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This Week's Citation Classic ®

Barro R J. Rational expectations and the role of monetary policy.
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Monetary policy is examined in a model in which prices and quantities are competitively determined, information is imperfect, and expectations are formed rationally. Monetary shocks matter for the business cycle, but systematic monetary policy is typically ineffective. [The *SSCI*® indicates that this paper has been cited in more than 320 publications, making it the most-cited paper published in this journal.]

The New Classical Approach to Macroeconomics

Robert J. Barro
Department of Economics
Harvard University
Cambridge, MA 02138

The new classical macroeconomics, sometimes referred to as "rational expectations macroeconomics" or as the "equilibrium approach to macroeconomics," began in the early 1970s. A guiding discipline of this work, which distinguished it from the then-popular Keynesian models, was that economic agents acted rationally in the context of their environment; notably, that people assembled and used information in an efficient manner. Although the approach involved fully worked out equilibrium theories, the stress was on empirical explanations of business fluctuations.

The biggest challenge to the new classical approach appeared to be an explanation for the important role of monetary disturbances, such as those created by the Federal Reserve. This challenge was significant because, first, monetary shocks seemed to be empirically important for business cycles, and second, equilibrium analysis predicts that people would see through purely monetary changes; that is, these kinds of shocks would be of little consequence.

Initially, the approach achieved notable successes, especially with the work of R.E. Lucas,[1,2] T.J. Sargent and N. Wallace,[3] and my 1976 paper, the subject of this commentary. These theories implied that monetary disturbances can have significant real effects because of imperfect information about the quantity of money and the general level of prices. In contrast, anticipated monetary changes, which include systematic monetary policies, do not matter because they do not create informational confusions.

On an empirical level, there was evidence[4,5] that supported the theories. Monetary shocks seemed to be important sources of business fluctuations, and—as the theories predicted—there was some indication that it was mainly the unanticipated or surprise parts of monetary changes that mattered. The theories also were consistent with the observed absence of long-term relations among real economic performance and the growth rates of money and prices.

Further investigations cast doubt on these successes. The theories rely on costs of observing money and the general price level, but these costs cannot be very large. The theories encounter problems empirically in explaining the relations among monetary disturbances and real interest rates, real wage rates, and consumer expenditures. For these and other reasons, the new classical approach turned out not to provide a full explanation for the role of money in the business cycle. This failing may, however, not be so serious because the empirical evidence on the importance of monetary fluctuations also turned out to be overstated; that is, the challenge of explaining the crucial role of money was misdirected. Furthermore, although the original mission was not completed, some major results were obtained; these include the application of equilibrium modeling to macroeconomics, the use of rational expectations as part of this modeling, and a revolution in analytical methods for evaluating government policies.

More recently, the new classical approach has attained successes in various areas of macroeconomics. These areas include theories of long-term economic growth, models of business cycles that are driven by real (as opposed to monetary) disturbances, such as oil shocks and tax-rate changes, theories of fiscal policy, and game-theoretical approaches to policy formation. These developments are described in survey essays by some of the leading new classical macroeconomists in a recent book.[6] This second generation of the new classical macroeconomics has been a triumph, though not exactly along the lines of the monetary models that we thought about back in the early 1970s.

1. **Lucas R E.** Expectations and the neutrality of money. *J. Econ. Theor.* 4:103-24, 1972. (Cited 455 times.)
2. ---------- Econometric policy evaluation: a critique. *Carnegie-Roch. Conf. Ser. Pub. Pol.* 1:19-46, 1976. (Cited 140 times.)
3. **Sargent T J & Wallace N.** Rational expectations, the optimal monetary instrument, and the optimal money supply rule. *J. Polit. Econ.* 83:241-54, 1975. (Cited 430 times.)
4. **Barro R J.** Unanticipated money growth and unemployment in the United States. *Amer. Econ. Rev.* 67:101-15, 1977. (Cited 360 times.)
5. **Kormendi R C & Meguire P G.** Cross-regime evidence of macroeconomic rationality. *J. Polit. Econ.* 92:875-908, 1989.
6. **Barro R J,** ed. *Modern business cycle theory.* Cambridge, MA: Harvard University Press, 1989. 352 p.

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