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Review of Productivity and American Leadership:  
The Long View

By William J. Baumol, Sue Anne Batey Blackman and Edward N. Wolff  
By Allan H. Meltzer

Is America in decline? An outpouring of books, articles, speeches and public commentary gives a clear, affirmative answer. A recent Harris poll confirms the result. Internal problems such as drugs, crime, educational failures, a low saving rate, and lack of "competitiveness" combine with persistent deficits in international trade and payments to support the views of those who believe we are in decline.

Critics claim that high paying jobs have been lost to foreign countries, particularly manufacturing jobs. Although the unemployment rate declined markedly in the 1980s to reach and sustain a level not experienced since the early 1970s, the new jobs are said to be in poorly paid service industries. America is often described as becoming a nation of fast food cooks and hamburger turners.

Hyperbole of this kind may be no more than political rhetoric. Like the alleged 1960 missile gap that disappeared the day after the inauguration, this too may pass quickly. But that seems unlikely. Productivity growth has slowed, if we believe the measures. Manufacturing employment has declined. Although overall U.S. productivity remains the highest in the world, the gap between the U.S., Japan, Canada and several European countries has narrowed. And, in several industries, U.S. firms are no longer the productivity leaders.

The critics see a relation between productivity growth and world leadership. One of the authors of Productivity and American Leadership, William Baumol, was among those who called attention to the effects of the past 1970 productivity slowdown on America's role in the world. Baumol, Blackman and Wolff now examine the evidence for a longer period and reach a different conclusion. Productivity growth has declined in the U.S., but not only in the U.S. Much of the decline in our relative position results from the convergence of productivity levels in developed countries. As foreign productivity levels approach the U.S. level, their productivity growth
slows. Incomes converge toward a common standard.

Convergence helps to explain why productivity growth has slowed outside the United States; gains become harder when the gap between the leader and the follower narrows. The authors have much less to say about why U.S. productivity growth has fallen below the rates achieved in the early postwar years. Their main explanation is that the early postwar productivity surge was a special event, possibly the result of improvements delayed by the years of depression and war. They write:

"Very preliminary inspection of the evidence initially convinced us that the United States had indeed experienced a sharp and sustained decline in its productivity growth...threatening grave consequences for the nation's future. Closer study of the facts has, however, forced us to acknowledge that this widely accepted judgment is simply incorrect. Not that the opposite is true. There clearly has been a short-term slowdown; but the evidence suggests that it is merely the end of an extraordinary period of postwar growth—a return toward normal growth rates—that was experienced in all industrial countries." (p. 65) Some emphasis added.

The authors do not believe that productivity growth is either unimportant or immutable. While part of their book develops and tests for the convergence of productivity, and they accept that convergence has occurred, they interpret the evidence cautiously. History shows that other productivity leaders in past centuries—Northern Italy, Netherlands, England—were successfully challenged. Further, there is no assurance that the U.S. will not continue for a time to grow more slowly than some other industrial countries even if convergence is assumed.

Baumol, Blackman and Wolff examine the relative position of the United States in 2020 on the assumption that all countries continue to converge gradually toward the U.S. growth rate. One calculation shows that by 2020, U.S. gross domestic product per hour worked is 9th of 16 industrial countries, considerably lower than Germany, France, Japan or Italy and about equal to Finland. The authors note that, for many of the countries, productivity growth has declined in recent years more than the projections assume. In fact, U.S. productivity growth in 1973-84 exceeded productivity growth in France and Germany. An alternative calculation places U.S. per capita output 6th in 2020, but the level is only 61% of Japan's per capita output.
The projections testify to the power of small differences in annual productivity growth if maintained long enough. The authors develop this as a main theme of their book. Annual differences in productivity growth may seem small, but they are decisive for long run changes in standards of living. Chapters 2 and 3 document the differences in standards of living within and across countries during the past century. An amusing but informative example is provided by samples of consumer goods taken from the 1908 and 1985 Sears Roebuck catalogues. These chapters, and their recommendations in Chapter 12, are the most accessible for the non-economist.

Angus Maddison has provided some of the best estimates of output and growth in developed and developing countries that are available. His most recent study permits calculation of the U.S. share of output in sixteen industrial countries that are members of the Organization for Economic Cooperation and Development on five selected dates in this century. These data show the U.S. share of developed country output as 42.6% in 1987, unchanged from 1973. This share is above the 41.8% in 1913 or the 36.9% in 1900, but it is below the 52.3% of 1950.1 Apparently, the U.S. decline is relative to the early postwar period, when U.S. output was large relative to a still devastated Europe and Japan. (German and Japanese output did not reach the prewar level until 1953).

If there is no overall decline, perhaps we are losing position in many of the key industries. Baumol, Blackman and Wolff check for a decline in the trend rate of productivity growth in eleven major sectors. Four sectors show relatively large declines in productivity growth: mining; retail trade; finance, insurance and real estate; and construction. Durable manufacturing experienced a relatively large increase in productivity growth. The authors then examine 65 subsectors. By far the most common pattern, according to their tests, is no change in productivity growth. Only 6 subsectors showed a declining trend. None was a manufacturing industry.

The overwhelming impression of the evidence is that the productivity growth continues at an unchanged average rate. Of course, other countries may exceed that rate or may converge to the U.S. rate at a higher level of

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aggregate productivity and income. As the author note, and Maddison's data suggest, the dominant position of U.S. industry in the early postwar years was extraordinary. In fact, for much of the period since 1880, U.S. productivity growth has been slower in peacetime than many other countries. The authors cite this fact and recognize its importance, but they do not analyze the reasons behind the lower trend for much of the past 100 years.

Even if the U.S. were to maintain the highest level of per capita income and productivity, it may lose leadership of particular industries. In some cases, this has happened. The authors do not explore this issue, however, by computing trend rates of productivity growth for sectors of leading foreign economies.

One part of "America in Decline" emphasizes employment growth in the service sector, the so-called loss of manufacturing jobs. Part of the loss is an implication of rising labor productivity; fewer workers produce more output in manufacturing. The authors do not point out that part may be a statistical artifact. If a manufacturing company hires its own attorneys, janitors or other service personnel, employment at manufacturing firms increases. If the same company purchases these services from independent firms, service sector employment grows relative to manufacturing employment. Incentives for firms to buy services instead of producing them internally include reduction of union power and avoiding supervision and costs of health care and other employee benefits that may be lower for small, independent firms. The authors do not investigate the degree to which the growth of employment in small service sector firms substitutes for the loss of similar service jobs in manufacturing. But they show that much of the increase in the service sector's share of aggregate output disappears when allowance is made for the rise in service sector prices relative to other prices. More to the point, they show that there is a systematic bias in the measurement of the size of the service sector in all developed countries. The bias arises from changes in the relative price of services as economies develop. For many services, productivity growth is slow. As incomes rise, wages paid in the service sector rise with the general level of wages (perhaps with a lag), but the amount of time required to provide the service changes very little. (Teaching is one example. Writing is another.) Expenditure on these services rises faster than per capita income. Adjusting for the change in the relative price of services removes the relation between the share of services and per capita
Further, the authors show that service sector employment has increased in all the industrial countries. U.S. service sector employment did not increase faster than in other countries. Among the 19 largest, developed market economies, only New Zealand shows a slower rate of increase of the service sector share during 1965-80. And the relative size of the U.S. service sector in 1980 was only marginally above the level of several other wealthy countries.

The authors argue that there is no evidence that the U.S. is losing the productivity race and becoming a non-manufacturing economy. All developed economies have experienced rising expenditure on services and a rising share of the labor force producing services. Baumol, Blackman and Wolff reconcile sustained productivity growth and a rising share of employment in the service sector. They show that the more progressive service sectors have experienced productivity growth at rates not much lower than the economy's average rate. But for some services productivity is stagnant. As overall productivity increases, a rising share of the labor force shifts toward the stagnant sectors. Total productivity of labor and capital in the economy is an average of the progressive and stagnant sectors. The average long-term rate of productivity growth may remain constant, as in the United States, even if the share of the labor force in the stagnant sector increases.

The definitions of a stagnant sector and of output create problems for this explanation. The authors give as an example the playing of a concerto. The length of time required to play the concerto remains the same, so in this sense productivity is stagnant. But, the quality of the performance may have improved, and recording equipment has expanded the audience. If output is measured as a single performance of the concerto, productivity is stagnant. Measure output by the size of the audience, and output has increased per unit of input. The incomes of maestros (or athletes) reflect rising demand for the service, and rising productivity measured by audience served, not stagnant productivity based on performance time.

Chapter 8 examines some of the principal sources of productivity growth, the decisions to save and invest. Baumol, Blackman and Wolff find against those who find the low rates of U.S. saving and investment a cause for alarm. First, for the newly developing economies, they agree with those who find high saving rates to be transitory. As they note, this has happened in Japan.
Second,

"the bulk of the widely reported differential between the rates of capital formation of the United States and its industrial competitors is illusory--an artifact of poor methods of measurement...[T]here is much less ground for concern about the savings-investment record of the United States than has often been supposed." (p. 164)

The authors reach this conclusion despite their reliance on investment net of depreciation, or net investment. Conventional measures of net investment show clear evidence of a slowdown. Despite the intuitive appeal of the net measure, recent research has shown that gross investment (including depreciation) is probably a better measure of what is happening to capital formation in the U.S.\(^2\) U.S. gross investment has not slowed noticeably. Further, as the authors recognize, prices of investment goods differ across countries. When allowance is made for these differences and other problems of measurement and comparability, the remaining differences in investment rates among developed, industrial countries are small and do not show the United States to be a significant laggard.

Baumol, Blackman and Wolff do not set out to deny that the long-run productivity problem may be real. They recognize that there is enough doubt about rates of current and future productivity growth at home and abroad to leave ample room for ambiguity about the future position of the U.S. relative to other countries. Since the authors suggest that maintaining U.S. leadership should be an important goal, they recommend some measures to increase the rate of productivity growth to 3.1% from the 2.3% average rate achieved during 1950-80.

To reach the goal, the authors recommend actions to increase the investment rate, encourage research and development, improve education of the labor force and managers, and redirect entrepreneurial activity. Their specific proposals include several changes that would be desirable changes independent of their contribution to productivity and future output. These

include indexation of the capital gains tax, long-term support for basic research, removal of anti-trust restraint on joint research ventures, reduction in opportunities for rent seeking activities such as lawsuits, greenmail and poison pills, and improved educational opportunities for minorities. A novel proposal is a system of corporate tax rebates based on a firm's rate of productivity growth in a previous period. Productivity growth would be measured by a moving average rate of growth of profits after correcting for inflation.

One glaring problem is the treatment of leadership. The title suggests that the authors will relate productivity to leadership in the broad sense of political and economic leadership of the world economy and polity. In fact, they say little about leadership, and what they do say is not very helpful. We learn that loss of leadership does not mean that a country cannot prosper (p. 24). And, we learn that former leaders--Northern Italy, the Netherlands, and the United Kingdom--lost their position of leadership after domestic investment declined, a set of facts that leads the authors to conclude that investment alone does not explain productivity growth.

I believe the authors missed an opportunity to relate American leadership to the postwar institutions that contributed to the relative peace, prosperity and growth of the postwar years. Absent the rules for freer trade under the General Agreement on Tariffs and Trade, the expansion of trade and living standards would almost certainly have been smaller. Absent the European Community and the Marshall Plan, European postwar expansion and production would almost certainly have taken a different path. Absent the North Atlantic Treaty Organization and other U.S. commitments to collective military strength, nations would have likely devoted less energy and effort to peaceful pursuits. U.S. leadership was not always wise or farsighted, but it established and maintained a political and economic system, based on competition and open markets, under which living standards rose dramatically.

America was able to foster and sustain these world public goods through its position as political and economic leader. Will the public goods survive a decline in America's relative position? This is a critical issue that one expects to find in a book on productivity and leadership.

As this review suggests, the authors have carefully summarized major parts of the long-term historical record of growth and development in the U.S. and other countries. A principal result is that their book is much more
balanced than many of the more popular and more alarmist tales of America's decline. Unfortunately, it will not be as widely read. The book does not aim at a particular audience. It contains material that should be of interest to educated laymen, policy analysts and government officials but is well known to professionals who work on productivity growth and comparative development. But it also contains analytic material that is not likely to appeal to non-professionals. It's a pity. The results of their study deserve wide attention.