

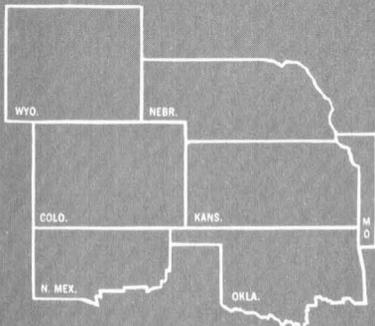


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Exchange Rate Adjustments Under the Par Value System 1946-68

By *Thomas E. Davis*

THE SERIES of international currency crises during the past few years has led to a vigorous debate over the adequacy of the present international exchange rate system. Of central issue in this debate is whether or not the present system is unduly rigid in allowing exchange rate adjustments as a means by which countries can attempt to achieve equilibrium in their balance of payments.

Supporters of the present system generally maintain that the system contains adequate provisions for rate adjustments, when and if needed, as well as provisions that promote exchange rate stability—the latter of which are considered essential for the growth and development of international trade. According to the basic provisions of the system, as set forth in the Articles of Agreement of the International Monetary Fund (IMF) in 1945, the stability of exchange rates is promoted by requesting each member country of the IMF to agree on a fixed par value of its currency, and to maintain transactions in its currency within one per cent either side of the agreed par value. The provisions for exchange rate adjustments stipulate that a member wishing to change its agreed upon par value is eligible to do so in order to “correct a fundamental disequilibrium” in its country’s balance of payments. Approval of the IMF is required if the proposed change (including all previous changes in either direction)

is in excess of 10 per cent of the initially agreed upon par value. Supporters of the system point out that these provisions clearly recognize and allow for exchange rate adjustments whenever disparate trends in costs, prices, and incomes among countries make rate adjustments necessary and advisable. Moreover, it is held that the requirement for IMF approval of large adjustments serves to recognize the valid principle that exchange rates are matters of international concern and hence should not be subject to unilateral manipulation by particular countries.

Critics of the par value system claim that while there may be nothing inherent in the design of the system to prevent desirable rate adjustments from being made, the system nonetheless has developed into one of virtually fixed rates with very few adjustments being made in practice. One of the major reasons for this hardening of the system, it is felt, is that governments have found it politically difficult and inexpedient to alter their exchange rates. This difficulty stems both from reasons of national prestige and from the undesirable effects that a rate change may have on the real incomes of certain sectors of a community. Another reason for the reluctance of governments to alter their rates is that with the emergence of a vast amount of speculative funds capable of putting prodigious pressure on a currency once it has become suspect, governments very often have

found it difficult to determine the appropriate amount of needed adjustment. Thus, it is often claimed that governments not only have made few and infrequent adjustments under the system, but once changes have been made, governments usually have made them large in magnitude so as to avoid having to repeat the process in the near future. With these deficiencies in mind, a number of critics of the system have recently proposed a variety of alternative exchange rate systems designed to increase the flexibility of exchange rates.

In view of the current controversy over the rigidity of the present exchange rate system, this article examines the actual behavior of exchange rates for countries that have operated under the par value system during the postwar period 1946-68. The examination will focus on the number, frequency, and magnitude of exchange rate adjustments.

NUMBER OF ADJUSTMENTS

As a first approximation of the number of rate adjustments that have occurred under the par value system, Table 1 presents—for each of the years 1946 through 1968—the number of countries with membership in the IMF (column 1), the number of member countries with established par values (column 2), and the number of changes made in established par values by member countries (column 3). The year 1946 was chosen as the starting date of the time series because it was in December 1946 when the 40 original members of the IMF first announced their initial par values.

Table 1 shows that a total of 70 changes were made in officially established par values by member countries of the IMF over the 22-year period ending 1968.¹ Of these 70 changes, 14 took place during the general currency re-

alignment in 1949, and 18 occurred during 1967, when a number of countries went along with the United Kingdom's devaluation of the pound sterling. Table 1 also shows, however, that 9 out of the 70 changes made in par values involved neither an appreciation nor a depreciation, but instead represented just a change from one type of currency unit to another. New Zealand, for example, changed just the nominal value of its currency in July 1967 when it established a decimal unit—the New Zealand pound—to replace the old New Zealand dollar. Thus, it is perhaps more meaningful to state that a total of 61 substantive changes were made in officially established par values during the 1946-68 period.²

Additional problems arise, however, in employing the legal or official definition of a par value. On the one hand, some member countries listed as having agreed upon par values with the IMF have not in practice carried out most or even any of their commercial transactions at the established parity rates. Rather, they have employed a system of multiple rates applicable to different types of transactions. As is well known, multiple rate practices were rather common in a number of countries, particularly in Latin America, up to and including the mid-1950's. Therefore, the exclusion of these countries from consideration would seem in order, since their par values had little or no economic meaning. On the other hand, some member countries not having agreed upon par values with the IMF have carried out the majority of their transactions at fixed or stable unitary exchange rates. Italy, for example, did not have an established par value with the IMF until 1960, but nevertheless had an essentially stable unitary rate applicable to most of its transactions during the years 1949 through 1959.

¹A total of 114 countries were members of the Fund during 1946-68 but Table 1 lists just 111 countries at the end of 1968. This is because 3 of the 114 countries had withdrawn their membership. These 3 countries and the dates of their withdrawal are: Cuba (1964), Czechoslovakia (1954), and Poland (1950).

²The 9 countries changing their par values without appreciating or depreciating their respective currencies were: France (1960), South Africa (1961), Finland (1963), Ghana (1965), Australia (1966), Yugoslavia (1966), New Zealand (1967), Ghana (1967), and Zambia (1968).

Table 1
EXCHANGE RATE ADJUSTMENTS UNDER THE
PAR VALUE SYSTEM, END OF YEAR 1946-68

Year	Number of IMF Member Countries			Number of IMF Member Countries			Number of Changes in "Effective" Par Values or in Fixed or Stable Unitary Exchange Rates (7)
	Total Members (1)	With Par Values (2)	Number of Changes in Par Values (3)	With "Effective" Par Values (4)	Without or Not Using Par Values but With Fixed or Stable Unitary Exchange Rates (5)		
					Total of Columns (4) + (5) (6)		
1946	40	32	0	23	4	27	0
1947	45	37	0	25	4	29	0
1948	47	40	1	25	4	29	1
1949	48	40	14	26	5	31	17
1950	49	40	3	25	5	30	1
1951	50	43	1	27	4	31	0
1952	54	44	1	27	4	31	0
1953	55	49	2	30	4	34	1
1954	56	49	3	30	3	33	1
1955	58	49	2	31	3	34	1
1956	60	49	1	30	5	35	0
1957	64	51	2	31	9	40	2
1958	68	53	1	34	9	43	1
1959	68	56	0	38	8	46	0
1960	68	59	3(1)	41	8	49	2
1961	75	61	6(1)	45	15	60	4
1962	82	65	2	50	19	69	1
1963	102	72	2(1)	56	31	87	2
1964	102	72	0	56	30	86	1
1965	103	75	3(1)	61	28	89	2
1966	105	81	3(2)	67	24	91	1
1967	107	84	18(2)	70	23	93	19
1968	111	86	2(1)	72	25	97	1
Total			70(9)				58

NOTE: In column 3, the numbers in parentheses denote changes in par values involving neither appreciations nor depreciations.

SOURCE: International Monetary Fund, *International Financial Statistics and Annual Reports on Exchange Restrictions*.

Under these circumstances, it would seem appropriate to broaden the legal definition of a par value to include those countries that had either fixed or stable unitary exchange rates.

To cope with these problems, a modified but more meaningful par value concept for analytical purposes is adopted for use in this article. This concept is incorporated into Table 1 by showing for each year the number of member countries with "effective" par values (column 4), and also the number of member countries

without or not using par values but nevertheless having fixed or stable unitary exchange rates (column 5).³ Countries classified as having

³This concept was first employed by Margaret de Vries in an article designed to show the increasing adherence of countries to the par value system during the period 1946-66. For this article, the country classifications appearing in de Vries' article were updated and used as the basis for developing the tabular data on exchange rate adjustments of countries under the par value system. See de Vries, "Fund Members' Adherence to the Par Value Regime: Empirical Evidence," International Monetary Fund, *Staff Papers*, November 1966.

Table 2
FREQUENCY OF EXCHANGE RATE ADJUSTMENTS
UNDER THE PAR VALUE SYSTEM, 1946-68

Years With "Effective" Par Value or With Fixed or Stable Unitary Exchange Rates	Number of IMF Member Countries				Num- ber of Changes
	Total	Mak- ing No Change	Mak- ing One Change	Mak- ing Two or More Changes	
All Countries					
1- 5 years	16	13	3	0	3
6-11 years	45	34	10	1	12
12-17 years	15	9	4	2	8
18-22 years	27	8	10	9*	35
Total	103	64	27	12	58
More Developed Countries					
1- 5 years	0	0	0	0	0
6-11 years	4	1	2	1	4
12-17 years	5	2	2	1	4
18-22 years	16	3	6	7*	27
Total	25	6	10	9	35
Less Developed Countries					
1- 5 years	16	13	3	0	3
6-11 years	41	33	8	0	8
12-17 years	10	7	2	1	4
18-22 years	11	5	4	2	8
Total	78	58	17	3	23

*Included are 3 countries that made more than 2 changes. They are Iceland (6 changes), France (4 changes), and Finland (3 changes).

SOURCE: International Monetary Fund, *International Financial Statistics and Annual Reports on Exchange Restrictions*.

"effective" par values are defined as those conducting most or all of their transactions at agreed upon parity rates. Table 1 then presents the sum of the countries having either "effective" par values or having fixed or stable unitary exchange rates (column 6). The last column in Table 1 lists the number of changes made by these countries in their respective exchange rates.

On the basis of this modified par value concept, it is shown that a total of 58 exchange rate adjustments were made during the 1946-68 period. Of these 58 adjustments, 17 occurred in 1949, and 19 took place in 1967. More detailed information on these 58 changes—including the specific countries making these changes, as well as the date and magnitude of

each change—is presented in Table 5. A summary discussion of the frequency and magnitude of these changes is contained in the following two sections.

FREQUENCY OF ADJUSTMENTS

The frequency of exchange rate adjustments made by countries operating under the par value system during 1946-68 is presented in Table 2. This table first lists the total number of IMF member countries according to the number of years these countries had either "effective" par values or fixed or stable unitary exchange rates.⁴ The table next shows the number of these countries that made no change in their exchange rates, then the number that made one change, followed by the number that made two or more changes. The aggregate number of changes is presented in the final column of the table.

As seen in Table 2, 64 countries made no change in their exchange rates out of a possible 103 countries that operated under the par value system during the 22-year period.⁵ The 39 remaining countries accounted for all of the 58 changes, with 12 of these countries making two or more changes in their exchange rates. In terms of frequency of change, 43 out of the 58 changes were made by countries that operated under the par value system for at least 12 years or more and 35 changes were made by countries under the system as long as 18 years or more. Alternatively, only 15 changes were

⁴For example, Japan, which became an IMF member in 1952 and had a fixed unitary exchange rate at the end of that year, and which also had an "effective" par value at the end of each of the 16 subsequent years through 1968, was entered in the table as being under the par value system for a total of 17 years.

⁵Table 2 lists 103 countries as being under the system during 1946-68 instead of the total of 114 that were members during that period because 11 countries did not have either "effective" par values or fixed or stable unitary rates. Included in the 103 countries are 6 countries that were not under the system at the end of 1968 (see the total of 97 members shown for 1968 in Table 1, column 6). These 6 countries were Cuba, Czechoslovakia, Korea, Laos, Peru, and Poland.

made by countries that operated under the par system for 11 years or less.

The more developed countries accounted for 60 per cent of the 58 rate adjustments, making 35 changes in all.⁶ Of these 35 changes, 31 were made by more developed countries that operated under the par value system 12 years or more, and 27 changes were made by more developed countries operating under the system 18 years and over. The less developed countries made 23 changes during the 22-year period, with about one-half of these changes being made by less developed countries that operated under the system 12 years or more. Although the number of less developed countries amounted to about three-fourths of the total number of countries, most of the less developed countries were under the par value system a considerably shorter time than the more developed countries.⁷

The frequency of rate adjustments made by IMF member countries during the two sub-periods 1946-57 and 1957-68 is presented in Table 3. The purpose of this table is to examine the contention that the par value system has become more rigid recently with respect to exchange rate adjustments than it was in earlier years. The end of the year 1957 was chosen as the dividing date of the overall period because it separates the period into two 11-year seg-

⁶On the basis of the legal or official definition of a par value, the more developed countries accounted for a slightly smaller proportion of the total rate adjustments. Specifically, 50 per cent of the 70 changes in legal par values were made by more developed countries. Classified as more developed countries in this article are 14 industrial countries (Austria, Belgium, Canada, Denmark, France, Germany, Italy, Japan, Luxembourg, Netherlands, Norway, Sweden, United Kingdom, and United States) and 11 other developed countries (Finland, Greece, Iceland, Ireland, Portugal, Spain, Turkey, Yugoslavia, Australia, New Zealand, and South Africa). All other countries are classified as less developed countries.

⁷It should be noted that many of the less developed countries did not become members of the IMF until after the mid-1950's. Moreover, of the less developed countries that were members prior to that time, many employed multiple exchange rate practices and hence were excluded from consideration because they did not have either "effective" par values or fixed or stable unitary rates.

Table 3

FREQUENCY OF EXCHANGE RATE ADJUSTMENTS
UNDER THE PAR VALUE SYSTEM,
1946-57 AND 1957-68

Years With "Effective" Par Value or With Fixed or Stable Unitary Exchange Rates	Number of IMF Member Countries				
	Total	Mak- ing No Change	Mak- ing One Change	Mak- ing Two or More Changes	Num- ber of Changes
All Countries					
<u>1946-57</u>					
1- 5 years	13	12	1	0	1
6-11 years	33	16	12	5*	23
Total	46	28	13	5	24
<u>1957-68</u>					
1- 5 years	15	12	3	0	3
6-11 years	86	59	25	2†	31
Total	101	71	28	2	34
More Developed Countries					
<u>1946-57</u>					
1- 5 years	5	4	1	0	1
6-11 years	17	5	8	4*	17
Total	22	9	9	4	18
<u>1957-68</u>					
1- 5 years	0	0	0	0	0
6-11 years	25	12	11	2†	17
Total	25	12	11	2	17
Less Developed Countries					
<u>1946-57</u>					
1- 5 years	8	8	0	0	0
6-11 years	16	11	4	1	6
Total	24	19	4	1	6
<u>1957-68</u>					
1- 5 years	15	12	3	0	3
6-11 years	61	47	14	0	14
Total	76	59	17	0	17

*France made 3 changes.

†Iceland made 4 changes.

SOURCE: International Monetary Fund, *International Financial Statistics and Annual Reports on Exchange Restrictions*.

ments and also because it was at the end of 1957 that many countries began moving toward greater convertibility of their currencies. The format of Table 3 is similar to Table 2, in that it lists the number of IMF member countries making changes in their exchange rates according to the number of years these countries

had—at one time or another during the given period—either “effective” par values or fixed or stable unitary exchange rates. Table 3 also provides a breakdown of rate changes made by more developed countries and less developed countries during the two subperiods.

As indicated in Table 3, there were 24 rate changes in 1946-57, and 34 rate changes during 1957-68. In the earlier period, the 24 rate changes were made by 18 of the 46 countries (39 per cent) operating under the par value system. In the 1957-68 period, the 34 rate changes were made by 30 of the 101 countries (30 per cent) under the par value system. Thus, on the basis of the total number of countries operating under the system, it would appear that a slightly greater proportion altered their exchange rates during 1946-57 than during 1957-68.

MAGNITUDE OF ADJUSTMENTS

The magnitude of exchange rate adjustments made under the par value system during 1946-68 is summarized in Table 4. A detailed list of these changes, as was indicated earlier, appears in Table 5. The method used to calculate the magnitude of the rate changes is the commonly accepted one; that is, rate changes are expressed in terms of percentage changes relative to gold or the U. S. dollar with the gold content in the weight and fineness in effect on July 1, 1944. This method produces the familiar results, for example, of devaluations of the British pound of 30.5 per cent in 1949, and 14.3 per cent in 1967.

Table 4 shows that out of 58 rate adjustments made during 1946-68, there were 3 appreciations and 55 devaluations. Of these devaluations, 21 were made in magnitudes ranging up to 19.9 per cent, and 34 were made in amounts of 20 per cent or over. In fact, 11 of these devaluations were 40 per cent or over. The more developed countries made 32 devaluations in all, of which about two-thirds were 20 per cent or over, while the less devel-

Table 4
MAGNITUDE OF EXCHANGE
RATE ADJUSTMENTS
UNDER THE PAR VALUE SYSTEM, 1946-68

Magnitude of Adjustments (In per cent)	Number of Rate Adjustments by IMF Member Countries		
	1946-68	1946-57	1957-68
All Countries			
Appreciation			
0 - 9.9	3	0	3
Depreciation			
0 - 9.9	3	1	2
10 - 19.9	18	3	15
20 - 29.9	7	2	5
30 - 39.9	16	13	3
40 and over	11	5	6
Total	58	24	34
More Developed Countries			
Appreciation			
0 - 9.9	3	0	3
Depreciation			
0 - 9.9	2	1	1
10 - 19.9	9	3	6
20 - 29.9	4	2	2
30 - 39.9	9	8	1
40 and over	8	4	4
Total	35	18	17
Less Developed Countries			
Appreciation			
0 - 9.9	0	0	0
Depreciation			
0 - 9.9	1	0	1
10 - 19.9	9	0	9
20 - 29.9	3	0	3
30 - 39.9	7	5	2
40 and over	3	1	2
Total	23	6	17

SOURCE: International Monetary Fund, *International Financial Statistics and Annual Reports on Exchange Restrictions*.

oped countries devalued 23 times, of which more than one-half were 20 per cent or larger. The average amount (the arithmetic mean) of all 58 rate adjustments was 26.9 per cent, with the average for the more developed countries being 28.2 per cent, and the average for the less developed countries being 24.9 per cent.

The relatively large magnitudes of most of the exchange rate devaluations in the 1946-68 period are due partly to the predominance of the sizable rate changes made during the general currency realignment of 1949. In that year, 9 IMF members operating under the par

Table 5
COUNTRY DATA ON EXCHANGE RATE ADJUSTMENTS, 1946-68

<u>Country</u>	<u>Number of Changes</u>	<u>Years With "Effective" Par Value or With Fixed or Stable Unitary Exchange Rates</u>	<u>Date and Magnitude of Changes</u>
More Developed Countries			
1 Australia	1	21	1949 (30.5%)
2 Belgium	1	22	1949 (12.3%)
3 Canada	2	10	1949 (9.1%); 1962 (1.8%)*
4 Denmark	2	22	1949 (30.5%); 1967 (7.9%)
5 Finland	3	19	1949 (30.5%); 1957 (28.1%); 1967 (23.8%)
6 France	4	22	1948 (56.5%); 1949 (21.8%) 1957 (16.7%); 1958 (14.9%)
7 Germany (Fed. Rep.)	1	16	1961 (5.0%)*
8 Greece	2	20	1949 (66.5%); 1953 (50.0%)
9 Iceland	6	18	1949 (30.5%); 1950 (42.6%) 1960 (57.1%); 1961 (11.6%) 1967 (24.6%); 1968 (35.2%)
10 Ireland	1	12	1967 (14.3%)
11 Luxembourg	1	22	1949 (12.3%)
12 Netherlands	2	22	1949 (30.2%); 1961 (5.0%)*
13 New Zealand	1	8	1967 (19.5%)
14 Norway	1	22	1949 (30.5%)
15 South Africa	1	22	1949 (30.5%)
16 Spain	1	10	1967 (14.3%)
17 Turkey	1	19	1960 (68.9%)
18 United Kingdom	2	22	1949 (30.5%); 1967 (14.3%)
19 Yugoslavia	2	13	1961 (93.3%); 1965 (40.0%)
Less Developed Countries			
1 Ceylon	1	19	1967 (20.0%)
2 Cyprus	1	8	1967 (14.3%)
3 Ethiopia	1	22	1963 (0.6%)
4 Gambia	1	2	1967 (14.3%)
5 Ghana	1	12	1967 (30.0%)
6 Guyana	1	3	1967 (14.3%)
7 India	2	22	1949 (30.5%); 1966 (36.5%)
8 Iraq	1	22	1949 (30.5%)
9 Israel	1	7	1967 (14.3%)
10 Jamaica	1	6	1967 (14.3%)
11 Malawi	1	4	1967 (14.3%)
12 Mali	1	6	1967 (50.0%)
13 Mexico	2	22	1949 (43.9%); 1954 (30.8%)
14 Nepal	1	8	1967 (24.8%)
15 Pakistan	1	19	1955 (30.5%)
16 Philippines	1	13	1965 (48.7%)
17 Sierra Leone	1	7	1967 (14.3%)
18 Trinidad and Tobago	1	6	1967 (14.3%)
19 Tunisia	1	11	1964 (20.0%)
20 U. A. R.	2	15	1949 (30.5%); 1963 (19.9%)
39	58		

*Denotes appreciation.

SOURCE: International Monetary Fund, International Financial Statistics and Annual Reports on Exchange Restrictions.

value system, including the United Kingdom, devalued their currencies 30.5 per cent. These changes are reflected in the data shown for the subperiod 1946-57. In that period, all but 4 of the 24 total changes were in amounts of 20 per cent or more. As a result, the average amount of these 24 changes was 31.5 per cent. In the 1957-68 period, though, a majority of the devaluations were less than 20 per cent. These lower magnitudes reflect, of course, the devaluations of 1967, at which time 11 members of the IMF, including the United Kingdom, devalued their currencies by 14.3 per cent. Nonetheless, due to a substantial number of devaluations of 20 per cent or more, the average change for 1957-68 amounted to 23.3 per cent. Thus, for both periods, the average exchange rate adjustment was more than 20 per cent.

CONCLUSIONS

The principal results of the foregoing examination of the number, frequency, and magnitude of exchange rate adjustments made by countries operating under the par value system during the 1946-68 period can be summarized as follows. First, 58 rate adjustments were made by just 39 countries out of a possible 103 that were under the par value system during the period. Secondly, and in terms of frequency of adjustments, 43 out of the 58 changes were made by countries that were under the par value system at least 12 years or

longer, and 35 changes were made by countries under the system 18 years or longer. And finally, the average magnitude of the 58 changes was as much as 26 per cent, with the average change in the subperiods 1946-57 and 1957-68 being in excess of 20 per cent.

These results, it would seem, tend to support the view that exchange rate adjustments under the par value system have been relatively few and infrequent in number as well as large in magnitude. However, it should not be concluded from these results that the institutional provisions for rate adjustments contained in the present system are unduly rigid. The provisions of the present system, it should be pointed out, offer countries the opportunity to make rate adjustments when and if needed. Indeed, if these present provisions are liberally interpreted they would appear to offer more than adequate scope for countries to make modest and frequent changes in their exchange rates. Therefore, it is suggested that, if greater frequency in rate adjustments is to be obtained in the future, it need not be necessary to adopt some alternative exchange rate system. What will be required, though, is for governments to exhibit greater readiness and willingness to make more frequent and timely rate adjustments within the framework of the existing system. It may be that the attitudes of governments are now evolving in this direction as a result of the numerous currency crises of recent years.

U. S. Foreign Agricultural Trade in the 1970's: Growth or Contraction?

By Richard D. Rees

EXPANSION OF U. S. agricultural exports from the reduced levels of 1967 and 1968 is not likely in the near future. Exports of agricultural products from the United States declined in 1967 and 1968, interrupting the impressive growth trend that prevailed in other recent years. From 1958 through the record year of 1966, agricultural exports increased by more than three-fourths. What implication does the downturn hold for future trade? Can the reduced shipments, in fact, be termed "downturn" or are they merely a short pause in a continued expansion of agricultural shipments?

This article will focus on the prospect for U. S. agricultural trade in the decade of the

1970's. Agricultural exports, as well as imports, will be reviewed for recent years in order to give a more meaningful perspective to current levels of foreign trade. Trade data will be presented for the years starting with 1958—the year that marked the previous sharp decline in agricultural exports and set the stage for the sharp rate of farm export growth through 1966.

The article will look at the agricultural balance of trade and will point out its relative importance to the overall U. S. balance of trade and the balance of payments. Another section will stress the relation of exports to domestic farm income—particularly in the Tenth Federal Reserve District. Finally, factors influencing

Table 1
U. S. AGRICULTURAL EXPORTS, 1958-68
(Millions of Dollars)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968*
Animals and animal products	550	570	576	633	590	677	841	787	726	675	677
Cotton, excluding linters	656	445	980	875	528	577	682	486	432	465	460
Fruits and preparations	256	240	249	272	286	276	279	313	315	310	277
Grains and preparations	1,363	1,490	1,752	1,987	2,147	2,373	2,656	2,632	3,186	2,675	2,460
Oilseeds and products	413	572	594	566	725	816	1,001	1,157	1,229	1,245	1,270
Tobacco, unmanufactured	354	346	379	391	373	403	413	383	482	499	524
Vegetables and preparations	125	145	140	125	149	173	158	155	176	164	173
Other	138	147	162	175	236	289	318	316	335	347	388
Total Exports	3,855	3,955	4,832	5,024	5,034	5,584	6,348	6,229	6,881	6,380	6,228

*Preliminary.

SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture.

Table 2
U. S. AGRICULTURAL EXPORTS AND GOVERNMENT-FINANCED PROGRAMS, 1958-68
(Millions of Dollars)

Year	Public Law 480						Total Agricultural Exports			
	Sales for Foreign Currency	Long-Term Dollar and Convertible Foreign Currency Credit Sales	Donations for Disaster Relief and Economic Development	Voluntary Relief Agency Donations	Barter for Strategic Materials	Total Public Law 480	Mutual Security AID	Under Specified Government Programs	Outside Specified Government Programs*	All
1958	752	.....	43	159	65	1,019	214	1,233	2,622	3,855
1959	731	.....	32	111	175	1,049	158	1,207	2,748	3,955
1960	1,014	.....	49	124	117	1,304	157	1,461	3,371	4,832
1961	878	1	93	151	181	1,304	179	1,483	3,541	5,024
1962	1,007	42	81	178	137	1,445	35	1,480	3,554	5,034
1963	1,162	52	99	160	38	1,511	11	1,522	4,062	5,584
1964	1,232	97	62	186	35	1,612	23	1,635	4,713	6,348
1965	899	152	73	180	5	1,309	26	1,335	4,894	6,229
1966	815	239	79	132	41	1,306	47	1,353	5,528	6,881
1967	736	201	108	179	13	1,237	33	1,270	5,110	6,380
1968	539	384	101	150	3	1,177	5†	1,182	5,046	6,228

*"Total agricultural exports outside specified Government programs" (sales for dollars) include, in addition to unassisted commercial transactions, shipments of some commodities with governmental assistance in the form of: (1) barter shipments for overseas procurement for U. S. agencies; (2) extension of credit and credit guarantees for relatively short periods; (3) sales of Government-owned commodities at less than domestic market prices; and (4) export payments in cash or in kind.

†Includes shipments for January-June 1968 only.

SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture.

future trade levels and prospects for trade expansion in the coming decade will be discussed.

EXPORTS IN RETROSPECT

Starting with 1958, the United States exported a larger total dollar amount of agricultural goods each successive year until 1965, when lower exports of animals and animal products and cotton helped to drop the annual total slightly below the year-earlier level, as shown in Table 1. Strong grain exports boosted the 1966 total to an all-time record, only to be followed by two successive years of declines in 1967 and 1968. The closing of the Suez Canal in June 1967, record world grain production, lower grain prices, reduced Government program shipments (Table 2), currency devaluations, and the U. S. dock strike were principal factors contributing to the decline.

Since 1958, dollar volume of cotton exports has trended downward, while that of fruits,

vegetables, animals and animal products, and tobacco have trended upward by slight-to-moderate amounts. During the same time, shipments of grains almost doubled, while oilseeds tripled in dollar volume. The larger grain exports reflect increased food grain shipments as well as feed grain requirements for larger world livestock numbers.

During 1967 and 1968, when exports declined, the trends of most groupings were opposite those for the entire 1958-68 period. Most of the decreased level of U. S. agricultural exports since 1966 can be attributed to sharply lower dollar shipments of grains. This reflects lower prices and smaller world demand for U. S. grains, due to record world grain production. Feed grain shipments in 1968 were \$408 million less than in 1966, while wheat and flour shipments were down by \$433 million. Wheat exports alone were down \$403 million during the two years. Partly

offsetting during the period were larger shipments of milled rice, primarily as a result of higher prices. Exports of animals and animal products, fruits, and vegetables declined by small amounts in 1967 and 1968, while cotton, oilseeds, and tobacco increased modestly.

IMPORTS IN RETROSPECT

For the purposes of this article, agricultural imports will be referred to as either "competitive" or "noncompetitive." It is recognized that there is a certain degree of competitiveness between all products but that some compete directly with our domestic production, whereas others compete in an indirect manner. Competitive imports are those that are similar to, and are used for the same purposes as, our do-

mestically produced agricultural products. Included are many animal, cotton, fruit, grain, tobacco, and vegetable products. Noncompetitive imports basically do not compete with U. S. products, since they either are not produced in the United States or are produced in limited quantities. Examples include bananas, coffee, cocoa, rubber, tea, and carpet wool.

Competitive imports increased 57 per cent to \$3,042 million in 1968, primarily because of larger shipments of animals and animal products, fruits, sugar, and vegetables (Table 3). Smaller increases were noted for nuts, oilseeds, and tobacco. Cotton and grains declined during the period. Much of the increase in competitive imports is due to attractive U. S. prices and continued consumer demand for certain

Table 3
U. S. AGRICULTURAL IMPORTS, 1958-68
(Millions of Dollars)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968*
Competitive											
Animals and animal products	700	764	644	737	884	893	784	921	1,160	1,081	1,224
Cotton, excluding linters	26	20	23	31	25	24	21	18	18	28	15
Fruits and preparations	66	78	88	88	88	104	124	123	130	138	182
Grains and preparations	66	57	55	54	43	43	50	42	44	47	49
Nuts and preparations	62	67	69	62	60	68	72	75	82	77	111
Oilseeds and products	147	175	161	145	151	144	158	174	186	189	228
Sugar, cane	520	496	507	458	504	611	458	441	502	587	641
Tobacco, unmanufactured	96	100	115	114	101	99	110	130	127	129	142
Vegetables and preparations	74	71	80	78	83	91	104	114	144	166	178
Other	181	187	189	171	184	211	214	205	231	255	272
Total Competitive	1,938	2,015	1,918	1,938	2,128	2,292	2,096	2,246	2,627	2,697	3,042
Noncompetitive											
Bananas	69	77	79	77	77	82	127	162	179	174	182
Coffee	1,171	1,097	1,002	961	986	957	1,197	1,059	1,067	963	1,139
Cocoa, beans	172	165	143	160	132	135	131	120	122	147	136
Rubber, crude natural	248	383	322	216	228	197	201	182	177	170	188
Tea	48	52	56	54	60	58	60	57	57	58	61
Wool, carpet	80	123	112	108	89	115	90	71	72	38	48
Other	155	186	190	174	165	175	177	187	188	205	232
Total Noncompetitive	1,943	2,083	1,906	1,753	1,740	1,719	1,986	1,840	1,864	1,755	1,986
Total Imports	3,881	4,098	3,824	3,691	3,868	4,011	4,082	4,086	4,491	4,452	5,028

*Preliminary.

SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture.

products during the domestic off-production season.

Imports of noncompetitive products increased only slightly since 1958. All of the increase came from bananas, tea, and "other," while imports of coffee, cocoa, rubber, and carpet wool declined in dollar volume. Relative to total imports, noncompetitive imports declined from 50 per cent in 1958 to about 39 per cent in 1968.

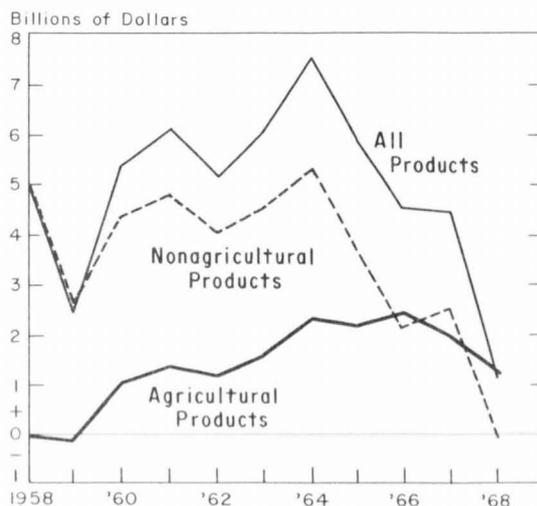
Total imports reached \$5,028 million in 1968—up 30 per cent since 1958. Three commodity groups—animals and animal products, sugar, and coffee—accounted for a major share of total imports. The three comprised about 60 per cent of total imports in 1958 and 1968.

BALANCE OF TRADE

There has been considerable interest in the impact of international trade in agricultural products on the U. S. balance of trade. The nonagricultural balance of trade fluctuated at high surplus figures from 1958 to 1964—peaking at \$5,290 million in that year. The surplus declined sharply after 1964 and was at a deficit of \$61 million in 1968 (Chart 1). With the influence of an agricultural trade surplus during those years, the overall balance of trade was able to maintain a relatively favorable position, although it suffered a severe reduction. Agriculture's balance of trade has been favorable since 1960, although reduced exports in 1967 and 1968, together with sharply higher imports in 1968, adversely affected the amount of surplus.

Early in World War II, agriculture established a surplus trade balance as a result of the Lend-Lease Program. The Marshall Plan and other programs continued to expand agricultural trade after the war so that agriculture maintained a trade surplus from 1943 through 1949, with a high surplus of \$1,197 million in 1947. For most years during the 1950's, carryover stocks were at relatively low levels,

Chart 1
U. S. BALANCE OF TRADE, 1958-68



SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture.

resulting in little export expansion. With sharply higher imports during the decade, agriculture's balance of trade showed a deficit for every year from 1950 through 1959, except for 1956 and 1957—the two largest export years in the decade. During the 1960's, abundant supplies of agricultural goods again resulted in expansion of exports which was reflected in the trade surpluses mentioned earlier. Factors that will be discussed in detail later do not favor a dramatic improvement in the trade balance in the near future.

BALANCE OF PAYMENTS

In order to determine agriculture's net contribution to the U. S. balance of payments, it is necessary to adjust the trade data so as to remove shipments under Government programs. This is done in Table 4 by adding certain realized dollar returns and savings on noncommercial agricultural exports to the annual "dollar" exports. In effect, it deducts non-commercial exports from the total export data. The result is total agricultural dollar earnings and reflects the contribution of agriculture, on

Table 4
AGRICULTURE'S CONTRIBUTION TO THE U. S. BALANCE OF PAYMENTS, 1960-68
(Millions of Dollars)

	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
Commercial agricultural exports	3,371	3,541	3,554	4,062	4,713	4,894	5,528	5,110	5,046
Plus: Realized dollar returns and savings on noncommercial agricultural exports									
Title I, Public Law 480, foreign currencies used by U. S. agencies	118	148	156	160	223	183	132	225	183
Title I, Public Law 480, principal and interest repayments on dollar credit sales	*	*	*	2	5	27	39	60	43
Mutual Security (AID) foreign currencies used by U. S. agencies	16	15	2	1	*	2	*	*	*
Export-Import Bank principal and interest dollar repayments	33	31	29	8	*	*	*	47	68
Total agricultural dollar earnings, actual plus realized dollar returns on noncommercial exports	3,538	3,735	3,741	4,233	4,941	5,106	5,699	5,442	5,340
Less: Agricultural imports	3,824	3,691	3,868	4,011	4,082	4,086	4,491	4,452	5,028
Net contribution to the U. S. balance of payments attributable to agricultural commercial trade	-286	44	-127	222	859	1,020	1,208	990	312

*Less than \$500,000.

SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture, and Foreign Gold and Exchange Reserves, U. S. Department of Agriculture.

the export side, to the balance of payments. After subtracting agricultural imports for each year, it can be seen that agriculture has had a positive net influence on the U. S. balance of payments each year in the 1960's, except for 1960 and 1962.

IMPORTANCE OF AGRICULTURAL EXPORTS

One measure of the importance of exports to the U. S. farmer is to express agricultural exports as a percentage of farm income. In this analysis, cash receipts from farm marketings will be used to indicate farm income, since cash receipts comprise a major proportion of farm income and such data are available by states. Table 5 summarizes the valuation of export shares by commodity and cash farm marketings by Tenth Federal Reserve District states.

The state export shares are the result of a study done by the Foreign Development and Trade Division, Economic Research Service, U. S. Department of Agriculture. Since it is difficult to precisely record the ultimate destination of the entire production of a given state, some means of estimation is needed. The export shares were derived by expressing a particular state's contribution to the total output of the Nation on the basis of production or sales data. This percentage was then applied to the export valuation by commodity to obtain the export shares by states shown in the table. The valuation is based on the official value at the port of exportation, including freight, insurance, and other charges to the port.

A significant portion of Tenth Federal Reserve District farm income is dependent on

Table 5
VALUE OF AGRICULTURAL EXPORTS
Fiscal Year 1968
(Millions of Dollars)

	Colo.	Kans.	Mo.*	Nebr.	N. Mex.*	Okla.*	Wyo.	Tenth District States	United States	Tenth District as Per Cent of U. S.
Wheat	31.0	177.6	42.9	70.3	2.4	71.6	6.0	401.8	1,192.5	33.7
Wheat flour	.....	11.6	7.5	2.5	.....	2.4	.....	24.0	85.0	28.2
Rice	.....	.....	1.0	.....	.....	.....	.....	1.0	339.2	.3
Feed grains	9.5	49.1	27.0	88.9	5.5	6.2	.3	186.5	1,000.3	18.6
Cotton	.....	.....	3.8	.....	10.0	12.3	.....	26.1	474.8	5.5
Soybeans	.....	14.3	57.1	13.5	.....	3.0	.....	87.9	750.7	11.7
Tobacco	.....	.....	.3	.....	.....	.....	.....	.3	493.6	.....
Fruits	.5	.3	.5	.....	.....	.....	.....	1.3	287.4	.4
Vegetables	3.4	.2	.3	.8	1.2	.3	.5	6.7	169.2	4.0
Dairy products	.1	2.0	2.2	1.7	.....	.8	.....	6.8	115.7	5.9
Meats and products	3.4	4.2	4.3	9.0	.5	1.3	.1	22.8	104.4	21.8
Hides and skins	4.3	4.6	4.3	9.9	.8	1.6	.1	25.6	111.3	23.0
Poultry products	.3	.1	1.6	.1	.....	.2	.....	2.3	58.7	3.9
Lard and tallow	4.8	6.0	6.0	12.7	.9	1.7	.1	32.2	143.9	22.4
Nuts	.....	.....	.....	.....	.2	3.4	.....	3.6	40.6	8.9
Other	5.5	26.0	15.3	20.1	2.0	10.1	.7	79.7	947.8	8.4
Total	62.8	296.0	174.1	229.5	23.5	114.9	7.8	908.6	6,315.1	14.4
Cash receipts from farm marketings	902	1,510	1,313	1,694	318	823	201	6,761	42,814	15.8
Exports as per cent of cash receipts	7.0	19.6	13.2	13.5	7.4	14.0	3.9	13.4	14.8	.....

*Entire state not included in Tenth Federal Reserve District.

SOURCE: Foreign Agricultural Trade of the United States, U. S. Department of Agriculture.

agricultural exports. In fiscal 1968, 14.4 per cent of U. S. farm exports were produced in the District. These exports represented 13.4 per cent of Tenth District cash farm marketings. On a commodity basis, about a third of wheat and flour exports came from the Tenth District—Kansas alone produced about 15 per cent of the wheat exported. Other important export commodities produced in the Tenth District were feed grains, soybeans, meats and products, hides and skins, and lard and tallow.

Kansas ranked sixth in export share rankings of the 50 states—Nebraska, Missouri, and Oklahoma ranked 9, 12, and 18, respectively.

Colorado tied with New York for 29, New Mexico ranked 36, and Wyoming 42. The top five states in the Nation ranged from Illinois with exports of \$585 million to North Carolina with \$366 million; and also included Texas, California, and Iowa in order.

FACTORS INFLUENCING FUTURE TRADE

Projection of foreign trade into the future is a hazardous task. However, factors that can affect the level of trade in coming years provide some insight. Many of the conditions that brought about the export reduction since 1966

still exist and will continue to exert an influence in the near future. In addition, new situations are constantly arising that must be considered as they become evident. Future agricultural trade will be affected by expansive as well as contractive factors. Factors on both sides will be discussed in evaluating the prospects for trade in the 1970's.

Expansive Factors

Possible expansive factors include world economic growth, population growth, marketing efforts, and price competitiveness. For many years, world economic growth has been a primary concern of U. S. foreign policy. The United States shipped huge quantities of food to developing countries under various aid programs. Not only did these shipments help feed the population and provide markets for our surplus products, they provided an economic base within the country from which economic growth could be stimulated. In recent years, the emphasis has been shifted to encouragement of more production in the developing country. It is believed, however, with economic growth and the comparative advantage of many of the resources in the United States for producing certain kinds of agricultural products, that foreign markets for our farm goods can be expanded. Economic expansion in industrialized countries such as Japan and countries of Western Europe bodes well for U. S. farm exports. Japan, formerly a recipient of large U. S. aid shipments, is now our largest cash customer and is a prime example of benefits derived from efforts to promote economic growth and permit nations to enjoy the benefits of geographical specialization.

Expected increases in world population still represent an important stimulus to foreign trade. It has been estimated that world population will double by the year 2000 and that world food supplies must increase sharply to adequately feed the masses. Recently, developing countries have been growing in population

by 2 to 3 per cent per year, while their food production per capita has been increasing at only a fraction of that level. During the next decade, population growth will be promoted by improved health practices and better diets—leading to a declining death rate. In some developing countries, this will be offset to a certain extent by government programs encouraging family planning. Such programs take time, and farm commodity shipments will continue to be necessary to adequately feed the people.

Extensive marketing efforts throughout the world are being conducted by the U. S. Department of Agriculture in conjunction with private industry and various trade groups as a means of competing with other supplier nations. Marketing teams have been assisting importing countries by means of product research, trade fairs, exhibits, product promotions, market surveys, seminars, trade missions to the United States, advertising, educational surveys, public demonstrations, and product-acceptance efforts. These activities encompass practically all U. S. agricultural products that move in foreign trade channels and is indicative of the effort undertaken to promote our agricultural exports.

Price competitiveness will have a direct bearing on the level of our exports in the coming decade. For example, since the International Grains Arrangements (IGA) became effective on July 1, 1968, some of the major wheat exporting nations have been selling wheat for less than the approved minimum of \$1.73 per bushel. As a result, the United States had been priced out of some markets and placed in an unfavorable competitive position. After recent meetings of the IGA ministerial nations, the United States announced reductions in the export price of wheat in response to the existing distortions in the world market. Also, the European Economic Community (EEC) announced the termination of subsidized French wheat exports to the Far East at levels sharply below IGA price minimums. If competitive price relation-

ships can be restored and maintained, U. S. wheat exports could benefit.

Contractive Factors

World production of agricultural products has increased significantly in this decade; although on a production-per-capita basis the increase has been less pronounced. World grain production in the next decade will benefit greatly from new wheat and rice varieties. Wheat varieties developed in Mexico through efforts of the Rockefeller Foundation have proved readily adaptable in diet-deficit Asian countries such as India and Pakistan. A bright future is also predicted for Asian production from new rice varieties developed by the International Rice Institute—established by the Ford and Rockefeller Foundations—in the Philippines. Though additional plant breeding may be required to improve consumer acceptance and to reduce possible susceptibility to local insect and disease damage, the new technology will help alleviate hunger throughout much of the world. This increased production will compete with our wheat exports. Continued shipments will be needed for some time, however, as the Asian nations build up ample grain reserves. Also, if the economies of the less-developed nations can be improved, demand for farm products could expand more rapidly than their ability to expand domestic production.

Another possible factor affecting trade in the 1970's will be domestic labor disputes such as the longshoremen's strike that disrupted export shipments from late 1968 through the first quarter of 1969. The strike covered dock workers at Atlantic and Gulf ports. Atlantic coast operations were resumed in late February 1969, while Gulf port strikes were settled a month later. The effect of these strikes will be evident in lower shipment totals for this year. It could affect shipments in future years, since some importing countries have lost confidence in the dependability of the United States as a supplier.

Trade policies of importing nations will have an important effect on future export levels. For instance, Japan recognized a deterioration in its balance of trade and, in 1967, sought to help correct this by diversifying the sources of its agricultural imports. By diversifying its supply, Japan also intends to gain additional markets for Japanese industrial products and to provide some economic assistance to developing countries. To accomplish these goals, the Japanese Government is joining with private firms in an effort to encourage agricultural production in the Far and Near East, Africa, and South America. Part of the additional production will be available for importing by Japan and will, thus, increase the competition to U. S. production for the important Japanese market.

Protectionism is one other factor that can severely restrict U. S. exports in the future. Any policy that tends to protect a group of buyers or sellers from competitive pressures and thus inhibit freely moving trade is considered protectionism. International trade is based on the proposition that nations will trade those commodities for which they enjoy a comparative production advantage. Protectionism seeks to overlook this basic idea by protecting sectors that operate without a production advantage. Much has been written recently about the disadvantages of protectionism; yet, pressures for protection continue to prevail throughout the world. For instance, the EEC is considering an internal consumption tax to be levied on all U. S. soybean oil and meal entering member countries. The proposed tax of \$60 per metric ton for oil and \$30 per metric ton for meal would also directly affect shipments of raw soybeans, since it is an internal consumption tax. Last year, the United States shipped beans, oil, and meal valued at \$1.16 billion—nearly 40 per cent of this going to the EEC. This is just one form of protection. Others include tariffs, duties, quotas, subsidies, inspection policies, and health regulations. Needless to say, the EEC is not the

only group of countries guilty of enacting trade restriction measures. Historically, the United States has imposed strong restrictive measures; though we have worked at lowering the barriers since the passage of the U. S. Reciprocal Trade Agreements Act of 1934. At the end of World War II, the General Agreement of Tariffs and Trade (GATT) was formed by 23 countries—with the purpose of restoring war-torn world commerce by setting up basic rules for international trade policy and negotiations. The U. S. Trade Expansion Act of 1964 and the Kennedy Round negotiating sessions of GATT ending in 1967 continued the task of reducing world trade restrictions.

CONCLUSION

With the above factors in mind, what is the prospect for agricultural trade in the 1970's? During the next several years, the United States will be hard-pressed to maintain exports at or near current levels. The current protectionist mood, fewer funds for aid shipments, and increased world production make expansion difficult in the short run. Later in the de-

cade, as nations continue to develop, exports likely will again trend upward. More economic growth, larger populations, possible unfavorable weather conditions—causing reduced world production—and trade negotiations could again stimulate larger U. S. agricultural shipments. The potential for growth in the next decade is excellent. Many nations are likely to make significant gains in their economic growth during the next decade, and, if the experience with Japan is duplicated, the demand for additional agricultural exports should be bright for the latter part of the 1970's.

Imports of agricultural commodities likely will continue the moderate uptrend of recent years into the next decade. Barring a change in import policy, it is anticipated that most of any increase in imports will be centered in the competitive products. If U. S. prices remain favorable to the producer, it will serve as a stimulus especially to competitive imports. Noncompetitive imports are likely to be steady to slightly upward during the decade, with minor fluctuations from year to year.