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LESSONS FROM THE JAPANESE

Remarks of

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Member

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to

THE BUSINESS ROUNDTABLE

at

Dearborn, Michigan

April 4, 1973

LESSONS FROM THE JAPANESE

FOCUS ON THE FUNDAMENTALS

As we Americans stand, in the latter part of the Twentieth Century, trying to chart a course for our Republic, we would do well to take lessons from our Japanese ally. For the Japanese have just been through a period of economic development as remarkable as any in the industrial age. Yet, among Americans, there is little understanding of the Japanese experience, and less comprehension that there are lessons that we should draw from it.

Consequently, I am going today to cite some of the more important facts of the Japanese economic experience in recent decades, emphasizing the fundamentals that these facts well illustrate, and then try to extract from this record a few lessons that I think we, in America, would do well to heed. First, however, let me summarize very briefly these all-too-simple fundamentals for you, in terms that we have apparently come to regard as too simple for a country so advanced as ours: the Japanese work hard, they save a large part of their income; they use their savings to invest at a high rate in education, advanced technology and in modern, highly efficient manufacturing plants; and they thereby raise their productivity at rates which permit them to keep their prices competitive while providing their manufacturing work force the highest rate of annual increases in wages among major industrial countries -- over 17 per cent on the average over the past five years and nearly 15 per cent over the past twelve years.

This has resulted in dramatic growth of the Japanese total economy. And Japanese employment gains have been truly impressive as well -- over 3 per cent annual average increase in the number of persons employed in manufacturing since 1960. That is almost three times as much as the U. S. gain in manufacturing in the same period. Thus, perhaps the most illuminating and important lesson for Americans to draw from the Japanese experience is that it is possible to have -- simultaneously -- dramatic gains in productivity, wages and employment.

That is a formula for success as old as the parable of the talents -- work, save, invest -- the work ethic, if you will. But it has one distinguishing Japanese hallmark -- work together. And it is a formula as modern as the fact that the quality and price of Japanese goods were major factors in forcing the dollar to be devalued relative to the Japanese yen and other currencies twice in recent months. Further -- and this is the heart of my message -- it is a road map such as we must follow back from the economic swamps to high, firm and competitive footing.

If we find such a route too rigorous we may well validate a speculation about the future, made just over a year ago by the Japan Economic Research Council as quoted in one of our newspapers recently:

"One possibility is that the overwhelming economic supremacy of the United States will collapse, while

1/ New York Times Magazine, October 29, 1972.

the positions of the European Community and Japan will be elevated, causing large changes in the balance of power which may involve risks of giving rise to various political and economic confrontations."

You need only think back a very few years -- ten at the most -- to realize how quickly such an idea has risen from the unthinkable to a possibility that a respectable economic research organization could include in a list of practical contingencies for future world development.

Before I proceed, let me say a word about a term that is central to all that I am saying here today -- productivity. In the context of my remarks, this word does not mean "speedups" or lashing a work force on to over-strenuous efforts. Quite the contrary -- greater productivity is the use of higher skills, of better work methods and machines to produce more and better products more easily, per unit of labor input. This results in goods that sell better for less money than would otherwise be the case. Thus, higher productivity permits paying workers and owners more, and it makes jobs and companies more secure.

MISUNDERSTANDING THE JAPANESE

Among the myths that many believe factual about the Japanese are these:

- Japan is a relatively small country.
- It is in such a low state of development that its large percentage gains are not significant in absolute terms.

- It has an immense pool of low cost 'coolie' type labor, and its industrial success is built on the exploitation of this massive pool of labor earning 'sweat shop' wages.
- That an excessive population growth provides a labor pool so large that there is little upward pressure on wages.
- That economic growth in Japan is built on the twin pillars of low per capita consumption, and exports.

None of the above points is true, or even close to the truth.

That is neither the kind of Japan that has made such rapid gains in the world economy, nor the kind of America required to match the Japanese rate of growth. The following are a few facts and numbers that provide a more realistic view of Japan. Since Japan is both our second largest overseas market, and among the foremost, if not the foremost, of our competitors in world trade, it behooves us to understand her real economic position better than we do, and learn lessons from the Japanese experience that will help us get back on track.

Japan is a large country, third in the world in economic size, behind only the United States and the Soviet Union. In current dollars, at \$293 billion in 1972, Japan's GNP was about a quarter that of the United States. In the same current terms, as recently as 1965, the Japanese GNP was only \$89 billion, representing about 13 per cent of United States 1965 GNP of \$685 billion. However, Japan's 1972 economy was larger than any Western European economy, and it was nearly equalled in Western Europe only by West Germany. (See Chart 1).

When Japanese -- and other -- GNP growth is viewed in terms of "constant", that is 1963 prices and exchange rates, the story is the same. Japan's GNP growth was some 232 per cent from 1960 through 1972. This is greater by far than other free enterprise industrial countries, and it was over four times the growth of U. S. Gross National Product. In fact, it was four times, or more, the GNP growth of any other major free enterprise economy except that of France, and it was two and a half times the French growth. (See Chart 2).

Japan is a vigorous exporter -- as we have learned to our cost. But the idea we derive from the flood of Japanese exports appearing in our country that the Japanese economy is an export economy is not true. (See Charts 3 and 4). For one thing, the biggest demand factor swelling the Japanese GNP has been home consumption. The Japanese have been using those extraordinary increases in their wage income to better their lives. Per capita Japanese consumption rose in real terms over 7 per cent per year from 1964 to 1971. Further, while Japan exports just over a third of her total output, and while that is twice as much as we export in relation to our GNP, it is somewhat less than either West Germany or Italy export out of their total product, and it is far less than the British figure, which was more than half of the United Kingdom's total output in 1971.

Japan is a highly developed country. While nearly 5 per cent of Americans were illiterate in 1967, only one-third of 1 per cent of Japanese were illiterate

in 1968. In terms of the economic capabilities of its people, over 40 per cent of the Japanese population 15 years or older had high school or higher education in 1967, compared to 49 per cent in the United States. (See Chart 5).

Japan is the world's third largest steel maker, manufacturing supplies 27 per cent of its employment, (See Chart 6), and its per capita consumption of electricity is one of the highest in the world. On those footings, large percentage gains represent substantial absolute gains that have a quite meaningful impact on the world economy.

Far from being a land dependent upon a mass of low paid labor, Japan has a fast growing and increasingly prosperous middle class. (See Chart 7). Its per capita output and consumption compare favorably with the higher levels of the Western European countries.

While Japan's wage rates, measured by average hourly earnings in manufacturing, are only a third of ours, they are higher than wages in France and Italy and two-thirds as high as in the United Kingdom and West Germany. (See Chart 8).

Japanese hourly earnings in manufacturing have been rising far faster than in major competing countries, averaging, as I have pointed out 17 per cent a year in Japan since 1968, against about 11 per cent for West Germany, France and the United Kingdom, 14 per cent for Italy, and 7 per cent in the United States. (See Chart 9).

It is interesting, however, to project recent trends (1960-1971) in wage rate increases for both Japan and the U. S. With no Orwellian implications intended, a simple extrapolation of the average increases between 1960 and 1971 in the U. S. and Japan shows that Japanese wages will equal American wages, on average, in 1984.

In terms of population, Japan is a large country, of 107 million: approximately twice the size of West Germany, France, the United Kingdom or Italy. But its population growth rate has been well below that of the United States, about the same as that of West Germany and France, and higher than population growth in Italy and the United Kingdom. (See Chart 10).

Thus we see a picture of a country making large economic advances that are significant -- to itself and to the world -- in both size and kind, while spreading those gains to a large and growing middle class that benefits not only from the fact that the country's economic pie is growing rapidly, but also from the fact that the pie is growing dramatically faster than population.

**WHERE THE LESSONS
FROM JAPAN LEAD**

The lessons from Japan do not lead to the conclusion that to enjoy economic successes such as Japan's we need to become a nation of drones, or that we must be a nation at an early stage of development, or that we can only do it with a virtually bottomless pool of cheap labor working for far less than labor gets

in other industrialized countries, or that investment must use up so much of income that little is left over to raise the standard of living, or that a nation must possess abundant quantities of natural resources. Japan has little.

The data I have just been using shows that all these myths, however comforting to some, simply do not describe the Japan of the 1970's.

What, then, are the lessons from the Japanese nonstop miracle?

First, another quote from the newspaper article I mentioned previously:

"What they do, essentially ... is good business ... the kind of heads-up ball and teamwork that makes the coaches dance ... the kind of hard work, cooperation and sacrifice that Americans mention wistfully at the beach on the four-day weekends ..."

Now, I am not suggesting that we all buy hairshirts, forget about vacations and never pause to enjoy the wealth we create. The same article mentions -- jarring its general all-work-no-play image of Japan -- that Japanese golfers sometimes make themselves unpopular on foreign golf courses by their fast playing habits, habits they learned at home because so many Japanese play golf so often that the courses are always crowded and fast play is a necessity.

The lesson being taught by the modern Japanese nation -- as I have already indicated -- is a simple one: Focus on the fundamentals.

Some of the fundamentals of primary importance would seem to be:

High annual wage rate increases are entirely feasible for a work force that works cooperatively with management -- and both of them work in harness with



government -- in raising productivity by annual amounts equal or better than wage rate increases. Let government motivate this continuing productivity increase by providing a tax climate which encourages rapid economic growth through constant modernization of factory equipment and use of the latest technology. Finance the growth out of savings. Develop and market superior, high quality products offered at stable prices over time while those of your competitors are forced higher by their inflation. Do not saddle your country with excessive government spending.

None of this implies that the Japanese people are denied the pleasure of consuming most of the rapidly increasing goods and services they produce. Private consumption in Japan has been between 56 and 52 per cent of Gross National Product since 1966, not radically different from our 62 or 63 per cent. And, as I have pointed out, per capita consumption has been rising fast in Japan. The Japanese, like Americans, work to enjoy a better standard of living, not just to be working. (See Chart 11).

The essential difference -- the main lesson -- is that they seem to understand -- much better than we do -- that there is a simple arithmetic rule: if you want to consume more per capita, you must produce more per capita.

Why have Japanese workers -- taking hourly earnings in manufacturing as our measure -- been able to get annual pay raises averaging approximately 17 per cent since 1968 -- 15 per cent since 1960 -- while American workers in manufacturing got an average of just under 7 per cent? (See Chart 12).

There are, of course, other factors, but fundamentally the answer is that Japan nearly matched its gigantic annual wage increases with equivalent increases in worker productivity. And, as I have noted, with substantial simultaneous increases in employment. Thus, although Japan's wage rates in manufacturing increased more than twice as much as comparable U. S. rates increased in recent years, there was no comparable rise in the Japanese consumer price index. (See Chart 13).

While the Japanese were achieving this, we violated that most basic rule: in order to consume more per capita, a nation must produce more per capita. Stockholders, management, government and labor in the U. S. must work together to overcome this, with the idea that the gains will be equably distributed by the price and wage structure.

Now some may argue that American labor, in striving for more percentage wage increases than productivity increases can yield, is simply trying to get part of the increase from corporate profit. That is, distribute the pie differently. If this is, in fact, being attempted, the fallacy lies in the fact that there is not that much pie to redistribute.

Profits in U. S. manufacturing corporations in 1972 came to \$45.5 billion, by the latest estimates -- a rise of nearly \$12 billion over 1971. Also in 1972, basic wages paid in manufacturing were nearly \$176 billion. That was

\$15.5 billion greater than in the year before. The entire increase in profits from manufacturing would have been wiped out if the wages in manufacturing had risen by 6.7 percentage points more than they did in 1971. That is, a wage rise in U. S. manufacturing totalling 14.5 per cent would have made manufacturing a very bad investment indeed, by wiping out the whole increase in profits in that sector of our economy.

There is a far better way for labor to increase the amount of pie it gets. That is by cooperation among management, labor, and government to agree on policies that raise productivity sharply. It is estimated that an increase of even a tenth of 1 per cent in productivity throughout our economy yields, at 1970 prices, a billion dollars worth of product. A rise in our rate of gain in productivity of even one full percentage point, on this scale, means an increase in the value of our national product of \$10 billion. I think it is well within our ability to equal -- say -- the German rate of increase in productivity. That would mean a rise of two percentage points a year above our annual average of 3.3 per cent in the period 1966-1971. That, in turn, would mean increases of \$20 billion a year, at 1970 prices, in the size of the pie. From these substantial sums, we can get real increases in labor compensation, and in profits -- and in the amounts we have to spend on cleaning up our environment, better our education and social services and the like -- that are significant and inflation-free.

From 1966 through 1971 Japan had productivity increases in industry that averaged 13.1 per cent. (See Chart 14).

The United States, meanwhile, turned in the lowest productivity increases of major industrial powers, with an average rise in output per manhour in manufacturing of only 3.3 per cent.

That, in the main, is why Japan's industrial workers can see their income rise by more than a seventh yearly -- doubling in less than five years -- while rises of only about one-fourteenth a year for American industrial workers -- doubling wages in 10 years or more -- contribute to American inflation by helping to push up unit costs. Japan has pushed up productivity in manufacturing more than four times as fast as we have!

Sharply rising American labor costs without an equivalent rise in productivity have contributed substantially to the dramatic undercutting of our international competitive position vis-a-vis Japan and many other nations, including Germany in particular. This has showed up in the disappearance in recent years of our international trade surplus -- the historic bulwark of our international payments position -- and the appearance, instead, of a large trade deficit, amounting to \$2.0 billion in 1971 and \$6.4 in 1972. With Japan alone our trade deficit was \$3.6 billion in 1971 -- exceeding our world trade deficit -- and about \$4 billion in 1972.

A quick look at the nearly unbelievable change in Japan's international reserve position in only the last year and a half gives an electrifying idea of

what a superior competitive position does for a nation. From July 1971 through February 1973, Japan's official international reserves rose -- taking the 1971 and later upward valuations of the yen into account -- from \$7.9 billion to \$19.1 billion. If one includes longer term foreign assets that the Japanese -- unlike other governments -- do not count as reserves, and official dollar deposits with Japanese commercial banks, Japan's reserves currently total in excess of \$25 billion.

Thus, the Japanese have accumulated additional reserves over the past 18 months which are substantially greater than the total U. S. reserves of about \$13 billion. And present Japanese total reserve assets are about twice the U. S. reserves with the Japanese economy about one quarter of ours.

Since 1963, the wholesale price of Japanese manufactured goods has risen 11 per cent, while ours rose twice as much -- by 24 per cent. The West German record was almost as good as Japan's. During this same period, both Japan and Germany held the rise in their index of export prices for manufactured goods to 7 per cent. Our export prices went up 30 per cent. (See Chart 15).

The relation between manufacturing productivity and competitiveness in world markets is not a one-for-one relationship -- factors other than manufacturing productivity enter in, and they differ from country to country. But the record shows that a strong relationship exists.

Let me note here, also, that a high rate of productivity gain is the best trade protection device a country can have. I mean best in the sense that it is the most effective device, because it makes our goods so much better able to

compete with foreign goods in our domestic markets. And I mean best in the sense that a sustained high rate of productivity gain is the most desirable way to protect our markets, because it stimulates others -- as we are being stimulated by Japan -- to raise the rate of output per hour of work, and this results in a world in which the people of all countries trading on a competitive basis get goods and services at prices lower than they would otherwise get them.

MORE OF THE LESSONS --
HOW HAS JAPAN DONE IT ?

It is important to understand that Japan's extremely high rate of productivity has a cause/effect relationship to her climb, in only a decade, from the least of the major free enterprise economies to the second, holding one of the world's largest aggregates of international monetary reserves. It is important to know that the obverse of this -- our relatively low rate of productivity -- has contributed in a major way to the decline of the competitiveness of U. S. goods in the world economy, to the loss of strength by the dollar, to our loss of reserves, to the piling up abroad of huge amounts of dollars over and above what are desired for business and reserve purposes. If high productivity growth is so vital, and a slow rise in productivity so harmful, how, then, is a high rate of gain in output per manhour achieved and maintained?

The first and basic prerequisite for rising output per manhour is an expanding economy, in which high levels of employment of people and equipment -- so long as demand does not exceed capacity for production -- make for a search

for efficient use of resources, and investment in new plant and equipment to realize those efficiencies. In the absence of economic expansion, productivity lags along with employment of resources.

^{1/}
Lesson from Japan: The Japanese economy quadrupled in size from 1950 through 1960, by which time it was in the same league as the main West European economies. (See Chart 16). From 1960 to 1970, while the U. S. GNP in these constant terms increased by about half, and most of the major West European economies grew by two-thirds to three-fourths, the Japanese economy approximately tripled. To put it in more direct comparative terms: in 1960 -- only thirteen years ago -- the Japanese economy was less than a tenth the size of ours. In 1970 -- only ten years later -- Japan's economy was nearly a fifth the size of ours, with the effects of inflation and exchange rate changes since 1963 removed.

A country that wants to have and maintain a high rate of productivity gain must have a labor force that is well educated, so that it can shift constantly to higher productivity tools and production methods. Lesson from Japan: As I have already pointed out, illiteracy is almost non-existent in Japan, while nearly 5 per cent of our population was still illiterate in 1967, and the percentage of Japanese with secondary or higher education is comparable to ours. (See Chart 5).

^{1/} Using comparisons in 1963 prices and exchange rates.

The high productivity country must have the funds to invest in new and more productive tools for its management and workers to use. Lesson from Japan: The proportion of output devoted to gross investment in Japan is the highest of any major industrial country, and the funds for the investment are found mainly in the highest savings rate of any major industrial country of the free enterprise world. (See Chart 17).

A further, and very important lesson from Japan: The Japanese can save and invest more privately, because for one reason at least, their government revenues absorb a smaller share of GNP than do government revenues in the United States, West Germany, France, the United Kingdom and Italy. (See Chart 11).

Currently, there is in our country a considerable discussion about a Federal budget tightening and pruning process that is underway. I will not enter into this controversy as it concerns the merits of particular programs. Let me just note, however, that the projected Fiscal 1974 budget -- \$269 billion compared to \$250 billion for Fiscal 1973 -- is a 7.6 per cent increase. In 1929, all government outlays came to about 10 per cent of our Gross National Product, and this governmental share of the use of our production has risen dramatically since, so that in 1972 it had tripled, to over 30 per cent of current dollar GNP. (See Chart 18).

Furthermore, in recent years the most notable upsurge in Federal Government expenditures has been in the non-defense area. (See Chart 19). Defense spending has been relatively constant for six years and a declining per cent of GNP -- from 9.7 per cent in 1968 to 6.3 per cent projected for Fiscal 1973. But non-defense Federal Government expenditures have quadrupled since 1960. The absolute increase of expenditures in this category has been from \$98.3 billion in 1968 to \$173.4 billion projected for Fiscal 1973. In five short years, then, this increase -- \$75.1 billion -- almost equals what the nation will spend for its defense effort in Fiscal 1973 -- \$76.4 billion.

We have yet to learn that all of mankind's social problems cannot be solved by increased government spending.

SOME CAVEATS

I have noted that the Japanese government assists Japan to have exceptional savings and investment rates by the fact that it takes much less out of the economy for governmental spending than we do. To this it should be added that one major reason the Japanese government can leave so much of the country's resources to private use is the fact that Japan has for decades lived behind the United States defense shield. From 1960 through 1971, Japanese defense expenditures have declined from 1 per cent to eight tenths of one per cent of Japan's GNP.

Of a more general, and probably more important nature, especially as we look to the future: To some extent, Japan's ability to maintain truly

astonishing rates of gain in productivity has rested upon relatively small outlays for social overhead, where we have been spending relatively heavily. Japan, at the urging of its growing and increasingly prosperous middle class, is now turning to programs that put more resources into housing, roads, sewers -- general upgrading of the amenities that a better educated, higher income people need in order to convert higher income into a higher quality of life.

This may -- and probably will -- result in leaving a smaller portion of Japan's resources available for the private saving and investment that is needed to buy the better tools and teach and put into practice the better management methods that are central to continuously high rates of gain in productivity.

Further -- and in part this reflects what I have just been saying -- although unit labor costs in Japan remained low through 1970 by comparison to Japan's chief competitors, Japanese unit labor costs in manufacturing showed very large increases in 1970 and 1971. In 1971, these costs rose above the U. S., taking 1967 as the base. From 1967 through 1971 our unit labor costs rose approximately 16 per cent, and Japan's rose 17 per cent. But until 1971, Japan's unit labor costs remained substantially below ours. ^{1/} (See Chart 20).

1/ These data are from an index based on national currency figures; so they are not distorted by exchange rates.

The long hold of the yen -- up to 1971 -- at early postwar values, while the Japanese economy on which the yen's real value is based grew so much, so fast and with relatively little inflation -- gave Japan's products a price advantage in international trade and at home that was overwhelming. Without taking anything from Japan's extraordinary performance, the enormous in-gathering of reserves to Japan in recent years, reflecting Japanese surpluses in dealings with other countries, must to a significant degree be attributed to the artificial value of the yen accepted internationally until the last 18 months. The Japanese yen has now assumed a more realistic value, and this will put Japan's products to a more realistic competitive test.

These factors are bound to force major changes in Japan's economic life. It does raise questions whether wage rates can continue to increase at such a pace as in recent years without making Japan much more vulnerable to inflation than it has been.

Furthermore, given the evolving nature of the American economy -- with a trend toward services -- we must not continue to rely on productivity increases solely in our manufacturing and farming sectors. We must emphasize productivity growth across-the-board in this country. We must insist on it in our factories, our sales forces, our managements, our schools, our hospitals, our post offices -- everywhere. Indeed, there are 650,000 people employed in our Postal Department and only 500,000 in our steel industry.

Managers must begin in their own offices and reduce corporate overhead. There is hardly a significant corporation which cannot reduce its overhead by 10 per cent and many are in the 25 per cent range. Then, having demonstrated its intent, management can work with its unions and sharply improve productivity at the workman level.

SOME
CONCLUSIONS

The main lesson from Japan for the United States is that we must take at least as seriously as they do the simple arithmetic of national life: We can raise real incomes only as fast as we raise productivity. This is true even if some special circumstances favoring the Japanese in the past have disappeared, and even if they find it harder in the future than they have in the past to keep inflation down. We cannot depend on their finding things so much tougher that we need not 'roll up our sleeves'. My bet would be that in whatever circumstances, Japan will continue to be a nation that saves at a high rate, invests at a high rate, and where government, business, labor and the public in general show a high degree of cooperation for national aims, and where, as a result, productivity will remain exceptionally high.

Policy makers in this country have relied for several decades on the assumption that the United States economy can only grow at a rate of about 4 per cent per year. Our economy was about the size of the 1972 Japanese economy

in 1950. If the Japanese were to assume now what we did then, they would take policy actions that would perhaps yield a 4 per cent growth rate -- a self-fulfilling prophecy.

But perhaps it is we Americans who should challenge our basic assumptions, having studied the Japanese model.

We must develop a national program to give us dramatic annual increases in productivity, higher annual wage increases and more jobs, stable prices, a much higher economic growth rate, and a currency, once more the envy of the world. We owe it to ourselves and the rest of the world.

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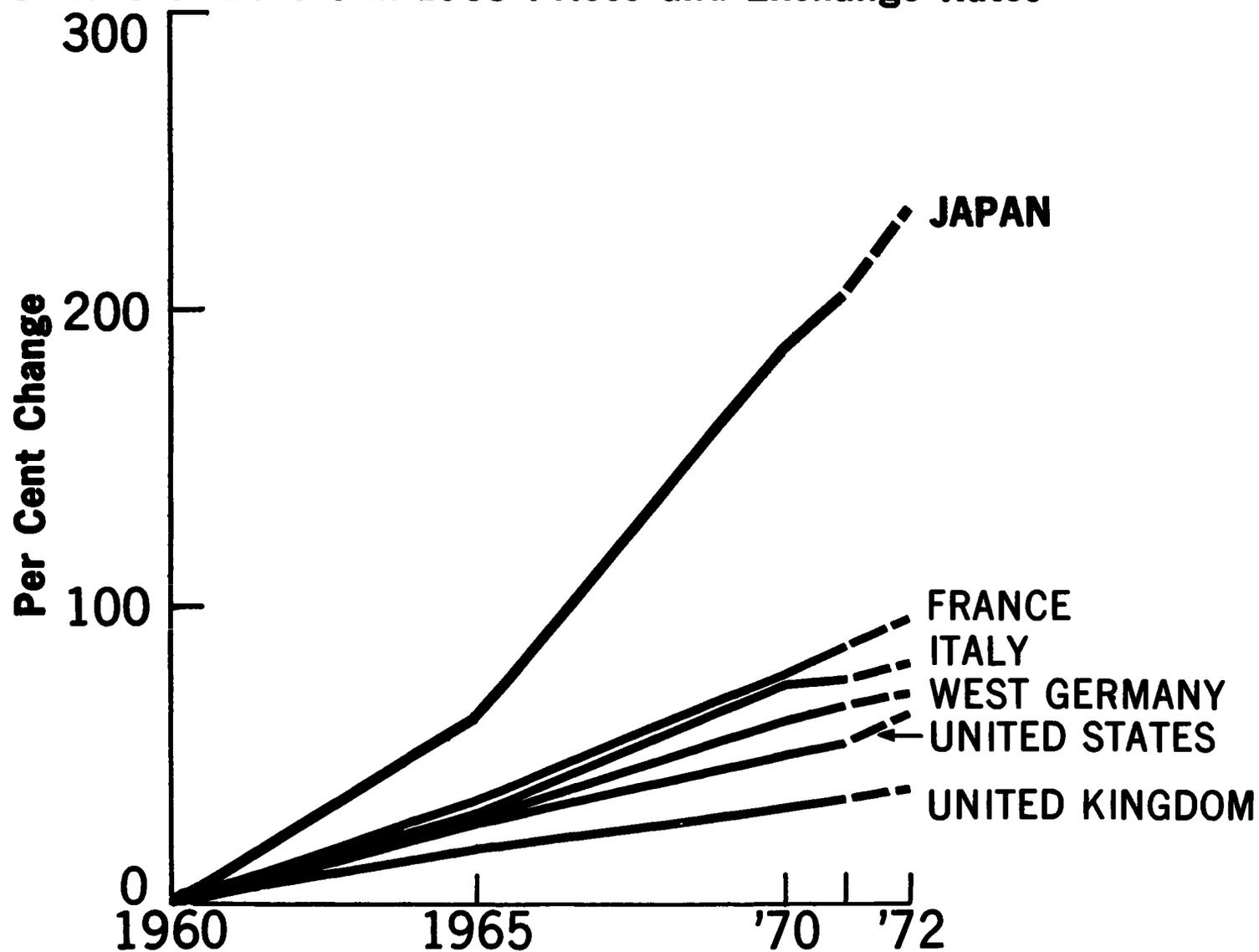
GROSS NATIONAL PRODUCT

	In Billions of U.S. Dollars, Current Prices					
	1950	1955	1960	1965	1970	1972*
Japan	10.6	23.9	43.1	88.7	197.2	293
West Germany	23.1	42.3	71.2	115.1	187.1	257
France	28.1	48.6	60.5	100.0	148.6	181
United Kingdom	37.2	53.8	67.5	100.3	121.1	152
Italy	13.9	21.8	32.1	59.0	92.8	117
United States	284.6	377.5	502.6	684.9	976.4	1,152

* Estimated GNP

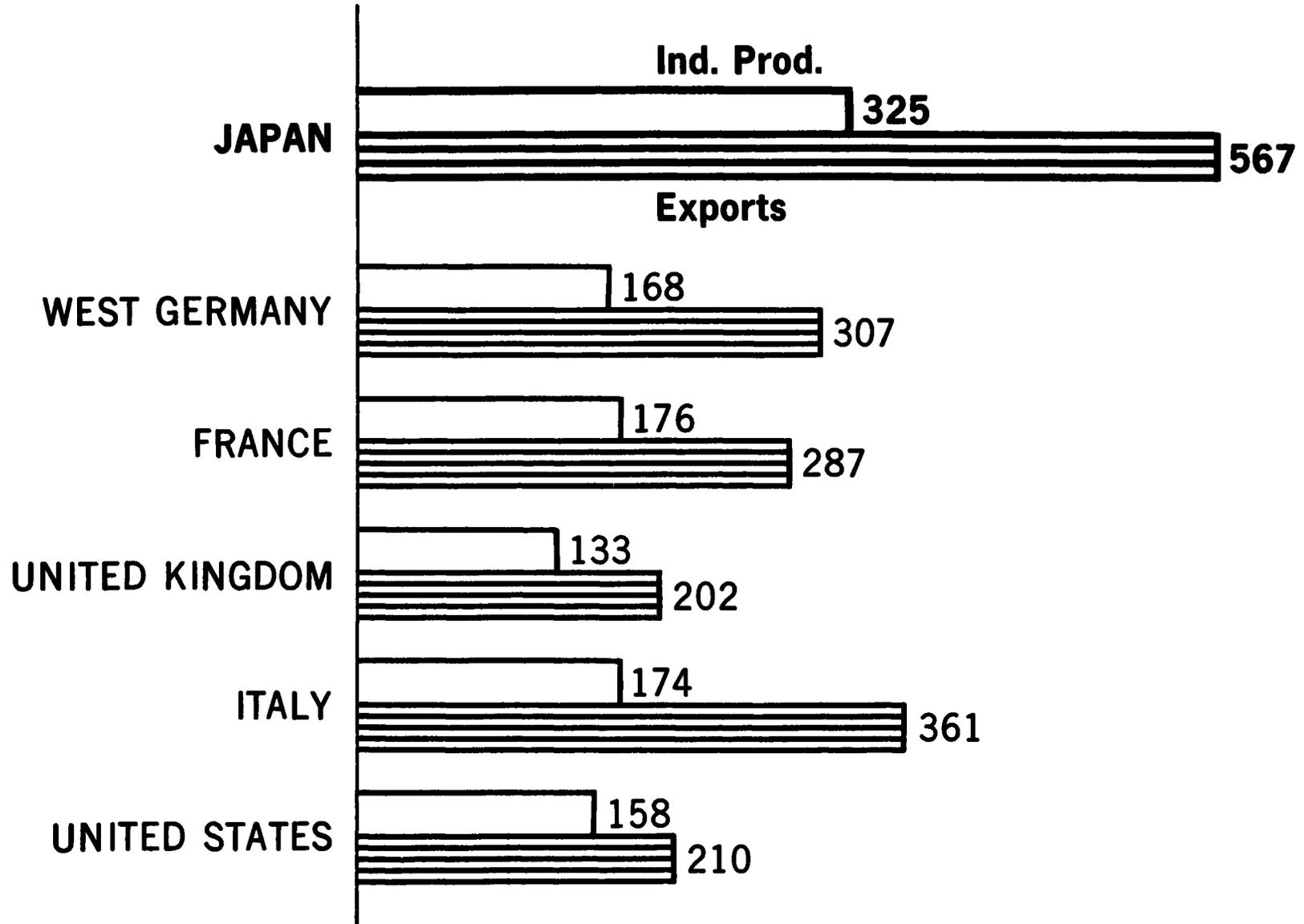
GNP - MAJOR INDUSTRIAL COUNTRIES: PER CENT GROWTH SINCE 1960

Billions of Dollars in 1963 Prices and Exchange Rates

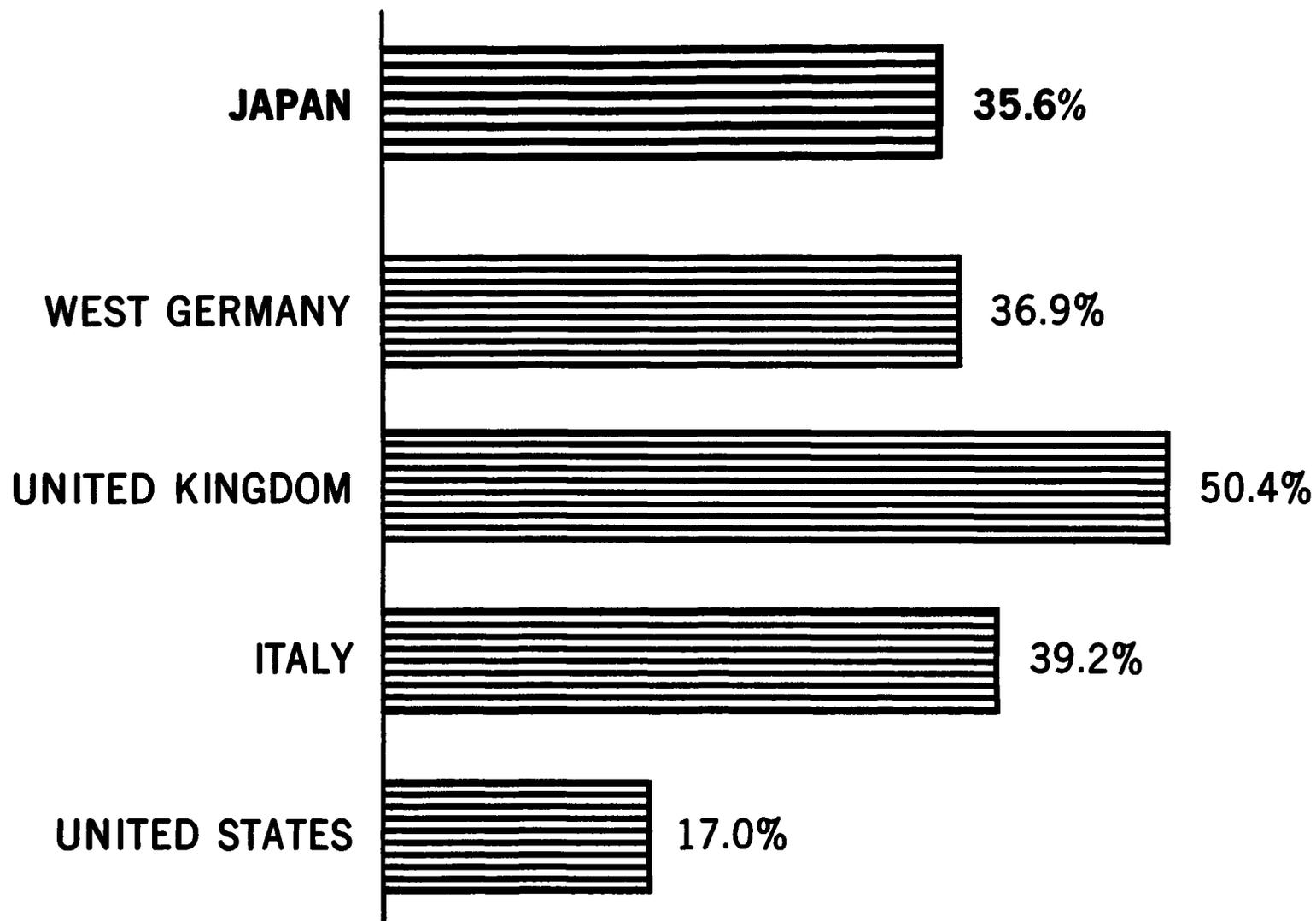


GROWTH OF EXPORTS & IND. PROD.: 1961-1971

1961=100

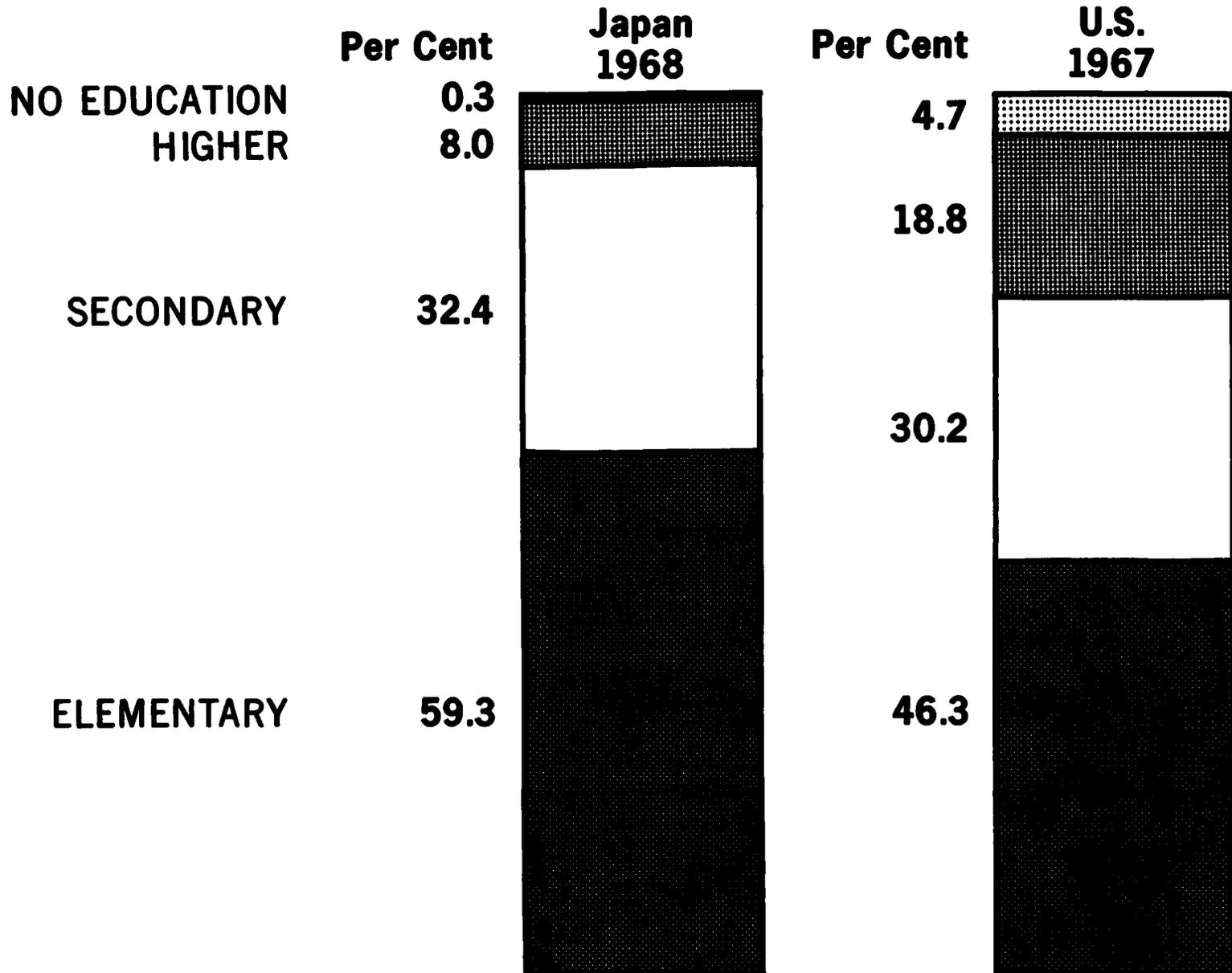


PROPORTION OF TOTAL PRODUCTION* EXPORTED: 1971



* Sum of agriculture, mining and manufacturing.

EDUCATION IN JAPAN AND THE U.S.

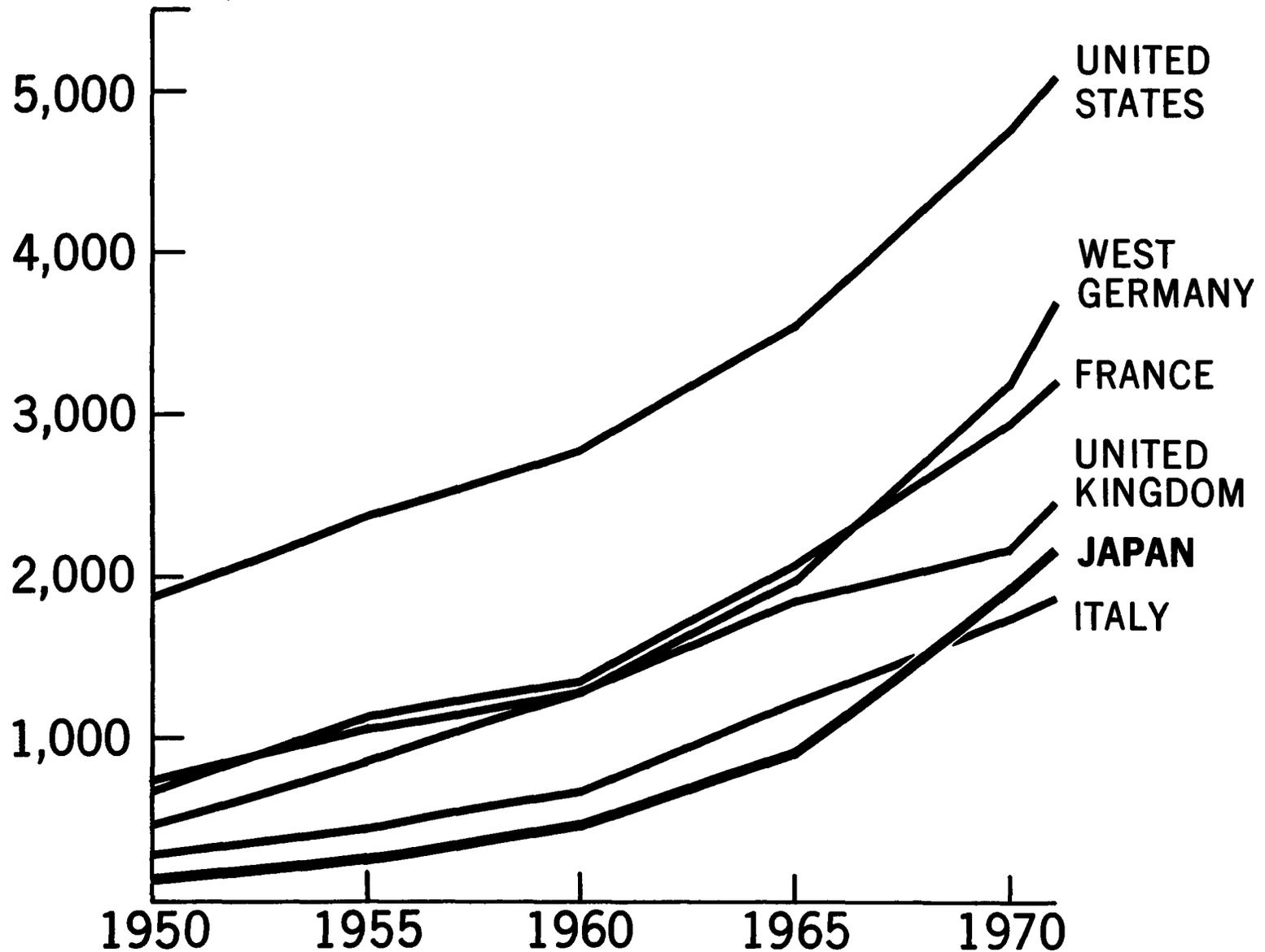


TOTAL EMPLOYMENT & EMPLOYMENT IN MANUF.: 1971

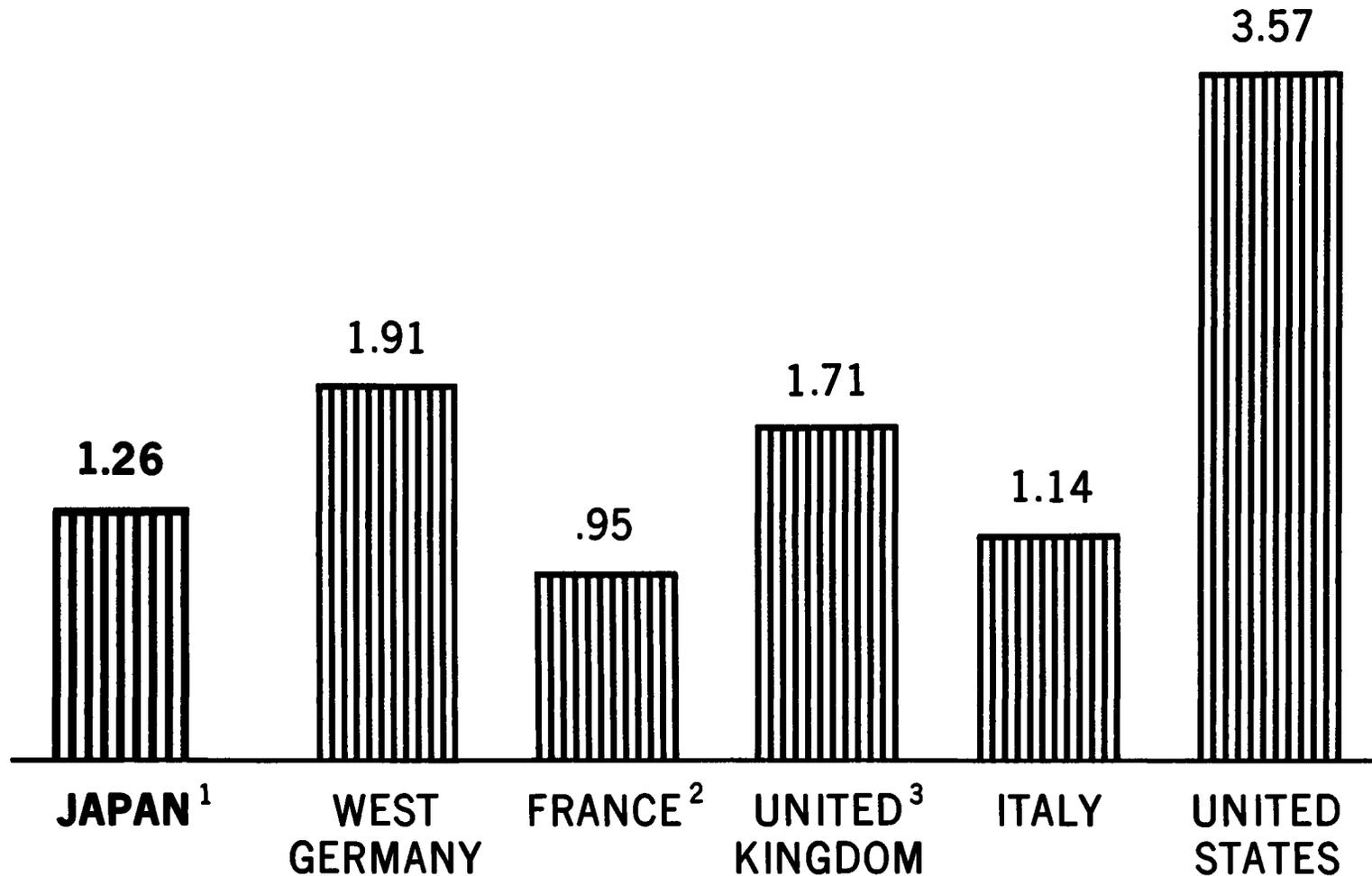
	Number Employed	Number in Manuf.	% in Manuf.
JAPAN	51,140	13,810	27.0
WEST GERMANY	27,240	8,538	31.3
FRANCE	20,768	5,247	25.3
UNITED KINGDOM	22,000	8,612	39.1
UNITED STATES	79,108	18,610	23.5

GNP PER CAPITA

U.S. Dollars, Current Prices



AVG. HOURLY EARNINGS IN MANUFACTURING: 1971 IN DOLLARS AT AVERAGE 1971 EXCHANGE RATES



¹ Based on earnings per month, includes salaried employees.

² Wage rates only.

³ Earnings for men, 21 or over.

HOURLY RATES OF EARNINGS IN MANUFACTURING

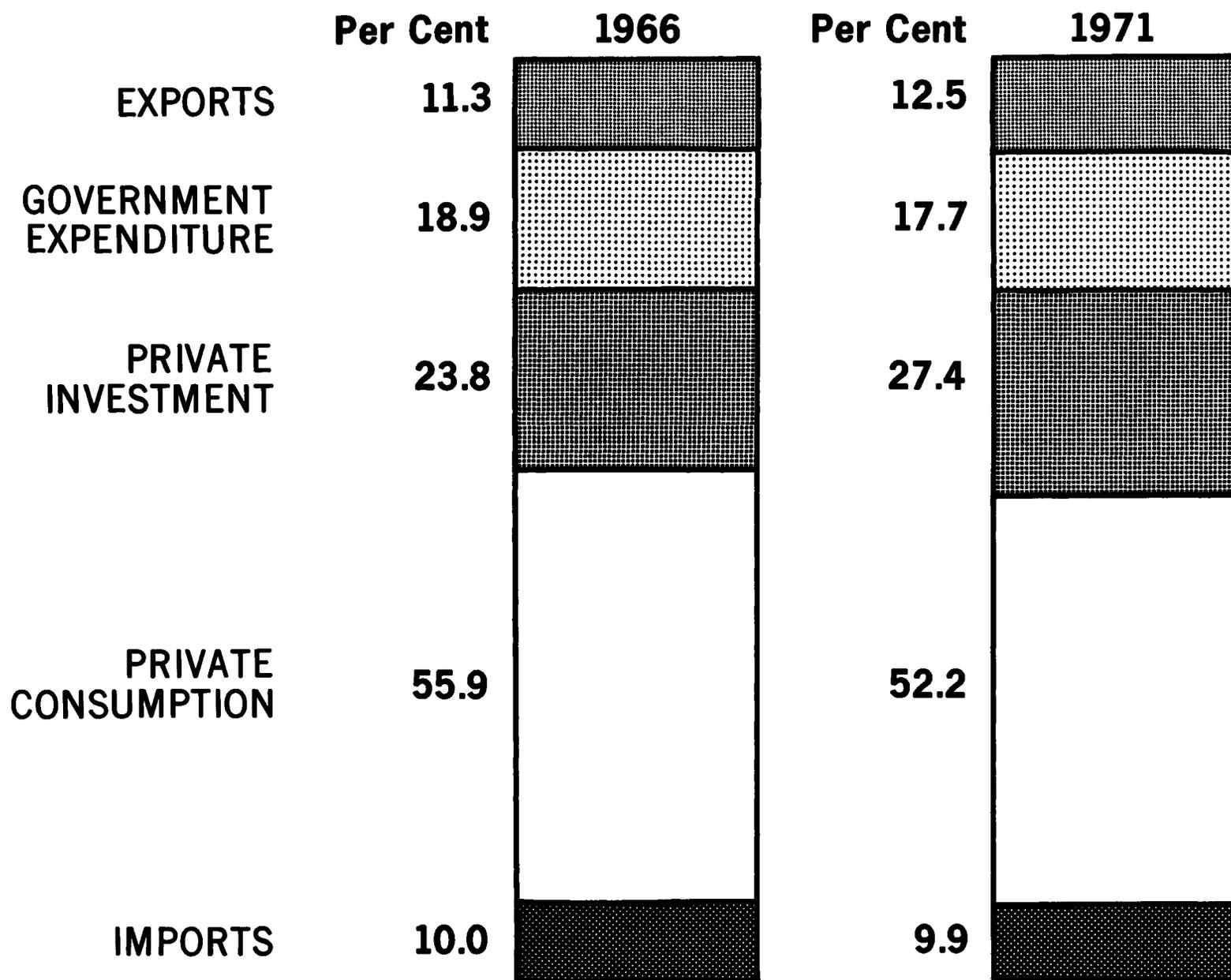
	Annual Per Cent Increase				
	1968	1969	1970	1971	1972*
JAPAN	17%	18%	19%	16%	16%
WEST GERMANY	6	9	15	14	11
FRANCE	13	9	13	11	12
UNITED KINGDOM	9	8	15	13	12
ITALY	7	10	20	18	13
UNITED STATES	7	7	7	7	6

*Estimated.

POPULATION: UNITED STATES AND JAPAN

	In Millions; Midyear Population					
	1950	1955	1960	1965	1970	1972
JAPAN	82.90	89.00	93.20	97.95	103.39	106.85
UNITED STATES	151.68	165.93	180.68	194.30	204.88	208.23

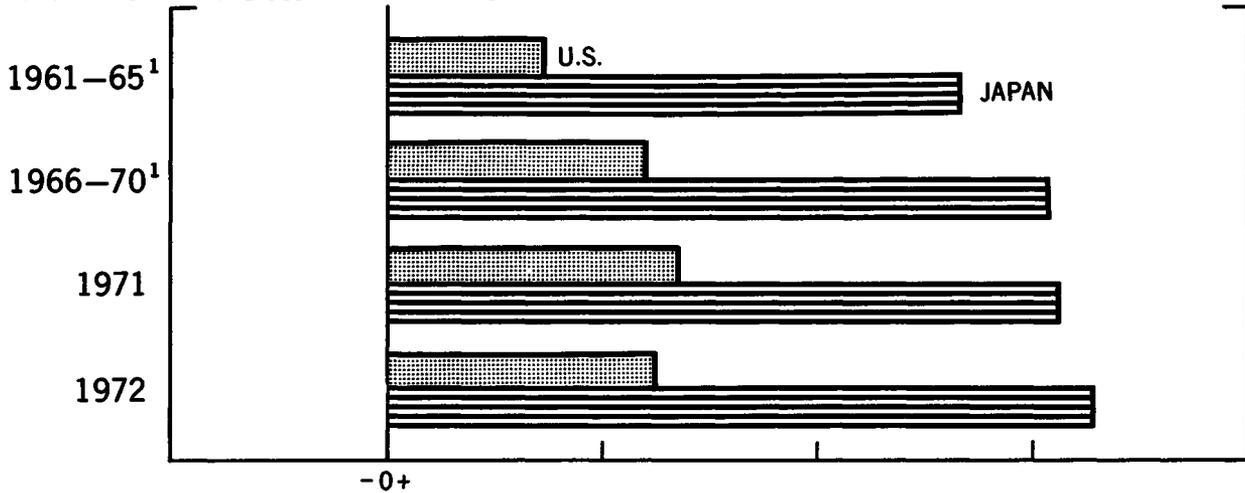
JAPAN: COMPOSITION OF GNP



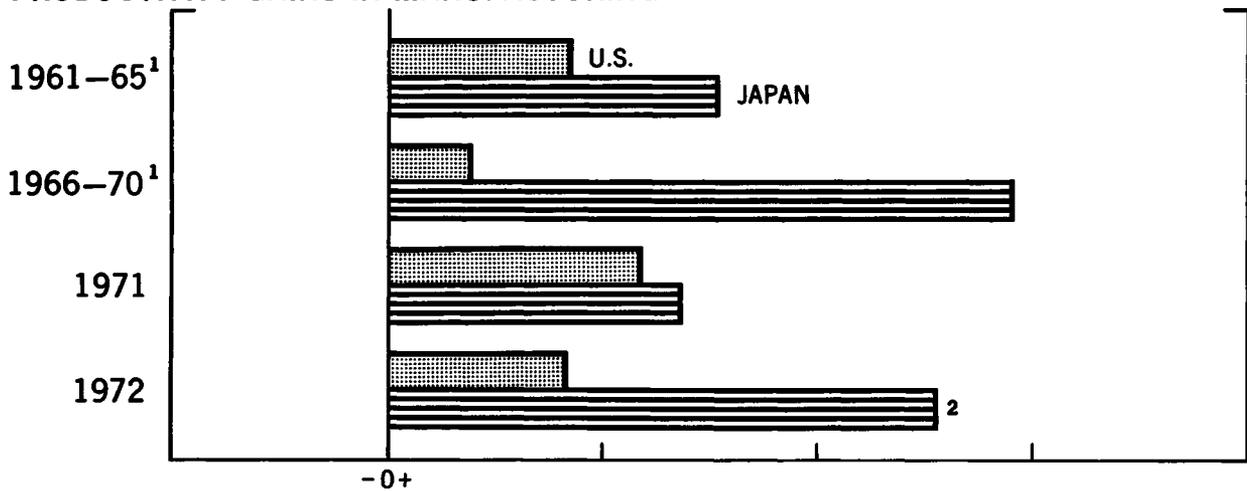
EMPLOYMENT IN MANUFACTURING - PRODUCTIVITY - HOURLY COMPENSATION

PER CENT CHANGE

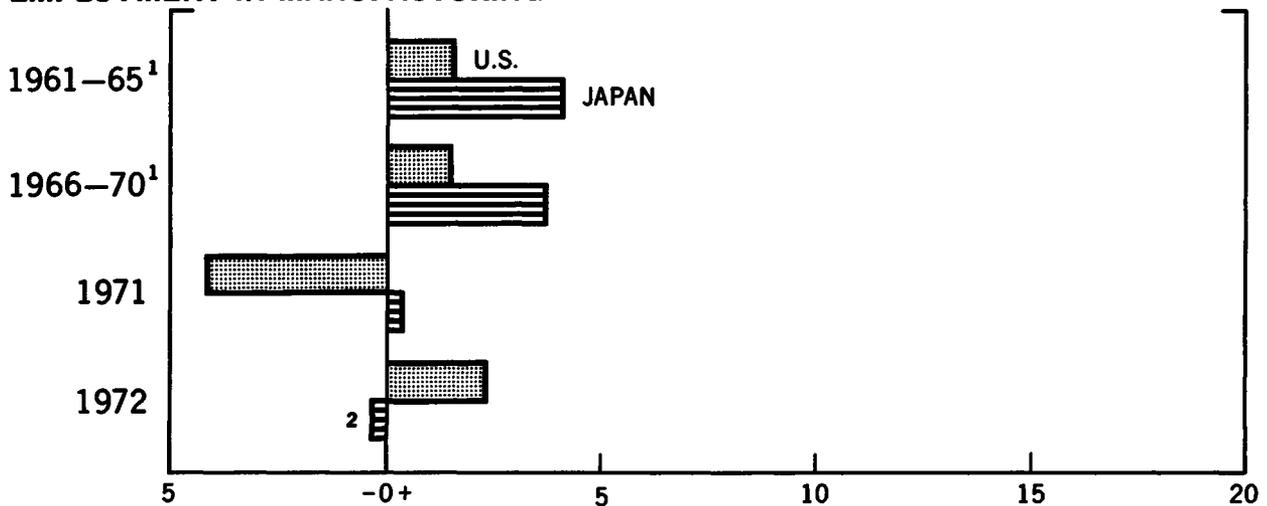
INCREASE IN HOURLY COMPENSATION



PRODUCTIVITY GAINS IN MANUFACTURING



EMPLOYMENT IN MANUFACTURING



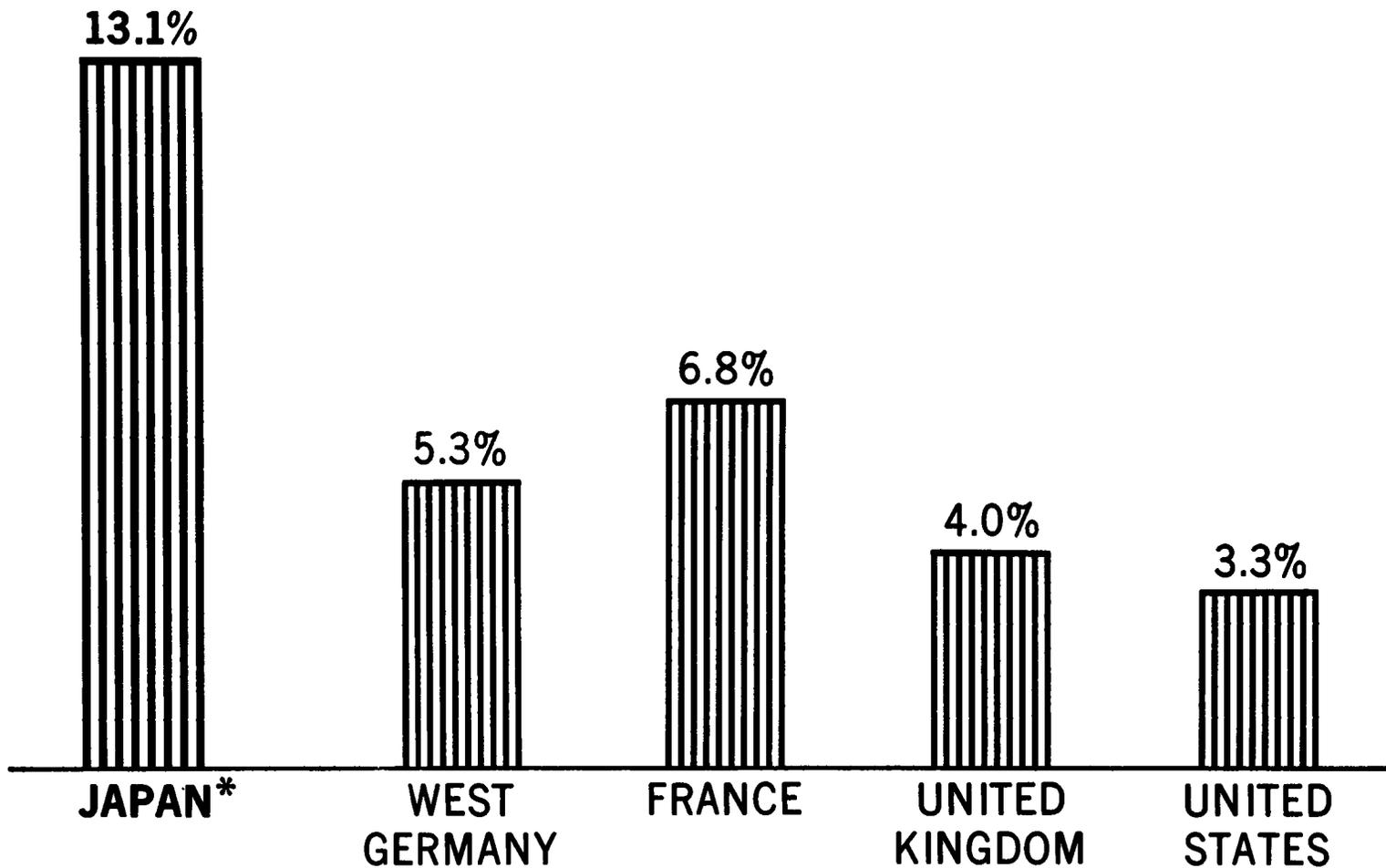
¹ Five-year average ² Estimated

PEOPLE EMPLOYED IN MANUFACTURING: U.S. & JAPAN

In Thousands		
PERIOD	UNITED STATES	JAPAN
1961-65 average	17,090	10,988
1966	19,214	11,870
1967	19,447	12,520
1968	19,781	13,050
1969	20,169	13,450
1970	19,349	13,770
1971	18,529	13,810
1972	18,934	13,768¹

¹ January–November average.

AVG. ANNUAL INCREASE IN PRODUCTIVITY: 1966-71



* Industrial output divided by labor input. All other countries are output per manhour in manufacturing.

PRICES OF MANUFACTURED GOODS AND EXPORTS

	Wholesale Price Index Manufactured Goods 1963=100	Export Price Index 1963=100
	1972	1972
JAPAN	111	107
WEST GERMANY	115	107
FRANCE	132	133
UNITED KINGDOM	145	139
UNITED STATES	124	130

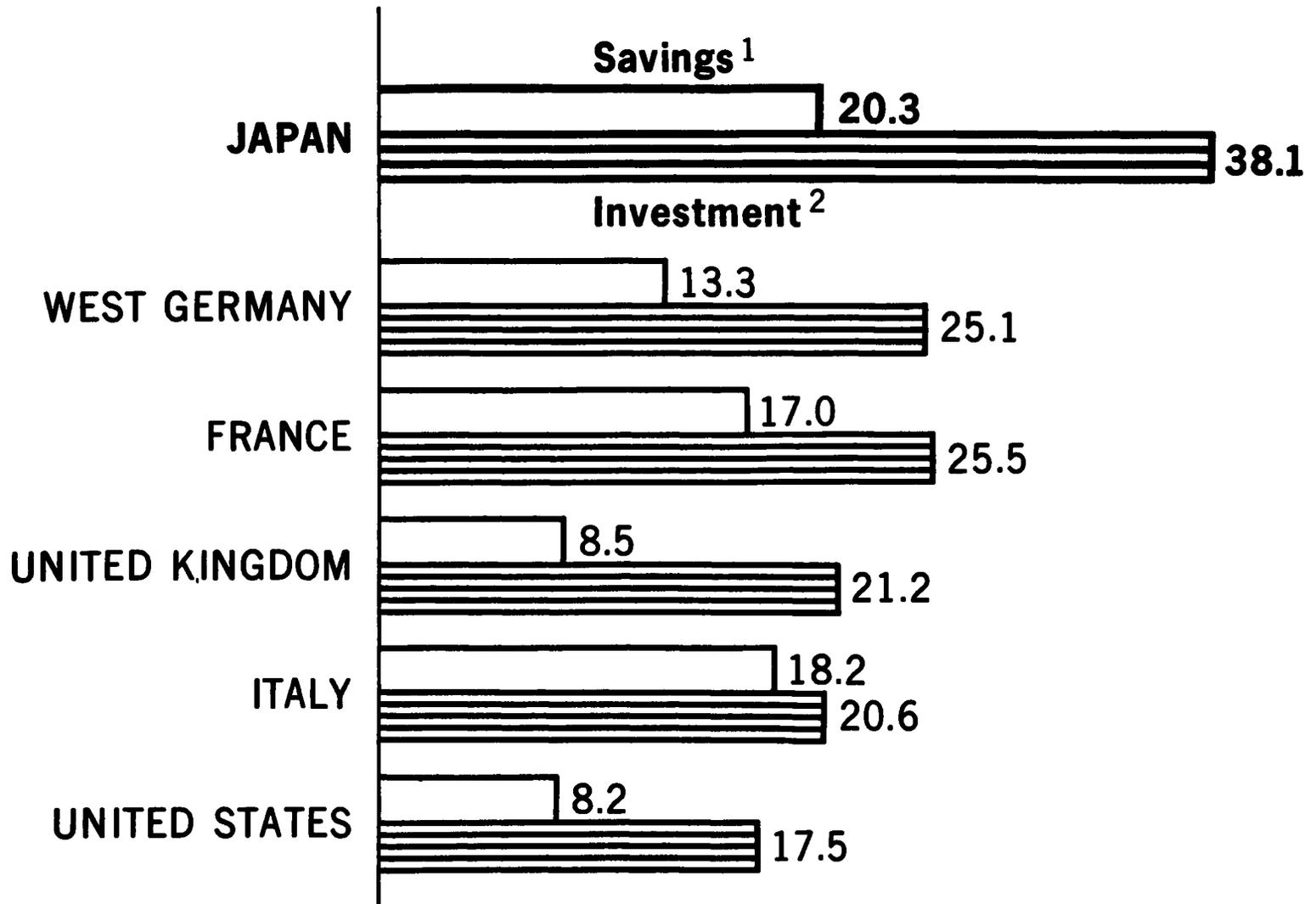
GROSS NATIONAL PRODUCT*

In Billions of U.S. Dollars, 1963 Prices and Exchange Rates

	1960	1965	1970	1971
JAPAN	50.0	80.9	143.0	152.0
WEST GERMANY	84.6	108.1	135.8	139.5
FRANCE	70.1	93.1	123.6	129.7
UNITED KINGDOM	78.9	93.1	104.5	105.8
ITALY	41.2	53.3	71.2	72.1
UNITED STATES	530.6	672.0	788.9	810.6

* OECD

SAVINGS AND INVESTMENT IN JAPAN

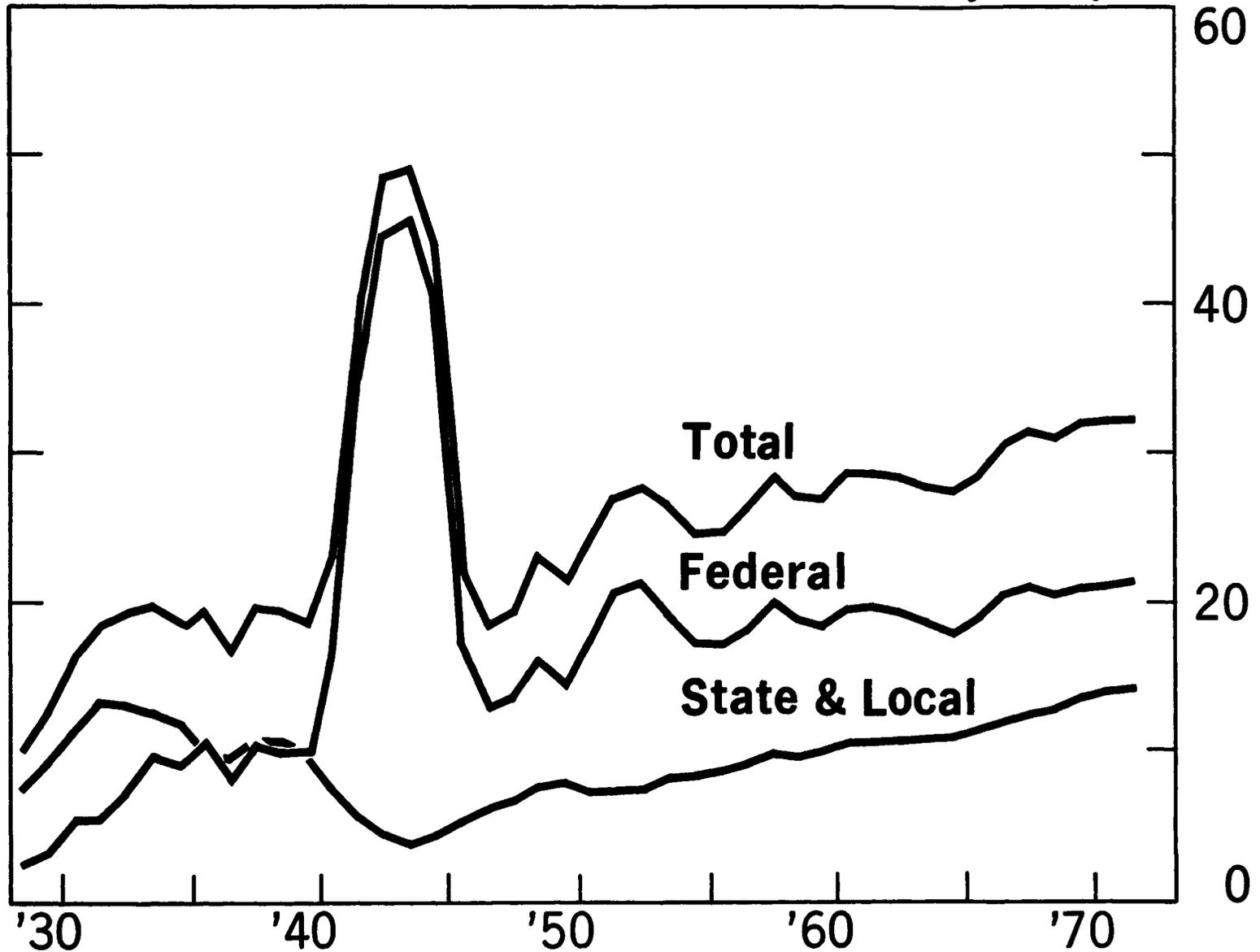


1 Per cent Disposable Income, 1971

2 Per cent GNP, 1968-71

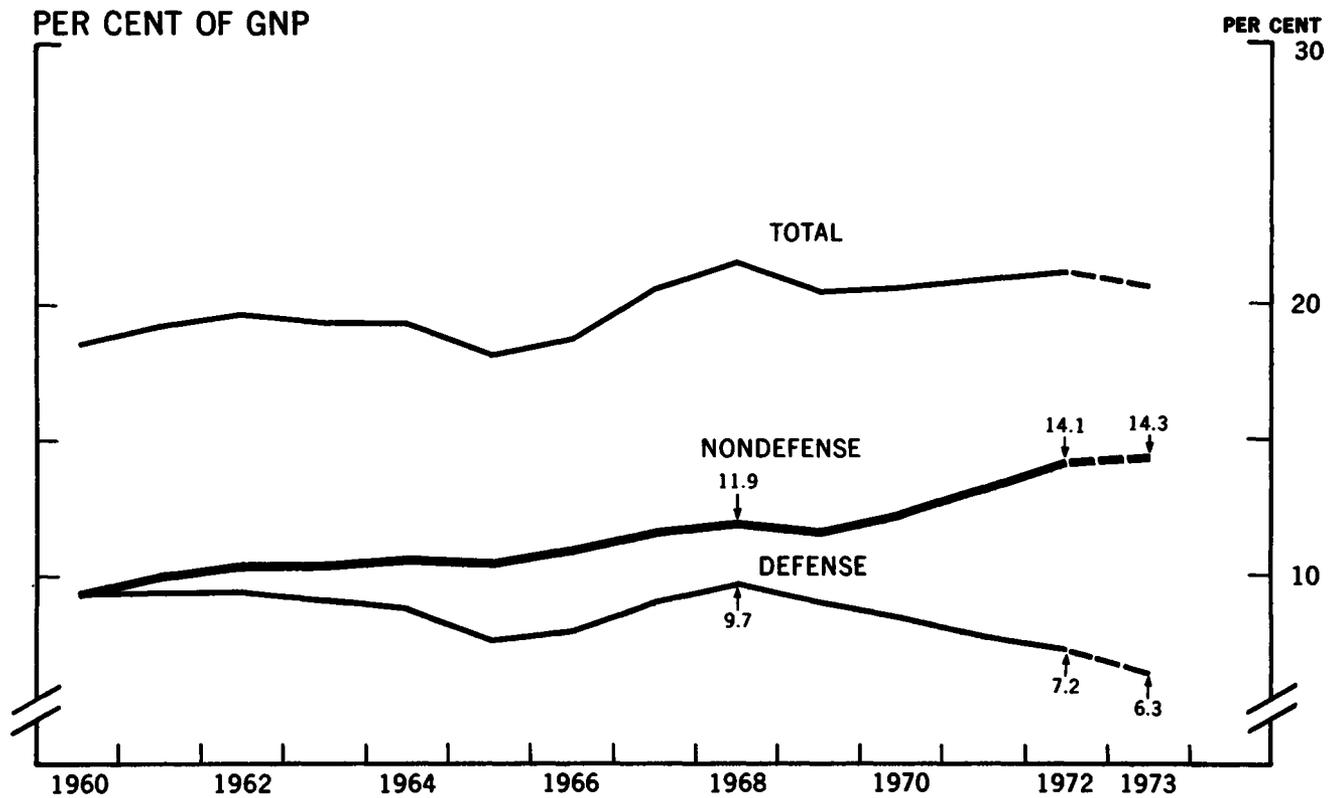
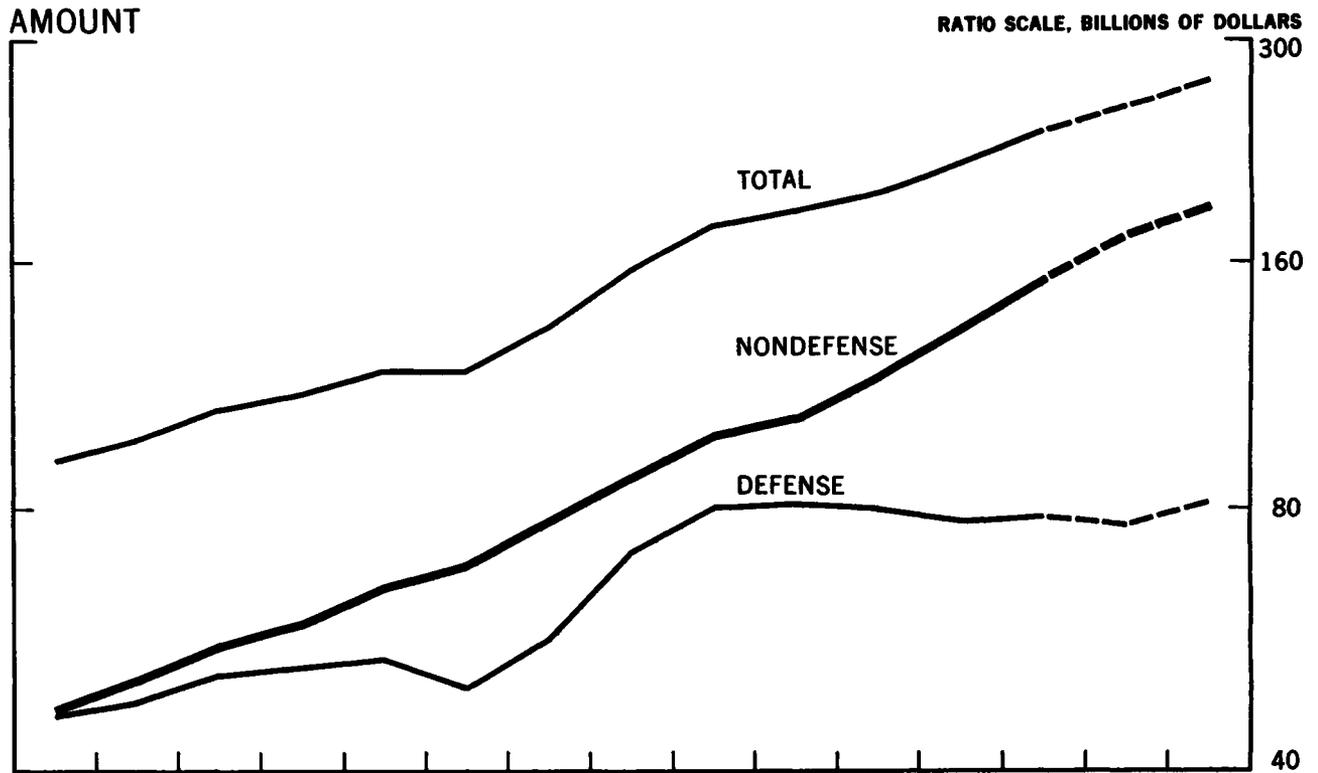
U.S. GOVERNMENT EXPENDITURES, PER CENT OF GNP

Calendar years, per cent



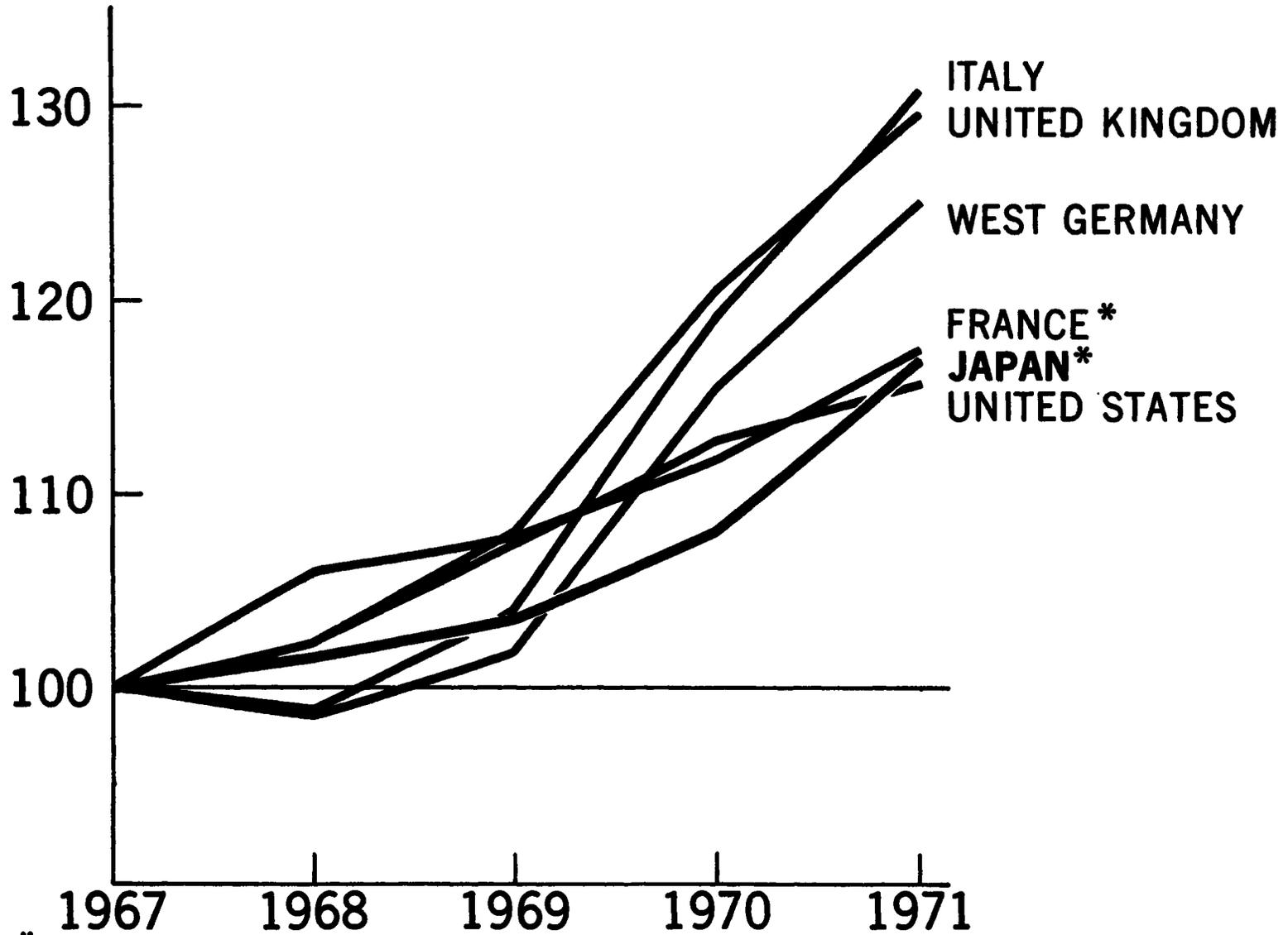
U.S. FEDERAL BUDGETARY OUTLAYS

FISCAL YEARS



UNIT LABOR COSTS (MFG) in National Currency

1967=100



* Partly estimated.