American Economic Growth: An Economist's History of the United States. By Lance E. Davis, Richard A. Easterlin, William N. Parker, et al. New York: Harper and Row, 1972. $13.95.

Political revolutions come of age with new buildings and bureaucracies, intellectual revolutions with new textbooks. This is a textbook of the new economic history of the United States, written under the guidance of a politburo consisting of Lance Davis, Richard Easterlin, and William Parker, who took to themselves the commissariates of capital and finance, population, and land and agriculture, and allotted to their comrades separate commissariates of consumption (Dorothy Brady), transportation (Albert Fishlow), national income (Robert Gallman), labor (Stanley Lebergott), foreign trade (Robert Lipsey), government (Douglass North), technology (Nathan Rosenberg), urban growth (Eugene Smolensky), and manufacturing (Peter Temin). The message of the revolution is this: American economic history can be told as the history of American economic growth and this growth in turn can be viewed, indeed, at many points, if it is to be intelligible, must be viewed, from the perspective of economics.

The book is, then, an economist's approach to American economic growth, if not, as I shall note below, precisely what the subtitle claims, an economist's approach to economic history. Part I, a chapter each on national income and consumption, introduces the explicandum, namely, the astonishing growth of the American economy over the last two centuries. Parts II and III explain this growth from the income side of the national accounts. The history of each of the factors of production—land, labor, capital, and technology—is told separately, primarily with a view to illuminating the growth of output resulting from their combination. The development of federal land policy and of the legal structure of mineral rights, the determinants of migration and of fertility, the growth of trade unions and the changes in the composition of employment by industry, the economics of American innovation and the peculiarities of American technology, the behavior of the savings rate and the institutional developments for mobilizing savings are examined for the most part as sources of growth, not as histories on their own account or as contributions to general history. The underlying model in these chapters is an aggregate production function. Parts IV and V shift to the expenditure side of the national accounts and draw more heavily on models of supply and demand. The focus shifts away from the inputs into production and towards the distribution of production by use among the sectors agriculture, manufacturing, transportation, foreign trade, urban services, and government. These chapters are on the whole stronger in analysis and weaker in description that the earlier chapters, and there is in fact a progression in this respect in the book, from rich descriptions of national income and consumption based on straightforward notions of accounting, through less rich descriptions of the sources of growth using the analytically more complex notion of a production function, down to ingenious but sometimes sketchy analyses of the supply and demand curves for cotton textiles, wheat, railways, foreign products, industrial sites, and political power. The unifying subject of economic growth and its consequences runs through the whole, as does a unifying conclusion, a gratifying reaffirmation of the working hypothesis of most economists, namely, that American economic growth can best be characterized as the consequence not of great politicians or great entrepreneurs pursuing this or that idiosyncratic goal, but of many anonymously competing men pursuing more or less rationally their individual economic well-being.

This book can be reviewed for what it does and for what it fails to do. What it does well is to survey the state of knowledge on American economic growth, integrating recent contributions with what we knew before and presenting the result in terms intelligible to undergraduates in history and in economics. Naturally, the book does not succeed on all counts. The need to give economics lessons along the path to intelligible synthesis has not been equally easy for all the contributors. In this respect the chapter on "Manufacturing", drafted by Peter Temin, is close to the ideal, for it introduces the use of supply and demand curves gradually, as the story of textiles and steel requires it, rather than dumping the theory in a neat but unmotivated pile at the beginning of the chapter. Nor has the synthesis of new and old knowledge into coherent histories been equally easy for all, in large part because each faced a different state of development of the monographic work that must underlie synthesis. The chapter on "Internal Transportation," drafted by Albert Fishlow, is masterful, but, to pick one of several examples, those on "Industerial Location and Urban Growth" and "The Management of Urban Agglomeration," drafted by Eugene Smolensky, should not be judged too harshly for their lack of comparable success: the one could draw on scholarship such as that of Goodrich, Fogel, and Fishlow himself, while the other, although more warmly and lucidly written, could not.

Nor, to complete the criticisms of what the book does, is every bit of analysis beyond debate, as the writers of a provisional synthesis would no doubt be the first to concede. In the chapter on "Savings Sources and Utilization," for example, it is argued, as its drafter, Lance Davis, has argued elsewhere, that the slow convergence of western and eastern interest rates after 1870 is evidence of a gradual fall in the cost of arbitraging between the two capital markets (p. 327ff). The distinct possibility that the convergence reflects a mere fall in the risk discount on western investments as the initial gamble of settling the West proved its worth is dismissed without evidence in a parenthetical remark. Again, in the chapter on "Technological Change," drafted by Nathan Rosenberg, the argument that the high wage relative to rewards of other factors of production in America was responsible for a labor-saving bias in American relative to, say, British technological change is quite properly rejected, on the grounds that entrepreneurs are indifferent between a dollar's worth of costs saved in labor requirements and a dollar's worth saved in other requirements. Yet the hypothesis is reinstated by arguing that expectations of future *increases* in relative wages will produce the required bias, along the lines that Fellner and Samuelson have recently explored (p. 250ff.). What is lost sight of here is that the task is to explain a bias in American *relative* to British technological change (an alleged bias, it should be noted: it has never been demonstrated satisfactorily that the relative bias did in fact exist), and that therefore one needs to show that wages in the United States were expected

to rise *faster* relative to the rewards of other factors than in Britain. Finally, at a number of points in the book the reader is confronted with what might be called, in honor of its originator, the Kuznets Conundrum. In "The Pace and Pattern of American Economic Growth," drafted by Robert Gallman, it is asserted that one highly important source of productivity advance during the nineteenth century was the shift of laborers from low to high productivity sectors, most strikingly from agriculture (with labor income per worker of only $140 in 1840) to manufacturing (with labor income per worker of $450) (p. 26; compare Parker's "Agriculture," p. 384n). The wage gap is enormous and requires explanation before it can be used to calculate, in the manner of Kuznets, the contribution of shifts in the labor force to productivity change. On the one hand, it may reflect a mere disequilibrium; but in this case the equilibrium arguments that pervade the book are made to look dubious. One cannot, for example, perform total factor productivity calculations or undertake exercises in the comparative statics of supply and demand in the face of such gross and persistent disequilibrium in the economy. On the other hand, the gap may reflect different levels of skill; but in this case the shift from agriculture to manufacturing (or from one region of the country to another) does not produce a *costless* increase in output for a given input, because skills require investment, and is therefore in no useful sense an explanation of productivity change.

For all these criticisms, the book is an admirable synthesis of the record of American economic growth. But it is not, nor does it intend to be, a synthesis of American economic history. This is the major sin of omission, if, indeed, it is a sin to fail to do what one did not intend to do (the subtitle of the book to the contrary), and from it flow a set of otherwise inexplicable lacunae in the story. The chapter on "Foreign Trade," although a lucid analysis of the contribution of trade to growth, does not mention tariffs, around which American political life swirled for a century; the chapters on "Agriculture" and on "The American Labor Force" do mention slavery, but reluctantly, as an inconvenient aberration necessitating special treatment of the South, not as the driving force of much of American history; the line of narrative in the chapters on "Banks and Their Economic Effects" and "Manufacturing" tends to run straight through the Great Depression, with little treatment of its permanent effects; and so forth. In other words, the book is motivated by the interests of economists, particularly development economists, not of historians. This motivation is apparent in the organization of the book into factors and sectors rather than into historical issues, and is apparent, too, in the sometimes embarrassing recitals of the lessons of history that appear towards the end of most chapters. When the lessons are policy proposals for America in the future (such as the need for a national transportation policy or a policy against pollution) they are often gratuitous exhibitions of the writer's political opinions and in any case tenuously related to the historical record. When they are implied inferences about appropriate policies for growth in other countries they are contradicted by the very theme of the book; the story of a rich, educated, and largely free people, left to their own devices by imperial powers, populating an empty and fruitful land in the early years of the industrial revolution cannot on the face of it be considered essential reading for central planners in India and Turkey.

To say that the set of concerns of the economist is not a compelling way of motivating a textbook on American economic history is not to say that the historical economist must make himself into an amateur political or social historian in order to treat the history of American economic life in a more complete manner. "Shoemaker, stick to your last" is a useful motto in intellectual as in economic affairs and the related motto, "Jack of all trades, master of none," has, indeed, all too often been applicable to textbooks of American economic history. As economists, historical economists have a good deal to contribute to American economic history, to be distinguished from the history of American economic growth by itself. We understand the tariff controversy, British colonial policy, the struggle between Jackson and Biddle, and the impact of the Civil War, to name a few of the topics to which historical economists have contributed and that suffer comparative neglect in this book, better than we did not long ago. By setting economic history to the thankless task of illustrating the theory and practice of economic growth, the contribution that it can make to history itself is slighted.

Nonetheless, whatever reservations one may have about its structure and its details, it is undeniably an important book. An adequate indication of this importance is that most of it could not have been written fifteen years ago, before the revolution of quantitative and analytic studies swept over the field. The revolutionaries, settling into middle-aged respectability now that the revolution is complete, have build a good and useful monument.

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