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PRECONDITIONS OF SOCIAL AND ECONOMIC PROGRESS

by
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Remarks by President Hickman before the graduating class of Case Western Reserve University School of Management, Cleveland, Ohio, June 12, 1968. The views expressed are Mr. Hickman's and do not necessarily reflect those of the Federal Reserve System.

I would like to consider some of the fundamental problems and issues that will confront you, as graduates, as you leave school and join the rest of us in seeking to achieve further social and economic progress. If you will permit me a few liberties, I believe it is possible to reduce the problem of future progress to a few simple forms. In brief, there is widespread agreement among observers that both the total and quality of our economic and social life need to be elevated and then maintained at high and sustainable levels. To put the matter differently, almost everyone agrees that the major burden of our economic and social purpose is to promote maximum levels of production, income, and employment, and to have these distributed as widely and as equitably as possible.

Let me consider the total aspect first. Economists talk about the importance of having an adequate level of aggregate demand in order to achieve a desirable level of economic activity. Aggregate demand represents the total of spending done by the various sectors of the economy — public and private — or consumers, businesses, and Government. There is, at any time, a level of aggregate demand that is consistent with the full utilization of the nation's existing physical and human resources. Since the nation's resource base — its manpower and physical capacity — is constantly growing, and since the nation's ability to utilize its resources is steadily improving — through increases in productivity, technological change, and the like — the economy's potential output grows at an even faster pace.

A major challenge to the economy, therefore, is to assure that aggregate demand expands enough to utilize fully available resources and to achieve the ever-increasing potential output, but not so much as to cause an inflationary spiral in wages and prices. This is why the tax and spending policies of

the Federal Government — fiscal policy — are crucial elements in the mix of economic developments. Taxes can be used as an effective tool in stimulating or discouraging the willingness and ability of individuals and businesses to spend or not to spend. A similar situation exists with respect to Federal spending, which can perform an essential function as a complement to private spending in the economy. Federal spending can be accelerated when private spending is slack (or taxes can be reduced); and Federal spending can be restrained when private spending is expanding (or taxes can be increased). Whichever may be the case, the objective is to promote conditions in the public and private sectors so as to achieve a high and expanding level of economic activity without price and wage inflation.

The objective of monetary policy is similar. Essentially, the major function of monetary policy is to provide a flow of money and credit that is compatible with the demands of a high and expanding level of economic activity. If monetary policy fails to provide sufficient money and credit, then the nation's economic activity will be disrupted and activity will not expand by the desired amount. Conversely, too much money and credit will inflate the nation's spending power and generate a situation of too much money relative to the volume of goods and services available, a situation that we identify as inflation.

In theory, it appears to be quite a simple thing to have monetary policy and fiscal policy work hand in hand to foster an appropriate volume of aggregate demand, and in turn a high and expanding level of economic activity, without inflation. Ideally, when the economy is moving too fast, the mix of monetary and fiscal policy should be such as to restrain the pace of economic activity, that is, taxes should be raised (or spending reduced) and the monetary authority — the Federal Reserve — should follow a less accommodative policy. Conversely, when the economy is sluggish, the mix of policy should attempt to stimulate the economy: monetary policy should be eased, taxes reduced, and Federal spending increased. Of course, all or any combination of these things might be done.

Unfortunately, in practice, recent experience shows that neither the economic world nor economic policymaking is quite as simple as theory suggests. Using the past three years as an illustration, the economy has gone through alternating periods of rapid acceleration, then slack, then more acceleration, and now once again may perhaps be faced with slack in the period ahead, unless we straighten out our domestic problems. The costs of these undesirable swings in the economic pendulum have been excessive price inflation, serious deterioration in the nation's foreign trade position, and uneven growth in the nation's real output and employment. The major reason for the swings in economic activity during the past three years has been, I believe, the failure of our government to develop an appropriate and timely tax and spending policy. As a result, the burden of stabilization policy has fallen almost completely on monetary policy, which because of time lags and the uneven impact on spending in different sectors of the economy, is not well equipped, alone, to stabilize the economy.

You are perhaps only too familiar with the

economic events of the recent past and the great moment of the fiscal restraint program now being debated by Congress, for me to recount all the details. Suffice it to say that we have a rich, resourceful, and powerful economy, which has tremendous potential to satisfy a wide assortment of demands that may be imposed upon it. To help keep the economy on a reasonable and balanced track of steady growth, it is important that we learn how to conduct an effective stabilization policy, to impose restraint or slow down the economy when restraint is called for, and to stimulate the economy when stimulation is indicated. We cannot be satisfied with having the economy do too little — which means idle manpower and unused physical resources. Neither can we afford to try to have the economy do too much — which results in inflation and other distortions in economic activity.

Before leaving this topic, I might say that I have felt for quite awhile that the timing of stabilization policy could be improved immeasurably if the Administration had authority to raise or lower taxes, within specified limits, whenever the economy was in need of such an adjustment. An increasing number of observers have indicated that such authority should be made available to the Administration. Hopefully, in the not-too-distant future, some sort of arrangement for flexible and timely tax adjustments will emerge, which will improve the ability of fiscal policy to stabilize the economy.

As I indicated earlier, I am taking a number of liberties in my remarks in order to simplify the basic problems facing our economy. This is very much the case as we move from consideration of the total of our economic effort to consideration of qualitative and compositional problems. At the heart of the question of how fast and how smoothly the economy can move ahead is the fundamental issue of what alternatives are really most important to us as a society. Over many years, a number of judgments have developed and become part of our accepted way of life. One such judgment is that, as a society, we are not prepared to accept a high rate of unemployment. Dedication to a minimum level of unemployment has by now been woven into the social and economic fabric of almost all developed nations. There is, of course, nothing wrong with the goal of achieving a tolerably low level of unemployment — in fact, that is a virtue of any progressive, modern economy. Nevertheless, we should not overlook the fact that a low level of unemployment is only one objective of an economy — only one end — that it may be overdone — and that the costs of overdoing it may in some cases be outright prohibitive.

Let me try to explain what I mean. The participants in any democratic, free enterprise society are, in effect, confronted with a choice that economists refer to as the trade-off between the percent of the labor force unemployed and the annual rate of change in the price level. Other things being equal, the lower the desired rate of unemployment, the higher will be the resultant rate of price inflation; and conversely, the higher the rate of unemployment, the lower the rate of inflation. This relationship, called the "Phillips Curve" by economists, results from the fact that unemployment declines and prices rise

as the economy approaches full employment.[1] The converse situation develops, of course, the further economic activity falls short of full employment: that is, as the rate of unemployment increases, prices rise at a slower rate, or may even fall.

Some of the implications of the inverse relationship between the rates of unemployment and price change are readily apparent. For one thing, when the economy is already at a high level of employment and begins to move ahead at an accelerated pace, for whatever the reason, unemployment may indeed be reduced, but prices will rise at an accelerated pace. Let us say, for example, that a one-half percentage point reduction in the unemployment rate from 4 percent to 3½ percent is associated with a price rise at an annual rate of nearly 4 percent, as has been the case in the last year or so. Since a rise in prices of more than 3 percent per annum in our society appears to generate expectations that prices will rise at an even faster rate in the future, most people will agree that this type of trade-off between unemployment and prices is neither justifiable nor desirable.

Another implication of the "Phillips Curve" is equally significant and, in fact, in the long run, has even more far-reaching consequences. A basic objective of economic and social policy is to improve the skills, mobility, and opportunities of the labor force to move without bias or artificial restraint from less to more desirable types of employment. To the extent that these objectives are achieved, lower rates of unemployment are associated with smaller changes in prices. (Technically, for economists in the group, the "Phillips Curve" shifts downward and to the left.) Putting the matter practically, in an advancing economy, stability of the price level might be associated with a 3 percent rate of unemployment rather than 4 percent and with still further progress with 2 percent unemployment rather than 3 percent. Such progress can be achieved, however, only if the quality of the labor force and our techniques of production are improved. If through increased labor mobility, reduced restrictions on entry (for example, elimination of bias in labor unions and elsewhere), better management, technological improvements, engineering advances, better general education, improved services, and so forth, the quality of the labor force and of our productive equipment is upgraded, productivity — output per manhour — is increased so that wage rates can increase proportionately without any upward pressure on prices.

For a number of reasons, such upgrading of the labor force is beneficial. For one thing, it reduces the burden of monetary and fiscal policy by reducing the rate of unemployment associated with a given rate of price advance, or, looked at the other way around, by reducing the rate of price advance associated with a given rate of unemployment. Moreover, to the extent that the rate of unemployment is reduced, employment is increased. Those who are out of work consume but do not produce; when the same people are put to work, they consume and produce

[1] Technically, the "Phillips Curve" relates the rate of unemployment to the rate of change in money wages. However, increasingly, economists are using the relationship between the rate of unemployment and rate of change in general prices.

and, through their output, make a positive contribution to the welfare of society. I do not need to impress upon this group, the first spring graduating class of Case Western Reserve University School of Management, the advantages to our economy of having a better trained, more highly skilled labor force capable of participating vigorously in the nation's economic activity and of distributing more evenly the fruits of the nation's economic growth.

It is also important, as an end in itself, that we alter, where possible, basic economic relationships, so that higher levels of economic activity and lower levels of unemployment become associated with smaller changes in prices — that is, with less inflation. We are all familiar with the onerous burden of inflation on the domestic economy — on fixed income recipients, on the aged, and the like, measured purely in terms of equity. At the same time, the burden of inflation on the international position of the United States is one that must be reduced sharply and promptly, if we are to prevent domestically produced goods from being priced out of foreign markets. Indeed, a viable world economy will, in the final analysis, depend to a large extent on the success of the United States in reducing price inflation. If we are not able to curb inflation, the world will lose faith in the United States dollar as a reserve currency, and irreparable damage will be done to the present system of international financial arrangements.

Thus, I am really trying to communicate a very simple message to you students graduating from the School of Management today, as well as to your parents. We really live in a fairly simple world, which, through mismanagement, has developed some very complex problems. You students are trained and equipped to meet the challenges of the economy and of society at large, especially the types of problems that I have sketched out today. As a matter of fact, we frequently fail to give students credit for mature instincts and developed insights into problems that most of us older people have been grappling with for years, and not always too successfully, as recent history has clearly demonstrated.

In this connection, I found it particularly gratifying to review the results of a recent survey by the Society for the Advancement of Management concerning the attitudes of college students toward "business involvement in key American problems and about business as a career." Selecting some of the responses that seem particularly important, the survey reported that 88 percent of the students questioned felt that business should encourage its employees to engage in educational activities, 65 percent felt that encouragement should be given to cultural activities, and 51 percent felt that business should encourage charitable work. These are the same functions — education, culture, health, and welfare — that will upgrade the quality of the labor force and enhance the dignity and worth of the individual in our society. These are the very same functions that business, government, and concerned individuals are actively participating in today. Moreover, economists will note with approval that these same goals, to the extent they are achieved, are the very ones that help shift the "Phillips

Curve" downward and to the left. Moreover, these same goals are the very ones already adopted by moderate liberal students everywhere, both in the United States and abroad. Because of the pervasiveness of these goals among informed individuals, I am convinced that we are on the threshold of a new take-off in economic activity and a vast improvement in the quality of our social and economic life. Good luck to all of you. May you all participate in the benefits, the joys, and the excitements of the new world ahead!

UNITED STATES TRADE IN STEEL

Before 1959, the United States was a net exporter of steel mill products. In 1959, however, the trade balance in steel shifted from a net surplus to a net deficit, in terms of both tonnage volume and dollar value. The shift in the steel foreign trade situation at that time can be explained by the fact that, in 1959, steel exports were nearly cut in half and imports more than doubled.

More importantly, the events of 1959 represent the beginning of a new set of foreign trade relationships in steel. This is revealed by the fact that 1967 marked the ninth successive year that net import tonnage of steel products into the United States exceeded net exports, and the sixth successive year that the value of steel imports exceeded the value of steel exports (see Chart 1). This article traces some of the principal features of the shift in the trade balance for steel products, particularly developments since 1959.

TRADE TRENDS

A fundamental change in the United States trade balance for steel mill products occurred because steel exports failed to improve on balance in the 1960's, at the same time that imports rose sharply and steadily. As shown in Chart 1, the volume of exports of steel mill products fell to 1.7 million tons in 1959 and, despite some slight intervening improvement, was no higher in 1967. In terms of value, the steel export situation is essentially the same, with the value of exports in 1967 ($0.415 billion) only slightly higher than in 1959 ($0.363 billion).

A rising trend in steel imports accompanied the virtually flat pattern of United States exports of steel mill products in recent years. Despite spurts in imports — both in volume and as a proportion of apparent steel consumption[1] — in 1951, 1953, and 1956, the volume of steel imports showed little trend during most of the 1950's. Beginning in 1959, however, both the volume and proportion of steel consumption supplied by foreign steel producers rose sharply; since then, the trend of imports has been inexorably upward.

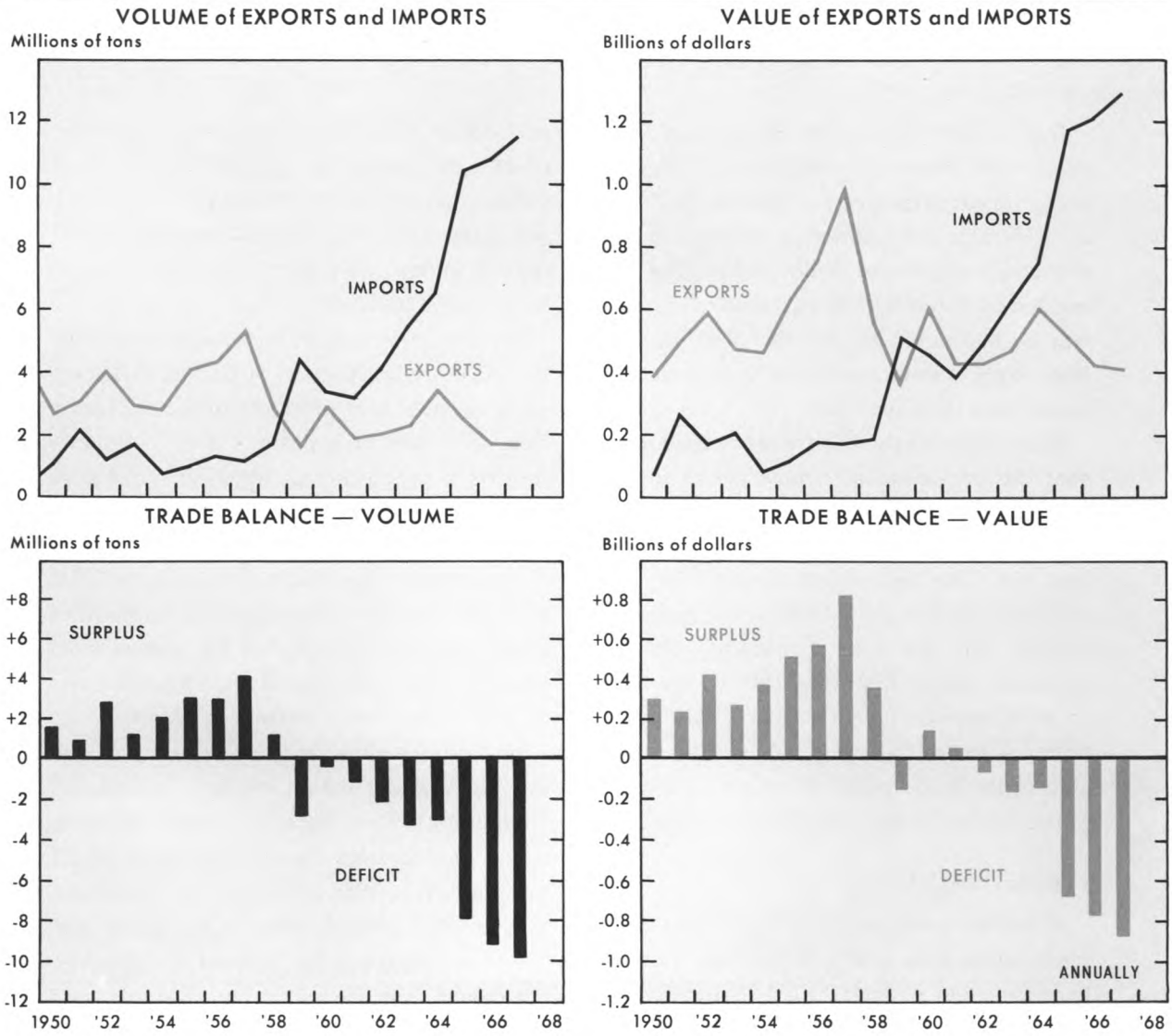
In 1959, the sharp increase in imports and the marked decline in exports caused the United States trade balance in steel mill products to swing from an export surplus of 1.1 million tons in 1958 to a deficit of 2.7 million tons in 1959. In 1960, the tonnage deficit narrowed to 382,000 tons. Thereafter, however, the deficit began to widen considerably, and

[1] Apparent steel consumption is generally defined as steel shipments, plus imports, less exports; consumption data include changes in steel inventories.

Chart I.

UNITED STATES TRADE in STEEL MILL PRODUCTS

1950–1967



Last entry: 1967

Sources of data: U.S. Department of Commerce and American Iron and Steel Institute

in 1965-1967, the tonnage deficit averaged 8.9 million tons annually (see Chart 1).

In dollar terms, the shift between 1958 and 1959 amounted to $526 million (from a $372 million surplus in 1958 to a deficit of $154 million in 1959). In 1960 and 1961, the dollar value of the steel trade balance reverted temporarily to a surplus position, despite an unfavorable balance in volume (the per-ton value of exports of steel products is higher than the per-ton value of imports). The net trade position slipped into deficit again in 1962, and by 1967, reached $877 million. In 1965-1967, the annual average deficit in dollar terms amounted to $775 million. Putting it another way, between 1958 and 1967, the United States trade balance in steel mill products moved from a net surplus of $372 million to a deficit of $877 million, or a change in the steel balance of more than $1.2 billion.

FACTORS CONTRIBUTING TO THE TRADE DEFICIT

Trade between countries is a product of many factors, but basically reflects the comparative advantage one country has over other countries. Countries having a comparative advantage, for whatever reason, will gain competitive advantage over others. Since 1959, the competitive position of the United States in the world steel market (as measured by percent share of the domestic as well as world steel market) has apparently deteriorated. The deterioration can largely be attributed to the sharp growth in world steel capacity and the significant price differentials between foreign and domestically-produced steel.

World Trends in Steel Capacity and Steel Consumption. Expansion in world steel capacity since 1947 has been marked by three stages of development: (1) the early post World War II reconstruction period, when capacity, especially in Europe, Japan, and Soviet Russia, was being rebuilt; (2) the period from the early 1950's to the late 1950's, when capacity was expanding to meet growing domestic demands for steel; and (3) the period since the late 1950's, when world steel capacity was growing at a rate in excess of world steel consumption.

During the early postwar period, growth in world steel output and consumption kept pace with the expansion of steel capacity and there was little margin of unused capacity. In contrast, as shown in Chart 2, during the late 1950's, world steel capacity expanded considerably faster than consumption, and utilization rates of the world steel industry eased (but were still high).

The doubling of world steel capacity during the 1950's was accompanied by major shifts in the pattern of world steel production. The proportion of United States steel capacity to world capacity fell, and the relative proportions accounted for by Japan and the European Coal and Steel Community (ECSC)[2] countries rose. The most significant expansion in capacity occurred in Soviet Russia, where capacity more than doubled.

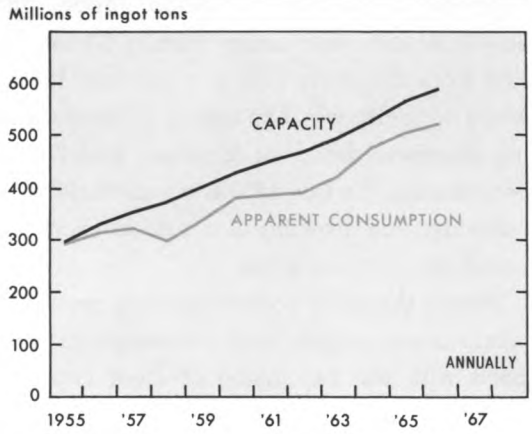
Although Soviet Russia continued to increase her relative proportion of world steel capacity in the 1960's, the most dramatic change took place in Japan, where capacity

[2] European Coal and Steel Community includes Belgium-Luxembourg, West Germany, France, Italy, and the Netherlands.

Chart 2.

WORLD STEEL CAPACITY and APPARENT STEEL CONSUMPTION

1955–1966



Last entry: 1966

Sources of data: American Iron and Steel Institute; British Iron and Steel Federation; United Nations Economic Commission for Europe

more than doubled and the relative proportion of Japanese steel capacity to world capacity rose from 5.8 percent in 1960 to 9.7 percent in 1965. Sharp expansion in capacity also occurred in Canada, Latin America, and India. As a result, increased steel production in those areas, although still not adequate to meet total domestic steel needs, lessened the dependence of those countries on imports.

World Steel Capacity
Selected Countries and Selected Years
(thousands of ingot tons)

	1950	1957	1960	1965
United States	99.4	123.5	148.6	156.5
ECSC	37.0	74.3	84.3	110.8
Soviet Russia	30.1	56.4	72.0	100.3
Japan	7.7	19.9	25.9	55.1

Sources: United Nations Economic Commission for Europe and American Iron and Steel Institute

Declining Trend in World Steel Prices. Rapid increases in world steel capacity since the late 1950's resulted in a buildup of surplus capacity that was accompanied by a declining trend in world steel prices. Although comparable data on world steel prices are not readily available, some reasonable approximations of world steel price trends and price differentials among major steel-producing countries of the world can be made.

As shown in Table I, there was a downward trend in the composite prices of a basket of steel products from continental European producers during the 1959-1967 period. In response to a steel strike in the United States, export prices of continental producers rose sharply during 1959. Prices of continental producers generally declined from early 1960 until early 1964, when prices again rose, reflecting increased demand for steel in the United States at a time when demand eased in major foreign steel-producing countries. Despite another steel inventory cycle in the United States in 1965, when imports surged to a new record, continental export prices continued to fall due to more than ample capacity in Europe.

Although comparable data for the same steel basket sold by United States steel producers are not available, domestic prices (represented by a more inclusive wholesale price index for steel mill products) apparently behaved differently from continental export prices. From 1959 through 1964, domestic steel prices were relatively stable despite fluctuations in steel demand. Since 1964, and especially during 1967, domestic steel prices in the United States have risen 4.5 percent. Export prices of continental producers generally began to slide in late 1964 and in 1965

TABLE I
Steel Export Prices* from Continental Europe
(United States dollars per metric ton)
1959-1967

	1959	1960	1961	1962	1963	1964	1965	1966	1967
January	$102.10	$133.21	$113.75	$95.92	$89.65	$ 95.25	$97.33	$89.79	$90.71
February	102.89	130.10	112.58	96.20	88.68	100.25	97.39	90.99	91.56
March	104.59	126.48	110.43	96.97	89.58	102.45	97.39	91.15	92.81
April	107.36	125.88	107.32	96.26	89.52	105.37	95.86	91.15	91.88
May	109.83	125.35	106.71	95.25	89.71	106.23	94.22	89.99	n.a.
June	116.00	124.92	104.01	94.94	90.16	106.76	92.70	89.78	n.a.
July	118.87	123.69	101.93	95.65	90.24	104.65	91.93	90.28	n.a.
August	122.52	122.07	100.98	95.97	89.94	103.37	91.99	91.01	n.a.
September	122.60	118.52	98.69	96.04	89.61	101.80	89.96	91.29	n.a.
October	128.28	114.35	98.05	93.25	88.30	99.19	86.82	90.52	n.a.
November	131.19	112.10	99.25	92.13	88.71	96.71	86.82	89.60	n.a.
December	130.56	112.83	99.19	89.43	90.68	98.10	88.03	90.45	n.a.
Average	116.40	122.46	104.41	94.92	89.57	101.68	92.54	90.46	n.a.

n.a. Not available.

* Composite prices for a basket consisting of merchant bars, concrete reinforcing bars, wire rods, hot-rolled strip, plates, hot-rolled sheets, cold-rolled sheets, and galvanized sheets. Derived from base prices, f.o.b. European ports.

Source: *Metal Bulletin*, London

but have turned up mildly since that time. The divergent price movements suggest that the differential between domestic and foreign prices has widened. Armed with a price advantage, foreign producers have been able to deepen their penetration of United States markets for steel products, especially since 1965.

Various surveys on price differentials suggest that delivered prices of imported steel products (including f.o.b. shipping point, freight and other delivery costs, customs duty, and insurance) average from 10 to 20 percent per ton below domestic prices on comparable products.[3] The dollar differential between domestic and foreign prices for selected steel products is shown in Table II. The sizable differential on hot- and cold-rolled sheets and strip helps to explain the sharp growth in imports of that product (from nearly

TABLE II
Differential Between United States Domestic Prices and Foreign Prices of Selected Steel Products

Product	Location	Price Differential Per Ton
Cold-rolled sheets	Cleveland	$18 to 21
Cold-rolled sheets	Chicago	15
Cold-rolled sheets	Philadelphia	35
Plates	Chicago	15
Hot-rolled bars	Chicago	15
Wire rods (7/32")	Cleveland	30
Wire	Cleveland	20
Hot-rolled sheets (from service center)	West Coast	25 to 30

Source: *Steel*, February 6, 1967

[3] Based on data for early 1967. See American Iron and Steel Institute, *The Steel Import Problem* (October 1967), pp. 19-20, and U. S., Congress, Senate Committee on Finance, *Steel Imports*, Washington, D. C., December 1967, p. 129.

1.2 million tons in 1964 to 4.3 million tons in 1967).

While data on export prices of Japanese steel are limited, unit values of imports from that country suggest that price differentials vis-á-vis United States steel products are even larger than between American and continental European products. These price differentials are apparently a major factor in the growing inroads in the American market made by Japanese, as well as other, producers in recent years.

Price differentials between United States and foreign steel products are partially accounted for by differences in costs (especially employment). For example, despite rapid growth of wages in foreign steel-producing countries, labor compensation in the United States steel industry has increased markedly in recent years. As a result, as recently as 1966, the differences in employment costs between the United States and individual major foreign steel-producing countries were as large or larger than a decade earlier.[4] However, employment costs explain only a part of the cost differentials, as is reflected in the fact that American-produced goods generally would otherwise be priced out of many markets in world trade, that is, in those cases where goods are produced by similarly high wage cost industries. In any product line, a number of factors, in addition to employment costs, also influence total costs and contribute to price differentials among various countries. In the case of steel, such factors would include differences in steel technology, as well as differences in the cost of plant and equipment, raw materials, and money capital. In recent years, although the level of output per manhour in the domestic steel industry is greater than in the steel industry of any major foreign country, it is apparently not sufficient for domestic steel producers to maintain a comparative advantage in all types of steel products.

[4] American Iron and Steel Institute, *The Steel Import Problem*, p. 63.

UNITED STATES STEEL EXPORTS

In general, the volume of United States exports of steel mill products has registered no improvement since the late 1950's, after some scattered favorable showings previously. As shown in Chart 3, from 1950 to 1957, the volume of United States exports of steel products generally fluctuated in line with world exports, rising in 1952 and again in 1955, in response to cyclical changes in major world industrial markets. United States exports also rose in 1957, reflecting the Suez crisis. From 1950 to 1957, the proportion of world exports of steel mill products accounted for by the United States ranged between 13 and 16 percent (except for an unusually high 20 percent in 1952), with the proportion tending to ease in the latter part of the period.

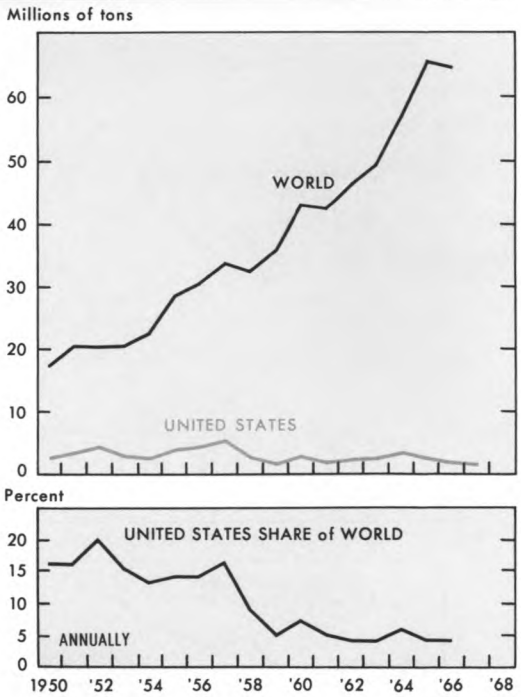
In 1958, both the volume of United States exports of steel products and share of world steel export markets declined sharply. Although world exports of steel nearly doubled in the 1959-1967 period, the volume of steel exports from the United States failed to capture any of the larger volume. Despite some improvement in steel exports in 1960 and 1964, the United States was unable to recapture the market share accounted for during much of the 1950's. In fact, after 1964, domes-

tic steel producers continued to lose ground—in both export volume and share of world markets. The failure of United States exports to hold, if not improve, the gains in 1960 and 1964 is in sharp contrast to the behavior of steel imports, which have tended to remain at high levels following steel inventory cycles in the United States.

Although Chart 3 indicates that the trend of steel exports during 1959-1967 was virtually flat, if Government-aid shipments were excluded, exports of steel products by the United States would show a steady downward trend. Actual data are not available on the volume of Government-financed steel exports (particularly, the Agency for International Development). Nevertheless, the American Iron and Steel Institute estimates that AID-financed exports have ranged between 25 and 55 percent of exports of steel products by the United States since 1962.[5] This suggests that, although the trend of steel exports appears to be flat in recent years, the volume of exports not financed by Government programs is considerably lower than indicated by the published aggregate data.

Chart 3.

EXPORTS of STEEL PRODUCTS
WORLD and UNITED STATES
1950–1967



Last entry: 1966, 1967
Sources of data: American Iron and Steel Institute and United Nations Economic Commission for Europe

Despite little change in United States exports, world trade in steel has grown steadily (see Chart 3), expanding by nearly 400 percent from 1950 to 1966. The bulk of that expansion occurred in the last 10 years, reflecting rapid growth in trade among the ECSC countries, eastern European countries, and the United States (the principal steel importing country in the world). Excluding United States imports, the world export market for steel more than tripled between 1950 and 1966.

The decline in the United States share of the world steel market reflects the fact that the United States either does not participate in a number of rapidly growing export markets, such as in the eastern European countries, or participates only to a limited extent, such as in the ECSC countries and Africa. In addition, Canadian and Latin American steel production has been growing fast enough to make those areas less dependent on the

[5] American Iron and Steel Institute, *The Steel Import Problem* (October 1967), p. 8. Estimates are computed by using actual dollar value of imports and an estimated average price of $150 per ton.

United States as a source of supply.

During the 1950's, Canada and Latin America were the principal export markets for United States steel products. As indicated in Table III, in the late 1950's, United States steel exports to Canada accounted for about one-third of total United States steel exports; in the same period, steel exports to Latin America accounted for about one-fourth of United States steel exports. By 1967, United States steel exports to Canada were about one-third of the volume of the late 1950's, and accounted for about one-fifth of total United States steel exports. Government-financed programs explain in part the increased volume of steel exports to Asia, particularly Pakistan, South Vietnam, and India.

Steel Exports by Commodity. As shown in Table III, except for exports of ingots and billets, which have been supported by AID-financed exports to Asia and Latin America, steel exports by the United States have been declining in all major product lines. Sheet and strip products remain the most important export commodity of the United States, accounting for nearly one-third of total steel exports. Relative declines in the export volume of plates, structural shapes, and pipe and tubing exceeded the overall relative decline in steel exports between 1957 and 1967.

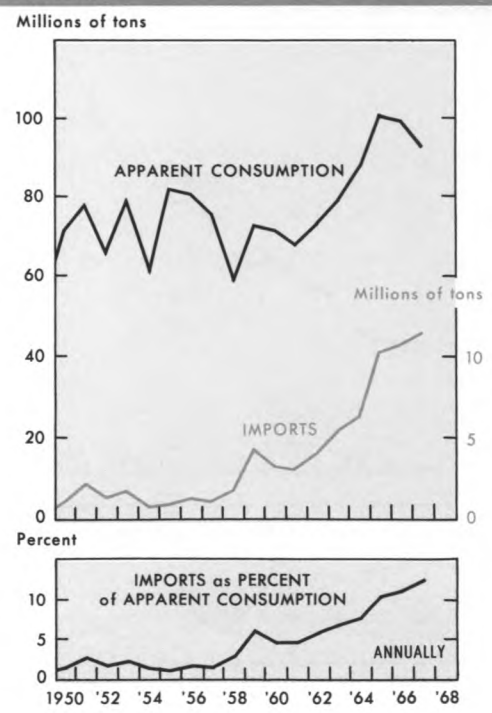
UNITED STATES STEEL IMPORTS

Although fluctuations in steel imports are in part associated with cyclical changes in domestic demands for steel, in recent years, steel imports have grown irrespective of domestic demands because of excess world steel capacity and a widened price differential between foreign and domestic prices.

As shown in Chart 4, during 1950-1958, a period when domestic steel consumption changed little on balance, the United States imported only 1 to 2 million tons of steel annually, or roughly 2 percent of steel consumption. From 1958 to 1967, however, the volume of steel imports rose nearly 600 percent, while domestic steel consumption increased by about 60 percent. As a result of the growth in imports, by 1967 foreign producers accounted for 12 percent of the domestic steel market, compared with 2.9 percent in 1958.

Chart 4.

UNITED STATES APPARENT STEEL CONSUMPTION and STEEL IMPORTS
1950-1967



Last entry: 1967
Source of data: American Iron and Steel Institute

TABLE III

United States Exports of Steel Mill Products by Destination*

(thousands of net tons)

1957-1967

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Total United States Exports	5,348	2,823	1,677	2,977	1,990	2,013	2,224	3,442	2,496	1,724	1,685
Canada	1,619	1,010	611	580	406	317	314	560	592	417	350
Latin America	1,446	765	431	641	424	329	333	431	578	514	331
ECSC†	293	227	121	363	192	136	137	261	88	98	96
Asia	981	350	203	549	749	999	1,164	1,318	806	489	679
Africa	92	39	12	70	60	87	75	88	99	107	85
Total Ingots, Blooms, Billets, etc.	707	108	30	119	180	264	307	886	677	340	304
Canada	214	69	29	49	12	6	7	17	25	26	12
Latin America	27	‡	‡	‡	6	4	3	83	279	231	36
ECSC†	23	14	‡	44	26	8	4	67	1	1	1
Asia	249	3	‡	4	125	243	290	430	167	76	205
Africa	‡	‡	‡	–0–	–0–	‡	‡	–0–	‡	‡	‡
Total Structural and Piling	471	306	240	295	223	159	162	250	234	122	107
Canada	357	223	205	254	163	107	88	168	183	93	74
Latin America	27	17	8	12	11	17	24	24	16	17	22
ECSC†	2	2	4	3	4	2	2	3	2	1	1
Asia	36	29	10	8	24	19	28	36	25	8	7
Africa	4	‡	‡	1	5	2	6	11	2	1	1
Total Plates	604	249	66	91	97	120	139	177	127	76	61
Canada	289	119	38	48	45	28	38	73	49	31	24
Latin America	32	17	5	12	13	16	11	18	9	10	12
ECSC†	51	34	‡	1	6	5	3	3	1	1	‡
Asia	147	47	10	19	22	65	82	65	54	28	16
Africa	12	3	‡	1	1	1	1	1	1	1	1
Total Pipe and Tubing	1,185	623	266	195	211	192	252	286	240	266	235
Canada	460	246	87	57	48	43	44	53	56	68	59
Latin America	553	267	124	55	59	79	124	100	78	52	65
ECSC†	7	3	1	5	12	6	6	15	5	6	4
Asia	78	48	23	28	51	38	50	64	33	50	35
Africa	13	9	4	7	6	12	18	42	49	70	54
Total Tin Mill Products	802	495	460	686	481	394	413	418	306	325	306
Canada	2	4	2	2	2	4	2	3	7	9	6
Latin America	198	68	80	121	106	86	63	56	66	88	78
ECSC†	101	75	43	103	47	24	27	21	27	44	24
Asia	120	122	92	289	261	264	247	234	149	156	161
Africa	35	11	2	42	7	9	13	11	16	4	11
Total Sheets and Strip	1,075	703	435	1,333	566	600	652	1,105	625	392	479
Canada	185	229	150	118	96	96	98	167	183	125	115
Latin America	121	80	77	194	118	83	59	87	63	53	45
ECSC†	107	97	70	202	91	82	86	144	46	40	61
Asia	285	73	40	164	178	288	309	357	287	129	220
Africa	18	9	4	14	6	8	19	6	7	7	7

* Components do not add to totals since data only include exports to major countries or regions.

† European Coal and Steel Community includes Belgium-Luxembourg, West Germany, France, Italy, and the Netherlands.

‡ Less than 500 tons.

Source: American Iron and Steel Institute

The steady relationship between imports and domestic steel consumption during most of the 1950's suggests that foreign steel suppliers were generally regarded as marginal sources of supply that were tapped when supplies of domestically-produced steel were limited. For example, imports increased by 1.1 million tons in 1951, due to domestic shortages during the Korean War. In 1952, imports fell back in both volume and share of domestic consumption, although imports remained at slightly higher levels than before the 1951 buildup. Following a rise in imports in 1953, both the volume and share of imports fell back in 1954 and 1955. In 1956, imports rose in response to a 34-day steel strike in the United States, but in 1957, both the volume of imports and the share of domestic consumption dropped again. Thus, during most of the 1950's, foreign steel suppliers were not particularly successful in holding on to temporary gains achieved when domestic steel markets were tight.

A significant penetration of the domestic steel market occurred in 1959. Usually, that penetration is identified as a result of the 116-day steel strike, but as subsequent events showed, the situation was a manifestation of a much more fundamental change. In 1959, steel imports rose by nearly 2.7 million tons — to 4.4 million tons. The increase in imports in 1959 was larger than the total volume of steel imports in any previous year. Imports accounted for 6.1 percent of domestic steel consumption in 1959, compared with 2.9 percent in 1958, and perhaps more importantly, new channels of distribution were established with domestic steel users.

The behavior of imports since 1959 suggests that foreign sources of supply are no longer considered marginal suppliers. In the steel inventory subcycles in 1962, 1963, and 1965, for example, steel imports set new records — both in volume and share of domestic steel consumption — and showed no tendency to revert to the lower figures of pre-steel contract settlements (see Chart 4). In 1965, steel imports surged to 10.4 million tons (an increase of nearly 4 million tons above the previous year) and accounted for 10.3 percent of total domestic steel consumption (see Chart 4). Despite a drop in domestic steel consumption in 1966 and 1967, steel imports continued to climb, claiming an even larger share of the domestic market for steel.

Product Composition of Steel Imports. Major shifts in the product composition of steel imports differentiate imports in the 1960's from the 1950's. Before 1959, steel imports consisted principally of wire and wire products, structural shapes, and bars. The surge of imports in 1959 included a broad line of products, with a marked increase in imports of structural shapes and plates, sheet and strip, reinforcing bars, and pipe and tubing (see Table IV).

As steel imports during the 1960's continued to climb to new yearly records, all product lines registered gains. And, as foreign steel improved in quality, more highly processed steels with more rigid standards of tolerance and finish, such as sheet and strip products, began to be imported in larger quantities. In 1965, when a steel labor contract was being negotiated, total steel imports increased more than 60 percent over 1964 levels. The bulk of the increase occurred in sheet and strip products, which actually tripled in import volume.

TABLE IV

United States Imports of Steel Mill Products by Countries of Origin*

(thousands of net tons)

1957-1967

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Total United States Imports	1,155	1,707	4,396	3,359	3,163	4,100	5,446	6,440	10,383	10,753	11,455
Japan	31	250	624	596	597	1,072	1,808	2,446	4,418	4,851	4,468
United Kingdom	58	85	214	209	166	250	350	285	720	748	818
ECSC†	890	1,201	2,896	2,080	1,952	2,087	2,246	2,585	4,191	3,841	4,842
Canada	52	46	376	211	304	367	583	692	644	692	630
Total Wire Rods	54	181	448	408	451	645	801	953	1,284	1,150	1,076
Japan	2	53	115	164	198	299	414	452	642	610	446
United Kingdom	10	22	33	32	27	31	58	56	49	32	44
ECSC†	31	96	264	178	208	248	224	333	512	424	525
Canada	‡	1	8	5	2	2	3	2	1	1	4
Total Sheets and Strip	26	25	386	436	171	384	827	1,167	3,507	3,682	4,281
Japan	1	4	56	58	34	162	414	637	1,770	2,077	2,188
United Kingdom	‡	1	4	6	4	5	26	41	395	416	345
ECSC†	10	8	135	255	62	90	114	232	1,047	855	1,467
Canada	14	13	109	175	63	103	204	225	286	278	191
Total Plates	22	20	291	212	37	150	275	462	774	951	1,025
Japan	2	14	84	47	10	61	94	216	416	468	363
United Kingdom	‡	–0–	3	3	7	‡	‡	8	11	62	128
ECSC†	14	4	147	129	14	36	78	131	199	198	259
Canada	‡	2	42	9	5	25	26	28	25	40	52
Total Structural Shapes and Piling	268	151	507	317	293	374	558	638	929	947	1,063
Japan	‡	1	20	6	4	11	53	126	228	202	152
United Kingdom	1	1	17	21	19	43	87	53	76	102	155
ECSC†	240	140	451	282	266	308	398	450	609	599	707
Canada	4	4	8	3	3	7	14	5	9	23	26
Total Wire and Wire Products	301	432	703	547	562	655	755	809	866	862	797
Japan	22	80	143	136	170	233	306	333	376	395	331
United Kingdom	26	24	39	25	18	24	31	30	28	22	28
ECSC†	241	325	503	326	341	358	373	381	392	381	361
Canada	‡	‡	15	5	3	60	12	24	27	29	34
Total Pipe and Tubing	191	200	553	480	521	655	778	790	930	1,058	1,060
Japan	1	6	50	63	90	199	359	437	579	628	617
United Kingdom	20	38	78	94	74	97	72	45	45	29	18
ECSC†	114	100	297	247	290	269	227	186	184	279	223
Canada	21	17	55	27	21	37	21	36	42	65	68
Total Bars and Tool Steel	264	649	1,339	840	906	995	1,081	1,174	1,642	1,718	1,728
Japan	2	83	156	117	87	95	139	192	313	352	224
United Kingdom	1	1	13	11	5	7	18	28	45	48	65
ECSC†	237	520	1,075	624	759	769	821	859	1,203	1,131	1,252
Canada	1	1	23	21	21	18	32	28	14	42	61

* Components do not add to totals since data only include imports from major countries or regions.

† European Coal and Steel Community includes Belgium-Luxembourg, West Germany, France, Italy, and the Netherlands.

‡ Less than 500 tons.

Source: American Iron and Steel Institute.

Despite softening in steel consumption and steel production in the United States in 1966 and 1967, imports of sheets, pipe, structurals, and plates set new records. As shown in Table IV, foreign penetration of domestic steel markets now ranges over a full line of steel products.

Steel Imports by Source of Supply. Shifts in product composition were accompanied by shifts in sources of supply. During the 1950's, the ECSC countries were the primary suppliers of imported steel to the United States. Within the ECSC, Belgium-Luxembourg was by far the largest exporter of steel products to the United States, with West Germany a distant second, and France third. Although the volume of imports from ECSC countries rose throughout the 1950's, the ECSC's share of total steel imports to the United States diminished steadily. Nevertheless, by 1959, ECSC imports still accounted for about two-thirds of United States imports of steel.

During the 1960's, a shift occurred in trade patterns by country. As shown in Table IV, during the late 1950's, Japan began a slow but steady penetration of United States markets and during the import buildup in 1962, accounted for about one-fourth of United States steel imports. By 1965, Japan accounted for 40 percent of United States imports of steel products and surpassed the volume imported from the ECSC countries. (In 1967, however, imports from Japan fell below the volume imported from the ECSC.)

As shown in Table IV, steel sheets represented the major product line in the surge of Japanese imports during the past five years. In 1967, Japan supplied 50 percent or more of wire rods, sheet and strip, plates, and pipe and tubing imported by the United States. The recent rise in Japanese exports to the United States largely reflects a vast expansion of steel producing capacity in Japan. In 1957, steel capacity in Japan amounted to nearly 20 million tons; by 1965, capacity rose to 55 million tons. By 1970, planned expansions will increase steel capacity to an estimated 82 million ingot tons. Such capacity indicates a steel export potential of 25 to 30 million tons of steel by 1970, or practically double the annual volume exported in 1966.[6]

EFFECT OF IMPORTS ON UNITED STATES MARKETS

The relationship of imports to apparent domestic steel consumption is one measure of the effects of steel imports on domestic steel markets. As shown in Table V, imports of steel products have absorbed a major share of several steel markets in recent years. The largest penetration by foreign suppliers continues to be in wire rods and wire products (nails and barbed wire and fence), accounting for 46 percent and 40 percent, respectively, of domestic consumption in 1967. In the case of barbed wire — where imported tonnage accounted for 50 percent or more of the domestic market for several years — foreign penetration has tended to ease within the last few years. Despite serious inroads by imports of barbed wire, domestic producers reactivated equipment in response to military demands, thereby boosting output while import tonnage remained relatively unchanged. In the more recent period, the largest increase in foreign

[6] U. S., Congress, Senate Committee on Finance, *Steel Imports*, Washington, D. C., December 1967.

TABLE V
Imports as a Share of Apparent Consumption in the United States
1957-1967

Product	Percent of Consumption										
	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Wire rods	5.4%	17.1%	31.5%	31.0%	32.7%	39.2%	42.7%	45.1%	49.3%	45.9%	46.1%
Other semifinished	0.4	1.3	4.7	3.7	11.1	10.5	13.2	13.8	10.1	9.6	8.1
Structural shapes and piling	3.7	3.6	10.8	6.0	6.1	7.6	9.8	9.9	12.4	12.5	15.0
Plates	0.3	0.4	4.8	3.4	0.6	2.4	3.7	5.3	7.4	9.5	11.5
Reinforcing bars	6.8	19.0	28.3	19.0	19.4	20.4	17.1	11.5	15.1	17.2	14.9
Other bars and tool steel	1.1	2.6	5.5	3.8	4.1	4.4	5.7	7.2	8.7	8.6	10.7
Pipe and tubing	1.9	3.2	6.4	6.5	7.1	8.7	10.3	9.1	9.9	10.6	10.6
Drawn wire	3.2	6.0	9.1	8.6	7.5	9.7	11.1	13.5	13.0	13.9	17.1
Wire nails and staples	23.4	32.3	44.0	42.3	42.8	46.1	48.9	48.8	50.0	45.8	39.8
Barbed wire	52.2	51.9	61.9	52.8	53.0	47.7	50.7	47.9	41.6	31.4	40.6
Woven wire fence	8.2	12.8	24.2	21.4	20.5	26.9	30.1	27.9	27.4	29.8	33.1
Sheets and strip	0.2	0.2	1.4	1.5	0.7	1.4	2.7	3.4	8.9	9.5	11.8
Rails and accessories (including wheels and axles)	0.3	0.6	0.9	0.9	3.0	1.3	1.1	1.0	1.6	1.5	1.4
Tin mill products	*	*	1.2	0.7	0.3	1.0	1.7	1.5	2.2	2.4	2.6
All steel mill products	1.5	2.9	6.1	4.7	4.7	5.6	6.9	7.3	10.3	10.9	12.2

* Less than 0.01 percent.

Source: American Iron and Steel Institute

penetration of the American market occurred in sheets and strip, with the foreign share of domestic consumption rising from 3.4 percent in 1964 to 11.8 percent in 1967. Although this share is relatively low when compared with other products, because of the volume imported (4.3 million tons) and the size of the sheets and strip market in the United States, the figure represents a major gain.

The marked rise in steel imports in recent years also resulted in a substantial loss in ingot output by the United States. The 7.7 million ton increase in the volume of steel imports between the average of 1959-1962 and 1967 amounted to a steel ingot equivalent of about 11 million tons. The loss to domestic producers is, of course, even larger if measured against the steel trade balance in 1958. For example, the shift from a 1.1 million ton surplus in the steel trade balance in 1958 to a 9.8 million ton deficit in 1967 amounted to 10.9 million tons of steel product shipments or the steel ingot equivalent of as much as 16 million tons. In other words, all things being equal, the shift may have held down steel ingot production in the United States in 1967 by as much as 16 million tons.

CONCLUDING COMMENTS

Since the shift in the United States trade balance in steel in 1959, the trend of steel imports has been up sharply, with marked increases occurring in 1959, 1962, 1963, and 1965, all of which were years of labor contract negotiations. In each of those years, except 1962, foreign penetration of the steel market set new records. Such waves of imports might be dampened if some of the uncertainties of domestic steel operations were removed, which would in turn be beneficial

to domestic steel producers and employees, as well as to the overall United States foreign trade position.

The issues associated with the United States trade balance in steel mill products are complex and involve the foreign trade position of both the United States and countries that depend on exports to the United States. As a result, wide differences of opinion exist concerning the means of improving the competitive position of the domestic steel industry. Beyond the fact that the United States represents both the largest and most accessible market for steel, there is, unfortunately, little agreement on the basic issues, which are beyond the scope of this article.

CAPITAL SPENDING IN MAJOR AREAS OF THE FOURTH DISTRICT

The regular spring survey of capital spending plans of manufacturing and selected other business firms in several major areas of the Fourth District,[1] which was conducted by the Federal Reserve Bank of Cleveland in April, reveals that overall spending plans for 1968 and 1969 are generally similar to those of firms across the nation. Results of the area surveys are summarized in this article.

NORTHEASTERN OHIO

Participating manufacturing firms in eight northeastern Ohio counties[2] plan to spend about 44 percent more for new plant and equipment in 1968 than in 1967, but expect spending in 1969 to be 19 percent below 1968 (see Table I). Three out of every five firms plan to spend more in 1968 than in 1967, while five out of every eight plan to spend less in 1969 than in 1968. As shown in Table I, the expected 1968 rise in capital spending in both the durable and nondurable goods groups would be similar (43 percent and 44 percent, respectively). In 1969, however, the cutback in spending is expected to be much greater

TABLE I
Capital Spending by Manufacturing Firms and Public Utilities
Eight Northeastern Ohio Counties*
(Spring 1968 Survey)
Year-to-Year Percent Change

	1967 (actual) to 1968 (planned)	1968 (planned) to 1969 (planned)
MANUFACTURING	+ 44%	—19%
Durable goods	+ 43	—14
Ordnance	+105	+ 7
Primary metals	+ 26	—19
Fabricated metals	+143	—47
Machinery	+ 8	— 3
Electrical equipment	+ 9	—31
Transportation equipment	+ 94	+17
Nondurable goods	+ 44	—32
Food	— 50	+11
Printing and publishing	+137	—78
Chemicals	+124	—39
Rubber and plastics	— 6	—11
PUBLIC UTILITIES	+ 48	+12
TOTAL	+ 45%	—11%

* Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties.

Source: Federal Reserve Bank of Cleveland

[1] The surveys in Cleveland and Cincinnati are undertaken with the cooperation of the Greater Cleveland Growth Association and the Greater Cincinnati Chamber of Commerce, respectively; the Pittsburgh survey is conducted for the Federal Reserve Bank of Cleveland by the University of Pittsburgh.

[2] Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties.

in the nondurable goods group than in durables (32 percent contrasted to 14 percent). Capital spending by public utilities operating in the eight-county northeastern Ohio area is expected to increase 48 percent in 1968 over 1967 and to rise further by 12 percent in 1969.

The data obtained in the spring 1968 survey differ somewhat from those derived from the fall 1967 survey because of revisions by individual firms in actual and planned spending between the survey dates. On balance, spending plans for 1968 have been revised upward, while actual spending in 1967 turned out, on balance, to be below the amounts anticipated in the fall of 1967. Based on revised data for 1967 and 1968, total spending in 1968 by manufacturing firms in the eight northeastern Ohio counties is expected to be 44 percent above the 1967 total, rather than the 39 percent reported in the fall 1967 survey. In contrast, public utilities currently expect a 48-percent rise in spending in 1968, compared with a 53-percent increase anticipated in the fall survey.

CLEVELAND AREA

The pattern of capital spending in the eight-county northeastern Ohio area is determined chiefly by spending decisions of manufacturing firms in metropolitan Cleveland, which includes four of those counties. Total spending by Cleveland area manufacturers is expected to be 50 percent higher in 1968 than in 1967. In 1969, however, planned spending is expected to be 19 percent lower than planned spending in 1968 (see Table II). Spending by nondurable goods industries is expected to rise more in 1968 and drop back more in 1969 than spending by the durable goods group. The changes in spending plans for the durable goods group are, however, in line with the changes for all manufacturing firms, due to the predominance of heavy industries in the Cleveland metropolitan area. Two industries in the durable goods group — primary metals and transportation equipment — together account for about 70 percent of actual or planned capital spending by manufacturing firms in the three years covered by the survey.

TABLE II
Capital Spending by Manufacturing Firms
Cleveland Metropolitan Area
(Spring 1968 Survey)
Year-to-Year Percent Change

	1967 (actual) to 1968 (planned)	1968 (planned) to 1969 (planned)
Durable goods	+ 43%	—15%
Primary metals	+ 27	—19
Fabricated metals	+148	—53
Machinery	+ 8	— 2
Electrical equipment	+ 9	—32
Transportation equipment	+114	+19
Nondurable goods	+ 89	—39
Food	— 57	— 1
Printing and publishing	+137	—78
Chemicals	+147	—34
Rubber and plastics	+101	—17
TOTAL	+ 50%	—19%

Source: Federal Reserve Bank of Cleveland

All but two of the major industries listed in Table II indicate a rise in spending in 1968 and a retrenchment in 1969. The percent increases and subsequent decreases, however, vary widely among industries, reflecting special situations such as a sizable expansion project by one firm that causes a sharp rise in spending one year, followed by a sharp drop the next year as the project is completed. This is the case in the printing and publishing

industry and chemical industry, where large expansion plans are scheduled for completion in 1968 and spending is expected to drop back in 1969. In the food industry, however, sharply reduced spending in 1968 and a leveling off in 1969 represents the sequel to large outlays for construction of new facilities by one firm in 1967. In transportation equipment, the consecutive gains indicated for 1968 and 1969 reflect massive expansion plans by several firms in the industry extending into 1969.

In the rubber and plastics industry, spending plans of Cleveland area firms differ significantly from those of all firms in the eight-county northeastern Ohio area. Reduced spending plans in 1968 and 1969 by the Akron rubber industry, which outweighs the portion of the industry in the rest of the area, account for the difference in the figures for Cleveland and northeastern Ohio.

In 1968, 21 percent of total spending by manufacturing firms in the Cleveland area is earmarked for new structures, compared with somewhat smaller proportions for actual 1967 and planned 1969 spending (see Table III). The proportion of spending for structures is noticeably larger in the nondurable goods group and varies considerably from year to year in some of the industries, reflecting the beginning and end of sizable projects in consecutive years.

Spending for additional manufacturing facilities, as distinguished from replacement of existing facilities, accounts for more than half of total spending by most industries, with notably high proportions in chemicals and rubber and plastics, as well as in primary metals, where additional steel finishing capacity is being built by major steel producers in the Cleveland area (see Table III). Although the proportions of spending for expansion are generally larger than indicated in the fall 1967 survey, the capacity situation appears to be unchanged since last fall. Only one-third of the replies to the question concerning manufacturing capacity consider available facilities as "less than required," while more than half indicate "adequate" capacity.

In 1967, almost 90 percent of actual capital spending was financed internally by manufacturing firms responding to the question

TABLE III
Capital Spending by Manufacturing Firms
Cleveland Metropolitan Area
(Spring 1968 Survey)

Percent Distribution of Total Spending by Type*
(Between Structures and Equipment and Between Expansion and Replacement)

	Structures†			Expansion‡		
	1967	1968	1969	1967	1968	1969
Durable goods	14%	14%	16%	62%	64%	56%
Primary metals	9	10	10	74	78	76
Fabricated metals	10	13	24	52	71	53
Machinery	14	11	17	46	44	39
Electrical equipment	35	35	1	66	76	59
Transportation equipment	12	13	24	43	43	28
Nondurable goods	33	50	23	71	76	79
Food	63	33	55	88	59	52
Printing and publishing	36	45	5	53	53	90
Chemicals	14	45	31	69	82	91
Rubber and plastics	1	2	7	70	87	47
TOTAL	17%	21%	17%	64%	68%	61%

* Based only upon returns in which these breakdowns were supplied.

† Spending for equipment equals 100 percent less the percent shown for structures.

‡ Spending for replacement equals 100 percent less the percent shown for expansion.

Source: Federal Reserve Bank of Cleveland

on financing. The proportion of internally-financed capital spending is expected to slip to 75 percent in 1968 and to 65 percent in 1969. The proportion of reporting firms relying entirely on internal financing in 1968 and 1969 will be only slightly less than in 1967 (86 percent).

CINCINNATI AREA

Capital spending by business firms in the seven-county Cincinnati metropolitan area will be one-third larger in 1968 than in 1967. In 1968, manufacturing firms and public utilities plan to increase spending 27 percent and 39 percent, respectively. A further 10-percent rise in spending in 1969 is planned by the public utilities, in contrast to a 21-percent reduction in spending anticipated by manufacturing firms participating in the survey (see Table IV).

TABLE IV
Capital Spending by Cincinnati Area Firms (Spring 1968 Survey)
Year-to-Year Percent Change

	1967 (actual) to 1968 (planned)	1968 (planned) to 1969 (planned)
MANUFACTURING	+27%	—21%
Durable goods	+39	—19
Primary and fabricated metals*	+85	—28
Machinery	+95	— 4
Electrical equipment	+13	—12
Nondurable goods	+21	—23
Food	+25	—10
Paper	— 9	— 5
Printing and publishing	+29	—74
Chemicals	+23	—12
PUBLIC UTILITIES	+39	+10
TOTAL	+32%	— 8%

* Combined in order to preclude disclosure of individual establishment data.

Source: Federal Reserve Bank of Cleveland

In the fall 1967 survey, manufacturing firms and public utilities indicated that capital spending in 1968 would exceed 1967 totals by only 15 percent and 25 percent, respectively. The differences between the fall 1967 and spring 1968 surveys reflect more upward than downward revisions in 1968 spending plans, as well as actual 1967 spending falling short of expectations in many instances.

Durable goods manufacturers expect to raise their capital spending in 1968 by 39 percent over 1967, compared with a 21-percent increase by nondurable goods manufacturers. Durable goods manufacturers also anticipate a smaller cutback in spending in 1969 than do nondurable goods manufacturers. Individual industries, in general, follow the pattern of their respective group.[3] In the paper industry, however, spending reductions scheduled for both 1968 and 1969 deviate from the pattern and are an outgrowth of a very substantial rise in spending in 1967.

As was the case in 1967, 39 percent of capital spending by manufacturing firms will be used for new structures. The proportion is expected to drop to 30 percent in 1969 (see Table V). In the durable goods group, 43 percent of total capital spending is planned for structures in 1968, compared with 18 percent in 1967. In contrast, spending for construction in the nondurable goods group, which was large in the chemical, paper, and food industries in 1967, is yielding to an increasing share of total spending earmarked for machinery and equipment.

[3] Separate data for the transportation equipment industry are not shown due to the inability of one large member of that industry to participate in the spring 1968 survey.

TABLE V

Capital Spending by Cincinnati Area Firms (Spring 1968 Survey)

Percent Distribution of Total Spending by Type* (Between Structures and Equipment and Between Expansion and Replacement)

	Structures†			Expansion‡		
	1967	1968	1969	1967	1968	1969
MANUFACTURING	39%	39%	30%	71%	75%	72%
Durable goods	18	43	26	59	69	59
Primary and fabricated metals§	9	41	11	28	40	7
Machinery	12	41	35	70	85	83
Electrical equipment	5	24	12	46	54	51
Nondurable goods	48	36	32	76	78	80
Food	52	52	44	56	71	61
Paper	60	18	28	83	76	62
Printing and publishing	12	60	44	35	67	62
Chemicals	56	24	26	93	86	90
PUBLIC UTILITIES	32	26	32	67	73	73
TOTAL	38%	37%	30%	70%	75%	72%

* Based only upon returns in which these breakdowns were supplied.

† Spending for equipment equals 100 percent less the percent shown for structures.

‡ Spending for replacement equals 100 percent less the percent shown for expansion.

§ Combined in order to preclude disclosure of individual establishment data.

Source: Federal Reserve Bank of Cleveland

Spending for expansion, which was above 70 percent for the manufacturing group in 1967, is expected to remain high in 1968 and 1969 (see Table V). The proportion is generally larger in the nondurable than in the durable goods industries, particularly in the chemical industry, where substantial spending for additional equipment is anticipated following last year's new construction.

Despite the indicated high proportion of spending for expansion of present facilities, two out of every three manufacturing firms answering the question about available capacity described their present facilities as "adequate," while only one firm in five reported "less than required" facilities, or about the same proportion as in the fall of 1967.

Manufacturing firms supplying information about methods of financing their capital investments expect to meet over 90 percent of total spending in 1968 and 1969 from internal sources, virtually unchanged from 1967. As was the case in 1967, more than 80 percent of those firms expect to finance all of their capital spending internally in 1968 and 1969.

PITTSBURGH AREA

Business firms in the four-county Pittsburgh metropolitan area participating in the latest survey plan to spend 6 percent more for new plant and equipment in 1968 than in 1967, with manufacturing concerns in the group expecting a 5-percent increase. For 1969, cutbacks of 20 percent are planned for all participating firms, while manufacturing firms expect a 12-percent drop. These plans for 1969 would reduce capital spending below the level of 1967 (see Table VI).

In the fall 1967 survey, spending for 1968 was expected to decline by 8 percent from the 1967 level for all business firms and by 10 percent for manufacturers. Downward adjustments in 1967 spending totals and upward revisions in plans for 1968 between the two survey dates produced the change from an expected decline to an expected rise in capital outlays for 1968 in relation to 1967.

Durable goods manufacturers as a group expect only a very minor change in the level of spending from 1967 to 1969. Spending by the nondurable goods group will go up substantially in 1968 but drop back in 1969 below

TABLE VI
Capital Spending by Pittsburgh Area Firms
(Spring 1968 Survey)
Year-to-Year Percent Change

	1967 (actual) to 1968 (planned)	1968 (planned) to 1969 (planned)
MANUFACTURING	+ 5%	—12%
Durable goods	+ 1	— 1
Stone, clay, and glass	— 5	—39
Primary metals	— 6	— 5
Fabricated metals	—14	+41
Electrical equipment	+24	— 9
Nondurable goods	+36	—44
Food	+36	—69
Printing and publishing	—28	—82
Chemicals	+53	—32
TRANSPORTATION	—22	—52
PUBLIC UTILITIES	+19	+ 3
RETAIL TRADE	+56	—82
TOTAL	+ 6%	—20%

Sources: University of Pittsburgh and Federal Reserve Bank of Cleveland

the 1967 level (see Table VI). Individual industries within both groups, however, vary greatly as to size and direction of year-to-year changes in capital spending and exhibit little conformance to any discernible pattern. Public utilities show a rise in spending for both 1968 and 1969, while data for retail trade establishments reflect a large one-time expansion program by one firm that will be largely completed in 1968, resulting in a sharp cutback in planned spending for 1969.

Almost one-fourth of all capital spending in 1968 will be for new structures, with a decline in the proportion in 1969. The proportion is noticeably larger for nonmanufacturing than manufacturing and there is considerable variation among industries within each group, as well as sharp year-to-year fluctuations (see Table VII).

Less than half of total capital spending in 1968 is designated for expansion of present facilities both by manufacturing concerns and all business firms combined. The proportion is slightly greater than in 1967 and is expected to rise somewhat higher in 1969 (see Table VII).

Capacity pressure does not appear to have played an important role in decisions to expand existing facilities. Seven out of every ten manufacturing firms supplying information on capacity report their facilities as "adequate" and less than half of the remaining firms consider their facilities "less than

TABLE VII
Capital Spending by Pittsburgh Area Firms
(Spring 1968 Survey)
Percent Distribution of Total Spending by Type*
(Between Structures and Equipment and Between Expansion and Replacement)

	Structures†			Expansion‡		
	1967	1968	1969	1967	1968	1969
MANUFACTURING	20%	18%	8%	44%	45%	51%
Durable goods	21	20	7	43	43	48
Stone, clay, and glass	15	10	2	20	29	4
Primary metals	19	18	7	42	38	51
Fabricated metals	9	18	14	20	23	19
Electrical equipment	36	31	6	56	64	57
Nondurable goods	11	2	14	57	67	67
Food	1	8	–0–	7	22	2
Printing and publishing	24	–0–	–0–	14	11	1
Chemicals	8	1	15	81	81	76
TRANSPORTATION	1	30	17	1	21	10
PUBLIC UTILITIES	35	27	26	57	51	54
RETAIL TRADE	49	77	7	61	76	46
TOTAL	23%	24%	18%	41%	45%	51%

* Based only upon returns in which these breakdowns were supplied.

† Spending for equipment equals 100 percent less the percent shown for structures.

‡ Spending for replacement equals 100 percent less the percent shown for expansion.

Sources: University of Pittsburgh and Federal Reserve Bank of Cleveland

required." Among the nonmanufacturing industries, only the public utilities report some cases of inadequate capacity.

In 1969, manufacturing firms expect to finance internally 90 percent of their total spending, which slightly exceeds the actual percent for 1967 and the expected percent for 1969. Three of every four manufacturing firms intend to rely solely on internal financing in 1968 and 1969, a greater proportion than in 1967. Much smaller proportions of total spending than those indicated by manufacturing firms are expected to be internally financed by nonmanufacturing firms in both 1968 and 1969.

CONCLUDING COMMENTS

A comparison of the survey results among major areas of the Fourth District with the findings of the nationwide survey conducted by McGraw-Hill in March 1968 indicates some similarities as well as differences. In each area of the District, spending by manufacturing firms is expected to rise in 1968 and then drop back in 1969, in some cases below the level of spending in 1967. The national survey anticipates a 7-percent spending increase by manufacturing firms in 1968 and a 1-percent decline in 1969. The expected increase in 1968 capital spending in the various District areas — and nationwide — is larger than had been anticipated in the fall of 1967, because of upward revisions in spending plans for 1968 and downward adjustments of actual 1967 outlays. (1967 spending had already been scaled down in the fall of 1967 from the higher levels indicated in the spring of 1967.)

While the results of the area surveys and the national survey are similar with regard to the direction in which overall spending is expected to move in 1968 and 1969, there is not the same agreement between the results of the area surveys and the national survey on either the expected direction of spending changes by individual industries or groups of industries, or on the relative size of year-to-year changes. For example, the nationwide expectation of a relatively larger spending increase by the durable goods group than by the nondurables group is replicated in only one of the areas of the District. The continued large increase in capital investment by the steel industry reported nationwide does not appear to be the case in the Pittsburgh area, nor can the substantial spending rise reported for the rubber industry in the nation be substantiated by that industry's spending plans in the Akron area. All Fourth District area surveys point to increased spending in 1968 by the chemical industry, in contrast to a spending cut reported in the national survey.

These relationships highlight the fact that differences in spending evident in such comparisons may be due to special local circumstances and that the timing of local spending plans may be out of step with broader-based national trends.

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Both publications were prepared in the Research Department of the Federal Reserve Bank of Cleveland and will be published biennially. Copies of the books are available from the Research Department of the Federal Reserve Bank of Cleveland, P.O. Box 6387, Cleveland, Ohio 44101.

Fourth Federal Reserve District