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HISTORICAL
COLLECTION

THE UNITED STATES IN THE CHANGING WORLD ECONOMY

Statistical Background Material

This material provided the basis for briefings to the President and the Council on International Economic Policy during the year 1971. The first major briefing which included much of this material, was on April 8, 1971.

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I. OVERALL TRENDS

In seeking to understand the striking changes in the international economy since World War II, we will examine the decade of the 1950s, when the Marshall Plan and other postwar reconstruction plans were being implemented; the 1960s, when much of this reconstruction was completed; and the early 1970s, which begin the decade of "economic co-equality."

As this appendix quantifies some of the changes in the world economy only since World War II, we should remember that the frequent use of 1950 as a base year could lead to some distorted conclusions unless adequate allowance is made for the unusual and very different circumstances which leading countries found themselves in at that time. In 1950, Europe and Japan had had only a few years to rebuild their war-torn economies. The U.S., on the other hand, was in a much stronger position. Thus, during the 1950s, starting from a much smaller but previously strong base, we would have expected other industrialized countries to show more rapid growth in virtually all respects--GNP, exports, etc. Thus, comparisons over more recent periods, say the sixties, or the late sixties, are sometimes more valid.

Further, since different countries might during any given period have different growth potentials, for a variety of reasons, simple absolute comparisons of growth rates may overlook the quality of the economic performance in more meaningful and more relative terms--i.e., in relation to a country's full potential.

SHARE OF WORLD GROSS NATIONAL PRODUCT

The growth of world gross national product (GNP) and the decline in the US share--from more than 39% to 34%--are features of Chart 1. Certainly, a reduction of the US share was to be expected in the 1950s as the postwar reconstruction took place. This decline has continued in the 1960s; our share dropped to 30% by 1970. Nonetheless, we should not forget that from 1950 to 1970 the US has shown very substantial growth--from a GNP of $285 billion in 1950 to $977 billion in 1970; and the absolute difference between the US GNP and that of other nations has grown since 1950. Further, the GNP share of the US is still the largest of any nation--by far. Still, we should not too quickly explain away our economy's lack of any significant real GNP growth in the latter half of the sixties.

The share of the European Community (EC) has grown steadily--approaching 15% by 1970. The United Kingdom's share has declined in both decades. In the last ten years alone, the decline has accelerated--a 25% decrease in GNP share from nearly 5% to 3.6%. Even so, when one adds the United Kingdom to the present EC and considers the other countries now being considered for entry, the expanded EC accounts today for nearly 20% of the world's GNP.

The growth of Japan since 1950 is unique. Historians will relate that few other countries, if any, have ever grown so much so fast. Japan's share of world GNP has about doubled every ten years and stands in 1970 at more than 6% -- even though it began in 1950 with only 1.5% of the world's GNP. Since 1955, Japan's GNP has grown annually about 15% in current prices and about 10% in real terms. Industrial production has increased even more rapidly.

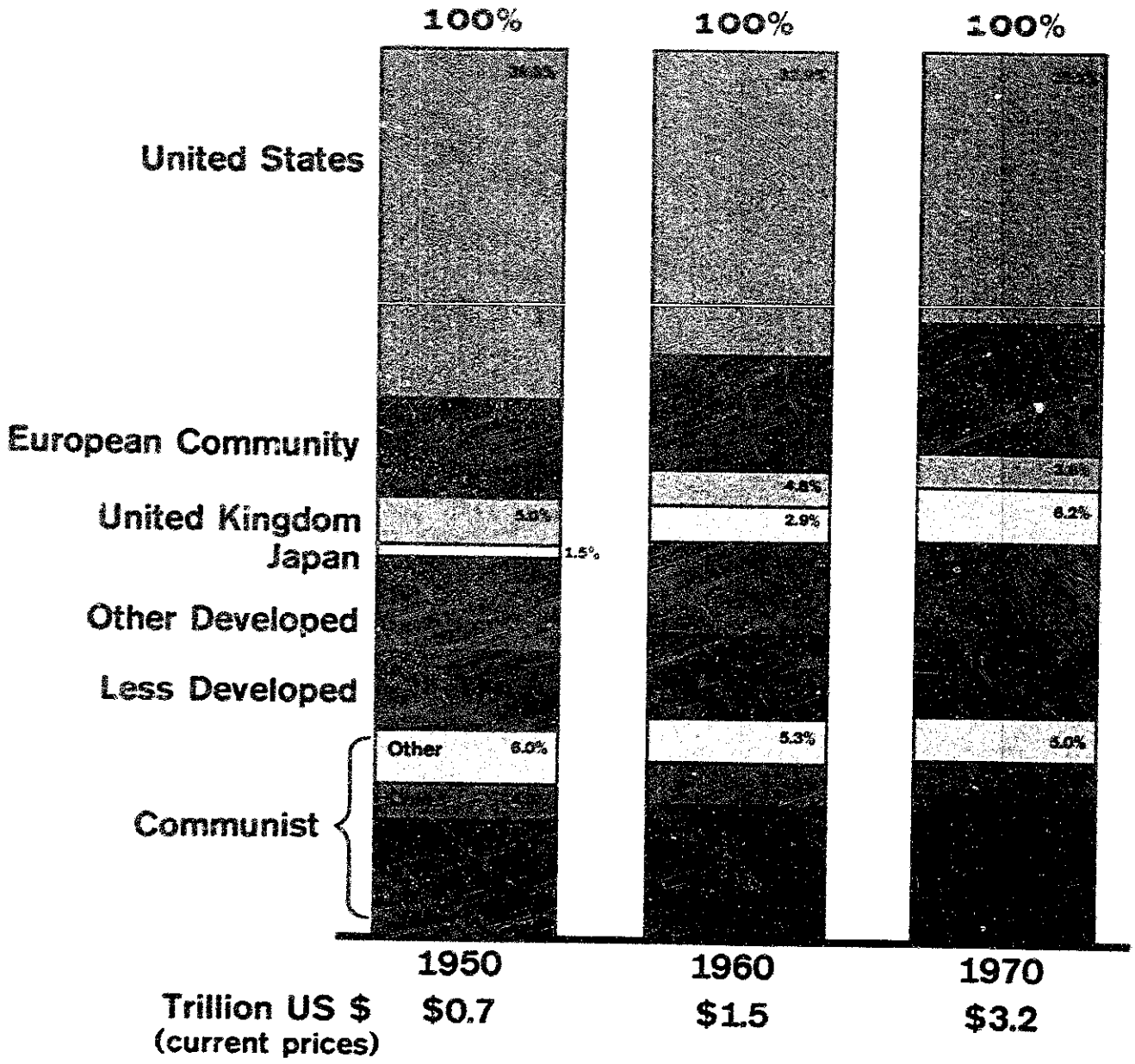
To provide a further sense of postwar advance, Charts 2 and 3 show indexes of real GNP growth and industrial production for Japan, the United States, the United Kingdom, Italy and West Germany. The United Kingdom has lagged in rates of growth during all this past decade. In recent years the United States has shown a slower rate of growth than all except the United Kingdom.

The GNP share of the less developed countries (LDCs) has increased slightly since 1950, but the gap between their per capita income and that of the developed countries has widened because of more rapid population growth in the LDCs.

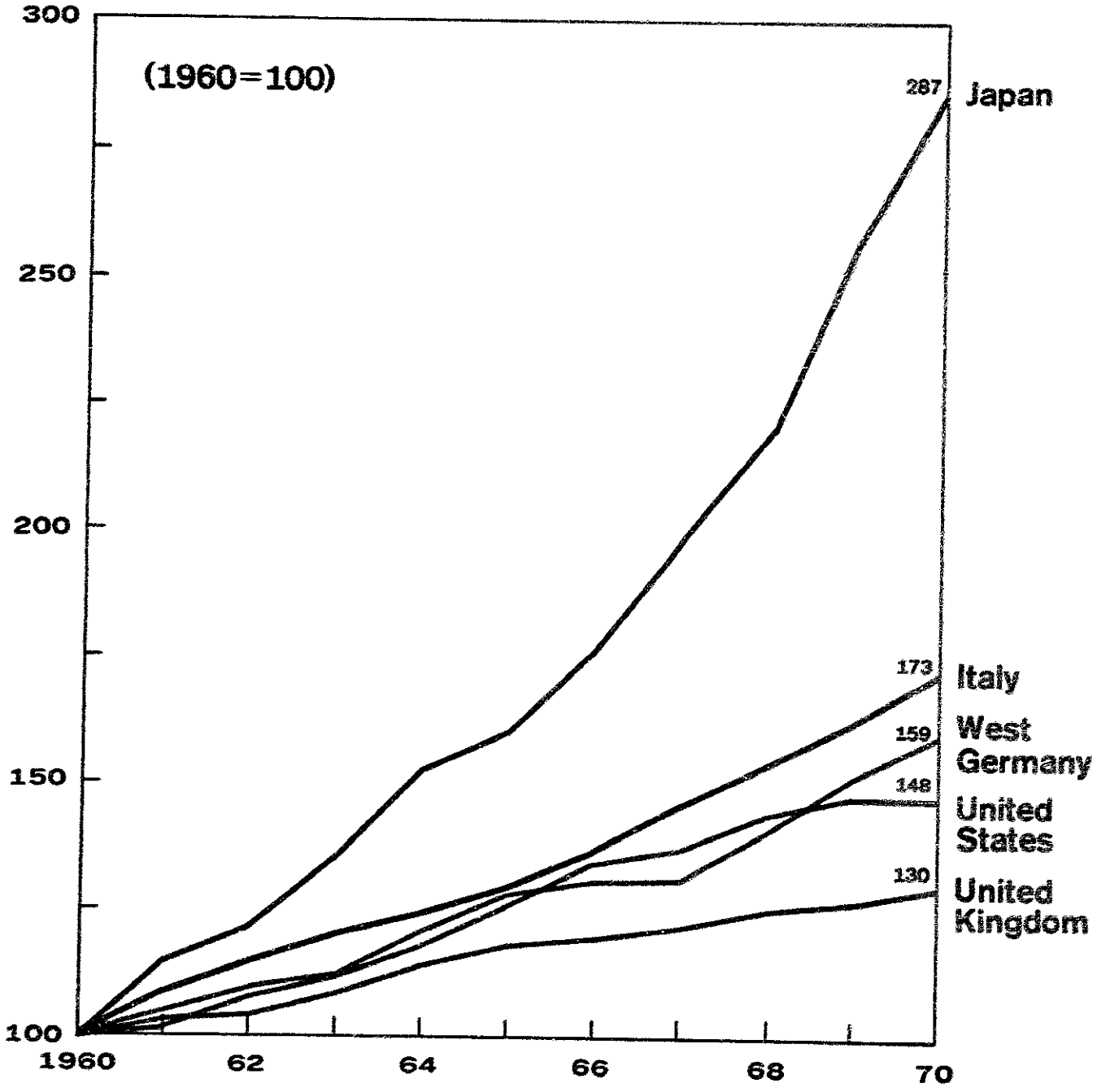
Data on the GNP of the People's Republic of China are necessarily estimates. These estimates show that their share of world GNP has remained steady at about 4% for 20 years. In fact, some contrast is provided by China and Japan; in 1950, China was producing nearly three times as much as Japan; but by 1970, Japan was producing about 55% more than China -- with only one-eighth the population.

The Soviet Union has increased its share slightly, although more slowly during the 1960s than during the 1950s. The Soviet share is now 16-1/2% of world GNP.

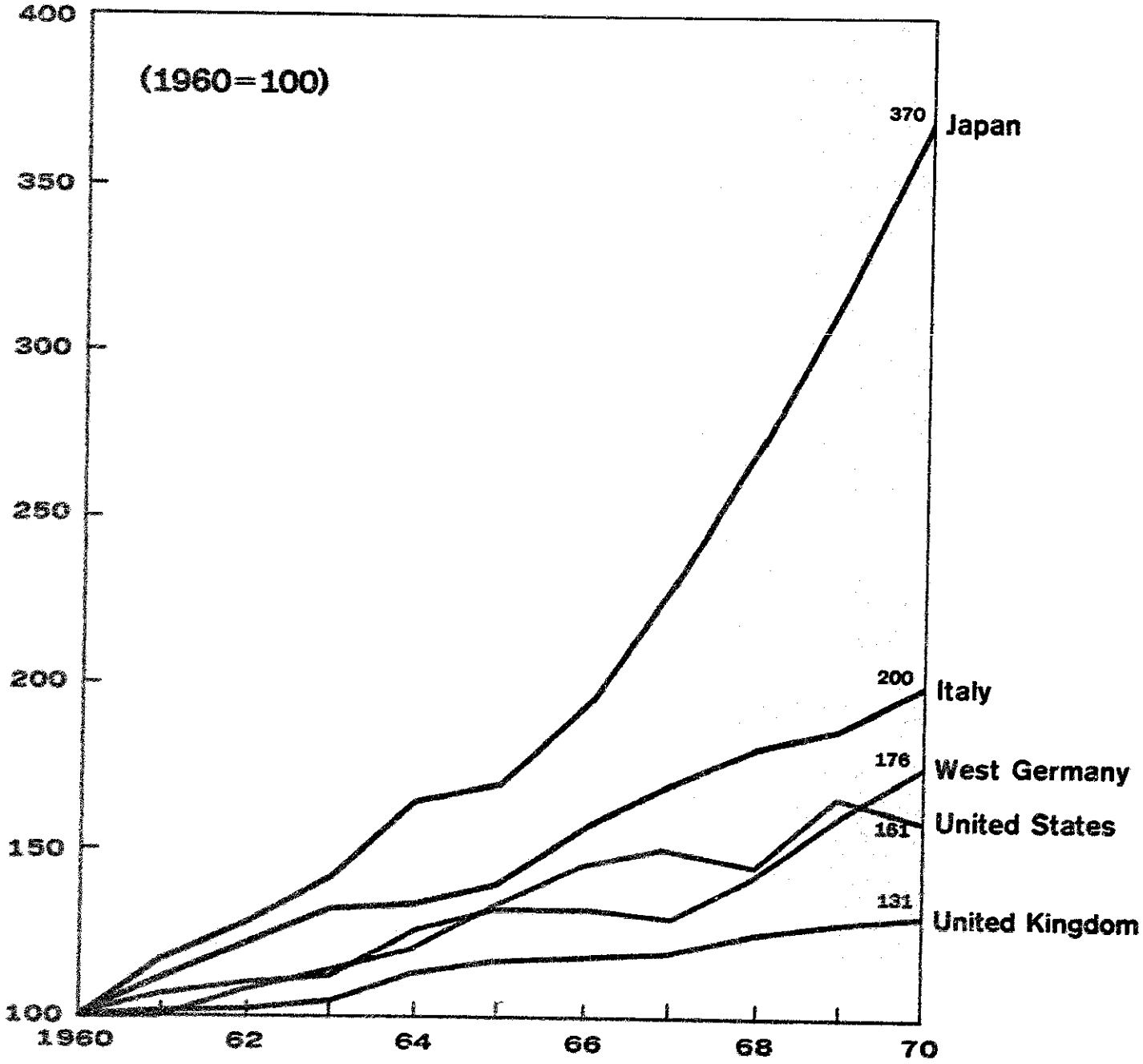
World GNP


100%
100%
100%
United States
European Community
United Kingdom
Japan
Other Developed
Less Developed
Communist
Other
6.0%
4.0%
1.5%
4.8%
2.9%
5.3%
6.2%
5.0%
1950
1960
1970
Trillion US $
(current prices)
$0.7
$1.5
$3.2

Index of Real GNP Growth



Industrial Production Index



ECONOMIC GROWTH AND INVESTMENT

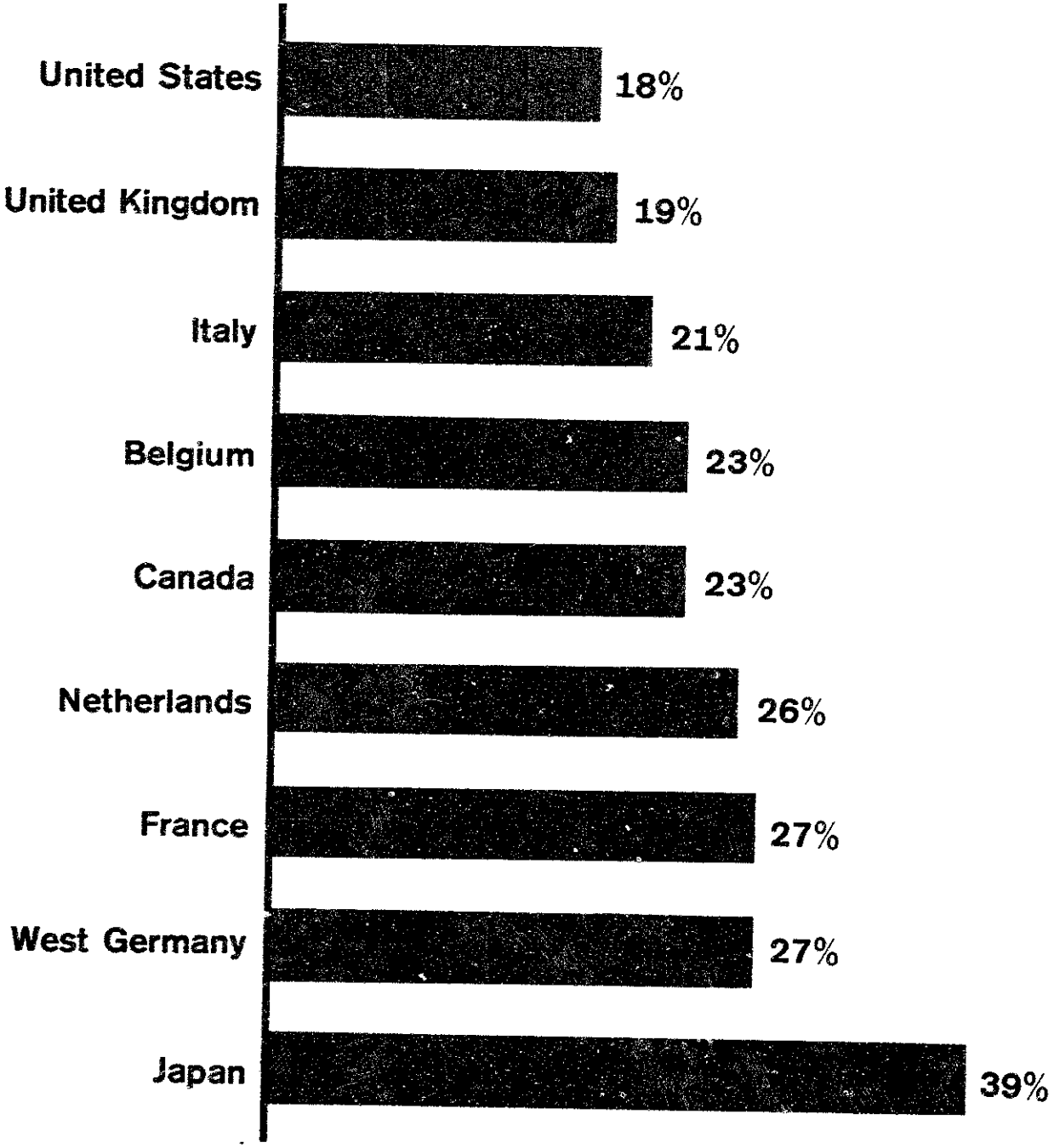
One critical factor in economic growth is the rate of investment. In the last few years, as Chart 4 shows, Japan has plowed back 39% of its total GNP, or twice the rate of US investment (18%). This does not tell the whole story, however, since these investment data include housing--which clearly received less attention in Japan. The rates of machinery and equipment investment in Japan, as well as in Germany have in fact been two times that in the United States (Chart 5).

Japan's high rate of investment is aided by several key factors. First, high rates of consumer savings--which last year ran about 20% of Japanese personal income, compared with about 7% in the United States. Put another way, Japanese consumers have more inclination than Americans to defer the enjoyment of their incomes, and they allocate much less to a currently improved standard of living. Second, Japan has much lower defense expenditures, now just over 0.8% of GNP--about one-tenth of our rate of 8% of GNP (Chart 6). Third, lower Japanese tax burdens reflect both lower defense spending and less social investment (Chart 7).

Other major industrialized economies in Europe have also invested a greater share of output than the United States. For example, Germany, France, and the Netherlands--which maintain a variety of investment incentives--invest 8 to 9 percentage points more of their GNP than the United States, or more than 25% of GNP compared with our 18%. Defense expenditures were 5.6% of GNP for the United Kingdom, 3.8% for France, and 2.9% for West Germany.

Earnings are one of the important determinants of business investment; a decline in profits not only hinders economic activity but also slows the rate at which new technology is acquired. Thus, recent lower profits of American corporations have hindered US investment in new plant and equipment. From 1969 to 1970, pre-tax earnings of manufacturing, service, and other non-financial corporations fell both in absolute amount and in percentage share of GNP, as shown by Chart 8. In 1970, profits in manufacturing reached their lowest level in three decades, as a percent of GNP.

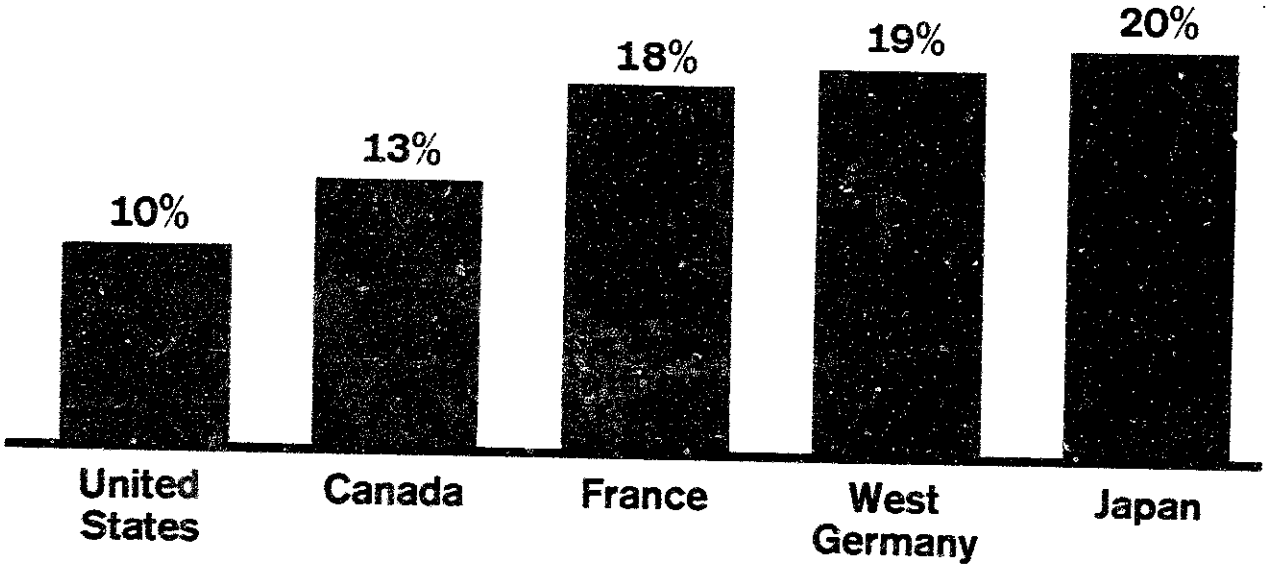
Gross Investment as a Share of GNP
(1968-70 Annual Average)



Investment includes private and government.

Gross Private Investment in Plant and Equipment as a Share of GNP

(1968-70 Annual Average)



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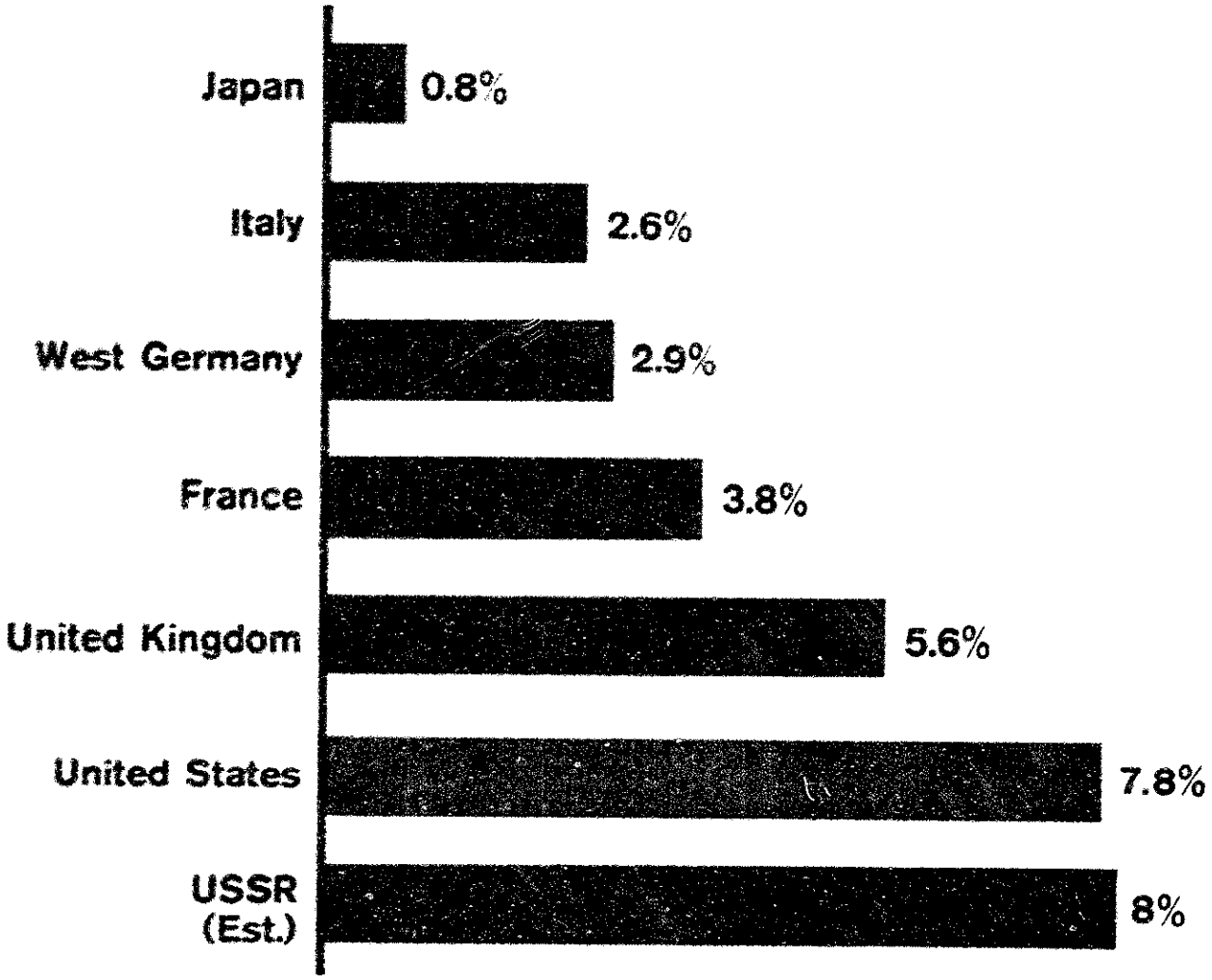
Military Burden

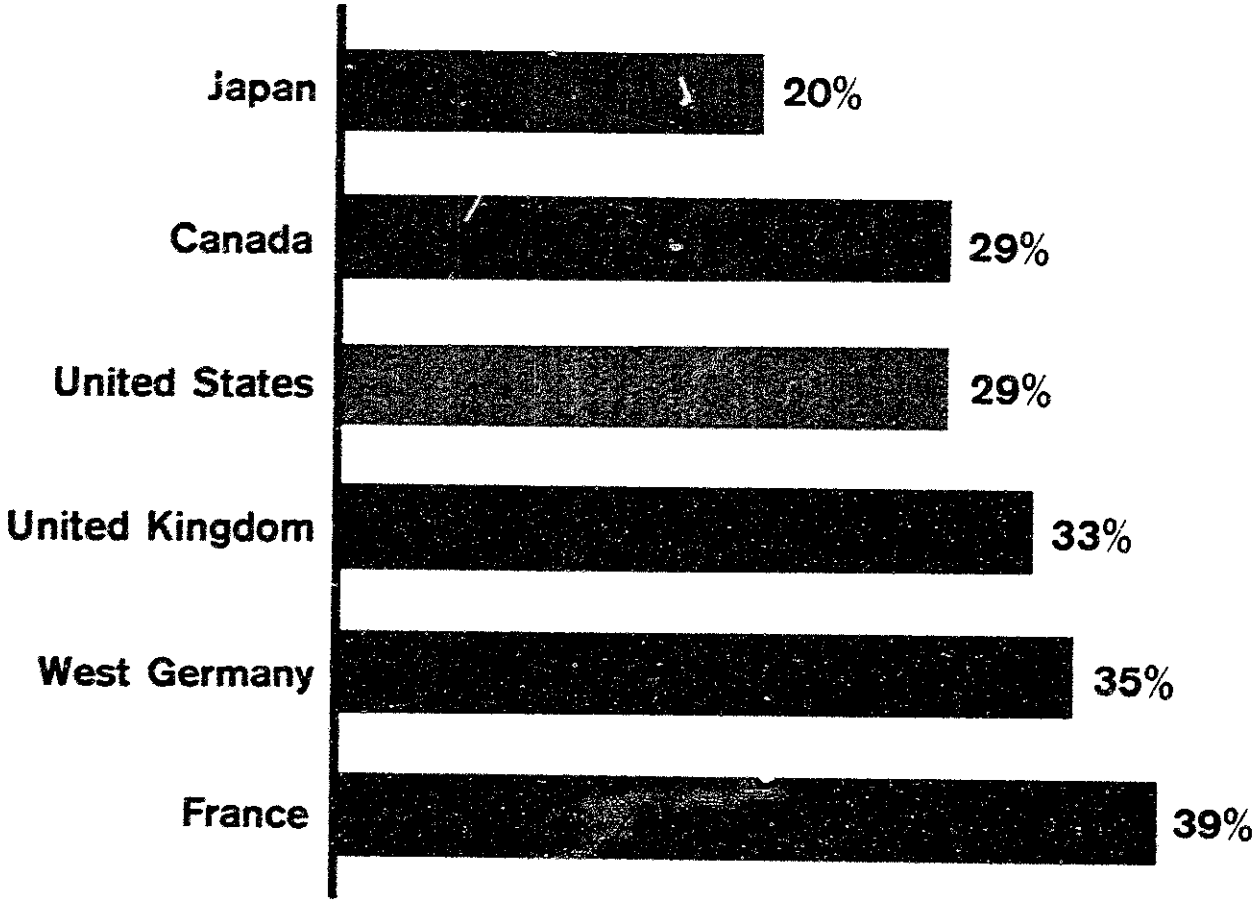
Military Expenditures* as a Share of GNP, 1970



**Excluding nonmilitary space and atomic energy.*

Tax Burden

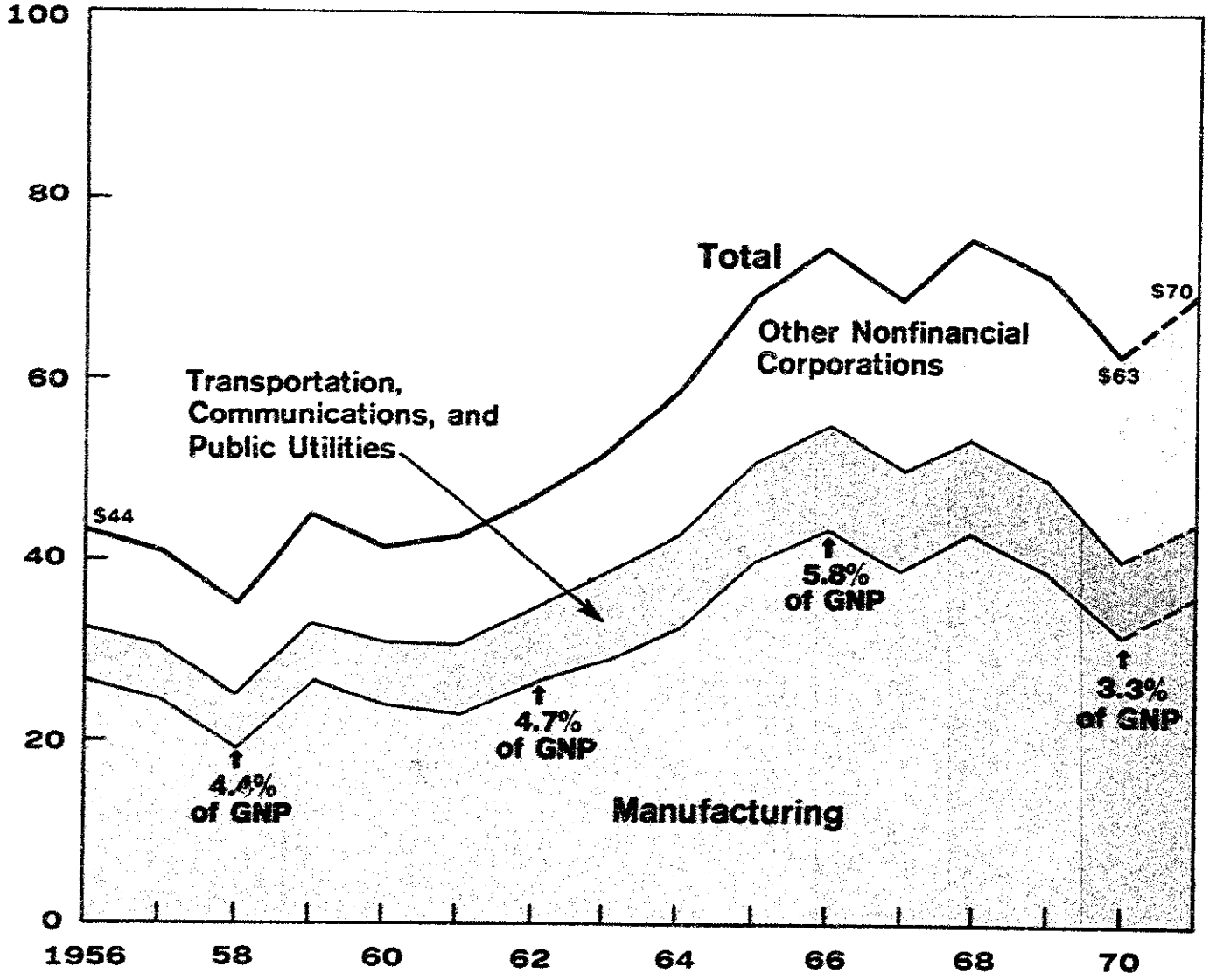
Tax Receipts* as a Share of GNP, 1969



*Including federal and local authorities.

Profits of US Nonfinancial Corporations

Billion US $ Before Taxes



GROWTH IN CAPABILITY

There have been some important structural or qualitative shifts reflecting increasing capability in the rest of the world. For example, the gains made by other countries in two key manufactures--steel and motor vehicles--are seen in Charts 9 and 10. The US share of world motor vehicle production fell from 76% in 1950 to 48% in 1960, to 31% in 1970. Japan's share of both manufactures has risen the fastest during the past decade--from 2% to 17% for motor vehicles and 6% to 16% for steel.

Chart 10 portrays the production of raw steel measured in tons. It shows Japanese production moving from the 1950 base of less than 5 million tons (artifically low, of course, because of the devastation of steel plants during the war) to over 93 million tons in 1970. Japan's economic projections suggest that by some time in the middle seventies it might pass the US in steel output, and perhaps be the world leader.

The EC has also recovered from World War II and its steel output (with the United Kingdom included) has already surpassed ours; in 1971 the USSR will top the United States in steel production.

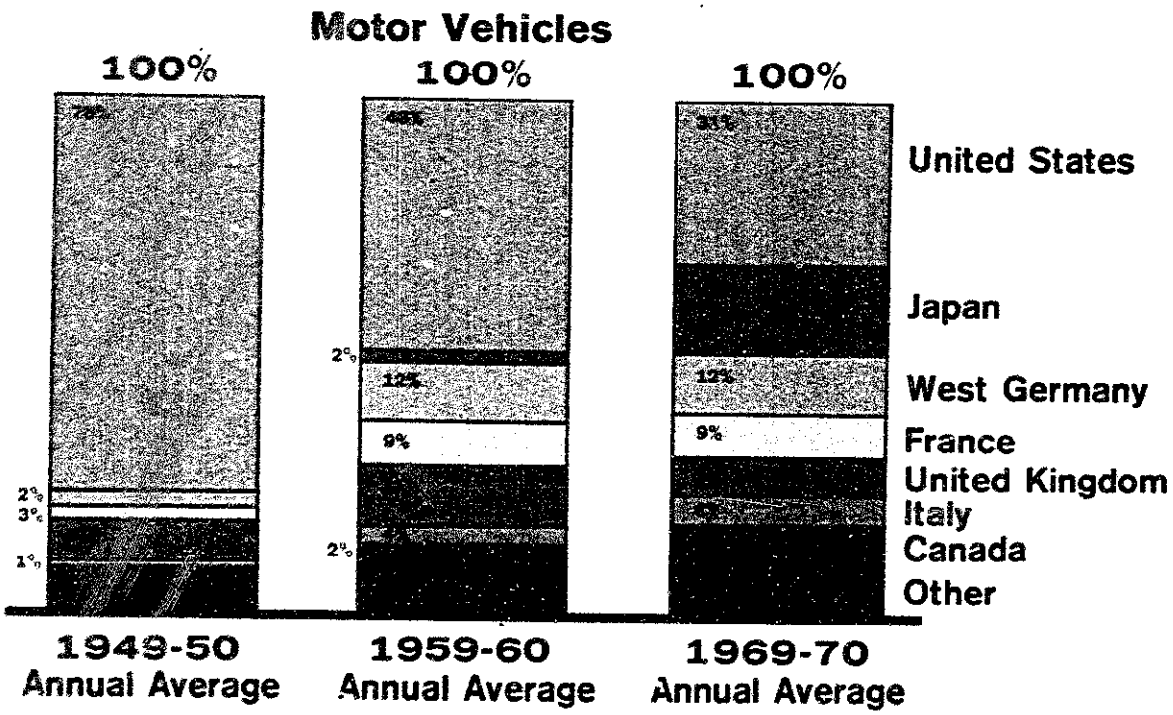
Technological capability is, of course, another dimension of overall industrial capability. It is obviously difficult to quantify this in a single chart, but a variety of studies show that other countries have made major progress in reducing the so-called "technological gap." Patents are one indication--but only one--of technological strength. Below are data on applications to the U.S. patent office and the growing share that are of foreign origin. Clearly, the U.S. leads and, just as clearly, the foreign share of these applications is growing significantly. As can be seen, the U.S. patent applications have increased slightly during the entire decade of the sixties, while patent applications from foreigners have nearly doubled.

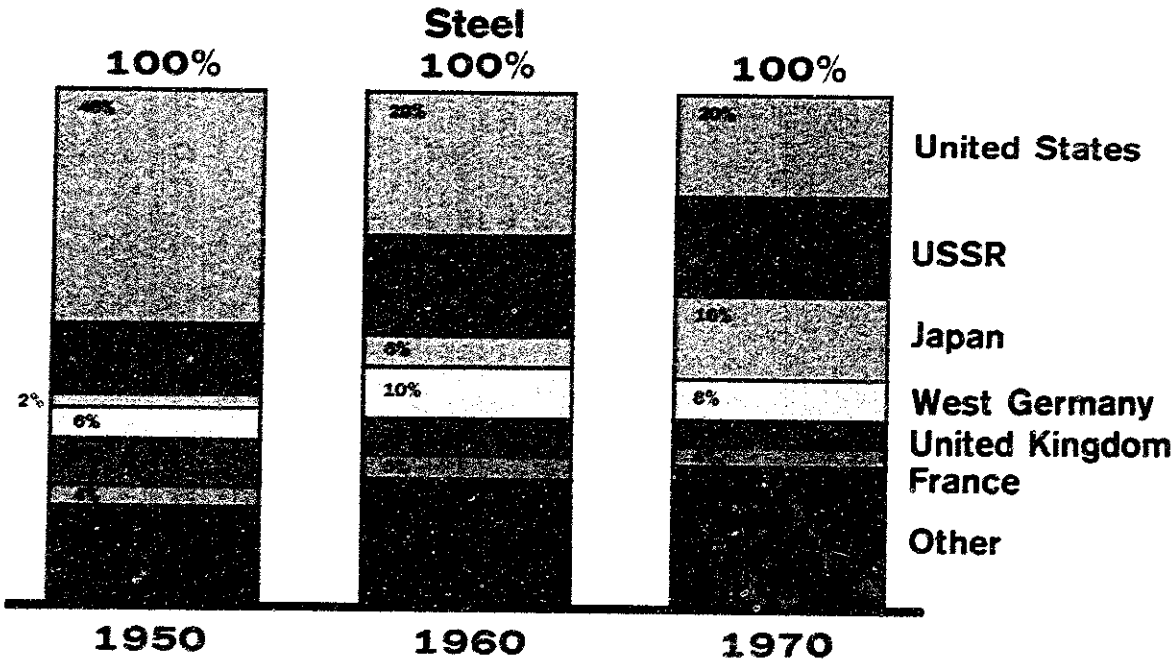
APPLICATIONS TO US PATENT OFFICE

	Total (thousands)	US	Foreign	Foreign as % of US
1961	83.1	66.0	17.1	25.8%
1962	85.0	66.8	18.3	27.4%
1963	85.7	66.6	19.2	28.8%
1964	87.6	67.0	20.6	30.7%
1965	94.6	72.3	22.3	30.8%
1966	88.3	66.6	21.7	32.5%
1967	87.9	63.8	24.0	37.7%
1968	93.1	66.8	26.3	39.3%
1969	98.4	67.9	30.5	44.9%
1970	103.2	76.2	27.0	35.4%
1971(est)	104.0	74.0	30.0	40.5%

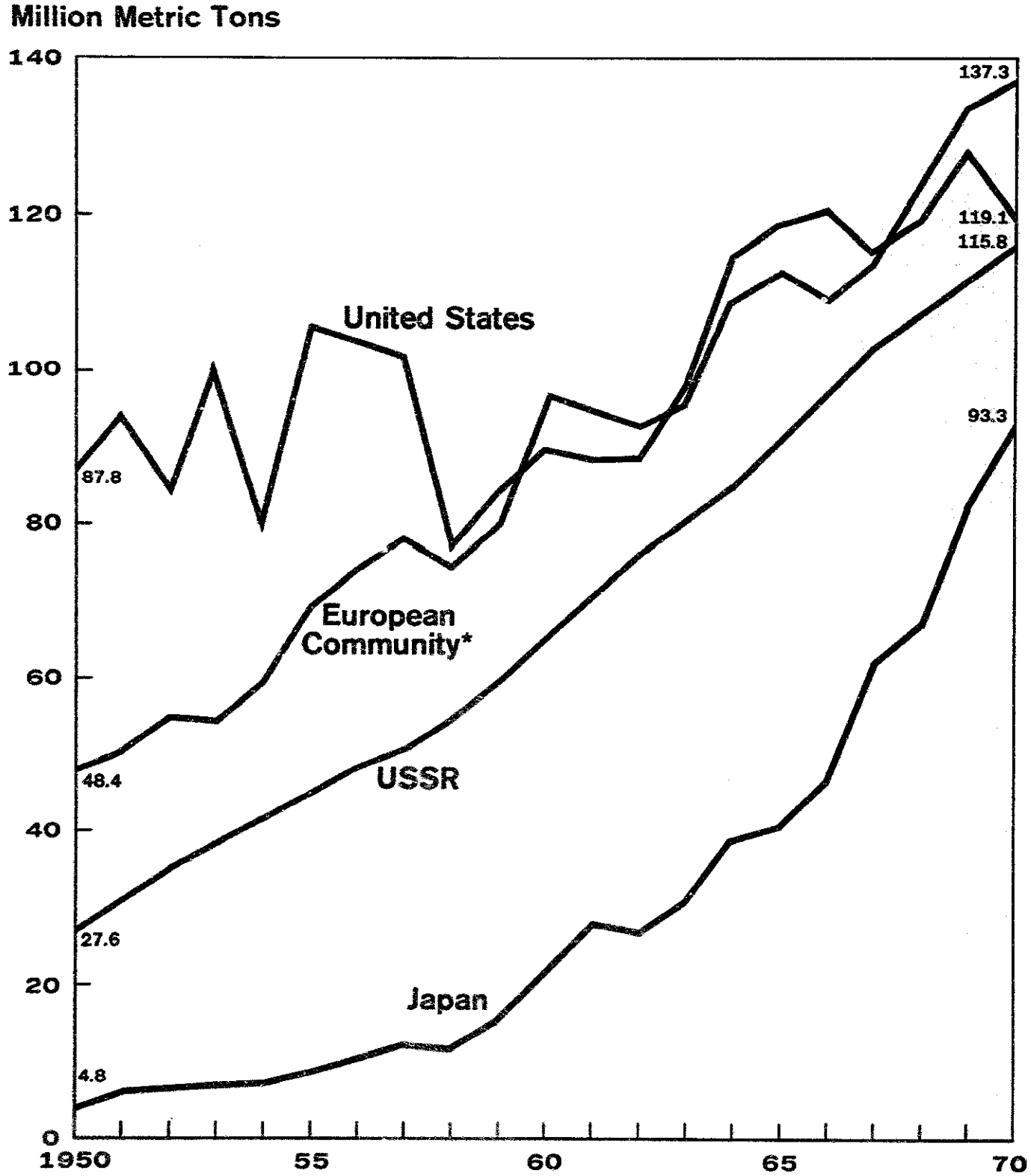
World Production of Motor Vehicles and Steel

Percent of World Total





Production of Raw Steel



*Including the United Kingdom.

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INTERNATIONAL RESERVES

Though the world's supply of international reserves almost doubled in 20 years, to a total of $92 billion in 1970 (Chart 11), this growth did not keep pace with growth of GNP or the advance in world trade; reserves therefore fell as a percent of trade. In fact, GNP more than doubled in the 1960s while reserves increased about 50%. The extraordinary growth in reserves from the end of 1970 to August 1971 is importantly attributable not only to growing deficits in the US basic balance of payments, but also to speculative flows of dollars into foreign currencies.

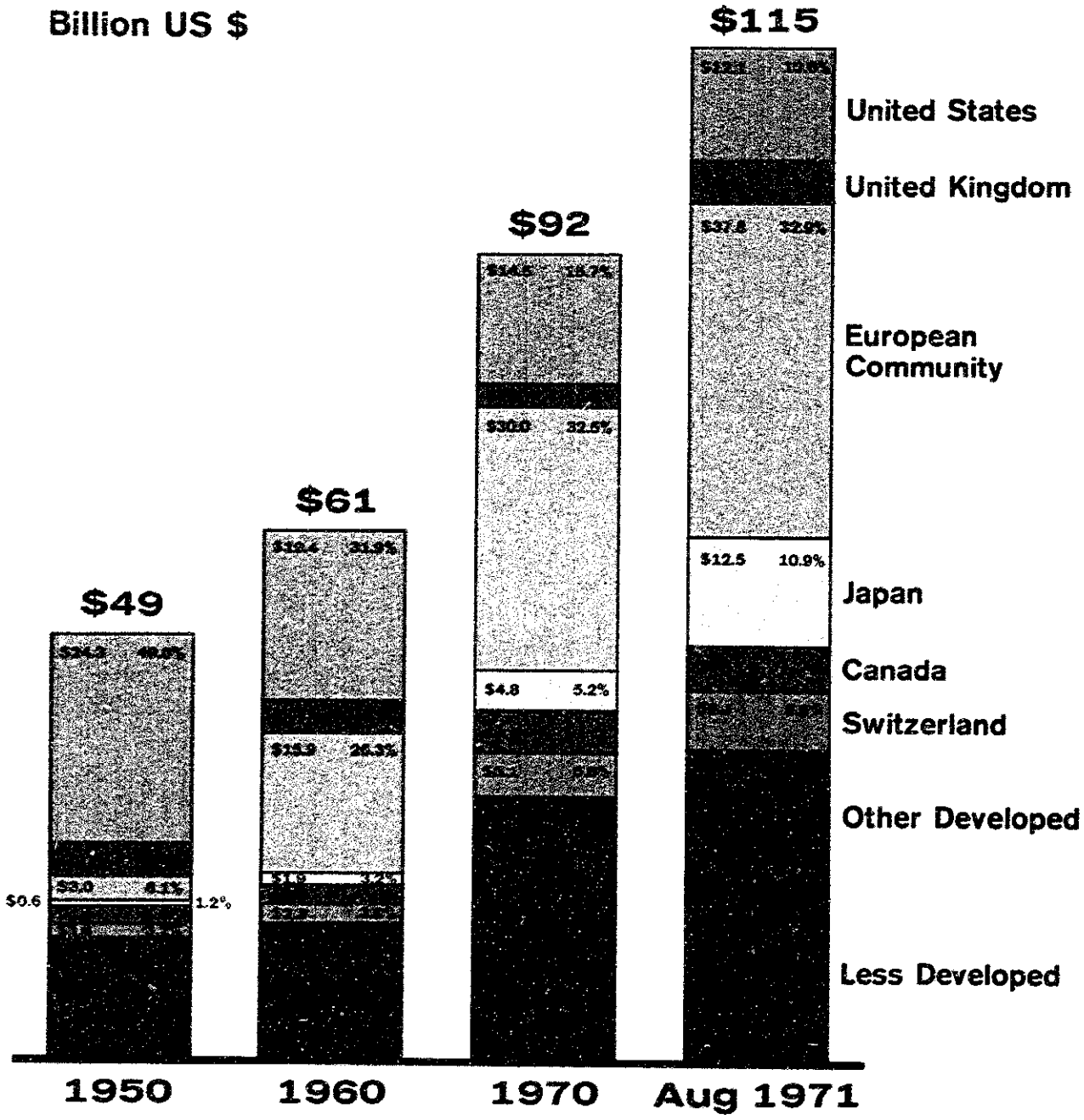
The US share of international reserves declined from almost 50% to less than 16% in only 20 years. Much of the loss during the 1950s was to be expected as other countries built up reserves from their abnormally low level of the immediate postwar period. The declining US share during the 1960s was largely due to the demand for additional international liquidity, which was supplied mainly through our balance-of-payments deficits. It should also be noted that the US share of international reserves is affected by the role of the U.S. dollar as the world's major reserve currency: when the United States incurs balance-of-payments deficits, the resulting dollar outflows become part of other countries' reserves. But when we have surpluses, the returning dollars do not add to our reserves; instead overall world reserves decline.

The United Kingdom, whose pound sterling is a minor reserve currency, has seen its reserve share drop from 6% to 3% in only ten years. The share of the present EC grew from about 6% of reserve holdings in 1950 to 26% in 1960 and 33% in 1970. Its 1971 share was more than three times that of the United States. As a measure of the rate of change in the international economic environment, recall that less than 20 years ago there was concern about a dollar shortage in Europe.

Japanese reserves have been growing rapidly from about 1% of the world total in 1950 to 11% in 1971. By the end of 1970, Japan's reserves stood at $4.8 billion, and mainly because of a burgeoning trade surplus and the efforts of Japanese firms to hedge against yen revaluation, her reserves topped the $12 billion mark by August 31, 1971. LDCs markedly increased their reserves in the 1960s--a significant part of these increased reserves accrued to oil-producing countries.

If one were to probe more deeply into the purpose of international reserves, one would see that some countries are holding more reserves than needed for liquidity requirements. (This can be seen by examining the high ratio of reserves to trade in certain countries.) The International Monetary Fund System assumed periodic devaluations and revaluations of foreign currencies to maintain payments balance. The reluctance to revalue (because of revaluation's adverse effect on the foreign prices of a country's exports), has built into the international monetary system significant structural inequity and rigidity.

International Reserves*



Including gold, SDRs, reserve position in the IMF, and foreign exchange.

WORLD EXPORTS

Ours is a world of rapidly expanding trade--a fivefold increase in only 20 years (Chart 12).

A strong export position can be one important indication of a country's competitive position. Exports are sometimes an early point of contact with technological developments of competing countries and are therefore an indication of technological advantages. Furthermore, increased exports permit greater specialization and hence higher standards of living for the citizens of the trading nations. Finally, exports sufficient to achieve balance of payments equilibrium make it possible for countries to earn "the foreign exchange" with which to buy imports--which, in turn, can make a large contribution to a real standard of living. We must avoid therefore any inference that exports are "good" and imports "bad." Our ability, through expanding and balanced trade, to buy more imports helps achieve a fundamental purpose of trade--improving the consumer's standard of living.

The US share of world trade has fallen slightly--about one percentage point in each of the past decades--and is now about 14%. (Looked at in another way--comparing the overall growth in exports during the 1960s among leading industrialized countries shows that the US has lagged in manufacturing export growth -- Chart 13.)

The growth in the EC's share of world exports has been from 15% in 1950 to 28% in 1970, including trade among EC members. If the other countries that are being taken into the expanded EC are included, the enlarged EC will account for nearly 40% of world trade. It will account for 50% of world trade in industrial products, or three times the US share. In 1970, a single country, Germany, slightly surpassed the United States as the leading exporter of manufactures, with exports in this category exceeding $30 billion.

About half of the EC's trade, however, is among its members. But even ignoring internal trade, the expanded EC would account for as much as 40% more trade than does the United States.

The EC's internal trade has been growing about twice as fast as its external trade, and many attribute this growth to the absence of internal barriers. A question for the future is the extent to which EC trade will stimulate total world trade, and how much of its activity represents diversion of trade within the EC.

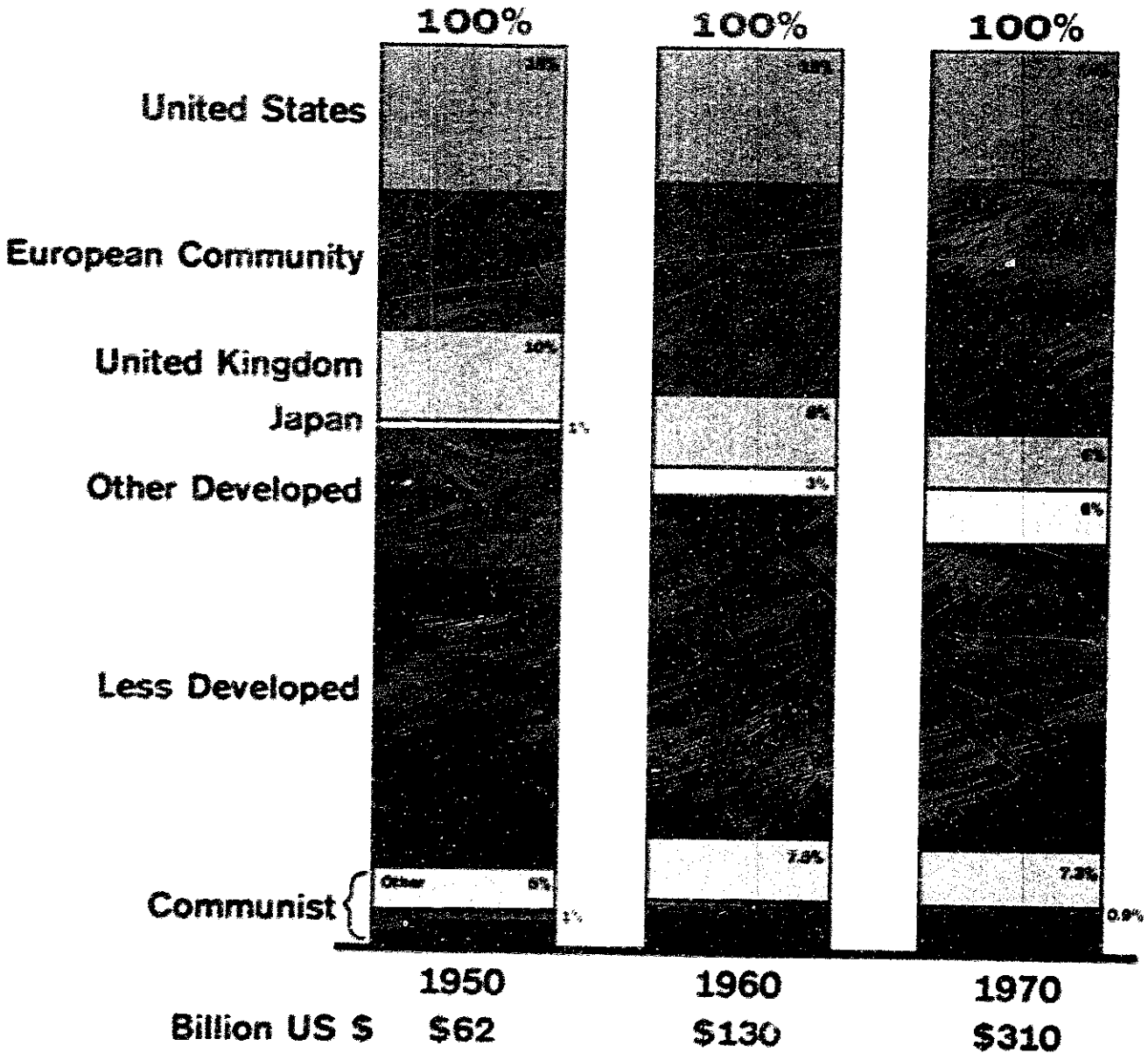
Since 1950 the UK share of world exports has dropped from 10% to 6%. Japan's has risen from 1% to 6%. Japan's record of export growth is unmatched among industrialized nations--an annual growth of 19% over the past 20-year period. In only 20 years, the ratio between these two countries' exports has shifted from ten to one in the United Kindom's favor to one of relative equality today.

The LDCs' share of exports dropped from 33% to 19% in the 20-year period, partly because of the sharp decline in raw material prices from the high (1950) levels of the Korean War and partly because the LDCs have not shared significantly in the growth of trade in manufactured goods.

The Soviet share has stayed at 4% for more than a decade, and two-thirds of this represents exports to other Communist countries. Unlike the Western industrialized countries, the Soviet Union has in the past rejected economic interdependence, apparently fearing the vulnerability that such relationships imply. Also, it is probably true that some Soviet products may simply be less attractive values than those of other countries.

The People's Republic of China's very small share of world exports--less than 1%-- is almost the same as it was ten years ago. Again, the comparison with Japan is illuminating. Twenty years ago, these two countries were at a standoff in world exports. In 1970, Japan exceeded China's exports by almost 7 times. On the other hand, China has enormous resources -- land, raw materials, and people -- and large potential for future growth and development.

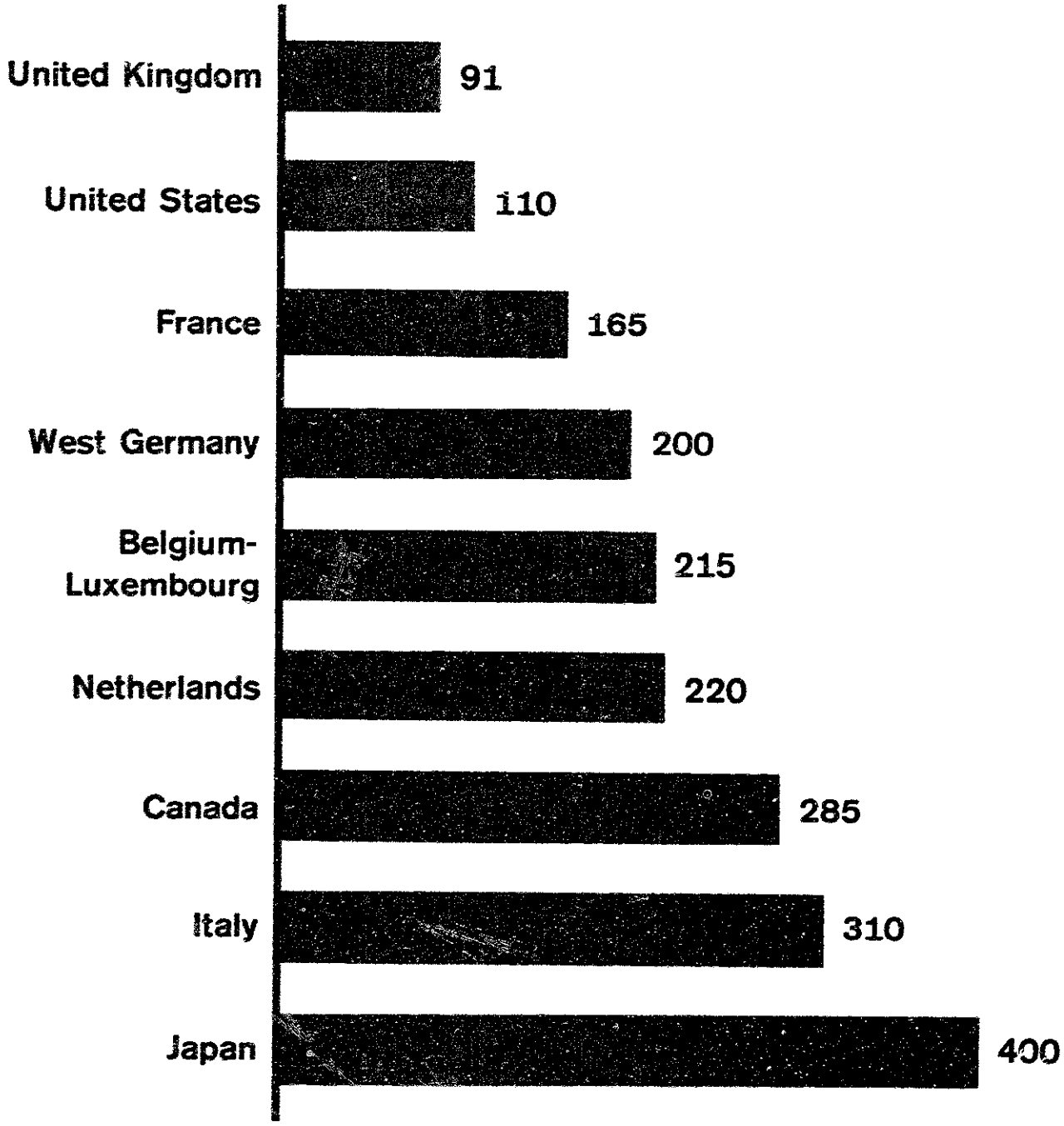
World Exports



Exports within the European Community accounted for 31% of total EC exports in 1950; 35% in 1960; 48% in 1970. In 1970, Soviet exports to Communist countries accounted for 65% of total exports.

Export Growth in Manufactures for Selected Countries

Percent increase, 1960-70



II. TRADE TRENDS

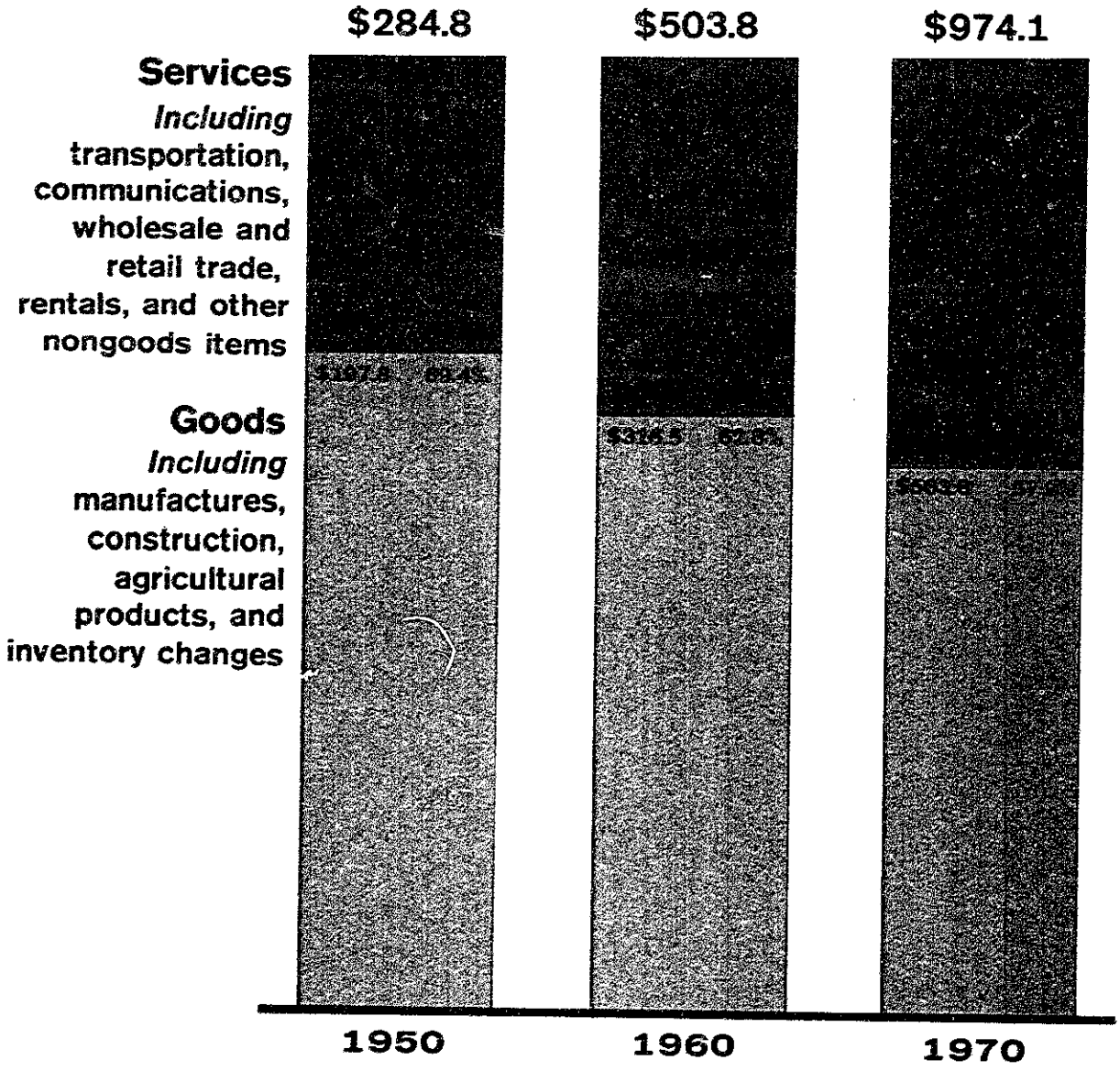
US GNP -- GOODS AND SERVICES

In considering the future of trade, long-term data show that the United States is becoming an economy with a high proportion of its output in services. Goods are becoming less important in our total economic output, and employment has been shifting to services occupations.

By 1970, services made up about 40% of our output, but these industries employed about 60% of the labor force (Chart 14). This trend raises some important questions about the future structure of our economy. Increasing productivity in services is much more difficult than in manufacturing. Some economists predict and view with equanimity the United States' international future as a "mature creditor" -- engaged largely in services, drawing income from foreign investments, and importing more goods than it exports. Others are disturbed by this trend, and ask: To what extent is such an occurrence in our national interest? How dependent can a country be on services and goods produced by others and still be a world power? Will investment income grow sufficiently to make it possible to have balance-of-payments equilibrium with significant trade deficits? More positively, what kind of economy and, in particular, manufacturing capability do we want for the United States in the 1970s and 1980s? These are some of the kinds of questions that seem to deserve more study than they have received. In the meantime, our current analysis should note that most services are hard to export; thus a view of exports as a percentage of manufactured products (rather than of GNP) is revealing.

US GNP: Goods vs Services

Billion US $



EXPORTS IN RELATION TO PRODUCTION

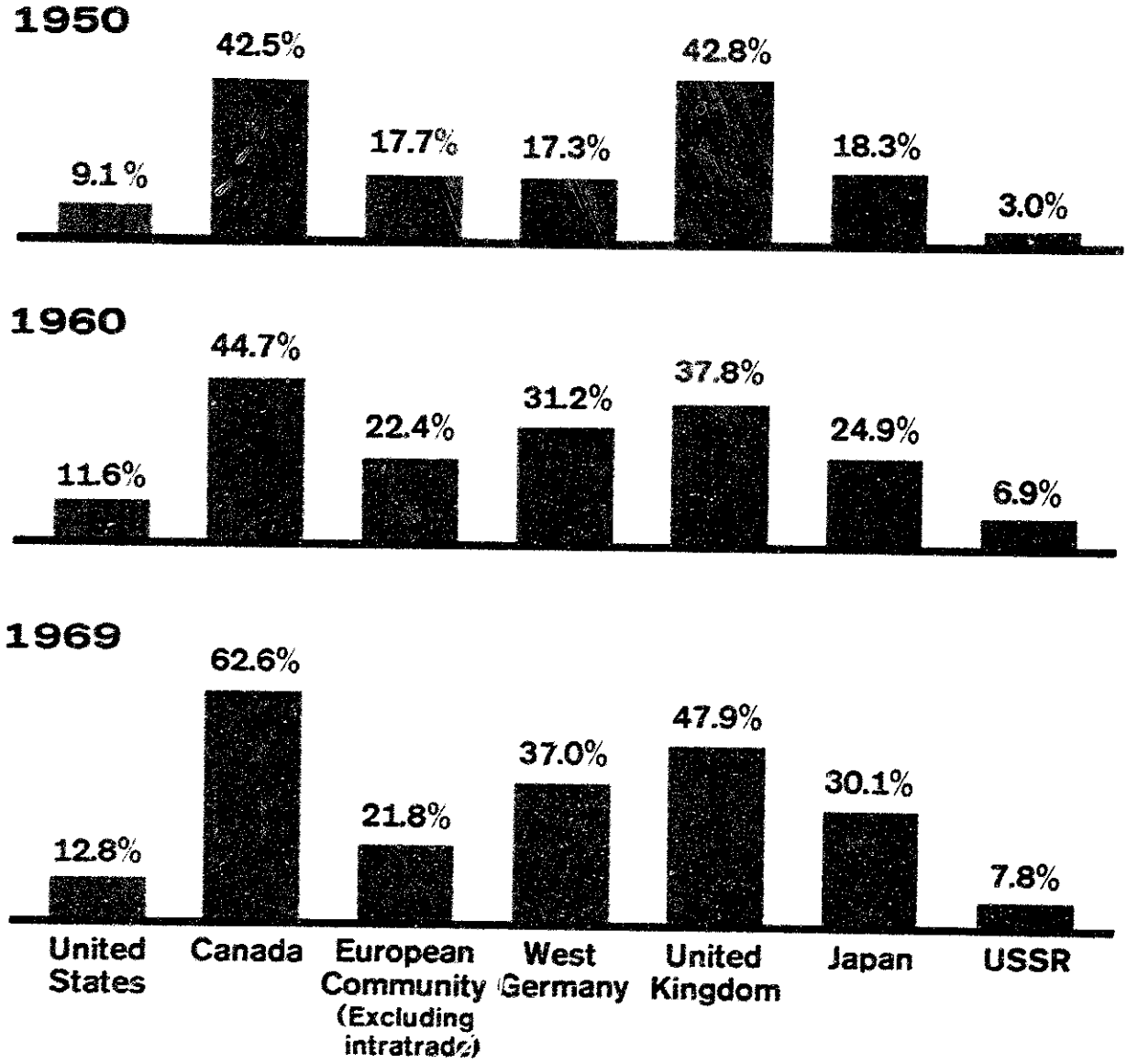
One can understand why a country such as Canada is so concerned about American investment and trade policy when one sees that 63% of Canada's goods production is exported. Likewise, the share of United Kingdom production that is exported is four times the US figure. The EC's external trade is only 22% of goods production, but half of the international trade of EC members is with other EC members. West Germany's export percentage, 37% of goods produced, is almost three times that of the United States. Japan's percentage approaches Germany's, with exports equal to 30% of goods produced (Chart 15).

A high ratio of exports to total goods produced makes countries more aware of their exchange rates. One of the main reasons for our balance-of-payments problems is that other countries have been reluctant to revalue their currencies--an action which would make their exports less competitive abroad. (In fact, over the past 15 years, there have been almost twice as many developed country devaluations as revaluations.) It is probably true that no one needs to have a balance-of-payments surplus who does not want it. Yet, many jobs are tied directly to exports and can be protected by the maintenance of undervalued currencies even if it is at the expense of higher domestic prices and a reduced variety of goods available to domestic consumers.

To the USSR these problems should seem less important, since the Soviet Union's ratio of exports to production is far lower than anyone else's (only 8%). But the Soviet Union is also less vulnerable to outside threats and pressures.

Exports in Relation to Production

(Including agriculture, forestry, fishing, mining, quarrying, and manufacturing)



US FOREIGN TRADE

US exports in 1970 were about $43 billion and imports were about $40 billion, yielding a favorable trade balance of about $3 billion (Chart 16). For 1971, the balance has been projected as a deficit of about $2 billion, a reversal of normal US experience, and the first trade deficit since 1893.

During the 1960s, both exports (8% growth annually) and imports (10% growth annually) have been growing faster than our economy. This expanding trade has been beneficial in many ways.

We are the largest individual trader in the world. Even though only a small percentage of our GNP is devoted to trade, we have a heavy impact on world total imports and exports. Our trade affects others more than it does us.

It is noticeable that, in the period covered here, our favorable balance has shifted from an average of about $4 - $5 billion in the first half of the 1960s to an average of about $2.5 billion in the five years ending 1970. If we were to take out certain items that some would say are not properly part of "exports" -- aid-related transfers -- and add costs associated with imports -- for example, freight and insurance -- we would see that the United States has run a trade deficit in recent years prior to the 1971 deficit experience.

Our trade, of course, has human as well as economic aspects. There are increasing and understandable concerns about the effect of our trade in general, and imports in particular, on US jobs. It is estimated, for example, that between 600,000 and 750,000 jobs were lost between 1964 and 1971 as our trade balance shifted from a $6.8 billion surplus to an estimated $2 billion deficit. A precise calculation of the effects of US trade on US jobs is difficult to make and involves some conjecture. Most of the studies on job effects come to three broad conclusions (although these types of studies have received too little attention and are subject to many qualifications):

1. The net job effects are relatively small -- in the range of a few hundred thousand jobs of a total US work force of more than 80 million. This is partly a function of the relatively small percentage of our GNP accounted for by foreign trade -- about 4% each for exports and imports and a much smaller fraction, of course, for the trade balance itself.

2. The figures in the most recent Department of Labor job impact studies show that trade has had a net favorable effect on US employment.

Thus, if trade both ways stopped (where there were alternatives to trade), our total employment would probably be reduced by a small amount. An exception is 1971 when, because of the trade deficit, there may have been a small job loss as a result of trade. But this should be reversed after the exchange rate realignments and new trading arrangements now being negotiated have had their effect.

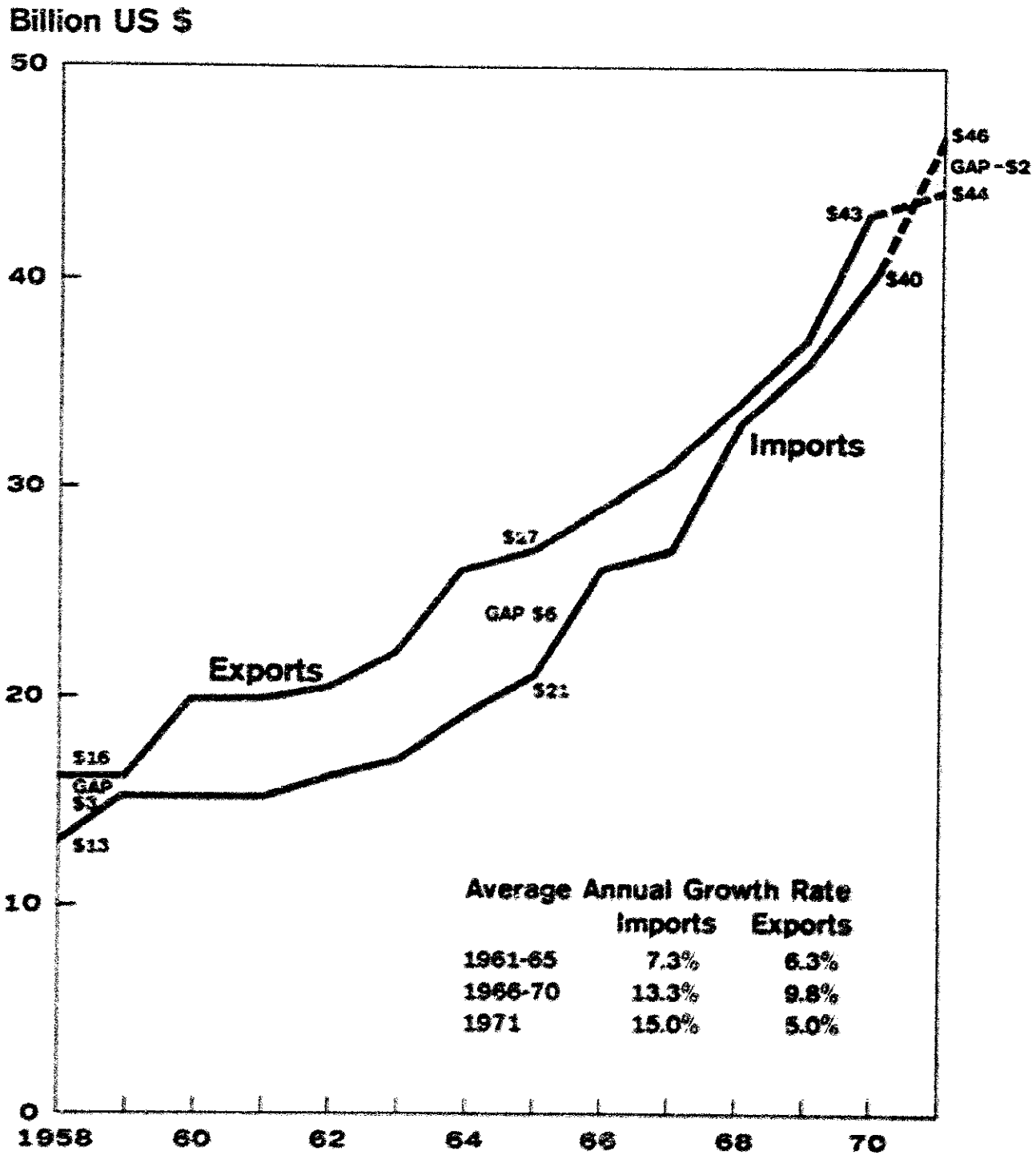
3. On the whole, export-oriented jobs tend to be better paying than import-competing ones -- reflecting the fact that our primary competitive advantage in international trade is in industries requiring high-level skills. There are, however, important exceptions to this general rule.

All this does not preclude dislocations and specific job effects in particular industries. Some of those who lose jobs to U.S. imports seem to be arguing that one can restrict imports and save those jobs without affecting our exports, and our export-related jobs. But other countries can directly affect our exports to them in response to our actions against their exports to us. It is difficult to have everything our own way. Further, virtually every study of this subject concludes that <u>most</u> job effects result from changes and competitive factors within our own economy (i.e., have nothing to do with foreign competition).

Nevertheless, job dislocations that do occur must be dealt with effectively and promptly. And clearly, our programs in this area must be handled on a far more comprehensive basis than any adjustment programs now in existence. At the same time, a major emphasis must be placed on what new job opportunities can be created in the 1970s to employ not just the workers who have been displaced but also the <u>much larger</u> number of new persons continually joining the work force. By 1980, a total of 100 million jobs will have to be provided in order to be at "full employment" -- or almost 20 million more jobs than today. Thus the creation of new jobs and new industries must command our attention.

It is obvious to all that if our employment were higher, the United States would be better able to absorb the relatively small number of job dislocations caused by additional imports. Here is a point where foreign economic policy and domestic economic policy intersect.

US Foreign Trade



US FOREIGN TRADE TRENDS -- BY PRODUCT CATEGORIES

In considering trade policy for the 1970s and 1980s, we should study certain underlying economic forces. In what categories are surpluses strong? Declining? Why?

The analysis is not meant to imply that the United States should, as a matter of policy, seek surpluses in all sectors of foreign trade. The purpose of trade is to permit each nation to produce and sell according to its best comparative advantage; in some sectors the United States can be expected to show trade deficits as we make best use of trading opportunities. The crucial issue for national policy is not that of specific deficits, but of the overall balance; to that end, trends in major commodity groups provide some detail on the historical and projected 1971 overall performance. Understanding these trends should help us to predict better the future outlook.

US FOREIGN TRADE TRENDS -- AGRICULTURE

The US agricultural surplus has grown recently, but the "green revolution" in the LDCs and preferential area trade restrictions impede US exports. Besides, everyone seems to strive for self-sufficiency in food. Thus, despite US comparative advantage, our favorable balance in agriculture is only about $2.5 billion (Chart 17).

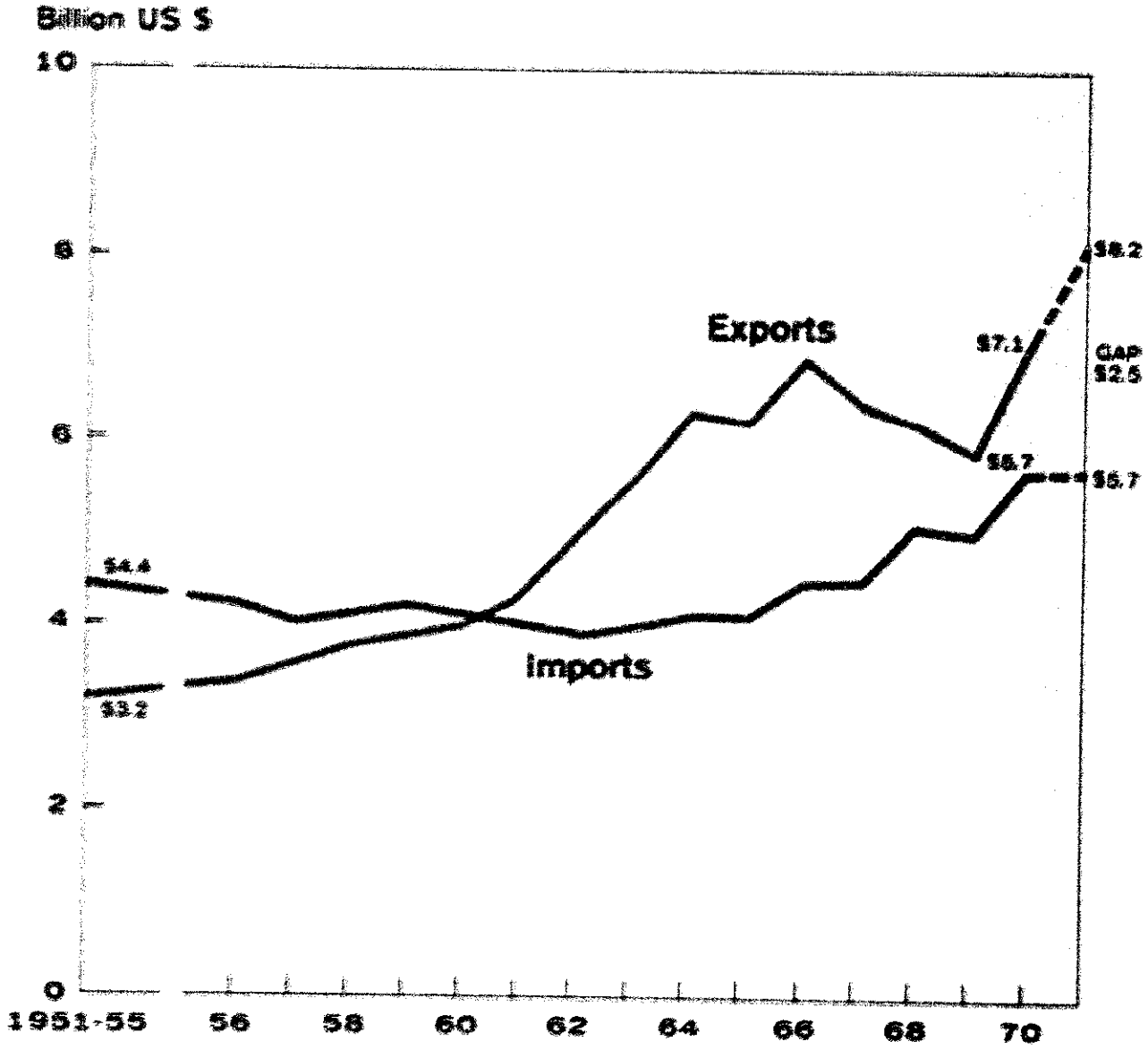
There is much talk about adjustment to economic dislocations -- that is, change in employment patterns caused by changing competitiveness, shifts in final demand, or productivity growth. The American farm is one example: In only 20 years, farm workers have dropped from 7.2 million to 3.5 million -- from 12.2% to 4.4% of the labor force (Chart 18). Yet the fewer workers are producing 20% more, and the value of production per worker in constant dollars has grown from $2,700 in 1950 to $6,600 in 1970.

Given US international comparative advantage in agriculture, it is worth another major effort to persuade other countries to reduce restrictions. Our lower prices would benefit other countries too, if we could mutually solve some of the political problems that underlie agricultural restrictions.

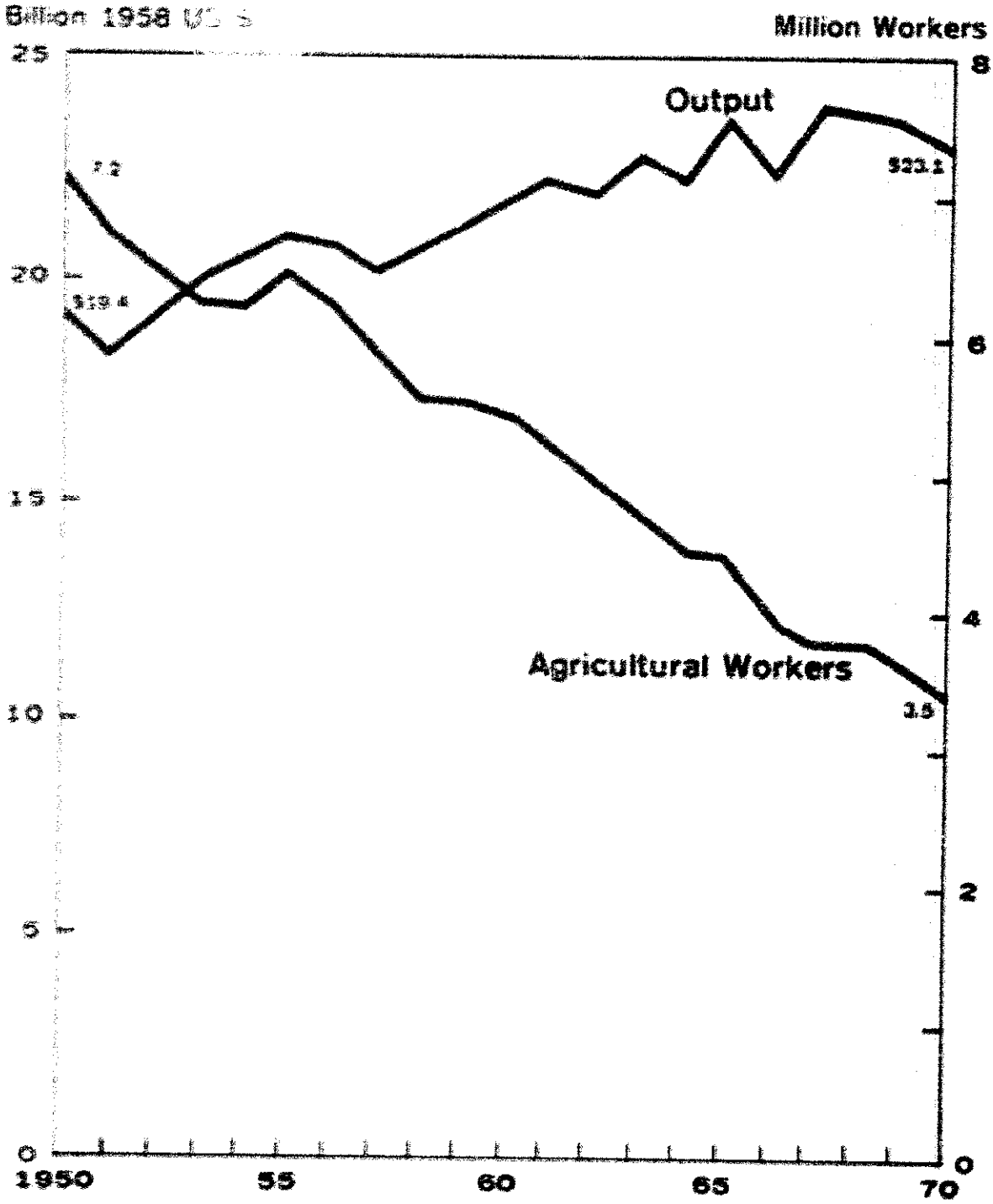
Despite foreign barriers, agricultural exports are a significant portion of the total value of US production: almost 17% of total fruit production; 33% of the value of cotton and corn; 42% of tobacco; and more than 60% of wheat and soybean production are exported. This is both a tribute to the productivity of our agricultural sector, and a reminder of our vulnerability to trade retaliation in agricultural products if the United States were to implement restrictive trade quotas. Precisely because other countries can expand their agricultural production, most students of world trade expect US agriculture would be one of the early victims of trade retaliation.

In analyzing our agricultural balance, note that the United States subsidizes agricultural exports under PL 480 at less than $1.0 billion annually. This outlay is partially offset by foreign currency receipts of about $330 million, making a net outlay of about $650 million.

US Foreign Trade Trends
Agricultural Products



US Agriculture



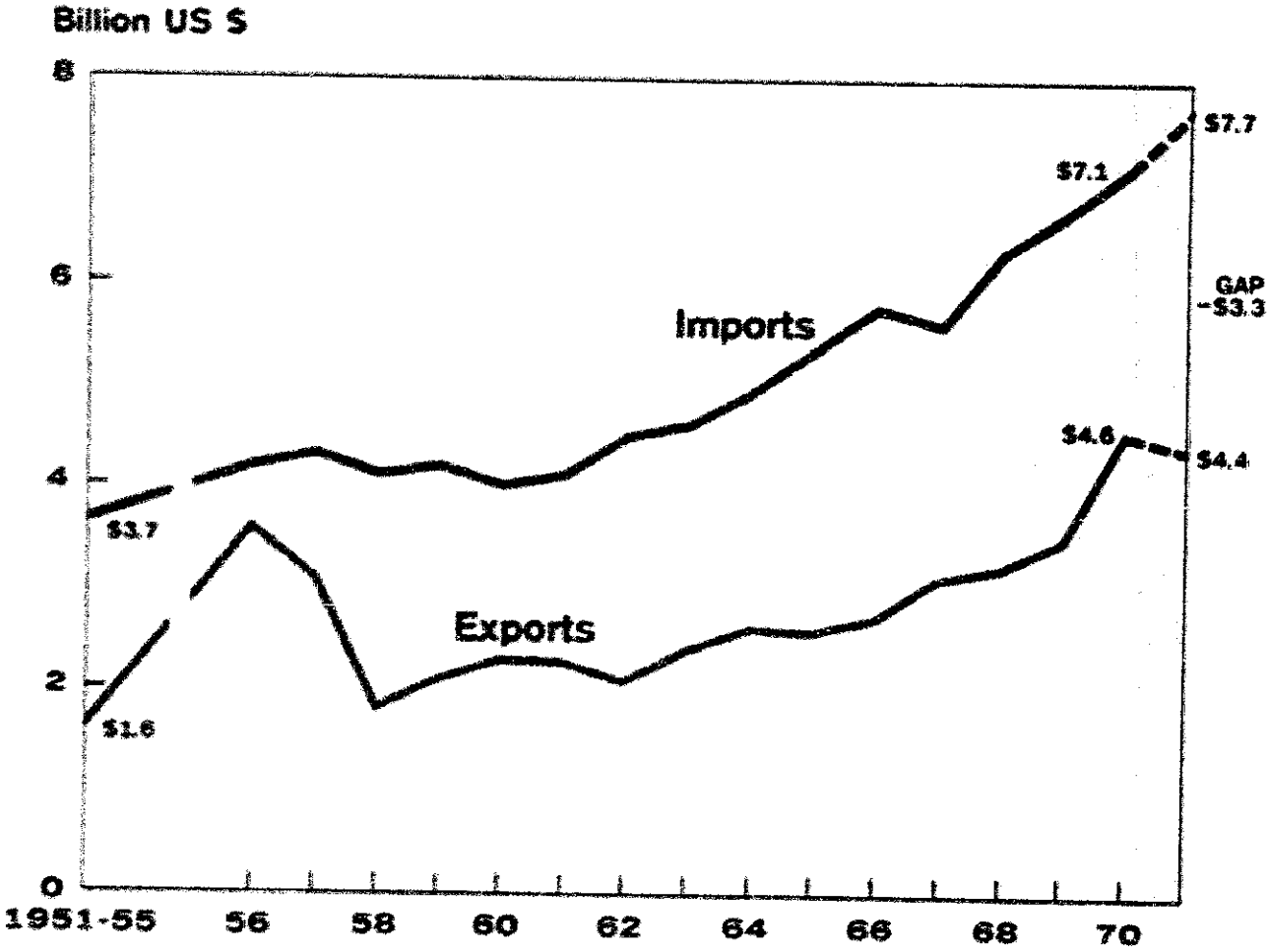
Between 1950 and 1970, agricultural output increased 19% and the number of agricultural workers decreased 52%. Meanwhile, agricultural workers as a percent of total labor force decreased from 12.2% in 1950 to 4.4% in 1970.

US FOREIGN TRADE TRENDS -- MINERALS AND RESOURCES

In minerals and resources (Chart 19) it is predictable that unless there are some major breakthroughs in cleaner domestic energy resources -- for example, a cheaper nuclear source -- our trade deficit will continue to increase and that we will consume more and more relative to what we produce. Some would say that oil imports, for example, could climb by $12 billion by the end of this decade, unless we find domestic alternatives.

US Foreign Trade Trends

Minerals, Unprocessed Fuels, and other Raw Materials



US FOREIGN TRADE TRENDS -- MANUFACTURED PRODUCTS

A more rapidly widening gap in our trade balance is found in the so-called "nontechnology-intensive" manufactured products, and is probably an inevitable result of spreading industrialization. As countries begin production of products easiest for them, new sources of shoes, textiles, sporting goods, and the like appear (Chart 20).

With more countries becoming our competitors in products requiring less technology, it is likely that our exports of the future will depend increasingly on "technology-intensive" products (Chart 21). More than half our foreign sales are in this category -- and our favorable balance here is over $8 billion for 1971. It is expected that this 1971 "technology-intensive" surplus will about equal our "nontechnology-intensive" deficit

There are, of course, important problems of definition in distinguishing "technology-intensive" or "nontechnology intensive" products. Some argue that at least one whole class of products included in the "technology-intensive" category -- as defined by Dr. Boretsky (Department of Commerce) -- does not belong in that category. (Automobiles are an often mentioned example.) Still others argue that while particular products of certain categories are "technology-intensive," others of that same category are not (certain chemicals would be an example). Such definitions are matters of judgment, and the reader should look at the specific product categories and arrive at his own conclusions (Chart 22). On balance, however, the trends are so powerful that it seems safe to conclude that our trade position has been heavily dependent on higher technology products.

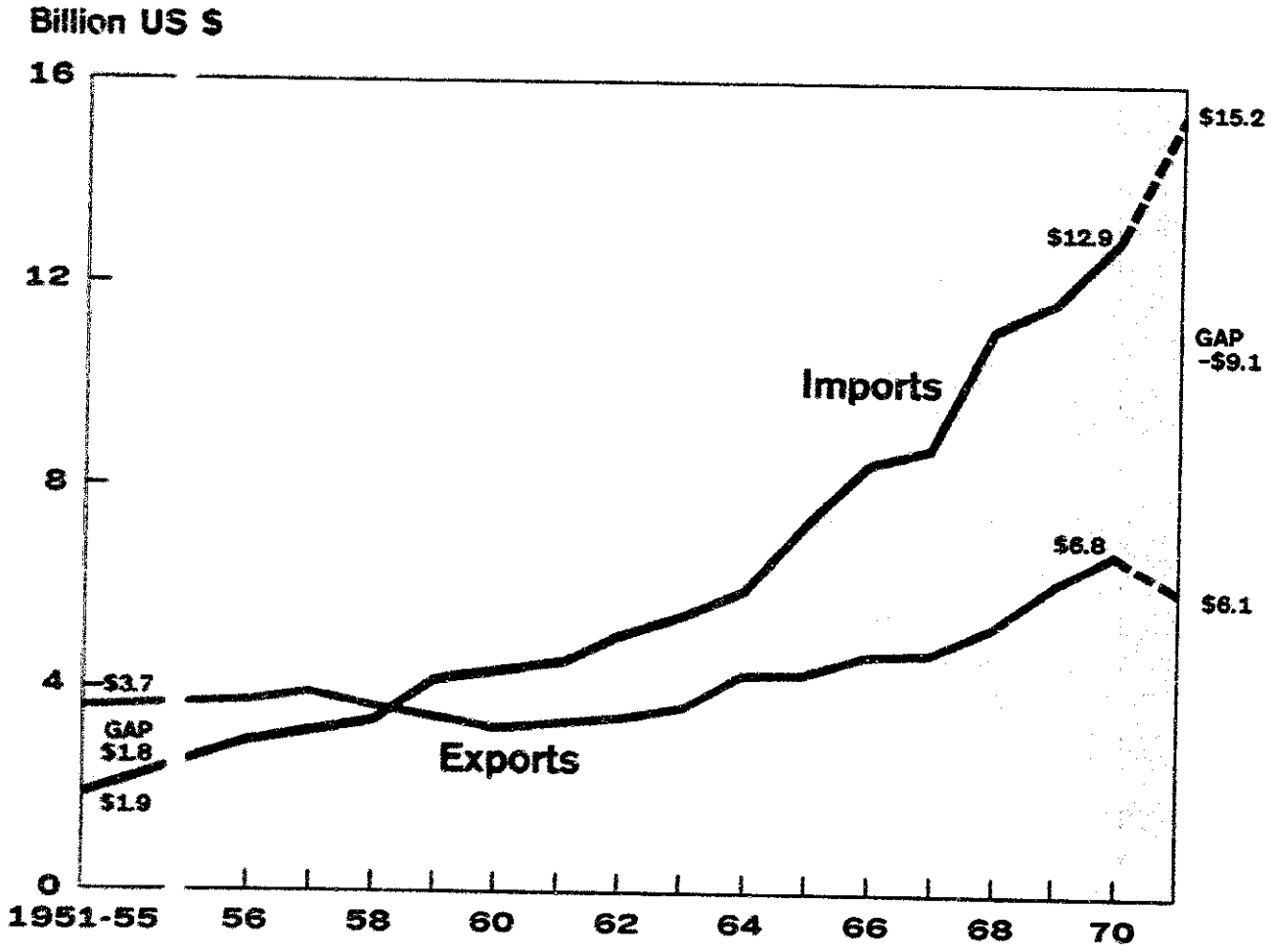
Charts 23 and 24 give examples of individual products that have rising or falling trade balances. While our trade surplus grew for aircraft, computers, and chemicals, there are rapidly growing deficits in motor vehicles, textiles, clothing, and footwear.

However, we should remember that in recent years the undervalued currencies of certain other countries have made us unnecessarily dependent on high technology products for which relative prices are often a less important competitive factor. Conversely, fairer exchange rates will make some of our "nontechnology-intensive" products much more competitive in world trade.

Chart 25 summarizes trade balance trends covering the four basic categories of products -- manufactured and nonmanufactured -- we have used in this analysis.

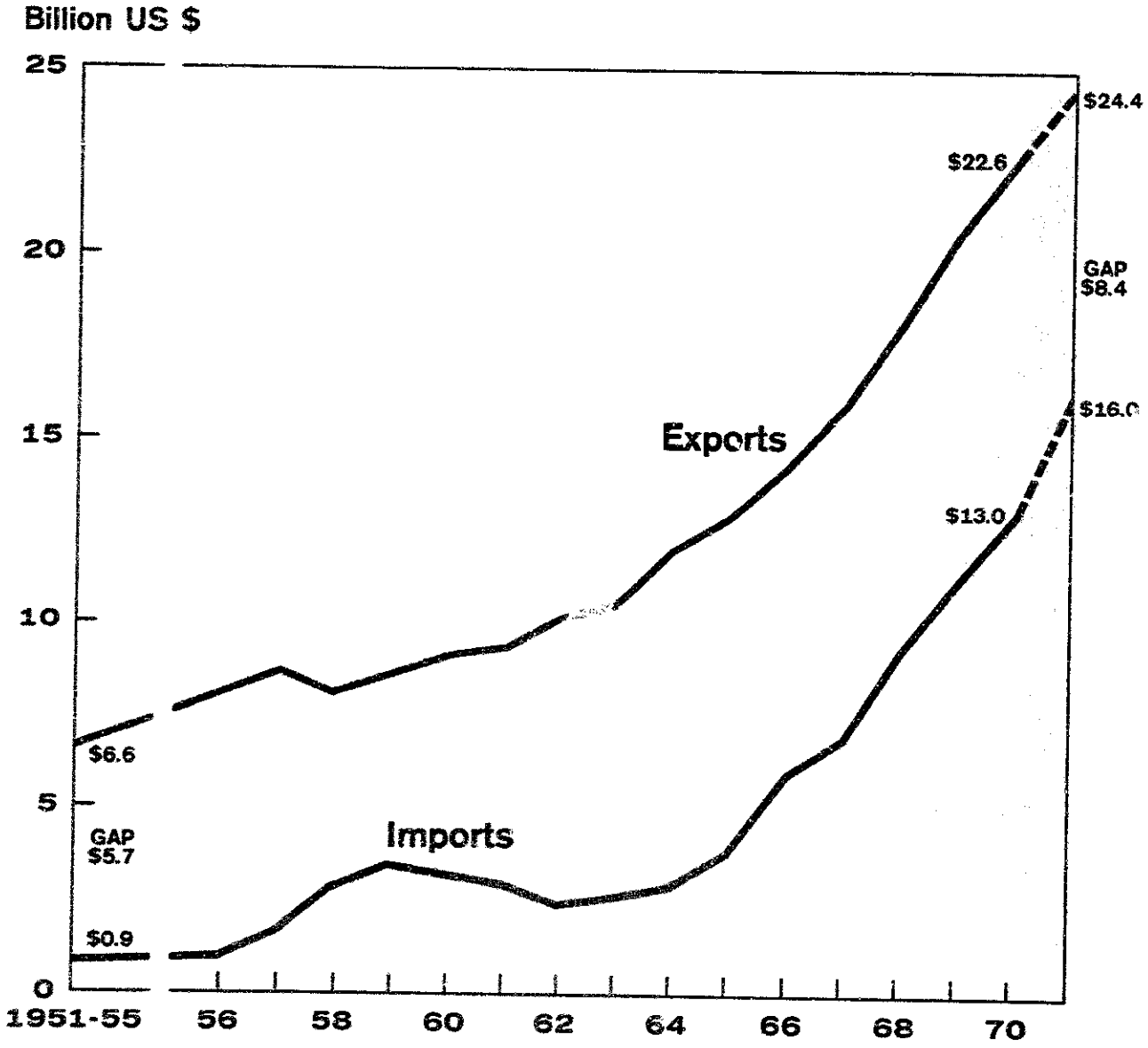
US Foreign Trade Trends

"Nontechnology-Intensive" Manufactured Products



US Foreign Trade Trends

"Technology-Intensive" Manufactured Products



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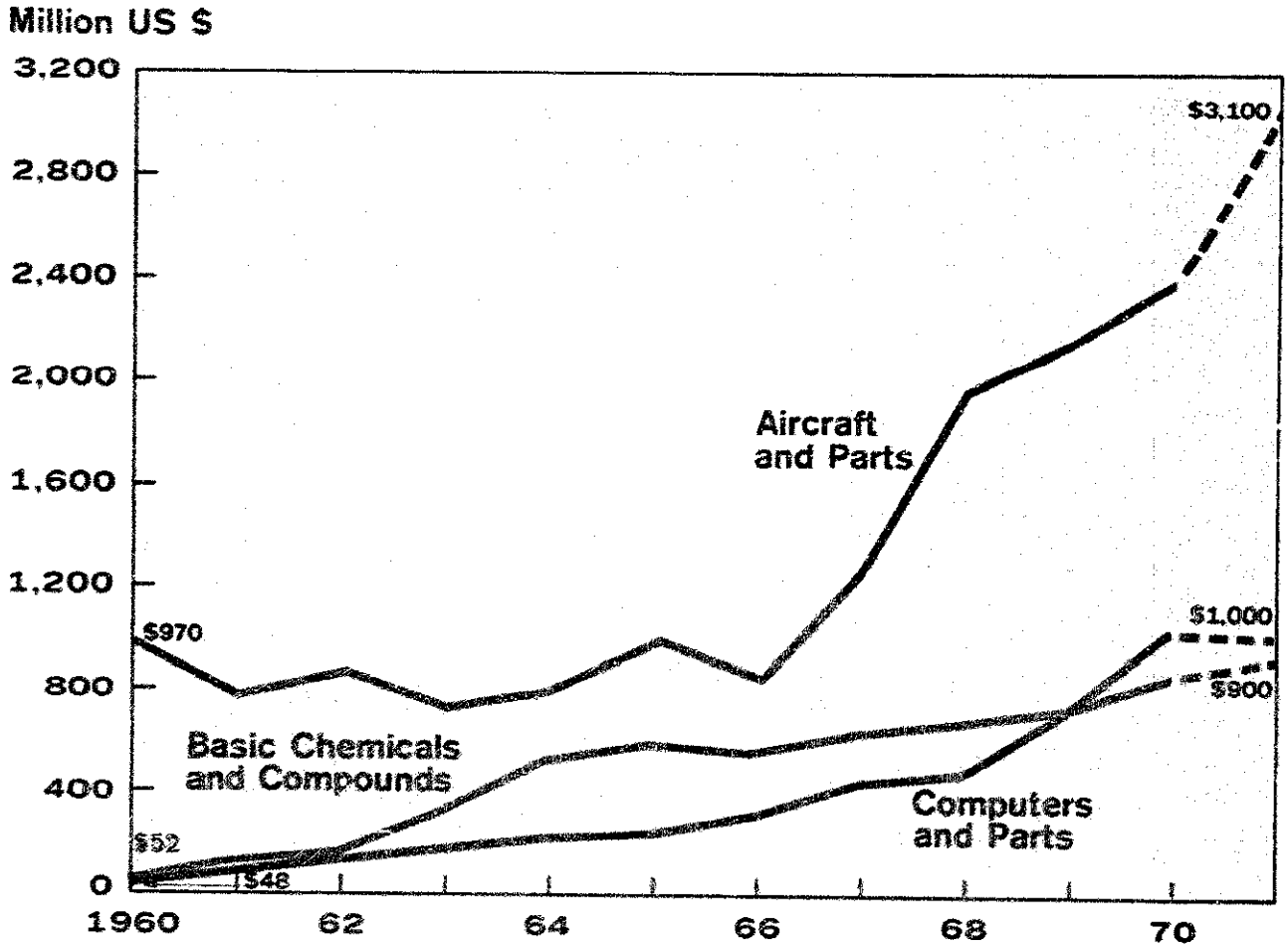
US Trade in Selected Manufactured Products

Million US $	1970			Jan –Jun 1970	Jan –Jun 1971
Technology Intensive	**Exports**	**Imports**	**Balance**	**Balance**	**Balance**
Fabricating Machinery	1,956	900	1,056	506	517
Motor Vehicles and Parts	3,549	5,479	−1,930	−1,045	−1,653
Aircraft and Parts	2,659	275	2,384	1,345	1,776
Basic Chemicals and Compounds	1,642	759	883	504	415
Power Generating Machinery (Non-electric)	1,395	782	613	356	281
Computers and Parts	1,104	60	1,044	469	530
Scientific and Professional Instruments	857	356	501	255	282
Construction Machinery	733	49	684	334	340
Telecommunications Apparatus	661	1,104	−443	−157	−301
Synthetic Materials	653	123	530	276	257
Electric Power Machinery	611	247	364	193	198
Medicinal and Pharmaceutical Products	421	87	334	179	140
Nontechnology Intensive					
Yarns, Fibers, and Fabrics	603	1,136	−533	−254	−402
Clothing	200	1,267	−1,067	−434	−571
Footwear	10	630	−620	−297	−380
Paper and Manufactures	622	1,087	−465	−225	−226
Iron and Steel	1,270	2,032	−762	−128	−930
Nonferrous Metals	964	1,652	−688	−299	−417
Furniture	54	231	−177	−93	−109
Wood Manufactures	132	414	−282	−124	−165

US Trade Balance in Selected Commodities

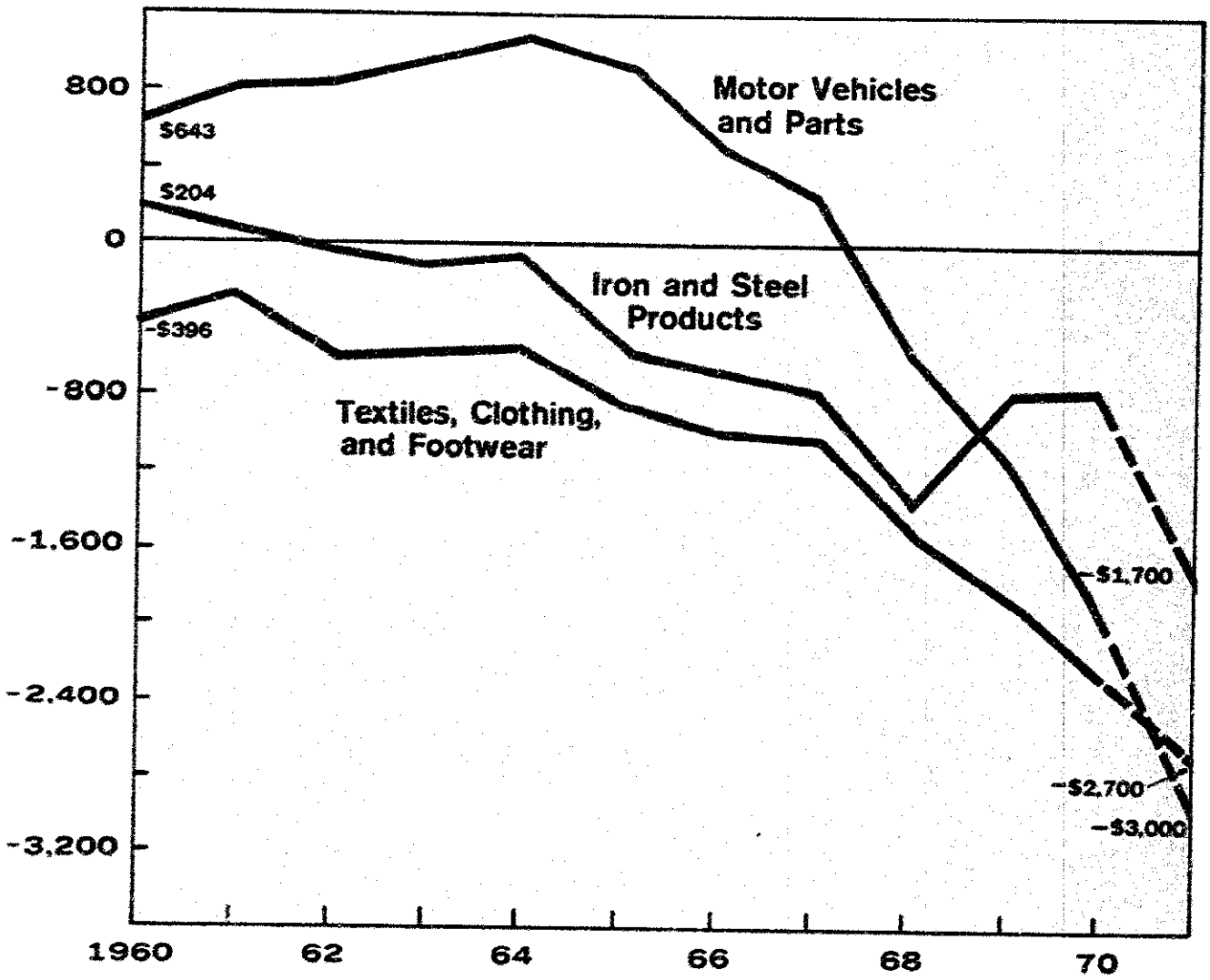
With a Rising Trade Surplus



US Trade Balance in Selected Commodities

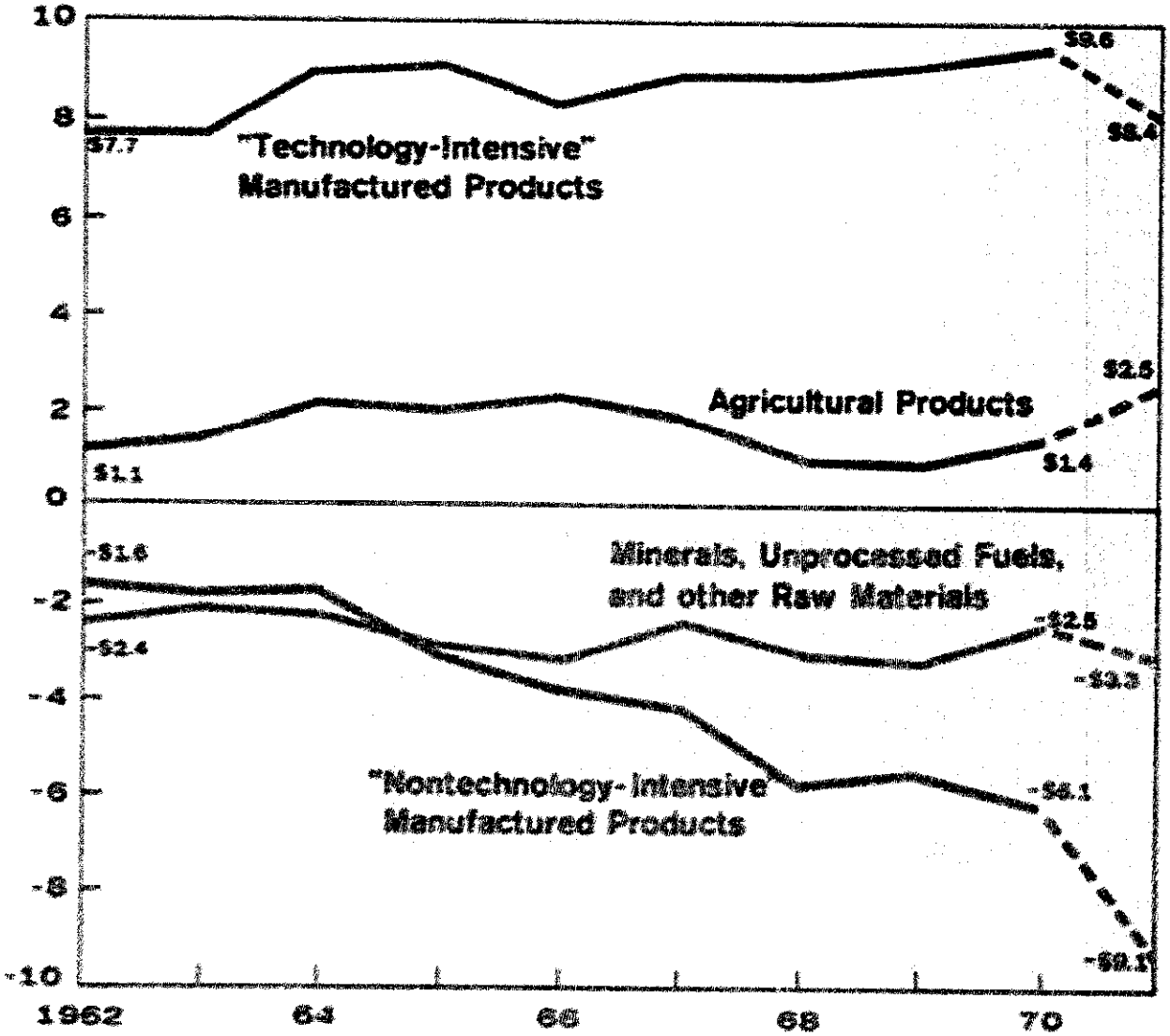
With a Declining Trade Balance

Million US $



US Trade Balance Trends

Billion US $



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US RATIO OF IMPORTS TO CONSUMPTION -- MANUFACTURED PRODUCTS

Another way of viewing the penetration of foreign products into the United States is by specific market shares. Foreign goods do dominate some highly visible consumer categories: the foreign market share is in excess of 50% for amateur motion picture cameras, black and white television sets, motorcycles, radios, cassette recorders, and 35mm still cameras (Chart 26).

It should be remembered that the numbers presented in this chart are aggregate market penetrations of some very large and diverse product fields. In the case of textiles, for example, there are a substantial number of specific and major product categories in which market penetration is well over 50%. The situation in steel is similar.

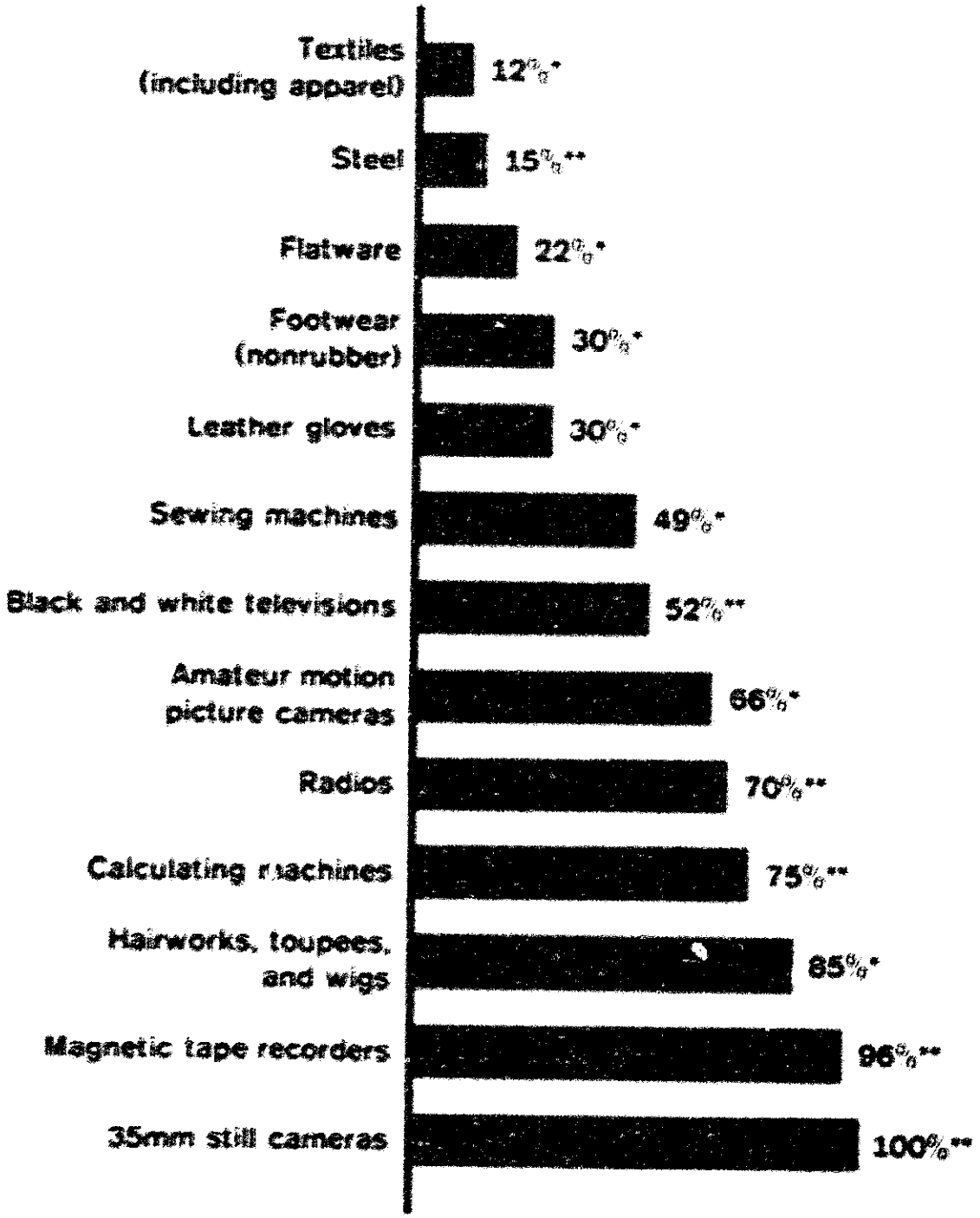
It would appear that the vast majority of consumers like the variety, richness, or lower prices of these imports. If restrictions were to limit the availability or increase the price of such products, consumers would no doubt feel that their "quality of life" had suffered. To illustrate this, studies of such products as shoes and television sets suggest that without imports, their prices in the United States might rise 30%. For tape recorders and a number of other key items, prices could rise as much as 50%. Aside from unfavorable consumer reaction, restricting these products would obviously add to inflationary pressures.

Industry and labor view import penetration as competition which causes significant adjustment problems. The speed of economic change can also aggravate this adjustment: in some of the cases, much of the penetration took place within a period of ten years or less. At the same time, within most of these product categories we will see individual domestic companies that, by some combination of product innovation, quality, highly productive techniques, and effective marketing compete effectively. And in examples such as transistor radios or compact autos, consumer markets have been broadened by imports.

Market penetration is related to the rapidity with which technology, manufacturing know-how, capital, and goods are transferred around the world. It now takes much less time for a product first developed in one country to appear again in very similar form in another country. During the first quarter of this century, some studies suggest this process took about 20 years; by the second quarter of the century, this period had been shortened to ten years; and finally, in the 1960s, it has been shortened to three years.

Since, in the aggregate, imports are still a small fraction of our total output, in most product fields they are also a very small fraction of the market. On the other hand, it is also clear that since the mid-sixties the overall aggregate market share going to foreign products has increased significantly -- approximately doubling.

US Ratio of Imports to Consumption, 1970



*By Value
**By Volume

US TRADE TRENDS--BY GEOGRAPHICAL AREA

In addition to analyzing our trading patterns by type of product, it is useful to review trade by geographical area.

In so doing, we should be careful not to conclude that our trade balance with all countries must be the same, or that it is "bad" if we have a deficit with some. It is inevitable that we should have some deficits in an expanding world of open trade, since our particular needs lead us to buy more products from some countries than from others.

On the other hand, it is true that bilateral trade barriers exist that seriously distort natural and open trading patterns. Thus, some trade negotiations are necessarily bilateral in nature and an understanding of the reasons for bilateral trading patterns can be important.

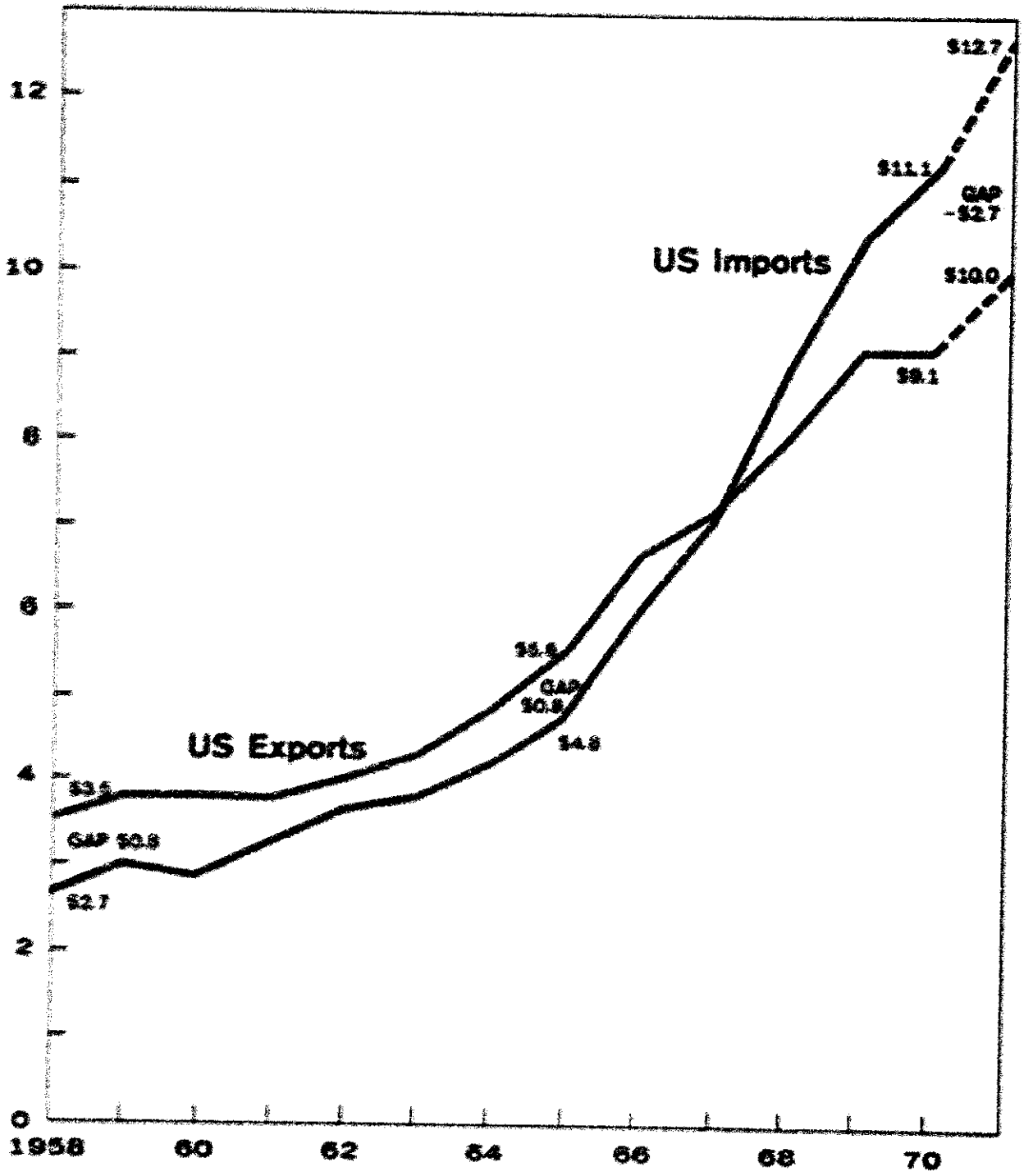
US TRADE -- WITH CANADA

The logical starting place is Canada, our principal trading partner. Our exports to Canada, estimated for 1971, amount to about $10 billion and our imports about $13 billion (Chart 27). Our deficit has been increasing for several reasons: the US-Canadian Automobile Agreement has perhaps accounted for about half of it, and has played a major role in the declining "technology-intensive" balance (Chart 28). We are growing more dependent on Canada's oil and other raw materials. Also, the Canadian dollar has been undervalued in the past, although that problem recently has been eased. Our position in agriculture, however, showed a positive balance of over $800 million in 1970, which, after we deduct agricultural transshipments, leaves a net favorable balance of almost $220 million.

An important consideration is our heavy investment in Canada--over $20 billion--and the resulting remittances that help our balance of payments. Also, as noted, 63% of Canada's production is exported. Since the United States has invested heavily in Canada, exports were certainly to be expected. Thus, our simple analysis focusing only on the total trade imbalance does not tell the full story.

US Trade with Canada

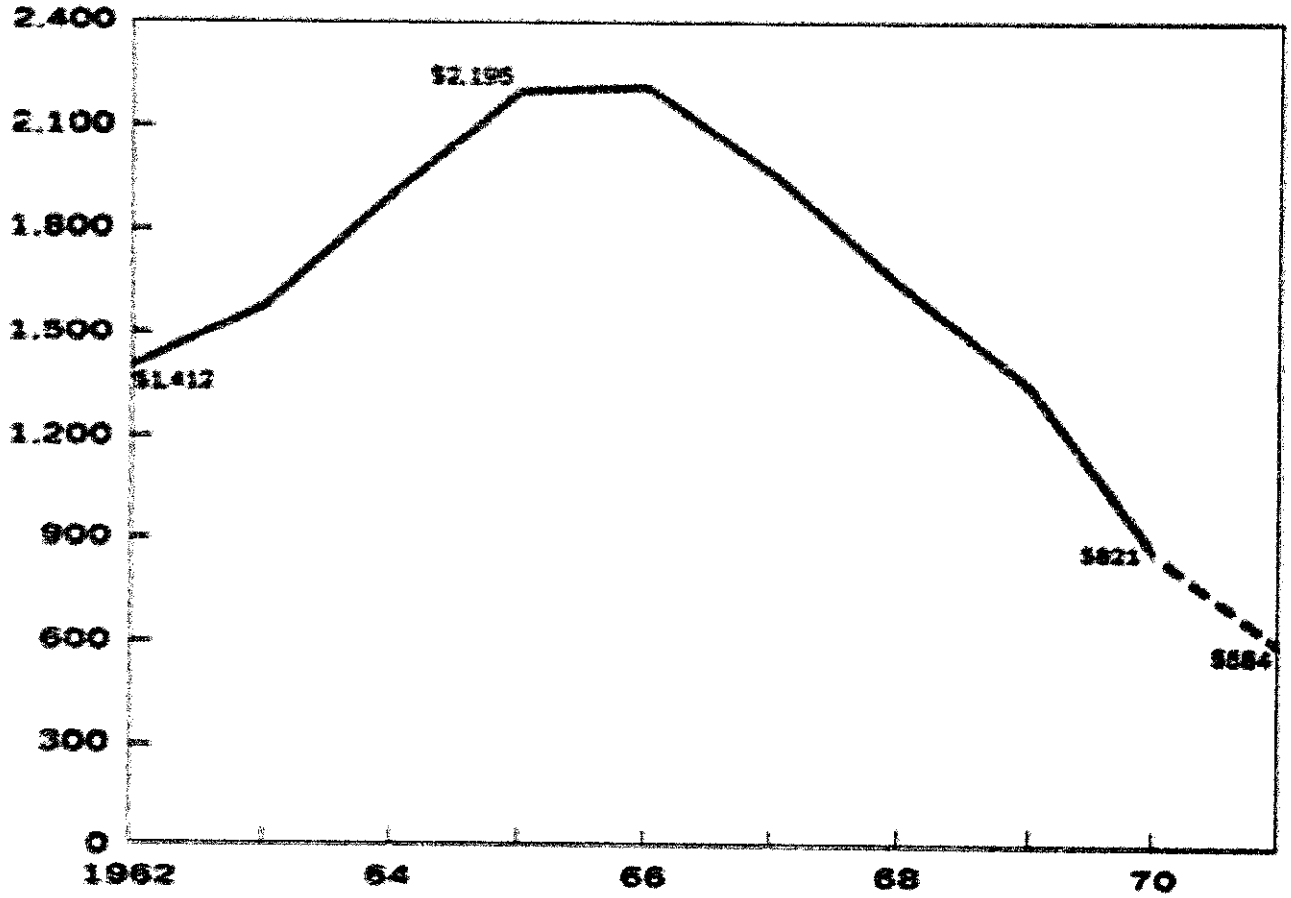
Billion US $



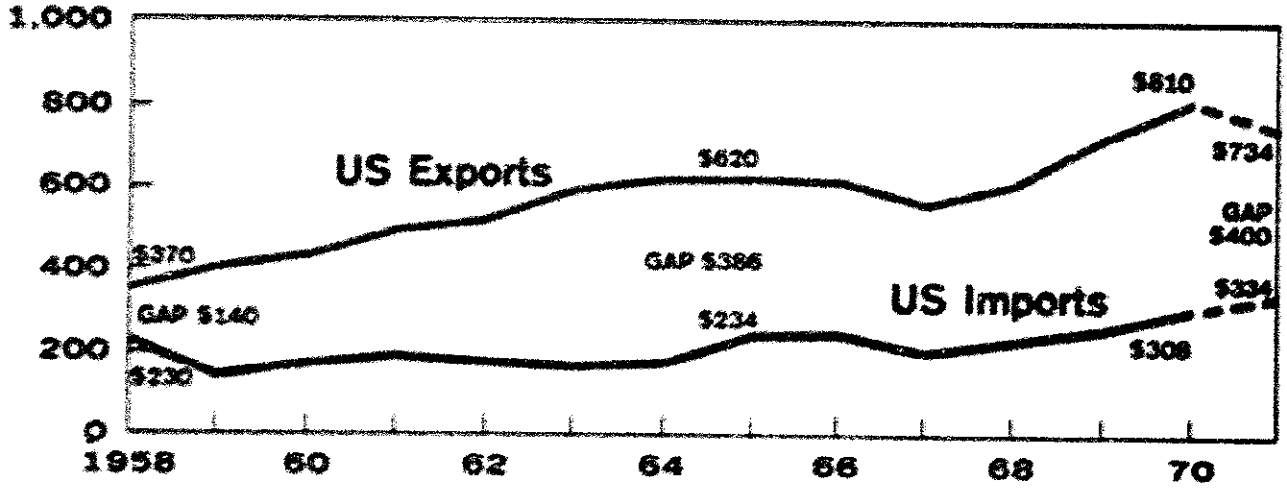
US Trade Balance with Canada

"Technology-Intensive" Manufactured Products

Million US $



US Agricultural Trade with Canada



During 1958-70, about 19% of US agricultural exports to Canada were goods for transshipment to third countries.

US TRADE WITH THE EUROPEAN COMMUNITY

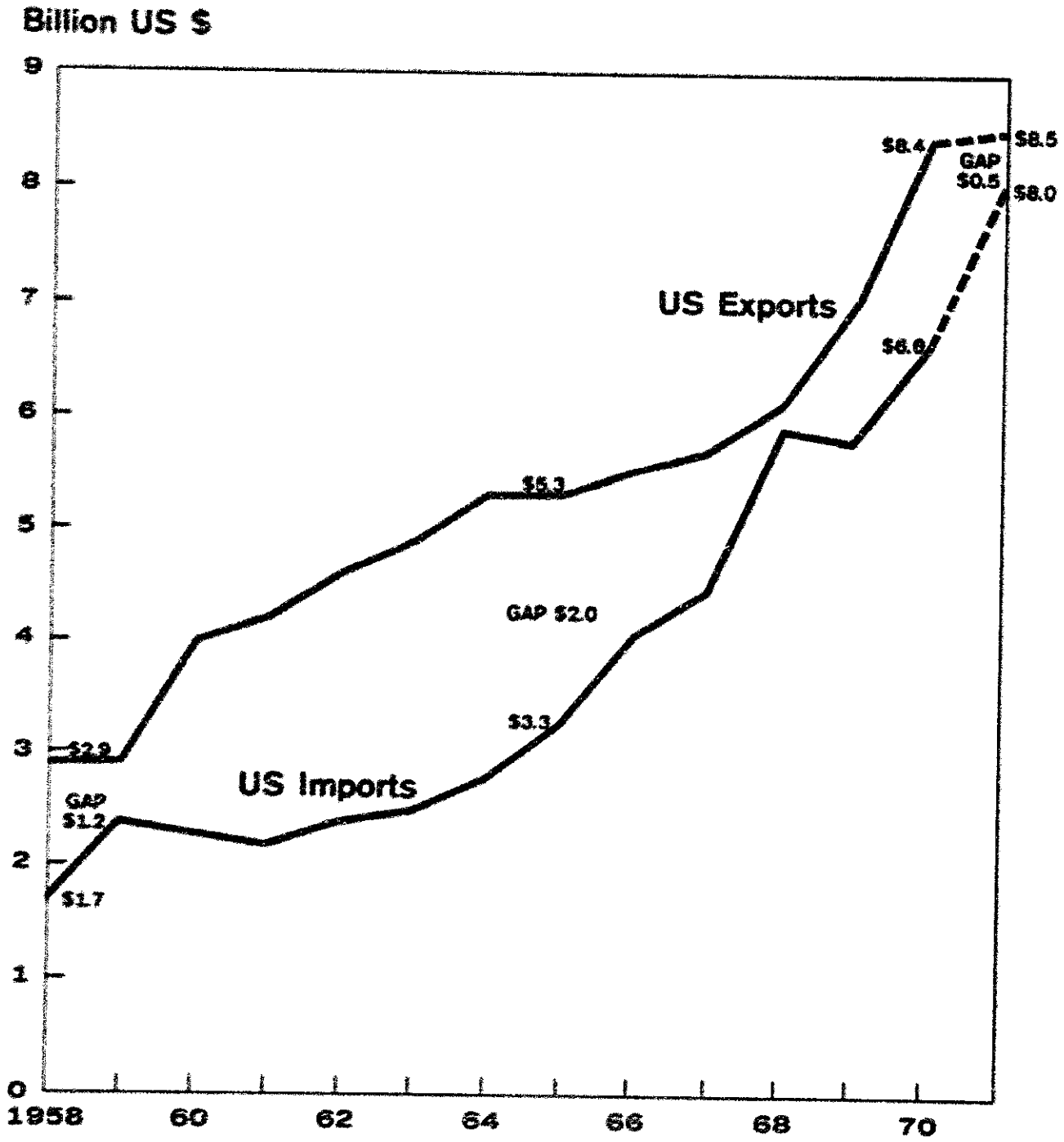
Our trade with the EC shows rapid growth in both exports and imports, but very recently a shrinking positive trade balance of about $1.8 billion in 1970 and an estimated $0.5 billion in 1971 (Chart 29). This balance is aided by a surplus in technology-intensive products with Western Europe estimated at $1.6 billion for 1971 (Chart 30).

In most commodities, the EC countries have until now been good customers of and suppliers to the United States. There are, however, certain tendencies in the EC that are probably not in the economic or political interests of the United States, particularly for the future. The EC's variable import levy system for agricultural goods (under which a levy is applied against the imported product so that its final price in the EC tends to be at or above internal prices) is already restrictive and its impact on some US products is probably large. For example, exports to Europe of a major commodity such as soybeans--which is not subject to the levy--have increased more that 55% since 1956. Exports of grains subject to levies, however, have grown much less--only 15% over this entire period. And, in recent years, shipments to the EC of US grains under levy have declined 30%-35% from their peak.

Another problem relates to preferential tariff treatment granted some 30 countries by the EC; in turn, these countries permit preferential access to their markets for EC manufactured products. The effects of these preferences on our citrus exports to the Community is a clear example of what from our standpoint is a discriminatory act, detrimental to both US economic interests and the principle of a multilateral, open trading world.

To sum up: In 1950, the EC was an idea; by 1970, it had become the world's most import trading area. In 20 years it has changed both the political and economic shape of Europe and the world. The process of unification, while successful in overcoming old rivalries, has also created important new economic problems for the United States.

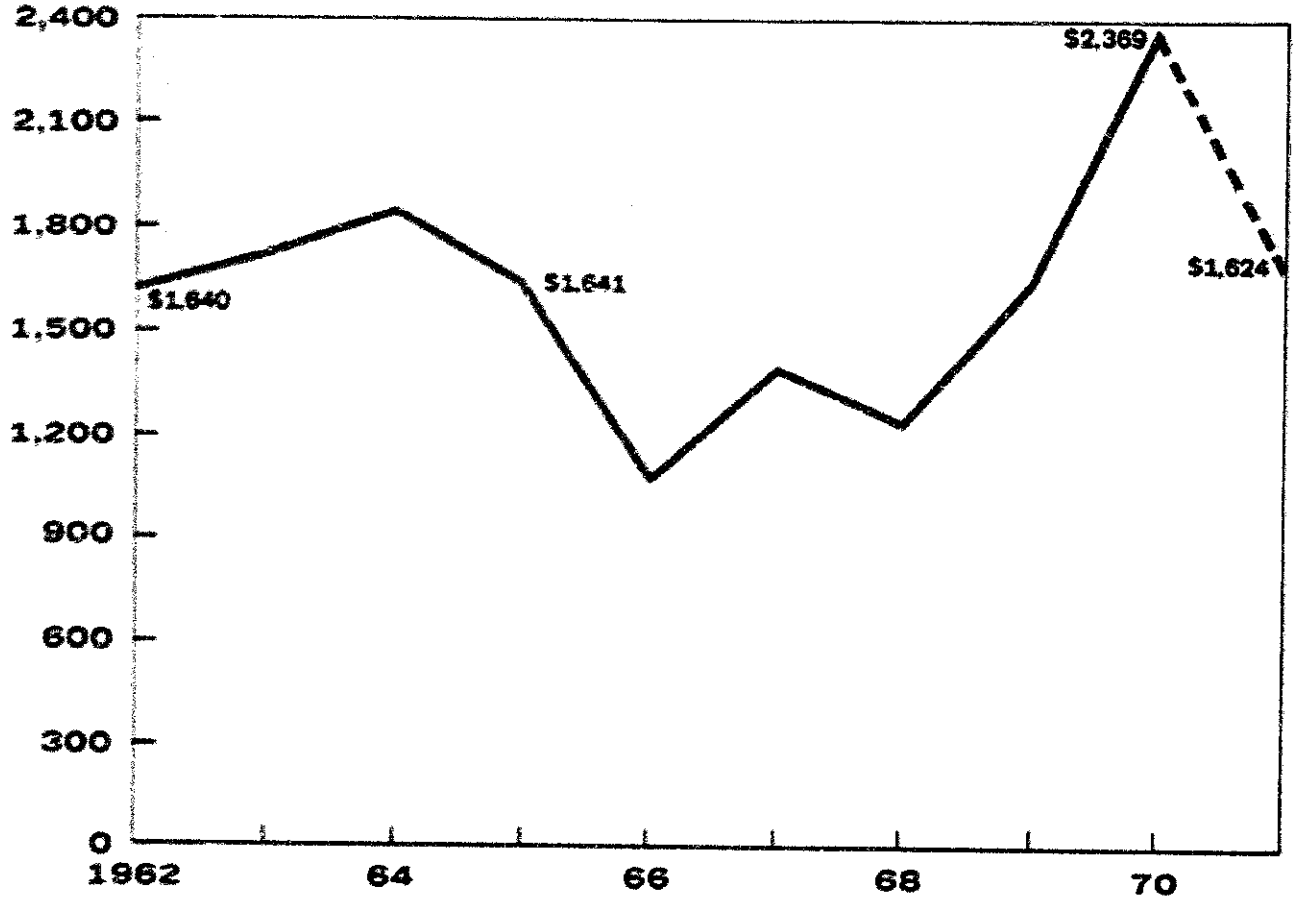
US Trade with the European Community



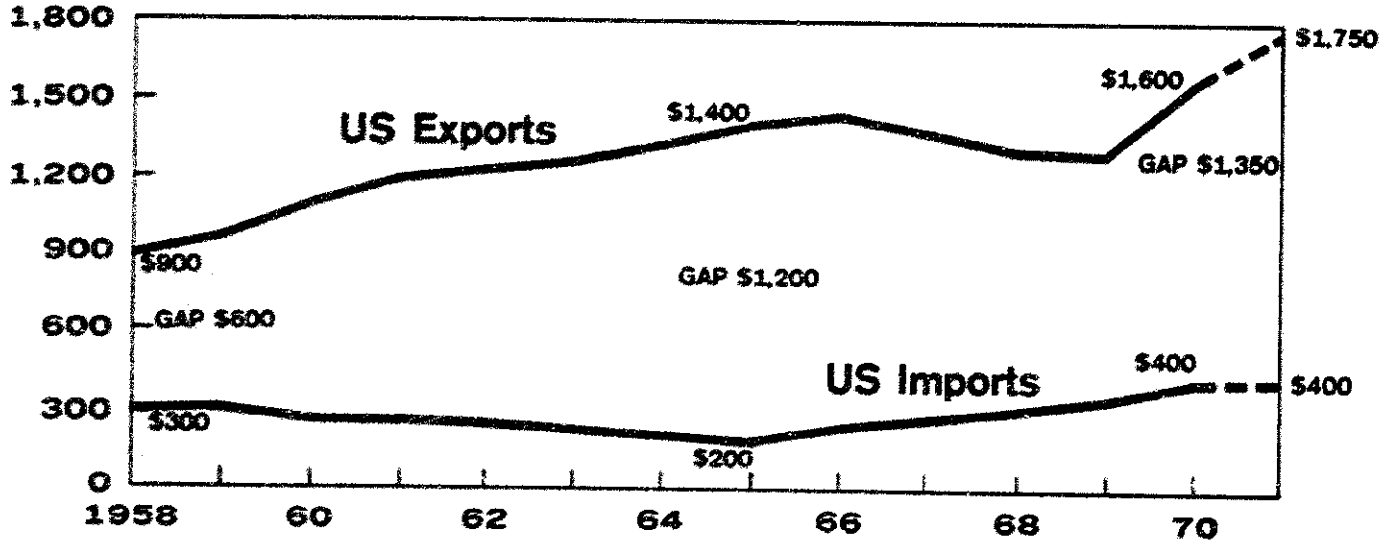
US Trade Balance with Western Europe

"Technology-Intensive" Manufactured Products

Million US $



US Agricultural Trade with the European Community



US TRADE WITH JAPAN

The story is told by the almost vertical growth curves of trade with our No. 2 trading partner. Our exports to Japan have grown more than 17% annually during the past five years, and their exports to us have grown even faster. Japan is thus both a good supplier and customer. Only the Far East absorbs a larger portion of Japan's exports than does the United States which absorbs over 30% (Chart 31).

Much of the Japanese export effort is aimed at the United States, causing pressures on some of our domestic companies. Even our superiority in "technology-intensive" products does not show up in the US-Japan trade balances. In fact, there is no other country in the world with which we have a negative balance on technology-intensive products. This deficit was more than $1 billion in 1970 and is estimated at more than double that for 1971. This particular deficit is larger than it would have been had Japan had fewer import restrictions on growth industries, such as computers and other advanced electronic products in which the United States excels (Chart 32).

Since Japan is an insular nation and a country poor in raw materials, it must import many basic commodities. The bulk of Japan's purchases from the United States--about 73%--are agricultural products and industrial raw materials, necessary for both domestic consumption and processing into exports. Japan, in turn, tends to sell us increasing amounts of sophisticated products, reflecting numerous gains in their technology and know-how.

Japan's overall trade surplus is unusually large, given its amount of trade--in 1970 Japan's trade surplus exceeded $4 billion--and it is growing rapidly. It was estimated to reach more than $7 billion in 1971. And in their five-year plans and projections, the Japan Economic Planning Agency and other research groups project favorable trade balances averaging about $11 billion by 1975.

Chart 33 shows Japan's trade balance and its foreign exchange reserves before 15 August 1971. Not only has the growth of trade surplus and reserves been substantial, but it has been accomplished during a period of full employment and rapid domestic growth -- conditions which should tend to increase imports. It seems clear that an undervalued currency contributed heavily to this situation--along with an apparent drive for "exports for exports sake."

Clearly, there is a large and growing dollar imbalance in our trading relationship with Japan. Is there also a lack of symmetry, or more accurately perhaps, even lack of equity, in Japanese-American commercial relationships?

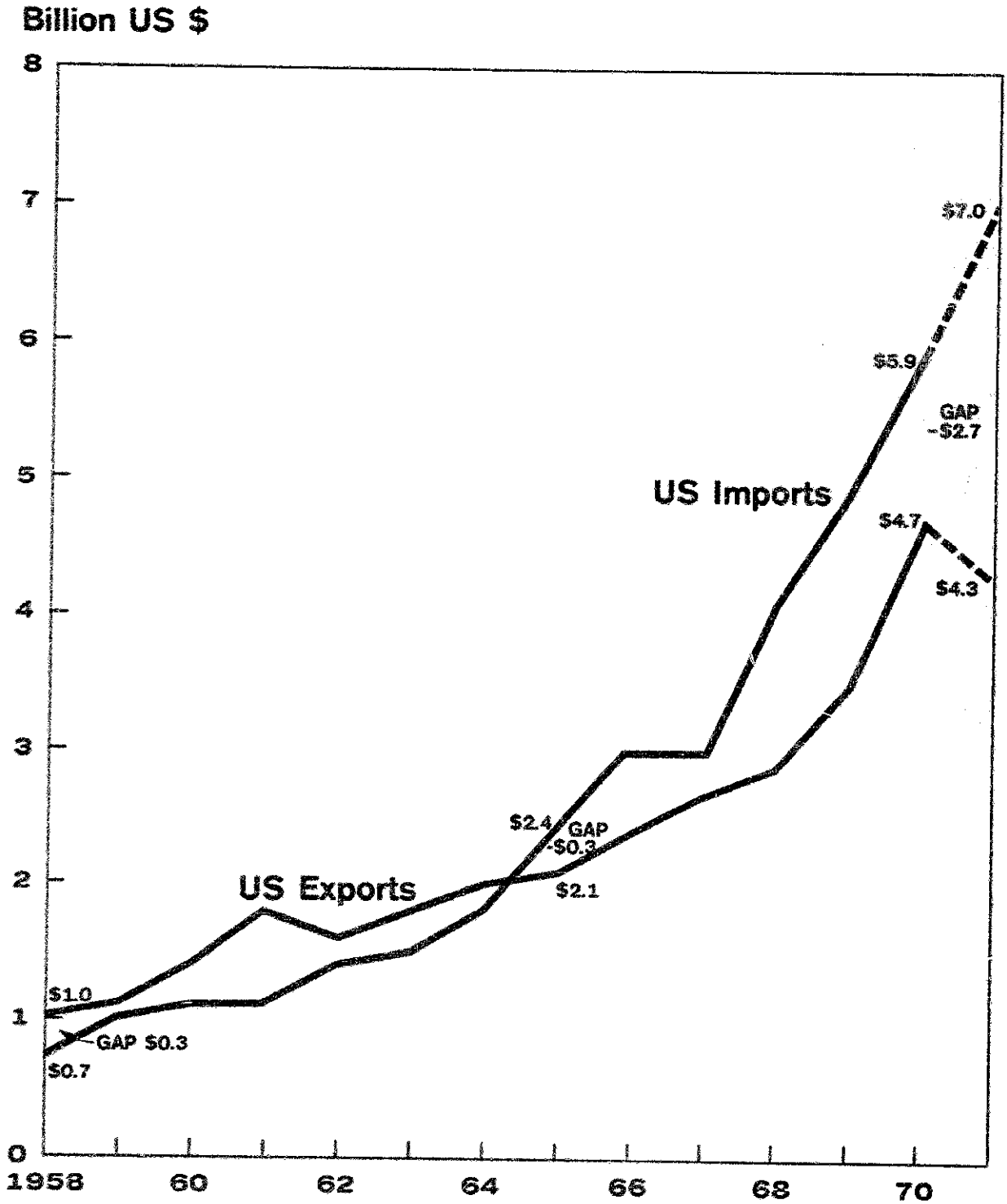
As an example, examine the case of automobiles. Japan's automobiles enter the US market unimpeded, but for a modest tariff. Japan's auto exports to the United States are rising rapidly--from 69,000 automobiles in 1967 to 354,000 automobiles in 1970. In the first half of 1971, Japanese auto exports to the United States were up 124% over the previous year. Presumably because of lower transportation costs, the Japanese effort is aimed at our West Coast market. In the early months of this year, Japanese cars accounted for about 20% of new car sales in the Los Angeles metropolitan area.

On the other hand, our automobile manufacturers face a variety of restrictions in Japan. Our two largest automobile manufacturers, General Motors and Ford, can own only a minority share of a company in Japan, on terms which are specified. They are also subjected to restrictions on the management composition of a Japanese affiliate.

If instead of investing, these US manufacturers should want to export automobiles to Japan they confront extensive restrictions. Commodity and road taxes are aimed at the larger cars from the United States--taxes that result in a Cadillac that costs $8,000 in the United States being sold for $30,000 in Japan; even the Pinto which sells for about $2,000 in the United States sells for nearly $5,500 when exported to Japan. General Motors, the largest exporter to Japan, accounts for only 0.1% of the very large Japanese market. To be sure, some of our most popular automobiles may not be suited to the Japanese market, but these artificial burdens clearly impede our exports to Japan.

There are a variety of other restrictions, quantitative and qualitative, often aimed at protecting growth industries of the future (fields where the US would be in a strong position to export). These measures include informal agreements between the Japanese Government and business officials--an elusive tactic known as "administrative guidance" that is effective because of the strong spirit of government-business cooperation existing in Japan and the economic power the government can bring to bear against any violator. Obviously, we should consider all these restrictions in our trade negotiations. As will be shown later, we should also remember that Japan has already made some progress on its own in the direction of removing some of these restrictions.

US Trade with Japan



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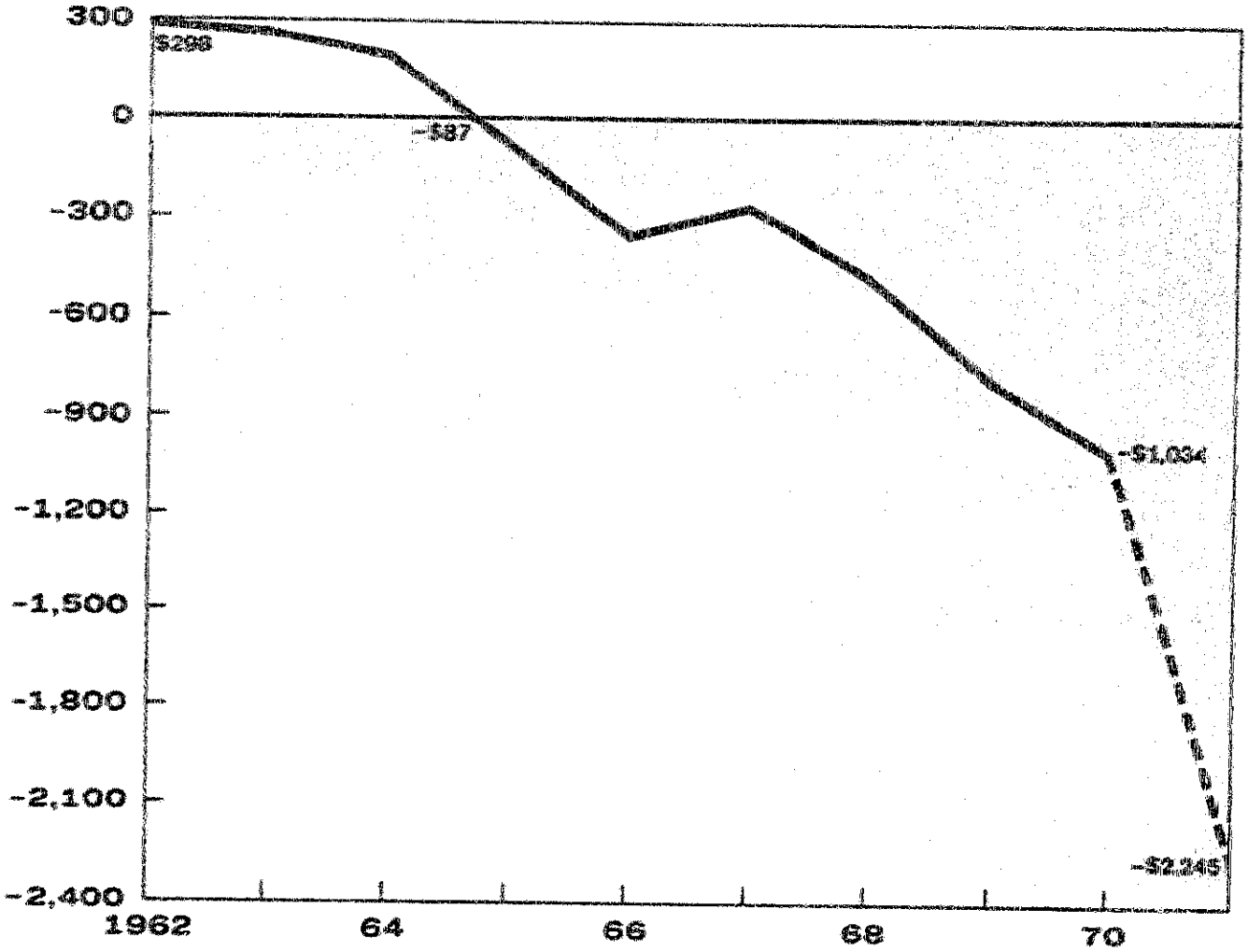
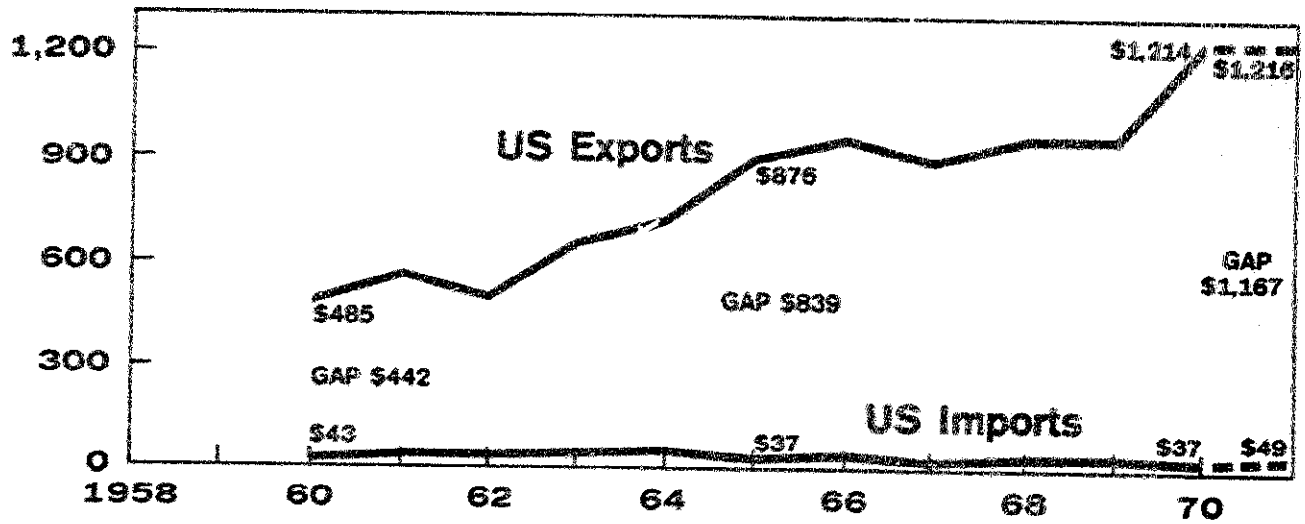
US Trade Balance with Japan

"Technology-Intensive" Manufactured Products

Million US $

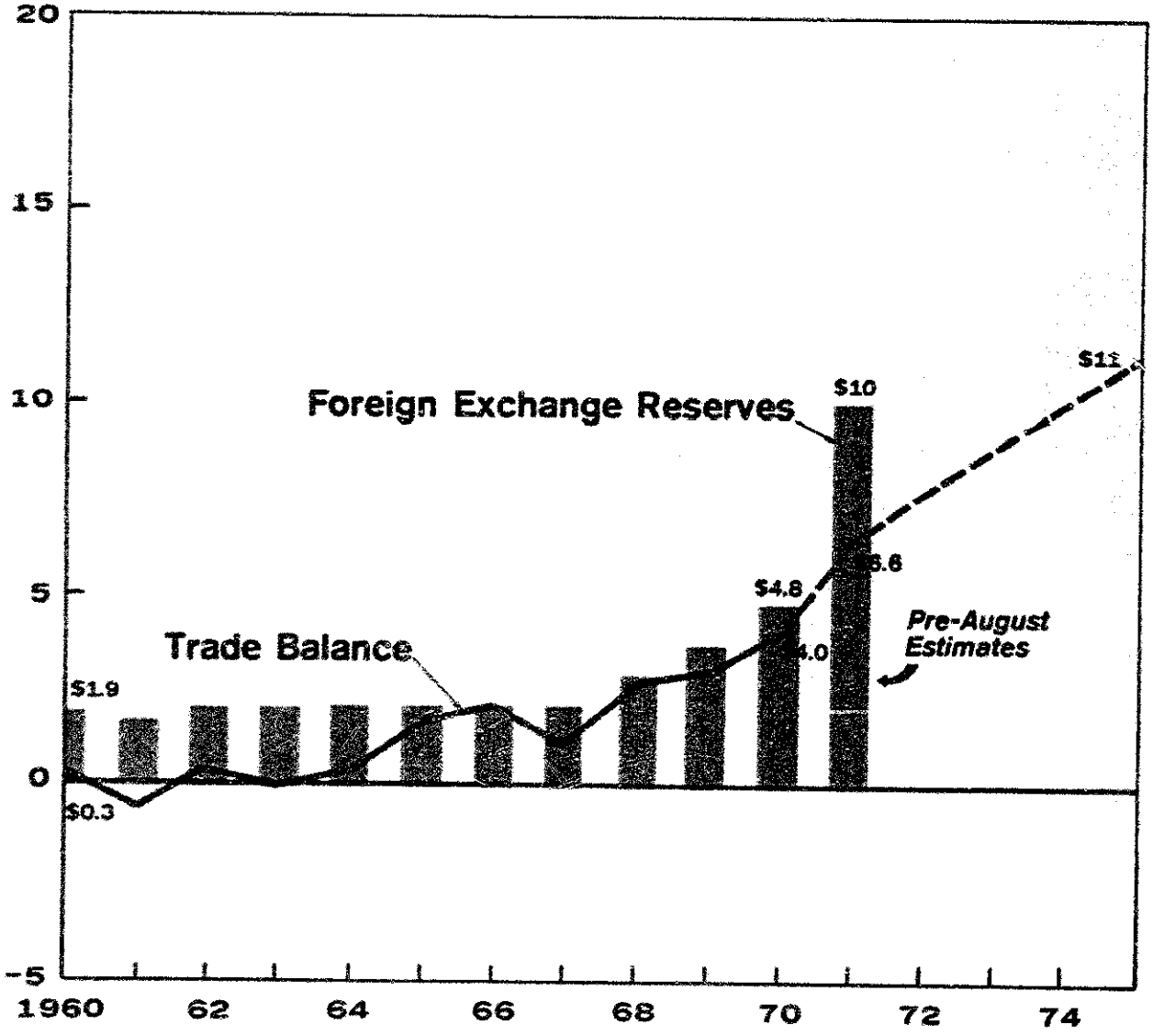


US Agricultural Trade with Japan



Japan: Balance-of-Payments Trends

Billion US $



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DIRECTION OF TRADE

The well-developed pattern of trade that is apparent between the United States and the EC is in contrast to the thin flow of trade between Japan and the EC (Chart 34).

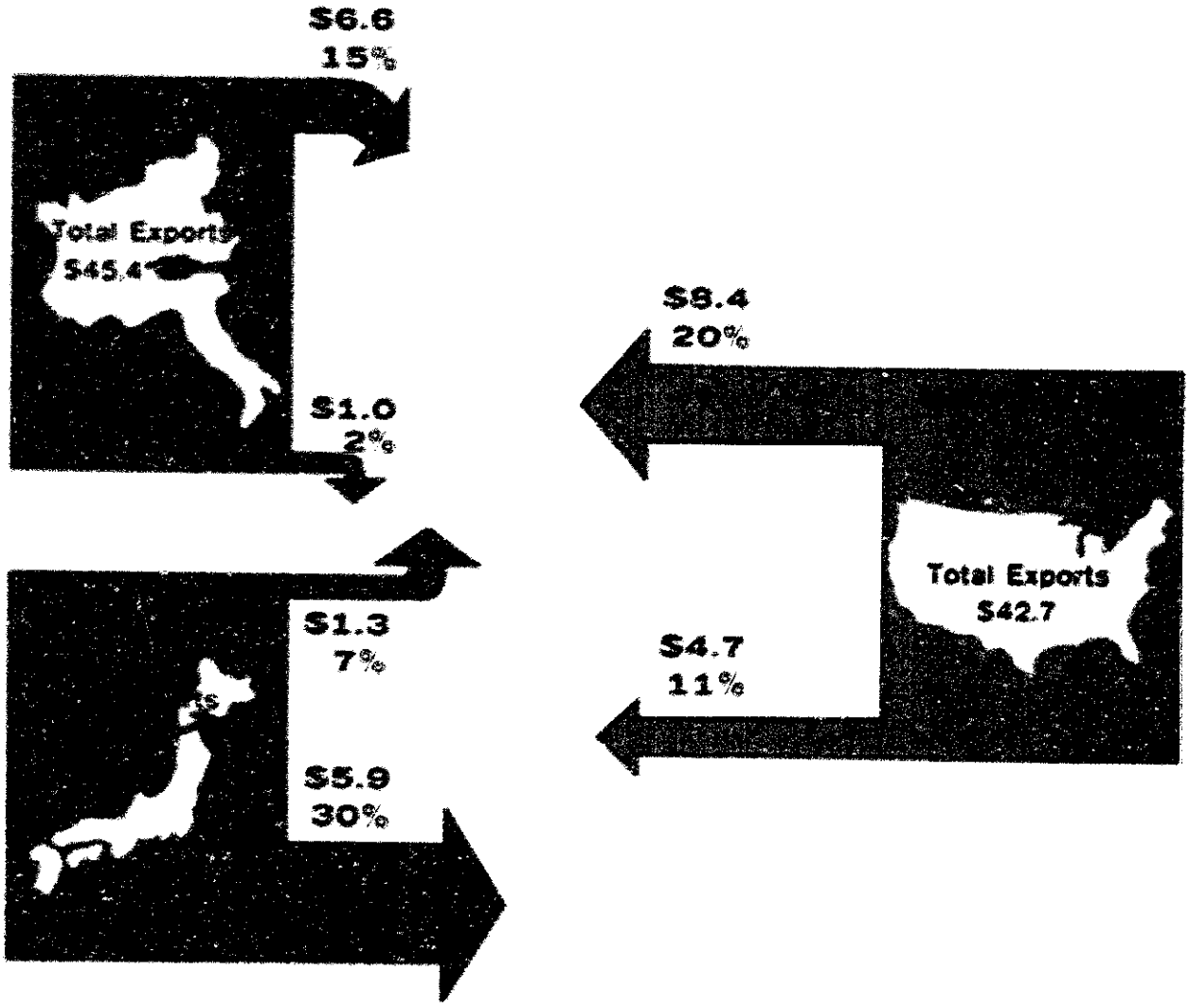
Japan sells over 30% of its exports to us, but only about 7% to the EC. Earlier we saw how much larger a percent of world trade the EC accounts for than does the United States. Thus, it becomes clear that Japan's share of US imports is many times higher than Japan's share of EC imports. Looking at the reverse flow, only about 2% of the EC's external exports go to Japan, whereas 15% go to the United States.

Further growth of Japanese imports into the EC is impeded by nontariff barriers, including quotas and less formal "safeguards." Many of the EC quotas are on textiles; others are on porcelain, cutlery, footwear, umbrellas, steel and, in the case of Italy, motor vehicles. In 1969, for example, Italy imported 12 motor vehicles from Japan; and in 1970, only 481. Liberalizing negotiations are stalled on the issue of formulating the escape clause that EC countries could invoke against rising Japanese imports.

This asymmetrical trading pattern puts Japanese export pressure on the United States--while the EC undergoes a more "orderly" pattern of trade growth. Increased Japan-EC trade would be advantageous to the United States for another reason: lost US sales in these two markets resulting from their increased competition would not be very great since we are not typically selling the same kinds of products.

Direction of Exports, 1970

Billion US $ and
Percent of Countries' Exports



*Excluding trade within the European Community.

FREE WORLD TRADE WITH THE USSR AND EASTERN EUROPE

The first striking feature of Chart 35 is the growth of Free World trade with Eastern Europe and the USSR, now totaling about $10 billion each way -- imports and exports.

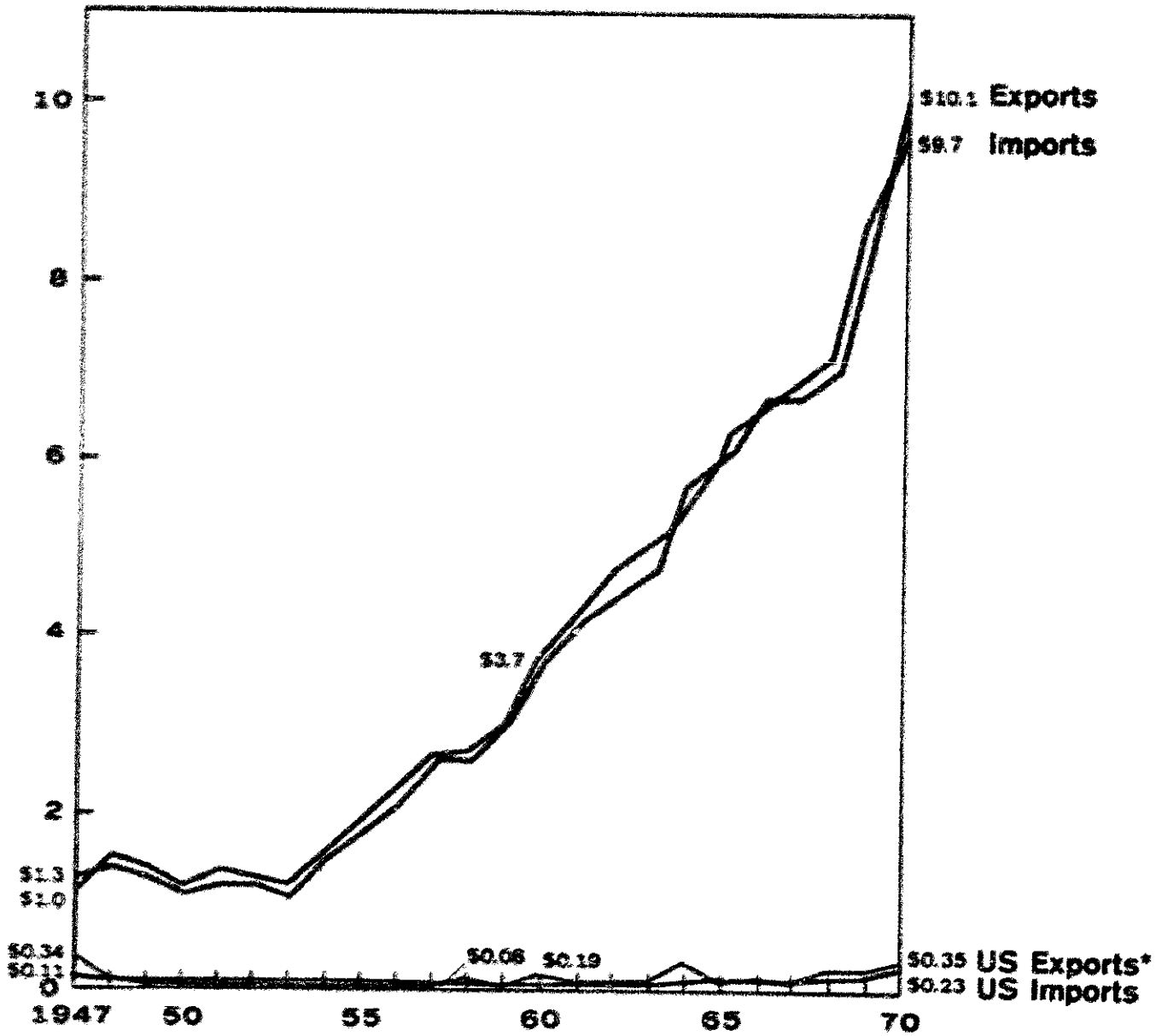
The second is the small US share -- only $350 million of exports -- and less imports. Our allies are getting the dominant share of these sales.

The third feature is the tight hugging of the almost vertical lines, which is no accident. Trading with Communist countries usually requires barter, since they do not have sufficient convertible currency. Other Free World countries have set up special corporations and special financing arrangements for handling some of the unique aspects of trade with the Communist countries.

We all realize there are many political and national security considerations in East-West trade, particularly in high-technology products and strategic materials. One specific contribution of our Council will be to provide accurate economic input to this complex equation. In each case, the Council on International Economic Policy will be working closely with the National Security Council and the other interested Government agencies.

Free World Trade with the USSR and Eastern Europe

Billion US $



*Including exports to Asian Communist countries prior to 1952.

III. WORLD TRADE BARRIERS

World trade has been encouraged in recent years by the reduction of tariff rates in the post-Kennedy Round of GATT. Tariffs are now less important barriers to trade in most high-technology manufactures between developed countries.

Quantitative restrictions (quotas), used at one time by the EC and Japan to almost entirely exclude certain categories of imports, have been substantially reduced. However, the EC has substituted a protective Common Agricultural Policy and variable levy system to shield its agriculture, and Japan still has a number of quantitative restrictions. In the United States, the number of quantitative restrictions has been increased in an attempt to moderate the growth of imports of particular commodities such as oil, steel, textiles, and meat.

As tariffs are reduced and quantitative restrictions dismantled, other restrictions, called qualitative or nontariff barriers, are obviously increasing in relative importance. These include informal agreements between government and business officials, product standards, government procurement regulations, health and safety standards, and other measures.

AVERAGE TARIFF RATES

Average tariff rates on manufactured and semimanufactured products will be virtually the same among major industrialized nations after completion of the final Kennedy Round reductions scheduled for 1 January 1972. The United Kingdom, Japan, and Canada will have average rates slightly above those of the United States and the European Community (Chart 36).

Developed nations have benefited most from tariff cuts applied to sophisticated manufactures. Rates remain high on some non-technology-intensive manufactures, especially textiles, which the less developed countries (LDCs) produce at lower cost. Overall, raw materials were already duty free or subject to very low rates.

Tariff reductions under the Kennedy Round are scheduled to be completed 1 January 1972; however, there remain possibilities for improvement. Under the Kennedy Round, average duties were reduced by one-third, and most rates were cut by all countries; but cuts in those tariffs remaining offer additional opportunities to stimulate trade.

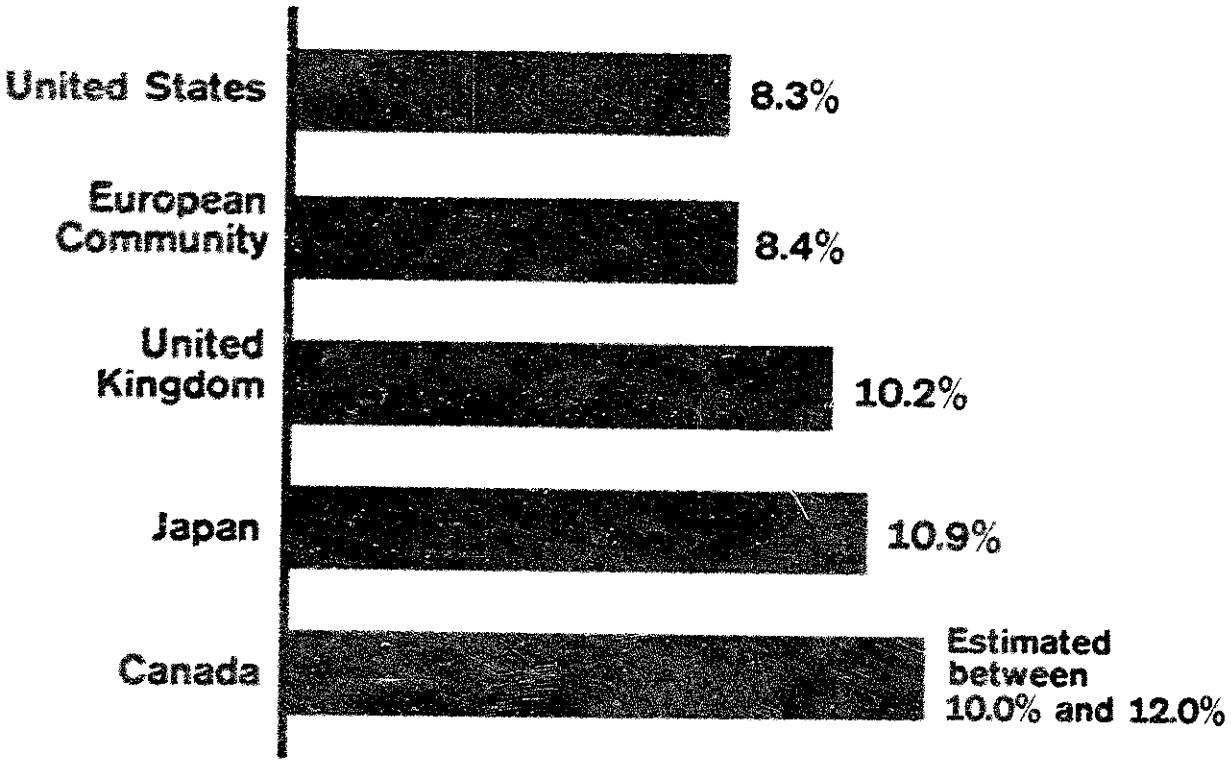
In seeking opportunities for further trade negotiations, it is natural to examine high-tariff products first. The United States, along with Canada and Japan, has relatively more rates above 15%, where the best trade-off possibilities may exist. Also, in the low range, progress in eliminating "nuisance" duties is probably possible. (Chart 37.)

But each commodity or tariff case must be examined on the facts of its market and competitive characteristics; and tariff reductions will require Congressional authority.

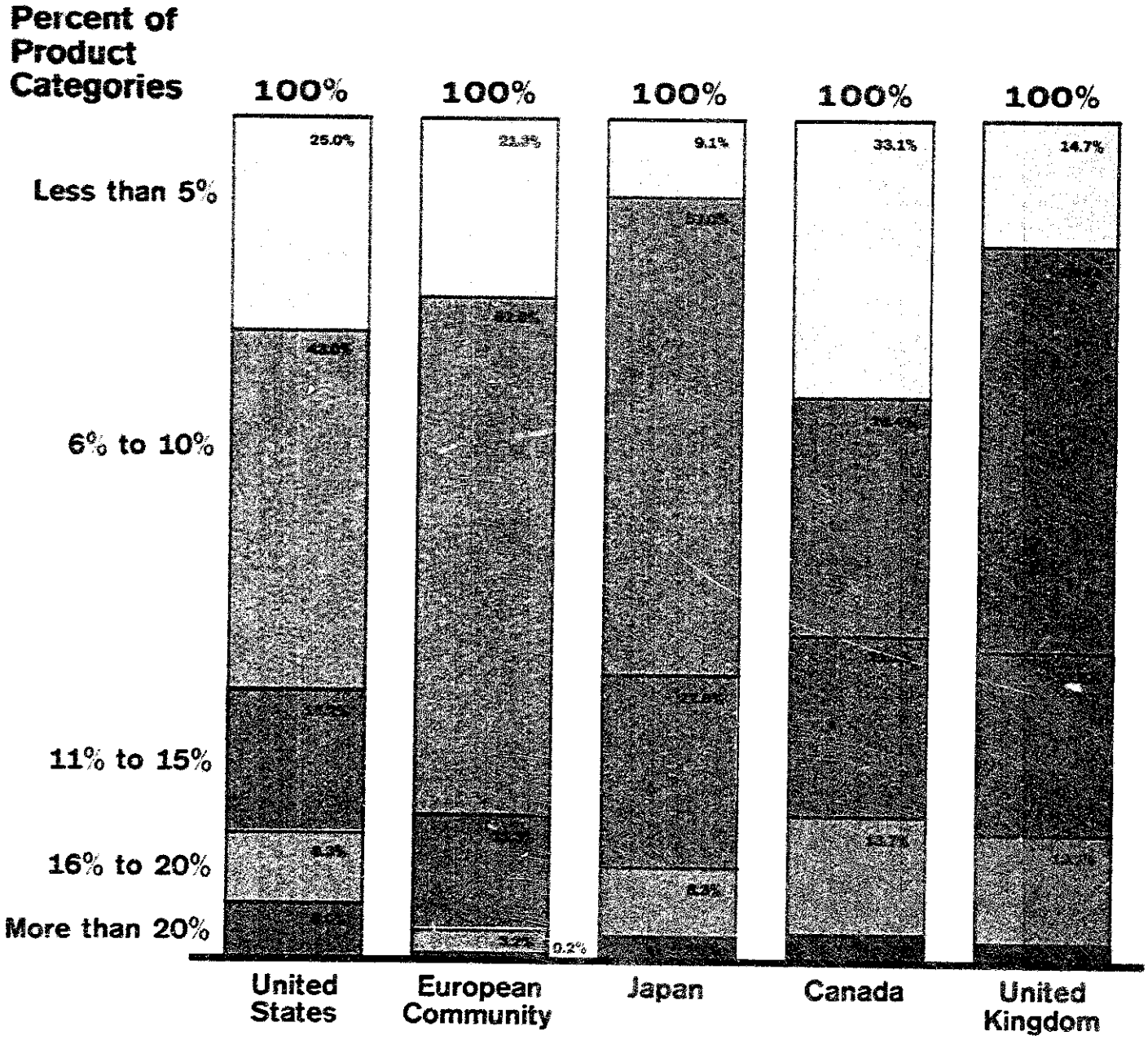
Finally, the mere fact that a duty is low and might be termed by some a "nuisance" duty may have little to do with its protective effect or its trading potentials. The aluminum industry, for example, considers our present 3% ingot duty crucial in its competition with Canada.

Average Tariff Rates after the Kennedy Round

Manufactured and Semimanufactured Products (Weighted by OECD Trade)



Tariff Distribution, 1970



QUANTITATIVE RESTRICTIONS ON AGRICULTURAL IMPORTS

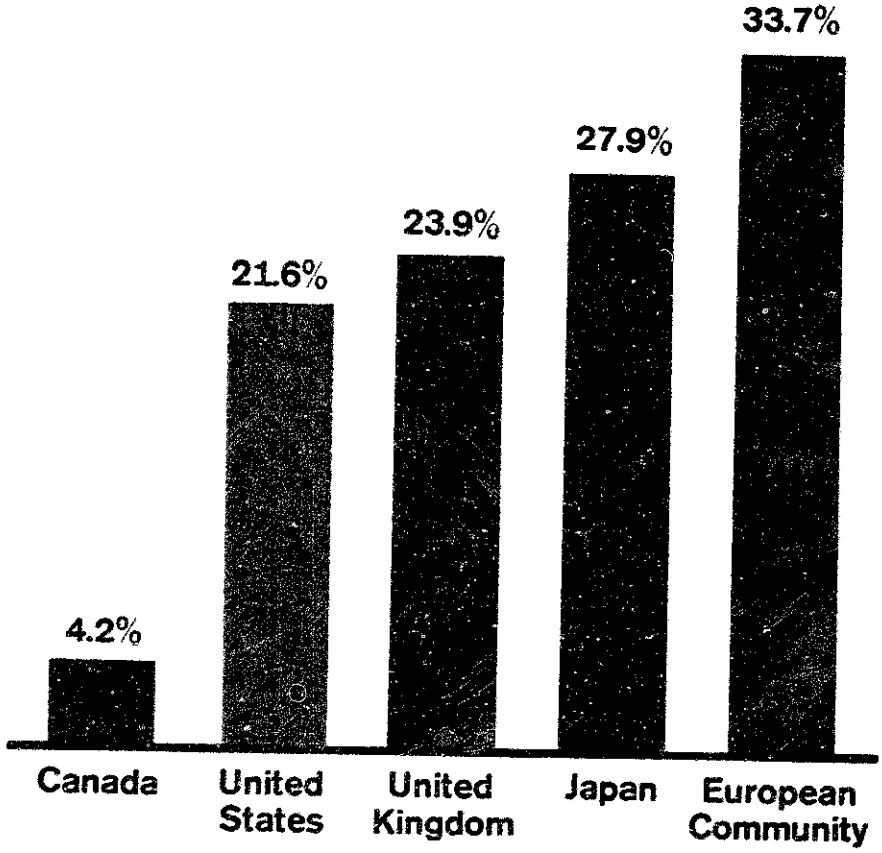
The American farmer, with his high productivity, has earned a significant international competitive edge and can be expected to support a liberal trade policy.

Though many factors besides a single percentage number can determine the actual effect of a restriction, we can probably use such data to suggest broad trends or draw comparisons between countries.

An important quantitative restriction is the EC's variable import levy system which applies to almost 34% of agricultural imports by value. Chart 38 shows the extent of this system by the dollar value of imports subject to the levy. As indicated earlier, these levies inhibit imports by keeping the import price at or above the domestic price.

In the case of Canada, where agricultural restrictions are low, there has been much healthier growth of our agricultural exports and our resulting balance of trade in agricultural products.

Agricultural Imports Covered by Quantitative Restrictions, 1970



	Canada	United States	United Kingdom	Japan	European Community
Billion US $	$0.07	$1.2	$1.2	$0.8	$2.6

Including quantitative restrictions imposed by statute, "voluntary" export controls, and variable levies (European Community).

INDUSTRIAL IMPORTS FROM OECD COUNTRIES SUBJECT TO QUANTITATIVE RESTRICTIONS

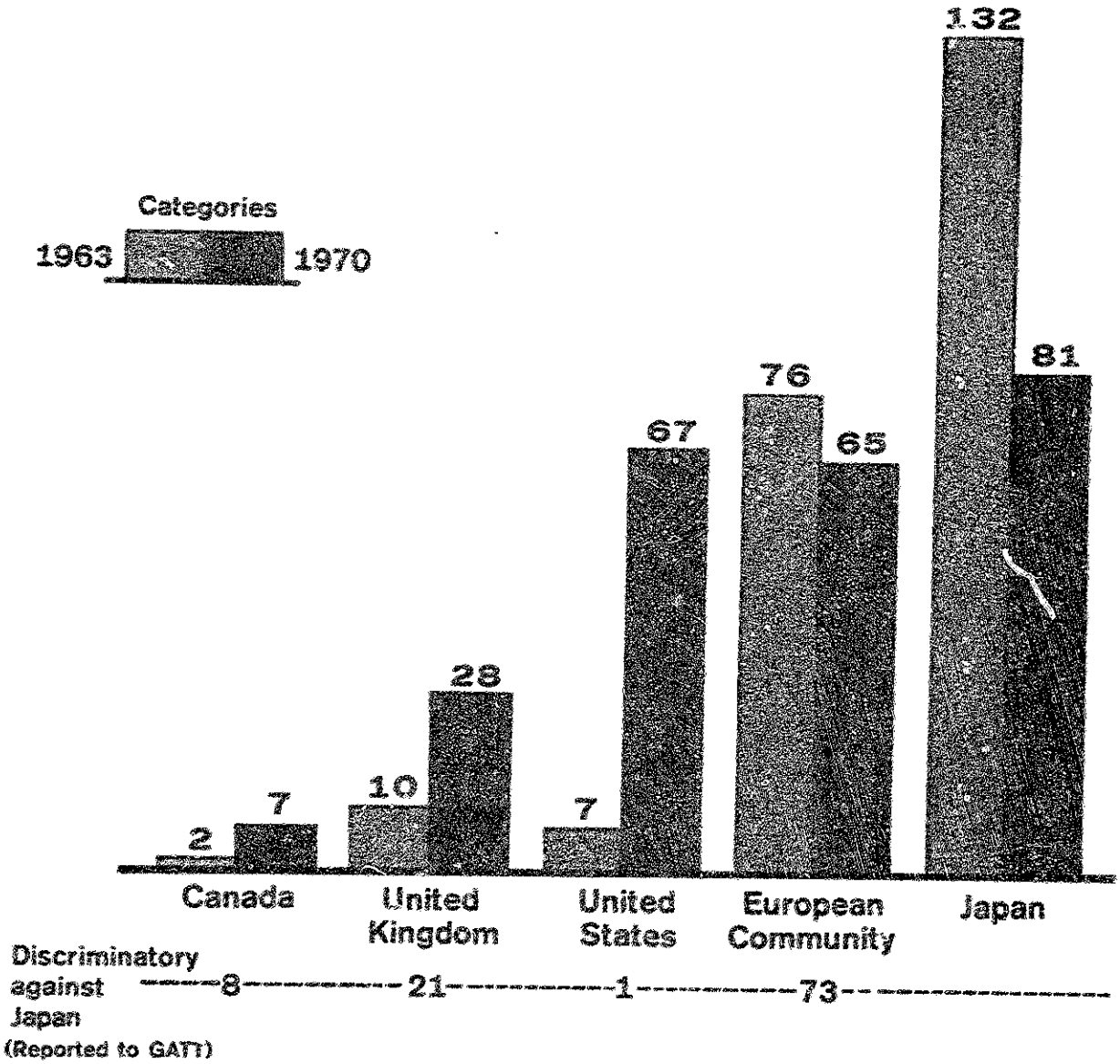
Chart 39 shows the number of quantitative restrictions by major trading areas against industrial imports from members of the Organization for Economic Cooperation and Development (developed countries). The mere number of quantitative restrictions is not the only criterion, since some quotas, of course, restrict imports far more than others. Nevertheless, this chart helps us see certain trends that are probably significant.

A look at the United States figures shows the significant number of such restrictions added since 1963. Meanwhile, the Community and, in particular, Japan have reduced their quantitative restrictions.

Looking elsewhere, of most significance is the large number of special restrictions--in some 73 categories--which the EC exercises to discriminate specifically against Japan. These restrictions help explain why trade is relatively light between Japan and the EC, and why the export pressures from Japan are far heavier in our direction.

One might wonder how such discrimination could be practiced within the GATT structure. As part of the original negotiation on Japanese entry into GATT, the member states of the EC legally reserved the right to continue discriminatory restrictions against Japan. Clearly, these rights have been applied and have apparently helped achieve their desired effects: protecting European industries and markets, thus accentuating Japanese competitive pressures on the United States. Other countries, including the US, also retained the right to maintain those restrictions in violation of GATT which they had in force when GATT was established.

Industrial Imports from OECD Countries Subject to Quantitative Restrictions



The prevailing view is that restrictions other than quantitative and tariff are greater in Japan than in other Free World developed countries.

NONQUANTITATIVE NONTARIFF BARRIERS

In considering the quantitative restrictions picture of Chart 39, we should remember that the relative importance of nonquantitative nontariff barriers has been growing, and that our trading partners perhaps tend to be more subtle, ingenious, and less direct than we about announcing the existence of some of these qualitative barriers.

Yet we should not become overly self-righteous in this regard, since the United States certainly has some important barriers of this type; for example, other countries find our "Buy American" policies in government procurement an important barrier.

There may be a growing tendency in Europe to use the device of internally adopted industrial standards as trade barriers. The area of pollution abatement cost sharing and standards affords potentially very important opportunities to impose qualitative restrictions. Even more broadly, business barriers that discriminate against foreign companies (taxes, incentives, etc.) can play restrictive roles.

IV. BALANCE OF PAYMENTS

INTRODUCTION

While a balance of payments problem is an international monetary problem, its roots often rest in policies that a country takes to meet domestic economic or political needs or security objectives. Thus, balance of payments problems are often really problems of defense spending, or aid, or trade, or investment abroad. We also find that these last four elements are interrelated and have cross effects (e.g., investment abroad leads to later income, while in some cases inducing exports to the new foreign affiliate). Therefore, while the solutions to balance of payments problems will inevitably involve "bankers," those solutions may often be found in nonmonetary policies.

Domestic policies that touch off balance of payments troubles are often implemented with the knowledge that they may result in short-term instability in the international monetary system, and costs to domestic consumers. Under these circumstances, appropriate exchange rate adjustments can make very large contributions to equilibrium in the international economic system. Moreover, if the adjustment system can be made more flexible, adjustment will be more gradual and thus less politically sensitive.

Under the present monetary system, exchange rate adjustments have been infrequent as each country has pursued its own economic interests. We must formulate cooperative and constructive programs to deal with persistent balance-of-payments problems that have resulted.

The United States has run a basic balance-of-payments deficit in almost every year since 1950. According to the presumptions of a responsive monetary system, this should have resulted in an effective devaluation of the dollar. Yet, note that because of changes in effective prices of other currencies (mostly devaluations), the dollar has, in effect, been revalued since 1959 (Chart 40). The "comparative official dollar" had in fact risen 4.7% relative to other currencies at the beginning of 1970.

Balance-of-payments deficit problems have tended to be of two broad types:

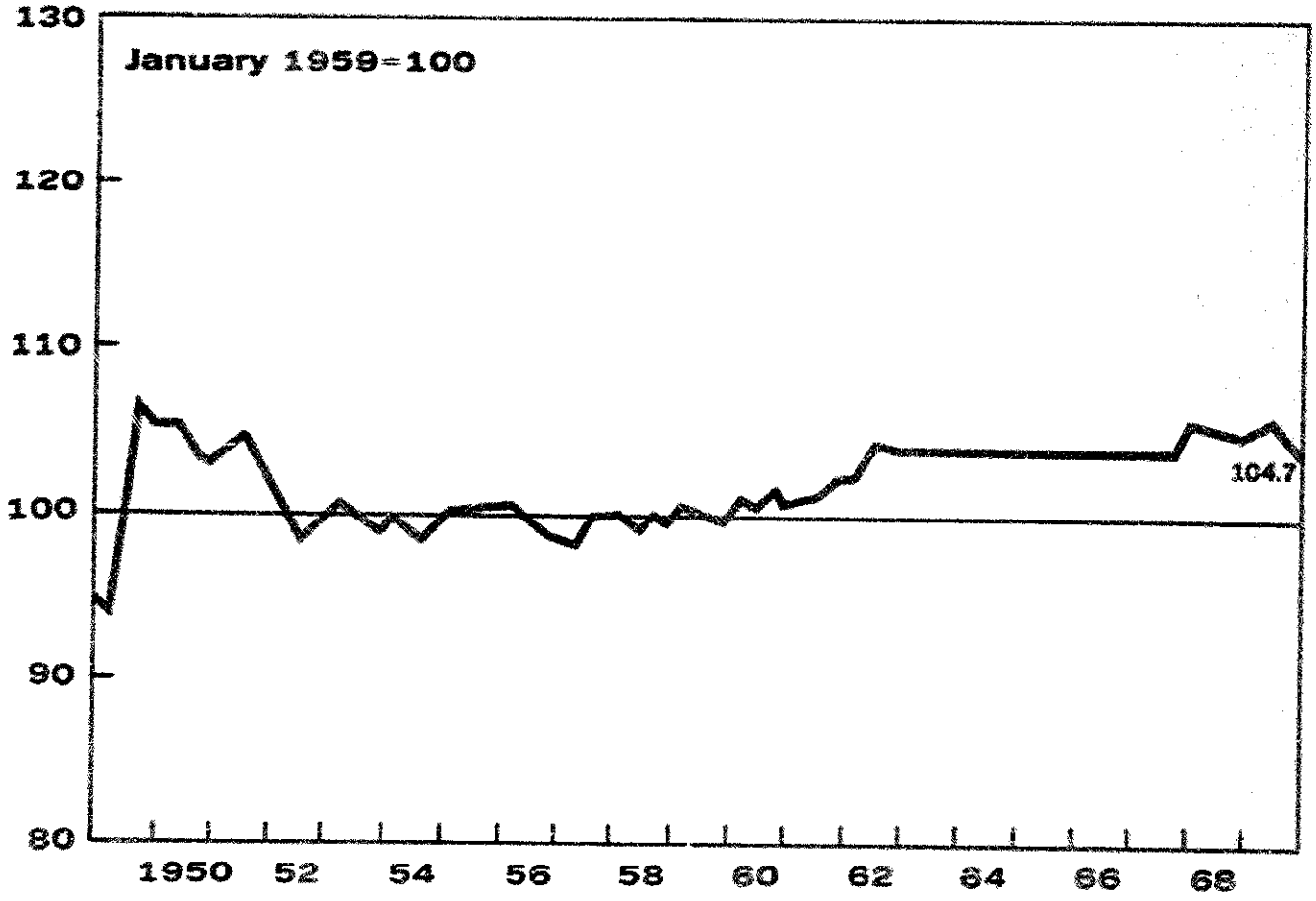
1. Long-Term Persistent Problems--These are caused by a variety of factors that can be influenced by longer-range policies concerning trade and export matters, defense expenditures, foreign investment, etc., as well as by fundamental domestic policies affecting relative prices, costs, and productivity.

2. Short-Term Transitory Problems--Highly erratic movements have usually been caused by differences in interests rates between countries or by stock market investment flows. In recent years,

anticipation of possible currency adjustments has also resulted in large international capital flows. Businessmen and bankers want to protect their short-term assets by moving out of currencies which may be devalued and into those which might be revalued; and speculators hope for quick profits by similar actions. Short-term movements have become an even greater problem during the 1960s because of growing amounts of mobile Eurodollars (loosely defined as dollar balances held in banks overseas).

A variety of balance-of-payments measurements exist which indicate our net position--i.e., the difference between our inflows and outflows. The current account and basic balances reflect persistent long-term movements and the liquidity and official settlements balances include the effects of short-term flows.

Movement in the Effective Rate of Exchange of the US Dollar



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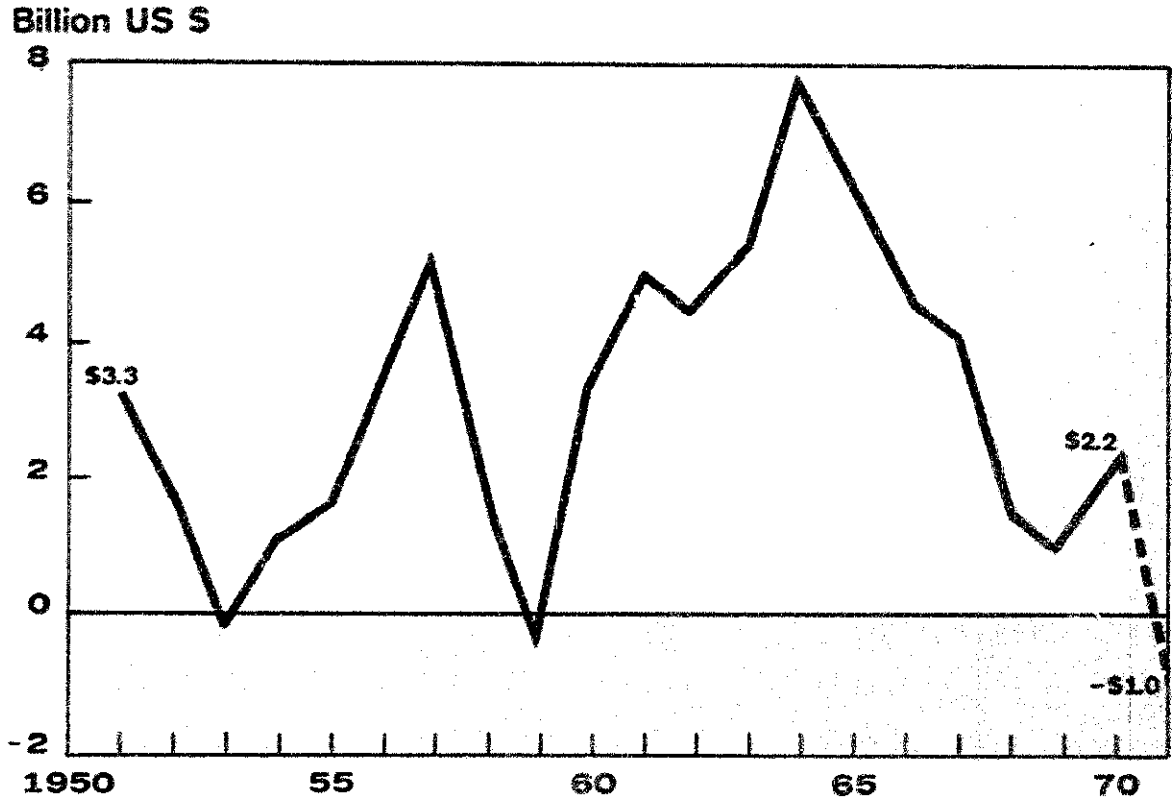
US CURRENT ACCOUNT BALANCE

The current account balance measures the difference between US purchases of foreign goods and services, and sales of US goods and services abroad. The definition commonly used in the United States also includes payment of pensions and personal and organized charitable remittances to foreigners, as well as the foreign exchange cost of our military disbursements in foreign countries.

This account was in surplus every year between 1960 and 1970, although there were wide variations as seen in Chart 41. Surpluses averaged almost $6 billion in the mid-1960s and shrank to about $2 billion in recent years; for 1971 the current account may show a $1 billion deficit.

US Current Account Balance

(Merchandise, investment income, services, military, and transfers, excluding government grants)



Best measure of US competitive position and transfer abroad of US real resources.

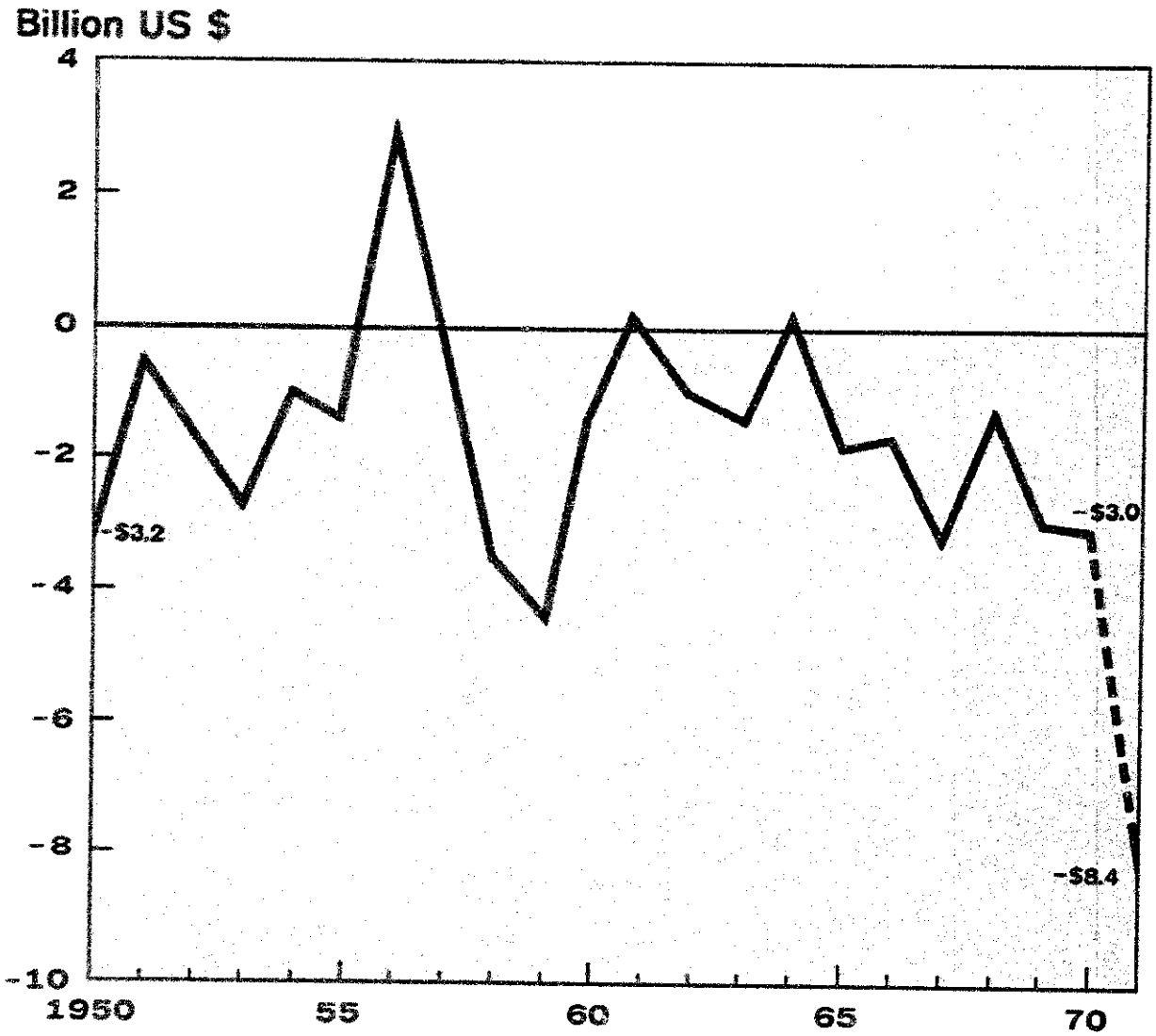
US BASIC BALANCE

The basic balance adds private long-term capital movements and government grants and capital transactions to the current account balance. As Chart 42 indicates, since World War II we usually have had a basic balance deficit in the $1.5 billion-$3 billion range, but it is estimated this deficit will reach a record $8-$9 billion in 1971. The persistence of this deficit has, of course, contributed significantly to the buildup of foreign reserves and US dollars abroad.

The United States has a large net outflow on the capital account, mainly attributable to US private direct and other investment abroad and government grants and loans. For example, in 1970 a current account surplus of $2.2 billion was outweighed by a deficit of $5.3 billion on the grants and long-term capital account, producing a basic balance deficit of about $3.0 billion.

B

US Basic Balance



Adds long-term capital movements to current account balance.
Best measure of persistent features in US payments position.

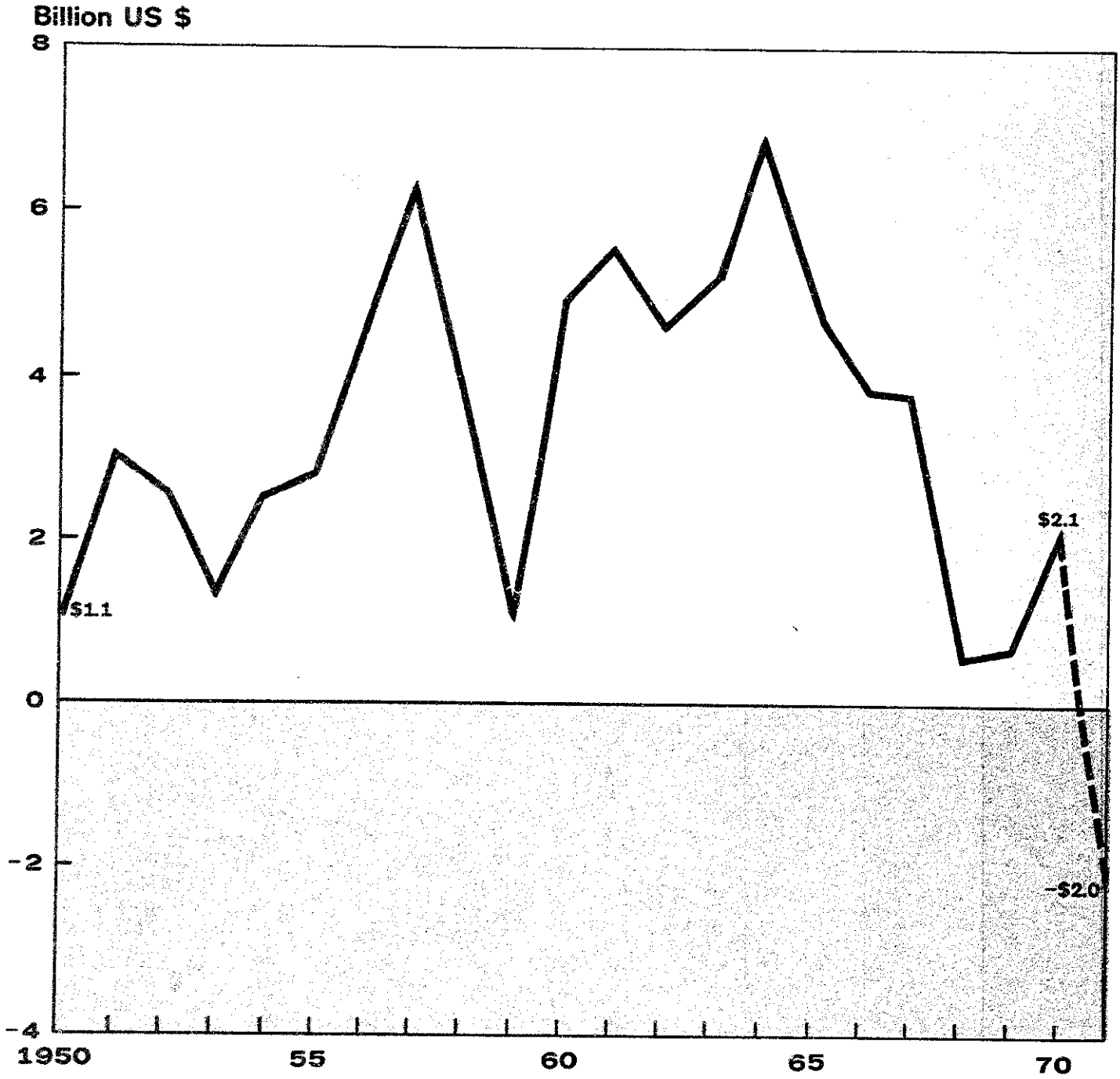
US BALANCE OF PAYMENTS TRENDS

One purpose of this overall presentation is to help predict the likely future--and understanding the past is, of course, one basis for doing that. Any reasonable prognosis of our future balance of payments requires an examination of the major components of the basic balance--which, it will be seen, is a composite of very different forces and trends.

Clearly, the chief contributor to our deteriorating basic balance has been our declining trade position. As Chart 43 illustrates, the trade surplus, which averaged over $5 billion annually in the early 1960s, was only slightly more than $1 billion in 1968 and 1969. The situation improved somewhat in 1970, but this was mainly because of an unusually large increase in exports of basic commodities. The deteriorating trend continued in 1971, with pre-August projections indicating a trade deficit for the year of about $2 billion.

Our worsening trade balance trends can be seen even more clearly when the data are adjusted to eliminate the influence on our trade of the various stages of the business cycle at home and abroad. The resulting long-term US trade trend has been steadily worsening since 1964, and prior to the recent international currency adjustments, our adjusted trade deficit for 1972 was predicted at more than $3 billion. By comparison, those of West Germany and Japan have been sharply improving since the mid-1960s and would have probably reached surpluses of over $7 billion in 1972 without the currency adjustment actions that have been taken.

US Basic Balance Trends
Merchandise



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However, there are other divergent trends that also affect the balance in significant ways. A major deficit item has been government outlays abroad for the military, and for economic and military aid. As Chart 44 shows, these combined expenditures resulted in an outflow of $7.2 billion in 1970, or $3 billion more than in 1950.

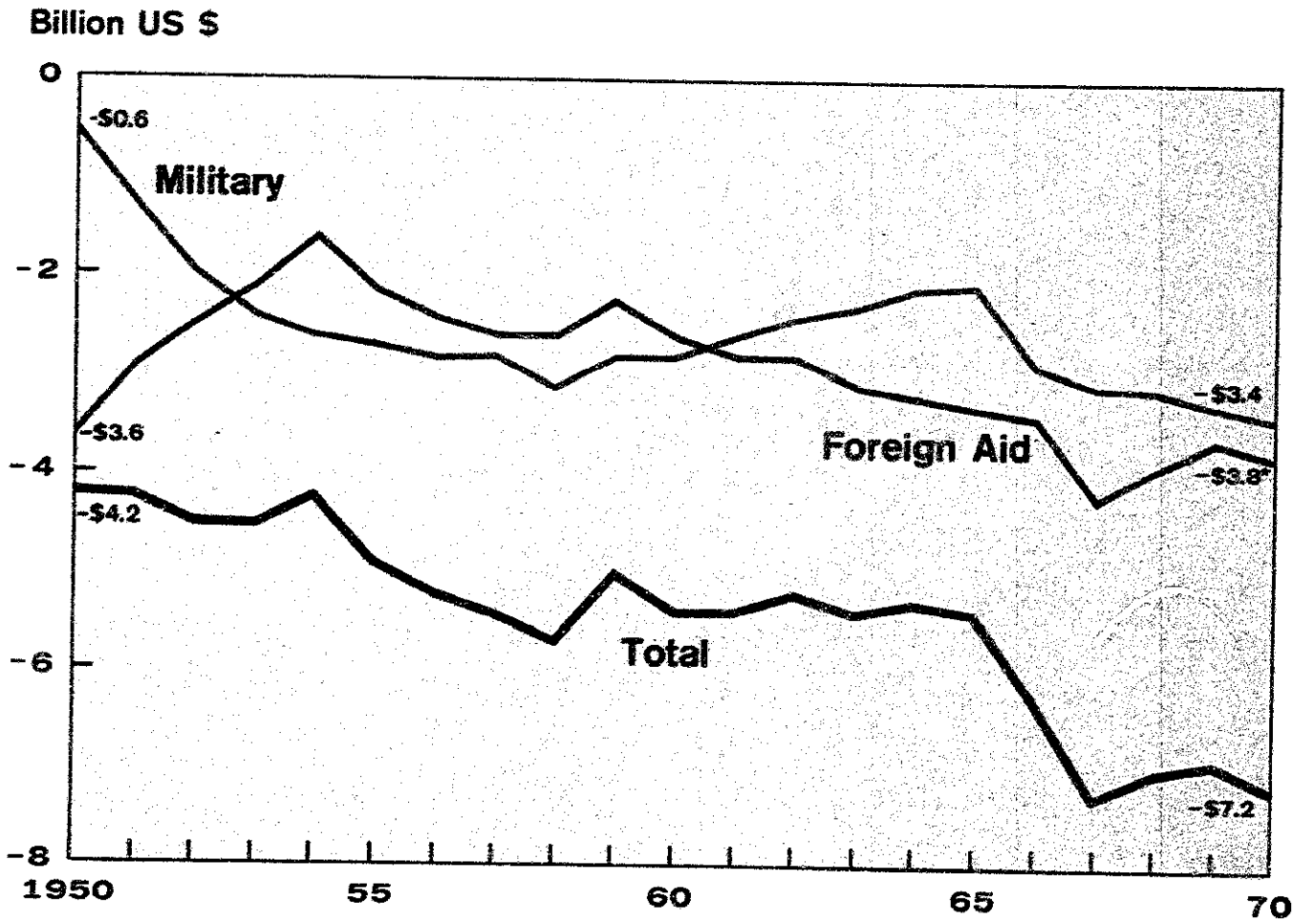
The deficit on US military expenditures has gradually increased from about $0.6 billion in 1950 to $3.4 billion in 1970. This is made up of gross US military expenditures abroad of $4.8 billion, less foreign military purchases from the United States of $1.4 billion.

Ananalysis of the geographic composition of this deficit indicates that $1.2 billion (or somewhat less if one takes credit for certain offsets) is in Europe, and that most of the remainder is in the Far East, including Japan. The military deficit in the Far East is expected to decline in the post-Vietnam period, probably to be offset to some extent by whatever we decide to do in additional economic support in Southeast Asia. A major part of our military deficit balance is almost $700 million paid to Japan for various bases, support services, products, and other miscellaneous items. Thus, one significant factor in America's basic balance in the 1970s will be the rate of progress made in defense burden-sharing. Foreign aid outlays in 1970 stood at $3.8 billion or about the same level as in 1950, when most aid was under the Marshall Plan.

Outlays for economic aid, about $1.9 billion, represent resources diverted by the U.S. They do not, however, automatically add to our payments deficit because aid allocations increase U.S. exports and because repayments of principal and interest on past U.S. loans show up as receipts in the current account. If these offsetting items are netted against the outflow for economic aid, part of the stated deficit would be eliminated.

US Basic Balance Trends

Government



**Of the −$3.8 billion, −$1.7 billion are grants and −$2.1 billion are loans.*

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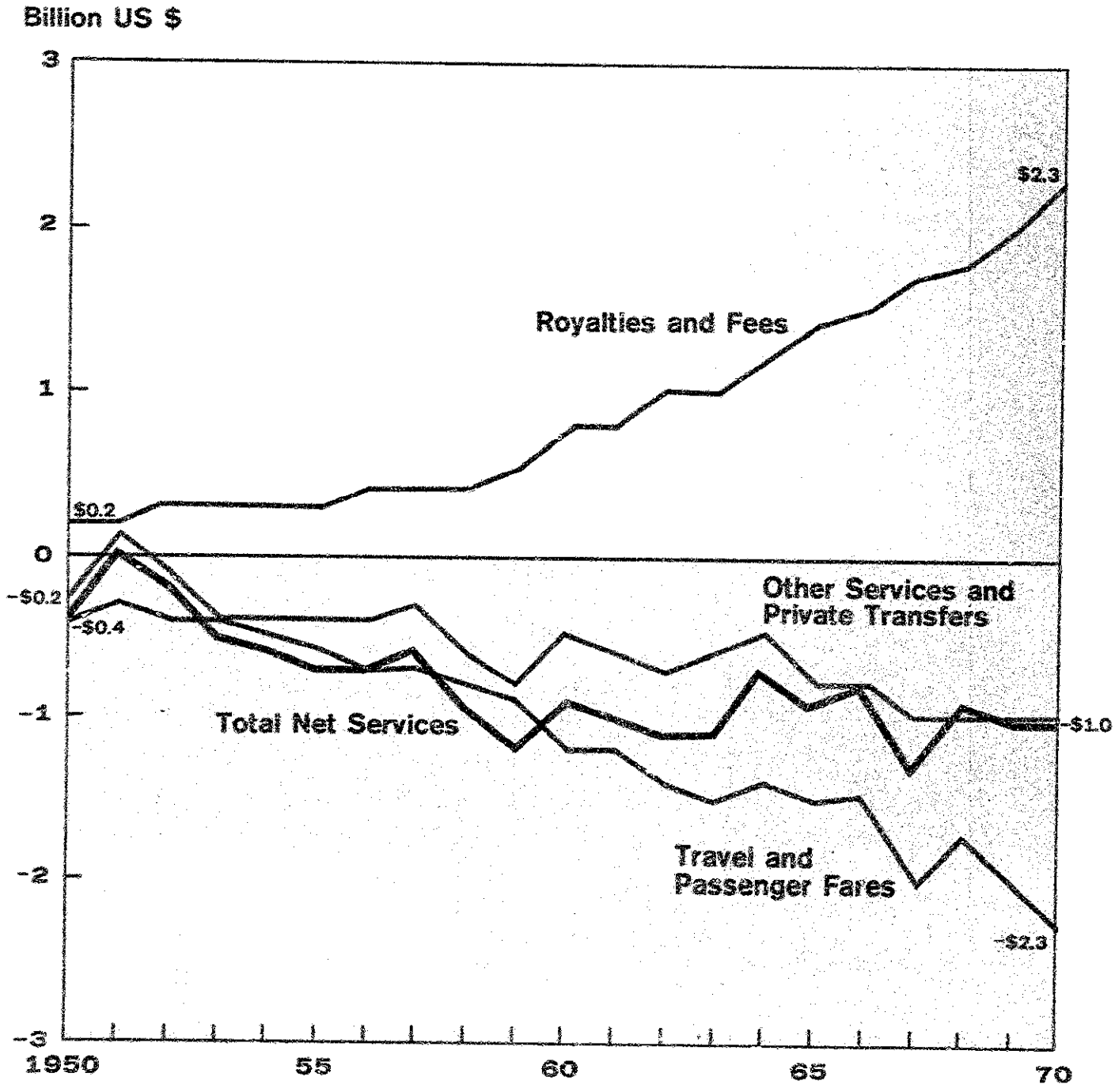
As Chart 45 illustrates, our overall service transactions have remained at about a $1 billion deficit during the 1960s. But within the category there have been two important and diverging trends. Our earnings on fees and royalties--mainly from sales of our advanced technology abroad--tripled between 1960 and 1970 and, after considering the small amount paid to foreigners for their technology, this account showed a $2.2 billion surplus in 1970. On the other hand, our net payments abroad for travel and passenger fares have grown steadily, reaching a deficit of $2.3 billion in 1970. About $300 million annually is spent for travel to Canada and Mexico. This growth reflects a series of technological and marketing revolutions in the last decade--jet travel, tours, expansion of travel for business purposes, and growing US affluence. Part of this deficit is compensated for in major ways in other accounts--such as the sale of US jet aircraft to overseas airlines.

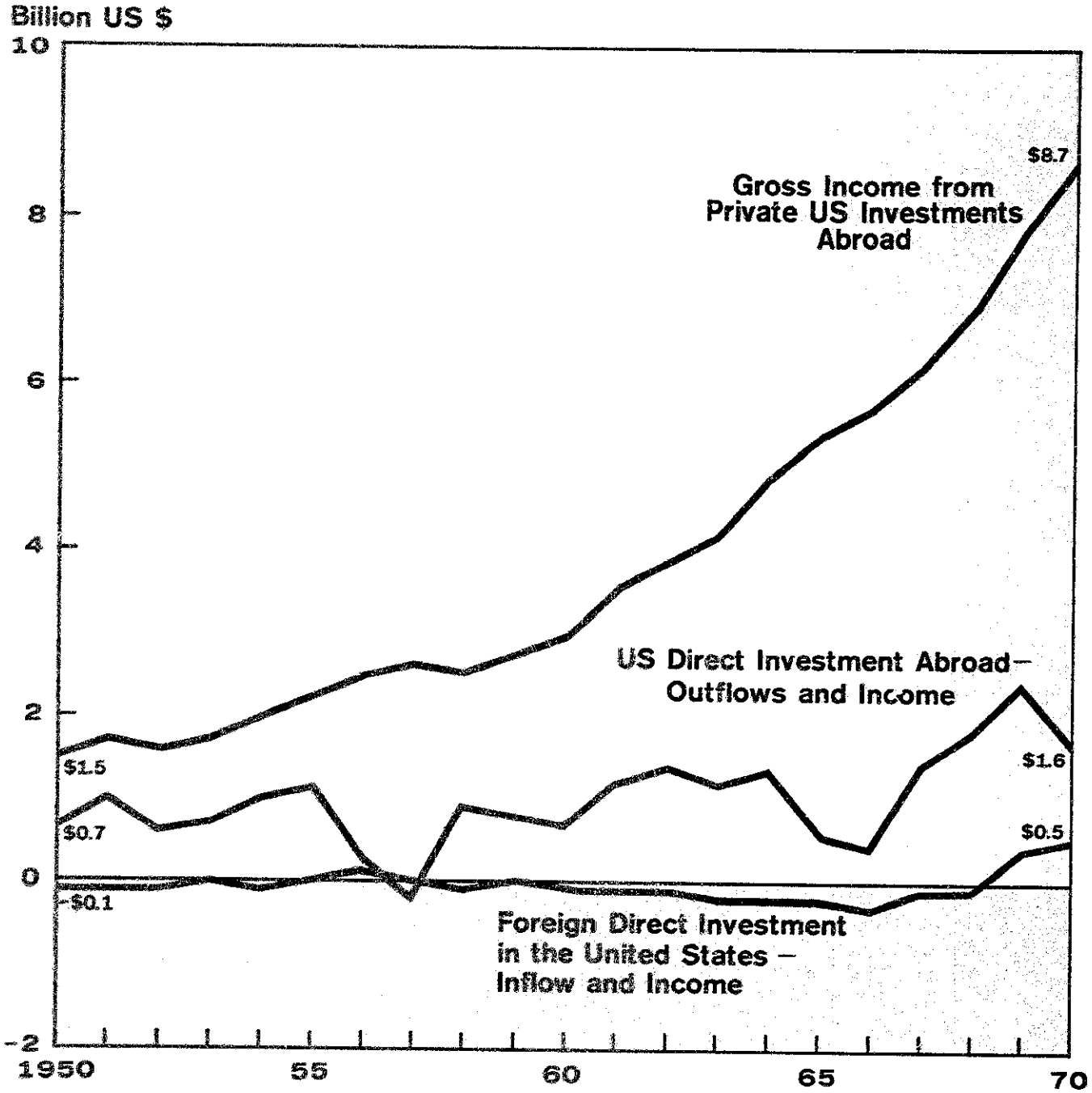
US Basic Balance Trends

Services

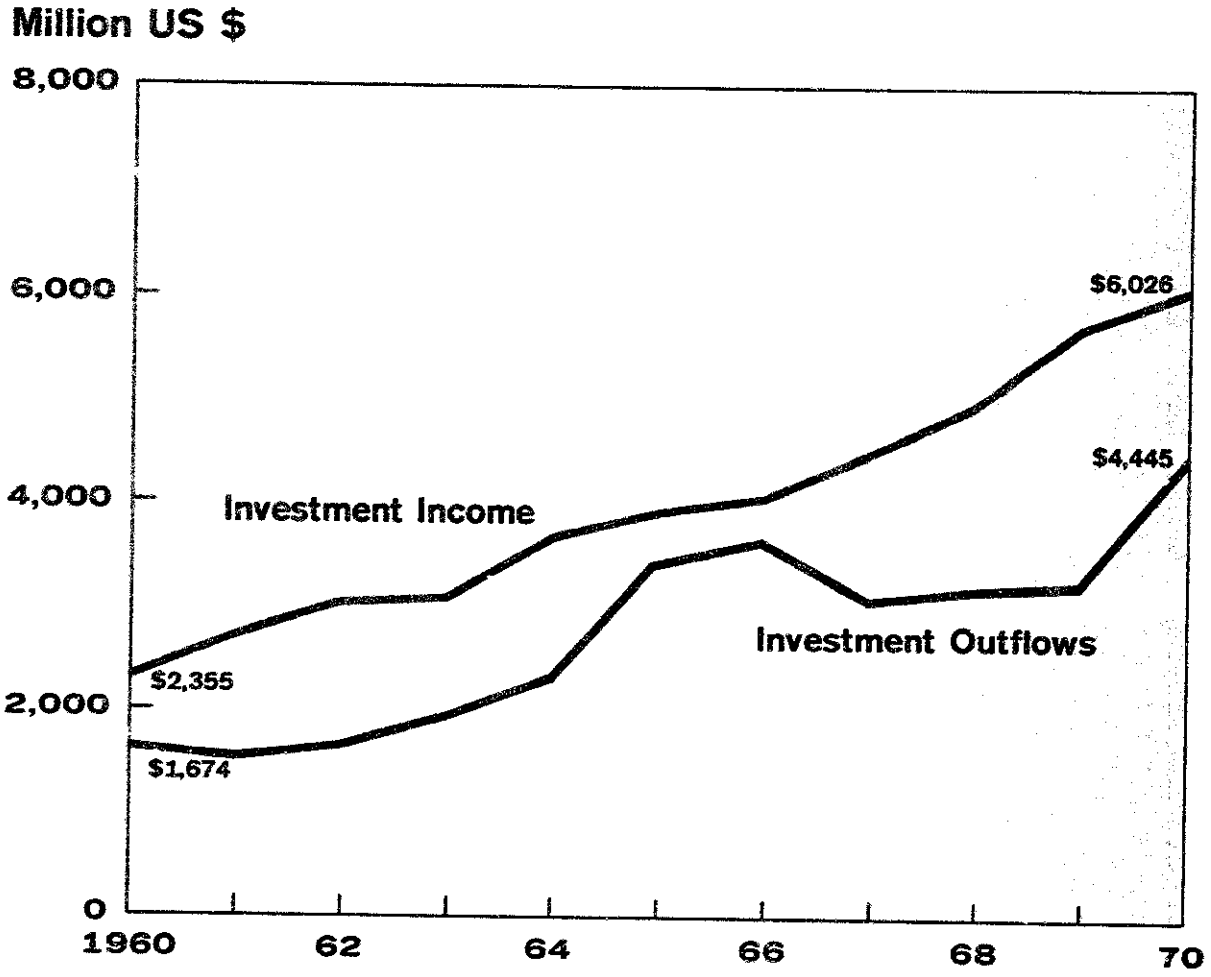


Perhaps the most surprising deficit compensators in our basic balance are private capital-related flows. As Charts 46 and 47 illustrate, income from our foreign direct investment has been greater than our new capital outflows, and the gap has been widening. The surplus was $1.6 billion in 1970, compared with $0.7 billion in 1960 (Chart 47). If all private US investment income earnings abroad are counted, including bonds and stocks and short-term assets, our gross income has more than quintupled in 20 years--from $1.5 billion in 1950 to $8.7 billion in 1970. (Chart 46. This does not include about $2.5 billion earned abroad in 1970 that was not brought back to the U.S., i.e. "unremitted" earnings.) Deducting income, interest, and dividend payments to foreigners who invest in the United States, the US still had an investment income balance of $4.5 billion in 1970. Another improvement in the private capital-related account has been the recent acceleration of foreign direct investment in the United States--which reached $1 billion in 1970, compared with a small net outflow during 1963 and 1964. Furthermore, in 1970, foreigners invested here $0.5 billion more than they took home in direct investment income (Chart 46).

US Basic Balance Trends
Private Capital Related Flows



US Direct Investment Abroad
Income and Outflows



US BASIC BALANCE--REGIONAL COMPOSITION

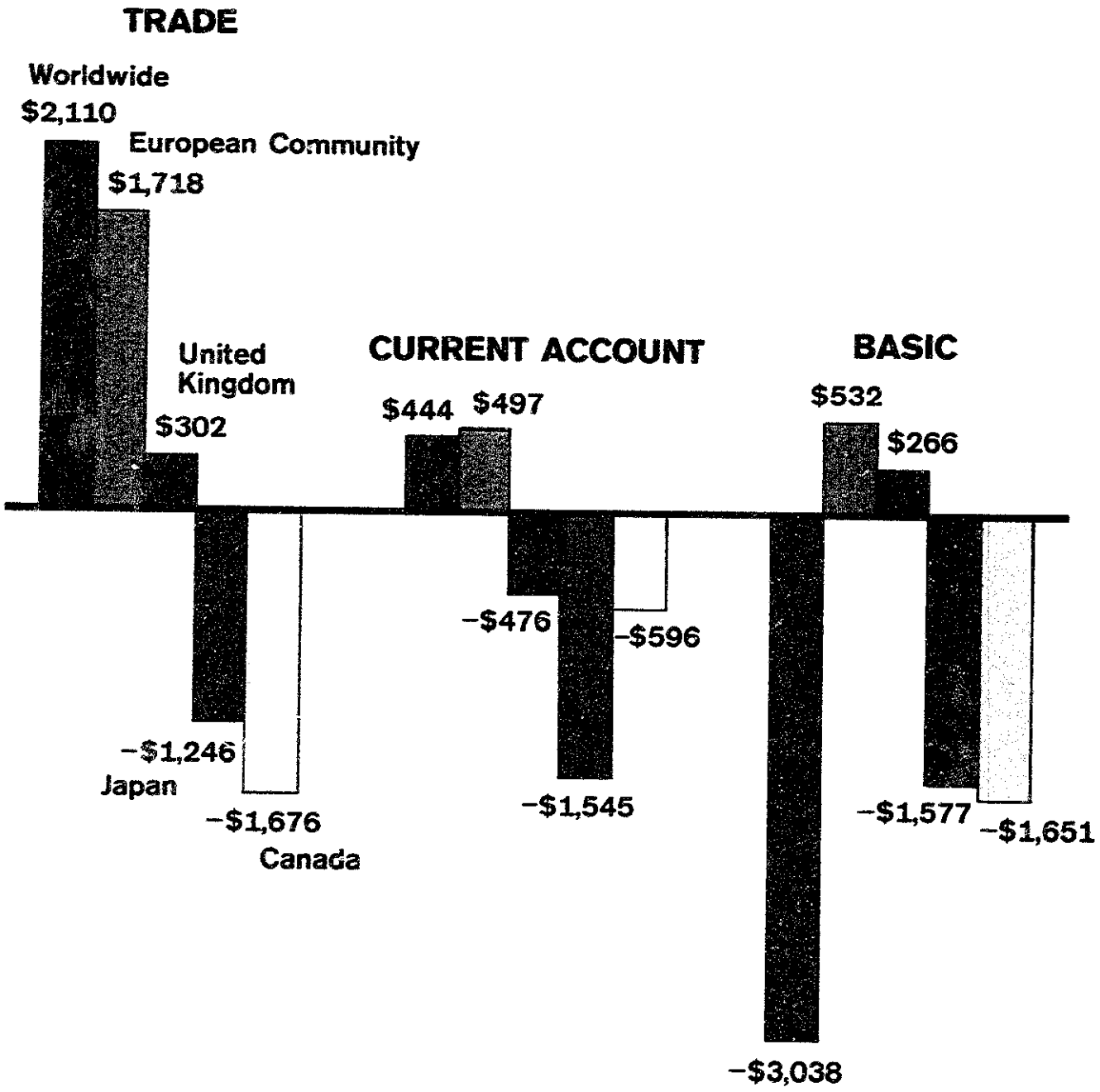
Another way of examining our basic balance is to break down these flows with our main economic partners. In 1970, as shown in Chart 48, and in recent years, our major deficits have been with Canada and Japan, and in both cases the trade and basic balances have been about the same. This similarity, however, hides fairly large nontrade movements: for instance, in 1970 we earned $300 million more from direct investment in Canada than we invested there. On the other hand, our net travel deficit with Canada amounted to nearly $200 million. In the Japanese case, we earned on a net basis more than $400 million in 1970 from selling services--but these earnings were offset by our military-related outlays in Japan of nearly $700 million. Private capital-related dealings with Japan are minute since Japan keeps out most direct foreign investment. Our relatively large trade surplus with the EC--$1.7 billion--was reduced to a much smaller basic surplus because of our military outlays there of $1 billion. Also in 1970, our new direct investment in the EC topped our investment income from there by $200 million. However, on the plus side, our net earnings from fees and royalties amounted to $500 million. With LDCs we have a basic balance deficit,as our trade surplus is more than offset by our economic and military aid outflows.

As mentioned above, the $ 5 billion jump in our 1971 basic balance deficit is mainly attributable to a worsening of our trade balance. On a country-by-country basis--estimated from data for the first six months of 1971--our growing deficit with Japan accounted for roughly half of the larger overall basic balance deficit (Chart 49). Declining surpluses with the EC and the United Kingdom were also important. Although our trade deficit with Canada grew, our basic balance position with Canada improved slightly.

While we expect to run basic balance surpluses with some countries and deficits with others, each country's own overall balance of payments position should be near zero. Such equilibrium is a sign of a well-functioning international monetary system. But the United States recorded by far its largest basic balance deficit in 1971--estimated at more than $8 billion--while other countries were recording large surpluses. As Chart 50 indicates, Japan is expected to have the largest surplus--$3.5 billion--and Canada is next with $1.5 billion. Smaller surpluses are expected for numerous other countries, including $0.4 billion for the United Kingdom and $0.3 billion for France. This demonstrates that the international monetary system and exchange rate parities existing before August 15 failed to bring into equilibrium the payments positions between the United States and other countries.

US Trade, Current Account, and Basic Balances, 1970

Million US $



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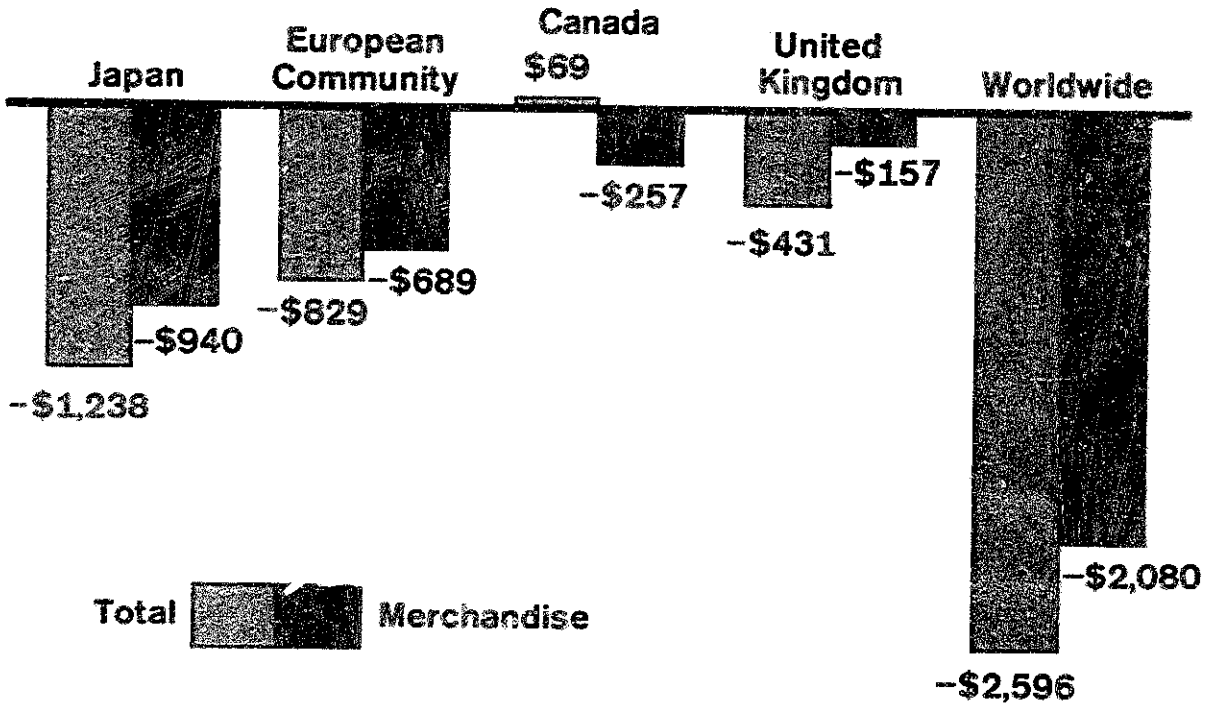
Swings in the US Basic Balance
(First half 1970-First half 1971)

Million US $



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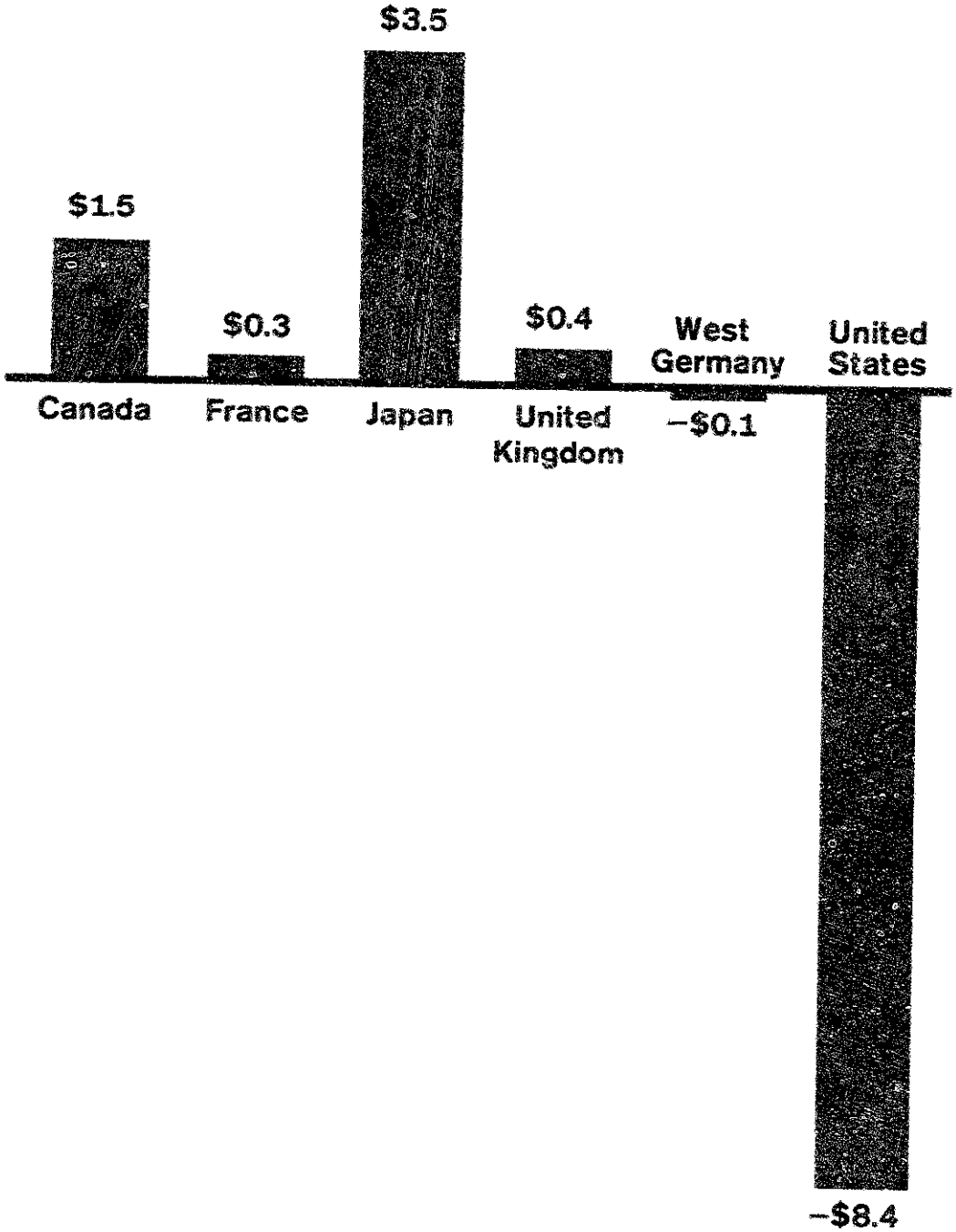
Estimated Basic Balance, 1971
Billion US $

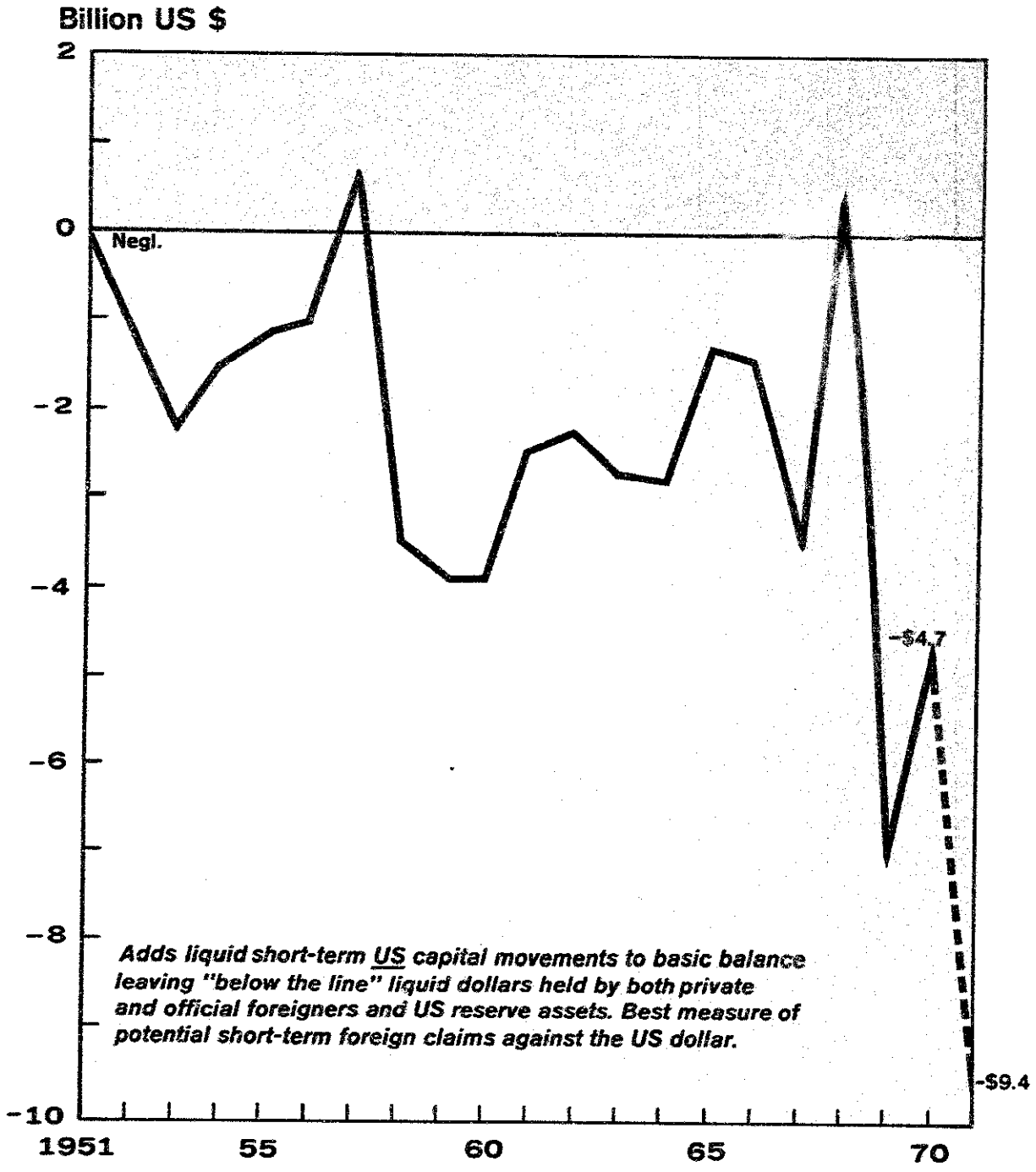


US LIQUIDITY BALANCE

The liquidity balance formulation of the balance of payments measures the annual change in short-term claims of all foreigners (both private and official agencies) against U.S. reserves. The liquidity balance adds to the basic balance movements of U.S. private liquid short-term capital. Chart 51 shows the liquidity balance since 1951.

These capital movements have been volatile and have had major and sometimes traumatic effects on both the level and distribution of world reserves. Further, the liquidity balance has been generally worsening: during much of the 1960's the deficit was about $4 billion; in 1969 and 1970, it was closer to $6 billion; and for 1971, the deficit will be about $9-$10 billion.

US Liquidity Balance



US OFFICIAL SETTLEMENTS BALANCE

The official settlements balance adds liquid short-term private foreign capital movements to the liquidity balance. It measures changes in claims against us held by foreign official monetary agencies and in the level of US reserves. It is probably the best indication we have of the pressure on the U.S. dollar in foreign exchange markets.

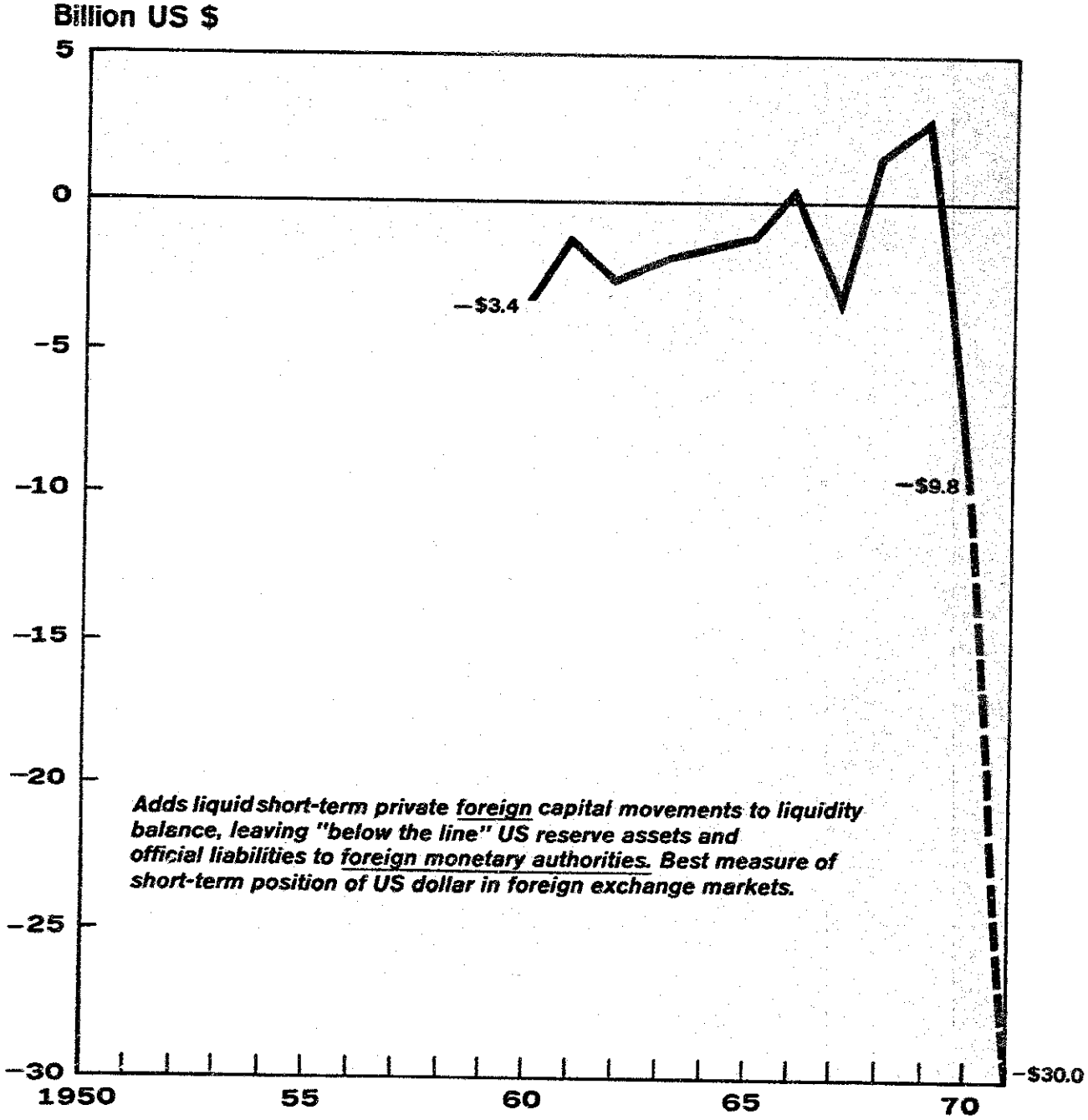
Large gyrations in world short-term capital movements occur because national economies may be in different phases of economic growth and cycles. In turn, these different phases often call for different national monetary policies--different rates of growth in money supply and rates of interest.

Money naturally flows where it can earn the highest rate of return for a given risk. Since the dollar is the principal transaction currency, vast capital movements most often are into or out of dollars. These short-term movements of billions of dollars have at times put heavy strain on the international monetary system, and have provided some countries more dollars than they wanted to absorb into their domestic reserves.

A world of rapidly growing economies requires adequate growth in global reserves, in order to keep pace with the growing level of exports and imports. It is generally agreed that several billion dollars of additional reserves are needed annually. US deficits provided large portions of this annual growth in other countries' reserves in the 1950s and 1960s, and our own reserves were therefore reduced.

As Chart 52 illustrates, our official settlements balance has swung widely in recent years. In 1968 and 1969, the United States had a surplus because interest rates were higher here than in other major money markets. In 1970, when our interest rates dropped below foreign rates, short-term capital funds flowed abroad and we experienced a deficit of nearly $10 billion. In 1971, our large deficit--estimated at $30 billion-- was only partially due to the interest rate differential. More important, especially after mid-April, was the fact that US and foreign firms and banks were shifting from short-term dollar assets into German marks and other foreign currencies in anticipation of their revaluation.

US Official Settlements Balance



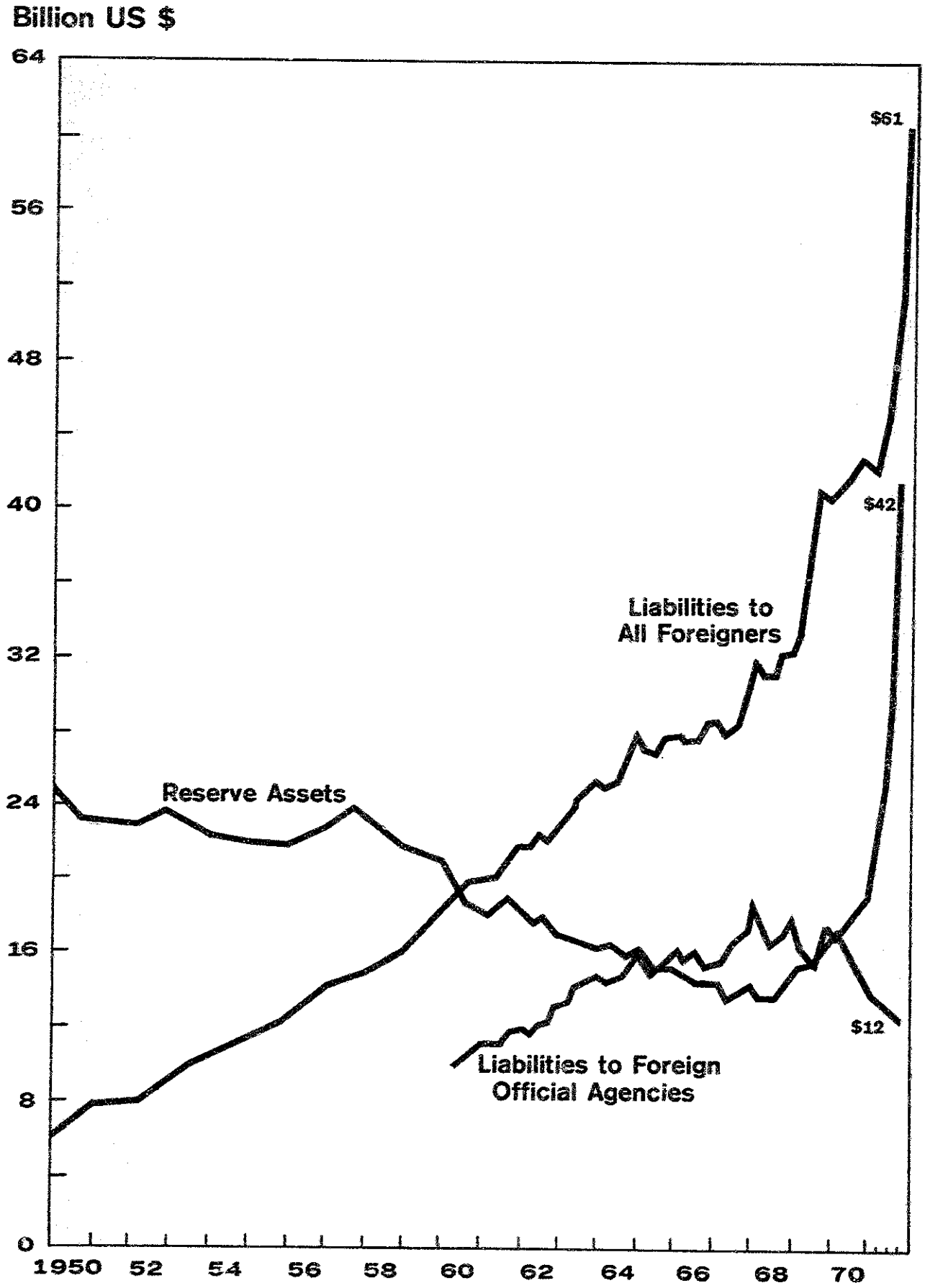
TRENDS IN US LIQUID FOREIGN ASSETS AND LIABILITIES

While the liquidity and official settlements balances indicated annual changes in our payments position, Chart 53 shows total foreign short-term claims against the dollar, both official and private, and our total reserves at the end of each three-month period. Foreign claims exceeded our reserves at the end of 1970 by $30 billion. This gap had widened to $37 billion by June 1971, and to almost $50 billion by September 1971.

However, only official liabilities could be submitted to the United States for redemption in gold prior to August 15, 1971. The United States can also use other reserve assets (i.e., the SDRs or "Special Drawing Rights") to make foreign payments, or may draw some foreign currencies from the International Monetary Fund and use those funds to repurchase dollars from foreign monetary authorities. Even so, as we moved through 1971 it was increasingly obvious that our remaining reserves were highly vulnerable. By the end of 1970 our liquid liabilities to foreign official agencies exceeded our combined reserve assets by $6 billion. By September 1971 the excess was $30 billion.

Including near-liquid liabilities in these figures, the shortfalls of our reserve assets on these two dates become $9 billion and $39 billion respectively.

Trends in US Liquid Foreign Assets and Liabilities



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US FOREIGN ASSETS AND LIABILITIES

References to our balance-of-payments problems are often measurements of annual cash flows into and out of the United States. We have also discussed our position in official terms--that is, the US assets held by foreign official agencies in bank deposits, securities, and the like. However, much of this nation's overall wealth is not in government hands but in the hands of the private sector. We should therefore consider also an overall balance sheet of America's international position--our overall net worth.

When we combine all private and official assets and liabilities abroad, we see a new picture. Total US assets abroad increased rapidly from a level of about $[illegible] billion in 1960 to $[illegible] billion at the end of 1970 while our total liabilities have moved up less. The result, shown in Chart 54, is an improvement in the "US net worth position" from about $45 billion to $69 billion between 1960 and 1970. Remember that this figure includes for our net worth only the "book value" of our direct investments. Their market value would be much higher.

The question is often asked, How can we have balance-of-payments difficulties and still have a net worth increasing at such a rate? In the first place, much of this net worth is in private hands and therefore not available to offset official claims against our government's reserves. Also, a substantial amount of earnings abroad (about $[illegible].5 billion annually in recent years) is reinvested abroad, rather than being remitted.

Let us not leave a discussion of our balance of payments on such a high note since there are pressing problems.

To summarize briefly:

1. It seems that those who say there is some persisting imbalance in the international monetary and payments system are correct. We have seen the reluctance of most countries to revalue their currencies because of the effect it would have on their competitiveness and local jobs. We have seen how many countries like to see their reserves go up and dislike seeing them drop. So long as such efforts to preserve surpluses exist, and so long as deficit countries' currencies remain overvalued, it will be difficult to reach a sustainable pattern of world payments -- and this, in turn, will invite trade and payments restrictions.

Exchange rate parity changes were seen as an essential adjustment mechanism in cases of fundamental payments disequilibrium. Exchange rate flexibility may also be helpful in coping with short-term capital flows. How far and in what ways is the world willing to use these avenues of providing a smoother and more stable payments pattern? What should we do to encourage appropriate exchange rate adjustments?

2. Efforts to resolve our balance-of-payments problems entail some costs and bring about conflicts with other goals. An effective devaluation of the dollar is supposed to improve our balance of payments mainly by reducing the dollar costs of our products abroad and increasing the prices we pay for foreign goods. Thus, while more jobs may be created here, our consumers' standard of living declines because of the higher prices that they have to pay for foreign goods.

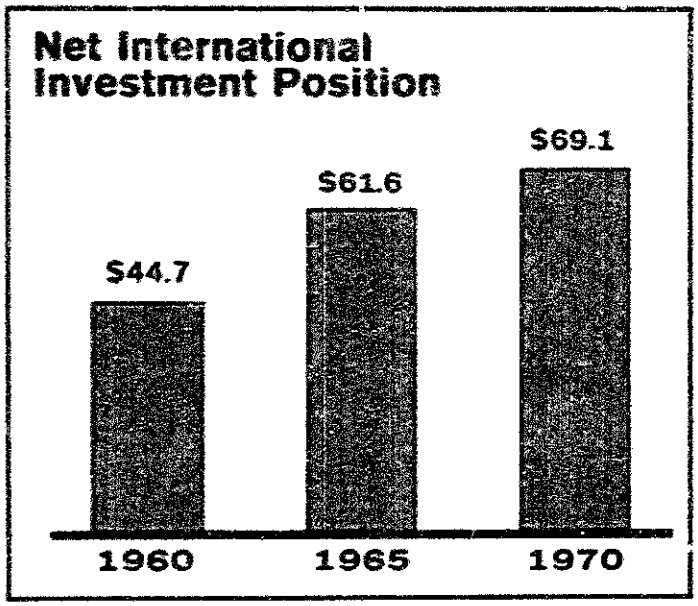
In some instances, conflicts between balance-of-payments considerations and our national interests go beyond the desires of a smoothly functioning monetary system. For example, how far are we willing to go in modifying our policies in the field of foreign and security affairs to achieve an improved balance of payments? To put the matter differently, perhaps only an improvement in the balance of payments may permit us to continue our policies in the field of foreign and security affairs. Along this line, defense cost-sharing is a subject receiving increasing attention within our government. To what extent should its impact on balance of payments intensify these efforts?

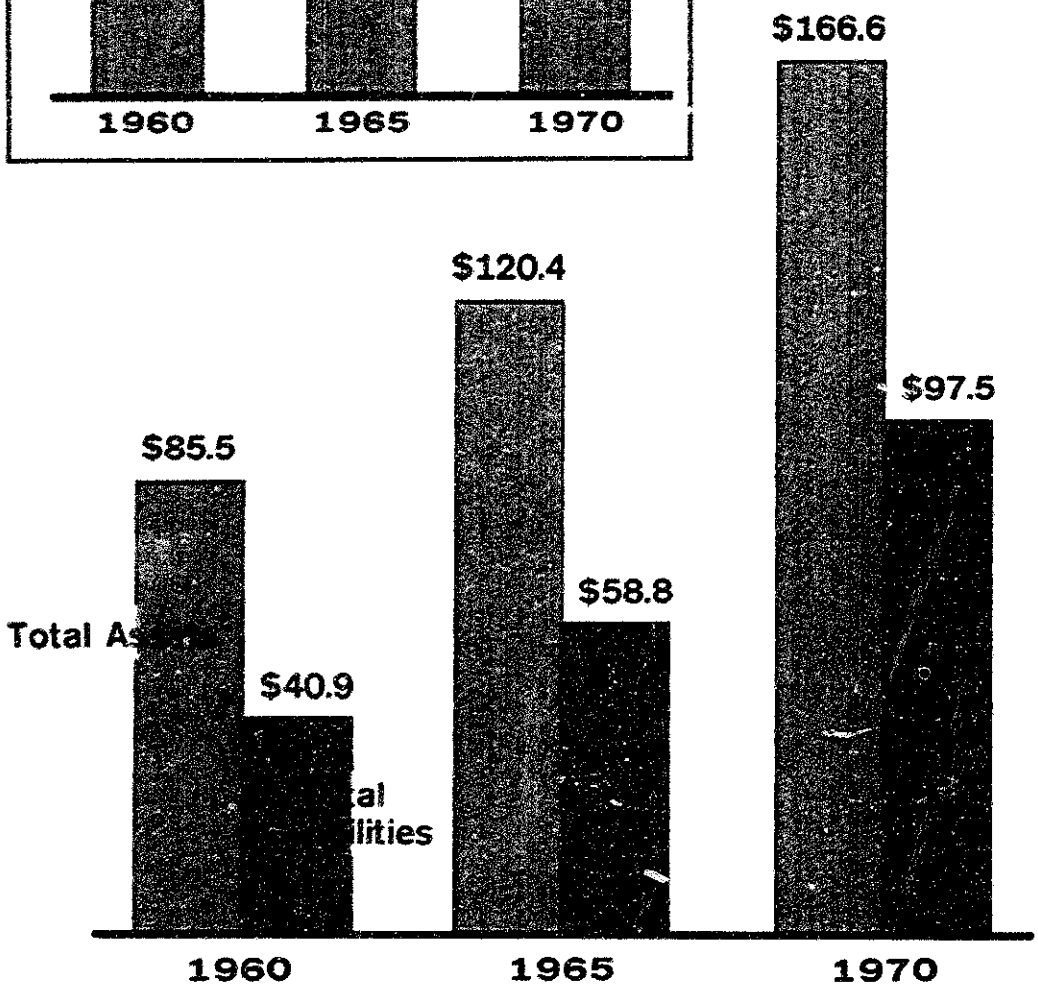
3. We have also seen that various economies of the world can be out of phase with each other, and some say this leads the United States and other countries to make monetary decisions affecting money supply and interest rates that can have important short-term balance-of-payments effects. To what extent is it really practical to ask this country, or others, to distort in important ways the decisions they would otherwise make in the interests of promoting growth and price stability at home--in order to help stabilize the international monetary system? In what specific ways would we expect ourselves and other countries to harmonize our stabilization policies? Or, are there new approaches to dampening the impact of large short-term swings of capital?

This brief examination of the balance-of-payments issue makes clear that there are a variety of problems involved: some monetary, some non-monetary; some long term, some short term. It is a field in which important progress seems to be made only in an environment of urgency, if not in a time of crisis.

US Foreign Assets and Liabilities*

Billion US $





Long-term book value and short-term market value.

V. US DIRECT INVESTMENTS ABROAD

American businessmen have made increasingly heavy investments abroad. We have seen some of the immediate effects on our own balance-of-payments position and have anticipated some of the long-range benefits to be gained by this broadening of the base for our national income. There are, however, other consequences here and abroad to be taken into account for the future.

During 1960-1970, US direct investments in plant and equipment abroad more than doubled, to a total of $78 billion (Chart 55). The share going to Europe, where our investments have nearly quadrupled to more than $24 billion, has risen most rapidly--causing periodic concern in important European quarters about a possible "American takeover" of existing businesses. (All studies in this field suggest that the preponderant amount of this US investment is "new" investment and not the purchase of existing companies.) In only ten years the European share of total US foreign direct investment rose from 21% to 31%. On an overall basis, a study covering the year 1964 showed that US enterprises accounted for about 6% of total manufacturing sales in Europe--with US representation somewhat stronger than that in "advanced" industries in which large firms play a dominant role: machinery and transport equipment (automotive, for example). A highly visible exception is the computer industry, in which US companies have a larger market share.

Canada continues to be the largest single recipient of US investment by a wide margin, but its share had declined from about 35% in 1960 to 29% of the total in 1970, or about the same as all of Europe. Thus, during the 1960s, the rate of increase of US investment was obviously slower for Canada than for Europe. This concentration of US investment in Canada is a major factor leading Prime Minister Trudeau to say that "living next to the United States is like sleeping with an elephant." On the other hand, we should not forget that 63% of Canada's manufactured goods are exported--which, of course, means Canadian jobs--and our investments in Canada contribute importantly to her export capability.

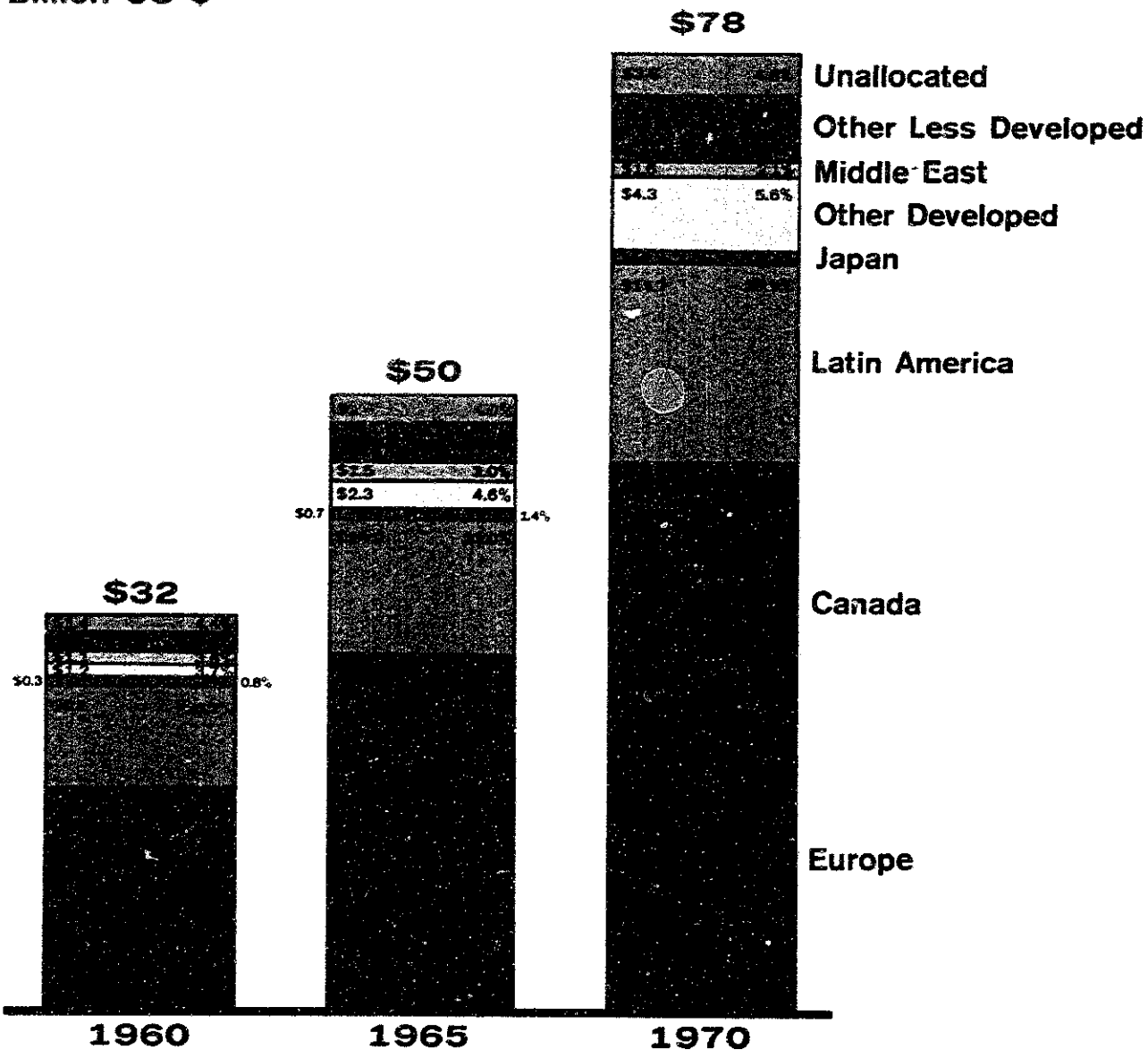
Latin America's share of total US direct investment abroad has fallen sharply--from 26% in 1960 to less than 20% in 1970. Our total investment in Latin America, however, increased by about three-quarters during the 1960s and accounted for about 14% of total new US investment abroad. But in the last year or so the rate of increase in US investment in the region has slowed, due in part to the growing fear of expropriation of American assets, an issue with which we must deal. Some studies of a few years ago suggest that about 16% of Latin America's manufacturing output is US owned--though this of course varies greatly by type of manufacturing (such fields as rubber and chemicals have stronger US representation).

Note the small and relatively unchanged amount of US investment in Japan in ten years--still less than 2% of total US foreign investment and only slightly more than $1 billion. This is certainly not the result of a lack of interest or ardor by US business. Rather, it reflects Japanese investment restrictions born of a traditional fear of control of their enterprises by "outsiders," and the special problems such outside interests present in an economy with such close interrelationships of labor, business, and government.

Direct foreign investments in the United States are less than $12 billion, about one-sixth of what we have invested abroad, even though the US GNP is of course larger than that of all Europe. Much could be said for increasing the amount of foreign investment in the United States.

US Cumulative Foreign Direct Investment Abroad

Billion US $

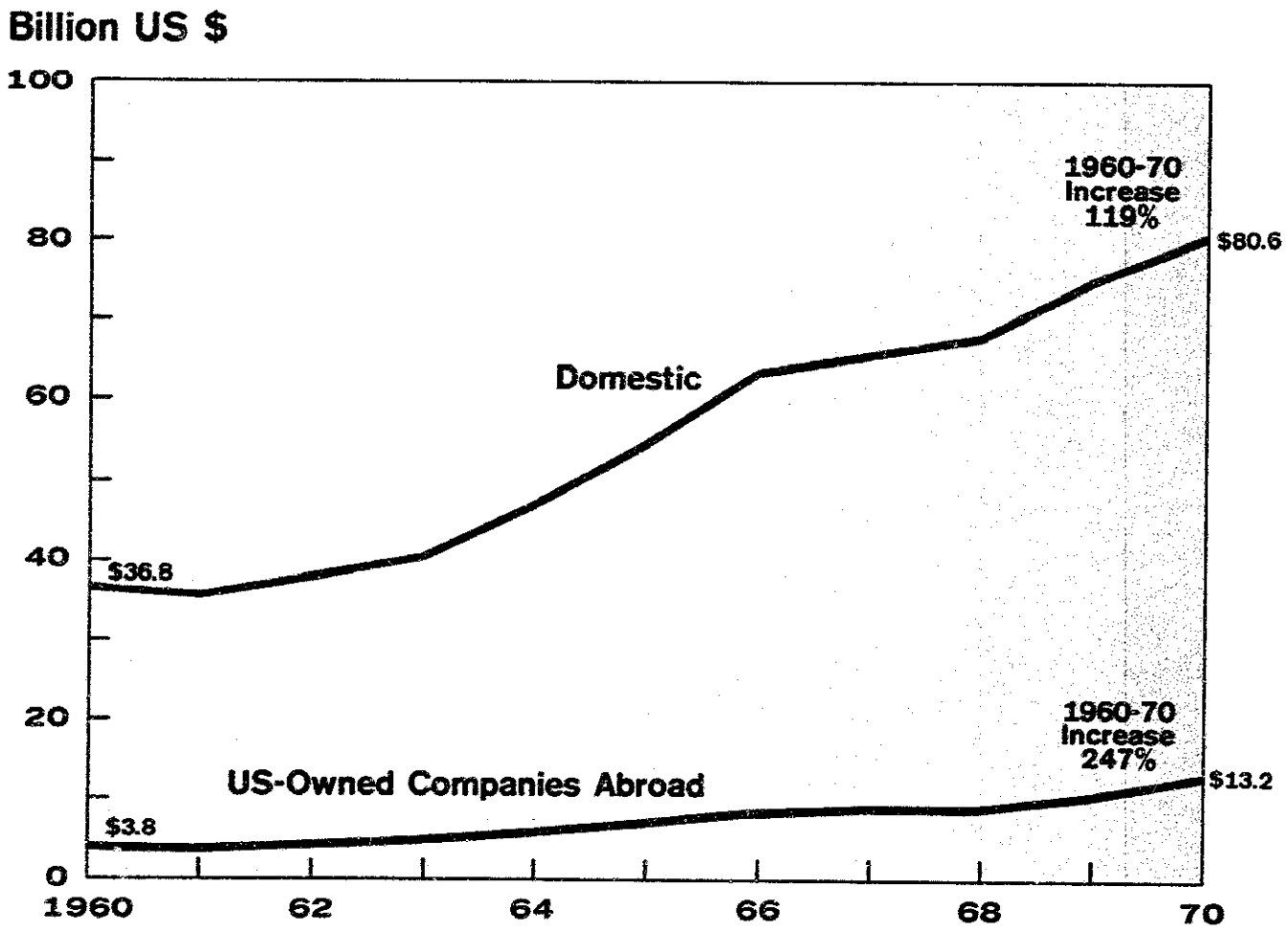


US INVESTMENT TRENDS (PLANT AND EQUIPMENT)

Chart 56 shows American companies were still investing more than six times as much in 1970 on domestic operations as abroad, but the ratio is being reduced. The rate of growth of overseas investments over the past ten years is running at twice the rate of domestic expansion; whereas between 1960 and 1970 domestic investment in plant and equipment increased by 119%, investment by US-owned companies increased by 247%. By and large, this is explained by the following factors: (1) more rapidly growing markets abroad, (2) the belief that some of those markets were less competitive than the US market, (3) lower production costs, (4) movement behind trade restrictions, and (5) most important, if American firms are to participate in these foreign markets, competitive conditions require local production, which in turn requires a direct investment.

How much has direct investment abroad resulted in lower economies of scale in this country? Was it always a necessary condition to capturing these markets? To what extent does it continue to be? What is the effect on US employment? How does this large investment affect export potential from the United States? Answers to these questions will help us formulate a trade and investment policy geared to market conditions in the 1970s.

US Investment Trends
Plant and Equipment



US DIRECT EXPORTS VERSUS SALES OF US-OWNED FOREIGN AFFILIATES

Sales of our foreign affiliates are now about two and one-half times our direct exports of manufactured commodities, and nearly 75% greater than total US exports. Moreover, foreign affiliates' sales have been growing almost twice as fast as our exports during the past decade, even though our exports have more than doubled in that period (Chart 57).

Several factors underlie this development.

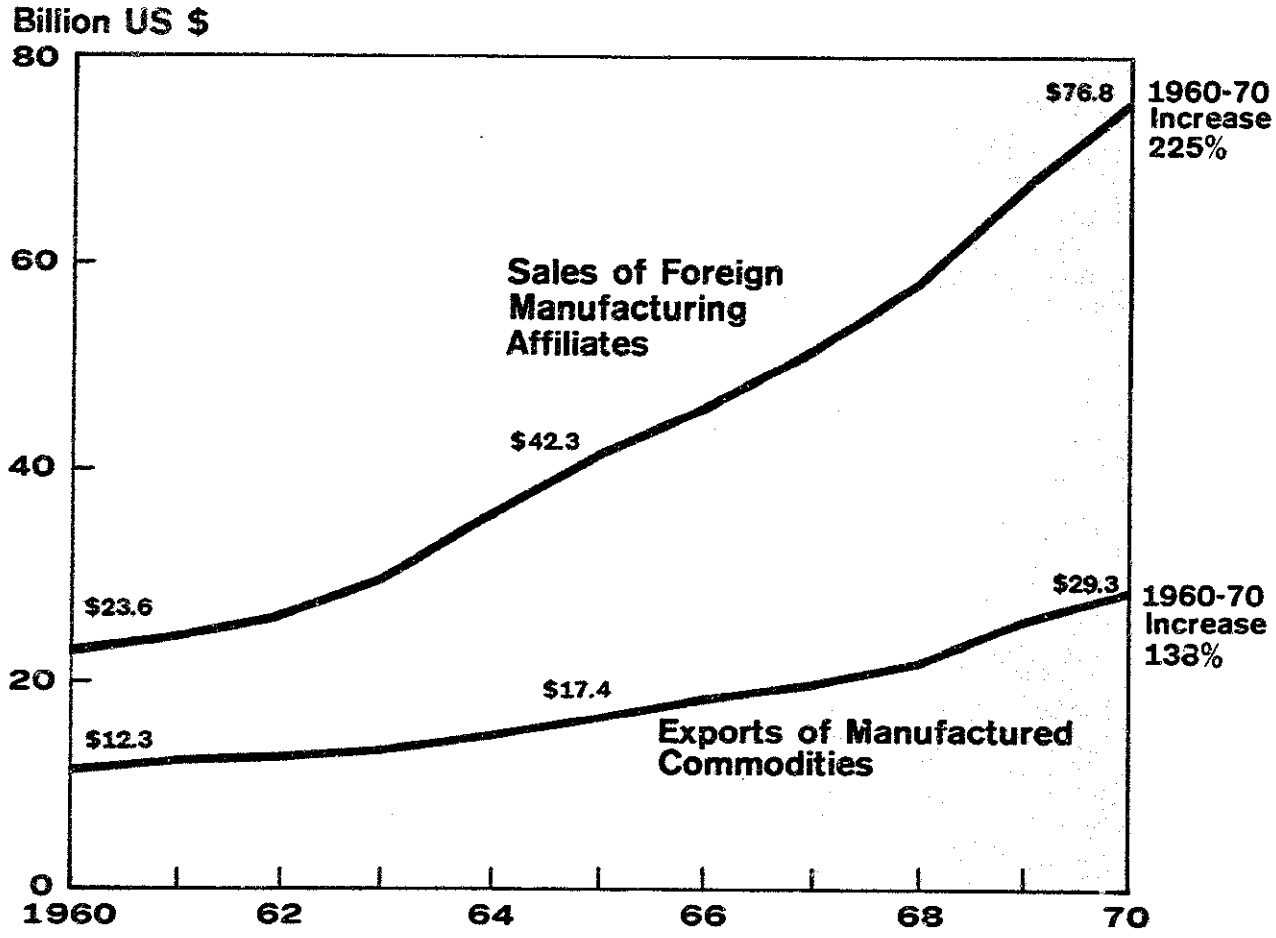
--Many foreign markets for our products are growing rapidly but, at the same time, are growing more competitive. Both the size of the markets and their competitiveness have made it attractive or necessary to invest abroad in order to tap them. Chart 58 shows that most sales of US foreign manufacturing affiliates are in the local market abroad--78% in 1968. When we add another 14% of sales that go to third markets overseas, we find that only about 8% of sales are back to the United States. This last figure has grown in recent years--though it appears on closer examination that a dominant portion of increasing exports to the US by American affiliates abroad results from the US-Canada Auto Agreement.

--As foreign markets grow more sophisticated in their requirements, it becomes necessary to tailor products to meet specific customer needs in specific markets. This does not mean that such plants necessarily limit US exports of that product. Quite the contrary, the presence of a plant abroad to complete the final assembly often makes available an outlet for US exports that otherwise would not have existed.

--Some argue that the United States has not done enough to make exporting attractive to US firms.

--The emergence of the multinational corporation has facilitated the development of worldwide markets and sources. The multinational corporation, to be discussed, is a major phenomenon in the world economy.

US Direct Exports vs Sales of US-Owned Foreign Affiliates



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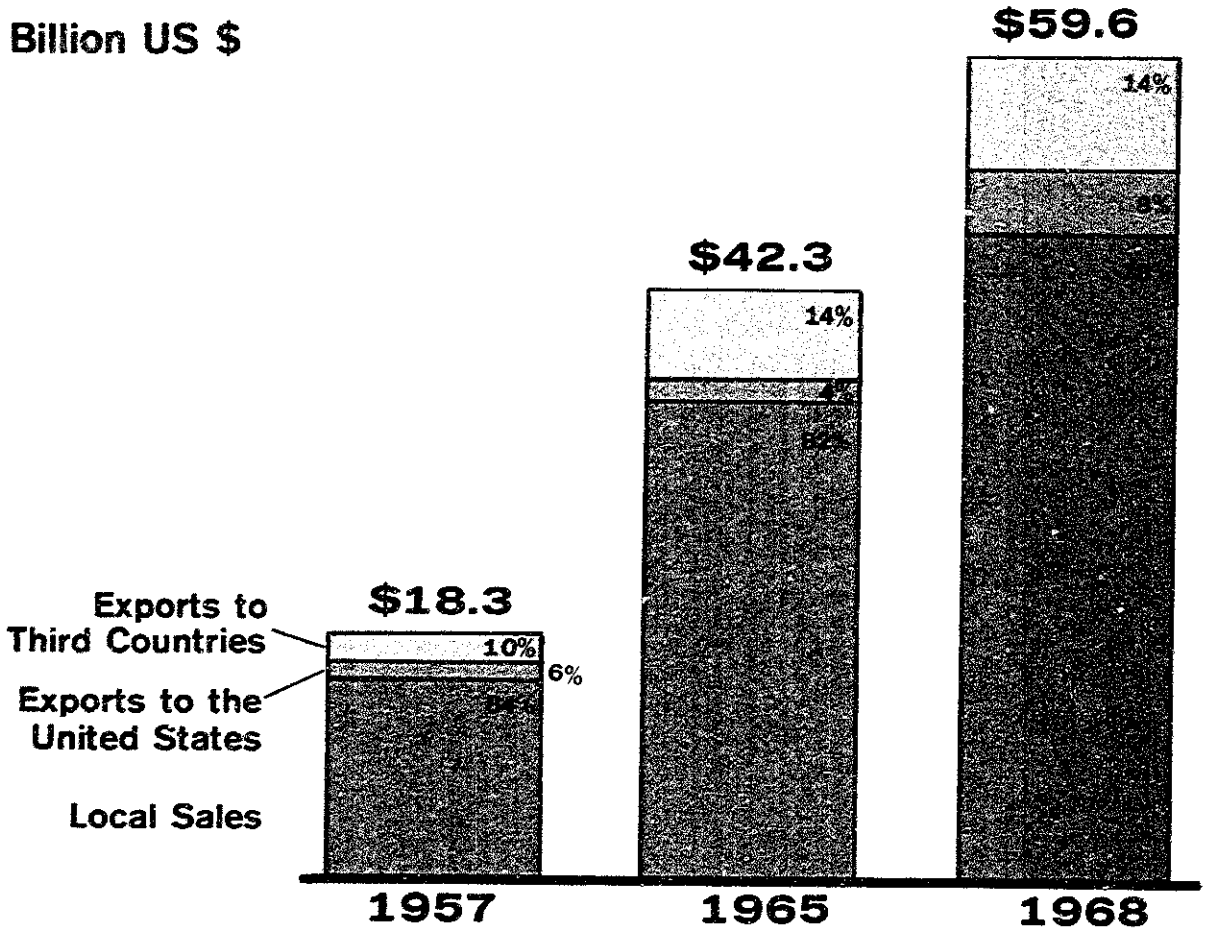
Sales of Foreign Manufacturing Affiliates of US Firms



THE MULTINATIONAL CORPORATION

Americans must come to know the new industrial type--the multinational corporation (MNC)--which will increasingly affect our way of life during the 1970s and 1980s. Here are some of its distinctive characteristics:

First, MNCs depend heavily on overseas income. There are many American companies now earning from one-fourth to one-half of their income abroad. The MNC is sensitive to policies affecting foreign investments--investments which, as we have seen, provide return flows of income that are a major positive factor in our balance of payments.

Second, the MNC has the resources and the scope to think and act with world wide planning of markets and sources. Many international opportunities require capital and technology on a scale only large multinational corporations can supply.

Third, since the MNC operates across national boundaries, it speeds up the transfer of know-how. It hastens changes--bringing important benefits but also accelerating adjustment problems.

Fourth, the development of the MNC has aroused serious concern among labor unions. They claim there are major US job losses resulting from these companies which are characterized as "job exporters." As "evidence" of this, it is said that about 50% of the US international trade transactions are "intracorporate"--which are assumed to result in lost US jobs. Actually, as pointed out earlier, many of these transactions result in increased exports from the United States that would not have been possible without the foreign plant. One study shows that over half of all exports of manufactured products from the United States flow from MNCs and in turn about half of these go from the parent to the subsidiary plant abroad. A more recent study indicates that among America's larger MNCs, their positive net trade balance with their affiliates increased 85% from 1960 to 1970. Also, as mentioned above only about 8% of the output of US foreign manufacturing subsidiaries is imported back to the US (Chart 58).

Fifth, the MNC is also a source of concern to some governments, since from its wide base it is often able to circumvent national monetary, fiscal, and exchange policies. The possibility of distortions arising from intracorporate pricing practices to take advantage of national variations in tax laws has also been cited with concern.

Sixth, studies indicate that MNCs tend to be companies that are growing at rates significantly higher than for all manufacturing industries as a whole--including their growth in domestic employment.

Not enough is known with certainty about the specific economic effects of MNCs, including their effect on jobs in this country. One thing, however, is already clear. These corporations are a major force in expanding both world trade and America's role in the world economy. Also, MNCs are an integral part of our technological and managerial expertise. To seriously restrict the activities of these corporations in their foreign operations would obviously be a major step back from the relatively open and interdependent world we have tried to help build.

VI. LESS DEVELOPED COUNTRIES (LDCs)

The comparative view of world economic affairs is that the gap between rich and poor countries continues to widen. Some LDCs are making substantially more progress than others, but poverty and misery still extend widely over the less developed world.

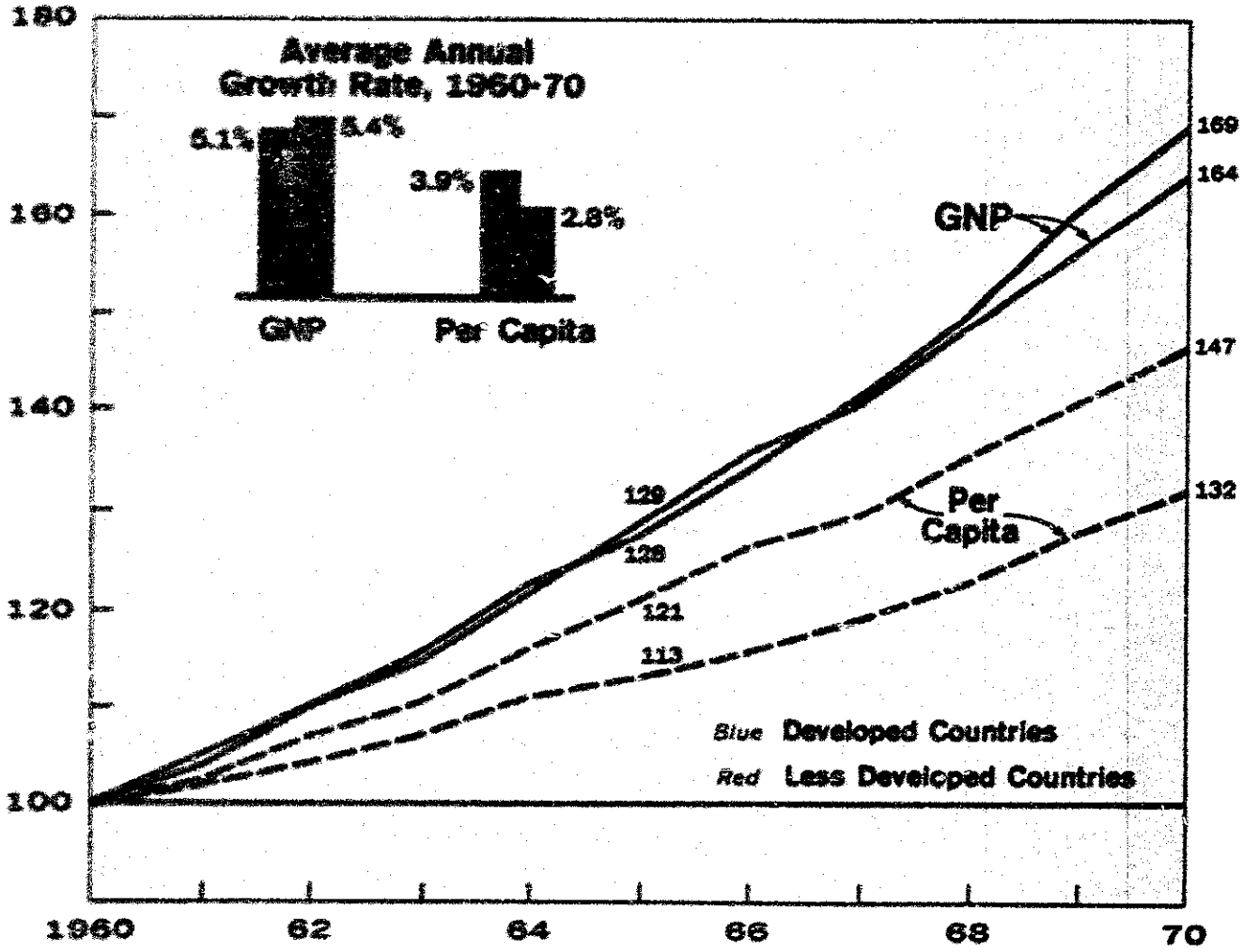
GROWTH OF FREE WORLD GNP

Both the developed and less developed economies grew at fairly similar rates during the past decade, with the LDCs having a slight edge at 5.4% (Chart 59). However, since population growth is significantly more rapid in LDCs, their per capita income growth is significantly less than in the industrialized countries--less than 3% compared with 4% in the developed countries. Inevitably, the per capita income gap between the developed countries and LDCs continues to grow.

In the next three decades the world's population will probably have increased by 3 billion to some 6.5 billion, and the LDCs' share of the total will also increase. Thus, unless some fundamental new forces affect this explosive equation, we are likely to see an ever increasing number of people left on the low side of the income gap.

Real Growth of Free World GNP

(Index 1960=100)



PER CAPITA GNP

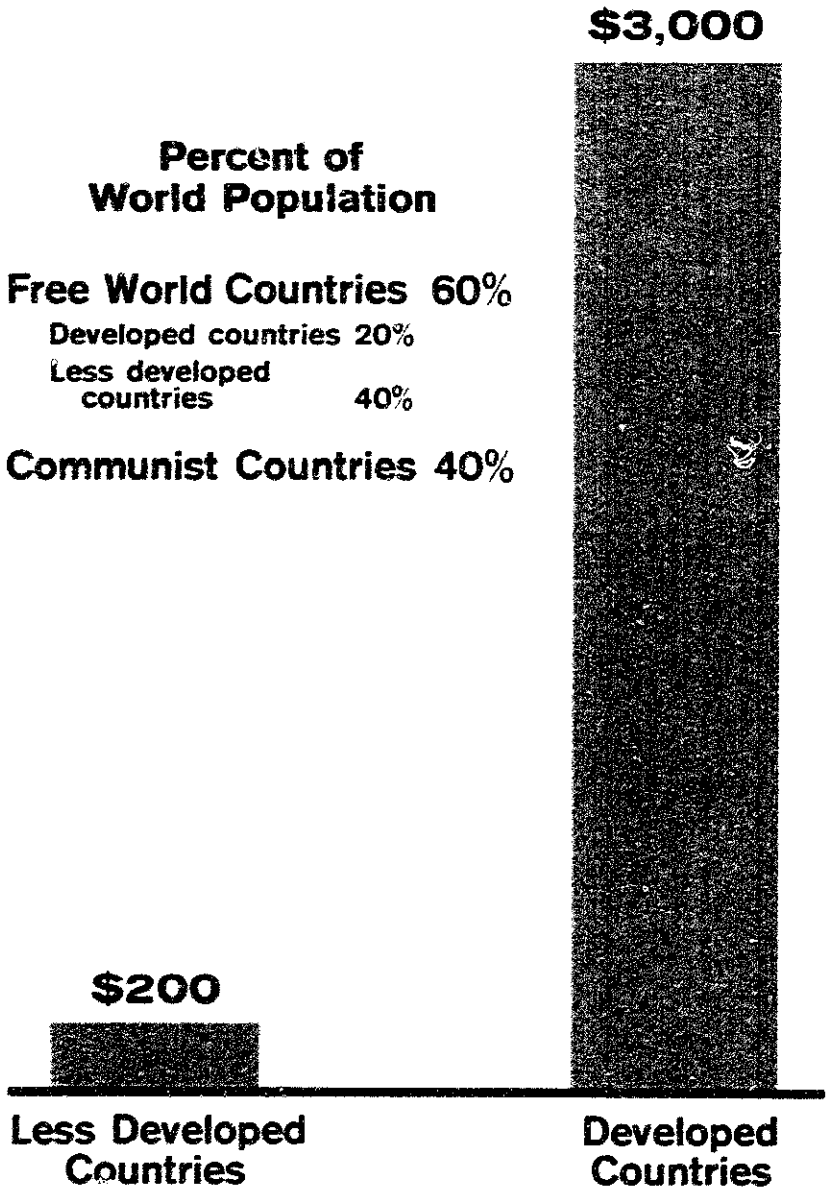
With two-thirds of the Free World's people living in LDCs, it is important to look behind the figures and try to understand what life is like on an income of $200 per year, as compared with $3,000 for the one-third living in developed countries (with due allowances for statistical difficulties in these figures.) (Chart 60).

Productivity is so low in the LDCs that there is usually little left over to sell once subsistence needs have been satisfied. Perhaps as many as 10% of children die before the age of four, and as many as a quarter are undernourished, some of them to the point of physical impairment. Only about a third of the present high school age population is in school.

Even if per capita GNP in the LDCs were to grow substantially faster than in the developed countries, the absolute dollar gap would continue to increase. This is because the economic base in the developed countries is so much larger that a small percentage growth will provide a substantial increase in dollar terms. For example, a $200 increase in per capita GNP would mean a doubling in the LDCs and only about a 4% to 5% rise in the United States.

"Closing the gap" is not a feasible objective, but increasing standards of living is possible. However, to put this in perspective, if the population of an LDC is increasing 2.5% annually and its real GNP is climbing at 10% annually, (very few are), then per capita GNP will double in a decade. In the more typical case where GNP is increasing at only 5% annually, it would take a quarter of a century for per capita GNP to double--from $200 to $400. These levels, by the year 2000, do not hold reassuring prospects for the populations of LDCs.

Free World
Per Capita GNP, 1970



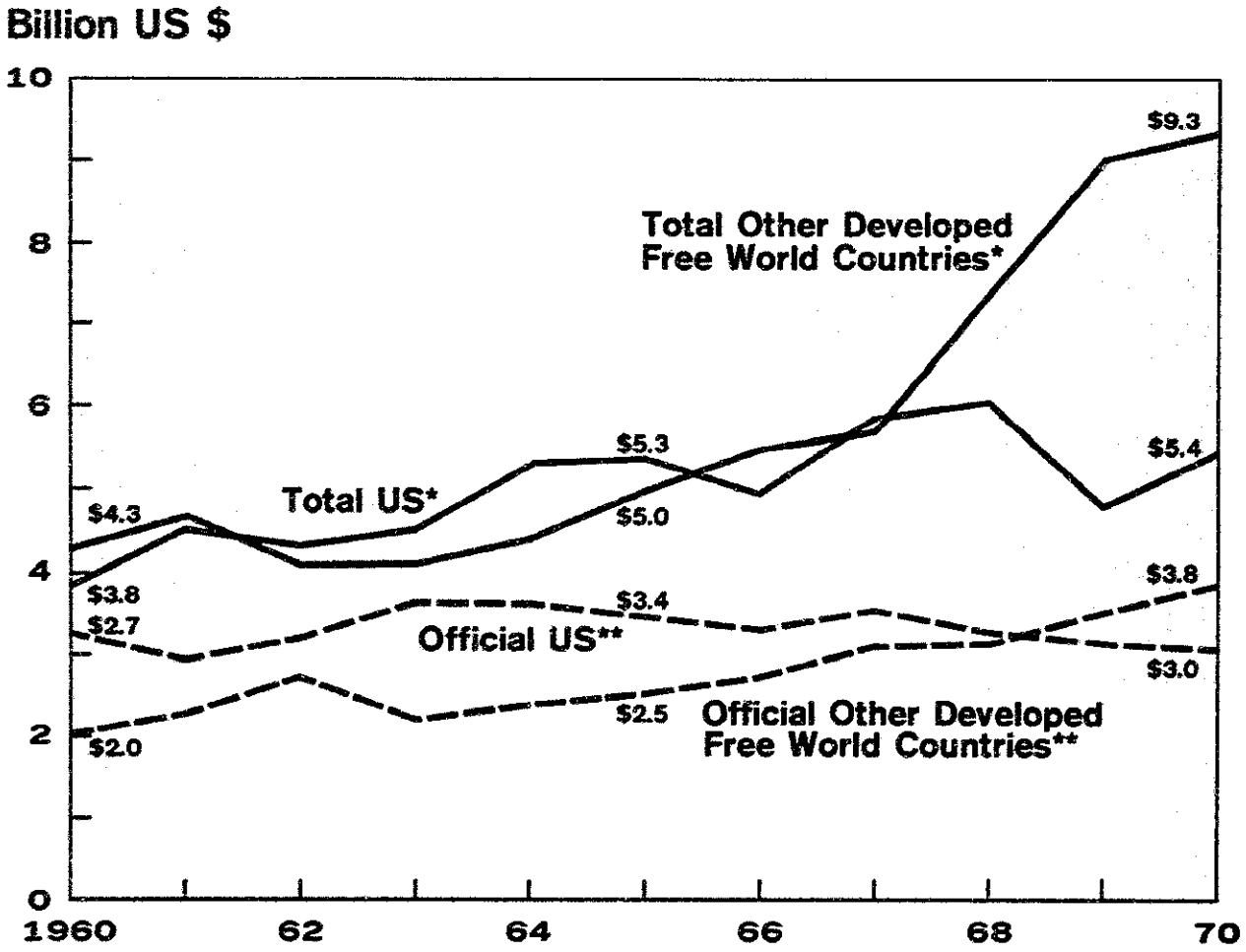
FREE WORLD FINANCIAL FLOWS TO LDCs

Other countries are providing an increasing share of the official aid to LDCs while our support is dropping. In 1969 the US Government's share fell below 50% of the total. Given our decreasing share of the world's GNP compared to other developed countries, and our much larger share of the defense budget on behalf of ourselves and the Free World, we should be pleased that the rest of the Free World is picking up an increasing share of responsibility (Chart 61). As a percent of GNP, a number of leading industrialized countries are already giving more aid than we.

For all this, however, we need to remember that "aid" can cover transactions that are normal, commercial dealings.

At least two reasons explain the rapid growth of the private capital flows from other industrialized countries to LDCs. One is that these other developed countries, and in particular Japan, are trying to build LDC markets and are extending export credits on an expanded basis. For example, it is estimated that almost 40% of Japan's foreign aid programs have been of this type. Another is that the market for raw materials from LDCs is becoming very important and competitive, and other countries are therefore investing heavily in certain LDCs. Japan, in particular, is committing major financial resources to long-term loans to these LDCs--in return for which Japan receives long-term access to low-cost raw materials, and also sells Japanese capital equipment to mine the raw materials.

Free World Financial Flows to Less Developed Countries



**All financial flows to less developed countries including private investment.*

***Government-to-government and to multilateral organizations.*

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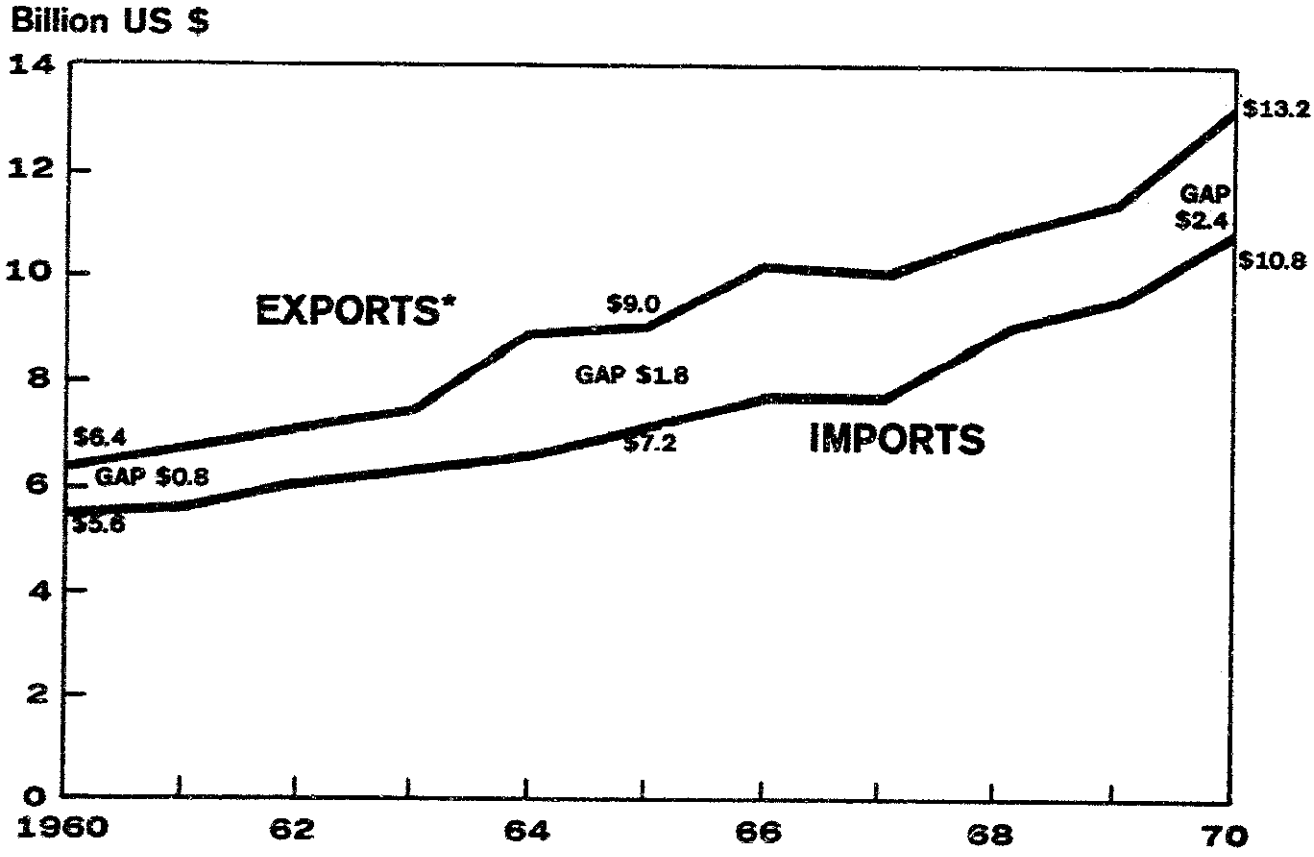
US TRADE WITH FREE WORLD LDCs

In 1970, US exports to LDCs reached the record level of $13.2 billion. With imports of $10.8 billion, our trade balance with LDCs was $2.4 billion. About 25% of our exports to LDCs are financed through foreign aid (Chart 62).

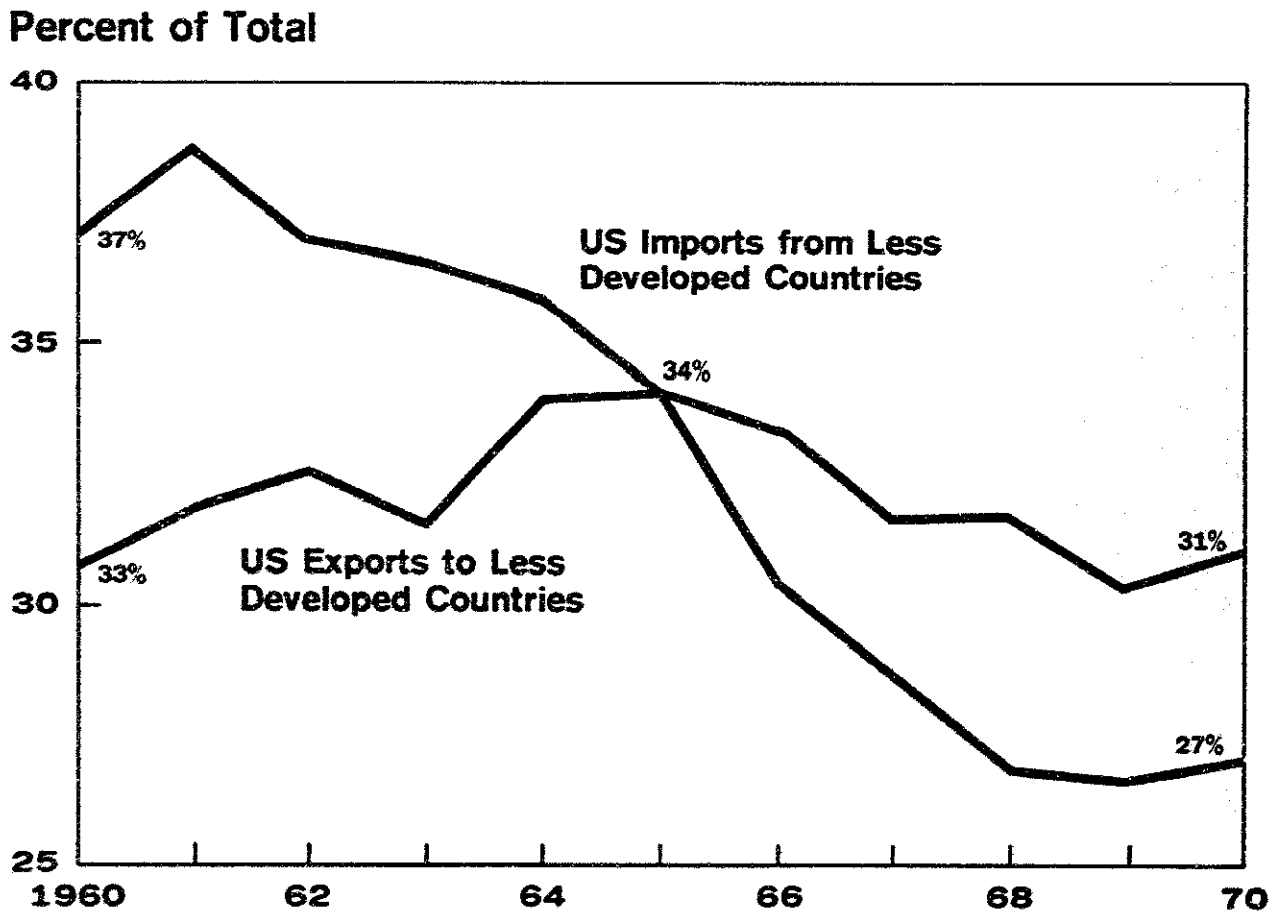
Chart 63 shows that the share of US exports going to Free World LDCs remains nearly the 1960 level--about 31%. However, the share of our imports coming from LDCs has fallen sharply--from about 37% in 1960 to about 27% in 1970. Raw materials account for the bulk of our purchases from these countries, and our imports of those materials have increased more slowly than our imports of manufactured goods. (US tourists add significantly to the dollar receipts of some LDCs, even though such dollars do not show up in the trade balance.)

US Trade with Free World Less Developed Countries



**About 25% of 1969 exports were financed by aid programs.*

Less Developed Countries' Share of US Trade



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ECONOMIC AND EXPORT GROWTH IN LESS DEVELOPED COUNTRIES

There is a distinct ambivalence in some of our attitudes about LDCs and their exports to us. Those of us in the industrialized world know that these countries will not become economically and politically viable, stable, and independent until they attain minimum levels of income far higher than at present. Most of these countries cannot depend on agriculture alone to achieve these income levels. A modern economy typically requires both industry and services; if LDCs are to grow rapidly, they must industrialize.

This is where our ambivalence appears. On the one hand, we know that this growing industrialization will concentrate initially in low-technology, labor-intensive products -- whose production usually requires less capital, less training, and few technical skills -- in short, where there is relative ease of entry. Increased industrial capacity generates export potential -- and yet, as we have seen earlier, it is precisely in these nontechnology-intensive products where we see the largest US balance-of-trade deficit. It is also where we see the largest job and company dislocations in our own country, and where we hear the loudest appeals for protection. On the other hand, we also know that if LDCs cannot sell their exports, they will not be able to buy imports from other countries. Still, it appears that the US is absorbing a disproportionate share of LDC manufactured exports--roughly one-third--about double our share of imports generally.

The importance to LDCs of their exports is shown in Chart 64. Notice that in those countries whose GNP growth is 5% annually or less, exports are growing even more slowly -- 3% to 5%. Examples are India, Morocco, Tunisia, Columbia, and Ecuador. However, when GNP grows in the 6% to 7% range -- exports grow on the average somewhat faster. In this category we find Greece, Nicaragua, Portugal, Columbia, El Salvador, and Pakistan. And, in those LDCs that have achieved a GNP growth rate of 8% or more, we see a major leap in exports -- an average export growth of 18% in such countries as South Korea, Panama, Taiwan, Iran, and Spain. Furthermore, when we look at the faster growing LDCs, we see they are not relying on exploitation of natural resources. Most concentrate on "nontechnology-intensive" manufactured products; and their growing exports are taking place in spite of reduced or halted US foreign aid.

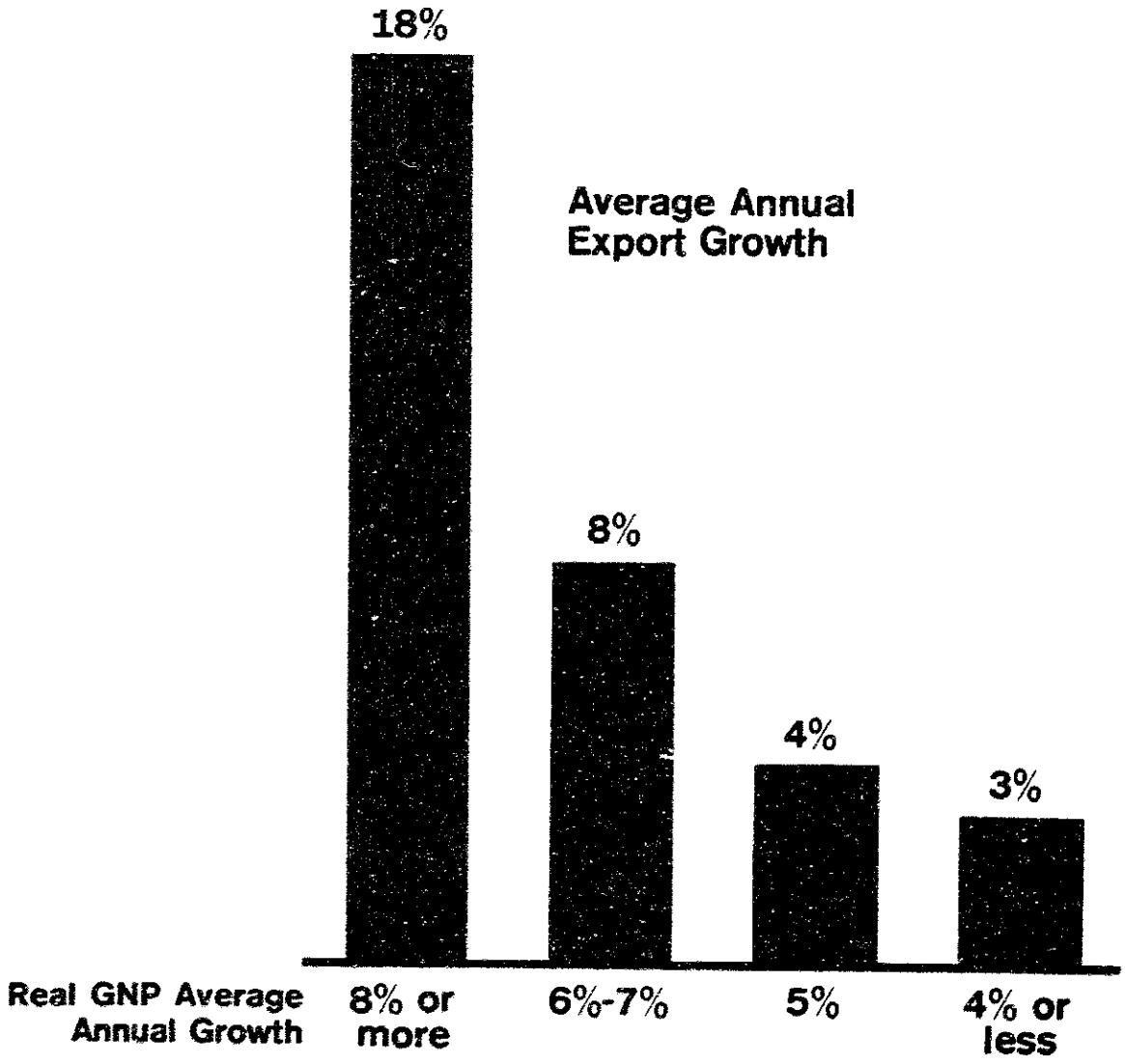
We see in many of these LDCs migrations of rural populations into cities unable to accommodate them; new nonagricultural jobs increase very slowly in many countries. Thus cities suffer very high rates of unemployment -- often 25% to 40% of the labor force. In this situation, those developed countries restricting exports from LDCs can obviously be painted as villains responsible for the lack of jobs. It has been said

that when economics becomes important enough, it becomes political -- and in the 1970s, political problems with the LDCs are likely to be economic problems.

There are also important financial aspects to LDC growth requirements. Current LDC export earnings are inadequate to finance investment and to service their rapidly growing debt. It has been estimated that by the mid-1970s, LDCs' debt service will run about $10 billion per year.

The LDCs can meet their foreign exchange needs in one of three ways. One is through rapid increases in new foreign aid loans, which, given the mood at least in the United States, seems unlikely. A second way is to attract more foreign investors by improving the conditions for and security of foreign investment. The third way is to avoid continuing debt crises and refinancing problems through rapid export growth. This last will require expanded access to the large markets of the developed countries.

Economic and Export Growth in Less Developed Countries, 1960-69



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VII. US USE OF NATURAL RESOURCES

Along with men, methods, and money--access to low-cost raw materials importantly affects a country's competitiveness. While the first three of these factors are somewhat under the control of individual countries, raw materials are where one finds them; and none of the major economic powers is self-sufficient in materials. The USSR comes closest to being self-sufficient; but at the other extreme, Japan must import virtually all of its industrial raw materials.

Developed countries, facing expanding demands for raw materials and limited supplies available domestically, are turning increasingly to less developed countries. Competition for LDC raw materials will intensify, and expanded transport facilities will be needed to move them from source to point of processing.

Although we are a major producer of raw materials and fuels, we must import 15% of our requirements. Among important crude materials, we import 10%-15% of both crude oil and copper, 30% of iron ore, and more than 80% of bauxite needs (Chart 65). We are self-sufficient in coal and zinc, while we must import all or most of our tin, natural rubber, nickel, and chrome.

As good-quality domestic resources are depleted, we find it is cheaper to turn to higher-grade foreign sources. Long-range projections indicate that by the year 2000 we will import 30%-50% of our mineral requirements, including a significantly increased share of our oil needs.

Our growing dependence on foreign raw material resources has major policy implications, including:

1. A growing trade deficit in basic commodities--especially oil--and increased capital outflows to develop and exploit foreign mineral resources have major balance-of-payments implications.

2. A greater US impact on world raw material markets. The United States will compete with other developed countries, notably the Japanese, who will also be faced with shrinking domestic sources and rapidly growing needs.

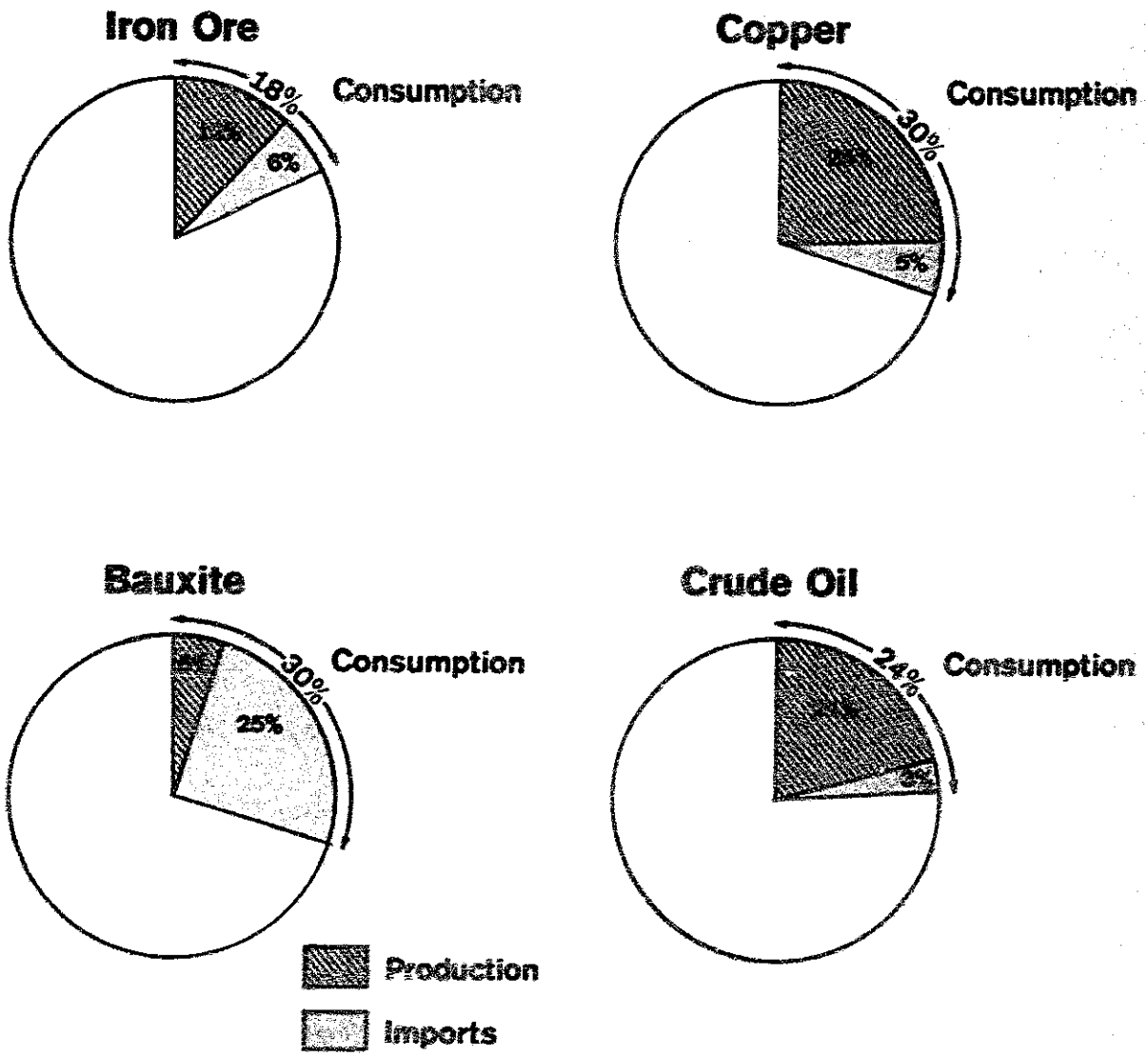
3. Environmental effects of the mounting energy requirements of a rapidly expanding industrialized world.

4. The effects of this entire raw materials equation upon America's future competitiveness in the world economy, and our vulnerability due to reliance upon foreign supplies.

5. Finally, the implications of all these factors for the development of new clean energy sources--the subject of the President's recent message.

US Production and Consumption of Selected Raw Materials

Percent of World Total in 1970



In 1970 the United States imported 15% of its mineral requirements. By the year 2000, this share will increase to at least 30%-50%.

OECD COUNTRIES ROLE IN THE WORLD ECONOMY

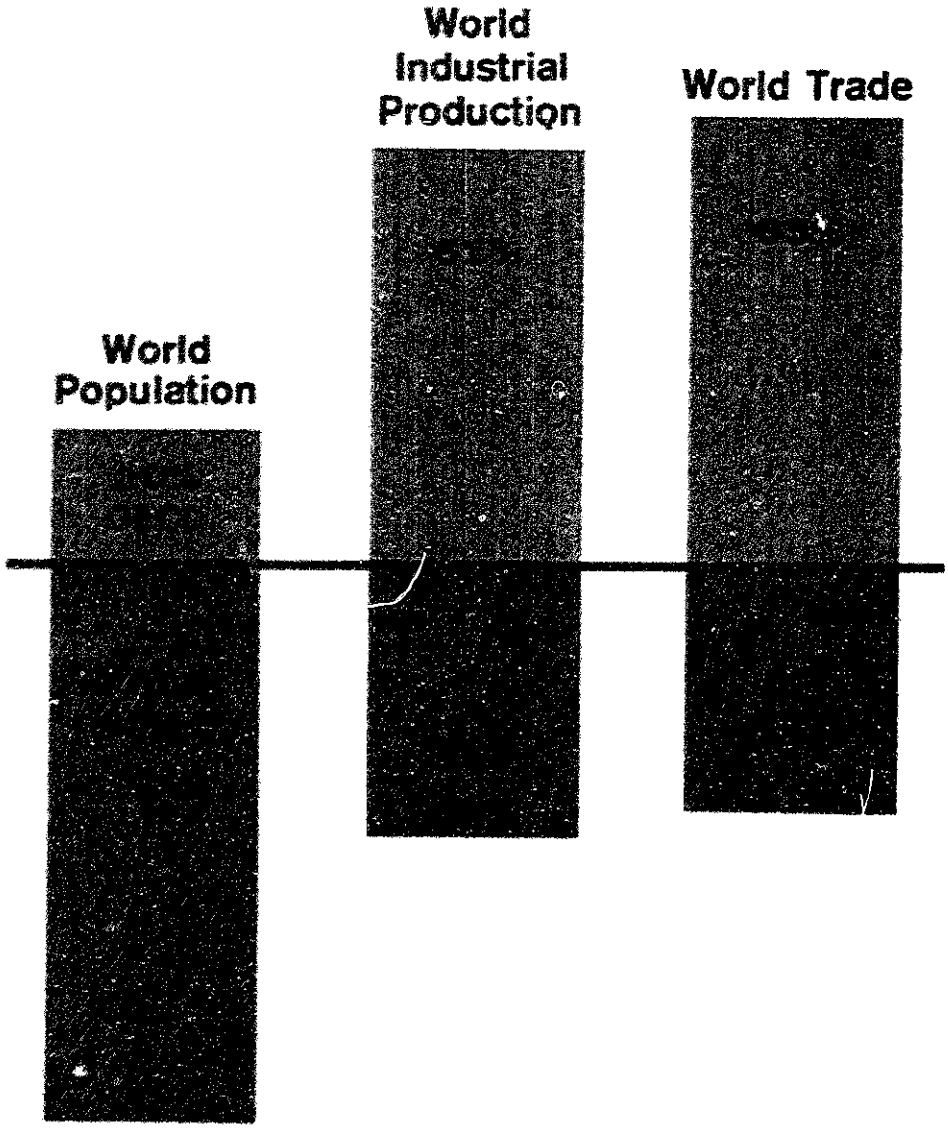
The 1970's will present us with some new problems and some old, if aggravated, frustrations. Yet, we shall always want to remember that the countries that account for much of the world's industrial production and world trade are also our allies in an economic and security partnership that has led the world to an era of unprecedented peace and prosperity (Chart 66).

Clearly, both Europe and Japan now have the potential to become major inward-looking blocs with the GNP, trade, and the monetary reserves to do what they must do in their own economic self-interest. In the same vein, each of these areas have the technological base -- nuclear and missile -- to construct atomic weapons systems in a few years.

Thus, as we adjust to the new economic realities of the 1970's, this chart helps remind us of the need to avoid actions and attitudes that could provoke our partners or ourselves to withdraw into large economic, political, and perhaps ultimately, military shells.

The task, to put it more positively, is to build a structure for peace in the 1970's that takes into account the growing resources of our partners -- resources that enable them both to compete and trade in an open, peaceful way and to share in the security and development burdens of the Free World.

OECD Member Countries'* Role in the World Economy, 1970



Australia, Canada, Free Europe, Japan, and the United States.

THE JAPANESE ECONOMIC MIRACLE -- A Special Review

America's traditional and cultural ties have been with Western Europe. Our language and our impetus as a nation grew from our European heritage, as did most of our economic institutions. Throughout our history, most US trade, investment, and security relationships bound us with the Atlantic nations.

America's familiarity with European ways of thought and action is obvious. Less familiar to us are the institutions and history of Japan, the country selected for description in this special review. It is because Japan is both culturally distant from Americans and because that nation has achieved a remarkable growth of output and trade that this special review is devoted to it*.

Only about ten years ago, if one had been asked to think aloud about Japanese products one would probably have mentioned verysmall market shares of Japanese photographic equipment, some electronic equipment, and toys -- but certainly nothing as basic as steel or automobiles.

Today, the Japanese have passed the economies of West Germany, France, and the United Kingdom and rank behind only the United States and the Soviet Union in total output. Their growth rate of the past 20 years has surpassed everyone's expectations.

GOVERNMENT-BUSINESS PARTNERSHIP

Japan is a special kind of economic phenomenon. There is an assumption that the key objectives of government and business are essentially the same: the maintenance of Japan's economic health at home and the promotion of the nation's economic interests abroad.

The system of government-business interaction which underlies Japan's successful growth does not lend itself easily to description in Western terms. Japan's is neither an unplanned, free-enterprise economy like that of the United States, nor a centrally planned economy like those of Eastern Europe and the Soviet Union.

Many factors have brought about the Japanese phenomenon. Any list of them would have to include the insular psychology of an island nation, a homogeneous culture and sense of racial identity, and the need and will to recover from the devastation of World War II. The Japanese appear to have asked themselves, "What are the implications for us of trying to recover a powerful position in the world, while maintaining our low profile in overall foreign and defense policies?"

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*A variety of sources were used to prepare this material. One of the most important was the Boston Consulting Group, which has specialized in a variety of studies of the Japanese economy.

Part of the answer to this question has been a complex apparatus of interaction involving several government ministries such as the Ministry of Finance, the Ministry of International Trade and Industry (MITI), and the Bank of Japan; and formal hierachial groups of industries, trade associations, and labor.

A major segment of Japanese government officials devote themselves to stimulating growth and improving business prospects -- the Japanese government sees itself as a partner with business in facilitating economic growth.

The situation is far different from that in the United States -- where it is probably true that major efforts of government officials are devoted not to growth and stimulation, but to restraint and regulation of business and labor: the role of the umpire.

The Japanese system includes a range of formal and informal channels of communication between government and industry. Thus, by the time a new policy decision is announced, widespread consultation has taken place, and a consensus has often been reached. Communication is facilitated by the close personal ties of business and government officials.

The Japanese recognize the need for broad, long-range economic planning, while avoiding overly detailed implementation. Plans of the Japan Economic Planning Agency are prepared in consultation with leading industry experts. While these plans lack legal sanction, they exert a powerful influence on the thrust and direction of the Japanese economy.

Japan is not a socialized economy in the sense of detailed government production plans. However, viewing the Japanese economy as a type of informal conglomerate is helpful. It is a form of business organization which, through strong financial management, can channel cash flows rapidly from low-growth to high-growth sectors.

The Bank of Japan is the financial center and, following guidelines of the Planning Agency, determines the nature and direction of growth by allowing companies in rapidly growing industries to employ more debt than they could safely incur by themselves.

UTILIZATION OF CAPITAL RESOURCES

Japan's high capital reinvestment rate (39% of GNP) was noted earlier. The Japanese system for the allocation of this capital deserves comment.

First, Japanese corporations employ large amounts of debt in their capital structure. In the Japanese steel industry, for example, debt

currently accounts for nearly 80% of capital. For major Japanese corporations, debt-to-equity ratios often run four or five to one, in sharp contrast to the Fortune average for 500 U.S. corporations of less than 0.5 to one. This practice enables major Japanese corporations to expand capacity much faster than would be possible if they had to depend mainly on retained earnings or the underdeveloped Japanese security markets.

How can Japanese companies assume the level of risk associated with such heavy debt, and what are the implications for resource allocation within the economy? In brief, the government of Japan stands behind the debt position of major companies, ensuring both that financing will be available for rapid growth and that the government can play a central role in determining the nature and direction of that growth. As fewer guarantees apply to smaller or less efficient firms, the system encourages a rapid move toward concentration of production in the hands of the larger, more efficient producers.

Since the commercial banks of Japan provide the major source of funds to corporations via an aggressive lending policy, they are ultimately dependent upon the Bank of Japan. The fact is that no major company's loan is likely to be called unless the Bank of Japan wants it called. On several occasions in recent years, the Bank has earmarked funds to be channeled through the commercial banks to major companies that have been, for all practical purposes, bankrupt. Major changes in management, organization, and operations have been the conditions attached to these financings.

Another institution characteristic of the Japanese system, conglomerate groupings called Zaibatsus, operate to decrease the financial risk of large companies.

These groups usually include, besides numerous manufacturing firms, a major commercial bank and an international trading company. Zaibatsus would normally dwarf any conglomerates in this country. The heads of the major companies review operating results, growth plans, and capital requirements much as do the heads of divisions of a U.S. conglomerate. They are usually in unrelated fields or in the relationship of supplier and user. Largely because of the dependence of Japanese companies on short-term debt, a bank in each Zaibatsu plays a central role.

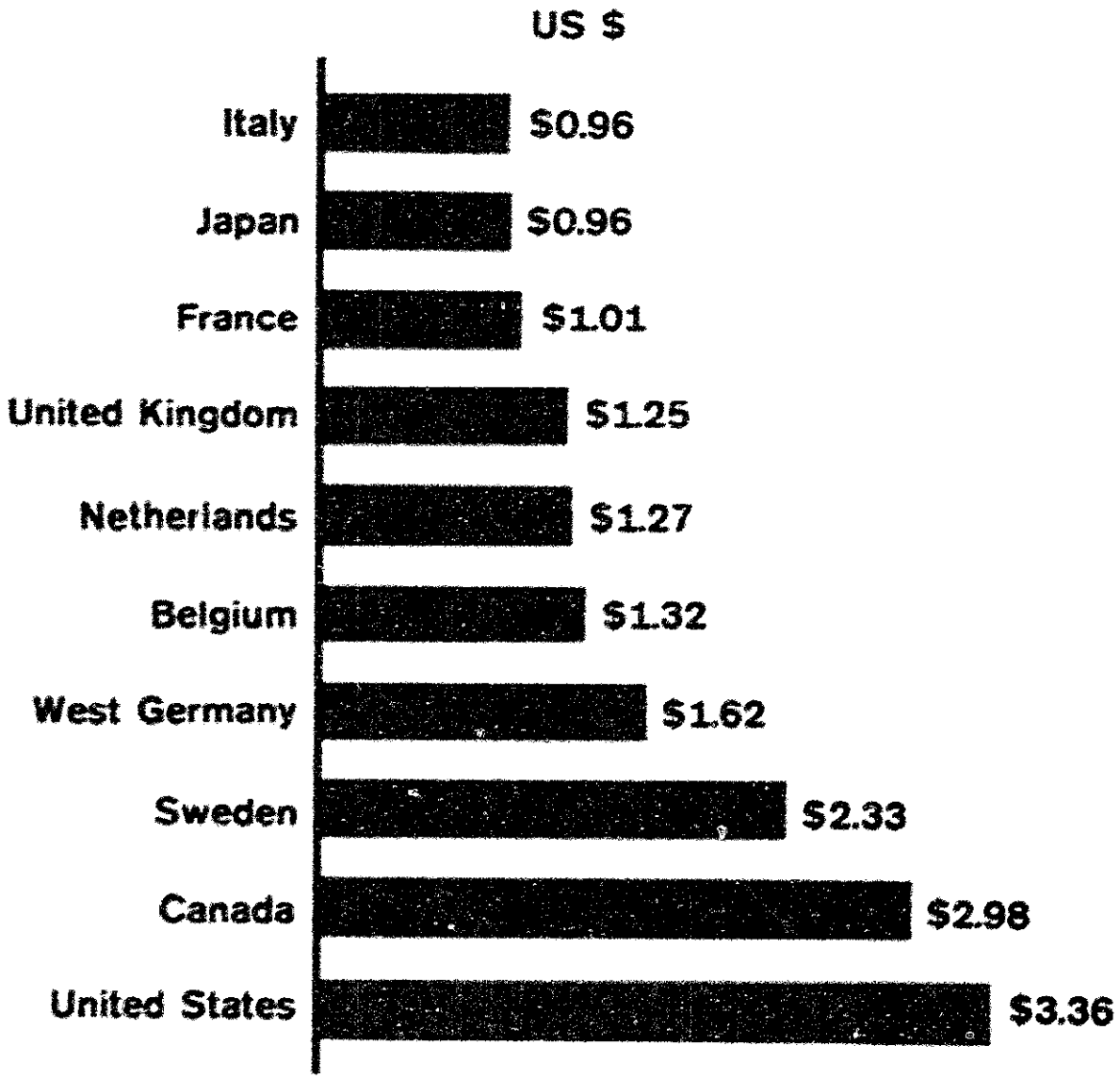
LABOR RESOURCES

A persistent myth about Japan is that of "cheap labor." It is commonly assumed that the growth of the Japanese economy is based primarily on low labor costs. Many countries of Asia have far lower labor costs and far more raw materials but none has the combination of Japan's efficient use and allocation of labor and capital resources, and a government-business partnership to promote growth.

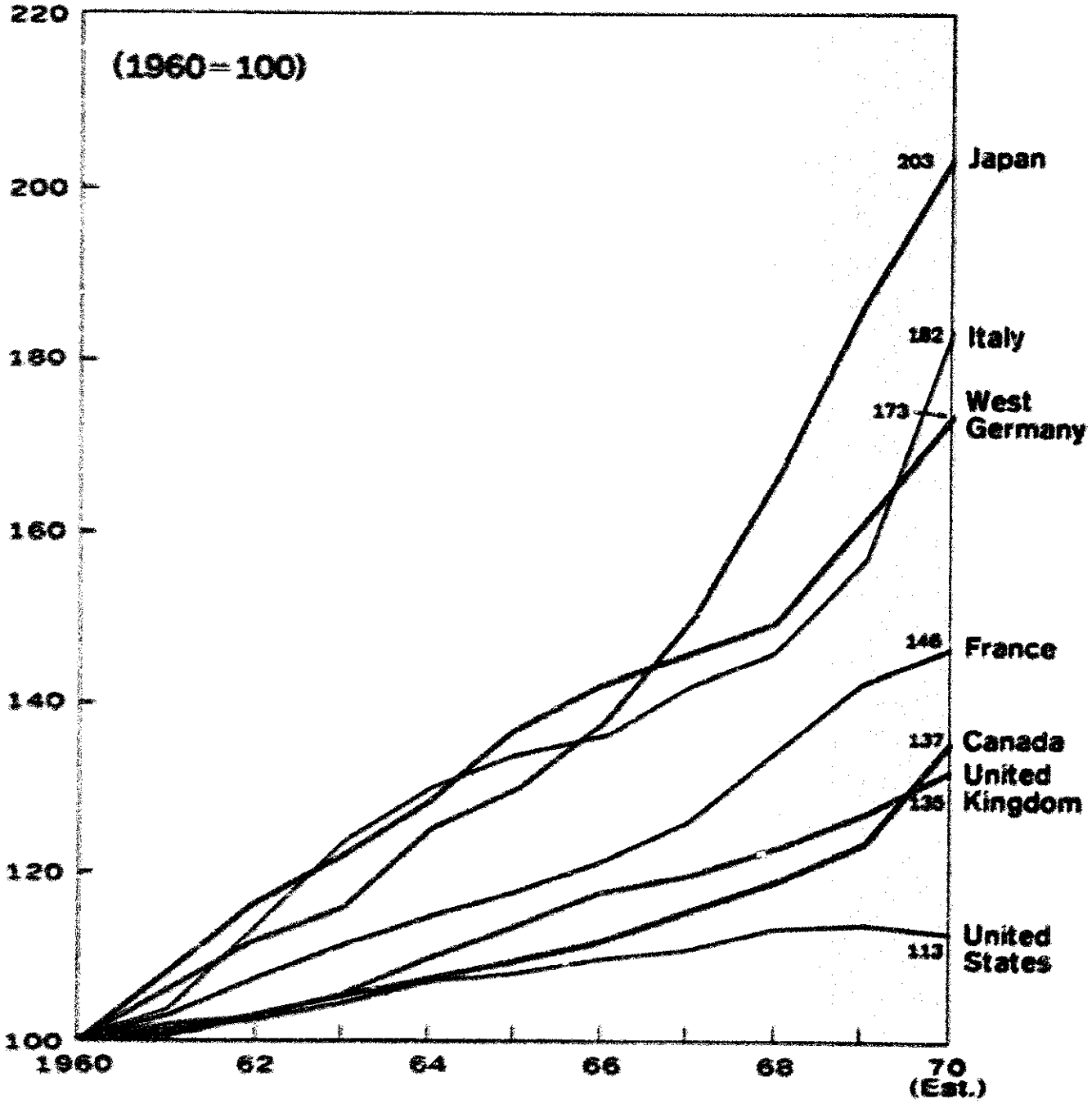
Japan's labor rates have, of course, been low compared with those of some Western countries (Chart 67). However, in the sophisticated sectors of the economy -- those like steel and machinery that are growing fastest and are most competitive in world trade -- direct labor rates are at European levels. Wage increases of about 14% annually during 1965-70 in manufacturing sectors have been justified by high productivity rises of about 15% annually, or even more. In steel, Japanese annual growth in productivity of 18.5% outpaced wage gains. In the United States, on the other hand, wage gains exceeded productivity increases during the last half of the 1960s. As a result, the unit labor cost gap continued to widen to the disadvantage of the United States. Productivity growth in Japan has also spurred major gains in Japanese real wages relative to the United States and other developed countries (Chart 68).

Labor is indeed a critical factor in Japan's success -- not so much because it is "cheap labor," but because it is efficient and flexible and because its organization in both companies and unions stimulates rather than impedes economic growth.

Average Hourly Earnings of Wage Workers in Manufacturing, 1970



Index of Real Average Hourly Earnings of Wage Workers in Manufacturing



THE "LIFETIME EMPLOYMENT" SYSTEM

Japanese workers are typically hired directly out of school and spend their careers with one company. This permanent employment system, which appears inflexible to the Western observer, has contributed importantly to Japan's economic miracle:

1. Since the worker enjoys lifetime job security, he more readily accepts technological change. If his job is displaced by automation, he knows he will be retrained by the company for another task.

2. Conversely, management is probably willing to expend larger sums to retrain a worker, knowing that such an investment is less likely to accrue to another company through the worker's leaving.

3. While the Japanese industrial labor force is unionized in about the same proportion as in the West, unions are organized by company and not by trade. The union tends to identify its long-range interest with that of the company. In 1968, Japan lost 2.8 million man-days to strikes versus more than 49 million in the United States. Furthermore, virtually all strikes are of short duration. For all practical purposes, there have not been any major strikes for many years. In the last 15 years, the United States has lost more days per 1,000 non-agricultural employees than Canada, France, Germany, Sweden, or the United Kingdom--only Italy's rate exceeds the United States.

4. This company identification has important morale effects. Only if the company is successful can the employee enjoy a prosperous career and comfortable retirement.

5. Since wages are tied importantly to age, labor costs are a direct function of the average age of the work force. Thus, the fast-growing firm (or industry) recruiting large numbers of young workers directly from school, has a relative cost advantage over the slow-growth enterprise. The slow-growth enterprise, therefore, encounters increasingly noncompetitive labor costs.

This employment system is not as inflexible as it first appears. Mandatory retirement age is 55 -- when the employee is given a lump-sum pension that is not really adequate to support him for the remaining 15 years of his life expectancy. He is therefore available to be rehired by his company (or a subsidiary or sub-contrator) as a temporary worker.

Top management is not subject to early mandatory retirement: after being designated a director of the company, usually in his forties or fifties, a Japanese executive is exempt from any mandatory retirement requirement. Presumably, this permits the selection of the most outstanding to stay past fifty-five.

The effectiveness of worker training is dependent upon the literacy and education of the population. Japan's educational level is high: illiteracy, for example, is negligible. A higher percentage of Japan's secondary school age population is in secondary school than in the United States -- about 91% versus 78%. While college enrollment in the United States exceeds that in Japan, the Japanese college enrollment per thousand exceeds European levels.

The Japanese emphasize technical training. For example, Japan now graduates more engineers than the United States -- with about half of the population. (The United States, however, still graduates more Ph. D.'s) Japan's vocational-technical educational system is highly developed, permitting them to direct the young into skills that will be in high demand in the future.

In the next pages, we shall review data on productivity and unit labor costs that are the composite result of many objective factors -- capital input, training, increasing technology, longer work hours, etc. (In Japan, the average work week is about 49 hours, versus 37-39 in the US). While it is hard to quantify in a chart, it is worth noting that a variety of foreign journalists visiting Japanese automobile plants, for example, refer to various worker motivational factors: "willingness to work," "discipline," "pride," "finishing up the work," etc.

FULL CAPACITY POLICY

One consequence of the Japanese lifetime employment policy is that labor tends to be treated as a fixed cost. Also, because of the proportion of debt in its capital structure, the financial costs of a Japanese company are largely fixed. Therefore, a Japanese company is driven to operate at high capacity as long as its revenues cover variable or "out-of-pocket" costs. This can produce export prices which are extremely low.

In an economy where industrial output has consistently increased more than 20% annually for all industry, it is reasonable to place maintenance of market share as a primary corporate objective. These gains plus the effective commitment of the government to stimulate rapid economic growth have caused Japanese companies to add capacity in anticipation of market expansion. Given the capital costs of new facilities, much is done to ensure that they will be operated at capacity and available products moved onto world markets. This explains in part at least the tendency of Japanese exports to increase sharply and quickly when the increase in domestic demand slackens periodically, and helps explain some of the problems foreign competitors have with short-term Japanese pricing policies.

Their use of labor, capital, and good management practices has yielded Japanese productivity improvements unmatched by other industrial countries. The following charts add statistical substance to this conclusion.

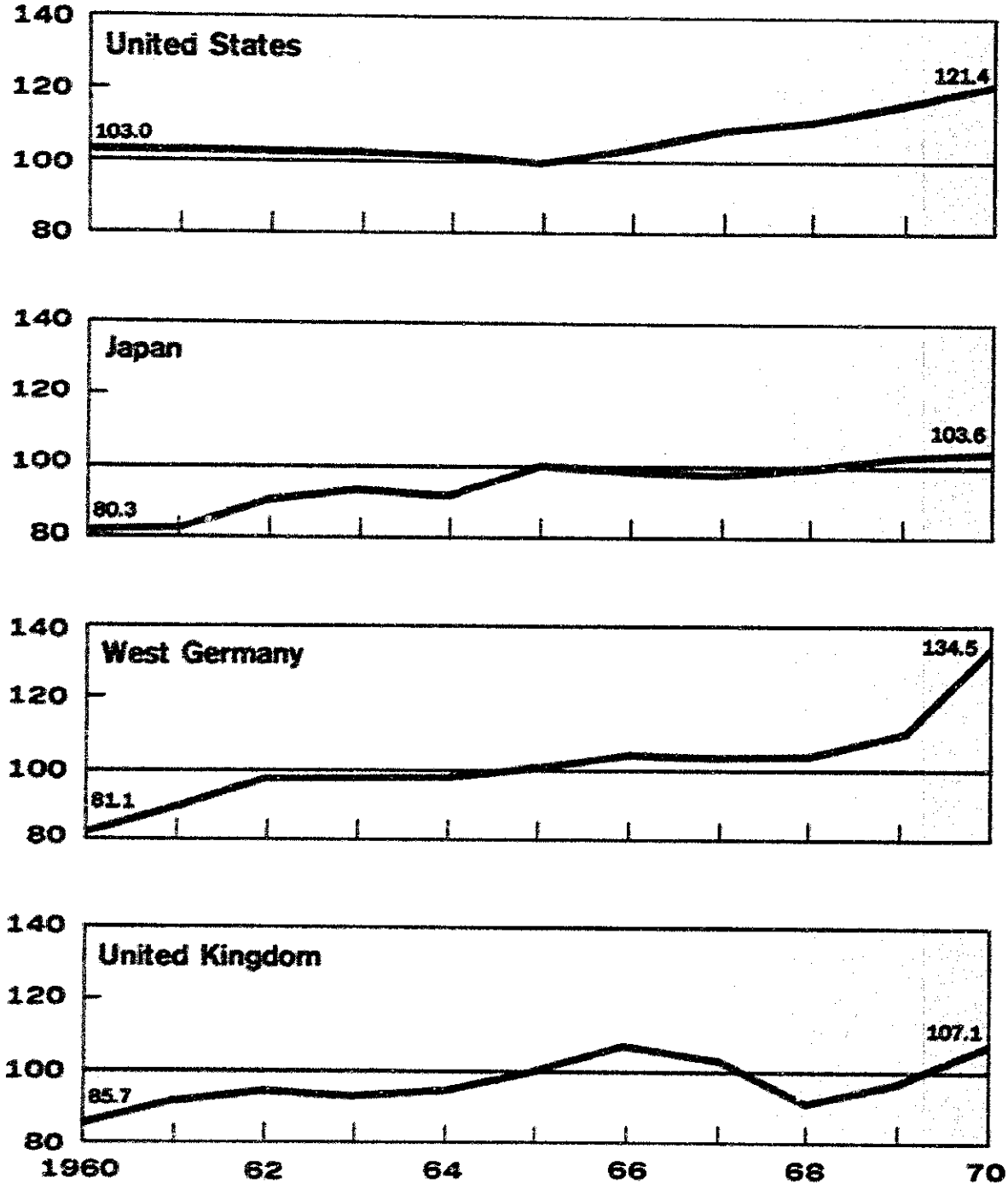
In unit labor costs (Chart 69) the United States has an excellent performance from 1960 through 1965-66, when annual productivity increases equaled, or even exceeded, wage increases. More recently, we see that relative German costs have risen sharply, spurred by an inflationary boom and a substantial currency revaluation. In the case of Great Britain, we see a strong trend of rising unit costs, in spite of substantial devaluation.

The chart speaks eloquently of Japanese productivity performance--made even more remarkable by the fact that wage increases were about 14% annually between 1965 and 1970. An important question is how long Japan can continue this unique performance; inflationary pressures are building there too.

By very competitive export pricing and by tax and other incentives, Japan has been able to use its productivity growth to keep prices down for its export products (Chart 70) even though consumer prices have risen. Since consumer prices obviously include the cost of services (which in Japan have risen very rapidly), the disparity between export and consumer prices is necessarily overstated to some degree in these numbers. More analytical work must be done in order to establish valid comparisons of this type, based solely on the prices of comparable goods that are both consumed domestically and exported.

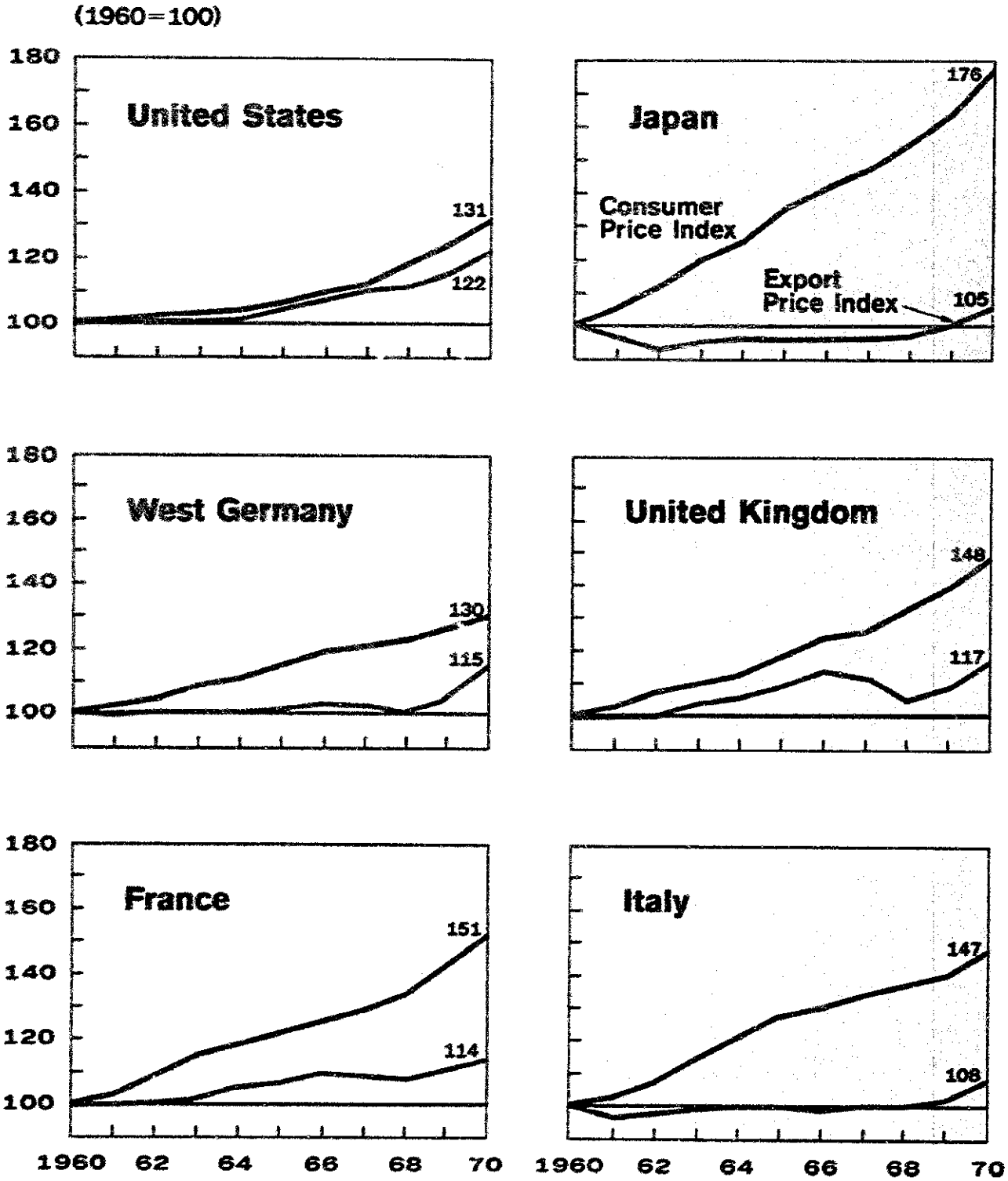
Unit Labor Costs in Manufacturing

(Index 1965=100)



Based on series expressed in US $.

Consumer and Export Price Indexes



JAPANESE TECHNOLOGY

The Japanese put major emphasis on high technology. Much foreign technology has been acquired through royalty agreements and various kinds of technical agreements. In some cases, it has been brought in by foreign companies as their equity in Japanese companies -- but with a handful of exceptions, the foreign firms have received only minority participation in such joint ventures.

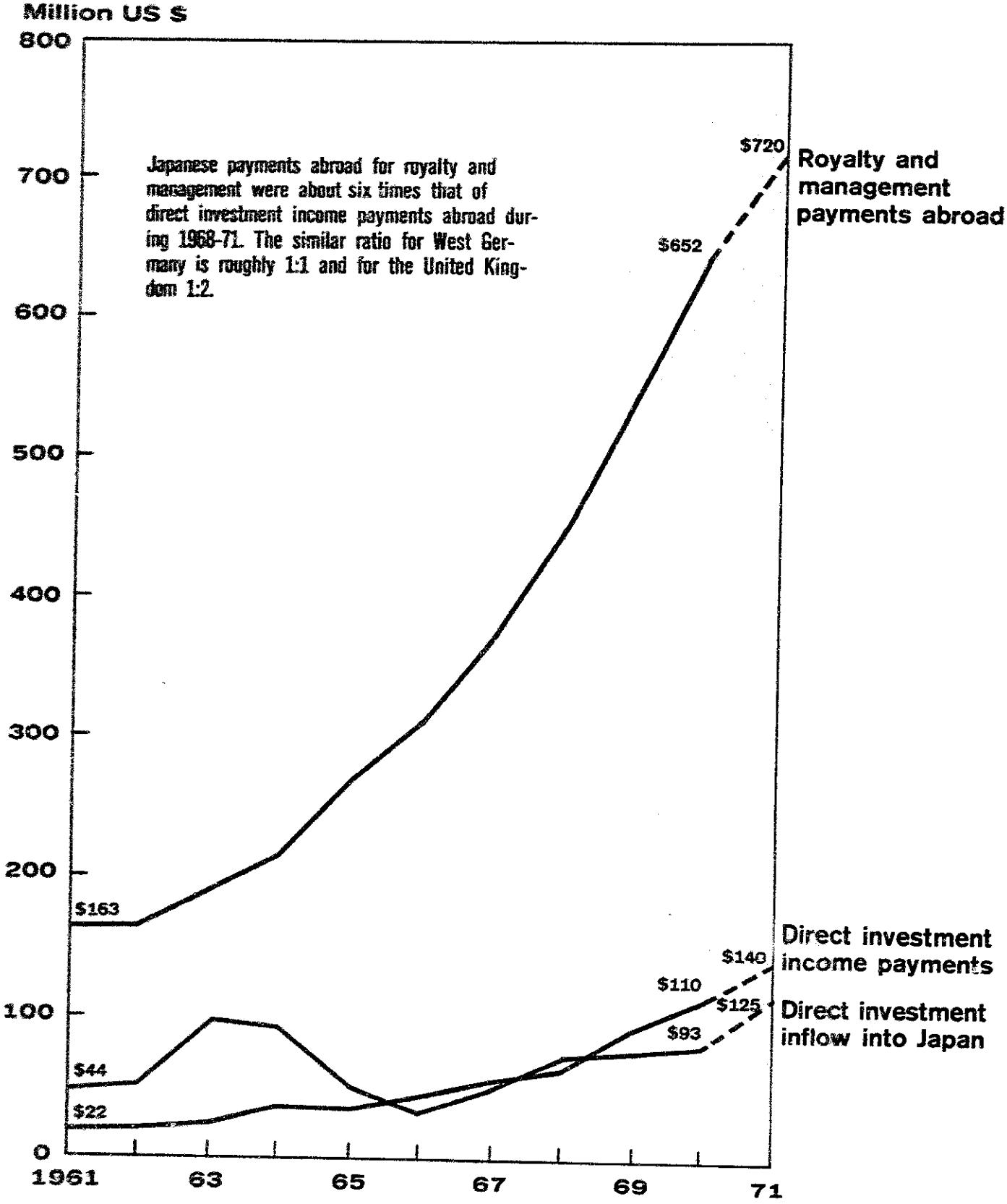
Many American companies, knowing of severe investment restrictions (and in some cases import restrictions on these high technology products), chose royalties as the most practical way to get revenue for their technology.

Thus, while most countries depend on direct foreign investment or domestic R & D to acquire advanced technology and know-how, Japan has purchased these needs outright through licensing agreements. Japanese royalty and management payments abroad were more than $650 million in 1970, and more than half was paid to the United States.

The comparison between Japanese royalty payments and those of the US and Germany is striking: from 1964 to 1970, while Japanese payments grew from $200 million to $650 million, US royalty and management payments abroad increased from $108 million to $198 million; comparable West German payments totalled $192 million in 1967. Japanese royalty and management payments to foreigners were about six times greater than Japan's direct investment income payments to foreigners. A similar ratio for West Germany is roughly 1:1 and for the United Kingdom 1:2 (Chart 71).

In total, Japan has paid out $3.4 billion over the past ten years for access to a vast amount of foreign technology. The costs of developing this technology internally would have been much higher. In the future, Japanese plans suggest an increase in R & D investment from about $3 billion in 1970 to nearly $13 billion in 1980. Clearly, Japan has decided to accelerate the development of its own technology.

Japan: Direct Investment vs Technology Purchases



1971 cumulative direct foreign investment in Japan excluding re-investment earnings: $900 million.

JAPANESE EXPORT PROMOTION POLICY

One common misperception about Japan is the view that Japan's growth is the result of exports. (As we have seen, Japan exports less of its production than some industrial countries.)

In fact, the export successes of Japan have been built upon high levels of domestic demand. From umbrella frames to motorcycles, the initial industrial growth has been to supply the rapidly expanding local market, with the export thrust following some three to five years later.

The cliche has it that "Japan exports to live," and there is truth in this. But it would be more accurate to say "Japan imports to live." The country's raw material position is well known; there is little in abundance and much that is lacking. Seventy percent of Japan's imports are industrial raw materials, including more than 80% of its coking coal, 98% of its iron ore, and 99% of its oil. Exports provide the foreign exchange to purchase the required imports. Exports are therefore of critical importance; they are not, however, the explanation for Japan's economic growth.

Perhaps the most effective export advantage enjoyed by Japanese companies in comparison to their U.S. counterparts is the Japanese trading company, which may well be the world's most efficient international marketing channel. These huge enterprises handle 88% of Japan's international trade, maintaining sales offices around the world and collecting market intelligence worldwide.

Each company markets hundreds of products and can efficiently fill its large ships with many small orders. It is estimated that the top 12 of these marketing enterprises handle 50% to 60% of Japan's exporting companies. In total, the trading companies handle about three-fourths of all Japanese exports. Their huge sales volumes enable them to operate on small margins (the top five averaged a 0.15% return on sales in 1969). They also assist in export and raw material financing. The result is that small and medium-sized Japanese companies can sell their products to world markets at competitive prices. Small firms in the United States, conversely, are often unable to overcome high exporting costs and still sell their products at competitive prices.

Most large Japanese companies compete vigorously overseas (e.g., Nissan and Toyota in North America). However, when a trading company handles the products of more than one company in an industry, it may allocate sales between them. Overseas competition in this case occurs between trading companies and not between individual producers. In addition, numerous competitors (both manufacturers and trading companies)

often form joint ventures to exploit raw material sources. (Generally, the Japanese government does not attempt to extend its antitrust regulatory powers outside Japan and, indeed, often encourages various cooperative efforts.)

The continued existence of disparities in ocean freight rates will deter export expansion. This is particularly true in trade with Japan. Frequently the rate on the same commodity is higher from the U.S. to Japan than vice versa. For example, the estimated ocean freight cost of an automobile imported from Japan is $70; and exported to Japan $250.

For all the reasons mentioned above, Japan's competitive strength in exports has increased steadily in recent years. However, a coordinated government-business trade promotion campaign, including various financing and tax incentives, as well as an overall national commitment to exports, also explains Japan's successful export performance.

INDUSTRIAL PRODUCT SPECIALIZATION

Because so many of Japan's exports to the United States are highly visible (e.g., home electronics products, automobiles, and motorcycles) or basic industrial products (e.g., steel), it would be natural to assume that the Japanese push exports of every product they make. However, Japan has not made the mistake of seeking unlimited objectives with limited resources. In fact, the Japanese have chosen selected products in which to pursue international competitive supremacy. In 1970, about 60% of Japan's exports were accounted for by four industrial groupings: transportation equipment (ships and cars), 17%; steel, 16%; electrical and electronic equipment, 13%; and textiles, 12%. No other industry accounted for as much as 6% of the total.

The London Economist has made a historical study of Japan's industrial specialization. First, it pointed out that Japan thought of certain industries as "throw-away industries," not only because Japan was no longer competitive in these industries, but also because it was regarded as a mistake to try to gain a competitive position in those areas. Coal, paper pulp, nonferrous metals, and agricultural products are cited examples of such industries.

Second, the Japanese identified "early stage industrialization" activities (cotton textiles, sewing machines, bicycles, pottery, etc.) in which they no longer wished to compete in a vigorous way or invest precious capital. Companies in these fields had to release men, materials, and resources for more efficient and rapidly growing enterprises. It is, of course,

exactly this transfer of resources from the less efficient to the more efficient sectors that facilitates rapid economic growth. A review of Japan's spending priorities for the 1970s shows a substantial scaling down of the Japanese textile industry as it shifts to other countries in Southeast Asia, and substantial expenditure for retraining today's textile workers.

Third, the Japanese focus on industries of the future and employ a variety of protective and incentive devices to develop their capabilities in these critical fields.

To make clear the modes of government-business interaction by which such goals are attained, we will examine briefly the cases of the Japanese steel and computer industries.

GOVERNMENT-BUSINESS PARTNERSHIP: Two Case Studies

Steel

For many basic steel products, Japanese domestic prices are 20% to 40% below U.S. prices. Japanese government and industry have worked together to enhance the competitive strength of their steel industry; and low capital, material, and labor costs have been systematically combined with advanced know-how to make Japanese steel the world's cheapest.

At the end of World War II, with only three of 35 wartime blast furnaces still producing, and raw materials unavailable domestically, the Japanese Cabinet decided to make steel one of the priority industries in their recovery plan (along with coal, electric power, and chemical fertilizers). The Ministry of Finance granted special tax advantages to these critical industries, and helped them get capital by advising commercial banks to give them priority and low interest rates on loans

Steel plants were built on filled-in land next to deep water ports; and the Japanese set out to minimize transportation costs by building the world's largest and most efficient ships to carry ore directly to the plants and carry away finished steel exports.

As demand for steel rose following the outbreak of the Korean War, industry and government agreed on the First Rationalization Plan (1951 to 1955) to achieve scale investments and advanced techniques -- $356 million was invested in these years. Sixty percent of machinery investment was spent on imported equipment -- on which import duties were eliminated.

It is important to note that the government avoided the role of central planner and concentrated on defining general directions and creating incentives for growth. Liberal depreciation and reserve policies favored growth companies over stagnant ones.

When steel demand slackened in 1958, over-capacity and the high breakeven cost nature of the industry led to plunging prices as firms strove to keep their facilities operating at full capacity. The Ministry of International Trade and Industry (MITI) took the initiative in achieving consensus among producers on temporary production cutbacks.

To meet the underlying need of avoiding excessive additions to capacity, MITI began in 1959 to prepare four-year demand forecasts and then allow companies to work out voluntary adjustments in their plans if planned additions to capacity appeared excessive. MITI in effect played a role of arbitrator for collusive action by the companies that would be illegal under U.S. antitrust laws.

While growth has been spectacular since 1960, problems of excessive capacity and price fluctuations have intensified. In the 1965 recession, Sumitomo, the third largest company, refused to agree to voluntary limits on production. The conflict lasted many months and was publicized as MITI's first failure to obtain consensus on steel production allocations. Similar disagreements have arisen recently with Sumitomo over the size and timing of capacity increases. As steel approaches a mature product phase in Japan and growth slows (the forecast for 1970-75 is less than 10% annually versus 16% in the 1960s), such problems of forging consensus will intensify.

More recently, spurred by MITI, the steel firms Fuji and Yawata merged to form Nippon, the largest steel producer in the world. MITI's announced objective was to increase the efficiency of two of the older but very large firms by integrating their manufacturing efforts.

Computers

Japan entered computer development in the late 1950s, well behind then-current technology. In the early 1960s, the Japanese electrical companies sought out technical licensing agreements with U.S. companies involving manufacturing, engineering and programming assistance. The surviving firms in the Japanese computer industry, Hitachi-Fuji and Nippon Electric were major recipients of this technology. However, since the mid-1960s, MITI has played an aggressive role in the industry's development -- including protecting it from foreign competition. The

rationale for protection is the classic "infant industry" argument, under which an embryonic domestic industry is allowed to establish economies of large scale production while foreign suppliers, who are already producing in volume markets, are prevented from competing in the infant industry's home market.

The Japanese government supplied the computer industry with financial and tax incentives; the government also underwrote technological programs in support of this industry. In brief, MITI has been a catalyst and sponsor for the Japanese computer industry; this sponsorship has not dictated to the industry, but has provided crucial protection and stimulus.

Specific examples of government-business cooperation during the industry's development follow.

1. The Electronic Industry Act of 1957 authorized financial assistance for computer hardware manufacturers, including direct subsidies for research and development, government loans to products just entering commercial production, and loans and accelerated depreciation for investments designed to "rationalize" operations (specialize production by firm) in accordance with MITI policy. These fiscal "carrots" which lubricate the consensus process have been rather modest in amount, but indicate to prospective creditors MITI's recognition of computers as an important development area. Such signals can be important in a manufacturing sector whose capital is 80% debt.

The Act also authorized MITI to selectively exempt any portion of the electronics industry from the Anti-Monopoly Law. Cartels for production, R&D, and raw materials were permitted. Under this authority, MITI established a cartel in 1969 allocating the production of peripheral equipment. In a large-scale computer project sponsored by the government, five firms are cooperating to develop a large time-sharing system.

2. After lengthy negotiations, the government allowed IBM to establish a 100%-owned subsidiary in Japan under severe restrictions and in return for the licensing by IBM of basic patents to all interested Japanese manufacturers. These restrictions include (a) market share ceilings, (b) requirements to export computers in amounts equivalent to sales in Japan, (c) prior announcement of new product introduction and clearance of manufacturing schedules, (d) approval of new plant facilities, (e) control of technology transfers, including approval of new laboratory facilities and their development. In spite of these restrictions and because of others, it should be said that IBM in Japan is very successful.

3. In 1961, 70% of the Japanese computer market represented imported machines (not counting IBM's Japanese production). A wide range of import restrictions has reduced this share to 25% during the 1960s.

4. In 1961 the Japan Electronic Computer Corporation, a joint marketing service and finance venture between the government and computer manufacturers, was set up to purchase from manufacturers and rent and service domestic computer systems for end users. (Foreign makes were forbidden from using the facilities of this Corporation.)

5. A further example of government support to the computer industry is the special levy on the import of large American computers. This special levy is transferred directly to an R&D fund which is allocated to the Japanese firms for the purpose of building a large-scale Japanese computer.

In all of these measures, business and government have cooperated closely. However, recent MITI attempts to spur further mergers and consolidations have been rebuffed by computer manufacturers.

In 1970 Japan was the world's second largest computer manufacturer. Like the steel industry, the computer industry in Japan exhibits planning and industrial support approaches quite foreign to U.S. practice.

JAPANESE NATURAL RESOURCE REQUIREMENTS

For years, economists talked about the serious handicap suffered by Japan with its lack of raw materials. While the vulnerability implicit in dependence on others for critical raw materials still exists, the Japanese have made genuine progress in minimizing the economic effects of this lack of raw materials.

1. Japan could turn its full attention to making arrangements for foreign sources of raw materials without having to face the internal pressures resulting from closing down higher cost or lower quality domestic production--difficulties which have been experienced in other parts of the world.

2. Raw materials have been obtained under long-term contracts (10-25 years) which provide low prices, a steady flow, and minimize price fluctations.

3. The Japanese profited from development of natural resources in LDCs while maintaining a low political profile there. Rather than establish wholly-owned subsidiaries, Japanese firms often extend loans to foreign

mining firms to expand capacity and provide them with know-how through management contracts. The loans are usually tied to purchases in Japan, and repayment is in the newly mined output. Profits are earned through sales of machinery and equipment, on management contracts, and from interest on loans. The Japanese avoid the sometimes politically sensitive large-scale repatriation of profits. Also, repayment in kind seems less onerous to LDCs than cash repayments. Direct ownership, when it does occur, is usually through a minority share.

4. As the dramatic growth of Japan's steel industry illustrates, the disadvantage to Japan of the long distances over which raw materials must be transported has been overcome by super-sized ore carriers and tankers, by the tidewater location of most plants, an efficient sea transportation network (Japan is now the world's largest builder of ships), and the cartelized high-volume, long-term purchasing policy of Japan's producers.

As Chart 72 indicates, Japan is already the world's largest importer of iron ore, coking coal, copper ores, and crude oil and ranks second only behind the United States in imports of bauxite. It is also the world's most dynamic growth market for raw materials and will likely continue so at least through the mid-1970s, as Japan's 1975 projected requirements are about double the 1970 level. The Japanese are undertaking steps to assure adequate future supplies. Long-term contracts with foreign mineral producers--including many U.S. firms--are being concluded. Japan is expanding its fleet of super-sized ore carriers and tankers to keep shipping costs down. Tokyo's long-term economic plans indicate that greatly increased investment in raw materials will be one important use of their rapidly growing international reserves.

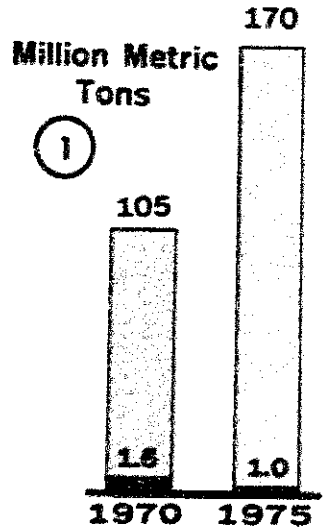
* * * *

No discussion of the Japanese economic miracle should leave the impression that Japan is without problems. Industrial pollution is high and budget projections for the 1970s show large increases in expenditures for environmental protection. Another problem is the potential limitation of power availability. Still another is the growing and largely neglected need for social services--such as housing, highways, and health. Again, projected Japanese budgets for the 1970s show increases of three times or more in some of these key areas. Labor unions may become more demanding and consumers may be less willing to save. Productivity increases may be harder to gain.

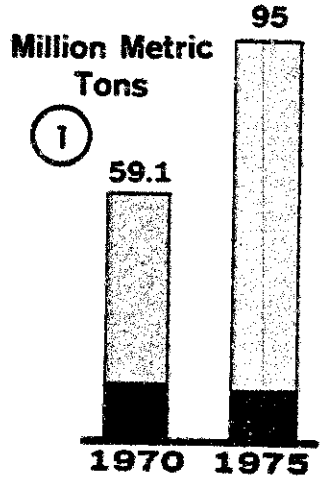
Japan's Selected Raw Materials Requirements*

(1) Rank as world importer (1970)

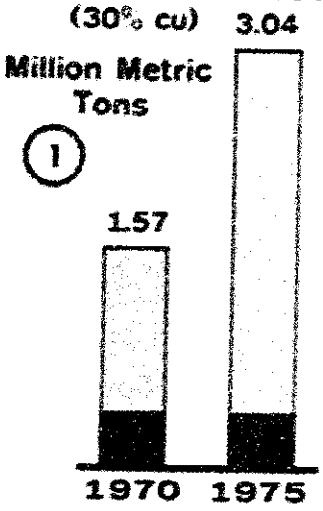
Iron Ore



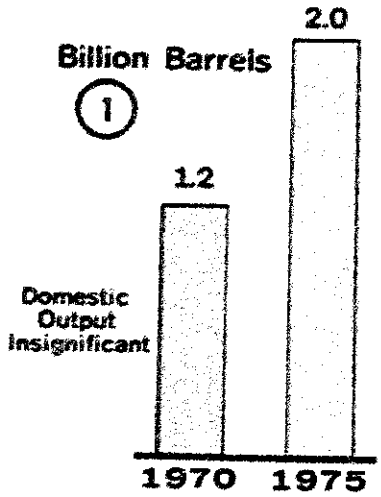
Coking Coal



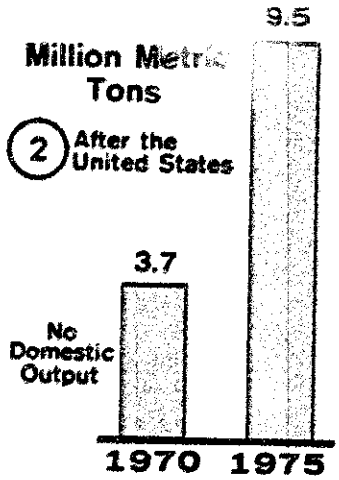
Copper Concentrates (30% cu)



Crude Oil



Bauxite



*Domestic output and imports.

Yet, the Japanese have not only a unique government-business partnership, they also display a high degree of cohesiveness. They exhibit excellent morale, work hard, and have a sense of their future.

It would be a mistake to underestimate or overestimate their potential, just as it would be a mistake to believe we could or would want to transplant their whole system to the United States. Nonetheless, the developed countries of the world can undoubtedly learn from the Japanese experience.