in the purchasing power of the population was undoubtedly the major cause of this decline in total consumption. But some other reasons attributed also to the reduction of per capita bread consumption, which was 10 percent below the prewar level in 1930. Listed here are reduction in manual labor, the low demand of the smaller standing army, a larger proportion of urban population, and a larger flour and bread yield per unit weight of grain.

The one-sided tariff protection given to grain had led to a considerable extension of the area sown, particularly the wheat acreage. The general duty on wheat in Germany increased from 1926 with 22.68 cents per bushel to 383.40 cents per bushel in 1935.

Even though these tariff rates increased steadily, it was found necessary as early as 1929 to proceed to direct control of the markets for wheat (and rye) by milling and storage quotas. Blending of imported and domestic wheats and the limitation of flour imports were the two controls most often applied; sometimes the mills were only permitted to use imported wheat for less than 5 percent of their output. This left no possibility for choice in the kind of flour, it was merely an order to use up domestic wheat. Other compulsory milling formulas have driven mills to various methods of improvement and conditioning of domestic wheats. Also, the mills had learned to produce better flours at higher extraction. For customary uses in bread-making flour could be produced with a 75 percent extraction which was equivalent to prewar flour of 70 percent. Higher extraction meant, at the same time, reduction of millfeed, but this was in conformity with the program, since supplementary feeding stuffs could be imported cheaper than wheat.

The protective measures raised the domestic wheat prices substantially above the world level. From 35 marks per metric ton in 1925, the duty on wheat was raised to 350 marks in 1934; this was about five times the level of world wheat prices at that time. These high prices, secured through a policy in which landlords and peasants felt confident, brought about the expansion of wheat acreage in the depression period to an unbelievable level.

The price relationship between grains and other flour products favored further the increase in the high proportion of area devoted to grain, particularly in 1931-34. The expansion of the wheat area was entirely at the expense of rye and oats. The seeded area in rye declined by 3.6 percent, and the acreage in oats by 10.6 percent from 1929 to 1933. The limitation of the German wheat production at that time was given only by the scarcity of good soils. So the 1933 wheat area reached the all time peak through this extremely favorable price and price relationship level.

The wheat yields averaged 32.3 bushels per acre from 1931 to 1935, more than two and a half times the average yield in the United States. Increases in yields lowered the dependence on foreign supplies. From 1929-30 through 1933-34, the great decline in the amount of wheat used for human consumption was reinforced by the low rate of population growth. So the expanding course of wheat production was in contrast to the contraction of the total utilization of wheat in those years. At the end of this period self-sufficiency was nearly reached. While in 1927-28 around 45 percent of the wheat consumed was imported, in 1932-33 Germany imported less than 3 percent and added to the carry-over twice the amounts of net imports.

The "economic nationalism" was already established in regard to wheat as a consequence of the depression and the economic development since the war.

In that situation the National Socialists took power in Germany in 1933 and lifted the started methods to a rigid system which was applied to the whole economy. Plan and self-sufficiency became the slogan on the political platform.

The German Wheat Policy 1933 to World War II. The regulations of agricultural markets, which had started with wheat and rye during the depression, became wider and wider in scope under the new political regime. The development reached its peak and logical conclusion in the market legislation of 1933 and 1934. All the earlier measures were coordinated into a uniform scheme. It followed that the agricultural markets had to be operated with prices fixed by decree.

The main motives of the introduced policy were, first the assurance of an adequate supply of agricultural products, secondly the protection of producers and consumers against excessive price fluctuations and thirdly the guarantee of a "just" price to the producers. Such a far going aim was reached by a planned control of the markets through a powerful organization. This Food Cartel (REICHSNAEHRSTAND) included all individual farmers, their corporations and cooperations, all private merchants of agricultural products, the exchanges, and all the processing industries.

The described organized basis of the new German agricultural policy was the essential pre-condition for the effective further control of the grain markets; wheat, rye, and feed grains. A quota system fixed the exact amounts of both domestic and foreign grain to be bought by the individual mills. Not only the methods of purchase and processing, the schedules of delivery and prices of flour were prescribed in detail to the mills, but also the charges to be borne by the mills.

To set a "just" price, a whole battery of measures, consisting of minimum prices to be paid to producers, compulsory storing of wheat by millers, and contingents for mill operations was put in force in the fall of 1933. Fixed prices to producers were introduced in 1934. These prices varied according to region and month of delivery. In 1935-36, there were twenty different price regions for wheat.

Fixed prices were also extended to flour, millfeed, and bread. All margins for the sales of wheat, wheat products, and bread, from producers to millers, wholesalers, retailers, and customers, were fixed in detail. Flour prices were based on the ash content, established for basic types. Type 790 for wheat flour and type 997 for rye flour. For all other types premiums or discounts were prescribed.

Since 1934 the yearly contingents of the mills were subdivided into monthly quotas. Fulfillment was controlled by sealing the mill products with special seals which could be procured only from the Association of Rye and Wheat Mills. The regulation was directed toward eliminating gluts in the flour market in the fall, and thus served as a link in the chain of contingents and fixed prices. A similar effect was reached by requiring the mills to keep in store continually two-twelfths of their yearly output. Also delivery of bread grains by producers was fixed by quotas, to insure an even flow of grains throughout the year.

This regulation of the demand side was accompanied on the supply side by an equally strictly organized association, controlling all people engaged in the sale of grain. Prices were decreed for each region, with the national average in excess of \$2.00 per bushel every year after 1933. With respect to demand, this central organization calculated the domestic requirements a year

in advance; it then distributed the required production to each of the grain regions into which Germany was divided. The minimum prices for wheat and rye from 1933 were soon replaced by fixed prices in the fall of 1934. The latter were introduced primarily to protect the producer, but the protection of the consumer became later the main issue. The fixed prices varied according to region and month of delivery.

But the elaborate control of marketing had never gone so far as directly to influence production itself. The agricultural planning strictly refrained from imposing any direct injunction upon the sowing plans of the individual producer. So it could happen that the glutting of the wheat market in 1932-34 as well as the strengthening of the prices of rye and oats brought about a set-back in the development of the wheat area. By 1936 the wheat area had lost nearly half of the gain made from 1927 to 1933. While the recession in the winter wheat area from 1933 to 1936 was comparatively moderate (6.1 percent), the spring wheat area was contracted by not less than 47.8 percent from 1932 to 1936. The regions with the poorer soils, less favorable climate, and larger acreage gains in the preceding period, lost a larger portion of their wheat area than the better soils.

In contrast to this decreasing wheat production, the per capita food consumption of wheat regained a small part of its loss as a consequence of the increasing employment and political security in that period.

These facts avoided the hope of the government to reach again self-sufficiency in wheat after the record year of 1933. Early in 1937 it was apparent that there would be a shortage of wheat in Germany before the end of the cereal year 1936-37. Therefore, some 35 million bushels of wheat were imported (about 18 percent of the total requirements) during 1937. The estimates



of self-sufficiency were based on the two record crops of 1932 and 1933, but four unsatisfactory harvests followed. Bad weather and declined area sown were the main causes. To avoid further drain of foreign currency the requisitioning of all wheat and rye for human consumption only was ordered. From October, 1938, onward potato starch flour must be mixed with wheat flour to a minimum share of four percent.

This development reestablished Germany as a deficit country in wheat, as the next table shows (Table 9). But the food cartel (Reichsnahrstand) did succeed in bringing Germany close to the goal of self-sufficiency for the agriculture as a whole. An average ratio of 96.5 percent was reached during the years 1934-39.

The Post World War II Period. The situation after the last war was changed completely to the pre-war conditions. Many production and consumption of wheat determining factors in Germany were altered. Territory and wheat acreage of the Federal Republic were no longer identical with the figures of pre-war statistics of Germany. The number and composition of population, consumption habits and trade practices changed to a large extent.

All these reasons, which are explained more in detail in the following pages, established post-war Germany as a large-scale importer, second only to the United Kingdom. Seeking for possibilities to secure the food requirements for its country, the German government joined the IWA, at first under the sovereignty of the Western Occupation Powers. But political developments and increasing wheat supplies at the world market brought some other points into consideration which altered the mentioned point of security in different directions and alternatives, how to reach this goal!

West Germany today produces about two-thirds of its total food requirements. The largest deficit is in wheat, fats, and oils. At present levels of

Table 9. Wheat: acreage, imports, consumption, population, Germany 1922-37.

Year	Wheat acreage (million acres)	Wheat imports (million bushels)	Wheat consumption (bushel per capita)	Population (million)
1922-23	3.40	37.5	2.36	61.95
1923-24	3.65	30.7	2.37	62.36
1924-25	3.62	80.1	2.84	62.77
1925-26	3.84	57.2	2.87	63.18
1926-27	3.96	91.6	3.00	63.88
1927-28	4.32	88.5	3.19	64.20
1928-29	4.27	77.7	3.16	64.56
1929-30	3.95	47.9	3.02	64.93
1930-31	4.40	31.1	2.61	65.29
1931-32	5.36	23.2	2.72	65.59
1932-33	5.63	5.0	2.71	65.88
1933-34	5.73	4.6	2.70	66.18
1934-35	5.43	10.1	2.73	66.62
1935-36	5.21	0.3	2.87	67.11
1936-37	5.15	31.8	2.98	67.43

Source: Hevesy, Paul de. World Wheat Planning and Economic Planning in General, p. 488.

domestic production and consumption, Germany needs about 100 million bushels of wheat annually from abroad. The emphasis in wheat imports is to bring in hard wheat for mixing with the soft wheats grown in Germany or obtained under bilateral agreements from other countries. German importers tend to look to Canada for their premium quality and premium priced wheat (Manitoba 1 and 2) and to the United States for "good average" qualities. There has been some criticism of the quality of certain American wheat shipments, a factor which might be observed in the declining shipment of first quality wheats from the United States to Europe.

Since the end of the 19th century Germany has always had a shortage in bread grain, especially in wheat, the consumption of which became more and more important. The share of wheat imports in West Germany's foreign trade is shown in the next table (Table 10).

Table 10. Total grain and flour in value percentages of total West German imports, 1951-54.

	1951	:	1952	:	1953	:	1954
Grain and Flour	12.3		12.0		7.7		8.7
Wheat (share)	7.1		4.8		4.2		5.4

Source: Statistisches Jahrbuch 1955, p. 278.

The distribution of wheat imports by source varied. In the years following World War II--years of large scale United States aid programs--the United States supplied practically all of Germany's requirements in wheat until 1949. But with the German recovery and the return of the control of the foreign trade to a German government, the United States' share declined significantly. But it still stood far ahead of the pre-war level. The next table shows the imports of wheat and indicates the increasing shares of other countries compared with the United States (Table 11).

The year 1954 shows the largest share coming from "other countries". These countries were Bulgaria, Rumania, Turkey, Hungary, USSR, Syria.

But the shift from United States supplies to other countries (Table 11), also indicates the lack of dollars to pay for American products. Caused by the unequal trade balance between the United States and West Germany, it seems to be a serious problem for all trade in the future between dollar and non-dollar areas, that the American market is not open enough for foreign competition. That would be the only way for countries in debt to the United States to pay their obligations. The next table shows this picture very clearly in comparison of the United States and West Germany (Table 12).

As long as such great differences are continued in foreign trade balance it must be expected that Germany will seek for non-dollar wheat supply if

Table 11. West Germany: Imports of wheat, by source, average 1934-38, annual 1949-54.

Year	Total	U.S.A.	Canada	Argentina	France	Sweden	Australia	Others
1,000 bushels								
Average								
1934-38 <sup>1</sup>	24,741	2,050	4,927	5,725	489	450	1,347	9,753
1949 <sup>2</sup>	89,424	89,027	12	37	— <sup>3</sup>	9	— <sup>3</sup>	339
1950 <sup>4</sup>	63,359	40,302	— <sup>3</sup>	7,071	4,042	5,127	— <sup>3</sup>	6,817
1951 <sup>4</sup>	101,219	69,936	7,267	5,491	8,399	717	6,279	3,130
1952 <sup>4</sup>	77,912	45,544	22,748	168	1,968	2,185	1,162	4,137
1953 <sup>4</sup>	68,075	32,481	19,664	347	6,478	2,387	2,930	3,788
1954 <sup>4</sup>	123,403	28,546	22,919	21,855	13,997	8,896	5,946	21,244

Source: Foreign Agricultural Trade - Statistical Handbook, USDA Stat. Bul. No. 179, August 1956, p. 29.

<sup>1</sup>Germany within its 1937 frontiers

<sup>2</sup>United States - United Kingdom Forces of Occupation only

<sup>3</sup>If any, included with "Others"

<sup>4</sup>The Federal Republic of Germany

Table 12. Foreign trade, United States - West Germany, in million dollars, 1954-1955.

	U.S. Exports to Germany		German Exports to U.S.	
	1954	1955	1954	1955
Agricultural	\$ 266.8	\$ 241.9	\$ 26.9	\$ 24.0
Other	216.6	345.2	250.7	338.3
Grand Total	483.4	587.1	277.6	362.3

Source: Foreign Agricultural Circular, July 1956 - M9.

wheat is available in non-dollar countries. The discussion before shows that it would be no serious problem to find wheat without risking scarce dollar amounts! This is true especially in those countries where there is a strong demand for manufactured goods which Germany can deliver. Because wheat is the largest item in basic agricultural imports, the choice of a delivery country means at the same time the opening of an export market for the industrial goods of German factories. This determines employment and increasing national income. A careful selection of wheat resources is therefore an important task of German economic policy. Going the most profitable way in fulfilling the import food requirements of the country is the main goal.

Trade Practices. With the return of most of the sovereign powers to a German government in 1950 and with the accomplishment of a currency reform and general economic stabilization, there was a gradual relaxation of governmental controls in the whole economy, which had been established in a high degree of fineness since 1933 and during the war.

But soon it was obvious that a complete rejection of all controls in the agricultural section would bring serious problems, economical and political ones. It proved impossible to open the border for the free agricultural

imports because the German farmers, too long under protective walls, could not compete under free world market conditions. It will require a long period of time to give the whole rural population an efficient education through extension, equipment, market experiences, etc., to bring the general cost of production to a competitive level at the world market. In addition, there are more problems through different levels of production cost in many production areas caused by differences in soil, surface formation, climate, altitude, farm size, fragmentation, etc., which make the situation difficult and complex for each German government, friendly or unfriendly to free international competition.

So, although Germany has, to a large extent, restored a free market economy and although all direct regulations of production and consumption have been abolished, agriculture thus continues to be protected in significant degree and with a system of great technical efficiency.

This system works without acreage or bushel allotments for wheat inside the country but it fixes prices within a range which is adjusted and renewed every year by the government. The price range is determined by quality variations and the expected amount and cost of domestic production. Commercial firms do the actual buying and selling, but under strict control. Since the introduction of this price system the level of returns from wheat production has been always high enough to secure the farmer a sufficient and stable income. Income fluctuation through climate and weather factors are reduced in these areas under humid influences by the ocean and gulf stream.

The "Order-in-Market" legislation permits the German government a wide field of authority to implement measures towards planning and regulating the

imports of grain and feedstuffs, sugar, milk and milk products, fats and oils, livestock and meat.

The foreign trade of wheat is nominally in the hands of private traders, but a government controlled "Import and Storage Agency" (Einfuhr-und Vorratstelle) has the power to take over all imported wheat at the frontier. The importer is paid there according to the world market level, including a trade margin. Then the importer is required to re-purchase the grain at a fixed price, equal to the domestic price level. In addition to this price manipulation, there is a year to year changed quantity limitation for wheat imports according to the domestic needs.

This legal power of the central agency enables the state also to equalize prices of imported wheat under the IWA and outside the agreement. All wheat coming into the country will be traded only under one price level, directed by the government. When necessary, a system of subsidies and levies paid out of tax money is used to finance these agencies.

The consequence of such regulated trade policy is that only that quantity will be imported which the government estimates will meet the home demand. This system makes sure at the same time that no price change at the world market can influence the domestic price level. The producer, inside Germany, is secured against supply from countries with low production costs or against countries which subsidize their export wheat to an uneconomical level apart from price subsidies in their native production to raise this wheat. So, no foreign wheat supply can influence crop planning and the income of German wheat growers, protected by the described measures of their government.

### Wheat Consumption

The per-capita bread consumption is below the pre-war level. This coincides with a world wide observation in countries with increasing standards of living. It can be attributed to reduction in manual labor, to a larger proportion of urban population, to a larger flour and bread yield per unit weight of grain, to changes in taste, and to a higher bargaining power of the mass of people under near full employment. Although there are some changes from rye bread to wheat products in Germany, the decrease in grain consumption appears inevitable. The next table shows the consumption figures of some basic foods since the war (Table 13).

The table signifies some outstanding changes in population and the amount of consumption. The population has increased from 41,200,000 people pre-war to 51,951,000 in 1955 on the area of the Federal Republic. That is mainly the result of the influx of refugees and expellees from the Eastern parts of former Germany. These parts were at the same time the surplus food-producing areas, and their loss caused the serious food shortage after the war and the high import demand of West Germany today. Yet, the total area of the Federal Republic is just under 95,000 square miles or slightly over half the area of Germany in the boundaries of 1937, but the population numbers more than three-fourths of the former people and totals now 52 million.

Whereas the average imports to Germany in 1934-38 were 6,733,000 metric tons annually, the import demand in 1954 of the Federal Republic alone was 33,585,000 metric tons. The figures record the significant increase in the absolute amount imported for consumption. At the same time it is to be observed that the expansion of wheat consumption with the improvement in the level of living necessitated some displacement of domestically produced rye



Table 13. Estimated food consumption level in West Germany, per year and person, pre-war average, 1947-55 yearly.

Year	Population : (1,000)	Grain : (as flour)	Sugar	Potatoes	Fruit	Meat	Milk	Eggs	Total calories per day
(in kilograms)									
pre war	41,200	113	25	160	47	52	141	8	2,985
1947-48	48,100	140	15	185	46	20	75	3	2,375
1948-49	49,050	134	20	205	38	24	79	4	2,590
1949-50	49,520	119	23	186	55	31	103	5	2,690
1950-51	50,050	102	26	172	70	37	118	8	2,805
1951-52	50,470	101	27	163	58	38	123	8	2,706
1952-53	50,900	100	25	159	75	41	130	8	2,830
1953-54	51,500	98	26	160	74	43	132	9	2,885
1954-55	51,950	97	27	158	77	45	129	10	2,935

Source: USDA Foreign Agricultural Service  
 FAS-M-7  
 Page 10, June 1956

Table 14. West German Economic Development, 1951-1954.  
(Index data: 1950= 100)

	1951	:	1952	:	1953	:	1954
Trade total	114		123		134		139
Food goods	109		116		124		128
Tobacco and cigarettes	103		111		116		118
Textiles	112		113		120		122
Furnitures	136		141		171		173
Radios, TV's	112		119		132		137
Cars	117		140		155		163
Books, newspapers	112		126		140		146
Art, theater, movies	127		145		160		166
Industrial production	119		128		139		156
Employment	109		112		116		122

Source: Statistisches Jahrbuch 1955, pp. 48, 50, and 200.

to other purposes than bread production. So, at the time grain consumption per capita is decreasing the German total wheat demand and consumption remain very strong.

The decreasing carbohydrate consumption of grain products and potatoes caused or was the consequence of increasing protein consumption after the war, although the prewar level in meat and milk is not reached yet. But the increase in German fruit imports and consumption over the past few years has been extraordinary. The use of citrus fruits rose from 12 pounds per capita before the war to about 20 pounds in 1953.

The shift in consumer habits is most remarkable since normal economic conditions have been restored to post-war Germany. It seems that this

development will continue in the future, as the example of the U.S.A. has proved. Another argumentation of the connection of decreasing grain consumption and increasing standard of living shows the development of the turnover in some selected German trade enterprises fixed by index numbers, as indicated in Table 14.

#### Agricultural Support Programs

The agricultural policy of the West German government was always positive in providing protective measures to the producer. The methods adopted for agricultural protection, aside from the import controls just described, include fixed producer prices for grains and sugar beets, maximum consumer prices for bread, sugar and milk, and market regulations for sugar, milk and rape seed.

Concerning wheat, the government established fixed prices which gave the producers enough incentive to keep their wheat acreage, to use high inputs of fertilizer, to buy modern machinery for grain production, and to plant as much wheat as their rotation system would allow. The next table shows the price development in wheat prices to the producer (Table 15).

Table 15. Import and producer prices of grains in West Germany, 1951-1954.  
(Index data: 1950= 100)

Wheat and other grains	:	1951	:	1952	:	1953	:	1954
Import price		124		129		107		95
Producer price		122		162		159		157

Source: Statistisches Jahrbuch 1955, pp. 433 and 444.

Table 16. Producer prices in wheat, Germany 1934-54.

Year	Marks/100 kilogram 1934-48=Reichsmark 1949-54=Deutsche Mark	U.S. dollars/metric ton
1934	20.3	81
1935	20.6	83
1936	20.6	83
1937	20.6	83
1938	20.6	83
1939	20.5	82
1940	20.5	82
1941-47		
1948	26.0	78
1949*	26.0	67
1950	33.0	70
1951	44.2	105
1952	42.0	100
1953	41.8	100
1954	40.7	97

\*Currency reform.

Source: FAO-Yearbook of Food and Agricultural Statistics, Vol. LX, Part 1, p. 243.

It is clearly visible that such increases in producer receipts for grain, recorded in the above table (Table 16), must lead to a strong emphasis on grain production at German farms. This level of producer prices made the grain production most profitable in comparison to the expense for labor and investment. The producer prices were computed only to the needs of the domestic price level without consideration of the world market prices.

It can be seen that the decreasing import price level had no influence on the relative fixed producer prices. The described protective trade measures bring the wheat imports to the home price level through the activity of the governmental "Import and Storage Agencies." This protection gives the producer the security that he can sell his wheat at a known price and that

each quantity he can supply will find a market. Price reductions are only allowed due to quality difference.

The official post-war agricultural policy realized early that grain production was the basis for most German farm systems and that price fixing in food grains would establish the sound background for a balanced agricultural program. Since 1953 a ten-year program is underway to bring about a basic change in the present German agricultural structure with the final goal: the establishment of a modern and efficient German agricultural industry, competitive within an integrated European market, but free of government subsidies.

It would be important to show briefly the main points of this long range program to realize that the first objective of the official agricultural policy is the political goal to make the German agriculture a strong factor in the national economy. This contrasted the stated objective of the IWA to convince importing countries to reject own wheat planting and to buy their requirements in lower-cost areas.

The achievement of the cited program is estimated to require capital investment ranging between 2.5-3.0 billion dollars a year, representing a considerable increase in capital investment.<sup>1</sup> The main problem faced by this program is extended land consolidation associated with a reform of the land tenure system, especially in Southern Germany.

The solution of this task shall lead to an increasing average farm size to get more efficient farm units. Today in this region over 50 percent of

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<sup>1</sup>Agriculture Abroad, Department of Agriculture, Ottawa, Canada. Volume 9, No. 3, January, 1954.

all farms are between 12.5 and 50 acres, composed of more than 21 individual land parcels not connected to one another. When the huge job of consolidation is finished, roughly 12.5 million acres will be increased to sufficient farm sizes. This allows economical farm methods with labor-saving mechanized equipment useful only at larger farm units. While the number of tractors in Germany was 270,000 units in 1953, it is estimated that the German agriculture can absorb 200,000-300,000 more tractors arising from the demand out of the present program. Besides the unfavorable farm structure, the agricultural policy tries to put pressure to lower the present high cost of mechanization. This includes reduction of iron, steel and gas prices, simplifications of types, introduction of cooperative use of machines, etc.

It is expected that the capital requirements for this plan will come from various sources. At least one-third of the total amount should be financed by farmers themselves out of their current income. The farmers should be able to do that, because the fixed grain and other producer prices make their income very stable and secure. Another source of financing would be direct assistance from the Federal and Provincial administrations out of tax money. This provides credit at reduced rates of interest for investment, cheaper buying of commercial fertilizer, etc. Besides that, subsidies for drainage, irrigation and other water regulations are paid. Increasing production is also the goal of some other measures introduced by the German government which bring aid to agricultural education and research. Agricultural schools were rebuilt and newly established; the extension service was enabled to start again after the war with modern means and a sound financial basis; money was spent for the combating of plant and livestock diseases, the development of new varieties in seeds, the research in modern marketing methods, standardizing and quality improvement.

Because the grain production is an indivisible part of most German farm systems, all the described efforts to increase rationalization and efficiency of the whole agriculture will undoubtedly strengthen grain production, acreage and yields including wheat, the most profitable grain product, as the figures in the production tables indicated.

Despite the high degree of protection, the German farmers have become increasingly discontented during the past three years about the disparity between farm and industrial prices and income, the consequence of the surprising quick recovery and development of the German industry. Since 1951 there arose differences between prices received and paid by farmers recorded in the following figures (Table 17).

Table 17. Index numbers of prices received and paid by West German farmers, 1951-1955.

(1938/39=100)	:	Received	:	Paid
1951		201		205
1952		197		211
1953		195		208
1954		202		211
1955		206		215

Source: FAO-Yearbook of Food and Agricultural Statistics, Vol. IX, Part 1, p. 291.

Under the pressure of public opinion and the activity of two principal agricultural organizations, the German parliament adopted in 1955, in addition to the discussed 10-year plan, a law which requires the government to present a report on the agricultural situation and progress to the parliament each year. At the same time this "Green Report" shall indicate the measures which

the government provides to bring the income of agriculture and the other parts of the national economy to a parity level.

This action of parliament shows a further step to ignore the supply situation of agricultural products, especially in wheat, at the world market and to stabilize domestic production. The reasons are obviously political ones. The adopted policy is the expression of the fear of shortages in wars, during crises like Korea and Suez, the dependency on other countries and their will or ability to deliver. On the other side, the public opinion and their representation in parties and parliament want to support an agriculture, grown important through centuries of history, giving jobs and homes to more than 10 million people. One lesson history gave to the country was that one cannot call on agriculture in emergency times to do its best and spend all resources on men, crops, and livestock for the nation--and let the things go on alone in times when there is no use for domestical agricultural production. The hope of self-adjustment is at no place more dangerous and unknown in its consequences than in the field of agriculture. This seems true in view of the whole economy, and political explosions following bad economic decisions. But the special case of agriculture and its strong connection with soil, climate and production factors which it cannot influence needs special consideration.

#### International Relationship

There is a need to add something to the discussion of foreign trade already explained under the headline Wheat Trade. The number of countries trading with Germany has reached the pre-war level. The first place is taken by Western countries while the Eastern trade is reduced, compared with pre-war



times. In all the years since Germany became an importer most of the grain supply came from Eastern Europe. The changing political situation forced the Western countries to a narrow cooperation. In 1950 Germany took part in the European Payment Union (E.P.U.). This was the beginning of an economic policy in favor of an early liberalization. In the year 1952, the Federal Republic began to become a creditor in the E.P.U. and has never left this position since that time. In consequence, today about 90 percent of the imports are free from quantitative limitation. But this does not include governmental trade, which means products under marketing laws. Wheat fits in this case and is another example that the government did not risk to bring the domestic agricultural production under competition despite the high creditor position against countries supplying wheat and other agricultural products.

Another aspect is the lack of dollars resulting in bilateral agreements. While the export of agricultural products is without significance in Germany, industry produced the bulk of goods traded with foreign countries. For the export of these manufactures, the country has to participate in agreements to import in exchange agricultural products. On page 41 the countries are listed to which Germany is obliged to take wheat before it can buy the rest at the open world market. This strong dependency leads to an emphasis on home wheat production because of the always changing and uncertain number and quantities of such bilateral agreements which are determined by the wishes of domestic industry and the demands of the foreign countries.

Germany is a member of the "General Agreement of Tariffs and Trade" (G.A.T.T.) and signed the obligation to reduce trade barriers and to avoid all discrimination in international trade with the goal to rebuild a

multilateral trade system all over the world. Tariffs should be again the regulator in foreign trade only. But these accepted goals cannot fit to government trade as long as basic foodstuffs are under legal limitation. This picture shows the will of the German government to provide a liberal trade policy on the side of industry, but to give agriculture the most possible protection, considering that food production is a national duty.

#### FUTURE DEVELOPMENT

##### Reunited Germany?

For the future wheat situation in Europe it will be an important question; what can Germany produce and consume after a possible reunification? This means that the Federal Republic of Germany and the German Democratic Republic (commonly called West and East Germany) would be one economic unit again. But it excludes for the present the territory east of the Oder-Neisse Rivers, today under Polish and Russian control.

The wheat acreage in 1935-38, West and East Germany together, was 1,747,000 ha. The wheat acreage for the same territory in 1953 is decreased to 1,575,000 ha., mainly due to other use in East Germany. The failing 172,000 ha. are planted today with sugar beets, potatoes and other intensive crops, which will be rejected in the case of reunification because the production in West Germany is high enough to provide the East with these products. It can be assumed, therefore, that the pre-war wheat acreage will soon be reached again with the amount of roughly 1,750,000 ha. The production in both parts of Germany in 1953 showed the following figures (in metric tons):

Wheat production:	West Germany	3,179,500 t
	East Germany	<u>1,887,600 t</u>
	Total	5,067,100 t

The consumption in West Germany in 1954 was composed of production and imports minus exports:

Wheat production:	West Germany	3,358,524 t
Wheat imports:		<u>2,893,000 t</u>
	Total	6,251,524 t
Wheat exports:		- <u>791 t</u>
Wheat consumption		<u><u>6,250,733 t</u></u>

This was the consumption for 50 million people, the population of West Germany in 1954. If one assumes the same consumption level for a reunited Germany one would need for the population of 17 million people at the territory of East Germany the amount of 2,121,805 tons of wheat. Subtracting the home production of East Germany from this figure, one will know the import need for the 17 million East Germans:

East Germany's assumed consumption	2,121,805 t
East Germany's home production (1953)	- <u>1,887,600 t</u>
East Germany's import requirement	234,205 t

If the actual imports of West Germany are added to the import requirement of East Germany at the West German consumption level, one would find the total import needs for a united Germany.

Wheat imports West Germany (1954)	2,893,000 t
Wheat imports East Germany (assumed)	<u>234,205 t</u>
Wheat imports United Germany (estimated)	<u><u>3,127,205 t</u></u>

The production is figured from the actual planted wheat acreage and average yields in both parts of Germany in 1954. Should the pre-war acreage of wheat be reached again (compare p. 56), the production of wheat in a united Germany will increase considerably if the acreage is computed with the higher post-war yields of 45 bushels per acre. (The average pre-war yield per acre was in 1935-39, 33 bushels). It appears that the wheat requirement for a United Germany with a population of roughly 70 million people, at the assumed consumption level of West Germany today, will be the amount of nearly 3,000,000 tons--less than the imports of West Germany alone in 1954.

#### East-West Trade

A well-known statement says that American markets in Germany and elsewhere depend on Germany's and other countries' markets in the United States. There is no doubt that Germany would like to buy American quality products to a larger extent if the Germans would have the possibility to earn more dollars at the United States domestical market. But the trade balance is unfavorable and it seems that there will be no considerable change in the near future.

This problem makes the East trade very attractive to secure Germany markets for its manufactured products, which must be traded against raw material and agricultural goods, the main export articles of Eastern Europe and the Soviet Union. The development in recent years is obvious. The active export policy of the East-bloc countries and their import needs met the interests of the Western countries to expand their export markets and to find non-dollar resources for their primary goods requirements. The increasing trade figures and the approaching settlement of a trade agreement between

Germany and Soviet Russia show the significance of the East-West trade relations in the future.

Concerning wheat, imports from East Europe to Germany in 1954 reached only the amount of roughly one-fourth of the imports from the United States but indicate that the stagnation between East and West was broken. It is not clear, if and in what time the Eastern European countries can reach their traditional grain supply position again, which they kept before the war, because of growing population, industrialization, and increasing demand at home. In addition, unfavorable weather conditions, governmental interference, mismanagement in production and distribution, collectivization, etc., have been some reasons that the wheat output did not lead always to surplus in these countries. But there is no doubt that the tendency to overproduction in wheat is upward. At the same time these countries are under compulsory need to import industrial goods, e.g., from Germany for the further development of their economies. In May, 1956, six Soviet Bloc countries already had bilateral trade agreements in effect with Germany including four countries with wheat delivery contracts. In actual practice, the exchanges did not always reach the agreed level. They have often been much lower because of the inability of the Eastern countries to deliver. However, this should not lead to an underestimation. These countries could soon, after a period of stabilization or favorable weather conditions, supply West Europe again with wheat. This supply will be probably cheaper than the overseas exporters can provide and connected with attractive exchange programs.

But more attention has to be given to the wheat policy in Russia itself, long years one of the world's important exporters in small grains. This country appears again as competitor at the world market in wheat. Germany,

always the principal market for Russian grain, has immense interest to observe this development very carefully.

In 1954, a new agricultural program was put into action which called originally for no less than 32 million new acres in grain, an increase of 12 percent in two years. This extension was planned at virgin soils; centered in the Urals, Siberia, and Kazakhstan. The regions are located in the southeastern states of the U.S.S.R. Most of the new land is to be plowed as summer fallow for seeding of wheat in the spring. The program exceeded the original plan in the first year and reached in August, 1954, 37 million acres. The goal for 1956 was doubled to about 70 million acres, more than one-fourth of the total Russian grain area in 1953. The total wheat area in the U.S.A., in comparison, was, at its highest point in 1949, 76 million acres and decreased in 1956 to 50 million acres.

The latest information reported for 1956 a record harvest in these areas; "despite the fact that the crop outturn was considerably reduced by heavy harvest and post-harvest losses due to bad weather, shortage of drying, transportation and storage facilities, and the usual mismanagement."<sup>1</sup>

This immense expansion of the Russian wheat production led to large grain supplies in government hands, which now will seek export markets. In addition to shipments to East Bloc countries to fill their deficit, e.g., in Yugoslavia, Czechoslovakia, and Hungary, grain exports will press to non-Communist countries. This means that Germany and other West European net importers will have the choice in the future, political calm situation assumed, to select between Russian or overseas wheat resources. It is obvious

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<sup>1</sup>The World Agricultural Situation 1957-USDA-FAS. Washington 25, D.C., p. 37.

that the country would have the advantage which can supply the largest exchange program to make buying for an import country possible and attractive as an export market for its own industrial goods.

#### SUMMARY

Most of the world's present wheat difficulties are based on the tremendous surplus stocks piled up around the world, but especially in North America. Growing conditions in several recent years were extraordinarily favorable. National wheat price programs, politically motivated, have kept wheat prices to producers at rigid, artificially high levels that have encouraged wheat production. In importing countries such political pricing has been associated with tight import controls and with consumer prices tied to national economic goals rather than to the level of wheat import prices. In many exporting countries, too, domestic wheat prices have been kept above "world" levels through governmental intervention; and wheat exports from these countries have been made possible only by governmental subsidies, barter agreements, etc.<sup>1</sup>

After the Second World War, the recovery of the West European agriculture developed in a sharp increase in production above the pre-war level. Difficulties to keep balance of payments with the dollar bloc, which countries dominate today the world wheat market in contrast to pre-war conditions, required from most importing nations a change in their wheat policy. Intensive use of their domestic agricultural resources became the accepted goal. Better technology of production, great investments in mechanical equipment,

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<sup>1</sup>Helen C. Farnsworth, *op. cit.*, p. 247.

fertilizers, and seeds increased grain production; supported by high yields from potatoes, beets, feed crops and pastures, this led to a high degree of self-sufficiency.

Eastern Europe including Russia, the traditional supplier of Western Europe in wheat, makes all possible attempts to reach this position again. Despite the less encouraging picture of agricultural production in those countries since the war, future wheat considerations have to count for their slow comeback in the next years. These nations are in serious need for industrial goods to raise the standard of living of their unsatisfied people, which they try to get in exchange for agricultural products. There is no doubt that tremendous production reserves in these countries wait for their economic development, depending to a large extent on future political decisions.

The increasing recovery of Europe's agriculture and the scarcity of dollars in international trade will limit the U.S. wheat market abroad more and more after all generous help programs will expire. Only a substantial increase in the bargaining power of the Asiatic and African people can change this outlook. In the meantime production restrictions like the soil bank program in the U.S.A. are unavoidable. An automatic adjustment of the supply to the changed demand situation is hindered by the price support programs of the United States which determine at the same time the level of the world market price. But high prices in the U.S.A. support in reverse a high production of wheat in importing countries and also in other exporting countries.

The International Wheat Agreement is an attempt to counterbalance the diverse interests of importing and exporting nations. First attempts to stabilize the world wheat market through an international agreement were made



during the crisis years 1930-33. After 21 international conferences which discussed the problem an IWA was signed by 22 import and export countries in August 1933. But following drought years in North America and rising political uncertainty led to a failure.

After the Second World War, new negotiations arose to solve the old problem. In 1949, five exporters and 37 importers signed the first post-war IWA to assure importing countries a certain supply and exporting countries a known market to just and stable prices. Half of the world wheat trade was included in a system of quotas, assigned to every country, under maximum and minimum price arrangements.

The IWA was renewed for the third term in 1956 amid a decreasing amount of interest among wheat trade nations. The agreed quantity is only one-fourth of the total world trade and some important wheat producing and consuming nations did not participate. The main criticism of the IWA arose through the fact that the Agreement obviously shows more usefulness to exporters than to importers. It requires public and governmental intervention and limits technological progress by keeping competition away. The consequence is higher living cost in importing countries. The IWA did not succeed to decrease the importance of national wheat programs. Fixing of prices for some years ahead without any consideration of crop conditions and possible over or under supply is dangerous and does not reflect the real market conditions. The IWA has not been tried so far in years of insufficient supplies; therefore, it should be supplemented by a storage agreement in preparation for such years.

The example of one European import country, Germany, the third largest importer in world wheat trade, shows the problem for a country on the receiving

side. Its agriculture is well developed and has reached a high level of intensity. Imports provide one-third of the food supply. Large industrial exports pay for the imported food stuffs. Through the fact that production costs for grain in Germany are higher than in overseas exporting countries, the German government had to choose between a liberal or protective agricultural policy. Since the end of the nineteenth century all systems which were practiced favored protectionism. This means sacrificing lower living cost for the industrial and urban population for the survival and support of a flourishing agriculture. Such decision was largely based on political necessities and cannot be explained by economic reasoning. A well functioning system of market interventions and support programs provided the means for this protective policy.

To find the conclusion to some problems of today's world wheat market the question remains to be answered: Did the IWA, the first great attempt to stabilize wheat production and distribution on a world wide scale, fulfill the hopes of its founders? Obviously not! Declining interest and smaller quotas show the fact that most importing countries could not be convinced by the IWA to reject costly domestic wheat growing and buy their wheat requirements under certain price and quantity arrangements in lower production cost areas. Because political and economic security, the cornerstones for the smooth functioning of a free world's trade, cannot be assured by such an Agreement, it must necessarily fail when a vital important commodity is involved. The solution to the wheat problem alone seems to be impossible as long as we do not find answers to the problems of other commodities also and to the political and economic security of the world as a whole.

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ECONOMIC ADJUSTMENT TO  
THE INTERNATIONAL WHEAT AGREEMENT  
BY WEST GERMANY

by

HEINZ-ULRICH THIMM

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AN ABSTRACT OF A THESIS

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The objectives of the IWA are stated as helping producers and consumers to overcome the hardships caused by burdensome surpluses and to provide and to assure supplies of wheat at equitable and stable prices.

To approach such far-reaching goals in a world of economic and political uncertainty the governments of Australia, Canada, France, and the United States, as major exporters and some 40 import countries agreed to try to solve their wheat problems through international negotiations.

The time after the second World War seemed to be prepared for a world-wide wheat agreement because such an agreement can work only under the assumption that governments have direct influence on the wheat production planning in their particular countries. National wheat programs introduced during the depression times and the war emergency had changed the former competitive free wheat market to a, in many instances, regulated, artificial supported wheat economy.

The first post World War II International Wheat Agreement became effective August 1, 1949. It guaranteed the trade of specific import and export quotas assigned to individual countries within a range of maximum and minimum prices. The yearly total of 456 million bushels of wheat under the first IWA was approximately one-half of the total 1949 world wheat trade. An exporting country could be relieved of its obligations by reason of short crops and an import country could be relieved by reason of the necessity to safeguard its balance of payments or its national security.

The IWA was renewed in 1953 and 1956. There have been no important changes of the basic principles since the first agreement, but the number of participating nations and the quantities traded varied considerably during the course of the following years. On the export side, Argentina and Sweden

were added to the main export countries. On the import side, the United Kingdom did not renew membership in the second and third agreement. This country, the world's largest importer, was convinced that in the face of growing surpluses a solution to the world wheat problem is possible only through the free action of supply and demand in an unregulated and open market system. Some other countries followed England's example.

Today, the volume of transactions under the IWA is far from reaching the total world trade quantity in wheat and does usually not fulfill the agreed quotas. In 1955-56, the IWA sales covered only one-fourth of the world wheat trade.

What are the reasons for these obviously unsuccessful terms of the IWA? Why did this contract not give as a world-wide agreement the security for which many countries were looking in order to guarantee their wheat requirements?

The example of the Federal Republic of Germany, the second largest European importer, serves the purpose of explaining some important causes of the failure of the IWA and indicates the complexity of the problems which are involved.

West Germany has an area of 94,700 square miles, about the size of Oregon. It consists of arable land, 35 percent; permanent meadows and pastures, 23 percent; forests, 28 percent; non-agricultural, 14 percent. Two-thirds of the food requirements for a population of 52 million are produced by an intensive agriculture on the above area. Imports are necessary to provide the rest of the food demanded for which manufactured goods produced by highly developed industries are traded.

The production of wheat is usually more expensive in Europe than in overseas export countries. Virgin soils, larger farm units, and the efficient



use of man power through modern mechanical equipment give the export countries a clear advantage in grain production. But Germany, as an example for many other import countries, grows its own wheat and protects its agriculture from the cheaper competitors to a large extent.

What motives are behind such protective agricultural policy? From the biological point of view grain is the basic crop of nearly all German farming systems and a substantial part for most crop rotations. Its seeding in sequence with other crops is essential to prevent diseases and unhealthy soil conditions. The straw serves as an important source for manure production upon which the fertility of long used European soils is largely dependent. Considerations of labor management also favor grain because of possibilities of effective use of machinery and the excellent distribution of labor demand throughout the year in connection with other crops.

But the major reasons are politically determined. All German governments have favored a positive agricultural policy since the end of the nineteenth century. To protect against foreign competition and to keep a flourishing agriculture as a basis of national life and security different systems of helping measures were introduced. The development started with simple tariffs (1880-1929) and advanced over supplementary methods toward making the tariffs more effective (1929-1934), to complete market and trade controls (1934 - World War II - first post-war years). This "economic nationalism" was considered as a direct consequence of world-wide agricultural distress, economic depression, and necessary to keep the country self-sufficient in times of emergency.

The governmental support raised the seeded acreage and prices of wheat and other agricultural products to artificial levels which did not agree with the supply and demand situation at the world market.

The agricultural policy in West Germany after World War II followed the same principles upon which pre-war governmental actions were based. But territorial and economic-political conditions had changed very much. The main agricultural areas in East Germany which had been utilized to feed a great part of the nation were lost. The population, increased by more than 10 million refugees and expelles, is now concentrated in the heavily industrialized regions of West Germany and depends more than previously on imports for food and employment.

And just because of this fact a question is raised: Why does not Germany import cheap wheat from overseas and reject expensive domestic wheat production to give the industrial population the most acceptable food resource for which it is looking? But the German economic policy does not follow such lines; on the contrary: supporting and helping the rural population to establish a modern and efficient German agricultural industry which is competitive within an integrated European market is the supreme goal. A number of programs, subsidized by tremendous sums of tax money, tries to achieve this goal in different ways. The reasons are obvious; a sound agriculture is considered an important political cornerstone in domestic affairs; agricultural production is essential in times of economic and political emergency and therefore must also be kept in times when other sources are available.

The goal of the IWA has not been reached. Declining participant interest and smaller quotas point out the fact that many importing countries could not be convinced to seek the solution to their wheat problems by a governmental agreement. Too many vital relationships in domestic policies and foreign trade cannot be included in a single international agreement, unable, by its nature, to take care of the multitude of national peculiarities.