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**Book Review**

# [Book Review of] Diebold, Francis X., ..., : Business cycles : durations, dynamics, and forecasting, Princeton, New Jersey, Princeton Univ. Press, 1999

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a clear-cut answer they have to admit that the current state of research in the field of regional integration is, to say the least, unsatisfactory, and that "there is a clear need for improved links between theory and data and for renewed empirical investigations of the questions raised by regional integration."

The chapter on exchange rates (Chapter 13) focuses on the currency risk faced by, and the pricing policies of, international firms, thereby touching upon the topic of exchange rate pass-through under oligopoly. While the exposition is clear and quite comprehensive, after having worked through most of the pure theory of international trade, the reader would probably have expected something different at this stage. Perhaps a dose of open economy macroeconomics (OEM) as established by Mundell, Dornbusch and Obstfeld? Well, why not? It is always an asset to understand the way monetary, exchange rate and trade policies interact. Fortunately for the authors, it is virtually impossible to present the very basics of OEM on 24 pages. I therefore believe that it would not make much sense to ask for OEM in a book that has already 654 pages. Indeed, the authors should be protected from such a claim.

As concerns the theory of economic growth presented in Chapter 14, the reader might notice that an elaborate discussion of the link between growth and international trade is missing. The omission of this link in the derivation of the neoclassical model of growth is not a problem. It is, however, in the discussion of models of endogenous growth. In the same vein, the comments on the relevant empirical work (on pp. 590 and 592) are much too brief. The reader does not get the flavor of the current controversy in the literature regarding the existence of such a link. The next edition of the book should improve on that.

All in all the excellent book written by Bowen, Hollander and Viaene can be recommended to graduate students as a textbook and to academics and practitioners as a valuable reference book. The many readings listed at the end of each chapter, classified by topic, the extensive bibliography in the back of the book, covering the literature up to 1997, the appendix on trade and factor data (including Internet sources) and the very useful index all add to the intrinsic value of the book.

Federico Foders

**Diebold, Francis X., and Glenn D. Rudebusch,** *Business Cycles — Durations, Dynamics, and Forecasting.* Princeton, New Jersey 1999, Princeton University Press, XIX, 420 pp.

This book is a collection of papers published between 1989 and 1998, giving a comprehensive, modern perspective on the business cycle and the research techniques currently employed in analyzing it. The collection is structured along five central questions with the very readable introductory chapter serving as a guide.

The first question is whether business cycles have become more moderate in the postwar era. This could be expected, since there have been important changes in the economy that may have paved the way in that direction such as the higher share of the less cyclical services in aggregate production and employment, significant improvements in inventory control technology and a much more active role of governments in stabilizing aggregate activity. Francis X. Diebold and Glenn D. Rudebusch contribute to the discussion by shifting its focus from measuring the relative volatility of output growth in the prewar and in the postwar era to the relative duration of expansions and contractions. On the basis of the NBER's business cycle chronology, they find that expansions have been longer and contractions shorter in the period after World War II. Their results have been shown to be qualitatively robust to a change in the business cycle chronology that may be more consistent across the two eras (Romer 1999).

The second question of Diebold and Rudebusch is whether expansions or contractions are more likely to end as they get longer. With the focus on the shape of the distribution of cycle duration, the authors employ novel techniques drawn from hazard and survival analysis to look at the problem. Contrary to popular arguments, they find little supportive statistical evidence for the postwar US economy.

Thirdly, the authors reexamine the issue of comovements of certain variables over the business cycle. This was one of the main themes of the work of Burns and Mitchell and led to the question of leading and lagging indicators. The treatment in the book is a combination of survey on the recent literature, new interpretation of previous findings and new empirical results. As the latter point is closely related to nonlinear modeling of cycle phenomena, the authors discuss modifications to Hamilton's (1989) regime-switching model with endogenous transition probabilities.

The fourth question the authors address is whether cyclical fluctuations can sensibly be distinguished from the secular growth of the economy. Up to the mid-1980s it was widely accepted among macroeconomists that economic development could be decomposed for analytical as well as for empirical reasons into a cyclical part on the one hand and a growth part on the other. The latter described the long-run trend path of the economy, determined by factors such as factor growth, technological progress and institutions, and the former described its business cycle fluctuations. Interactions between the two parts were presumed to be negligible. Accordingly, theoretical and empirical reasoning were largely separated into a growth theory on the one hand and conventional macroeconomics or business cycle theory on the other. Tellingly, empirical business cycle analysis often employed data which was not only seasonally adjusted but of which the trend component had also been removed.

The consensus changed with a seminal publication by Nelson and Plosser (1982). The authors found that for a wide variety of macroeconomic time series they could not reject the hypothesis of a unit root in the autoregressive representation and concluded that the trends in macroeconomic time series are stochastic rather than deterministic. A stochastically trending process has no tendency to return to a linear deterministic trend. The consequences of any shock that hits the output level in any period are permanent rather than temporary; the shock shifts the entire future path of output. Chapter 9 of the book illustrates this point for US real GNP per capita by tabulating the cumulative impulse responses of an estimated trend-stationary model on the one hand and an estimated difference-stationary model on the other. While in the trend-stationary model a shock to GNP dies out rapidly – 85 percent of the effect dissipate after five years –, in the difference-stationary model the innovation never disappears, it is even magnified.

Clearly, the finding of a unit root in macroeconomic series has strong implications for macroeconomic theory and policy. For academic research it means that both Keynesian and Classical theories, where output fluctuates around a slowly growing equilibrium level, are misguided. Indeed, Nelson and Plosser saw their results as showing that monetary shocks, which are conventionally seen as temporary, could not be the source of fluctuations, thus confirming the at that time new real business cycle school. In empirical research, the implication that the trend component is stochastic and can therefore not be removed by linear detrending stimulated an enormous interest into the econometrics of nonstationary time series. And for policymaking, the finding that there is no steady trend the economy tends to return to means that countercyclical macroeconomic policy is completely deprived of its empirical justification. Moreover, the benefits and costs of certain policies that raise or lower output today – think of a restrictive monetary or fiscal policy to curb inflation or bring the budget under control, respectively – are largely different when the consequences of such a shock will be felt up to the end of days.

While the idea that macroeconomic time series are nonstationary began to become conventional wisdom among economists in the late 1980s, Diebold and Rudebusch were among the first to take a closer look at the statistical evidence. Rudebusch showed that when critical values of the Dickey-Fuller test for a unit root in US real per capita GNP are simulated for the particular model and sample at hand instead of being taken from the tabulated distribution, which is only valid asymptotically, the evidence for nonstationary behavior is far less compelling. In fact, his exact finite-sample procedure is not able to discriminate between a nonstationary and a trend-stationary model. Rudebusch therefore concluded that the data is just not informative enough. Diebold, in a later study together with Abdelhak S. Senhadji, took up Rudebusch's approach, but applied it to a much longer sample period. Instead of quarterly data of the postwar period, he employs the historical series of annual US real GNP constructed by Romer (1989), which date back to 1869. With these long series, the unit root-null is easily rejected in favor of the "classic" trend-stationary model. Other studies have come to similar results. Perron's (1989) finding that allowing for a trend with a one-time-break makes it possible to reject the unit root hypothesis is among the most important ones in this context.

Quite naturally, the final question on Diebold and Rudebusch's list is how knowledge on the specific characteristics of business cycles can be used to forecast them. Forecasting procedures based on leading indicators and methods to evaluate the appropriateness of such procedures are evaluated in the final part of the book that can be recommended to anyone interested in macroeconomic theory and empirical analysis and forecasting techniques.

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**Hossain, Moazzem, Iyanatul Islam,** and **Reza Kibria,** *South Asian Economic Development: Transformation, Opportunities and Challenges.* London, New York 1999. Routledge. XIV, 272 pp.

The book has taken a comparative perspective to study the economic development of South Asia since the Second World War. It is concerned with four economies of South Asia: Bangladesh, India, Pakistan, and Sri Lanka. According to the authors, the main objective of this book is to explain why the economies of South Asia are consistently lagging behind compared to East Asia. The book has sixteen chapters divided into three parts: Introduction, South Asian economic development, and South Asia in the twenty-first century. The introduction contains four chapters, and the other two contain ten and two chapters, respectively. The study makes policy regimes and the role of institutions responsible for the apparent failure of these economies to achieve a sustained growth.