U.S. ECONOMIC POLICY AND PRODUCTIVITY GROWTH

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Introduction

Throughout most of American history, main reliance for increasing productivity has been placed on the workings of competitive markets in our predominantly free, private enterprise economy. The logic is well known. Offensively to widen profit margins, or to defend them from encroachment by competitors, company managements reduce costs by increasing efficiency under given technology or by technological or organizational innovations, and/or introduction of new products, including more efficient producers goods. Real unit cost reduction is, of course, the opposite side of the productivity coin. Temporarily abnormal profits are considered a socially desirable incentive and reward for successful innovations. But pro-competition policies, outside of regulated natural monopolies, are considered necessary to ensure that abnormal profits are competed away to the benefit of consumers. The only way that firms can continue to earn above-average rates of return under competition is by continuing to stay ahead of the pack technologically. Since this is not easy to do, technological leadership has tended to rotate among the firms of industries, and among the various industries.

With respect to the relative industry rates of growth of productivity, real product, and employment, again main reliance has been placed on the allocative functions of markets for goods and for the factors of production. Certainly in the past, governmental measures, consciously or not, have affected different industries differently, or have been targeted on particular industries. But there has not been a systematic, centrally planned industrial policy, apart from a few episodes of wage and price controls and wartime allocations. Investments to replace and expand capacity and to reduce costs, by the

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firms in the various industries generally have been determined by economic criteria; that is, carried to the point where the expected rates of return equal the marginal cost of funds. Reflecting competitive market forces and dynamic changes in supply and demand conditions, there has been a fairly wide dispersion among industries in rates of change in productivity, output, and employment, and considerable variability in those changes. Predictably there have been periodic cries for protection and assistance from the firms and/or industries whose fortunes are at least temporarily on the downgrade. Their causes have been succored by the economists and politicians who call for a comprehensive industrial policy. There are others who, in view of the productivity slowdown of the past decade, call for a strong federally funded national productivity organization to plan policies to accelerate productivity growth generally.

My own view is that a federal government productivity organization is unnecessary, and that a formal apparatus to design and execute "industrial policy" would reduce, rather that enhance, the growth of overall productivity and economic welfare. I shall now elaborate somewhat on each of these two points.

National Productivity Policy

The traditional approach to growth of productivity and real gross product worked quite well over most of the past century. As shown in Table 1, total factor productivity in the U.S. business economy, which had grown at an average annual rate of less than 0.5 percent for most of the 19th century, accelerated sharply after 1889 and again after World War I to better than 2 percent through 1966. Real product per labor hour accelerated to better than 3 percent a year during the golden era of the first two post–World War II decades. Even the earlier 2.0 percent average annual rate of increase in real income per capita meant a tripling between the 1890s and 1948. During the golden era U.S. levels of productivity and real income per capita were the highest in the world.

The Marshall Plan aid program required the establishment of productivity centers in recipient countries to help diffuse new technology as part of the reconstruction and development effort. By the late 1950s most major countries of the world outside the United States had productivity centers and were beginning to outstrip the United States in productivity gains.

When, by 1970, it became apparent that U.S. productivity growth had slowed significantly in the late 1960s, associated with accelerating inflation, it is not surprising that President Nixon established a

TABLE 1

REAL GROSS PRODUCT, FACTOR INPUTS, AND PRODUCTIVITY RATIOS
U.S. DOMESTIC BUSINESS ECONOMY, SELECTED PERIODS, 1800–1981
(Average Annual Percentage Rates of Change)

	1800–1855	1855–1890	1889–1919	1919–1948	1948–1973	1973–1981
Real Gross Product	4.2	4.0	3.9	3.0	3.7	2.2
Population	3.1	2.4	1.8	1.2	1.5	0.8
Real Product per Capita	1.1	1.6	2.1	1.8	2.2	1.4
Total Factor Input	3.9	3.6	2.2	0.8	1.7	2.0
Labor	3.7	2.8	1.8	0.6	0.7	1.4
Capital	4.3	4.6	3.1	1.2	3.6	3.2
Productivity Ratios: Total	0.3	0.3	1.7	2.2	2.0	0.1
Labor	0.5	1.1	2.0	2.4	3.0	0.8
Capital	−0.1	−0.6	0.7	1.6	0.1	−1.0

SOURCES: 1800–1948, Kendrick (1979); 1948–1981, Bureau of Labor Statistics, U.S. Department of Labor.

National Commission on Productivity (NCOP) in July 1970 to develop policies to promote productivity growth and related activities. The motivation was strengthened by the accumulation of statistics indicating that most other advanced economies, and many of the less-developed ones, were surpassing the productivity growth of the United States by considerable margins and providing sharper competition in international markets for an increasing number of commodities.

Consideration was not given to the fact that over longer periods of time, periods of strong growth in productivity and real GNP had been succeeded by periods of slower growth. Simon Kuznets (1961, esp. chaps. 7–8) called these alternating periods "long swings" in economic activity, noting that their average duration was 15 to 20 years. Actually growth resumed quite well in the 1970–73 subperiod, only to be succeeded by the pronounced slowdown from 1973 to 1981.

It was not recognized that the relatively low standing of the United States in international comparisons of productivity growth rates was not an indictment of U.S. performance, but rather a tribute to the rapidity with which other nations were catching up technologically, due in part to our own foreign economic policies. To some degree superior productivity growth abroad was due to higher rates of saving and investment, reflecting more favorable tax treatment. But the cure for this discrepancy was not a productivity commission, but rather a more enlightened tax policy from Washington (see Kendrick 1982).

Eight years later after the creation of the NCOP, its successor organization established by Congress in 1975, the National Center for Productivity and Quality of Working Life, was allowed to expire. By then there was wide agreement with the conclusions of a Government Accounting Office report to Congress (23 May 1978) that the center had not achieved its objectives. For one thing the rate of productivity growth decelerated even more sharply after 1973 than in the late 1960s. Part of the deceleration was due to factors beyond the scope of policy levers—acceleration in labor force, growth, changes in its mix that resulted in reduced average experience of workers, and less favorable shifts in the composition of output. But much of it was a result of failed or faulty macroeconomic policies, responsibility for which resided in other government agencies. Causal factors of this sort that have been identified by students of the slowdown (for example, Kendrick 1979) were: the acceleration of inflation, exacerbated by the oil shocks, that eroded real profit margins, increased the income tax burden, and discouraged saving; unfavorable tax measures that reduced the rate of growth of real capital; a declining ratio of research and development (R&D) to GNP; declining quality of education; and increased regulatory burdens, part of which

represented a conscious trade-off of productivity growth against social objectives.

Already in the latter part of the Carter administration, and after the election of Reagan, a consensus was developing on the need to create a more favorable climate for saving, investment, and productivity growth.[1] Working through the normal economic policy-making apparatus, measures were taken beginning in 1978—notably the reduction of capital gains tax rates; real increases in federal government funding of R&D; reductions in economic regulations and increased rationalization of social regulations; the ERTA reductions in income tax rates, the accelerated cost recovery system, and the 25 percent incremental R&D tax credit. All of these, I believe, together with positive demographic developments, should result in a stronger productivity trend for the rest of this decade (which, incidentally, would accord with Kuznets' long-swing chronology).

The more specific functions of the national productivity center could be and were transferred to the agencies with primary responsibility in those areas; that is, promoting productivity improvements in government went to the Office of Personnel Management; facilitating labor-management cooperation to promote productivity to the Department of Labor and the Federal Mediation and Conciliation Services; and promoting scientific and technological advances to the National Science Foundation and the Department of Commerce. The role of management education and consulting was much less necessary in the United States than it was abroad, in view of the many schools of engineering and business administration here, and the plethora of consulting firms and state and local private, nonprofit productivity centers.

In his report, the comptroller general noted the need for a mechanism to coordinate and integrate all federal policies and programs related to productivity. To serve this function he recommended the creation of a National Productivity Council composed of representatives of agencies having productivity-related missions, and linked to the budgetary process. This approach was tried in the final months of the Carter administration but abandoned by the Reagan administration.

Another possible approach would be to give responsibility for coordinating long-run economic projections and planning of policies

[1]The 1979 reports of the Joint Economic Committee were unanimous, and the committee called for "... the adoption of longer-run policies aimed at expanding the nation's productive potential in a manner that raises dramatically the growth of American productivity" (U.S. Congress 1979, p. 6).

to promote growth of productivity and real GNP to one of the members of the Council of Economic Advisers, with adequate staff support.[2]

In concluding the macroeconomic section of this paper, I must state my own view that the most important measure for promotion of productivity will be a simplification and reform of the federal tax system to eliminate the bias of income taxes against saving and investment. Either saving could be exempt from the income tax or a tax could be placed directly on consumption expenditures or on value-added. On the expenditure side of fiscal policy, I should like to remind some of my conservative colleagues of the need for adequate public investments in infrastructure, basic research, R&D in areas related to government expenditures, education, training, and public health and safety. Possibly it would help in applying business criteria to screening public investments and in securing their funding (particularly when Congress is in a penny-pinching, pound-foolish phase) to establish a separate federal capital budget.

Industrial Policy

With regard to industrial policy, its inherent difficulties can be seen by looking at the record of growth of output and productivity by industry since 1948 (Kendrick 1983). Particular attention is focused on relative productivity growth which is negatively correlated with relative changes in prices and is thus crucial to an industry's competitive position in world trade, as well as in the domestic struggle for the consumer's dollar. In the nonfarm commodity-producing industries there is a significant negative correlation between relative changes in prices and in output (sales plus inventory change), and thus a positive correlation between relative changes in productivity and in output (Kendrick 1983, pp. 25–34).

Looking at over 30 one-digit and two-digit industry groups based on the Standard Industrial Classification (see Table 2), rates of growth in real gross product between 1948 and 1979 varied between just over and under 7 percent a year for communications and electrical machinery down to small declines for railroads and leather and leather products. For the seven subperiods, measured between business-cycle peaks, dispersion was greater, with growth rates ranging from over 15 percent to less than minus 3 percent. When industries are further decomposed into three-digit and four-digit groups, dispersion of growth rates becomes even greater.

[2]This proposal was elaborated by Kendrick (1984) in his presidential address to the Southern Economic Association.

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Dispersion in rates of change of total factor productivity during the 1948–79 period is a bit less than in output, ranging between 4.6 percent a year for communications and 0.3 percent for primary metals and 0.2 percent for services (see Table 3). During the 1973–79 subperiod, dispersion as measured by the average deviation was more than 50 percent higher than for the 1948–79 period as a whole, and extensions of the estimates through 1981 (the latest cycle peak) show the average deviation of growth rates from the minus 0.4 rate for the business economy as a whole 1979–81 to be more than double that for the 1948–79 period. If productivity is measured in terms of real product per labor hour, the rates of change are generally higher than for total productivity since capital per unit of labor input rose in all industry groups but one. Dispersion of rates of change in labor productivity was somewhat higher than in total factor productivity.[3]

The greater dispersion of growth rates in subperiods than over longer periods implies considerable variability in rates of growth. This is underlined with reference to the rankings of the 31 industry groups with respect to total factor productivity growth over the 1948–79 period, and in each of the seven subperiods (see Kendrick 1983, pp. 22–23). Communications ranked first for the 1948–79 period, but was first in only one of the subperiods and as low as 13th in another. The industry group with the greatest variability in productivity growth rates, petroleum refining, was first in the subperiod 1957–60, but 31st in 1966–69, and averaged 17th over the entire period. Even the more stable groups, such as stone, clay, and glass products, show considerable variability.

This brief historical review has a number of implications regarding the desirability of industrial policies. First, it is clear that industries differ widely in rates of growth of output and productivity, and, associated with that, in rates of growth of employment and real capital. Moreover the growth rates differ widely across subperiods. This dispersion and variability would obviously make it difficult to forecast such key policy variables as investment, hiring, training, procurement, and other variables requiring considerable lead time.

By definition, and as exhibited in the tables, there are always industries whose productivity rates are less than average. It is the weaker firms in those industries that are most apt to experience difficulties in competing both at home and abroad. Their plight, of course, is accentuated when productivity in the entire business economy slows down absolutely and relative to that in other nations.

[3]Rates of change in labor productivity for three-digit and four-digit industries are presented in Kendrick (1983, pp. 60–65).

TABLE 2

RATES OF CHANGE IN OUTPUT (REAL GROSS PRODUCT), U.S. BUSINESS ECONOMY, BY INDUSTRY GROUP, 1948–1979
(Percent)

	1948–1979	1948–1953	1953–1957	1957–1960	1960–1966	1966–1969	1969–1973	1973–1979	Average Deviation
Private Business Economy	3.5	4.1	2.4	2.1	4.9	3.4	3.8	2.5	0.8
Manufacturing	3.6	5.8	1.0	0.8	6.3	2.8	4.1	2.1	1.9
Food	2.7	3.4	2.3	1.3	3.9	1.4	5.5	0.6	1.4
Tobacco	2.1	1.8	2.5	5.3	0.9	2.1	3.7	0.6	1.2
Textiles	3.2	−0.6	1.1	1.3	9.6	1.5	5.3	2.0	2.7
Apparel	3.0	3.4	0.4	2.6	4.9	0.8	5.3	2.4	1.5
Lumber	2.7	−2.2	1.4	0.9	8.1	1.8	6.0	1.8	2.6
Furniture	3.2	3.2	1.7	0.9	5.9	2.8	2.7	3.0	1.1
Paper	4.1	6.2	1.9	3.8	5.2	5.8	5.6	1.2	1.7
Printing	3.0	2.8	4.2	2.4	5.2	3.1	1.9	1.0	1.1
Chemicals	6.1	6.2	7.4	4.5	8.0	6.6	6.5	3.7	1.2
Petroleum	3.6	4.9	2.5	5.8	4.1	−0.6	8.3	0.7	2.4
Rubber	5.1	5.9	−0.6	6.6	9.1	7.8	6.0	1.8	2.7
Leather	−0.2	−2.5	−1.2	1.4	4.0	−3.2	0.3	−1.1	1.9
Stone, Clay, Glass	2.8	4.0	1.8	2.6	4.1	2.4	3.8	0.6	1.0
Primary Metals	1.1	5.3	−1.1	−6.3	6.1	−1.6	2.9	−1.7	3.7
Fabricated Metals	3.5	7.0	0.4	0.5	6.6	4.5	1.8	1.7	2.5
Nonelectrical Machinery	3.7	5.6	−1.1	−0.6	8.1	1.7	4.4	3.8	2.6

Electrical Machinery	6.8	11.1	2.1	5.8	11.2	5.9	3.6	5.0	2.9
Transportation Equipment	4.8	15.4	−0.2	−2.1	8.8	2.6	2.8	1.9	4.8
Instruments	6.0	11.8	1.8	4.8	7.6	6.7	3.1	4.9	2.5
Miscellaneous Manufacturing	3.1	2.6	1.3	2.6	4.3	4.3	4.4	2.1	1.1
Nonfarm Nonmanufacturing	3.6	3.5	3.2	3.2	4.4	3.7	3.8	3.0	0.4
Mining	2.0	1.6	3.2	−0.9	3.5	3.3	1.3	1.5	1.2
Construction	2.6	5.6	4.1	4.0	2.9	0.7	1.9	−0.5	1.7
Rail Transportation	−0.2	−1.1	−0.9	−2.8	4.5	−1.5	−2.8	0.4	1.9
Nonrail Transportation	2.8	−0.8	2.4	0.9	5.0	4.4	4.6	3.0	1.7
Communications	7.3	7.2	6.2	5.6	7.3	8.8	7.6	7.8	0.7
Public Utilities	5.9	9.7	7.2	6.8	5.5	7.0	4.5	2.4	1.8
Trade	3.8	3.8	3.6	2.8	4.9	3.6	5.0	2.7	0.7
Finance, Insurance	4.1	4.9	5.4	2.9	3.4	6.3	3.3	3.4	1.1
Real Estate	3.1	2.9	2.5	3.7	3.9	2.2	3.0	3.1	0.5
Services	3.6	3.1	1.7	4.4	4.6	4.3	3.0	3.9	0.8
Farming	1.1	1.2	0.3	1.4	−0.4	1.7	2.0	2.0	0.7
Average Deviation	1.3	3.0	1.7	2.3	2.8	2.7	2.3	2.0	

SOURCE: Kendrick (1983, pp. 10–11).

TABLE 3

AVERAGE ANNUAL RATES OF CHANGE IN TOTAL FACTOR PRODUCTIVITY, U.S. PRIVATE BUSINESS ECONOMY, BY MAJOR INDUSTRY GROUP, 1948–1981
(Percent)

Industrial Sector	1948–79	1948–66	1966–73	1973–79	1979–81
Private Business Economy	2.0	2.6	1.7	0.4	−0.4
Manufacturing	2.2	2.5	2.4	0.8	−0.4
Food and Kindred Products	2.7	3.0	4.1	−0.0	4.5
Tobacco	1.9	2.1	2.5	0.3	−7.0
Textiles	3.6	3.9	2.8	3.7	−0.9
Apparel	2.6	2.1	2.8	3.9	1.2
Lumber	2.8	4.0	2.0	0.1	−2.9
Furniture	2.0	2.0	1.0	3.3	1.4
Paper	2.3	2.2	4.4	0.0	−2.8
Printing and Publishing	1.4	2.4	0.9	−1.1	1.5
Chemicals	3.4	3.7	4.7	1.2	−1.2
Petroleum	1.9	3.2	2.3	−2.4	−8.0
Rubber	1.7	2.2	2.2	−0.5	−0.2
Leather	1.3	1.0	2.1	1.2	−0.7
Stone, Clay, and Glass	1.4	1.8	1.3	0.1	0.6
Primary Metals	0.3	1.0	0.6	−2.0	−2.7
Fabricated Metals	1.4	1.6	1.3	0.7	−0.4
Nonelectrical Machinery	1.3	1.4	1.6	0.8	1.3

Electrical Machinery	3.7	4.1	3.2	3.3	1.0
Transportation Equipment	2.5	3.2	2.7	0.3	−4.9
Instruments	2.7	3.5	2.3	0.9	0.5
Miscellaneous Manufacturing	2.5	2.2	4.0	1.9	2.7
Nonfarm Nonmanufacturing	1.3	1.9	1.0	0.1	−0.5
Mining	0.9	2.4	1.4	−4.0	−1.4
Construction	0.5	2.2	−0.8	−3.0	−2.5
Rail Transportation	2.9	4.4	0.3	1.3	1.8
Nonrail Transportation	1.1	0.8	2.4	0.9	−1.2
Communications	4.6	5.3	3.2	4.3	4.0
Public Utilities	3.2	5.4	1.2	−0.9	−2.2
Trade	2.1	2.5	2.4	0.6	−0.7
Finance, Insurance	0.5	1.1	0.3	−0.9	−1.3
Real Estate	1.3	1.8	−0.0	1.2	−1.0
Services	0.2	0.4	−0.3	0.1	1.0
Farming	3.5	3.9	3.5	2.2	3.7
Unweighted Average	2.1	2.6	2.0	0.6	−0.5
Average Deviation	0.9	1.0	1.2	1.4	2.1

SOURCE: Kendrick (1983, p. 24).

Thus, during the 1973–79 subperiod, 9 of the 31 industry groups showed absolute declines in total factor productivity, and when overall productivity dropped by 0.4 percent a year during the 1979–81 subperiod, 18 of the groups showed decline. For example transportation equipment (which includes automobiles) had an average 4.9 percent a year decline, and primary metals (mainly iron and steel) had a 2.7 percent a year decline from 1979 to 1981—industries that have been most vociferous in seeking protection and assistance.

Another bad year for U.S. business interests was 1982. Real business product declined by almost 3 percent, and productivity sagged a little further. The crunch on industries competing in international markets was accentuated by the appreciation in the foreign-exchange value of the dollar through 1983 and the slower recovery abroad. The latter was associated with a smaller increase in U.S. exports relative to imports.

Despite international problems, 1983 was a year of reasonably robust economic recovery, with real business product up 4 percent and real product per hour improving by more than 2.5 percent.[4] With recovery continuing strong in early 1984, formerly depressed industries were hurting far less. Profits of the auto industry are very good, and even the steel industry is making a comeback.

If I am right that the rest of the 1980s will experience stronger growth than the decade ending in 1982, I would guess that there will be less talk of industrial policy, let alone bailouts.

Conclusion

It is fundamentally important for the general public to understand that there are and always will be industries that are falling below average in productivity growth and are therefore losing comparative advantage in foreign trade. It would be a never-ending task and a bottomless pit financially for the government continually to seek to strengthen those industries.

Even if it could be decided which industries should be assisted, the policies required to promote their relative productivity growth are not easy to determine. Analyses indicate the causal forces are complex (Kendrick 1983, pp. 34–50). Some of the variables positively correlated with productivity growth are scale; growth of real capital stocks per unit of labor input; ratios of R&D to sales, not only within the given industry but also in supplying industries; average education and training per worker; percentage of women in the work force;

[4]See *Economic Report of the President, 1984*, chap. 6.

and layoff rates. Negatively correlated with relative productivity growth are cyclical amplitude of production; proportion of the work force belonging to unions; man-days idle on account of strikes; the quit rate; the rate of increase in the female proportion of the work force; and the rate of increase of concentration. Selection of the proper policy mix is made even more difficult by the differential and variable lags between the initiation of policies and their impact on productivity.

The basic point is that we are not omniscient or smart enough to pursue a systematic, centralized industrial policy that would be effective in the sense of giving better results than the market in our complex and dynamic type of economy. The important role of government is to provide a reasonably stable, favorable environment for private enterprise.

I also believe that government has a role in facilitating the transfer of resources, particularly labor, among industries and uses. The community should be willing to pay for retraining and, where necessary, the relocation of workers who are displaced, through no fault of their own, by forces that increase real income of the population generally.

What about the argument that we should replace the present patchwork of policies that have differential industry impacts by a systematic approach involving a central agency to shape federal industrial policy, multipartite industry councils, and a development bank? Certainly most industries are affected to a greater or lesser extent by many current policies in the areas of tariffs and quotas, regulation, taxation, and government outlays, including subsidies. Should these not be rationalized?

The short answer is no, not by the apparatus mentioned above for developing and executing industrial policy. It would become the fulcrum for intensive lobbying and political pressures to influence the fortunes of the various industries. Further distortions than now exist in pricing and the allocation of resources would inevitably arise. An additional virtue of the market economy would be compromised—the decentralization of decisions on innovation and the associated investments to managers of individual enterprises who know their industries better than any outside bureaucracy and who bear the penalties for faulty judgements.

In conclusion, I must express my agreement with the president's Council of Economic Advisers, who in their 1984 report stated:

> Our market economy and its system of rewards for superior performance have made the American economy the most productive and innovative in the world. An industrial policy that increases government planning, government subsidies and international

> protectionism would only be a burden on our economic life and a threat to our long-term economic prosperity.
>
> [*Economic Report* 1984, p. 111][5]

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[5]It is said that Chapter 3 of the Council's 1984 Annual Report, from which this passage was taken, was written by William Niskanen.

RESTORING U.S. COMPETITIVENESS

Alvin Rabushka

Professor John Kendrick (1984) has demonstrated convincingly that reliance on private enterprise as the main vehicle to raise productivity has worked well throughout American economic history. Markets successfully allocate factors of production to industries. As one might expect, there has been historically wide dispersion among industries and variability across subperiods.

Productivity growth turned sour in the late 1960s compared with our European and Asian trading partners, due largely to increasingly unfavorable tax treatment accorded savings and investment in the United States. The American slowdown is traceable to faulty macroeconomic policies: inflation, increased income tax burdens, taxes on capital, the declining quality of education, and increased governmental regulation. Thus for Kendrick, government has been the cause of declining productivity, not the potential cure.

Beginning with the 1978 reduction in the capital gains tax rate, and continuing with the 1981 Economic Recovery Tax Act's across-the-board marginal tax rate reductions, the federal government has begun to recognize the deleterious consequences for productivity growth of punitively high rates of taxation. Building on that experience, Professor Kendrick suggests that future tax reform exempt savings, that we in fact adopt a consumption tax to stimulate greater savings and investment, a suggestion with which I entirely agree. Before building on his analysis of the need for substantial reform of our macroeconomic policies, I would like to raise two minor points of disagreement.

First, I oppose a publicly provided program to retrain and relocate workers. No matter how sound the idea, the Congress and bureaucracy, supported by numerous political and economic interests, would politicize the implementation of any such program. In short order a

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job retraining and relocation program would resemble the countercyclical public jobs programs, which most economists claim do more economic harm than good. Second, the suggestion to separate the federal capital and current account budgets is another good idea in principle, but which also founders on the shoals of political implementation. The legal structure of government financial accounts is unlikely to alter the incentives that members of the executive and legislature branches have to increase spending.

On all other counts I fully endorse Professor Kendrick's interpretation of U.S. productivity growth and decline. The solution to declining productivity lies not in centralizing the current hodgepodge of ad hoc regulatory and tax policies, which would be tantamount to pouring gasoline on a raging fire, but rather in restoring the maximum degree of national reliance on market forces, which has proven the best tonic for fostering sustained growth, steadily rising living standards, and economic freedom and opportunity in the process of sustaining individual liberty.

Professor Kendrick's focus on faulty macroeconomic policies as the cause of declining productivity is an invitation to propose a substitute set. For me the objective of macroeconomic policy is to maximize economic growth with a minimum of governmental intrusion into the private affairs of the people. Welfare economics tells us that competitive markets yield an optimal allocation of resources; they are, in short, allocatively efficient. Perfect competition yields a set of prices for inputs and outputs which places maximum valuation on every economic good. In such a market the value of any item to each consumer—how much he is prepared to pay—is exactly equal to the marginal cost to any producer—how much he must spend to produce it.

Free entry (and exit) and unregulated prices satisfy the requisites for competition. No one buyer or seller can be dominant enough in the market to set prices. Nor can there be any legal or arbitrary barriers to access. Resources must be free to move to their most highly valued use. In a competitive or free-market economy the government does not interfere with the prices established by market forces; nor does it protect existing firms from the pressure of competitors. Government imposes no legal restrictions limiting market entry of buyers or sellers.

The rationale for government can arise, then, in purely economic terms when the conditions of competitive markets are not satisfied. Examples include the presence of monopolies, externalities which inflict costs that are not compensated, and the need to provide such public goods as law and order, national defense, and public works,

because private suppliers have no practical way to charge for the benefits of their services. Most governments also provide a monetary framework and negotiate international agreements. Government has a legal monopoly on coercion, and with it the power to tax, spend, and regulate. In pursuit of maximum productivity growth, the direct cause of rising living standards, it is essential to define the legitimate scope of government action consonant with competitive markets. Thus we return to the subject of appropriate macroeconomic policies of taxation, spending, regulation, monetary policy, and international trade.

Taxation

The requirements for a sound system of taxation are that it satisfy the criteria of neutrality (not distort one form of activity in favor of another), efficiency (not produce dead-weight losses in the economy as a result of avoidance and evasion), predictability (to minimize costly adjustments to chronic changes), comprehensibility (it should not require a doctorate in accounting and tax law to complete tax forms), and fairness (meaning that taxpayers in similar circumstances should pay similar rates of tax). To this end, economists of all persuasions concur that a uniform tax rate imposed on consumption would best satisfy these conditions. By encouraging saving and investment, it would stimulate maximum rates of economic growth.

In collaboration with Professor Robert E. Hall (1983), I have developed a uniform flat-rate tax on consumption (hereafter the Hall-Rabushka flat tax). Our proposed replacement for both the current personal and corporate income taxes would raise more revenue than the current systems by broadening the tax base and lowering the top marginal rate to 19 percent. It would eliminate double taxation by integrating the corporate and personal income taxes. By placing interest on an after-tax basis, interest income would not be taxed and interest expenses would not be deductible. We replace the current hodgepodge of depreciation schedules with 100 percent expenses of all annual capital outlays (which restricts taxation to consumption), and also abolish the capital gains tax on financial assets. Moreover we have managed to condense the annual filing requirements to no more than two postcard-sized forms depending on whether one is exclusively salaried or also owns a business enterprise. Adoption of the Hall-Rabushka plan would dramatically enhance the incentives to work, save, and invest—thereby sharply increasing annual productivity growth. In the process it would eliminate billions of dollars

in costs of direct compliance (lawyers, accountants, record keeping) and avoidance/evasion behavior (due to high marginal tax rates).

Budgetary Reform

Concern over multi-hundred billion dollar federal budget deficits has risen commensurate with a growing trend of federal fiscal irresponsibility. Collective concern by the Congress and the president for stable prices and full employment is no match for the spending incentives faced by individual members of Congress, who respond to tugs of turf and constituency in the biannual struggle for reelection. The mismatch between individual and institutional incentives calls for some structural reform to restore the Victorian norms that dictated annual balanced budgets, a limited scope for government spending, and low levels of taxation—norms that held sway in America until the combined advent of the New Deal and World War II. Deficit spending has replaced balanced budgets, and runaway government spending has destroyed limited government.

Statutory reform is inherently unsuited to accomplish the objectives of restraining public spending and restoring the norm of fiscal balance. The reason is that the adoption of a budget deficit overturns any statutory limitation on budget procedures. Therefore only a constitutional amendment can limit spending and taxation and can mandate a balanced federal budget.

Since 1975 supporters of constitutional limits on spending and deficits have persuaded 32 state legislatures to petition Congress to invoke Article V of the Constitution and call a constitutional convention to write a balanced budget amendment. In August 1982 the United States Senate approved by 69 to 31 a balanced budget/tax limitation amendment that failed to win approval in the House of Representatives. Adoption of this amendment would restore fiscal sanity, thus mirroring the first 175 years of American history during which the unwritten norms of budgetary balance and limited government prevailed. The amendment would restrain the growth rate of public spending and taxation, thus shifting resources from the inefficient public to the more efficient private sector. Pressure on the credit markets would ease as public competition with private users of credit declined. Combined with a low flat tax, the adoption of a balanced budget/tax limitation constitutional amendment would be the best corrective for today's faulty macroeconomic policies.

Other Measures

Printing of money and a monopoly on legal tender are the prerogatives of virtually every government. Private competing monies have

been infrequent in world history. But the absence of private money is not the cause of unstable prices or inflation. Rather, governments the world over, especially the U.S. government since 1971, have shown themselves increasingly unable to maintain a regime of price stability. The proximate cause of contemporary price instability is the abolition of the Bretton Woods ("gold standard") system of international monetary policy that prevailed from the end of the Second World War until President Richard Nixon closed the "gold window" to foreign holders of dollars in 1971. By removing the last external check on domestic credit creation, the Federal Reserve Board has been able to accommodate ever-increasing credit demands by the federal government, resulting in inflationary effects and dramatic swings in the price level (and relative prices).

Without engaging in the extensive debate among monetarists, let me express a straightforward preference for a price rule (fixing the dollar price of gold at which the central bank stands ready to buy and sell gold) instead of a growth rule (stipulating a steady annual increase in some monetary indicator such as M1). My reasons are simple. A bank clerk with scale in hand can implement the price rule. Armies of discretionary central bank authorities have thus far failed to demonstrate either their commitment to a money growth rule or their ability to adhere to one suitably defined. A gold standard price rule at least guarantees the quality of money, a task government seems better able to perform than maintaining some predetermined growth rate in the quantity of money.

Last, but not least, is government regulation of both domestic and international economic activity. Unless regulatory benefits exceed costs, or some absolute, overriding social objective prevails, the consequences of regulation are declining productivity and slower rises in living standards. In the same vein the requisites of free entry and unregulated prices that characterize the competitive market economy dictate an international regime of free trade.

Conclusion

The solution to restoring higher levels of annual growth in productivity is straightforward: the restoration of the economic, fiscal, monetary, and regulatory regimes that prevailed throughout the bulk of American history.[1] These policies, in Professor Kendrick's words,

[1]For a detailed treatment of these issues, see Rabushka, *From Adam Smith to the Wealth of Nations* (1984). That book explores the economic policies of 19th-century Britain and those of the successful postwar Asian nations of Hong Kong, Taiwan, Singapore, and Korea, and it applies their lessons to contemporary America.

would reinstate our nation's historical reliance on private enterprise to raise productivity and living standards, policies that have proved successful in our past and, when adopted, in other nations as well.

References

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