

PATTERNS OF WORLD AGRICULTURAL TRADE

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The patterns of world agricultural trade have undergone major changes in the post war years -- changes that have gone relatively unnoticed until recently. There has been a definite shift away from a heavy emphasis on imports of agricultural raw materials for industrial use that characterized the 1920's and 1930's, to (in the 1950's and 1960's) an emphasis on products for direct consumption or imports used in the production of food, such as feeds and feed grains for livestock. These changes have been in response to the structural changes in world import demand associated with post war economic growth. As a result of these changes in the commodity composition of import demand the patterns of world trade in agricultural products have been altered between countries. These changing flows of world agricultural products have greatly altered the export prospects for particular countries and commodities. In this paper, I will identify these emerging patterns of agricultural trade and briefly suggest what they indicate for future world trade flows in agricultural products and specifically for U.S. agricultural exports.

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Agricultural Trade in Perspective

The value of world trade in agricultural products 2/ in 1965-69 was \$49 billion, or about one-fifth of the value of total trade (table 1). At this level, world agricultural trade was 1.6 times the level in 1955 but about 3.0 times the level in 1925-29.

World trade in agricultural products in the post war years has represented a declining proportion of total world trade in all commodities (figure 1). For example, in the 1920's and 1930's trade in agricultural products and agricultural raw materials 3/ accounted for about 50 percent of total world trade. Agriculture's share decreased to about 32 percent by 1955 and to 25 percent by 1965. Last year the value of world trade in agricultural products and raw materials was only one-fifth the value of total world trade. This relationship between agricultural and non-agricultural trade is well known and is related to the slowly expanding demand for agricultural products in developed countries. And, since world trade in agricultural products, like total trade is primarily between developed countries, the declining share of agricultural products in world trade is highly related to the inelasticity of demand for agricultural products in the developed countries.

2/ As defined in this paper, agricultural trade includes Standard International Trade Classification (SITC) Sections 0, 1, 2, and 4 but exclude Divisions 24, 25, 27, and 28 of Section 2 (6).

3/ Crude fertilizers, ores, wood and wood products were included in the data prior to 1938 because of incomplete details on commodities in this period.

In view of the low income elasticity of demand for agricultural relative to industrial products in developed countries one would expect that the world import demand for agricultural and raw materials would grow more slowly than for manufactured goods as these countries achieve higher levels of economic growth. Likewise it would be logical to expect that within the slowly growing world import demand for agricultural products there would be differences in the income elasticities for particular products. These differences in elasticities would result therefore in a substitution of some products with relative high income elasticities for those commodities with relatively low elasticities in the total demand for agricultural imports. An examination of historical trade data tends to support this hypothesis.

The substitution of industrial products in world trade for agricultural products is clearly illustrated by the data in table 1. From 1955 to 1965-69 total trade increased 7.5 percent per year or from \$92.9 to \$222 billion while agricultural trade grew only 4.2 percent per year or from \$30 to \$49 billion. These data also illustrate how important the developed countries are in world trade and to the nature of the changes that are generated in the patterns of trade in agricultural and nonagricultural products between major regions of the world.

Patterns of Trade Between Economic Regions

The central feature of current international trade is that the economically advanced countries are each other's best customers. For example, in 1965-69 trade between the developed countries represented 53 percent of world trade and 42 percent of world agricultural trade (table 2). In 1955, these percentages were 45 and 35 percent, respectively. In 1965-69, the developed countries accounted for 55 percent of world agricultural exports (45 percent in 1955) but 71 percent of world agricultural imports.

On the other hand, the less developed countries, (LDC's) accounted for 34 percent of world agricultural exports in 1965-69 but only 17 percent of world agricultural imports. While the LDC's share of world agricultural imports have remained rather constant since 1955 (at about 17 percent) their share of world agricultural exports has declined 11 percentage points (from 45 percent in 1955 to 34 percent in 1965-69). Since the central plan countries' share of world agricultural imports and exports have remained rather constant since 1955 the loss in the LDC's share of world agricultural exports has been due primarily to the gain in world market share by the developed countries. In other words, there has been a definite trend underway in the post war years of substituting agricultural exports from the developed countries for exports from the less developed countries in the world markets.

From the standpoint of market outlets for agricultural exports of the LDC's, the developed countries have been historically the major market. In 1955 almost half (48 percent) of the agricultural imports of the developed countries were from the LDC's; 48 percent was from other developed countries (table 3). This historical pattern has been changing rapidly over the past decade so that the LDC's in 1965-69 supplied only 34 percent of the agricultural imports of the developed markets. This loss in market share by the LDC's was taken up primarily by the developed countries themselves, since intra-developed-area trade increased from 48 percent in 1955 to 59 percent in 1965-69. During this time, there was a small increase by central plan countries in the market share of the developed countries agricultural imports, from 4 to 7 percent.

Similar trends have been under way in the agricultural import market of the LDC's. For example, in 1955 the LDC's supplied 49 percent of their own agricultural imports while 46 percent came from the developed countries. At this time, only 5 percent originated in the central plan countries. By 1965-69, however, the intra-LDC trade as a proportion of LDC imports had decreased to 34 percent while the developed countries share of the LDC's agricultural import market had increased from 46 to 56 percent from 1955 to 1965-69. Even the central plan countries increased their market share from 5 to 10 percent of

the LDC's agricultural import market during this period. While the LDC's have been losing out in their own and developed countries markets, their agricultural exports to the central plan countries have represented an increasing share of the import market in these countries, since 1955. This change has been due primarily to the slow growth of intra-bloc trade and the greater reliance upon LDC and the developed countries for a major source of their agricultural imports.

In summary there has been a significant change in the pattern and trade flows of agricultural products between the three major economic regions since 1955. These shifts in world trade patterns between the three major economic regions since 1955 have (1) increased the developed countries' market share in all three economic regions, (2) decreased the LDC's market share in the developed countries, (3) made the LDC's more dependent upon agricultural products from the developed countries, (4) increased the dependency of the central plan countries upon world supplies of agricultural products, primarily from the LDC's, and (5) effected a substitution in world markets of developed countries agricultural products for those from the LDC's. These changes in world trade patterns between the three major economic regions have been associated with a change in the commodity composition of world imports.

Commodity Composition of Agricultural Trade

The changing nature of world import demand for agricultural products has altered the relative importance of trade flows in food and agricultural raw materials during the past 15 years. For example, the value of world exports in food products increased about \$17 billion from 1955 to 1965-69, while the value of trade in agricultural raw materials increased only \$2.5 billion. As a result of this disparity in growth, the importance of food exports in world agricultural trade increased from 68 percent in 1955 to 75 percent in 1965-69 (table 4).

As with total and agricultural trade the developed countries loom large in world food trade -- accounting for 57 percent of world exports and 70 percent of world imports in 1965-69. The dominance of the developed countries is more pronounced for imports than for exports of raw materials -- accounting for 72 percent of world imports but only 46 percent of world exports in 1965-69 (table 5).

The impact of the developed countries on the patterns of world trade in food and agricultural raw materials can be shown by an examination of market share data as shown in table 6. For example, from 1955 to 1965-69 the developed countries supplied an increasing proportion of their own food imports -- increasing their market share from 50 to 61 percent while the less developed countries' market share of the food imports of the developed countries declined from 46 to 34 percent. That is to say, intra-food trade increased 6.5 percent per year from

1955 to 1965-69 while food imports from the LDC's increased only 2 percent per year. Similar trends have developed in the market shares of the developed countries' raw material imports during this period. Intra-trade in raw materials increased from 43 to 54 percent of the market -- growing 3.8 percent per year, while the LDC's market share of the developed market declined from 51 to 34 percent or decreasing 1.5 percent per year from 1955 to 1965-69.

While the developed countries have been turning increasingly to other developed countries for more of their food and raw material imports the LDC's have done just the opposite. They have turned increasingly to the developed countries for more of their food and raw material imports. For example, LDC's imports of food and raw materials from the developed countries each increased 6 percent per year since 1955 while intra-trade in food products grew only 2.3 percent. Intra-trade in raw materials actually declined -2.9 percent per year. This slow growth in intra-trade combined with a rapid growth in imports from the developed countries is related, in part to the food aid programs of the developed countries, especially the United States.

The pattern of trade for the central plan countries had been similar to that for the LDC's since 1955. That is, intra-trade had grown very slowly while trade with other regions increased rapidly, especially with the LDC's. The Central plan countries, particularly those of Eastern Europe, have sharply increased their imports from the LDC's

in the 1960's so that the LDC's market share of the central plan countries' food imports has increased from 12 to 32 percent since 1955. The LDC's share of their raw material imports increased from 23 to 35 percent since 1955--growing at a rate of 7.3 percent per year. The central plan countries have also increased their imports from the developed countries. Thus, the emerging patterns of food and raw material imports of the central plan countries during the 1960's indicates that they have been looking increasingly to the West for a larger portion of their agricultural products.

Thus far we have been examining the effects of changing patterns of world import demand on only two major commodity groups in agricultural trade: food and agricultural raw materials. While it has been possible to show that major changes in the patterns of world agricultural trade have occurred in the post war years by using highly aggregative data, these commodity breakdowns are not adequate to show the more fundamental trends in trade that have occurred within the food category during the 1960's, namely, trade in feeds and feedgrains. Some of the more significant changes in world imports of agricultural products during the 1960's have been associated with the rapid expansion of livestock production in Japan and Western Europe. As a result of this expansion, significant changes have taken place in world trade in feedgrains and feed products.

While trade in feed and feedgrain products in 1968 represented only about 8 percent of world trade in agricultural products and 12 percent of world trade in food products, their absolute values have increased about one billion dollars since 1963 (table 7). And, if soybeans are included as feed, the increase since 1963 has been \$1.44 billion.

The absolute increase in world imports of feed products (including soybeans) was equal to the \$1.44 billion increase in world imports of meats and meat products. The major commodities accounting for this increase in feed imports were corn, oil cake and meal, and soybeans. Corn and soybeans each accounted for 57 percent while soybeans and soybean oil cake and meal accounted for 37 percent of the total increase in world feed imports between 1963 and 1968. These products have been highly influential in affecting world agricultural trade patterns during the 1960's and have significantly influenced the commodity composition of world imports of agricultural products and particularly those of the developed countries.

A complete breakdown of world agricultural trade statistics by all regions is not possible because of incomplete reporting by some countries. Therefore, analysis of the changes in feeds and feedgrains cannot be made on a world basis. However, trade data for most developed countries are available. A tabulation of agricultural imports for feed products for some of the major developed markets are shown in table 8 for 1960 and 1969. These four major developed markets -- the

EEC, Japan, EFTA and the U.S. -- have highly influenced the patterns of world trade in the post war years. For this reason, they have been selected for more detailed analyses.

The definitions of agricultural trade in table 8 remains the same as previously used. Only the commodities have been changed and reorganized to create imports by three end-use categories: food consumption, farm consumption and industrial use. For example, tobacco has been taken out of food and put into industrial use while feed-grains, feeds, fodders, oil cake and meal, as well as soybeans have been taken out of food and put into a separate feed grouping. This new grouping should make it easier to identify the changes in import demand and end uses that have occurred for food and raw materials in these markets.

Since changes in end use is one measure of assessing the changing nature of the import demand for these products, these groupings should make possible a better identification of the actual trends under way in the patterns of world imports. The nature of growth in imports for these commodity groupings by the various regions can also be identified.

An inspection of the data in table 8 shows that Japan and the EEC have been among the largest contributors to the growth in world import demand for food products in the 1960's. The growth in feed imports in Japan has been outstanding. In fact, of the four major markets

being considered here. Japan is the only region expanding its imports in all three commodity groupings. The second major growth market for foods and feeds has been the EEC. The United States and EFTA have both lagged far behind in their import growth for these products. These two major markets are also distinguished by their negative growth rates for raw material imports.

The major source of supplies for the growth in feed imports by Japan and the EEC has been the developed countries. The LDC's have participated in their import growth of feed products but to a much less degree than have the developed countries like the United States. Japan has endeavored to balance its import growth of food products between the LDC's and the developed countries while the EEC has shown more of a tendency to balance its growth in feed imports between these two major sources of feed supplies. Since the United States has been a major source of world supplies of most food and feed products in the post war years it might be useful to take a closer look at the commodity composition of U.S. agricultural exports.

U.S. Agricultural Exports and World Trade Patterns

The patterns of U.S. agricultural trade and changes in the commodity composition of U.S. agricultural exports since the 1920's have been significant. These changes have been highly related to the changing structure of world import demand in the post-war years. The changes in the commodity composition of U.S. exports has, in effect, acted as mirror image of the various changes in world demand for agricultural imports during the past 40 years.

In the 1920's and 1930's U.S. agricultural exports were primarily raw material oriented. That is, during these two decades about 60 percent of U.S. agricultural exports were agricultural raw materials for industrial use in other countries (table 9). During the war years however, this composition was drastically altered in favor of food exports to feed the war devastated countries of Western Europe. For example, in 1940-44, food exports increased to 77 percent from 30 percent in 1933-40 while the proportion of raw material declined from 64 to 20 percent of total U.S. agricultural exports.

In the immediate post war years the proportion of food exports remained high but this proportion decreased throughout 1950-1964 to less than 50 percent. The effect of the P.L. 480 programs were, no doubt instrumental in these years in holding up the proportion of food exports. However, more recently (1965-69) this proportion steadily declined -- reaching 41 percent in 1970 or about the level existing in the 1920's.

While food exports as a percentage of total U.S. agricultural exports have decreased in the post war years, this decline was not offset by a proportionate increase in exports of agricultural raw materials for industrial use. Rather, the share of raw materials of total agricultural exports steadily declined throughout the whole post war period -- reaching an all time low of 19 percent in 1970.

The real story underlying the decline in the relative shares of U.S. food and raw material exports has been the dramatic increase in exports of feeds and feedgrains -- increasing from 5 percent of total exports in 1925-32 to 40 percent in 1970. Half of this increase occurred since 1955-59. These rapid changes in the commodity composition of U.S. agricultural exports has been related to the rapid expansion in demand for feeds and feedgrains in Japan and Western Europe in the 1960's to fuel their rapid growth in livestock production.

In summary, the rapid growth in U.S. exports of feeds and feedgrains has vastly altered the picture of the U.S. as a raw material exporting economy, that characterized the prewar years, to one emphasizing exports of food and feed products in the post war years. Future changes in world demand should continue this trend and may, in the years ahead increase the export share of feed products relative to food products. In terms of the original definition of agricultural trade at the beginning of this paper, the current composition of U.S. agricultural exports is 81 percent food/and 19 percent raw materials -- a picture not materially different from the commodity composition of world agricultural trade in 1965-69 shown in table 4.

Implications For Future Economic Growth And Trade

The complementary relationship between economic growth and trade has been well established (1). That is, economic growth increases the actual and potential level of trade between countries as consumers achieve more purchasing power and begin to demand more and a wider variety of products not widely grown or produced in their countries. Under the impact of sustained economic growth in Japan and Western Europe during this past decade consumption has become more diversified and specialization of production has increased. The net effect of these developments has been to increase trade between countries. The changing nature of the demand for and supply of food associated with post war economic growth in Japan and Western Europe has also affected the level and commodity composition of actual and potential trade between most countries, and particularly the United States. The rapid growth in their demand for food, and feed products, as well as the ability of these countries to meet their demand either by their own agricultural production or trade, has varied greatly from country to country, depending upon their supply of agricultural land resources and other resource endowments. For example, Japan with its limited supply of agricultural land available for production of feed grains and feeds has relied heavily upon imports to meet its demands. This reliance on imports has increased their imports almost in direct proportion to increases in total demand for feeds. In Western Europe, on the other hand, available land resources for feeds and feedgrain production are relatively more abundant, there-

by making possible a greater reliance of these countries on domestic supplies for a large proportion of their total feed consumption. The availability of larger land supplies relative to Japan has directly affected the level and commodity composition of agricultural imports in these two major markets. These factors have strongly influenced the changing patterns of world agricultural trade in the post war period and will, no doubt, continue in the years ahead.

Table 1.--World trade in agricultural products, 1/ 1955 and 1960-64 and 1965-69 average

Exporting region \ Importing region	Developed <u>2/</u>			Less developed <u>3/</u>			Central plan <u>4/</u>			World		
	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69
-- Billion U.S. dollars, f.o.b. --												
Developed: <u>2/</u>												
Total exports	42.15	71.47	118.05	16.74	22.84	31.60	1.32	3.58	6.13	60.21	97.89	155.78
Agricultural	10.60	15.32	20.65	2.35	3.85	4.83	.49	1.15	1.35	13.44	20.32	26.83
% agricultural ...	25	21	18	14	17	15	37	32	22	22	21	17
Less developed: <u>3/</u>												
Total exports	17.10	21.61	30.56	5.79	6.52	8.62	.58	1.58	2.34	23.47	29.71	41.52
Agricultural	10.48	10.59	11.70	2.51	2.47	2.92	.51	1.38	1.88	13.50	14.44	16.50
% agricultural ...	61	49	38	43	38	34	88	87	80	58	49	40
Central plan: <u>4/</u>												
Total exports	1.71	3.31	5.87	.62	2.06	3.41	6.90	11.76	15.47	9.23	17.13	24.75
Agricultural .....	.84	1.40	2.32	.23	.51	.85	1.95	2.33	2.52	3.02	4.24	5.69
% agricultural ...	49	42	40	37	25	25	28	20	16	33	25	23
World:												
Total exports	60.96	96.39	154.48	23.15	31.42	43.63	8.80	16.92	23.94	92.91	144.73	222.05
Agricultural	21.92	27.31	34.67	5.09	6.83	8.60	2.95	4.86	5.75	29.96	39.00	49.02
% agricultural ...	36	28	22	22	22	20	34	29	24	32	27	22

1/ Includes SITC Sections 0, 1, 2, and 4 but excluding Divisions 24, 25, 27, and 28 of Section 2.

2/ Includes United States, Canada, Western Europe (including Yugoslavia and Turkey), Republic of South Africa, Japan, Australia, and New Zealand.

3/ Includes all countries Central and South America, Africa (except South Africa), Asia (except Turkey, Japan, Mainland China, North Vietnam and North Korea, and Mongolia, all the islands in the Pacific and Caribbean not elsewhere listed.

4/ Includes U.S.S.R., Eastern Europe (except Yugoslavia), Mainland China, North Vietnam and Korea, and Mongolia.

Source: United Nations Conference on Trade and Development, Handbook of International Trade and Development Statistics, Geneva 1967, Monthly Bulletin of Statistics, March 1971, United Nations, New York.

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Table 2.--Distribution of world total and agricultural exports, 1955 and 1960-64 and 1965-69 average

Exporting region \ Importing region	Developed			Less developed			Central plan			World		
	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69
	-- Percent --											
Developed:												
Total exports	45	49	53	18	16	14	2	3	3	65	68	70
Agricultural	35	39	42	8	10	10	3	3	3	45	52	55
Less developed:												
Total exports	18	15	14	6	4	4	1	1	1	25	20	19
Agricultural	35	27	24	8	6	6	2	4	4	45	37	34
Central plan:												
Total exports	2	2	3	1	2	1	7	8	7	10	12	11
Agricultural	3	4	5	1	1	1	6	6	5	10	11	11
World:												
Total exports	65	66	70	25	22	19	10	12	11	100	100	100
Agricultural	73	70	71	17	17	17	10	13	12	100	100	100

Source: United Nations Conference on Trade and Development, Handbook of International Trade and Development Statistics, Geneva 1967, Monthly Bulletin of Statistics, March 1971, United Nations, New York.

Table 3.--Distribution of world total and agricultural imports, 1955 and 1960-64 and 1965-69 average

Exporting region \ Importing region	Developed			Less developed			Central plan			World		
	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69
-- Percent --												
Developed:												
Total imports	69	74	76	72	73	72	15	21	25	65	67	70
Agricultural	48	56	59	46	56	56	17	24	23	45	52	55
Less developed:												
Total imports	28	23	20	25	21	20	7	9	10	25	21	19
Agricultural	48	39	34	49	36	34	17	28	33	45	37	34
Central plan:												
Total imports	3	3	4	3	6	8	78	70	65	10	12	11
Agricultural	4	5	7	5	8	10	66	48	44	10	11	11
World:												
Total imports	100	100	100	100	100	100	100	100	100	100	100	100
Agricultural	100	100	100	100	100	100	100	100	100	100	100	100

Source: United Nations Conference on Trade and Development, Handbook of International Trade and Development Statistics, Geneva 1967, Monthly Bulletin of Statistics, March 1971, United Nations, New York.

Table 4.--Regional commodity composition of agricultural trade, 1955 and 1960-64 and 1965-69 average

Exporting region \ Importing region	Developed			Less developed			Central plan			World exports		
	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69
-- Billion dollars --												
Developed												
Food	7.5	11.3	16.0	2.1	3.3	4.2	0.3	0.8	1.0	9.9	15.4	21.2
Raw materials	3.0	4.1	4.7	.3	.6	.6	.2	.3	.3	3.5	5.0	5.6
Total agricultural ...	10.5	15.4	20.7	2.4	3.9	4.8	.5	1.1	1.3	13.4	20.4	26.8
% food	71	73	77	88	85	88	60	73	77	74	75	79
Less developed:												
Food	6.9	7.5	8.8	1.6	1.7	2.1	.2	.8	1.2	8.7	10.0	12.1
Raw materials	3.6	3.0	3.0	1.0	.7	.7	.3	.7	.7	4.9	4.4	4.4
Total agricultural ...	10.5	10.5	11.8	2.6	2.4	2.8	.5	1.5	1.9	13.6	14.4	16.5
% food	66	71	75	62	71	75	40	53	63	74	69	73
Central plan:												
Food .....	.5	.8	1.3	.1	.4	.9	1.2	1.4	1.6	1.8	2.6	3.8
Raw materials .....	.4	.6	1.0	0	.1	.1	.8	.9	1.0	1.2	1.6	2.1
Total agricultural ...	.9	1.4	2.3	.1	.5	1.0	2.0	2.3	2.6	3.0	4.2	5.9
% food	56	57	57	100	80	90	60	61	62	60	62	60
World exports:												
Food	14.9	19.6	26.1	3.8	5.4	7.2	1.7	3.0	3.8	20.4	28.0	37.1
Raw materials	7.0	7.7	8.7	1.3	1.4	1.4	1.3	1.9	2.0	9.6	11.9	12.1
Total agricultural ...	21.9	27.3	34.8	5.1	6.8	8.6	3.0	4.9	5.8	30.0	39.0	49.2
% food	68	72	75	75	79	84	57	61	66	68	72	75

Source: General Agreement on Tariffs and Trade, 1970. International Trade, 1969, Geneva. United Nations Conference on Trade and Development, Handbook of International Trade and Development, Geneva 1967.

Table 5.--Distribution of world agricultural exports, 1955 and 1960-64 and 1965-69 average

Exporting region	Developed			Less developed			Central plan			World		
	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69	1955	1960-64	1965-69
	-- Percent --											
Developed:												
Food	37	40	43	10	12	11	2	3	3	49	55	57
Raw materials	31	37	39	3	5	5	2	3	2	36	45	46
Total agricultural ..	35	39	42	8	10	10	2	3	3	45	52	55
Less developed:												
Food	34	27	24	8	6	6	1	3	3	43	36	33
Raw materials	38	27	25	10	6	6	3	6	6	51	40	36
Total agricultural ..	35	27	24	8	6	6	2	4	4	45	37	33
Central plan:												
Food	2	3	3	1	1	2	5	5	4	8	9	10
Raw materials	4	5	8	0	1	1	8	8	8	13	15	18
Total agricultural ..	3	4	5	1	1	2	6	6	5	10	11	12
World:												
Food	73	70	70	19	19	19	8	11	10	100	100	100
Raw materials	73	70	72	14	13	11	13	17	17	100	100	100
Total agricultural ..	73	70	70	17	17	18	10	15	12	100	100	100

Source: General Agreement on Tariffs and Trade, 1970. International Trade, 1969, Geneva. United Nations Conference on Trade and Development Handbook of International Trade and Development, Geneva 1967.

Table 6.--Market share of agricultural imports, 1955 and 1960-64 and 1965-69

Importing regions	Food products			Raw materials			Annual rate of growth 1955 to 1965-69		
	1955	1960-64	1965-69	1955	1960-64	1965-69	Food	Raw material	Total
-- Percent --									
Developed from:									
Developed	50	58	61	43	53	54	6.5	3.8	5.8
Less developed	46	38	34	51	39	34	2.0	-1.5	1.0
Central plan	4	4	5	6	8	12	8.3	7.9	8.1
World	100	100	100	100	100	100	4.8	1.8	3.9
Less developed from:									
Developed	55	61	58	23	43	43	6.0	6.0	5.9
Less developed	42	31	29	77	50	50	2.3	-2.9	0.6
Central plan	3	8	13	0	7	7	20.1	0.0	21.2
World	100	100	100	100	100	100	5.5	0.6	4.5
Central plan from:									
Developed	18	26	26	15	16	15	10.6	3.4	8.3
Less developed	12	27	32	23	37	35	16.1	7.3	11.8
Central plan	70	47	42	62	47	50	2.4	1.9	2.2
World	100	100	100	100	100	100	6.9	3.6	5.5
World from:									
Developed	49	55	57	36	45	46	6.5	4.0	5.9
Less developed	43	36	33	51	40	36	2.8	-0.9	1.6
Central plan	8	9	10	13	15	18	6.4	4.8	5.8
World	100	100	100	100	100	100	5.1	1.9	3.2

Source: United Nations Conference on Trade and Development, Handbook of International Trade and Development Statistics, Geneva 1967.

Table 7.--World imports of selected food products 1963 and 1968

Commodity	1963	1968	Absolute change 1963-1968
		-- <u>Billion dollars</u> --	
All grains	6.34	7.53	1.19
Food	4.39	5.12	.73
Feed	1.95	2.41	.46
Corn	(1.22)	(1.66)	(.44)
Meat products	4.07	5.51	1.44
Feeding stuff	1.19	1.80	.61
Feed grains and feeding stuff	3.14	4.21	1.07
Including soybeans	3.69	5.13	1.44
Beverage crops	3.35	4.11	.75
Sugar	2.67	1.98	-.69
Fruits and vegetables	2.32	2.99	.67
Oilseeds	1.43	1.86	.43
Soybeans .....	.55	.92	.37
Oil cake and meal .....	.62	.83	.21

Source: Food and Agriculture Organization, Trade Yearbook 1969, Rome, Italy 1970.

Table 8.--Commodity composition of agricultural imports, selected major markets 1960 and 1969

Major market and region of origin	Food <u>1/</u>		Annual	Feed <u>2/</u>		Annual	Raw materials <u>3/</u>		Annual	Total agricultural		Annual
	1960	1969	rate of change	1960	1969	rate of change	1960	1969	rate of change	1960	1969 or 1970	rate of change
--Billion dollars (c.i.f.)--												
EEC from:												
World	4.32	8.76	8.1	1.29	2.97	9.7	3.53	3.43	-0.3	9.14	15.16	5.8
Developed	2.13	5.50	11.1	.84	2.10	10.7	2.08	1.90	-1.0	5.05	9.49	7.3
Less developed	1.89	2.73	4.2	.36	.62	6.4	1.29	1.34	0.4	3.53	4.70	3.2
Central plan .....	.31	.52	5.9	.10	.24	10.9	.16	.20	2.7	.56	.96	6.2
EFTA from:												
World	4.06	5.56	3.5	.93	.99	0.6	2.30	1.70	-3.3	7.29	8.24	1.4
Developed	2.50	3.62	4.3	.64	.75	1.8	1.24	1.00	-2.4	4.37	5.37	2.3
Less developed	1.23	1.63	3.2	.20	.20	-0.2	.97	.61	-4.9	2.40	2.45	0.2
Central plan .....	.35	.30	-1.7	.08	.03	-10.4	.10	.09	-0.7	.53	.42	-2.5
Japan from:												
World .....	.54	1.41	11.3	.20	.94	18.7	1.03	1.33	2.9	1.78	3.68	8.5
Developed .....	.25	.77	13.5	.13	.71	21.0	.60	.65	0.9	.97	2.13	9.6
Less developed .....	.28	.58	8.4	.06	.17	11.7	.42	.58	3.5	.76	1.32	6.3
Central plan .....	.01	.07	18.5	.01	.05	19.8	.02	.11	24.0	.04	.23	21.2
United States from:												
World	3.37	3.91	1.7	.13	.20	5.4	1.20	1.05	-1.5	4.70	5.17	1.1
Developed .....	.92	1.26	3.6	.08	.10	2.2	.46	.41	-1.4	1.46	1.77	2.2
Less developed	2.42	2.59	0.8	.05	.10	9.6	.72	.63	-1.6	3.19	3.33	0.5
Central plan .....	.03	.05	6.1	neg	neg		.02	.02	0.0	.05	.07	4.4

1/ Food is all of Section 0 except Division 001, 043, 044, 045, 08; Section 1 except Division 12; Section 22, except 221.4; and Section 4, except Division 422.

2/ Feed includes Divisions 001, 043, 044, 045, 08, and 221.4.

3/ Raw materials includes Divisions 12, 21, 23, 26, 29, 422, and 511.1.

Source: Commodity Trade Statistics, 1961, 1970, Statistical Papers series D, Vol. 11 (4). Part New York.

Table 9.--Commodity composition of U.S. agricultural exports, 1925-1970

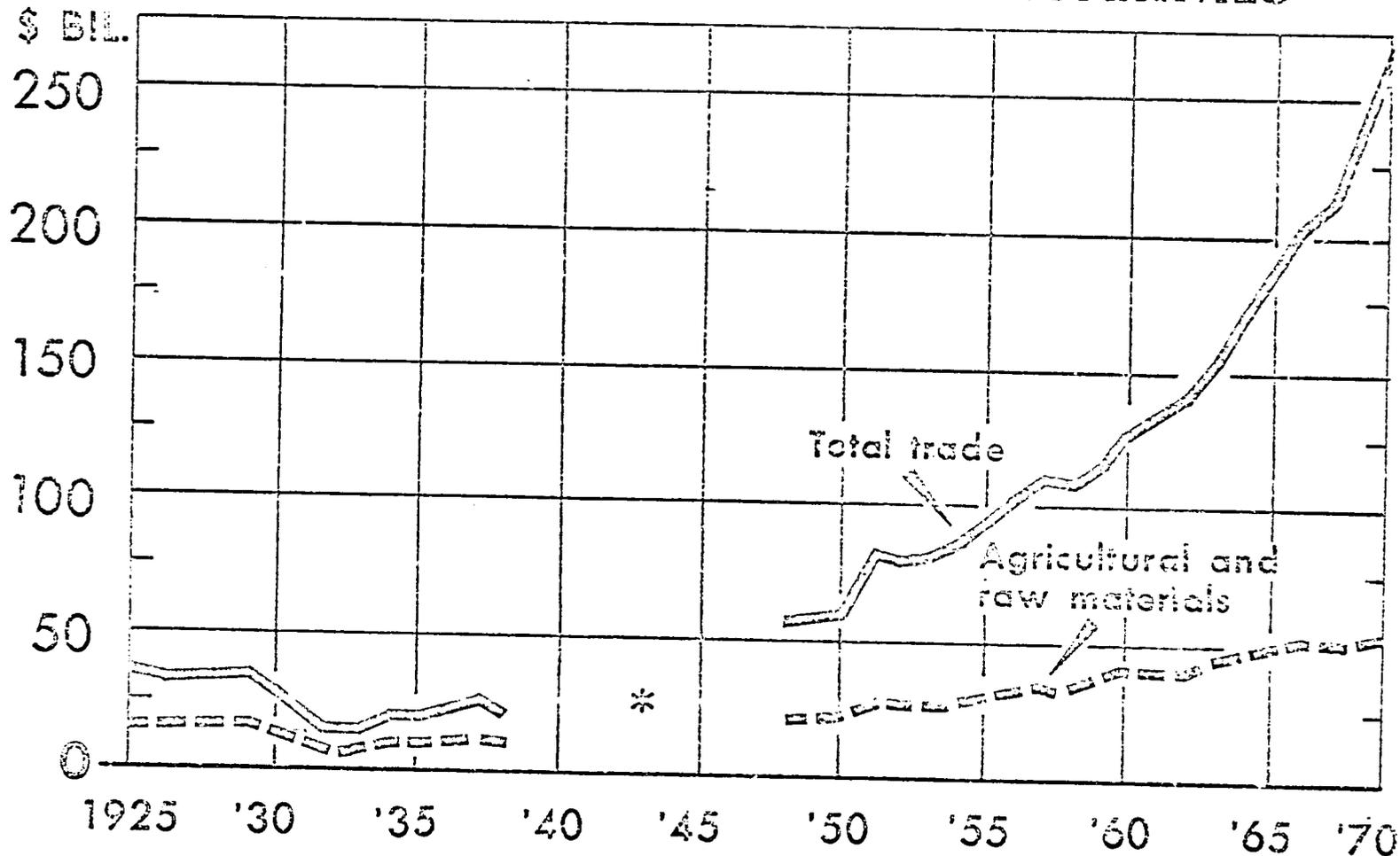
Commodity	1925-32	1933-40	1940-44	1945-49	1950-54	1955-59	1960-64	1965-69	1970
-- Million dollars --									
Food products	577	216	1,003	2,150	1,504	1,906	2,607	2,732	2,929
Dairy and eggs	17	8	295	339	111	229	172	143	142
Meat and products	159	47	406	264	138	164	211	213	268
Food grain and preparations	232	55	109	1,091	846	901	1,493	1,548	1,502
Fruits, vegetables, and preparations	124	87	130	278	224	358	420	476	524
Other foods	45	19	63	178	185	254	311	352	493
Feed and farm input products	72	41	34	244	411	728	1,312	2,248	2,888
Feeds and fodders	24	9	3	18	24	63	138	342	497
Feed grains and preparations	40	26	16	172	275	412	693	1,059	1,059
Soybeans	0	2	2	25	91	211	425	763	1,216
Seeds and breed stock	8	4	13	29	21	42	56	84	116
Industrial raw materials ..	863	453	270	892	1,337	1,304	1,447	1,353	1,359
Cotton and linters	695	322	139	525	871	675	737	431	378
Tobacco	131	111	98	265	294	350	392	485	488
Animal products	8	5	1	25	85	162	195	278	320
Vegetable products	21	10	17	55	72	99	101	118	121
Essential oils	8	5	15	22	15	18	22	41	52
Total exports	1,512	710	1,307	3,286	3,252	3,938	5,366	6,333	7,176
-- Percent composition --									
Food products	38	30	77	65	46	48	49	43	41
Feed and farm input products	5	6	3	7	13	18	24	36	40
Industrial raw materials ..	57	64	21	27	41	33	27	21	19

Source: Standard International Trade Classification, revised, 1961. Statistical Papers, Series M, No. 30, New York. Commodity Trade Statistics, 1961, 1970, Statistical Papers Series D, Vol. 11 (4). Part New York.

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TOTAL WORLD TRADE COMPARED WITH TRADE IN AGRICULTURAL AND RAW MATERIALS

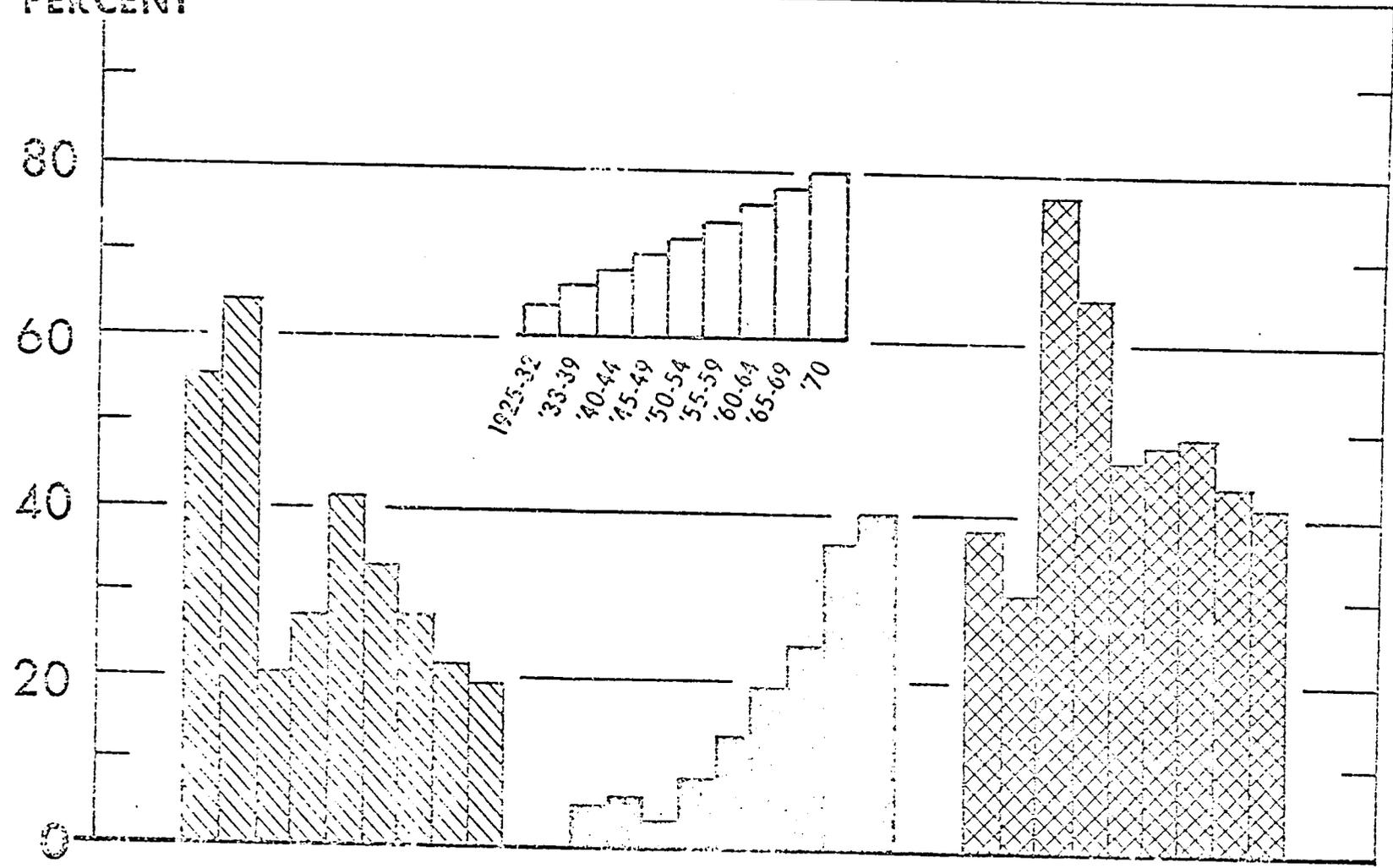


*DATA INCOMPLETE FOR THESE YEARS.

27

COMPOSITION OF U.S. AGRICULTURAL EXPORTS

PERCENT



RAW MATERIALS

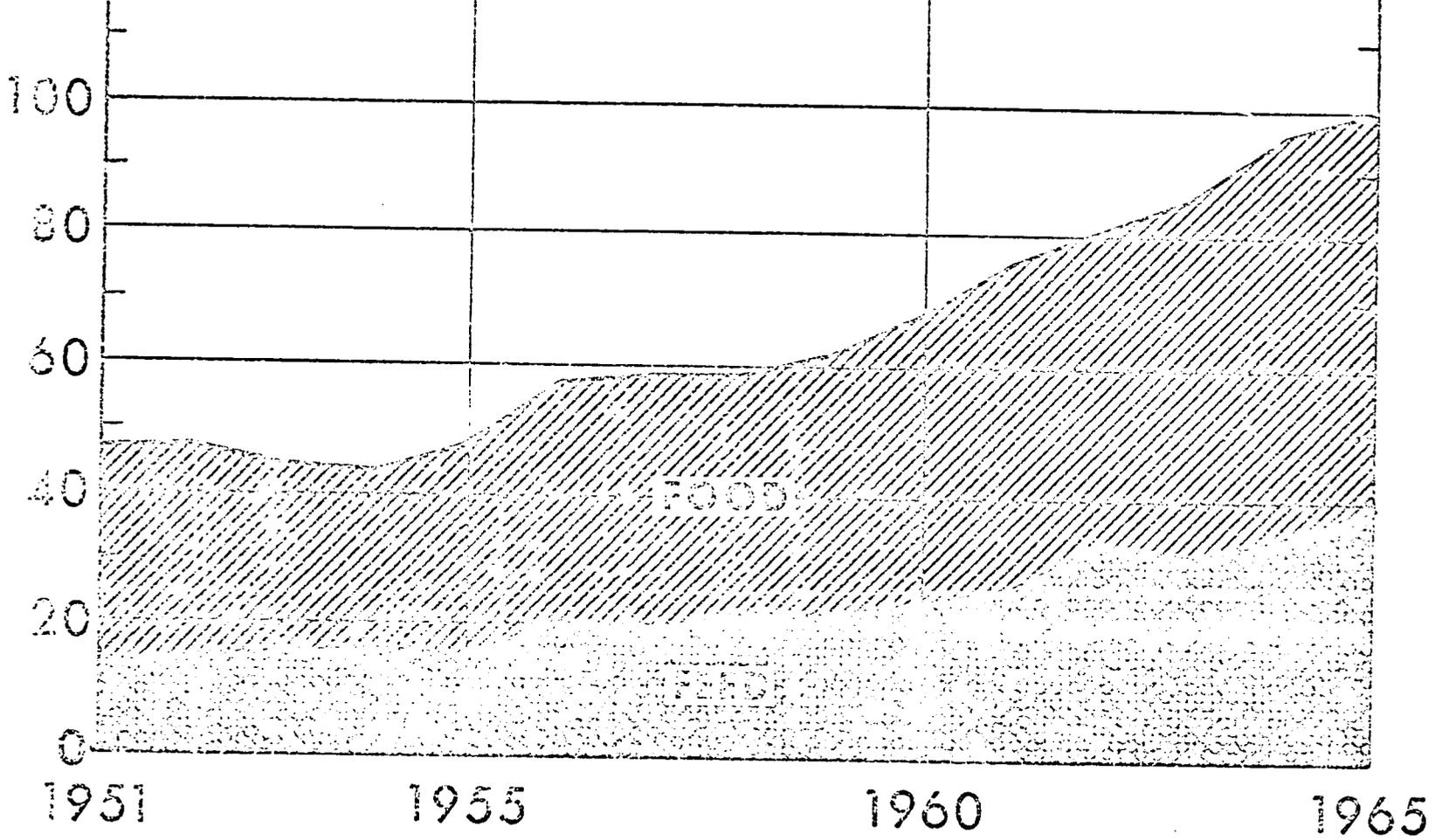
FEED

FOOD

SL

WORLD GRAIN TRADE, 1951-65

MIL. METRIC TONS



b7c

WORLD TRADE IN FOOD GRAINS, 1951-65

MIL. METRIC TONS

60

30

0

1951

1955

1960

1965

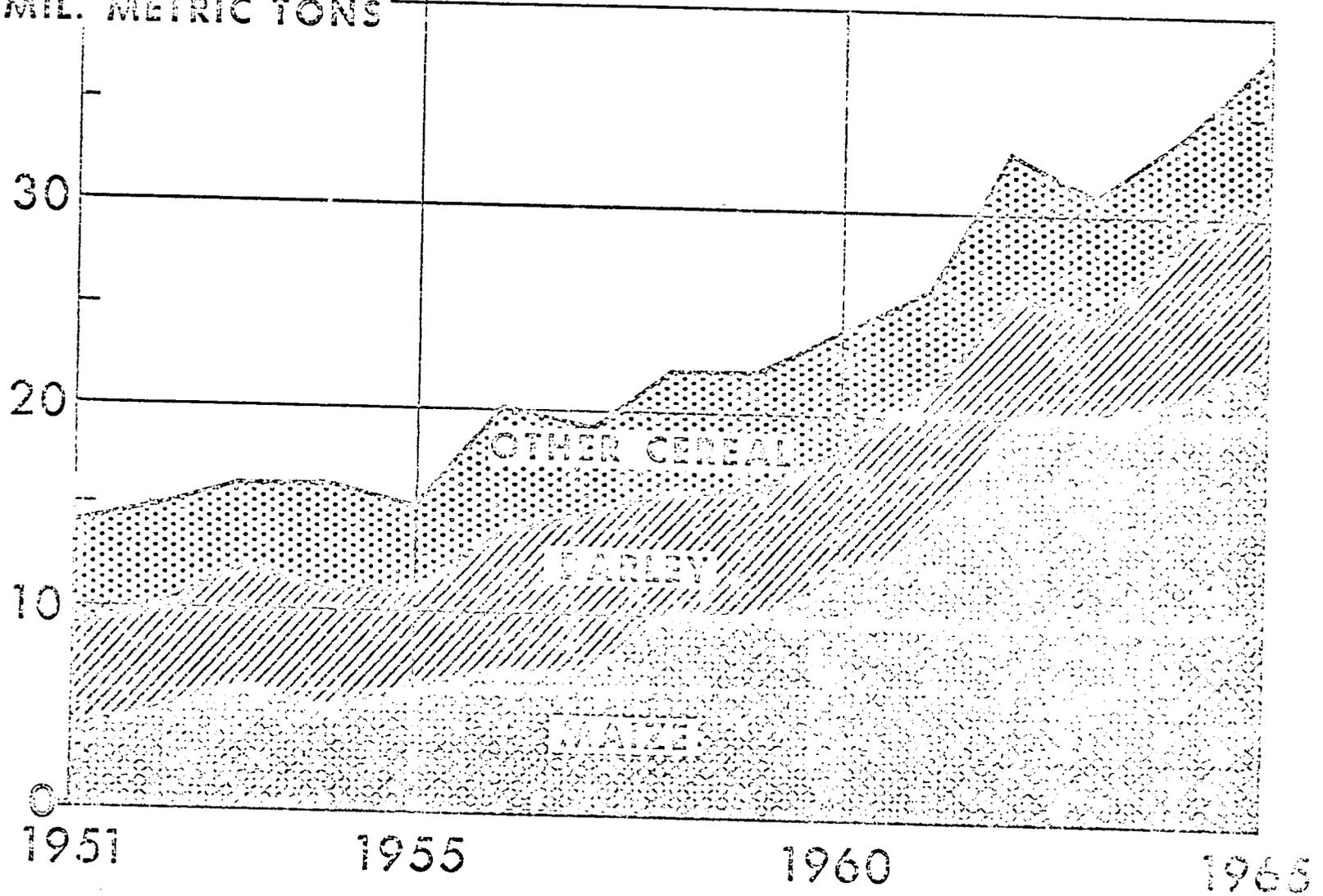
WHEAT EQUIVALENT

RICE

30

WORLD TRADE IN FEED GRAINS, 1951-65

MIL. METRIC TONS



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