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THE ROLE OF PRODUCTIVITY GAINS IN SOLVING
NATIONAL ECONOMIC PROBLEMS

Remarks by

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Inflation is a clear and present danger which affects all our lives and all our opportunities. As far as monetary policy is concerned, the emergence early this year of inflation as a more virulent threat to our system has placed enormous responsibilities on the Federal Reserve. Monetary policy must and will be used to restrain inflation, but it needs support from other economic policies in order to avoid undesirable side effects. The task the central bank has set out for itself is to use prudent monetary policy to restrain the forces of inflation, by bringing down the rate of growth of the money supply, but to do so without triggering a recession that would work against the over-all objective. It is reassuring to note that, earlier this year, when it became apparent that the effort would not be left to monetary policy alone, positive initiatives were taken by the Administration and by the Congress. There have been substantial changes toward a more restrictive fiscal policy to help bring down the rate of inflation.

With this as background, I am particularly pleased to be here to participate in this Conference on productivity. An initiative to achieve productivity gains is one that we can all endorse and aggressively support. A successful effort to improve economic efficiency will directly offset the upward cost pressures on prices. It will tend to make our output more competitive in international markets, and thus improve our balance of trade and help stem the deterioration of the dollar in the currency exchange markets. It will contribute to long-range increases in our economic capacity and

in our standard of living. Unless the economy's productivity expands at a faster rate, we will be unable to reduce unemployment without igniting inflation. Increased productivity is the best prospect for breaking the vicious cycle of wages chasing prices and prices chasing wages.

Because it is imperative that we act now to achieve such benefits as we can from increased productivity, it is well worth our time today to look at some of the historical trends and to discuss some of the public policies that could accelerate such gains.

History shows that productivity gains have been a key factor in our economic growth and in our rising standard of living. Output per work hour in the private sector rose more than 125 percent over the past thirty years. The bulk of the improvement, however, occurred between 1947 and 1967. During that period output per hour doubled. Since 1967, output per hour has risen less than one-fifth, only about half the average pace prior to 1967.

Chart 1, attached, shows that output per hour is now well below its post-war trend. Even before the oil embargo and the recession of '74 - '75, the rate of productivity growth had slowed down. Prior to 1967, the annual rate of growth was about 3-1/3 percent; in the years 1967-72, it was only about 2 percent. Other things being equal, this added more than a full percentage point to the rise in unit labor costs. Such increases in costs are eventually reflected in final prices, and that was certainly the experience in the '67 - '72 period. While we thought in those years that 2 percent was a weak

performance, in the following five years things have gotten much worse. Coincident with the quintupling of oil prices and the deep recession of '74 - '75, productivity fell into an unusually long and deep decline.

Chart 2 shows how output per hour has lagged during this recovery cycle. Its eventual upturn was so belated and so mild that by 1977 output per hour was up only 6-1/2 percent from the 1972 level. That amounts to an average annual gain of only 1-1/3 percent. Think about that for a moment: an average efficiency gain of only 1-1/3 percent a year, little more than one-third the pace in the two decades ending in 1967. Even if wages and salaries had remained stable -- and, of course, they did not -- the productivity slowdown would have added 2 percentage points to the rise of unit labor costs. The result is a commensurate impetus to inflation.

During the years of strong productivity gains, workers and their families became accustomed to generous increases in their real incomes. America's standard of living rose dramatically, average work schedules were shortened, leisure time was increased. Over time we came to expect an annual improvement in our real incomes. In fact, an allowance of 3 percent or more in productivity gains was included in the wage-price guidelines set in the Kennedy Administration in the early 1960's. These expectations of regular and sizable increases in the average standard of living were subsequently frustrated.

As productivity growth slowed, real income gains began to fall below individual and collective expectations. This had serious

consequences for inflationary pressures. In an effort to sustain past patterns of real income growth, wages were pushed up, setting in motion a cycle of intense upward pressure on costs and prices. This occurred despite high levels of unemployment and excess industrial capacity. Thus the slowing of productivity growth helped trigger a spiral of inflationary wage-price adjustments throughout the economy.

The lower rate of productivity growth and the higher rates of inflation at home have contributed to the imbalance of our trade with other nations. Growth of productivity in the United States has been slower than that of most of our major international trading partners, making us less competitive in the international arena. Slow growth of our exports has contributed to the decline in the exchange value of the dollar, which in turn has fueled domestic inflation both directly and indirectly. Higher dollar prices for imports raises consumer prices directly, while domestic producers of competitive goods can raise their prices with less fear of losing market shares. The resulting inflation further saps confidence in the dollar. It also contributes to a lower value of the dollar in a self-reinforcing phenomena. It is critical that we break this spiral.

Perhaps it would be worthwhile to review the trends that sustained the productivity gains in the private sector from 1947 to 1967 and to compare them with the developments of the last decade.

The first two decades of the post-war era were marked by significant development and expansion of new technology and improved methods of operation accompanied by high rates of capital formation.

Significant advances in the quality of the work force also occurred. There was a shift of resources from low to higher productivity sectors. Underlying some of these factors were substantial investments in research and development and in workers' educations. After 1967, however, the economic and demographic trends that supported substantial efficiency gains became much less favorable and new trends emerged that tended to retard the growth of productivity.

A crucial factor in the slow rate of efficiency improvement has been a slackening in the introduction of new technology or, to put it more broadly, in the application of new ideas and improved ways of doing things. The effect of technology on productivity is usually associated with equipment and materials, such as an electronic device that vastly expands data processing capabilities or a new chemical that can help multiply crop harvests. But just as important are new management techniques that greatly improve the application and organization of resources, whether of labor, physical capital or financial resources. But no matter what the form of advance in human knowledge, it frequently requires significant investment in new plant and equipment in order to exploit fully the opportunities presented.

Yet we have failed to maintain an adequate rate of capital accumulation and investment. Indeed the nation's stock of capital expanded at an annual rate of only 2.8 percent over the past five years, barely half the rate over the preceding decade. Chart 3 shows this progressive and disturbing decline.

Capital accumulation per member of the labor force has slowed even more dramatically. Compared to 1974-75, the amount of capital per person in the labor force has actually declined. This can be seen in Chart 4. At the same time the share of capital investment devoted to environmental compliance has increased and the imposition of environmental standards may have caused practical obsolescence of some existing plant and equipment.

In a similar vein, the massive increase in the price of energy clearly has shortened the economic life of some of our capital stock. So, in many ways, the data on the accompanying charts understate the problem that we face.

Another reason for the slower pace of productivity growth was the huge flood of inexperienced workers into the labor force. The figures are staggering. Nearly 15 million more young people and women were in the labor force in 1977 than in 1967. They accounted for nearly four-fifths -- almost 80 percent -- of the over-all expansion of the work force over the decade. Even though these new workers enjoyed the best health, the highest educational attainment, and the best working conditions in our history, they still had to learn skills and accumulate experience before they could achieve the same productivity as employees with long tenure in a particular trade.

Improving the efficiency of the economy under these circumstances demands a comprehensive, forward looking program -- a program that will restore a climate favorable to productivity growth. Its principal elements must include, first, a commitment to conquer

inflation so that investment plans can be made in an environment of more certainty and, second, greater economic incentives for private investment.

The nation's tax policies have not offered adequate incentives for new capital investment. In particular, depreciation allowances are not adequate to provide cash flows sufficient to encourage increased fixed investments in today's conditions, nor to offset the substantial risk of obsolescence. Higher inflation has made it extremely difficult for firms to predict forward costs and prices and thus has shaken confidence in business forecasts of financial conditions and general economic activity. Facing a less reliable calculation of the real cost of capital and of expected revenues, prudent businessmen set high requirements for prospective returns on investment. Capital spending inevitably is retarded.

Because we have been neglecting capital accumulation a larger share of GNP must now be devoted to capital investments. Raising the amount of capital per worker will have a favorable impact on productivity in its own right. Also, since new capital also generally embodies new technologies, there should be an extra increment to efficiency gains. Newer equipment and structures utilize energy more efficiently and the resulting conservation and cost savings will contribute to achieving our over-all goals.

However, it is not enough simply to reach the past peak levels of 10-1/2 or 11 percent of GNP, reflected in Chart 5. The nation should set an ambitious objective for capital investment of, say,

12 percent of GNP for an extended period of time in order to enable us to make up for past deficiencies and to narrow the gap between our performance and that of our strong industrial competitors. The Japanese economy spends over 20 percent of GNP on capital investment; West Germany 15 percent. It certainly would be appropriate for us to seek a 12 percent level.

Another element in a long-term strategy aimed at a high growth, low inflation economy is extensive reform of Federal regulatory activities. We need to take a critical look at price-regulating Government programs. Price regulation in the marketplace tends to discourage or prevent full competition, which is, after all, a powerful incentive for the development and adoption of the most efficient techniques. In recent years there has been a major increase in well-intentioned laws and regulations aimed at protecting the environment and promoting health and safety. These regulations greatly influence when and where new productive capacity may be built and how firms may operate. Just hiring the personnel necessary to keep track of the rules, prepare the reports, and attend the hearings, has swollen over-all costs without any compensating increase in measured output.

In addition to requiring major expenditures these regulations create uncertainties about the appropriate scale, location and acceptability of major new additions to or modernization of our productive capacity. Protection of the environment and of public health and safety must be a major social goal. But the actual benefits of new

forms of protection must be carefully weighed against the cost to our economy of achieving them.

Another aspect of a forward looking growth policy is to assure that our work force continues to be ready to meet the challenge of developing new ideas and implementing new technologies. Government employment and training programs should be redesigned to provide effective skill training and work experience to disadvantaged workers. The emphasis on these programs should be on training individuals for careers in the private sector. Younger people are affected more severely than most other groups by high unemployment since early employment is essential for that on-the-job training which lays the foundation for a successful life career. With today's very high levels of unemployment among younger workers, it is possible that, unless we act vigorously, a larger part of that generation will be denied the opportunities to develop the skills, attitudes and motivation they need to become productive participants in the adult work force and to experience the self satisfaction of personal accomplishment.

In addition to investing in human capital in the forms of direct skill upgrading, we should improve the links between the classroom and the world of work and expand apprenticeships and similar opportunities to assure that younger workers are prepared to meet the needs of their private sector employers. Methods of raising workers' incentives to become more productive should also get more attention. Stock ownership incentives, profit-sharing, labor management productivity councils, are possibilities that certainly warrant closer examination and further experimentation.

We need all these government actions and incentives. But even more we need a change in attitude among managers and workers; among all citizens. America has always been a "can do" nation characterized by an innovative and competitive spirit. I am convinced that a substantial cooperative effort in the private sector, coupled with a reorientation in tax and regulatory policy, will stimulate productivity growth and will help ease inflationary pressures without curtailing growth. Such trends would be self-reinforcing, for reduced inflationary expectations would enhance confidence in our economic future. All this in turn would lessen the burden on monetary policy in the fight against inflation and improve the prospects for lower interest rates.

In the past few months we have learned a great deal about the limits of government, the importance of coordinating government economic policies, and the importance of a stronger partnership between government and the private sector. Much has been accomplished. Our fiscal program has been changed so that the prospective deficit for the year that began this week has been reduced by over \$22 billion, a significant contribution to the fight against inflation. There has been cooperation with President Carter's deceleration program, although much more needs to be done and the President intends to announce other anti-inflation actions. Progress has been made in establishing elements of a national energy policy that will reduce our dependence on imported energy. We have taken steps, both through short-term bridging actions

and in addressing the longer-term fundamentals to assure a sound and stable dollar which is essential to our economic well-being.

But much more needs to be done. In the fight against inflation, and in the campaign to raise productivity gains once again to the level that will assure increases in real incomes and increases in our standard of living, we need to have the purpose, the determination, the constancy to implement effective long-range programs. We will need to maintain our efforts for five to seven years in order to achieve the economic goals of full employment, price stability and a sound dollar. The reward will be enhanced prospects for peace and prosperity in the world.

Chart 1

Output Per Hour, Private Business Sector

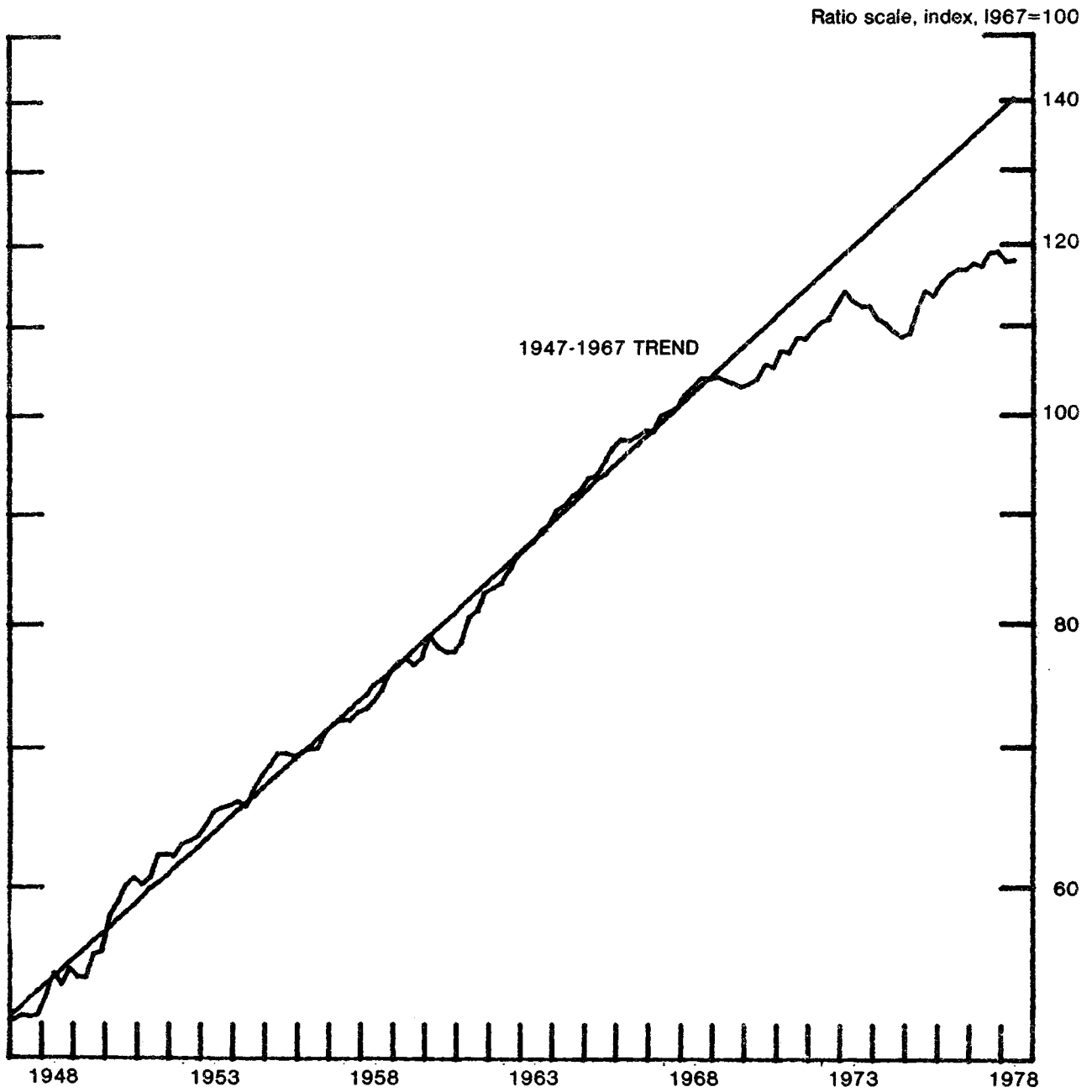
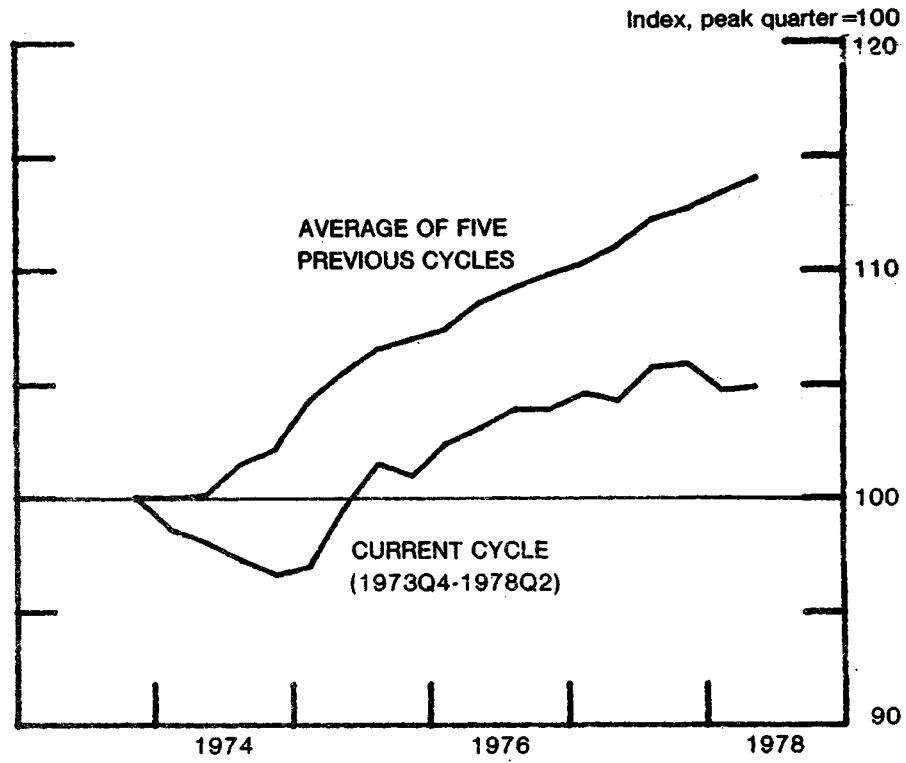


Chart 2

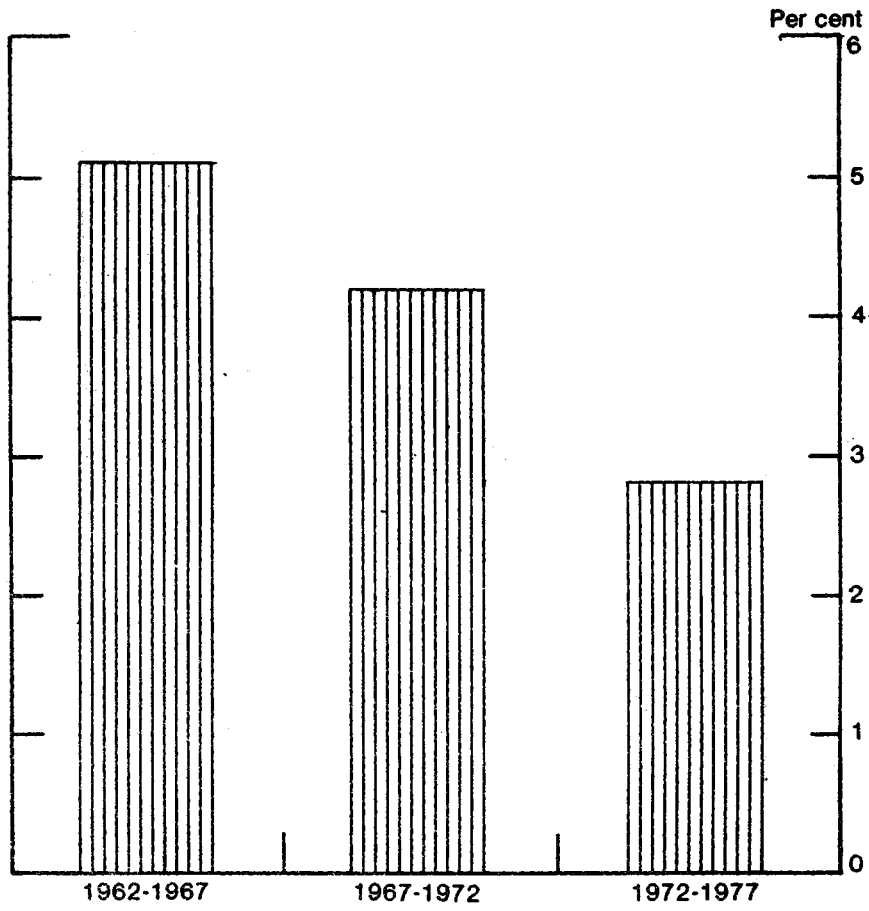
Cyclical Comparisons of Output Per Hour, Private Business Sector *



* Changes following the cyclical peaks as specified by NBER.

Chart 3

Average Annual Growth of the Capital Stock*



* Private nonresidential net capital stock measured in constant dollars.

Chart 4

Ratio of Capital Stock to Labor Force

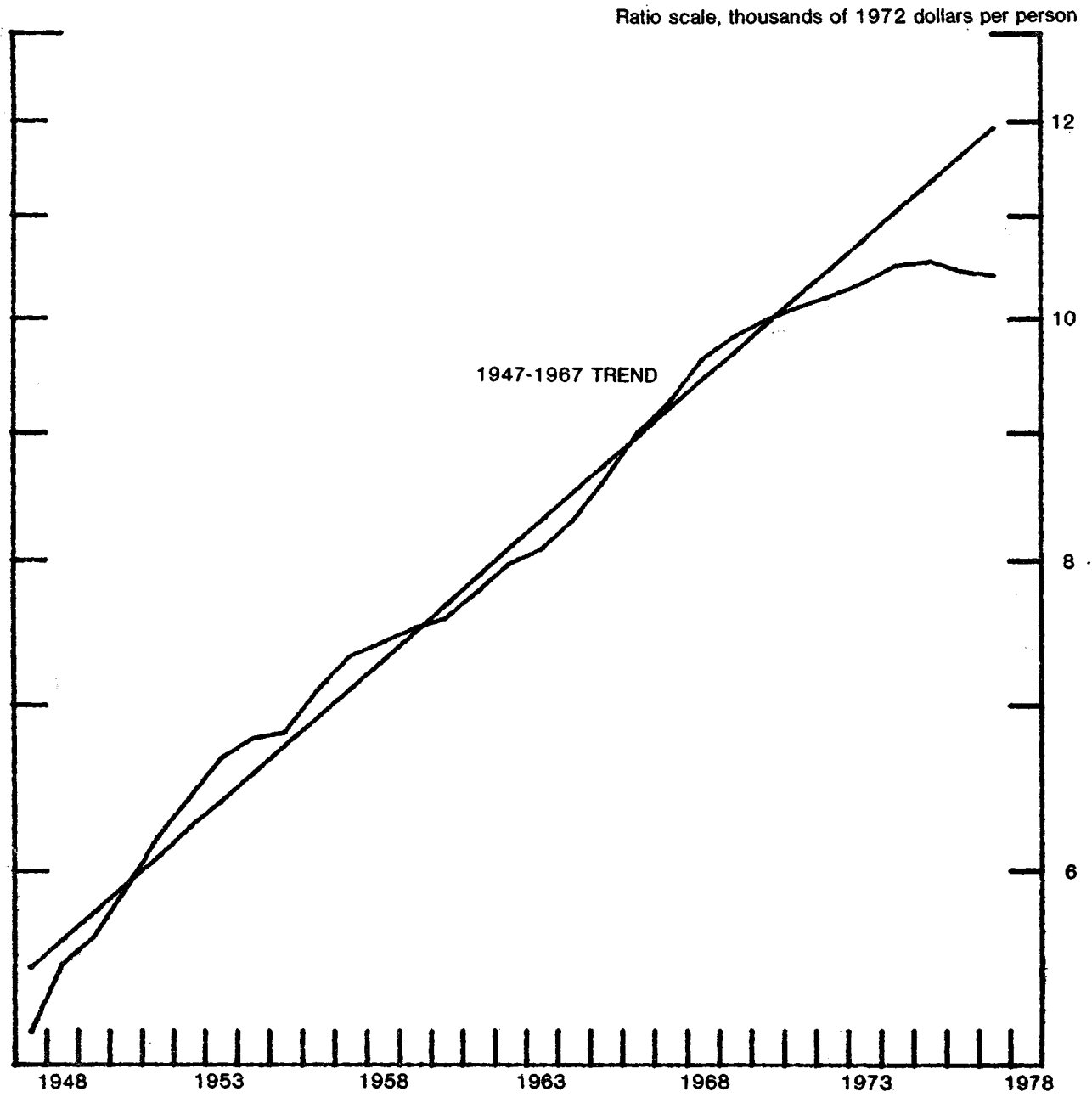
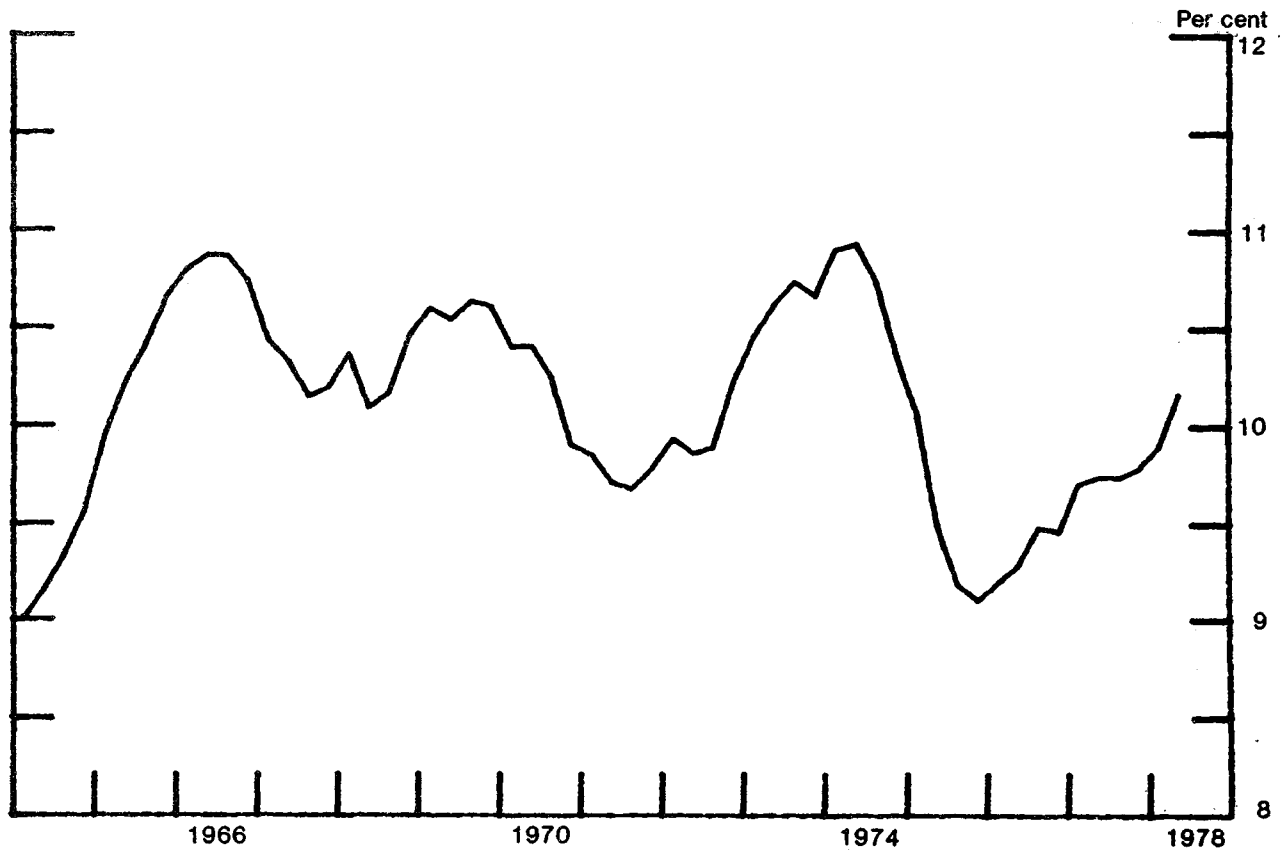


Chart 5

Ratio of Business Fixed Investment to GNP*



*Based on constant dollar data.