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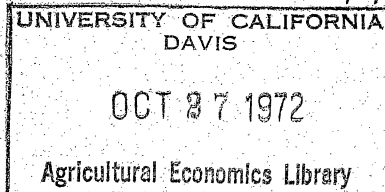
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WORLD TRADE PROSPECTS FOR U.S. AGRICULTURE

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Since the 1930s when the United States embarked upon a course of promoting free trade, U.S. and world agricultural trade has greatly expanded with successive reductions of tariffs via negotiations. Advancing through the 1970s, we still have tariffs but these are not the major trade constraints. Today, non-tariff barriers are the chief inhibitors to world trade.

With this new awareness which the President dramatized in his August, 1971, New Economic Policy announcement, the world has now set upon a new course of negotiations aimed at solving highly complex monetary and trade problems. These result from a decade of rapid economic growth, emergence of domestic and international trade policies of individual countries, and recently established trade blocs which conflict with free trade goals.

*Dr. West, Administrator of USDA's ^{US} Economic Research Service, presented this paper at the 1972 Annual Meeting of the American Agricultural Economics Association, Gainesville, Florida, August 21, 1972.

The author appreciates the assistance of Anthony S. Rojko, Arthur B. Mackie and James R. Sayre, Economic Research Service.

An irony of agricultural modernization of the post-World War II era has been that, while we increased incomes and productivity, we also erected non-tariff barriers which restricted international movement of the benefits of this new productivity. In the pursuit of increased farm incomes, various income and price support programs were instituted in developed nations to deal with imbalances created by rising productivity. To realize the full domestic benefits of these programs, countries or blocs of countries instituted export subsidies, variable levies and imports quotas, and other non-tariff devices. While such programs contributed to improved farm income, they also became barriers to the free flow of goods among nations.

Much progress in eliminating trade barriers has been made. While many tariff problems remain, the difficult problems as we enter further GATT negotiations will be those involving non-tariff barriers. This arises because it necessarily involves negotiations on domestic issues in the international arena. For instance, to what extent can domestic price support programs which can restrict trade be brought into international talks?

An emerging and vital economic research area lies in identifying those domestic policies which will achieve critical national objectives while minimizing undesirable effects on trade. Nations committed to unhindered trade must have clear economic options so that the policies they adopt will not

conflict with their world trade intentions.

Historical Trends in U.S. Farm Trade

Few U.S. agricultural issues are as meaningful to the American farmers' pocketbooks as those relating to world trade. The Agricultural Act of 1970 is predicated on a growing market including a growing export market. Secretary Butz' landmark journey to Moscow was a practical visit of a farm salesman who understood what increased grain sales could mean to our economy. Too, trade was an important area of discussion later in U.S.-Soviet Summit talks. The July \$750 million grain sale to Russia capped these events.

While declining in overall percentage terms, U.S. farm exports are at an all-time high. One of almost every \$7 of our farm cash receipts comes from foreign markets. Not even the dramatic events affecting our farm trade in 1971--improved grain crops around the world and the port strikes--prevented us in fiscal 1972 from reaching a record of \$8 billion in exports. Some predict \$10 billion in exports possibly by or before 1980. Later, we will explore the conditions underwhich this could happen.

The favorable U.S. agricultural trade balance--about \$1.9 billion in 1971--takes on special significance in helping to overcome the \$3.9 billion trade deficit in nonagricultural goods that same year.

Patterns of Trade (5)

Events of the post-WW II years have generated significant shifts in world agricultural trade patterns:

*Rapid economic growth in developed regions has spurred demand for food producing imports such as feed grains and other livestock feeds. This contrasts sharply with the heavy import emphasis on agricultural raw materials such as cotton, wool, jute, hard fibers, and rubber which characterized the 1920s and 1930s (fig. 1).

*This demand shift has altered trade patterns between nations and has revised export prospects for particular commodities and nations.

*And, the real phenomenon in this period has been the advent of trading blocs, most especially the EC.

Nations with established productivity, trading expertise, facilities, and opportunities are better able to adjust to recently changing trade conditions. Others, especially developing nations, are hampered by a lack of export experience, low productivity, slow economic growth, and other factors which stymie adjustments.

Influenced by these conditions, much world trade in farm

products is among developed nations--recently about 55 percent of the exports and 71 percent of the imports. Trade is one-directional, from major exporters (United States, Canada, Australia, and New Zealand) to major importers, mostly Western Europe and Japan. The United States, largest single farm exporter, accounts for a sixth of the world's farm exports while the EC is the largest importer--about a third of the total.

The developing nations' (excluding Israel and Argentina) participation in world farm trade is slackening. While agricultural exports by developing nations rose from \$13.5 billion in 1955 to \$16.5 billion in 1969, their world share fell from 45 to 33 percent. Reasons are several-fold:

*As pointed out earlier, there is a shift in overall farm trade from agricultural raw materials, largely products of low-income tropical agriculture to food and feed.

*For tropical exports--cocoa, coffee, tea, bananas--demand growth does little more than parallel population growth in importing nations. Too, productivity has generated intense competition among developing nations, exerting downward pressure on prices.

*Developing nations are largely excluded from the growing beef market in developed nations which have raised barriers on the grounds of protectionism and

quite legitimate problems such as animal disease.

Moreover, the related world feed grains market has limited opportunity for developing nations because of low productivity.

*Developing nations have been too preoccupied with feeding burgeoning populations to be effective in export markets.

The trend for developing nations is to buy less from one another and more from the developed world. They supplied 49 percent of their own farm imports just 15 years ago. Some 46 percent came from developed nations and 5 percent from Communist nations (Eastern Europe, USSR, Mainland China). By the late 1960s, they bought from each other only 34 percent of their farm imports; some 56 percent from developed nations, and 10 percent from Communist nations.

The emerging trade pattern of the centrally-planned nations is similar--intra-trade has grown slowly while trade with other regions has increased rapidly, most especially with the developing nations. The developing world's share of Communist imports rose from 12 to 32 percent since 1955. Communist nations have also increased imports from developed nations.

Developed nations have most readily adjusted to new world market demands--specifically the rapid growth in food and feed

trade. These increased about \$17 billion from 1955 to 1969 while nonfood farm raw materials climbed only \$2.5 billion. While U.S. food aid shipments were significant, much of the sharp increase has been in feed grains, oilcake and meal, soybeans, and other feeds. In the early 1960s, about 24 percent of U.S. farm exports was feeds and feed grains; this climbed to 40 percent by 1970. Japan and the EC, accelerating livestock production, were chief customers.

The EC and Japan have had a more rapid growth in imports of feed and feedstuffs than of foods and agricultural raw materials. While EC food imports rose 8 percent annually during the 1960s, yearly feed imports climbed nearly 10 percent. Japan's feed imports in the same period raced upward about 19 percent a year while food imports lagged at about 11 percent.

These shifting trade patterns have been summarized by Mackie (5). These shifts have: 1) increased the developed countries' market share in all three economic regions; 2) decreased the developing nations' market share in the developed countries; 3) made the developing nations more dependent upon agricultural products of the developed countries; 4) increased the dependency of the central plan countries upon world supplies of farm products; and 5) effected a substitution in world markets of developed countries farm products for those from the developing nations.

Major Issues Affecting U.S. and World Trade

New rules affecting monetary and trade flows between countries will, no doubt, be the overriding issues affecting trade and its expansion. Groundwork for negotiating both new monetary and trade rules is now being laid. An important issue to be resolved before negotiation can begin is the question of tying trade negotiations to the development of a new monetary system.

Resolution of this question may well determine the success in dealing with the major trade policy issues in the 1970s-- non-tariff barriers. Any new monetary system designed to restore equilibrium in the capital markets cannot be successful if trade policies are used to distort the exchange system, the competitive position of various producers and, thus, the long-term trade flow of goods and services, which set up conditions for disequilibrium.

In short, the old rules governing monetary and trade systems of the post-war years, which created the disequilibrium of the 1960s, must now be replaced with an integrated monetary and trade system that will restore international equilibrium and the necessary conditions for continued long-term economic growth of the United States and, indeed, the world.

The recent rise in protectionism and policies to reduce import competition represent major trade issues ripe for

negotiation. Results will influence future growth and expansion of U.S. and world farm trade.

Tariffs and Quotas

After six GATT rounds of tariff reductions, the inhibiting effect of customs duties on trade has been greatly diminished. Their continued presence is still a problem but not a major threat to free trade.

Non-Tariff Barriers (6)

Some important economic policies constituting non-tariff barriers are: domestic support programs, export subsidies, domestic consumption restrictions, and preferential trade agreements.

Domestic price and income supports. Programs and policies have been instituted in the United States, Western Europe, and Japan to assist farmers to survive in a more commercially-oriented society. These programs generally have been designed more to support farm incomes by supporting commodity prices than in stimulating rural employment or outmigration. Most obvious results of these programs have not been their success in raising farm incomes but in creating surplus production (3). Surplus production has led to increased protective trade policies and subsidies to protect the domestic production programs. The reverse is also true. Net result has been to divert trade between countries and cover up true competitive relationships.

The most outstanding example of trade-diverting effects of such policies in the 1970's has been the development of the Common Agricultural Policy (CAP) in the Economic Community. The major issue regarding agricultural protectionism has been the effects of the CAP variable import levies in slowing imports of grains, fruits, and other U.S. commodities while stimulating increases in domestic production of these products for farm income support purposes with prices above world levels (2).

Income and price support programs of developed nations should be harmonized to reduce their impact upon long-term expansion.

Export subsidies. Export subsidies are used to help rid developed countries of unwanted products resulting from domestic prices being supported above their equilibrium levels.

Current farm programs of developed nations have resulted in excess production capacity (3). Resources now engaged in agriculture are capable of producing more than can be disposed of at prices that would yield comparable returns to resources used elsewhere. As result, governments of industrialized nations have had to engage in trade policies involving export subsidies as high as 300 percent of export prices. In many cases these

efforts have been more costly than successful in expanding individual country exports (4).

Domestic consumption restrictions. Most European countries (including the USSR and Eastern Europe) significantly restrict consumption of many foods through higher prices (4). There are other programs such as internal taxes and government procurement and distribution practices that restrain imports and insure higher consumer prices.

Preferential trade. Proliferation of trade preferences by major trading blocs is a major threat to free trade by systematically granting concessions of access in each other's markets. This is an attempt to extend free trade benefits enjoyed by bloc members to an enlarged world group while systematically discriminating against trade with all other countries.

Prospects For U.S. Farm Exports

President Nixon has called for an annual \$10 billion level of agricultural exports. He did not announce a target date. At least two crucial questions are appropriate: Is the target feasible? When will it be reached?

All forecasts and projections depend on expectations. Some such as average weather cannot be controlled. Others concerning policies and economic relationships have meaning only to the extent they appear feasible. These must be

considered when discussing the \$10 billion figure.

The level of exports is the result of a combination of many factors. While exports for a single commodity in a region may vary considerably because of weather, wars, and other special circumstances, the aggregate world values show a steady yearly growth. This trade has grown around \$1.5 billion a year (fig. 2). Figure 2 also shows growth in value of U.S. farm exports and what is happening to the U.S. share of world farm trade.

If current trends continue, world farm trade could increase to \$55 billion by 1980. If we assume the U.S. share will be 17 percent--the average of the last 2 years--value of U.S. exports could reach \$9.3 billion by 1980. The same procedure would give \$10 billion by 1984. The \$10 billion figure could also be reached by 1980 if our share increased to 18 percent. For most of the past 15 years, the U.S. share has been in the range of 16 to 18 percent. Our share was growing to the mid-1960s but has been somewhat erratic since and possibly declining.

Projecting the trend of U.S. exports directly would give a \$9.5 billion export level by 1980. ERS has a continuing program for making projections with periodic reappraisals of the total export picture. The last complete set of projections to 1980, both domestic and foreign, was made 2 years ago. We are evaluating these projections and extending them to 1985 and,

for some purposes, beyond. Today, I will discuss our 1980 projections.

In July 1970, Culver and Chai published projections to 1980 on U.S. production, consumption, and exports (1). In this approach, individual commodity projections were aggregated and then reconciled into a unified total picture. Their projected exports were based on these assumptions: 1) current world farm trade policies will continue; 2) no major crop failures; 3) continuation of present food and fiber policies designed for productivity gains will result in a substantial increase in food grain supplies especially in developing countries; and 4) world capacity to produce food and fiber is expected to exceed demand in 1980 at recently prevailing price levels.

These projections indicated farm exports at a little over \$9 billion. The Culver-Chai grain export figure was probably high while the soybean figure underestimated growth in the past 2 or 3 years.

During this same period, ERS published a series of demand prospect studies (7). It included wheat, coarse grains, rice, cotton, and oilseeds. These studies present several alternative projection sets to 1980 for major world regions. The basic set, Set I, might be described as a moderately successful "green revolution." It assumed a continuation of present food and fiber policies in the developing countries and allowed for

moderate gains in productivity consistent with some improvements in technology. Another alternative, Set II, could be termed an accelerated "green revolution." It assumed that a higher rate of agricultural productivity and economic growth would prevail in the low income nations.

Rates of economic growth and agricultural productivity in the developed and central plan areas remain the same under both alternatives. Their current food and fiber policies are assumed to continue. However, continuing policies for the developed exporters include a flexible production, storage, and export policy leading to relatively stable world grain prices.

Specifically, the United States and other developed exporters would reduce exports, if necessary, to avoid precipitous price declines. The study also explored the impact on world price if the United States were to carry out a policy of maintaining the same market share in the face of accelerated growth in the developing world under a subset of Set II.

Value of U.S. exports of grain, oilseeds, and cotton under the Set I assumption of moderate growth in the developing world and continuing stable price and trade policies in the developed world amounted to \$5.6 billion in 1980. This was an increase of \$1.3 billion over their level of \$4.3 billion in the mid-1960s and \$0.9 billion over the level of \$4.7 billion in 1970. These projected increases under Set I are comparable for each commodity

as projected by Culver and Chai. This demand prospects study also underestimated the demand growth for soybean exports.

In our current projections, we give more emphasis to measuring the impact on trade of changes in national policies (non-tariff barriers). We recognize need for further developing the basic economic relationships to adequately test this impact. However, we are attempting to measure these economic relationships within the constraints of national policies.

We will discuss some of our preliminary work in this area by exploring three sets of conditions: 1) export conditions which would contribute to zero growth; 2) those which would contribute to moderate growth; and 3) those conditions which would contribute to significantly accelerate our farm exports.

Zero Growth in Exports

To put into perspective the full impact of non-tariff barriers on trade, we have made some tentative projections which describe the trade patterns in a world where the major countries achieve increased levels of self-sufficiency through domestic price and income support policies. In the real world, countries fall short of these objectives as trade levels in any year must adjust and interact with policies of other countries. In some ways this set of projections can be looked upon as a possible minimum level of exports that would accrue to the United States. Another view would be that the United States was basically a

residual supplier in a world trade environment characterized by increasing protectionism.

This minimum level would be consistent with the following set of pessimistic assumptions: 1) the enlarged EC would be essentially self-sufficient for grains; 2) the expected market for USSR and Eastern Europe did not materialize and this group would be a net exporter of grains; 3) there would be very little growth in the livestock economies in the developing countries; 4) the "green revolution" in the developing countries would proceed at an accelerated growth; and 5) our PL 480 commitments would remain at a relatively low level. Given these assumptions, total U.S. farm exports would have difficulty expanding much, if at all, above \$8 billion.

This figure certainly appears contradictory to the expectations based on recent experience. Yet, this is the conclusion one can obtain from direct aggregation of results from several studies. For example, a recent Michigan State study on the impact on U.S. agricultural trade of the accession of the United Kingdom, Ireland, Denmark, and Norway to the EC indicates that the enlarged EC could be close to self-sufficiency in 1980 for grains and would have a dairy surplus (2). A recent ERS study states that Eastern Europe and USSR combined could be a net exporter of total grains in 1980 (8). Other country studies indicate that an accelerated "green revolution" is feasible and

that the cereals picture in the developing world could lead to surpluses, particularly if population is reasonably controlled.

How quickly the livestock enterprise might evolve in the developing countries is uncertain. In particular, because of slow income growth, their policy might be to fortify cereals rather than correct the protein deficiency through increased livestock consumption. Such a policy would slow considerably the growth in the livestock enterprise and would postpone the potential U.S. export market for feed grains which might result from livestock enterprises in low-income nations.

Some Growth in Exports

Despite immobility in basic domestic income and price support policies, the outlook for the 1970s is not that pessimistic. Even with no major changes in non-tariff barriers, we expect continued growth in world farm trade and that the U.S. share will continue. This growth can come about through a modification of some or all of the assumptions associated with the \$8 billion export figure. For example, the enlarged EC might continue to import grain at higher levels than suggested by the MSU study. In spite of rising prices, per capita meat consumption continues to grow in the EC and may grow more rapidly than anticipated in the MSU study. In addition, inflation could be an appreciable factor.

The USSR might find it feasible to continue to import feed grains or

possibly supplements to improve feeding efficiency, particularly if favorable trade terms are offered. The recent USSR agreement to buy \$750 million worth of grain over a 3-year period is an example. In fact, because of bad weather in Russia/U.S. grain and soybean sales could be around \$1 billion this year alone. If such conditions continue, they could have an important impact on the 1980 export level. Even if the developed import markets expand slowly, it is likely that developing nations will make a substantial effort to build up livestock economies. This could impact heavily on developed nations with a growing surplus of grain. Of course, this would require special concessional programs that could be called "feed for development" programs to replace "food for development" programs. In such a setting, even with no basic changes in national agricultural policies (non-tariff barriers), U.S. farm exports would easily exceed \$9 billion and could reach \$10 billion before 1980 if all these factors were favorable.

Expanded Growth in Exports

We might expect a new set of export conditions if negotiations to reduce non-tariff barriers were successful. With the lowering of these barriers, we can see that exports of commodities in which we have a competitive advantage would rise significantly. But, we are also aware that gains in exports would be partially offset by added imports of commodities in which we have less competitive advantage. In addition, our exports of some

commodities would fall. Moreover, while there is little question that the total U.S. community would gain from totally free trade, we are unsure of the extent to which each segment of the agricultural sector will share in these benefits.

First, let's take a look at a commodity group in which we have a competitive advantage--the grain-livestock sector. Our preliminary analyses indicate that substantial gains in U.S. feed grain exports could be expected. This would result from increased demand for meat and livestock products as a result of lower prices in developed importing countries and from a reduction in feed grain production in Western Europe from levels that would have prevailed under current high grain prices. The increased world demand for meat would tend to reduce the pressure of beef imports into the United States. However, although the United States might find it profitable to export some fed beef, it would essentially still remain a net importer of grass fed beef. Preliminary research indicates that we could realize gains up to \$4 billion in exports of feed grains and soybeans.

But trade is a two-way street. Opening the export market for feed grains might only be possible if we were to open our market for beef and dairy products. This could result in an increased import cost that could be as high as a billion dollars coming mostly from larger dairy product imports, thus reducing the net gain in export earnings. However, this net cost might be

lowered by some gains in export earnings from beef for the reasons indicated above.

Generally speaking for the livestock-feed complex, removal of non-tariff barriers would tend to raise prices for beef, dairy products, and feeds in exporting countries and lower prices to consumers in importing countries. The United States, because of its technical know-how and ability to adjust production upward because of reserve acres, would gain more than other nations during the 5- or 10-year transition period to free trade. The livestock commodity group would also tend to gain from increased income induced through free trade. In the longer run, we should expect to lose some of the technology advantage to developing areas, thus mitigating some of our gains.

But, we cannot very well limit negotiations to only those areas in which we stand to gain the most. Negotiations may result in similar non-tariff removals from commodities for which may even lose benefits in a free trade situation. Fruit and vegetable imports, for example, might increase substantially. What about sugar, tobacco, cotton, and textiles? We need to expand our research interest and action to evaluate the impact of negotiations on such commodities.

Finally, we need to translate the trade gains and losses commodity by commodity into farm income, program costs, and costs to the U.S. consumer. Only by looking at the total

picture can net benefits be evaluated.

While the U.S. agricultural sector might gain in some commodities in the long run in a completely borderless world economy, problems of agricultural adjustment associated with economic growth will still be with us. This is contrary to the implied belief that eliminating non-tariff barriers would eliminate these problems. The nature of demand for agricultural products and the adjustments needed because of varying growth rates in production and demand would still continue but at a world level. If the United States, even with all the advantages of free trade within its border, has not been able to solve these problems, should we expect the "one" world to do so on a larger scale?

Export Promotion

This paper has been addressed to only one side of export picture, the world agricultural trade environment. The other side is the importance of export markets to the U.S. agricultural economy and our determination to keep them expanding. The commitment of \$1.0 billion to export/promotion programs is evidence that the U.S. will not be satisfied with anything less than the expanded growth course.

* * * * *

Summary

I do not subscribe to the various theories that, when amalgamated, give a set of conditions which limit us to our current \$8 billion level of exports. Under favorable conditions, I think we can reasonably expect to reach the \$10 billion level by or before 1980. I have implied that even higher levels would be reached through negotiation. But, if the negotiation process is to be successful, we agricultural economists will have to provide negotiators valid analyses so that they can determine realistically the impact of their work on the U.S. economy in general and the agricultural economy in particular.

We recently asked Congress to fund this type of analysis, but we received only half of the amount we felt necessary to start such a research program. As we noted before, there is increasing recognition of the need to modify national support policies to make them more consistent with world trade liberalization. A principal objective of our proposed research is to identify those policies and practices most incompatible with freer trade and thus provide guidance to U.S. negotiators in establishing priorities.

The need for such research aimed at expanding our agricultural exports is clear as strong international competition for our farm exports develops. A stagnating or declining level of farm exports would require major adjustments in our agriculture loss of farm income, and, under present farm programs, would result in higher government costs. It is a firm policy of the U.S. Department of Agriculture that this will not happen.

Figure 1

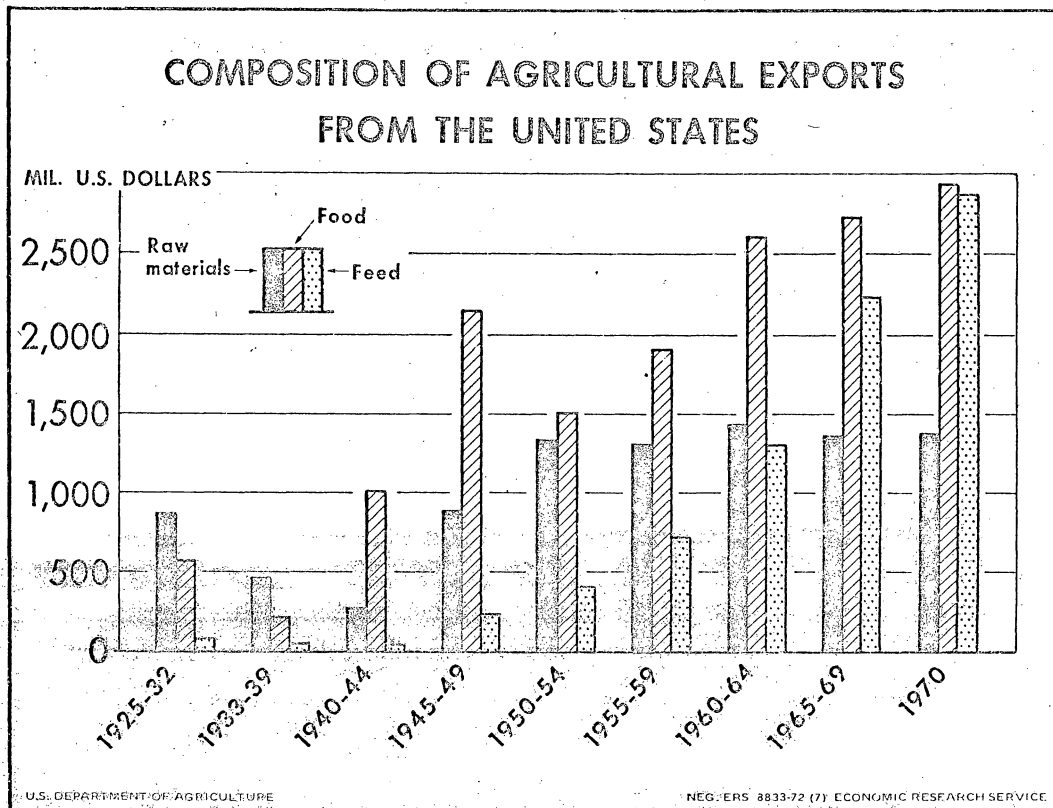
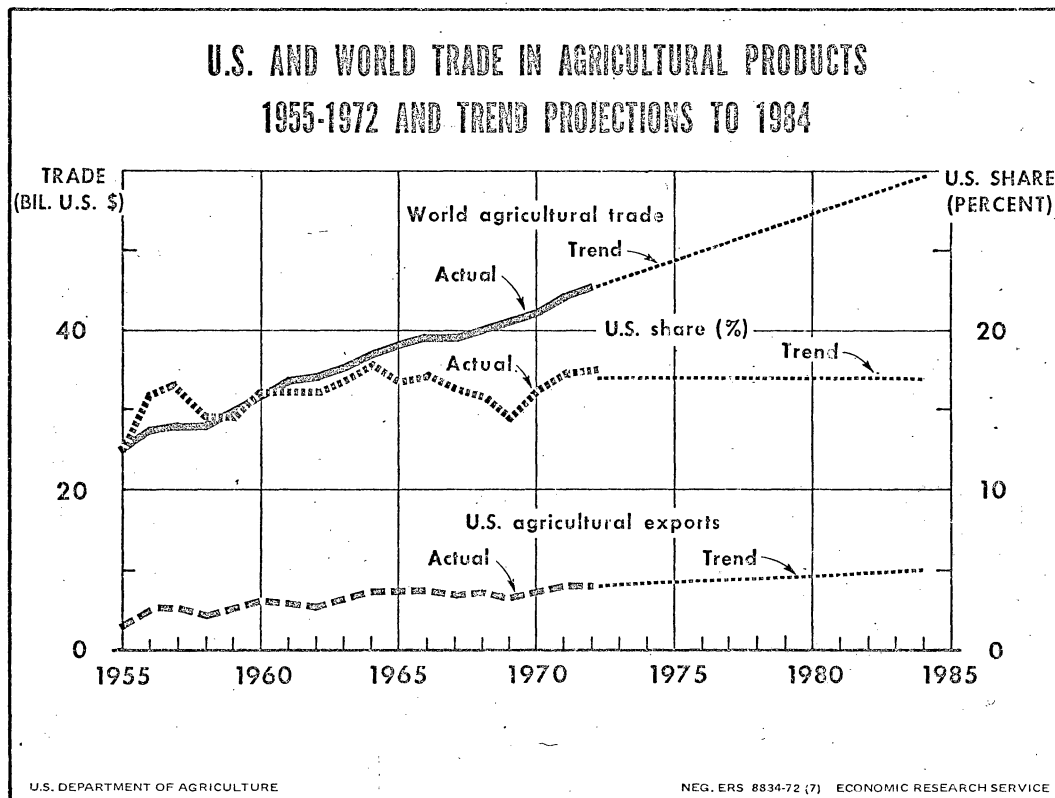


Figure 2



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