

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: NBER Macroeconomics Annual 2011, Volume 26

Volume Author/Editor: Daron Acemoglu and Michael Woodford, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 978-0-226-00214-9 (cloth); 978-0-226-00216-3, 0-226-00216-0 (paper)

Volume URL: <http://www.nber.org/books/acem11-1>

Conference Date: April 8-9, 2011

Publication Date: August 2012

Chapter Title: Editorial in "NBER Macroeconomics Annual 2011, Volume 26"

Chapter Author(s): Daron Acemoglu, Michael Woodford

Chapter URL: <http://www.nber.org/chapters/c12403>

Chapter pages in book: (p. xi - xvii)

Editorial

Daron Acemoglu and Michael Woodford

The twenty-sixth edition of the *NBER Macroeconomics Annual* continues with its tradition of featuring theoretical and empirical contributions that shed light on central issues in contemporary macroeconomics. As in previous years, the contributions push the frontiers of macroeconomic work in areas ranging from short-run macroeconomic fluctuations to exchange rates, financial regulation, and political economy. Also as in previous years, the contributions address important policy-relevant questions and open new debates, which we expect to continue in the years to come. As with the previous two volumes in this series, this year's volume features several papers that aim to illuminate the causes of the recent financial crisis and consider policies that might reduce the likelihood of similar crises in the future. These include two papers that analyze the sources of asset market bubbles and their macroeconomic consequences, and two papers that address aspects of financial regulation and their effect on financial markets. In addition, the volume also includes papers on exchange-rate determination and on the macroeconomic determinants of unemployment. Each of the six papers tackles an important area in macroeconomics and advances the literature in several directions. We hope that these papers and the detailed discussions of each paper will provide useful starting points for the further study of these important debates.

The first two papers deal with asset bubbles and possible sources of widespread mistakes in asset valuation during bubble periods. In the first paper, "Natural Expectations, Macroeconomic Dynamics, and Asset Pricing," Andreas Fuster, Benjamin Hebert, and David Laibson propose a theory of "natural expectations" that allows for systematic forecasting errors in sufficiently complex environments, despite consid-

erable sophistication on the part of forecasters. Agents in Fuster et al.'s model forecast on the basis of linear time-series models that may be misspecified as they do not include sufficiently many lags. They show that when confronted with true data-generating processes with high-order autocorrelation, many parsimonious time-series models will be biased in a similar way: they will fail to capture the long-run mean reversion, incorrectly extrapolating short-run momentum into the future. They also argue that US time series for the earnings of capital exhibit this type of long autocorrelation, thus potentially inducing systematic biases in expectations. This kind of bias in earnings forecasts could then give rise to departures of stock prices from fundamental values in a manner consistent with certain stylized patterns: prices are predicted to overreact to changes in fundamentals and hence to be excessively volatile; excess returns should be (negatively) predictable by lagged excess returns and by price/earnings ratios; and equities should be perceived to be highly risky, so that the equity premium is large on average, even though long-run equity returns are only weakly correlated with long-run consumption growth. The paper discusses additional implications of the model for the character of business fluctuations and for the differential behavior of more and less sophisticated investors, and argues that most of its predictions are consistent with US data. This is a provocative hypothesis with broad implications for macroeconomic and financial modeling, and one that is sure to spark considerable further debate.

The second paper, "House Price Booms and the Current Account," by Klaus Adam, Pei Kuang, and Albert Marcet, also considers boom-bust cycles in asset prices and also argues that these must be understood as reflecting departures from correct forecasts of the kind assumed in the theory of "rational expectations." Similar to the previous authors, Adam et al. propose that the errors are endogenous responses to certain histories of fundamentals (rather than being entirely unpredictable or outside the model) and that they arise despite a high degree of rationality on the part of market participants. The approach in this paper is different in that traders are modeled as forecasting future price movements by extrapolating past movements in asset prices, and not simply bidding for assets on the basis of a forecast of future earnings. And perhaps more importantly, Adam et al. assume that forecasts are "internally rational," in the sense that they follow from Bayesian updating given the data (for both prices and dividends) observed thus far, starting from some logically coherent prior beliefs. This implies that

boom-bust cycles are consistent with a high degree of sophistication on the part of market participants, though this sophistication ensures internal consistency of traders' beliefs over time than to the relationship between their forecasts and the true data-generating process. The paper also considers the macroeconomic implications of asset booms of this kind, in particular the implications for the current account balance of a housing boom, in a small open economy model in which borrowing is constrained by the market value of housing collateral. The authors argue that a quantitative version of their model successfully explains broad differences in the sizes of the housing booms and current account deficits in several countries over the past decade. An important aspect of this exercise is that, using purely differences in initial conditions of countries at the beginning of the last decade, they can account not only for the correlation between housing booms and current account deficits, but also for the magnitudes of housing booms in the different countries. In the authors' parsimonious model, the housing booms (or non-booms) of each country are due to a single common disturbance, a decline in the world real interest rate (attributed to monetary policy), which has different consequences for different countries only to the extent that market participants have different beliefs in the different countries; and these in turn are different only because the Bayesian updating in the different countries has been based on different pre-2000 data sets. The authors' findings provide important evidence both for the usefulness of their way of modeling expectation formation and for the hypothesis that low real interest rates in the middle of the past decade played an important role in generating the housing bubbles in several countries, the consequences of which remain with us today.

The next two papers both contribute to the broad reconsideration of financial regulation that has been one of the most evident intellectual consequences of the global financial crisis. In "Risk Topography," Markus Brunnermeier, Gary Gorton, and Arvind Krishnamurthy discuss the kind of financial sector data that would need to be collected and disseminated in order to provide a basis both for more effective macro-prudential policies and for improved private-sector risk management. They argue that existing reporting requirements for financial institutions, such as the Call Reports mandated by the National Banking Act, do not provide the kind of information that is needed for effective oversight of modern financial systems, and discuss potential changes in the reporting requirements. Rather than contenting ourselves with simple reporting of balance-sheet quantities at a point in

time, the authors discuss the potential effects of requiring systemically important financial institutions to regularly report their estimates of the sensitivity of their balance sheets to a specified list of risk factors and hypothetical scenarios. They note that such reporting would shift toward the assessment of risk exposures, and a uniform reporting format across institutions would facilitate assessment of the extent to which the system as a whole is exposed to particular types of risk. While such data reporting would represent a sharp departure from existing policy, the Dodd-Frank Act has established an Office of Financial Research (OFR) within the Department of the Treasury, tasked with providing information to the Financial Stability Oversight Council, and with the power to require financial institutions to supply data that it requests. The paper essentially offers a potential analysis for what the OFR could do with this authority, drawing upon recent research into the nature of systemic risk and its macroeconomic consequences. This discussion provides an excellent example of the way that scholarly research in economics can be used to inform public policy, as well as an example of the interplay between improved data collection and advances in both theoretical understanding and regulation of the economy.

In the fourth paper, "A Fistful of Dollars: Lobbying and the Financial Crisis," Deniz Igan, Prachi Mishra, and Thierry Tresselt discuss another hypothesis about the reason for the failure of financial regulation to prevent the crisis; namely, the role of financial-sector lobbying in shaping regulatory policy. The paper undertakes an empirical analysis of the connection between lobbying by financial institutions and those institutions' mortgage lending; to do so, it constructs a unique, highly detailed data set that matches the lobbying activities of individual institutions (identifying the particular bills targeted by the lobbying) with a variety of information about their lending. They find that institutions that lobbied more about a specific set of issues (such as consumer protection in mortgage lending and underwriting standards) also differed in a number of dimensions in their mortgage lending: their loan-to-income ratios were higher, they securitized a larger fraction of the mortgages that they originated, and their mortgage portfolios grew more rapidly than in the case of institutions that lobbied less. The lobbying institutions also differed in their performance *ex post*: delinquency rates in 2008 were higher in the areas where these firms concentrated their lending, and the stock valuations of these firms were more sensitive to particular events during the crisis that changed public perceptions of financial-sector risk. These results suggest that lobbying may have con-

tributed to—or at least has been strongly associated with—increased risk-taking by mortgage lenders that paved the way to the financial crisis. These provocative findings suggest that further study and closer monitoring of lobbying activities might contribute to reducing the risk of future crises of a similar nature.

Our final two papers present advances in general methods of macroeconomic analysis. In “Risk, Monetary Policy, and the Exchange Rate,” Gianluca Benigno, Pierpaolo Benigno, and Salvatore Nisticò revisit a central issue in open-economy macroeconomics, the influence of monetary policy on exchange rates, with particular attention to the role of time-varying risk in exchange-rate determination. The view that time-varying risk premia are an important factor in the explanation of exchange-rate movements is a familiar one, owing to well-documented anomalies such as the failure of uncovered interest-rate parity to hold; but standard open-economy dynamic stochastic general equilibrium (DSGE) models do not allow for them (except perhaps as ad hoc error terms added to the model’s structural equations that are not actually connected to risk in the model), as a consequence of the linearization methods used for numerical analysis of the models. An important contribution of this paper is to show how time-varying risk premia can be rigorously incorporated into DSGE analysis through a higher-order perturbation analysis, which the authors show can be made surprisingly tractable under certain simplifying assumptions about the nature of volatility shocks. They illustrate their method by analyzing exchange-rate determination in a two-country DSGE model with nominal price rigidities, national monetary policies described by interest-rate rules, and stochastic volatility in the exogenous processes driving the economy. The exogenous stochastic volatility (which is in turn the source of the time-varying risk premia) is of several sorts: the paper considers the effects of stochastic volatility in productivity, in the central bank’s inflation target, and in a transitory error term in the central bank’s reaction function. The paper provides new empirical evidence on the effects of each of these types of volatility shocks on exchange rates, and shows that the proposed theoretical model can be specified in a way that yields predictions broadly in conformity with this evidence. It also clarifies the role that particular aspects of the model and of its quantitative specification play in matching particular aspects of the empirical evidence. This paper marks an important advance in open-economy modeling, and is likely to provide a foundation for much further work in this vein.

Finally, our sixth paper, “Unemployment in an Estimated New Keynesian Model,” by Jordi Galí, Frank Smets, and Rafael Wouters, extends a standard empirical monetary DSGE model to include an explicit account of variations in the rate of unemployment, and not simply variations in the aggregate labor input, represented as the labor supply of a representative household, as in the first generation of empirical DSGE models. The authors propose a particular, fairly simple model of unemployment determination that allows unemployment to be introduced into the model without greatly increasing the number of variables of the model or its complexity in other respects, and show that estimation of the model with this addition (and requiring it to fit an additional time series, namely unemployment) does not reduce the consistency of the model with aggregate time series. As well as incorporating unemployment as an additional macroeconomic variable, this extension of the standard model can potentially resolve a challenging identification issue. While the standard DSGE model cannot separately identify labor supply shifts from changes over time in the market power of labor despite their very different welfare implications, the authors’ approach can do so thanks to the existence of an additional state variable, unemployment, that is differently affected by the two types of disturbances. The authors find that variations in market power do not contribute much to variations in real GDP (contrary to the results of Smets and Wouters for the model without unemployment), but they do find that variations in market power in the labor market are a significant source of secular movements in both unemployment and the inflation rate. The paper’s new approach also yields important new measures of variation over time in both potential output and the natural rate of unemployment—two very controversial quantities to measure which are, however, of fundamental importance both for understanding business-cycle dynamics and for assessment of the appropriate stance of stabilization policy—and new evidence on the role of demand as opposed to supply factors in accounting for business cycles. The new model and the account of historical business fluctuations that it contributes are likely to provide the new benchmark for further quantitative analysis of this crucial set of issues.

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 or-

ganization and support. Financial assistance from the National Science Foundation is gratefully acknowledged. Neil Mehrotra and Dmitriy Sergeyev provided invaluable help in preparing the summaries of the discussions. And last but far from least, we are grateful to Helena Fitz-Patrick for her invaluable assistance in editing and producing the volume.

Endnote

For acknowledgments, sources of research support, and disclosure of the authors' material financial relationships, if any, please see <http://www.nber.org/chapters/c12403.ack>.