

## **Editorial, Daron Acemoglu, Kenneth Rogoff and Michael Woodford**

The Twenty-fourth Edition of the NBER *Macroeconomics Annual* continues with its tradition of featuring theoretical and empirical contributions that shed light on central issues in contemporary macroeconomic debates. As in previous years, the contributions raise important policy-relevant questions and highlight new developments in macroeconomic analysis. Not surprisingly, much of the discussion in this year's volume concerns the sources of the recent financial crisis and possible policy responses to it. But other important topics are also addressed, including the sources of business cycles, the role of dispersed information in the propagation of economic fluctuations, and the changes over time in the U.S. wage distribution. As has been the tradition in the NBER *Macroeconomics Annual*, each paper is discussed by two experts, who provide contrasting views and elaborations of the themes raised in the paper.

The first paper in this year's volume is "The Leverage Cycle," by John Geanakoplos. This paper presents Geanakoplos' theory of endogenous determination of the degree to which a given asset can be pledged as collateral, for example in the repo market, and as a consequence, of the degree to which purchasers of the asset will leverage themselves in order to hold more of it. Variations in equilibrium leverage in the financial sector, especially on the part of institutions such as investment banks and hedge funds, have played a major role in recent financial boom-bust cycles, including the most recent one; understanding why equilibrium leverage varies, and its consequences for asset prices, is clearly crucial to understanding how such instability arises and might potentially be controlled. Geanakoplos develops an elegant approach to this question, building on his previous work on collateral requirements in general equilibrium models with incomplete markets. He develops a simple model highlighting how heterogeneous beliefs interact

with equilibrium leverage, and potentially lead to “leverage cycles”. This innovative and provocative paper will undoubtedly stimulate much further thought and research on the implications of endogenous leverage for of business cycles, monetary policy, and financial regulation.

The next paper, “Reducing Foreclosures,” by Christopher Foote, Kristopher Gerardi, Lorenz Goetter, and Paul Willen, also seeks to understand a crucial element in the recent financial crisis. This paper assesses the validity of alternative hypotheses about the reason for the recent increase in the rate of foreclosures on residential mortgages, through an empirical analysis of a large dataset on individual mortgages, that covers nearly 60 percent of all U.S. mortgages. Contrary to a common view, the authors argue that the recent increase in foreclosures is not primarily due to an increase in the number of borrowers who were granted loans on terms that were “unaffordable” at the time of origination, but is instead mainly attributable to falling house prices and increased unemployment. They also argue that there is little evidence for the view that contracting frictions lead mortgage servicers to insist on foreclosure rather than loan modification, even when modification of the terms of the mortgage would be jointly beneficial to the borrower and to the owners of the mortgage. Instead, they suggest, loan modifications do not occur because they would not benefit the investors who own the mortgage, even if avoiding foreclosure might be judged socially beneficial. These findings have important implications for the kinds of policies that might be adopted to reduce the pain resulting from mass foreclosures.

The third paper, “The Credit Rating Crisis,” by Effi Benmelech and Jennifer Dlugosz, addresses yet another aspect of the financial crisis. It discusses the remarkable number of downgrades of the ratings of the structured credit products that have occurred, and asks what went wrong with the accuracy of the ratings initially assigned to these instruments, a mistake

that arguably contributed in an important way to many institutions' excess exposure to aggregate risks. Rating inflation seems to have been a problem in the case of collateralized debt obligations backed by asset-backed securities (ABS CDOs), particularly for mortgage-backed securities. Using a micro data set on the collateral behind a large number of ABS CDOs, Benmelech and Dlugosz seek to uncover the factors responsible for the disastrously inaccurate ratings. They find some evidence suggesting that shopping for favorable ratings among competing ratings agencies may have played a role in inflating ratings. Perhaps more importantly, they find that ratings downgrades were especially associated with types of collateral for which the statistical models used by the ratings agencies to estimate default probabilities were flawed. This paper provides valuable hard evidence on a controversial issue at the heart of discussions of how the recent crisis could have occurred and how similar mistakes can be avoided in the future.

The fourth paper is "A Quantitative Analysis of the Evolution of the U.S. Wage Distribution, 1970-2000," by Fatih Guvenen and Burhanettin Kuruscu. This paper analyses the quantitative implications for the evolution of wage inequality of a life-cycle model of human capital accumulation with individual heterogeneity in the capacity for such accumulation. The central issue is the degree to which several trends in the U.S. wage distribution since 1970 can be understood as the result of on-the-job human capital investment decisions of workers in response to the increase in the rate of skill-biased technical change, commonly hypothesized to have occurred around that time. The authors show that a plausible variation of the workhorse Ben-Porath model in labor economics is consistent with several observed trends, including the rise in overall wage inequality, the fall and subsequent rise in the wage premium associated with a college degree, the stagnation in median wage growth over this period, and the fact that

measures of consumption inequality have increased less than measures of wage inequality. The paper thus offers a promising new approach to a diverse set of trends using a unified framework.

Our fifth paper, “Noisy Business Cycles,” by Marios Angeletos and Jennifer La’O, provides a theoretical analysis of the role of dispersed information in the propagation of aggregate fluctuations. The paper analyzes a real business cycle model in which there is dispersed information about aggregate shocks. A key result is that aggregate dynamics in the model depend not only on individuals’ (average) degree of uncertainty about those aggregate shocks themselves, but also on their uncertainty about what others’ average perception of the state of the economy may be. The authors argue that variations in this higher-order uncertainty can be an important source of variation in aggregate outcomes, and that, among other things, they can result in variability in measured productivity and measured “labor wedges” --- important phenomena in observed business cycles that are often taken to provide evidence of varying economic fundamentals --- even when fundamentals themselves have not actually changed.

The sixth paper is “Letting Different Views about Business Cycles Compete,” by Paul Beaudry and Bernd Lucke. This paper contributes to the long-standing debate about the relative importance of alternative sources of business fluctuations, by estimating a structural vector-autoregression model of aggregate time series in which the separate effects of each of five different structural disturbances are identified, so that the quantitative contribution of each kind of disturbance to historical business cycles can be assessed. Each of the five types of disturbance --- variations in the rate of neutral technological progress, variations in the rate of investment-specific technological progress, news about future technology, variations in preferences, and random variation in monetary policy --- have been assigned an important role in at least some

prior quantitative accounts of business cycles. A key finding is that according the authors' approach, "news" shocks are of particular importance as a source of aggregate fluctuations, more so than either of the two more familiar types of technology shocks that they allow for, which immediately change production possibilities at the time that the disturbance is observed. This paper should lead to increased interest in the role of variations in information about future fundamentals as a key determinant of business conditions.

This volume of the *NBER Macroeconomics Annual* also introduces a new feature, a published speech about a more policy-related topic, in this case a dinner speech by former Federal Reserve Board member (and long-time NBER researcher) Frederic Mishkin. Mishkin provides a stimulating discussion of recent Federal Reserve policy responses to the financial crisis.

Finally, the authors and the editors would like to take this opportunity to thank Jim Poterba and the National Bureau of Economic Research for their continued support for the *NBER Macroeconomics Annual* and the associated conference. We would also like to thank the NBER conference staff, particularly Rob Shannon, for his usual excellent organization and support. Financial assistance from the National Science Foundation is gratefully acknowledged. Laura Feiveson and Luminita Stevens provided invaluable help in preparing the summaries of the discussions. We are also grateful to Helena Fitz-Patrick for invaluable assistance in editing and producing this volume. We also regret to announce that this is the last volume of the *Macroeconomics Annual* on which Ken Rogoff will serve as co-editor. Daron and Mike would like to express their gratitude to Ken for his ten years of exemplary service in this capacity.

