Federal Reserve Bank of New York

Number 3
2009

Research Update

Research and Statistics Group www.newyorkfed.org/research

Mark Flannery and Douglas Gale Are Newest Resident Scholars

The Research Group is pleased to announce that Mark J. Flannery and Douglas Gale have joined its Program for Resident Scholars for 2009-10.

Professor Flannery is the BankAmerica Eminent Scholar in Finance at the University of Florida's Graduate School of Business Administration. He has written on a range of banking and finance topics, including government regulation of the financial sector, the information content of security prices, and asset pricing. His work has appeared in the *American Economic Review*, the *Journal of Finance*, the *Quarterly Journal of Economics*, and the *Review of Financial Studies*.

Professor Flannery has served as editor of the *Journal of Money, Credit, and Banking* and as associate editor at numerous other finance journals. He was codirector of the Federal Deposit Insurance Corporation's Center for Financial Research and is president of the Financial Intermediation Research Society. Professor Flannery has been a member of the Federal Reserve Bank of New York's Financial Advisory Roundtable since its inception in 2006 as well as a visiting scholar at the Bank.

Professor Gale is a Silver Professor and a professor of economics at New York University. He has taught at the London School of Economics, the University of Pennsylvania, and the Massachusetts Institute of Technology. In addition to authoring and coauthoring several scholarly volumes, Professor Gale has published on financial economics, the microstructure of markets, and the foundations of macroeconomics and monetary economics in such journals as the *American Economic Review*,

Also in this issue...

Econometrica, and the *Review of Financial Studies*.

Professor Gale is coeditor of the *International Journal of Central Banking*. He has served on various editorial boards, including the boards of *Econometrica*, the *Journal of Economic Theory*, and the *Review of Economic Studies*. He is a fellow of the Econometric Society. In addition, Professor Gale is a former member of the Economics Advisory Panel of the National Science Foundation, a former visiting scholar at the Federal Reserve Bank of New York, and former chair of New York University's Economics Department.

The Research Group established its Program for Resident Scholars in 2004 to attract to the New York Fed, for a stay of at least six months, outstanding researchers with an international reputation. The scholars are selected from the top academic and policy institutions in areas related to the Bank's broad policy interests. Resident scholars pursue their own research agendas while participating fully in the Research Group's activities. They work closely with the director of research, contribute to policymaking discussions, and provide intellectual leadership by advising and collaborating with the Group's economists.

Previous resident scholars are: Mark Gertler, the Henry and Lucy Moses Professor of Economics at New York University; Eric Ghysels, the Edward M. Bernstein Distinguished Professor of Economics at the University of North Carolina at Chapel Hill; Nobuhiro Kiyotaki, professor of economics at Princeton University; John Leahy, professor of economics at New York University; Suresh M. Sundaresan, the Chase Manhattan Bank Foundation Professor of Financial Institutions at Columbia Business School; and Jiang Wang, the Mizuho Financial Group Professor at MIT's Sloan School of Management. ■

Publications and Papers

The Research and Statistics Group produces a wide range of publications:

- *The Economic Policy Review*—a policy-oriented journal focusing on economic and financial market issues.
- *EPR Executive Summaries*—online versions of selected *Economic Policy Review* articles, in abridged form.
- *Current Issues in Economics and Finance*—concise studies of topical economic and financial issues.
- *Second District Highlights*—a regional supplement to *Current Issues*.
- *Staff Reports*—technical papers intended for publication in leading economic and finance journals, available only online.
- *Publications and Other Research*—an annual catalogue of our research output.

Loan Facility Eases Funding Pressures for Primary Dealers

In "The Federal Reserve's Primary Dealer Credit Facility" (*Current Issues in Economics and Finance*, vol. 15, no. 4), authors Tobias Adrian, Christopher Burke, and James McAndrews provide a detailed examination of the conditions that prompted the Federal Reserve to establish an emergency lending facility for primary dealers—banks and securities broker-dealers that trade U.S. government and other securities with market participants and the Federal Reserve Bank of New York.

As the authors explain, the Primary Dealer Credit Facility (PDCF) was created largely to ease liquidity pressures in the "repo market"—the collateralized funding market where primary dealers customarily obtain financing for their securities portfolios—after the near-failure of Bear Stearns in March 2008. Policymakers foresaw a negative chain of consequences in which the breakdown in credit availability in this market would force large numbers of market participants to sell their securities. In turn, this rapid sell-off would cause the prices of the securities to plummet, prompting lenders to demand higher "haircuts," or risk premia, to hold these securities as collateral.

In this environment, the Federal Reserve created the PDCF as a backstop facility that provides overnight loans in exchange for a wide range of collateral. The injection of liquidity—and the assurance that credit is available—helped arrest the downward spiral in prices and the increases in haircuts. "In practice," the authors note, "the PDCF allows dealers time to arrange other financing for their assets—for example, by raising equity—or to sell assets at a pace that would not overwhelm the markets and drive securities prices down."

Adrian, Burke, and McAndrews also examine the Fed's move to broaden the kinds of collateral acceptable for PDCF loans—a step taken in September 2008, when Lehman Brothers, a major participant in the repo market, appeared headed for bankruptcy. Recognizing that a Lehman bankruptcy would put other financial institutions at risk, including the triparty clearing banks that provide cash and collateral custody accounts for borrowers and lenders in multiple-day repo transactions, the Fed acted to ease funding pressures further by expanding eligible collateral to include less liquid securities and equities.

The authors also address the moral hazard concerns raised by the PDCF—specifically, the notion that by offering the assurance of back-up financing, the facility effectively encourages primary dealers to take excessive risks in managing their funding positions. As Adrian, Burke, and McAndrews note, however, such concerns are offset by the fact that the PDCF protects prudently managed firms from the damaging effects of the risks taken by less responsible firms. In addition, a number of the larger primary dealers have merged with bank holding companies or transformed themselves into bank holding companies since the Bear Stearns episode—a change that gives the Federal Reserve supervisory powers over the dealers it lends to and reduces the likelihood of moral hazard.

The article is available at www.newyorkfed.org/research/current_issues/ci15-4.html.

New York Fed Website Makes Vital U.S. Credit Data Available at Local Level

To help local policymakers address mortgage delinquency and foreclosure issues, the New York Fed is making important information on credit conditions available through its public website.

The Bank's U.S. Credit Conditions site (data.newyorkfed.org/creditconditions) offers detailed data on mortgage foreclosures and delinquencies, bank credit card payments, and auto and student loans. The information, along with interactive maps, is designed to help government agencies, community groups, commercial institutions, and other practitioners better understand, monitor, and respond to local conditions associated with foreclosures and credit and mortgage delinquencies.

The site offers a range of informative features. For example, visitors can view, by county, overall credit conditions and compare a county's ranking within its state or in the United States. Red and green "heat maps" illustrate whether conditions have worsened or improved over the past year. In addition, a sequence of charts shows the likelihood that subprime and alt-A mortgages will roll from their current status to thirty days late, from sixty to ninety days late, or from ninety days late to foreclosure. The roll rates are presented in terms of the number of mortgages likely to roll from one status to the next and in terms of dollar volumes.

The Federal Reserve considers the record rate of mortgage delinquencies and foreclosures and its impact on communities to be an urgent problem. The goal of the U.S. Credit Conditions website is to enable a wide range of public and private sector decision makers to use this credit information to assist their efforts to resolve the delinquency and foreclosure problem and mitigate its impact. ■

New in the *Economic Policy Review*

Volume 15, Number 1, July

The Case for TIPS: An Examination of the Costs and Benefits

William C. Dudley, Jennifer Roush, and Michelle Steinberg Ezer

Slightly more than a decade has passed since the introduction of the Treasury Inflation-Protected Securities (TIPS) program, through which the U.S. Treasury Department issues inflation-indexed debt. Several studies have suggested that the program has been a financial disappointment for the Treasury and by extension U.S. taxpayers. Relying on ex post analysis, the studies argue that the issuance of nominal Treasury securities remains a more cost-effective strategy. This article proposes that evaluations of the TIPS program be more comprehensive, and instead focus on the ex ante costs of TIPS issuance compared with nominal Treasury issuance. The authors contend that ex ante analysis is a more effective way to assess the costs of TIPS *over the long run*. Furthermore, relative cost calculations—whether ex post or ex ante—are just one aspect of a comprehensive analysis of the costs and benefits of the TIPS program. TIPS issuance provides other benefits that should be taken into account when evaluating the program, especially when TIPS are only marginally more expensive or about as expensive to issue as nominal Treasury securities.

Why Did FDR's Bank Holiday Succeed?
William L. Silber

After a month-long run on American banks, Franklin Delano Roosevelt proclaimed a Bank Holiday, beginning March 6, 1933, that shut down the banking system. When the banks reopened on March 13, depositors stood in line to return their hoarded cash. This article attributes the success of the Bank Holiday and the remarkable turnaround in the public's confidence to the Emergency Banking Act, passed by Congress on March 9, 1933. Roosevelt used the emergency currency provisions of the Act to encourage the Federal Reserve to create de facto 100 percent deposit insurance in the reopened banks. The contemporary press confirms that the public recognized the implicit guarantee and, as a result, believed that the reopened banks would be safe, as the President explained in his first Fireside Chat on March 12, 1933. Americans responded by returning more than half of their hoarded cash to the banks within two weeks and by bidding up stock prices by the largest ever one-day percentage price increase on March 15—the first trading day after the Bank Holiday ended. The study concludes that the Bank Holiday and the Emergency Banking Act of 1933 reestablished the integrity of the U.S. payments system and demonstrated the power of credible regime-shifting policies.

Below the Line: Estimates of Negative Equity among Nonprime Mortgage Borrowers
Andrew F. Haughwout and Ebiere Okah

Measures of housing units with negative equity—in which the mortgage balance exceeds the value of the collateral housing unit—have become a necessary component in crafting policies to address the current foreclosure crisis. This article estimates negative equity in the U.S. nonprime mortgage market for 2008-09 to describe the sources of the problem and the characteristics of borrowers in negative equity. The authors combine information from house price indexes with data on individual loans to estimate the prevalence and magnitude of negative equity across various dimensions, including the location of the property and the year in which the mortgage originated. They find that negative equity is closely associated with the time and place of mortgage origination and with the existence of subordinate liens against the property. In addition, borrowers whose mortgage is worth more than their house are twice as likely as borrowers in positive equity to be seriously delinquent, or in default, on their first-lien mortgage. The study also uses information derived from housing price futures contracts to estimate the path of negative equity beyond 2009.

Articles are available at www.newyorkfed.org/research/epr/2009.html.

Most Downloaded Publications

Listed below are the most sought after Research Group articles and papers from the New York Fed's website and from the Bank's page on the Social Science Research Network site (www.ssrn.com/link/FRB-New-York.html).

New York Fed website, third-quarter 2009:

- "Why Are Banks Holding So Many Excess Reserves?" by Todd Keister and James McAndrews (*Staff Reports*, no. 380, July 2009) – 5,498 downloads
- "Understanding the Securitization of Subprime Mortgage Credit," by Adam B. Ashcraft and Til Schuermann (*Staff Reports*, no. 318, March 2008) – 2,318 downloads
- "The Yield Curve as a Predictor of U.S. Recessions," by Arturo Estrella and Frederic S. Mishkin (*Current Issues in Economics and Finance*, vol. 2, no. 7, June 1996) – 2,270 downloads

SSRN website, through third-quarter 2009:

- "Understanding the Securitization of Subprime Mortgage Credit," by Adam B. Ashcraft and Til Schuermann (*Staff Reports*, no. 318, March 2008) – 885 downloads
- "The Corporate Governance of Banks," by Jonathan R. Macey and Maureen O'Hara (*Economic Policy Review*, vol. 9, no. 1, April 2003) – 162 downloads
- "Executive Equity Compensation and Incentives: A Survey," by John E. Core, Wayne R. Guay, and David F. Larcker (*Economic Policy Review*, vol. 9, no. 1, April 2003) – 145 downloads

For the full lists of top-ten downloads, visit www.newyorkfed.org/research/top_downloaded/index.html.

New Titles in the *Staff Reports* Series

The following new staff reports are available at www.newyorkfed.org/research/staff_reports.

MACROECONOMICS AND GROWTH

No. 385, August 2009
Credit Spreads and Monetary Policy
Vasco Cúrdia and Michael Woodford

Cúrdia and Woodford consider the desirability of modifying a standard Taylor rule for a central bank's interest rate policy to incorporate either an adjustment for changes in interest rate spreads or a response to variations in the aggregate volume of credit. The authors use a simple DSGE (dynamic stochastic general equilibrium) model with credit frictions, comparing the equilibrium responses to various disturbances under the modified Taylor rules with those under a policy that would maximize average expected utility. According to the model, a spread adjustment can improve on the standard Taylor rule, but the optimal size of the adjustment is unlikely to be large, and the same type of adjustment is not desirable regardless of the source of variation in credit spreads.

A response to credit is less likely to be helpful, and its desirable size (and sign) is less robust to alternative assumptions about the nature and persistence of economic disturbances.

INTERNATIONAL

No. 387, August 2009
Commodity Prices, Commodity Currencies, and Global Economic Developments
Jan J. J. Groen and Paolo A. Pesenti

This paper seeks to produce forecasts of commodity price movements that can systematically improve on naïve statistical benchmarks. Groen and Pesenti revisit how well changes in commodity currencies perform as potential efficient predictors of commodity prices, a view emphasized in the recent literature. They also consider different types of factor-augmented models that use information from a large data set containing a variety of indicators of supply and demand conditions across major developed and developing countries. These models use either standard principal components or the more novel partial least squares (PLS) regression to extract dynamic factors from the data set. The authors consider ten alternative indices and sub-indices of spot prices for three different commodity classes across different periods. They find that of all the approaches, the exchange-rate–based model and the PLS factor-augmented model are more likely to outperform the naïve statistical benchmarks, although PLS factor-augmented models usually have a slight edge over the exchange-rate–based approach.

MICROECONOMICS

No. 378, July 2009
How Do College Students Form Expectations?
Basit Zafar

This paper focuses on how college students form expectations about various major-specific outcomes. Zafar collects a unique panel data set of Northwestern University undergraduates that contains their subjective expectations about major-specific outcomes. Although students tend to be overconfident about their future academic performance, the author finds that they revise their expectations about various major-specific outcomes in systematic ways. Furthermore, students seem to update their probabilistic beliefs in a manner consistent with Bayesian analysis: Prior beliefs about outcomes to be realized in college tend to be fairly precise, while new information influences prior beliefs about outcomes in the workplace. Moreover, students who are more uncertain about major-specific outcomes in the initial survey make greater absolute revisions in their beliefs in the follow-up survey. Finally, Zafar presents evidence that learning plays a role in the decision to switch majors.

No. 379, July 2009
Do Vouchers Lead to Sorting under Random Private-School Selection? Evidence from the Milwaukee Voucher Program
Rajashri Chakrabarti

This paper analyzes the effect of school vouchers on student sorting and whether vouchers can be designed to reduce or eliminate it. Chakrabarti focuses on two crucial requirements of the Milwaukee voucher program: 1) private schools must select students randomly and 2) private schools must accept the voucher amount as full tuition payment (that is, "topping up" of vouchers is not permitted). Using a theoretical model, she argues that random selection alone cannot prevent student sorting. However, random selection without topping up can preclude sorting by income, although there is still sorting by ability. Sorting by ability is not caused here by private-school selection, but by parental self-selection. Examining the first five years of the Milwaukee program, the author establishes that random selection has taken place, providing an appropriate setting for testing the corresponding theoretical predictions in the data. She demonstrates that these predications are validated empirically.

No. 383, August 2009
Gender and the Availability of Credit to Privately Held Firms: Evidence from the Surveys of Small Business Finances
Rebel A. Cole and Hamid Mehran

Using data from the nationally representative Surveys of Small Business Finances, Cole and Mehran document empirical regularities in male- and female-owned firms. They find that female-owned firms are 1) significantly smaller, as measured by sales, assets, and employment; 2) younger, as measured by age of the firm; 3) more likely to be organized as proprietorships and less as corporations; 4) more likely to be in retail trade and business services; and 5) inclined to have fewer and shorter banking relationships. Moreover, female owners are significantly younger, less experienced, and not as well educated. The authors also find strong univariate evidence that female-owned firms are significantly more likely to be credit-constrained because they are more likely to be discouraged from applying for credit, though not more likely to be denied credit when they do apply. However, any differences are rendered insignificant in a multivariate setting, which controls for other firm and owner characteristics.

No. 392, September 2009
Labor Market Pooling and Occupational Agglomeration
Todd M. Gabe and Jaison R. Abel

This paper examines the micro-foundations of occupational agglomeration in U.S. metropolitan areas, with an emphasis on labor market pooling. Controlling for a wide range of occupational attributes, including proxies for the use of specialized machinery and for the importance of knowledge spillovers, Gabe and Abel find that jobs characterized by a unique knowledge base exhibit higher levels of geographic concentration than do occupations with generic knowledge requirements. Further, by analyzing co-agglomeration patterns, the authors find that occupations with similar knowledge requirements tend to co-agglomerate. Both results provide new evidence on the importance of labor market pooling as a determinant of occupational agglomeration.

No. 394, September 2009
The Dynamics of Automobile Expenditures
Adam Copeland

This paper presents a dynamic model for light motor vehicles. Consumers solve an optimal stopping problem in deciding if they want a new automobile and when in the model year to purchase it. This dynamic approach allows for determining how the mix of consumers evolves over the model year and for measuring consumers' substitution patterns across products and time. Copeland finds that temporal substitution is significant, driving consumers' entry into and exit from the market. Through counterfactuals, he shows that because consumers will temporarily substitute to a large degree, failure to account for automakers' dynamic pricing strategies results in an inaccurate picture of the return to using pricing incentives. A further finding is that the large price discounts typically offered at the end of the model year result in price discrimination by inducing price-sensitive consumers to delay purchasing new vehicles until the later months of the model year.

BANKING AND FINANCE

No. 380, July 2009
Why Are Banks Holding So Many Excess Reserves?
Todd Keister and James McAndrews

The quantity of reserves in the U.S. banking system has risen dramatically since September 2008. Some commentators have expressed concern that this pattern indicates that the Federal Reserve's liquidity facilities have been ineffective in promoting the flow of credit to firms and households. Others have argued that the high level of reserves will be inflationary. Keister and McAndrews explain, through a series of examples, why banks are currently holding so many reserves. The examples show how the quantity of bank reserves is determined by the *size* of the Federal Reserve's policy initiatives and in no way reflects the initiatives' *effects* on bank lending. They also argue that a large increase in bank reserves need not be inflationary, because the payment of interest on reserves allows the Federal Reserve to adjust short-term interest rates independently of the level of reserves.

No. 381, July 2009
The Microstructure of a U.S. Treasury ECN: The BrokerTec Platform
Michael J. Fleming and Bruce Mizrach

This paper assesses the microstructure of the U.S. Treasury securities market, using newly available tick data from the BrokerTec electronic trading platform. Examining trading activity, bid-ask spreads, and depth for on-the-run two-, three-, five-, ten-, and thirty-year Treasury securities, Fleming and Mizrach find that market liquidity is greater than that found in earlier studies that use data only from voice-assisted brokers. They find that the price effect of trades on BrokerTec is quite small and is even smaller once order-book information is considered. Moreover, order-book information itself is shown to affect prices. The authors also explore a novel feature of BrokerTec—the ability to enter hidden ("iceberg") orders—and find that, as predicted by theory, such orders are more common when price volatility is higher.

No. 382, July 2009
The Shadow Banking System: Implications for Financial Regulation
Tobias Adrian and Hyun Song Shin

The current financial crisis has highlighted the growing importance of the "shadow banking system," which grew out of the securitization of assets and the integration of banking with capital market developments. This trend has been most pronounced in the United States, but it has had a profound influence on the global financial system. In a market-based financial system, banking and capital market developments are inseparable: Funding conditions are closely tied to fluctuations in the leverage of market-based financial intermediaries. Growth in the balance sheets of these intermediaries provides a sense of the availability of credit, while contractions of the balance sheets have tended to precede the onset of financial crises. Securitization was intended as a way to transfer credit risk to those better able to absorb losses, but instead it increased the fragility of the entire financial system by allowing banks and other intermediaries to "leverage up" by buying one another's securities. In the new, post-crisis financial system, the role of securitization will likely be held in check by more stringent financial regulation and by the recognition that it is important to prevent excessive leverage and maturity mismatch, both of which can undermine financial stability.

No. 384, August 2009
Prestigious Stock Exchanges: A Network Analysis of International Financial Centers
Nicola Cetorelli and Stavros Peristiani

This study uses methods from social network analysis to assess the relative importance of financial centers around the world. The first phase of the analysis evaluates international stock exchanges based on their ability to attract global initial public offerings (IPOs). The second phase compares the capacity of these exchanges to provide an efficient trading platform for cross-listed companies. Cetorelli and Peristiani find that despite a diminished ability to attract cross-border IPOs, U.S. exchanges have maintained an undisputable lead in global equity activity throughout the entire sample period. They do find evidence of the rising importance of competing exchanges—in particular, the London Stock Exchange, the Deutsche Börse, and the Hong Kong Stock Exchange—and of an expanding role for a number of emerging market stock exchanges. However, this rising pattern reflects improved competitive conditions in a growing global market rather than a sudden decline in the activity of U.S. exchanges.

No. 389, September 2009
Liquidity Risk, Credit Risk, and the Federal Reserve's Responses to the Crisis
Asani Sarkar

In responding to the severity and broad scope of the financial crisis that began in 2007, the Federal Reserve has made aggressive use of both traditional monetary policy instruments and innovative tools in an effort to provide liquidity. Sarkar examines the Fed's actions in light of the underlying financial amplification mechanisms propagating the crisis—in particular, balance sheet constraints and counterparty credit risk. The empirical evidence supports the Fed's views on the primacy of balance sheet constraints in the earlier stages of the crisis and the increased prominence of counterparty credit risk as the crisis evolved in 2008. The author concludes that an understanding of the prevailing risk environment is necessary in order to evaluate when central bank programs are likely to be effective and under what conditions the programs might cease to be necessary.

No. 390, September 2009
Bank Capital and Value in the Cross Section
Hamid Mehran and Anjan Thakor

Mehran and Thakor address two questions: 1) Are bank capital structure and value correlated in the cross section, and if so, how? 2) If bank capital does affect bank value, how are the *components* of bank value affected by capital? The authors first develop a dynamic model with a dissipative cost of bank capital that is traded off against the benefits of capital: strengthened incentives for the bank to engage in value-enhancing loan monitoring and a higher probability of avoiding regulatory closure due to loan delinquencies. The model predicts that 1) the total value of the bank and its equity capital are positively correlated in the cross section and 2) the various components of bank value are also positively cross-sectionally related to bank capital. When the authors confront the predictions with the data on bank acquisitions, they find strong support. Their results are robust to a variety of alternative explanations.

No. 391, September 2009
Price-Increasing Competition: The Curious Case of Overdraft versus Deferred Deposit Credit
Brian T. Melzer and Donald P. Morgan

The authors find that banks charge more for overdraft credit when depositors have access to a potential substitute: deferred deposit ("payday") credit. They attribute this rise in prices partly to adverse selection created by banks' practice of charging a flat fee regardless of the overdraft amount—pricing that favors depositors prone to large overdrafts. When deferred deposit credit priced per dollar borrowed is available, depositors prone to small overdrafts switch to that option. That selection works against banks; large overdrafts cost more to supply and, if depositors default, banks lose more, so prices rise. Consistent with this adverse-selection hypothesis, Melzer and Morgan document that the average dollar amount per returned check at banks and other depository institutions increases when depositors have access to deferred deposit credit. Beyond documenting another case of price-increasing competition, their findings bear on theories of adverse selection in credit markets and contribute to the debate over the pros and cons of payday credit.

No. 393, September 2009
Capital Constraints, Counterparty Risk, and Deviations from Covered Interest Rate Parity
Niall Coffey, Warren Hrung, and Asani Sarkar

Coffey, Hrung, and Sarkar provide robust evidence of a deviation in the covered interest rate parity (CIP) relation since the onset of the financial crisis in August 2007. The deviation exists with respect to various dollar-denominated interest rates and exchange rate pairings of the dollar vis-à-vis other currencies. The authors show that their proxies for margin conditions and for the cost of capital are significant determinants of the CIP deviations, especially during the crisis period. The supply of dollars by the Federal Reserve to foreign central banks via reciprocal currency arrangements (swap lines) reduced CIP deviations at this time. Following the bankruptcy of Lehman Brothers, uncertainty about counterparty risk became a significant determinant of CIP deviations, and the swap lines program no longer affected the deviations significantly. These results indicate a breakdown of arbitrage transactions in the international capital markets that owes partly to lack of capital and partly to heightened counterparty credit risk.

No. 395, September 2009
Are Market Makers Uninformed and Passive? Signing Trades in the Absence of Quotes
Michel van der Wel, Albert J. Menkveld, and Asani Sarkar

This study develops a new likelihood-based approach to signing trades in the absence of quotes. The approach is equally efficient as the existing Markov-chain Monte Carlo methods, but more than ten times faster. It can address the occurrence of multiple trades at the same time and allows for analysis of settings in which trade times are observed with noise. The authors apply this method to a high-frequency data set of thirty-year U.S. Treasury futures to investigate the role of the market maker. Most theory characterizes the market maker as an uninformed, passive supplier of liquidity. Their findings suggest, however, that some market makers actively demand liquidity for a substantial part of the day and that they are informed speculators.

QUANTITATIVE METHODS

No. 386, August 2009
Parsimonious Estimation with Many Instruments
Jan J. J. Groen and George Kapetanios

Groen and Kapetanios suggest a way to perform parsimonious instrumental variables estimation in the presence of many, and potentially weak, instruments. In contrast to standard methods, the authors' approach yields consistent estimates when the set of instrumental variables complies with a factor structure. In this sense, their method is equivalent to instrumental variables estimation that is based on principal components. However, even if the factor structure is weak or nonexistent, the authors' method, unlike the principal components approach, still yields consistent estimates. Indeed, simulations indicate that their approach always dominates standard instrumental variables estimation, regardless of whether the factor relationship underlying the set of instruments is strong, weak, or absent.

No. 388, August 2009
Real-Time Inflation Forecasting in a Changing World
Jan J. J. Groen, Richard Paap, and Francesco Ravazzolo

The authors propose a Phillips-curve–type model that results from averaging across different regression specifications selected from a set of potential predictors. In each specification, they allow for stochastic breaks in regression parameters, where the breaks are described as occasional shocks of random magnitude. As such, their framework simultaneously addresses structural change and model uncertainty that unavoidably affect Phillips-curve–based predictions. Groen, Paap, and Ravazzolo use this framework to describe personal consumption expenditure (PCE) deflator and GDP deflator inflation rates for the United States in the post–World War II period. Over the full 1960-2008 sample, the framework indicates several structural breaks across different combinations of activity measures. These breaks often coincide with policy regime changes and oil price shocks, among other important events. In contrast to many previous studies, the authors find less evidence of autonomous variance breaks and inflation gap persistence. They also show that their model specification generally provides superior one-quarter-ahead and one-year-ahead forecasts for quarterly inflation. ■

Recently Published

Tobias Adrian. 2009. "Learning about Beta: Time-Varying Factor Loadings, Expected Returns, and the Conditional CAPM," with Francesco Franzoni. *Journal of Empirical Finance* 16, no. 4 (September): 537-56.

Tobias Adrian. 2009. "The Shadow Banking System: Implications for Financial Regulation," with Hyun Song Shin. Bank of France *Financial Stability Review*, no. 13 (September): 1-10.

Marco Del Negro. 2009. "Monetary Policy Analysis with Potentially Misspecified Models," with Frank Schorfheide. *American Economic Review* 99, no. 4 (September): 1415–50.

Andrew Haughwout and Joseph Tracy. 2009. "Subprime Mortgage Pricing: The Impact of Race, Ethnicity, and Gender on the Cost of Borrowing," with Christopher Mayer. *Brookings-Wharton Papers on Urban Affairs*: 33-56.

Todd Keister. 2009. "Bank Runs and Institutions: The Perils of Intervention," with Huberto M. Ennis. *American Economic Review* 99, no. 4 (September): 1588-1607.

Todd Keister. 2009. "Bank Runs as Coordination Failures: An Experimental Study," with Rod Garratt. *Journal of Economic Behavior and Organization* 71, no. 2 (August): 300-17.

Todd Keister. 2009. "Expectations and Contagion in Self-Fulfilling Currency Attacks." *International Economic Review* 50, no. 3 (August): 991-1012.

Todd Keister. 2009. "Run Equilibria in the Green-Lin Model of Financial Intermediation," with Huberto M. Ennis. *Journal of Economic Theory* 144, no. 5 (September): 1996-2020.

Sagiri Kitao. 2009. "Labor Supply Elasticity and Social Security Reform," with Selahattin Imrohoroglu. *Journal of Public Economics* 93, no. 7-8 (August): 867-78.

Thomas Klitgaard. 2009. "The Rise and Fall of Sovereign Wealth Accumulation: Causes and Consequences," with Matthew Higgins. *Revue d'Economie Financière 2009*, 179-93. Special Issue on Sovereign Wealth Funds.

Anna Kovner. 2009. "Specialization and Success: Evidence from Venture Capital," with Paul Gompers and Josh Lerner. *Journal of Economics and Management Strategy* 18, no. 3 (fall): 817-44.

James McAndrews. 2009. "Rating the Raters: Are Reputation Concerns Powerful Enough to Discipline Rating Agencies?" with Jérôme Mathis and Jean-Charles Rochet. *Journal of Monetary Economics* 56, no. 5 (July): 657-74.

Ayşegül Şahin. 2009. "Job-Finding and Separation Rates in the OECD," with Bart Hobijn. *Economics Letters* 104, no. 3 (September): 107-58.

Ayşegül Şahin. 2009. "Revisiting the Welfare Effects of Eliminating Business Cycles," with Per Krusell, Toshihiko Mukoyama, and Anthony A. Smith, Jr. *Review of Economic Dynamics* 12, no. 3 (July): 393-404.

João Santos. 2009. "Do Banks Price Their Informational Monopoly?" with Galina Hale. *Journal of Financial Economics* 93, no. 2 (August): 185-206.

João Santos. 2009. "Do Markets 'Discipline' All Banks Equally?" *Journal of Financial Economic Policy* 1, no. 1: 107-23.

Asani Sarkar. 2009. "Time-Varying Consumption Covariance and Dynamics of the Equity Premium: Evidence from the G-7 Countries," with Lingjia Zhang. *Journal of Empirical Finance* 16, no. 4 (September): 613-31. ■

Papers Presented by Economists in the Research and Statistics Group

"Systemic Risk and Liquidity in Payment Systems," Gara Afonso. Bank of Korea seminar, Seoul, South Korea, July 2. With Hyun Song Shin. Also presented at a Bank of Japan seminar, Tokyo, Japan, July 10.

"Estimating the Cross-Sectional Distribution of Price Stickiness from Aggregate Data," Carlos Carvalho. Society for Economic Dynamics annual meeting, Istanbul, Turkey, July 4. With Niels Dam. Also presented at the Joint Congress of the European Economic Association and the Econometric Society European Meeting, Barcelona, Spain, August 27.

"Price Setting in a Variable Macroeconomic Environment: Evidence from Brazilian CPI," Carlos Carvalho. NBER Summer Institute, Cambridge, Massachusetts, July 6. With Rebecca Barros, Marco Bonomo, and Silvia Matos.

"Sectoral Price Facts in a Sticky-Price Model," Carlos Carvalho. Stanford University Department of Economics seminar, Stanford, California, September 21. With Jae Won Lee. Also presented at a University of California at Berkeley Department of Economics seminar, Berkeley, California, September 22.

"Effect of Constraints on Tiebout Competition: Evidence from School Finance Reforms in the United States," Rajashri Chakrabarti. NBER Summer Institute, Cambridge, Massachusetts, July 22. With Joydeep Roy.

"Conventional and Unconventional Monetary Policy," Vasco Cúrdia. New York University seminar, New York City, September 24. With Michael Woodford.

"Correlated Disturbances and U.S. Business Cycles," Vasco Cúrdia. NBER Summer Institute, Cambridge, Massachusetts, July 9. With Ricardo Reis.

"Comovement in Business Cycle Models: The Role of Nonseparable Preferences and Labor Market Participation," Stefano Eusepi. Joint Congress of the European Economic Association and the Econometric Society European Meeting, Barcelona, Spain, August 25. With Bruce Preston.

"The Advantage of Flexible Targeting Rules," Andrea Ferrero. Joint Congress of the European Economic Association and the Econometric Society European Meeting, Barcelona, Spain, August 27.

"The Fed's Response to the Financial Distress," Andrea Ferrero. Society for Economic Dynamics annual meeting, Istanbul, Turkey, July 2. With Marco Del Negro and Gauti Eggertsson.

"Are Expectations about Economic Activity Self-Fulfilling? An Empirical Test," Christian Grisse. German Economic Association annual meeting, Magdeburg, Germany, September 9.

"Higher Order Beliefs and the Comovement of Asset Prices," Christian Grisse. Joint Congress of the European Economic Association and the Econometric Society European Meeting, Barcelona, Spain, August 26.

"Parsimonious Estimation with Many Instruments," Jan Groen. Joint Congress of the European Economic Association and the Econometric Society European Meeting, Barcelona, Spain, August 27. With George Kapetanios.

"Real-Time Inflation Forecasting in a Changing World," Jan Groen. NBER Summer Institute, Cambridge, Massachusetts, July 8. With Richard Paap and Francesco Ravazzolo.

"Revisiting Useful Approaches to Data-Rich Macroeconomic Forecasting," Jan Groen. Econometric Institute Seminar Series, Erasmus University Rotterdam, Rotterdam, the Netherlands, September 3.

"Bailouts and Bank Runs," Todd Keister. Cornell–Penn State Conference on Financial Fragility, University Park, Pennsylvania, September 26.

"Banking Panics and Policy Responses," Todd Keister. University of Texas at Austin Department of Economics seminar, Austin, Texas, September 21. Also presented at a Baylor University Department of Economics seminar, Waco, Texas, September 22.

"Labor Supply in a Frictional Labor Market," Aşegül Şahin. Society for Economic Dynamics annual meeting, Istanbul, Turkey, July 2. With Per Krusell, Toshihiko Mukoyama, and Richard Rogerson.

"Capital Constraints, Counterparty Risk, and Deviations from Covered Interest Rate Parity," Asani Sarkar. NBER Summer Institute, Cambridge, Massachusetts, July 10. With Niall Coffey, Warren B. Hrung, and Hoai-Luu Nguyen. Also presented at the Bank of Canada–Simon Fraser University Conference on Financial Market Stability, Vancouver, British Columbia, Canada, July 24.

"Effect of Competition on Inflation," Argia Sbordone. Workshop on the Dynamics of Prices and Wages, Central Bank of Chile, Santiago, Chile, August 20.

"Implications of the Financial Crisis for Potential Growth: Past, Present, and Future," Charles Steindel. *An Ocean Apart? Comparing Transatlantic Responses to the Financial Crisis*, a conference sponsored by the Bank of Italy and the Peterson Institute for International Economics, Rome, Italy, September 10.

"Investment Shocks and the Relative Price of Investment," Andrea Tambalotti. Society for Economic Dynamics annual meeting, Istanbul, Turkey, July 3. With Alejandro Justiniano and Giorgio Primiceri.

"Rethinking the Measurement of Household Inflation Expectations: Preliminary Findings," Wilbert Van der Klaauw. Reserve Bank of India seminar, Mumbai, India, July 2. With Wändi Bruine de Bruin, Michael Bryan, Simon Potter, and Giorgio Topa.

"MBS Ratings and the Mortgage Credit Boom," James Vickery. Fifth MTS Conference on Financial Markets, London, United Kingdom, July 3. With Adam Ashcraft and Paul Goldsmith-Pinkham. Also presented at the NBER Summer Institute Meetings on Market Institutions and Financial Market Risk, Cambridge, Massachusetts, July 8; the American Real Estate and Urban Economics Association/Asian Real Estate Society International Conference, University of California at Los Angeles, Los Angeles, California, July 12; the Centre for Economic Policy Research/Studienzentrum Gerzensee European Summer Symposium in Financial Markets, Gerzensee, Switzerland, July 22; a U.S. Securities and Exchange Commission seminar, Washington, D.C., August 20; and the Bocconi University/Centre for Applied Research in Finance conference *Business Models in Banking: Is There a Best Practice?* Milan, Italy, September 21. ■

Research and Statistics Group Publications and Papers: July-September 2009

Publications are available at
www.newyorkfed.org/research/
publication_annuals/index.html.

ECONOMIC POLICY REVIEW, VOL. 15

Number 1, July 2009

The Case for TIPS: An Examination of the Costs and Benefits
William C. Dudley, Jennifer Roush, and Michelle Steinberg Ezer

Why Did FDR's Bank Holiday Succeed?
William L. Silber

Below the Line: Estimates of Negative Equity among Nonprime Mortgage Borrowers
Andrew F. Haughwout and Ebiere Okah

Forthcoming
Special Issue: Central Bank Liquidity Tools and Perspectives on Regulatory Reform

Central Bank Tools and Liquidity Shortages
Stephen G. Cecchetti and Piti Disyatat

Provision of Liquidity through the Primary Credit Facility during the Financial Crisis: A Structural Analysis
Erhan Artuç and Selva Demiralp

Systemic Risk and Deposit Insurance Premiums
Viral V. Acharya, João A. C. Santos, and Tanju Yorulmazer

CURRENT ISSUES IN ECONOMICS AND FINANCE, VOL. 15

Number 3, July 2009
Productivity Swings and Housing Prices
James A. Kahn

Number 4, August 2009
The Federal Reserve's Primary Dealer Credit Facility
Tobias Adrian, Christopher R. Burke, and James J. McAndrews

Number 5, September 2009
Is the Worst Over? Economic Indexes and the Course of the Recession in New York and New Jersey
Jason Bram, James Orr, Robert Rich, Rae Rosen, and Joseph Song
Second District Highlights

STAFF REPORTS

No. 378, July 2009
How Do College Students Form Expectations?
Basit Zafar

No. 379, July 2009
Do Vouchers Lead to Sorting under Random Private-School Selection? Evidence from the Milwaukee Voucher Program
Rajashri Chakrabarti

No. 380, July 2009
Why Are Banks Holding So Many Excess Reserves?
Todd Keister and James McAndrews

No. 381, July 2009
The Microstructure of a U.S. Treasury ECN: The BrokerTec Platform
Michael J. Fleming and Bruce Mizrach

No. 382, July 2009
The Shadow Banking System: Implications for Financial Regulation
Tobias Adrian and Hyun Song Shin

No. 383, August 2009
Gender and the Availability of Credit to Privately Held Firms: Evidence from the Surveys of Small Business Finances
Rebel A. Cole and Hamid Mehran

No. 384, August 2009
Prestigious Stock Exchanges: A Network Analysis of International Financial Centers
Nicola Cetorelli and Stavros Peristiani

No. 385, August 2009
Credit Spreads and Monetary Policy
Vasco Cúrdia and Michael Woodford

No. 386, August 2009
Parsimonious Estimation with Many Instruments
Jan J. J. Groen and George Kapetanios

No. 387, August 2009
Commodity Prices, Commodity Currencies, and Global Economic Developments
Jan J. J. Groen and Paolo A. Pesenti

No. 388, August 2009
Real-Time Inflation Forecasting in a Changing World
Jan J. J. Groen, Richard Paap, and Francesco Ravazzolo

No. 389, September 2009
Liquidity Risk, Credit Risk, and the Federal Reserve's Responses to the Crisis
Asani Sarkar

No. 390, September 2009
Bank Capital and Value in the Cross Section
Hamid Mehran and Anjan Thakor

No. 391, September 2009
Price-Increasing Competition: The Curious Case of Overdraft versus Deferred Deposit Credit
Brian T. Melzer and Donald P. Morgan

No. 392, September 2009
Labor Market Pooling and Occupational Agglomeration
Todd M. Gabe and Jaison R. Abel

No. 393, September 2009
Capital Constraints, Counterparty Risk, and Deviations from Covered Interest Rate Parity
Niall Coffey, Warren Hrung, and Asani Sarkar

No. 394, September 2009
The Dynamics of Automobile Expenditures
Adam Copeland

No. 395, September 2009
Are Market Makers Uninformed and Passive? Signing Trades in the Absence of Quotes
Michel van der Wel, Albert J. Menkveld, and Asani Sarkar