Book Reviews

William J. Baumol, Sue Anne Bailey Blackman, and Edward N. Wolff, *Productivity and American Leadership: The Long View.* Cambridge, Mass.: MIT Press. Pp. xii + 395. ISBN 0-262 02-293-1.

Does the U.S. economy face the threat of being overtaken soon by some others in its ability to create wealth? Since the late 1970s this question and its variants have been posed in the U.S. Many writers and commentators from academia, business, and politics have answered in the affirmative, and have suggested several proposals to prevent the U.S. from losing its leadership in economic productivity (income created per worker-hour), a position it has held since the First World War. This book by the well-known Professor Baumol and two others, Sue Blackman and Edward Wolff, takes up the questions and concludes that much of the concern over U.S. economic performance is exaggerated or misplaced. Nevertheless, the authors offer suggestions for forestalling the clear possibility of the U.S. becoming a "distinctly second-rate, economic power" (p. 282).

The book contains 12 chapters, spanning 285 pages, complemented by technical appendixes to Chapters 4 through to 11 which cover another 76 pages. The appendixes include mathematical derivations and proofs of some propositions, definitional clarifications and additional results of statistical computations. Chapter 1 succinctly summarizes what the book is about, namely the question of economic productivity and American leadership in the world, and provides a brief guide to the remaining chapters. Chapter 2 is devoted to arguing that the performance of productivity in the short run does not matter much; it is the long run performance that should concern us. Several country comparisons on productivity performance between 1870 and 1979 are used to buttress this argument.

The authors tackle various aspects of the U.S. productivity leadership debate directly from Chapters 3 to 7. Chapter 3 discusses "A Century of Productivity Improvement" in the U.S., from a rural, agricultural nation in the mid-1800s to a nation of considerable wealth by 1979. The marked improvements in the economy are illustrated in terms of occupational distribution of the labour force, settlement patterns of the population, housing and clothing types, and literacy rates. Chapter 4 confronts the question, "Long-Run Growth in U.S. Productivity: Is There a Slowdown?" The authors present evidence suggesting a slowdown in labour productivity growth in several industries, especially between 1960 and 1980. But through the construction of trend lines and moving averages between 1950 and 1985 they argue that the "widely accepted judgment [of a U.S. productivity slowdown] is simply incorrect" (p. 65). However, in Chapter 5 devoted to explaining the thesis of "international covergence," the authors argue that the higher labour productivity growth experienced in many other countries (especially since the 1960s) but which also have lower per capital income than the U.S. is a necessary requirement for those economies to catch up. Moreover, productivity growth in these economies will decelerate as they narrow the gap in technological sophistication between them and the U.S. economy. The authors also suggest as a "sobering ... explanation" the fact that the relatively poor performance of U.S. labour productivity "is not so different from the British experience before World War I" (p. 108). Hardly an acceptable consolation.

In Chapter 6 the authors dispute the claim that the U.S. is becoming a "Service Economy" by arguing that the rising share of employment in the service sector relative to that of manufacturing is a misleading indicator. They employ a "cost disease theory" which argues that industries lagging in productivity growth tend to employ more workers while their costs and prices rise relative to the other industries. This then reflects a higher share of the output of such stagnant industries in the gross national product. Thus, they conclude that the rising share of services in both employment and output in the U.S. reflects "the double blow of steadily rising real prices *and* deterioration of product quality" (p. 126; original emphasis). Employing a similar reasoning, the authors also reject in Chapter 7 the view that the U.S. economy is progressively becoming an "Information Economy," in spite of evidence showing employment in "information-intensive activities" to have grown fastest since 1840, and the sector having been the most dominant in the U.S. economy since 1960.

Chapters 8 to 11 do not address the U.S. productivity slowdown debate directly, but discuss related conceptual or theoretical issues. The authors discuss in Chapter 8 the relation between savings, investment and productivity growth. They emphasize a causal chain from productivity growth to income growth and then to increases in savings, rather than increased savings making it possible for increased invest in new production techniques to raise labour productivity and income. In Chapter 9 the authors discuss the role of education in promoting labour productivity growth. They argue that secondary school education is the most conducive to increases in labour productivity, not post-secondary or elementary school education. However, the discussion is silent on the better performance in secondary school attendance by planned economies than industrialized market economies and the yet poorer economic performance of these countries compared with the latter. The real essence of the discussion for the authors is the lagging educational performance in the U.S. by minorities such as blacks, Latin Americans, and Asians and the possible retarding effect of this for average U.S. labour productivity growth. Again, no mention is made of the fact that the poor relative educational performance of minorities in the U.S. has not grown worse compared with the period in which U.S. economic productivity over took that of other nations.

In Chapter 10 the authors tackle the question of possible depletion of non-renewable resources and the fate of future generations. Employing the most abstract and incomplete arguments, they conclude that there is no danger of ever exhausting non-renewable resources in the future. Improvements in the efficiency of resource extraction and usage, they argue, will assure perpetual supplies of these resources, including coal and oil! In Chapter 11 the authors give the clue to their choice of labour productivity rather than the more appropriate total factor productivity index as their main yardstick for measuring national economic productivity. Labour productivity, they argue, determines "the capacity of a productive unit (a firm, an industry, or an economy) to reward its labour force" (p. 228). They ignore the fact that increased labour productivity which is the result of increased employment of machinery could cause some labour to become unemployed, and under some conditions may not increase national income.

The authors present their policy recommendations for dealing with the evident U.S. productivity slowdown in Chapter 12. The policies focus on tax incentives for profitable investment and changes in the regulatory environment towards greater market freedom to permit more efficient allocation of investment funds. Their policy position really does not depend on arguments they had advanced earlier in the book. Although they do not defend convincingly the double reward of tax relief to firms that make the most profits (and by implication a double penalty for firms that do poorly), this is the chapter with which most readers may have the least disagreement.

As I have hinted above, I do not think many of the arguments advanced in the book are convincing. The authors appear to be straining to contradict those who have called for some kind of national planning to combat declining economic productivity growth in the U.S., by resorting to novel but often contradictory interpretations of evidence they report. For example, there is no need to attempt to run away from the evidence that more and more of the wealth in the U.S. economy is being created in the service or information-intensive sectors. Manufacturing is a drugdery. If people can earn more income from employing their minds more than brawn with sweat in the service sector, much the better. And few would be persuaded that the quality of services rendered in transportation, banking, real estate, finance and insurance, hospitality, communications industries, etc., has become poorer in the U.S. since the 1950s.

Had the authors introduced consumers' demand-side to some of their analyses, they might have been alerted to the fact that relative price increases alone could not have assured increased employment in service industries. Better they had tried to disabuse the minds of those who think a rising share of manufacturing output and employment is the only true sign of national economic strength than to have engaged in the kind of data manipulation and interpretation conducted in the book. Similarly, recognition of the role of growing demand could have prevented the authors from making the unbelievable assertion that natural resources with fixed quantities could be supplied in perpetuity.

Documenting the shift in policy regime in the U.S. between 1960 and 1980 towards higher government spending, increased taxation, and greater economic regulation in association with the economic productivity slowdown also might have been a more helpful research effort. The qualifications the authors note regarding the French and Japanese models of public sector direction of private enterprise would also have fitted well with this approach. They could have warned those calling for a government-led re-industrialization plan in the U.S. that public sector agencies are not good at picking winners, and that the Japanese MITI (Ministry of International Trade and Industry) is reported to have discouraged Honda from investing in automobiles and Sony from going into electronics!

However, the book has some fine points. It is written in readable style, even if frequent switches of emphasis or qualificiations of argument appear confusing. For example, it is not really clear from the discussion (pp. 239—240) whether welfare productivity is easy to measure. Also, it is hard to know what to make of culture or race as a factor in economic development from the discussion (pp. 177—180), even as culture is invoked to "explain why every brilliant economic success in the post-war era has occurred in the Far East [and] almost every example of a profoundly disappointing economic performance has occurred in Latin America" (p. 177). What explains the much poorer performance in most African economies? Anyhow, I find the culture argument quite uninformative.

Putting the numerous mathematical proofs and derivations in the appendixes is also a plus: few readers would have the time and patience to go through mathematical exercises that do not appear to advance understanding of the real issues at stake. The attempted proof of "perpetual increases in the effective inventory" of non-renewable resources (pp. 357—358) is a good example. Finally, the authors may be credited with having assembled relevant data and references to other studies which may help further examination of the sources and solutions to economic productivity slowdown in the U.S. before the early 1980s.

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Lee G. Cooper and Masao Nakanishi, *Market Share Analysis*. Boston, Dordrecht, London: Kluwer Academic Publishers, 1989. ISBN 0-89838-278-5.

Cooper and Nakanishi provide a valuable guide to the analysis of market shares of competing products. As they emphasize, the advent of optical scanning systems (the ubiquitous bar codes) for sales and inventory control has made available a wealth of data for packaged consumer goods. Data needed for store-level analyses are routinely available to retailers, and consumer-panel data are collected by several market-research firms. Although attention is directed towards branded, packaged consumer products, the methods described can be extended to other products as well.

The book appears to be directed primarily to two audiences: management scientists and others who develop tools for business management, and brand managers and other business decision makers. The authors make a commendable effort to clearly explain the analytic tools they propose, but I fear that some of the elements (e.g., principal components) are sufficiently subtle that few brand managers or business-school students will have the background to fully understand the tools. Thanks to the careful exposition, the book should be readily accessible to graduate students with statistical or econometric backgrounds; the comprehensive citations to previous literature will assist those who wish to delve more deeply into the methodology.

The key starting point in analysis of market shares is that the share one brand commands