If there is a common theme to the papers in this year's issue of the *NBER Macroeconomics Annual*, it is that each takes a fresh if sometimes controversial perspective on an important issue in macroeconomics.

Daron Acemoglu and Joshua Angrist challenge the conventional presumption that there are large social externalities associated with higher educational attainment, a claim often used to justify maintaining and increasing public expenditures on education. In data for U.S. states, there is indeed a high correlation between wages and average schooling levels; indeed, an individual with a given level of education will earn more in a high-education state than in a low-education state, a finding that is suggestive of externalities. However, causation could run in either direction; for example, high-paying industries and more able workers might choose to locate in areas with greater amenities, including a higher general level of education. To disentangle the various effects in samples of male workers drawn from the 1960–1980 Censuses, the authors apply an instrumental-variables technique that exploits historical state-to-state variation in child labor laws and school attendance laws. Variations across states in such laws in the past affect today's average education levels but are unlikely to be correlated with factors such as the tastes of people currently employed in a state, permitting identification of the effects of changes in education on wages. The authors' empirical results contrast sharply with those of many earlier studies, some of which have found the external benefits of education to be as much as twice the private benefits. Instead, Acemoglu and Angrist find that the external returns to investments in primary and secondary education are less than one percent per year of schooling, and are insignificantly different from zero.

Francisco Rodríguez and Dani Rodrik also challenge a common tenet
of the empirical literature, in this case the view that free and open trade promotes economic growth. After systematically critiquing the main studies that have been used to support the hypothesized link between trade and growth, they conclude that, contrary to popular perception, the evidence that the policy-induced trade restrictions are harmful to growth in fact is quite thin. In particular, they argue that many measures of restrictiveness used in the literature either reflect aspects of countries other than trade policy, are not robustly related to economic growth, or both. In understanding the authors’ claim, it is important to recognize that they distinguish between policy-induced openness, and openness due to natural factors such as access to water, size, etc. Further, they do not assert that trade restrictions are helpful to growth, only that the relationship of trade policy to growth is not firmly established (and may well depend on the particular circumstances of the country). Since this position is clearly a contrarian one, the paper provoked considerable discussion at the conference. The authors’ careful analysis and critique will no doubt continue to provoke debate for some time to come.

In recent years, macroeconomists have attempted to explain an increasing number of phenomena by models that allow multiple equilibria. In models exhibiting multiple equilibria, a bank run or an attack on a fixed exchange rate may be interpreted as the result of a self-fulfilling change in investor sentiment, rather than of a change in fundamentals. In their contribution, Stephen Morris and Hyun Song Shin question this general approach to economic modeling, arguing that the existence of multiple equilibria in standard models may well be an artifact of unrealistic assumptions about the information available to market participants. Specifically, they show that the assumption of “common knowledge,” while often convenient for modeling purposes, can mislead us by effectively requiring us to assume that agents have a greater capacity for coordinated action than is actually the case. They illustrate their point in a simple Diamond–Dybvig-style model of bank runs, generalized to allow agents to have some degree of private information. They show that under their (arguably more realistic) specification of the distribution of information, the model’s equilibrium is often (though not always) unique. Morris and Shin’s paper, which applies some ideas they have developed in earlier, more theoretical articles, should prove quite useful to more policy-oriented economists. An interesting general issue, raised by discussant Andrew Atkeson and others, is the degree to which Morris and Shin’s assumption of differential information remains reasonable when publicly observable prices effectively aggregate information in the market.

The relationship between electoral cycles and business cycles, or political business cycles, elicited much interest in both the mid-1970s and the
mid-1980s; Alberto Alesina’s paper on this topic in the 1988 *Macroeconomics Annual* has been widely cited. The theory of political business cycles has lately again become a lively research area. In his paper, Allan Drazen provides a fresh perspective on both the new literature and the old. Drazen is particularly critical of a conventional premise of this literature, that politicians induce business cycles through manipulation of monetary policy; he argues that the evidence that politicians do this, either from partisan or purely opportunistic motives, is quite thin. Instead, he argues, political influences are more likely exerted through the government budget. Although he raises some criticisms of traditional models featuring a “political budget cycle,” Drazen suggests that the empirical evidence can best be explained by a model that combines opportunistic fiscal policy with accommodative monetary policy.

The worldwide Great Depression of the 1930s, which in some sense gave birth to modern macroeconomics, has long proven an enigma. What set off the Depression, how did it spread across the world, and why was the fall in output so persistent? Recent years have seen a new wave of research on the Depression, which in the view of many has significantly deepened our understanding of that economic collapse. Key elements of this evolving “consensus” include misguided monetary policies in the United States; dissemination of the deflationary forces around the world through the workings of the international gold standard; wage and price rigidities that converted monetary contraction into a protracted real downturn; and the collapse of financial intermediation, as banks and other financial institutions failed. In the face of this apparent consensus, the contribution by Hal Cole and Lee Ohanian has to be considered quite radical, or quite refreshing, depending on one’s perspective. Cole and Ohanian point out that the “consensus” story is based on qualitative but not quantitative reasoning; in particular, it has not been evaluated in a quantitative general-equilibrium model. Although Cole and Ohanian do not present a comprehensive model of the Depression, they do use small models to illustrate some of the issues. They also make a number of historical comparisons, in particular between the downturns of 1920–1921 and 1929–1933. The authors’ main conclusion is that sticky nominal wages and shocks to the banking system can account for at most a small part of the collapse of output in the United States during the 1930s, implying that one must turn elsewhere for an explanation of the Depression. The wide-ranging discussion at the conference covered areas ranging from the reliability of 1930s data to debates about how best to model phenomena like the purported collapse of financial intermediation. The sources of the Great Depression clearly remain an exciting and active area of research.
Finally, in a paper entitled “The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?” Maurice Obstfeld and Kenneth Rogoff argue that allowing for plausible-sized costs of international trade in good markets can help us make substantial progress in explaining, in quantitative terms, many apparent empirical paradoxes observed in international financial markets. Among the “puzzles” that may be reduced or resolved by allowing for trade costs, according to the authors, are the Feldstein–Horioka puzzle, the consumption-correlations puzzle, the home-bias-in-equity-portfolios puzzle, the home-bias-in-trade puzzle, the purchasing-power-parity puzzle, and a class of findings they term “the exchange-rate disconnect puzzles.” The Feldstein–Horioka puzzle, that rates of national saving and investment are highly correlated across countries, has proved particularly recalcitrant to explanation. Obstfeld and Rogoff show that, in a simple model with trade costs, real interest rates change nonlinearly with changes in the current-account deficit or surplus, in a manner that can plausibly account for the Feldstein–Horioka phenomenon. An issue raised at the conference was whether costs of trade alone can account for all the puzzling observations, or whether allowing financial-market frictions will also prove necessary. Clearly, more research will be needed. At the very least, however, the paper’s suggestion that a single factor may help to resolve such a range of apparently disparate puzzles is intriguing.

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Ben S. Bernanke and Kenneth Rogoff