vate and public activity. The methods stress component breakdown, trend extrapolation, and competing sources. Electricity, petroleum, and total energy forecasts are the three major items forecast, with the record in petroleum forecasting poorer than electricity. No indication is found of improved methodology in recent energy forecasts.

Transportation forecasting being more derivative than the others has utilized correlational methods. However, the construction of appropriate measures poses problems. Technological forecasting is possibly the most difficult, as it attempts to deal with scientific breakthroughs. It has the highest "science fiction" content, including Delphi methods and cross-impact studies, although surprisingly, Ascher fails to note cross-impact studies.

The overwhelming conclusion of the study is that the key to the forecast is the core assumptions. Given this, the choice of method is secondary. A basic source of continuing error is attributed to "assumption drag," where forecasters are slow in giving up approaches and basic assumptions even though they appear inadequate.

This book should be regarded as a start, not a completion, of an important line of work. The value of an objective appraisal of previous forecasting efforts is considerable. But society in general and corporations and government bureaus in particular tend to forget the past and hence learn nothing from it. This type of study is a necessary preliminary to the exploration of how to pick the right models for predictions. The methodology of modelling is different from and perhaps more important than the methodology for the analysis of models.

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Contemporary economic problems, 1978. Edited by WILLIAM FELLNER. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1978. Pp. 353. $6.75, paper. *JEL 79-0099*

The collection of essays in the third annual volume of *Contemporary Economic Problems* continues to provide informative reading on a wide range of important issues for professional economists and policy makers. The current volume contains ten new studies by Phillip Cagan, Geoffrey Moore, William Fellner, Herbert Stein, Marvin Kosters, D. Gale Johnson, Gottfried Haberler, Marina v. N. Whitman, Barry Chiswick, and Robert Helms on subjects ranging from international business cycles to immigration and health policy.

In his introduction to the volume, William Fellner breaks with his previous style of summarizing each of the individual essays and instead develops the overall theme: The Core of the Controversy about Reducing Inflation. In Fellner's view the inflation controversy centers on two major difficulties with the conventional approach to aggregate demand management as now practiced in the United States. First, demand management has been too narrow in its focus on numerical estimates of *potential output* or *unemployment* targets. These estimates are extremely uncertain—primarily because of their inherent dependence on nonmeasurable structural and institutional factors—and are frequently subject to substantial revision. Moreover, there has been a tendency for policy makers to make unrealistic predictions about unemployment, or about the economy's capability of achieving low unemployment targets simultaneously with low inflation targets. Instead, Fellner argues that aggregate demand managers should shift their focus to a price stabilization criterion. What is controversial about this suggested shift of focus, of course, is that in the view of many policy makers, price stabilization would entail a large sacrifice in terms of lost output and employment.

According to Fellner, however, this loss may be overstated because of a second difficulty he associates with the conventional approach to aggregate demand management: most econometric estimates of the Phillips curve (that is, the *short-run* policy trade-off between inflation and unemployment), which underlie current macroeconomic policies, have been estimated during sample periods when conventional ag-

gregate demand policies were being used. Hence, the estimated coefficients of this trade-off are based on monetary and fiscal policies that are substantially different from the more inflation-conscious policy recommended by Fellner. One might expect, therefore, that these coefficients would be much different if estimated during a period with less accommodative policies and that the coefficients would change if such policies were instituted now and people believed that they would continue into the future. In particular, Fellner argues that the amount of market slack (which from a potential output view is generally interpreted as lost output) necessary to reduce inflation would be much less than the econometric estimate would suggest. "The real question here is whether a credible policy, pursued with consistency, would not lead to a significant change in the relevant coefficients and to a significant improvement of the outlook" (p. 10).

In different ways, most of the essays in the volume provide background to these general themes. For example, the paper by Stein on wage and price controls gives examples where "unrealistic predictions, mainly emanating from the administration, led the public to expect that conventional measures of fiscal and monetary restraint would work quickly and with minimum increase in unemployment" (p. 113), and the informative paper by Johnson on agricultural policy argues that "it [is] exceedingly difficult for a public official to be a 'bearer of bad news' " (p. 208). The papers on international economics by Haberler and Whitman argue against the locomotive approach to international aggregate demand management, mainly on the grounds that it may provide too much stimulation with inflationary consequences. Whitman also provides a lucid discussion of the "policy mix" version of the locomotive approach.

The separate study by Fellner, "Structural Problems behind Our Measured Unemployment Rates," is a critique of the concept of potential output and a report on how demographic and institutional changes in labor markets have led to an increase in "normal" levels of unemployment. Many of the criticisms of the potential output concept are motivated by the tendency of the Council of Economic Advisers (CEA) to overestimate potential, thereby inducing overly expansionary policies, though Fellner's theoretical criticism is much deeper than this and relates to firms' capacity and supply decisions (on this later point see also Robert E. Lucas [2, 1970]). With regard to the upward bias criticism, it is important to note that the 1979 CEA *Annual Report* [1] (released after this volume was published) has revised the potential output estimates downward with growth rates and levels now below those estimated by the outgoing Ford administration's CEA in January 1977.

The paper by Cagan, "The Reduction of Inflation by Slack Demand," raises a number of issues relevant to the overall theme of the volume, and the paper is featured in Fellner's introduction. Cagan provides two sets of econometric estimates of Phillips curve relationships for a number of alternative wage and price measures. The first set is based on an adaptive expectations assumption, and the resulting functional forms of the Phillips curve are similar to those used by many macroeconomists. One difference is Cagan's arrangement of the basic equations to generate a reduced form in which the dependent variable is the *change* in the inflation rate (in effect, forcing the lagged inflation rate to have a coefficient of one). This functional form results in trade-off estimates that are somewhat steeper than those usually reported: an unemployment rate about 1 percentage point above normal reduces the inflation rate by about 1 percentage point within a year. The concensus estimate of inflation reduction is about ½. Cagan notes that the Phillips curve has become somewhat steeper since the 1970's and conjectures that this may be due to a deterioration of the information value of aggregate prices in the later period of higher inflation rates.

The second set of estimates reported by Cagan are based on the assumption of rational expectations. However, because he feels the pure rational expectations view is unrealistic, he modifies the assumption to incorporate gradual learning about the aims of policymakers. "Rational economic agents will revise their expectations of the price trend when they become aware of . . . a business recession more severe . . . than expected" (p. 29). He finds that these modified rational expectations do not fit the data nearly as well as the adaptive expectations. Moreover, the rational expectations estimates yield a Phillips curve that is

flatter than the adaptive expectations estimates.

In his introduction to the volume Fellner uses both sets of Cagan's estimates to illustrate his point that a consistent anti-inflation policy would change the coefficients of the reduced-form Phillips curve by altering expectations. Fellner argues that the speed of expectations adjustment in Cagan's adaptive formula would be raised significantly if policy were changed. In his example (p. 11) the speed is doubled, thereby reducing by one-half the period of economic slack necessary to lower inflation. It should be emphasized, however, that Cagan's econometric estimates do not provide information on how much the speed of expectations adjustment would increase under an alternative anti-inflation strategy. The estimates are valuable, however, in providing a quantitative framework through which one might pinpoint which particular coefficients are likely to shift. According to Fellner, the coefficient of expectations in the adaptive scheme would change. But whether it doubles, triples, or only increases by ten percent is not clear. This suggests the need for models that can help us determine by how much expectations coefficients would change (see J. B. Taylor [3, 1979], for example). Such models might enable one to judge the accuracy of Fellner's example of a doubling of adjustment speeds.

A number of microeconomic studies round out the volume and complement these macroeconomic issues. Chiswick, for example, discusses his recent research on the earnings of immigrants and provides a short summary of U.S. immigration policy. Some of his findings concerning the economic progress of immigrants raise important questions about U.S. immigration laws. He finds that illegal immigrants have similar earnings as legal immigrants and that immigrants (whether legal or illegal) initially earn less, but eventually overtake native-born Americans. The volume concludes with a paper by Helms on health policy, which argues persuasively that the market for medical services in the U.S. does not violate the laws of supply and demand as many economists and policy makers have stated.

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The political economy of inflation. Edited by FRED HIRSCH AND JOHN H. GOLDTHORPE. Cambridge, Mass.: Harvard University Press, 1978. Pp. xi, 307. $14.00. *JEL 78–0976*

The collection of essays under review is largely an attempt to explain inflation as an interaction of sociological, political, and institutional forces as well as economic ones. It would seem, then, to be an alternative explanation to the monetarist view that "inflation is everywhere and always a monetary phenomenon," or to John S. Flemming's position in his essay that "non-economic factors will influence inflation only to the extent that they influence monetary policy" (p. 36). However, by now it is widely accepted outside of monetarist circles that inflation can only be sustained if continuously validated by growth of the money supply. And this remains true whatever the underlying forces at work. If more of the authors of these essays had conceded this not very illuminating point (as Colin Crouch does in his essay), attention could have been more sharply focused on the really important inflation question, a question to which several of the authors address themselves, although usually only implicitly.

Thus, assume that inflation has somehow been brought under control so that the expected and actual rates of inflation are zero. Assume further that this required a deliberate policy of restraint so that unemployment rates have risen to something greater than would be the case if unemployment were simply voluntary plus that residue of structural unemployment that cannot be eliminated by increasing aggregate demand. To use Flemming's term, call the latter the normal rate of unemployment. The key question is what happens to money wages and prices once the authorities finally feel they can stimulate ag-