REVIEWS

Walt W. Rostow, *Theorists of Economic Growth from David Hume to the Present*

Oxford University Press, New York, 1990, pp.xx, 712.
US$39.45

This is Rostow's "final, substantial work on economic growth", published in his 74th year, and dedicated to the "Economists of the Next Generation: in the hope that, without abandoning modern tools of analysis, they may bridge the chasm of 1870 and re-establish continuity with the humane, spacious, principled tradition of classical political economy". It is a real *tour de force*. Robert Solow notes on the dust-jacket: "This is intellectual history in the grand manner: reflective, opinionated, and stimulating".

Three themes stand out. The two subsidiary themes are firstly, that most theoretical contributions are derived from specific historical episodes and are a "reflection of the times". This is in tune with Mitchell's externalist account of the history of economics. Secondly, that thinkers conceive their truly original ideas before they are 30 (Rostow made his key contribution at age 25). Rostow "argues systematically that economists have been profoundly and sometimes permanently marked by the problems of their time and place - notably, but not exclusively, when they were young" (p.445).

The major theme, which is openly acknowledged, is that Rostow's own contribution to growth and development thinking is taken as the benchmark in evaluating all other work in the field. This book then is an explicitly partisan treatment of the history of growth theory. Each theorist's views are examined under the headings: basic growth equation, population and the working force, investment and technology, business cycles, relative prices (supply-side factors), the stages and limits to growth, and noneconomic factors. These are the common questions posed to all growth economists, and reflect what Rostow regards as the key issues in growth analysis.

These questions follow Rostow's conviction that useful contributions must "embrace endogenously the demographic transition; treat science and invention as investment subsectors and the capacity to innovate as a creative task distinguishable from profit maximization; account for the tendency of major innovations to cluster; demonstrate the intimate linkage between growth and cyclical fluctuations [and] weave together noneconomic and economic variables" (p.7). For growth models to accurately portray modern economies, according to Rostow, they must produce a system that lurches through time, overshooting and undershooting its optimum sectoral (and aggregate) growth path. It has to be a nonlinear (or chaos) system marked by irreversible change where stable equilibrium is ruled out. Marks are then awarded according to how close other theorists have come to these Rostovian conclusions.

Six classical economists (Hume, Smith, Malthus, Ricardo, J.S. Mill and Marx) and then in a long chapter, Marshall, are evaluated on what they have to say on these key issues. A succession of thematic chapters follows, dealing with the historical treatment of issues such as investment and technology, business cycles and basic commodity prices. Then we move to post-1945 growth and development theory, concluding with (culminating in?) Rostow's own contributions. The last 60 pages deal with what we still do not know about economic growth and with future prospects for the world economy. We are then treated to a 60 page mathematical appendix covering Smithian, neoclassical, and Rostovian growth models co-written with one of Rand's best applied modellers, Michael Kennedy. There are more than 100 pages of notes.

As we would expect from the author of a *Non-Communist Manifesto*, Rostow reserves his most powerful invective for Marx who "Out of a childhood and youth without apparent frustration or denial emerges as a profoundly lonely, self-isolated man driven, in part, by a strand of violence, hatred, and aggression." Furthermore, Marx "employed [classical concepts] in a highly selective and exploitative way for a predetermined purpose" and "as a historian was notably selective in his use of the facts available to him". Nevertheless, the "simple, brute fact is that he found it impossible, despite prodigious efforts, to build a scientific foundation consistent with the argument of the Manifesto" and "none of his predictions has come about" (pp.124-125, 137).

Rostow argues that after the classical economists, and over the 1870-1914 period, the analysis of economic growth was dropped from the research agenda (p.155) with growth pretty much taken as a given. Marshall, however, is given particular attention and Rostow argues that he "formulated in the early 1880s a pretty fair approximation of a neoclassical growth model, and, after exploring its properties, set it aside for good reasons" (p.190). Yet the "Fundamental weakness in Marshall's analysis of the long period [was his] failure to deal adequately with the role of increasing returns" (p. 173).

Over the 1914-1939 period, contributions to growth analysis were made "as by-products arising from work addressed primarily to other problems" (p.159). Considerable praise is given to the work of Schumpeter, who unfortunately "was never able to link his evolutionary and essentially dynamic vision of whole societies to his commitment to conventional neo-Newtonian economic theory" (p.246). High marks are also awarded to D.H. Robertson as the one economist who came closest in linking a disaggregated sectoral-growth theory to the macro performance of the economy and in acknowledging the importance of real supply factors (p.268). However, in Keynes "there was a considerable retrogression between *A Treatise on Money* and *The General Theory*" (p.272) on growth issues.

The depression of the 1930s further "drove economists to put aside concern with the long period ... the operational focus became the expansion in short-period terms of output and employment" (p.258). Rostow saves his biggest serve for formal growth models and the application of high-powered overaggregated theoretical tools to growth theory and macroeconomics which he says dominated the profession for over 30 years but has not expanded our knowledge of the causes of fluctuations (p. 259). He claims that

> Neither Harrod (nor Samuelson) knew what to do with Schumpeter's insight that major innovations where endogenous and discontinuous, and their ebb and flow were at the heart of cyclical fluctuations; nor did they know what to do with Kuznets's insight that the continuity of growth hinged on a sequence of leading sectors. Harrod (like Bickerdike) was aware that sectoral growth rates varied ... But the convenience of highly aggregated growth and cyclical analysis were too great to forego; and without facing up to the inherently sectoral character of the innovation process, no satisfactory growth or cyclical analysis is possible." (p. 256)

Rostow displays utter scorn for multiplier-accelerator models of the cycle (p. 299) as the "separation of cycle and trend - of the Marshallian short from the long period - is an act of intellectual violence that cuts the heart out of the problem of both cycles and growth" (p. 430). Furthermore, "the palpable irrelevance of formal growth models to the central problems of the world economy from 1973 to 1989 accounts for the virtual disappearance of fresh work in this field" (p. 334). Rostow states that mainstream economists since 1870 "traded away their capacity to deal endogenously with technological change as well as with the noneconomic dimensions of economic growth for the illusory elegance of ... equilibrium analysis" and "I have become increasingly concerned with the poverty and substantial irrelevance of how we teach economics to the young" (p.viii).

Some comments made in the book can not be fully understood without knowing the background relating to the vituperative criticism levied at Rostow's Stages Theory. For example, the comments on Samuelson (pp. 330-331) echo exactly the same criticisms that Solow had made of Rostow's work thirty years earlier, or his comment about Kuznets who "was never able to link the important sectoral insights concerning technological change ... to his later highly aggregated national income growth analysis" (p. 219) might seem obscure unless the reader was familiar with Kuznets's critique of Rostow's Stages.

One feature that is most impressive about the book is its catholic scope. It covers the classics, formal growth modelling, growth accounting, work in the NBER business cycle tradition, Kondratieff-type cycles and development economics. On the last he notes that "the flowering of theories of development in the 1950s and 1960s yielded the richest body of growth literature since the eighteenth century" (p. 384) but "politics was generally more important than economics in the developing world" (p. 426) as far as growth was concerned.

Rostow's book then is a highly personal history and, as he states, contributions are evaluated by "my own quite arbitrary perspective" (p. 385). Naturally then, those who are most highly praised are those who came closest to Rostow's research agenda, such as Hume, D.H. Robertson, and Schumpeter, while the Harrod-Domar models and highly aggregated formal growth models are not sympathetically treated (p. 428-9). Provided that one understands the author's perspective, and how it colours the interpretation of history, I think most readers will find this a fascinating and indeed absorbing book, which establishes Rostow as a historian of thought in his own right. The coverage is so broad, the literature survey so exhaustive, the treatment so chock full of insights and anecdotes, that it deserves to immediately find a place on most reading lists.

John Lodewijks
University of New South Wales