Research UPDATE

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Research and Statistics Group www.newyorkfed.org/research

Research Group Launches New Video Series

In July 2010, the Research and Statistics Group began production of a series of video interviews with the authors of Bank publications. The videos are designed to spotlight research that addresses issues of broad public concern, as well as recent work on topics of particular interest to the academic and policy communities. The videos are companion pieces to articles in our chief research publications—the *Economic Policy Review, Current Issues in Economics and Finance*, and *Staff Reports*—and their release is timed to coincide with the posting of the articles on the Bank's website.

In the first of our video offerings, economists Richard Deitz, Andrew Haughwout, and Charles Steindel discuss some of the key findings of their *Current Issues* article "The Recession's Impact on the State Budgets of New York and New Jersey." The authors review the steps taken by New York and New Jersey to balance their budgets, examine how the two states' budget problems stack up against those of other states, and consider the outlook for state finances in New York and New Jersey.

Other recent videos include:

"A Private Lender Cooperative Model for Residential Mortgage Finance"

Joshua Wright and Joe Tracy, coauthors with Patricia Mosser, James Vickery, and Toni Dechario of an August staff report on the reorganization of the U.S. housing finance system, assess the merits and drawbacks of the government-sponsored enterprises Fannie Mae and Freddie Mac, present design principles for a reformed home finance system, and weigh the pros and cons of replacing Fannie and Freddie with a lender cooperative.

"Improving Survey Measures of Household Inflation Expectations"

Economists Wilbert van der Klaauw and Giorgio Topa discuss the Household Inflation Expectations Project—a joint effort by the New York Fed, other institutions, and academic consultants to evaluate existing surveys of household inflation expectations and to develop an alternative survey that yields more comprehensive information on the public's inflation outlook. In the video, van der Klaauw and Topa describe how their experimental survey addresses the limitations of existing survey instruments; they then go on to identify some key trends in inflation expectations revealed by the new survey. The video discussion complements the August/September *Current Issues* article (coauthored by van der Klaauw, Topa, Wändi Bruine de Bruin, Simon Potter, and Robert Rich) that is profiled on page 3.

Also in this issue…

All three videos are part of a broader New York Fed effort to explore new platforms for economists' work. They are available on the Bank's website, at http://www.newyorkfed.org/research/video_interviews.html.

Special Volume of *Economic Policy Review* Examines Central Bank Responses to Liquidity Shortages

A consistent theme of the financial crisis that began in 2007 was the paralyzing effect of the disappearance of liquidity. In response, the Federal Reserve and other central banks expanded their traditional roles by developing and implementing new tools to address liquidity shortages in the markets.

A special volume of the *Economic Policy Review* examines this theme and the central bank response ("Central Bank Liquidity Tools and Perspectives on Regulatory Reform," vol. 16, no. 1, August 2010). The volume's six papers, by academics, central bank economists, and other researchers bring a range of perspectives to analyzing the methods employed by central banks to manage funding shortages during financial crises.

Three papers focus specifically on clarifying the causes and symptoms of liquidity shortages as well as the actions taken by central banks to alleviate the shortages.

- In "Central Bank Tools and Liquidity Shortages," *Stephen Cecchetti and Piti Disyatat* of the Bank for International Settlements consider the implications of recent financial developments for the "lender-of-last-resort" function of central banks and whether traditional policymaking tools remain effective in the face of modern liquidity crises.

- *Erhan Artuç and Selva Demiralp* of Koç University, authors of "Provision of Liquidity through the Primary Credit Facility during the Financial Crisis: A Structural Analysis," investigate whether changes to the Federal Reserve's discount window borrowing facility represent a shift in how the nation's central bank traditionally provided liquidity through the primary credit facility as well as whether the Fed would benefit from retaining these changes indefinitely.

- New York Fed authors *Asani Sarkar and Jeffrey Shrader*, writing in "Financial Amplification Mechanisms and the Federal Reserve's Supply of Liquidity during the Financial Crisis," analyze the Federal Reserve's recent liquidity actions in the context of studies on financial amplification mechanisms, whereby an initial financial sector shock triggers substantially larger shocks elsewhere in the sector and in the broader economy.

Three papers provide perspectives on how the post-crisis financial system could be designed. The authors propose measures for minimizing risk in financial markets by enhancing the availability of information, incorporating systemic risk into deposit insurance premiums, and addressing "the leverage cycle"—a phenomenon in which leverage is excessive prior to a financial crisis and unacceptably low during the crisis. The three studies suggest that the post-crisis financial system will not resemble the pre-crisis system, as market participants and regulators adjust to a variety of new issues.

- *Matthew Pritsker* of the Board of Governors of the Federal Reserve System offers a theoretical view on how regulators can reduce uncertainty in the financial markets by improving the availability of information in "Informational Easing: Improving Credit Conditions through the Release of Information."

- In "Systemic Risk and Deposit Insurance Premiums," *Viral Acharya* of the London Business School and New York University along with New York Fed economists *João Santos and Tanju Yorulmazer* analyzes ways to incorporate systemic risk into deposit insurance premiums.

- Yale University's *John Geanakoplos*, author of "Solving the Present Crisis and Managing the Leverage Cycle," discusses implications of the leverage cycle for regulatory policy and reform.

The volume is available at www.newyorkfed.org/research/epr/2010.html.

New Survey Yields More Comprehensive Measures of Consumers' Expectations about Future Inflation and Wage Changes

In late 2006, the Federal Reserve Bank of New York joined with other institutions and academic consultants to assess the feasibility of improving survey-based measures of consumers' inflation and wage expectations. This initiative—known as the Household Inflation Expectations Project (HIEP)—has had two components: an evaluation of existing surveys of inflation expectations and the development and piloting of an alternative survey.

In a recent edition of *Current Issues in Economics and Finance* ("Improving Survey Measures of Household Inflation Expectations," vol. 16, no. 7), HIEP researchers Wändi Bruine de Bruin, Simon Potter, Robert Rich, Giorgio Topa, and Wilbert van der Klaauw offer an overview of the project and report on their findings to date.

Commenting first on the project's assessment of existing surveys of inflation expectations, the authors note that the HIEP has identified a number of limitations in the question format and sampling approach of the surveys. For example, the best-known of the surveys, the Reuters/University of Michigan Survey of Consumers, asks respondents to forecast changes in "prices in general" rather than changes in the "rate of inflation." This wording, the authors suggest, invites diverse interpretations and prompts many respondents to focus on price changes specific to their own experience rather than changes in the overall price level. A second limitation of existing surveys is their inability to capture respondents' uncertainty about future inflation; respondents are asked to give only "point" (single-value) forecasts of inflation. Finally, the surveys fail to elicit information about wage expectations and the process by which respondents form and revise their inflation expectations.

In creating their own experimental survey, HIEP researchers sought to address these limitations. The HIEP survey asks respondents to report their expectations for the "rate of inflation" as well as "prices in general" and to forecast wage changes as well. The survey also asks respondents to assign probabilities to different possible inflation outcomes—a question format that allows respondents to convey the uncertainty attending their forecasts. Finally, by conducting repeat surveys with the same panel of respondents, HIEP researchers are able to gather information about how consumers revise their inflation expectations over time.

As the authors of the *Current Issues* study explain, the implementation of the alternative survey has shed light on trends in inflation expectations over the past three years. The survey, conducted at six-week intervals, has corroborated earlier findings of differences in inflation expectations across demographic groups and revealed marked changes in the size of these differences over the sample period. The survey results also show that the uncertainty of inflation expectations has abated since mid-2008, while the survey's measure of wage expectations points to a continuing expectation that real wages will decline.

Speaking more broadly about the important roles played by inflation expectations, the authors note that these expectations are generally believed to enter into household saving and spending decisions and into contract negotiations about nominal wage changes. In addition, understanding the public's inflation expectations is important to policymakers who want to learn more about economic behavior and to evaluate the credibility of their communications with the public. ■

New Titles in the *Staff Reports* Series

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

Macroeconomics and Growth

No. 463, July 2010
The Central-Bank Balance Sheet as an Instrument of Monetary Policy
Vasco Cúrdia and Michael Woodford

Cúrdia and Woodford first extend a standard New Keynesian model to allow a role for the central bank's balance sheet in equilibrium determination and then consider the connections between these alternative policy dimensions and traditional interest rate policy. They distinguish between "quantitative easing" in the strict sense and targeted asset purchases by a central bank, arguing that, according to their model, while the former is likely to be ineffective at all times, the latter can be effective when financial markets are sufficiently disrupted. Neither is a perfect substitute for conventional interest rate policy, but purchases of illiquid assets are particularly likely to improve welfare when the zero lower bound on the policy rate is reached. The authors also consider optimal policy with regard to the payment of interest on reserves; in their model, this requires that the interest rate on reserves be kept near the target for the policy rate at all times.

No. 467, August 2010
Tax Buyouts
Marco Del Negro, Fabrizio Perri, and Fabiano Schivardi

This paper studies a fiscal policy instrument that can reduce fiscal distortions, without affecting revenues, in a politically viable way. The instrument is a *private* contract (tax buyout), offered by the government to each individual citizen, whereby the citizen can choose to pay a fixed price up front in exchange for a given reduction in her tax rate for a prespecified period of time. Del Negro, Perri, and Schivardi consider a dynamic overlapping-generations economy, calibrated to match several features of the U.S. income and wealth distribution, and show that, under simple pricing, the introduction of the buyout is revenue neutral and at the same time can benefit a significant fraction of the population and lead to sizable increases in labor supply, income, consumption, and welfare.

No. 470, September 2010
Knowledge in Cities
Todd Gabe, Jaison R. Abel, Adrienne Ross, and Kevin Stolarick

This study identifies clusters of U.S. and Canadian metropolitan areas with similar knowledge traits. These groups—ranging from Making Regions, characterized by knowledge about manufacturing, to Thinking Regions, noted for knowledge about the arts, humanities, information technology, and commerce—can be used by analysts and policymakers for the purposes of regional benchmarking or comparing the types of programs and infrastructure available to support closely related economic activities. In addition, these knowledge-based clusters help explain the types of regions that have levels of economic development that exceed, or fall short of, other places with similar amounts of college attainment. Regression results show that Engineering, Enterprising, and Building Regions are associated with higher levels of productivity and earnings per capita, while Teaching, Understanding, Working, and Comforting Regions have lower levels of economic development.

No. 473, September 2010
Bailouts and Financial Fragility
Todd Keister

How does the belief that policymakers will bail out investors in the event of a crisis affect the allocation of resources and the stability of the financial system? Keister studies this question in a model of financial intermediation with limited commitment. When a crisis occurs, the efficient policy response is to use public resources to augment the private consumption of those investors facing losses. The anticipation of such a "bailout" distorts ex ante incentives, leading intermediaries to choose arrangements with excessive illiquidity and thereby increasing financial fragility. Prohibiting bailouts is not necessarily desirable, however: it induces intermediaries to become too liquid from a social point of view and may, in addition, leave the economy more susceptible to a crisis. A policy of taxing short-term liabilities, in contrast, can correct the incentive problem while improving financial stability.

Microeconomics

No. 462, July 2010
The Impact of Competition on Technology Adoption: An Apples-to-PCs Analysis
Adam Copeland and Adam Hale Shapiro

Copeland and Shapiro study the effect of market structure on a personal computer manufacturer's decision to adopt new technology. This industry is unusual because there are two horizontally segmented retail markets with different degrees of competition: the IBM-compatible (or PC) platform and the Apple platform. The authors first document that, relative to Apple, producers of PCs typically have more frequent technology adoption, shorter product cycles, and steeper price declines over the product cycle. They then develop a parsimonious vintage-capital model that matches the prices and sales of PC and Apple products. The model predicts that competition is the key driver of the rate at which technology is adopted.

No. 471, September 2010
Effect of Constraints on Tiebout Competition: Evidence from the Michigan School Finance Reform
Rajashri Chakrabarti and Joydeep Roy

Using data from Michigan, which enacted a comprehensive school finance reform in 1994 that ended local discretion over school spending, Chakrabarti and Roy study the implications of imposing limits on local government's control over the quality of local public goods. They find that the reform was successful in overturning existing trends toward increased disparities. However, it also constrained the highest spending districts and was associated with negative effects on subsequent educational outcomes. These results survive several sensitivity checks. Looking at whether the reform affected incentives and responses, the authors find that loss of discretion appeared to act as a strong disincentive to high-spending districts and, more generally, across the board. The performance improvements of the lowest spending districts were likely related to relative increases in spending rather than higher effort. This same finding is corroborated by results from an alternative strategy, which exploits differences in the nature of incentives faced by districts in more competitive areas versus those in less competitive areas.

No. 472, September 2010
Do Charter Schools Crowd Out Private School Enrollment? Evidence from Michigan
Rajashri Chakrabarti and Joydeep Roy

Although there have been numerous studies on the effects of charter schools, these studies have mostly been confined to analyzing the effects on student achievement, student demographic composition, parental satisfaction, and the competitive effects on regular public schools. This study departs from the existing literature by investigating the effect of charter schools on enrollment in private schools. To investigate this issue empirically, Chakrabarti and Roy focus on Michigan, where there was a significant spread of charter schools in the 1990s. Using data on private school enrollment and using a fixed-effects as well as instrumental-variables strategy that exploits exogenous variation from Michigan charter law, they investigate the effect of charter school penetration on private school enrollment. The authors find some evidence of a decline in enrollment in private schools—but the effect is only modest in size. This finding is reaonably robust, and survives several robustness checks.

Banking and Finance

No. 457, July 2010
Resolving Troubled Systemically Important Cross-Border Financial Institutions: Is a New Corporate Organizational Form Required?
Christine Cumming and Robert A. Eisenbeis

This paper explores the advantages of a new financial charter for large, complex, internationally active financial institutions that would address the corporate governance challenges of such organizations, including incentive problems in risk decisions and the complicated corporate and regulatory structures that impede cross-border resolutions. The charter envisions a single entity with broad powers in which the extent and timing of compensation are tied to financial results, senior managers and risk takers form a new risk-bearing stakeholder class, and a home-country-based resolution regime operates for the benefit of all creditors. The proposal is offered 1) to highlight the point that even in the face of a more efficient and effective resolution process, incentives for excessive risk taking will continue unless the costs of risk decisions are internalized by institutions, 2) to suggest another avenue for moving toward a streamlined organizational structure and single global resolution process, and 3) to complement other proposals aimed at preserving a large role for market discipline and firm incentives in a post-reform financial system.

No. 458, July 2010
Shadow Banking
Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, and Hayley Boesky

Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation without access to central bank liquidity or public sector credit guarantees. The authors document that the shadow banking system became severely strained during the financial crisis because, like traditional banks, shadow banks conduct credit, maturity, and liquidity transformation, but unlike traditional financial intermediaries, they lack access to public sources of liquidity, such as the Federal Reserve's discount window, or public sources of insurance, such as federal deposit insurance. The liquidity facilities of the Federal Reserve and other government agencies' guarantee schemes were a direct response to the liquidity and capital shortfalls of shadow banks and, effectively, provided either a backstop to credit intermediation by the shadow banking system or to traditional banks for the exposure to shadow banks. The paper documents the institutional features of shadow banks, discusses their economic roles, and analyzes their relation to the traditional banking system.

No. 459, July 2010
Do Underwriters Matter? The Impact of the Near Loss of an Equity Underwriter
Anna Kovner

The financial crisis provides a natural experiment for testing theoretical predictions of the equity underwriter's role following an initial public offering. Clients of Bear Stearns, Lehman Brothers, Merrill Lynch, and Wachovia saw their stock prices fall almost 5 percent, on average, on the day it appeared that their equity underwriter might collapse. Representing a loss in equity value of more than $3 billion, the decline was more than 1 percent lower than the conditional return predicted by a market model. The price impact was worse for companies with more opaque operations and fewer monitors, suggesting that underwriters play an important role in monitoring newly public companies. There is no evidence that the abnormal price decrease was related to the role of the underwriter as market maker or lender.

No. 460, July 2010
The Information Value of the Stress Test and Bank Opacity
Stavros Peristiani, Donald P. Morgan, and Vanessa Savino

Peristiani, Morgan, and Savino investigate whether the "stress test," the extraordinary examination of the nineteen largest U.S. bank holding companies conducted by federal bank supervisors in 2009, produced information demanded by the market. Using standard event study techniques, the authors find that the market had largely deciphered on its own which banks would have capital gaps before the stress test results were revealed, but that the market was informed by the size of the gap; given the authors' proxy for the expected gap, banks with larger capital gaps experienced more negative abnormal returns. These findings suggest that the stress test helped quell the financial panic by producing vital information about banks. The findings also contribute to the academic literature on bank opacity and the value of government monitoring of banks.

No. 461, July 2010
Financial Amplification of Foreign Exchange Risk Premia
Tobias Adrian, Erkko Etula, and Jan J. J. Groen

Theories of systemic risk suggest that financial intermediaries' balance-sheet constraints amplify fundamental shocks. Adrian, Etula, and Groen provide supportive evidence for such theories by decomposing the U.S. dollar risk premium into components associated with macroeconomic fundamentals and a component associated with financial intermediary balance sheets. Relative to the benchmark model with only macroeconomic state variables, balance sheets amplify the U.S. dollar risk premium. The authors discuss applications to systemic risk monitoring.

No. 464, July 2010

Funding Liquidity Risk and the Cross-Section of Stock Returns

Tobias Adrian and Erkko Etula

Adrian and Etula derive equilibrium pricing implications from an intertemporal capital asset pricing model where the tightness of financial intermediaries' funding constraints enters the pricing kernel. They test the resulting factor model in the cross-section of stock returns. Their empirical results show that stocks that hedge against adverse shocks to funding liquidity earn lower average returns. The pricing performance of their three-factor model is surprisingly strong across specifications and test assets, including portfolios sorted by industry, size, book-to-market, momentum, and long-term reversal. Funding liquidity can thus account for well-known asset pricing anomalies.

No. 466, August 2010

A Private Lender Cooperative Model for Residential Mortgage Finance

Toni Dechario, Patricia Mosser, Joseph Tracy, James Vickery, and Joshua Wright

The authors describe a set of six design principles for the reorganization of the U.S. housing finance system and apply them to one model for replacing Fannie Mae and Freddie Mac that has so far received frequent mention but little sustained analysis—the lender cooperative utility. They discuss the pros and cons of such a model and propose a method for organizing participation in a mutual loss pool and an explicit, priced government insurance mechanism. The authors also discuss how these principles and this model are consistent with preserving the "to-be-announced," or TBA, market—particularly if the fixed-rate mortgage remains a focus of public policy.

No. 468, August 2010

TBA Trading and Liquidity in the Agency MBS Market

James Vickery and Joshua Wright

Most mortgages in the United States are securitized through the agency mortgage-backed-securities (MBS) market. These securities are generally traded on a "to-be-announced," or TBA, basis. This trading convention significantly improves agency MBS liquidity, leading to lower borrowing costs for households. Evaluation of potential reforms to the U.S. housing finance system should take into account the effects of those reforms on the operation of the TBA market.

No. 469, September 2010

Caught between Scylla and Charybdis? Regulating Bank Leverage When There Is Rent Seeking and Risk Shifting

Viral V. Acharya, Hamid Mehran, and Anjan Thakor

Banks face two different kinds of moral hazard problems: asset substitution by shareholders (e.g., making risky, negative net present value loans) and managerial rent seeking (e.g., investing in inefficient "pet" projects and consuming perquisites that yield private benefits). The privately optimal level of bank leverage is neither too low nor too high: It balances efficiently the market discipline imposed by owners of risky debt on managerial rent seeking against the asset substitution induced at high levels of leverage. However, when correlated bank failures can impose significant social costs, governments may have no option but to bail out bank creditors. Anticipation of this generates an equilibrium featuring systemic risk in which all banks choose inefficiently high leverage to fund correlated assets and market discipline is compromised. A minimum equity capital requirement can rule out asset substitution but also compromise market discipline by making bank debt too safe. The optimal capital regulation requires that a part of bank capital be unavailable to creditors upon failure, and be available to shareholders only contingent on good performance.

No. 474, September 2010

Firm Value and Cross-Listings: The Impact of Stock Market Prestige

Nicola Cetorelli and Stavros Peristiani

This study investigates the valuation impact of a firm's decision to cross-list on a more (or less) prestigious stock exchange relative to its own domestic market. Cetorelli and Peristiani use network analysis to derive broad market-based measures of prestige for forty-five country or regional stock exchange destinations between 1990 and 2006. They find that firms cross-listing in a more prestigious market enjoy significant valuation gains over the five-year period following the listing. They also document a reverse effect for firms cross-listing in less prestigious markets: These firms experience a significant decline in valuation over the five years following the listing. The reputation of the cross-border listing destinations is therefore a useful signal of a firm's value going forward. The authors' findings are consistent with the view that cross-listing in a prestigious market enhances a firm's visibility, strengthens corporate governance, and lowers informational frictions and capital costs.

Quantitative Methods

No. 465, August 2010
Jump-Robust Volatility Estimation using Nearest Neighbor Truncation
Torben G. Andersen, Dobrislav Dobrev, and Ernst Schaumburg

The authors propose two new jump-robust estimators of integrated variance based on high-frequency return observations. These MinRV and MedRV estimators provide an attractive alternative to the prevailing bipower and multipower variation measures. Specifically, the MedRV estimator has better theoretical efficiency properties than the tripower variation measure and displays better finite-sample robustness to both jumps and the occurrence of "zero" returns in the sample. Unlike the bipower variation measure, the new estimators allow for the development of an asymptotic limit theory in the presence of jumps. Finally, they retain the local nature associated with the low-order multipower variation measures. This proves essential for alleviating finite sample biases arising from the pronounced intraday volatility pattern that afflicts alternative jump-robust estimators based on longer blocks of returns. An empirical investigation of the Dow Jones 30 stocks and an extensive simulation study corroborate the robustness and efficiency properties of the new estimators. ■

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 2010:

- "Shadow Banking," by Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, and Hayley Boesky (*Staff Reports*, no. 458, July 2010) – 17,611 downloads
- Why Are Banks Holding So Many Excess Reserves?" by Todd Keister and James McAndrews (*Staff Reports*, no. 380, July 2009) – 2,778 downloads
- "Understanding the Securitization of Subprime Mortgage Credit," by Adam B. Ashcraft and Til Schuermann (*Staff Reports*, no. 318, March 2008) – 2,686 downloads

SSRN website, third-quarter 2010:

- "Understanding the Securitization of Subprime Mortgage Credit," by Adam B. Ashcraft and Til Schuermann (*Staff Reports*, no. 318, March 2008) – 422 downloads
- "Executive Compensation and Risk Taking," by Patrick Bolton, Hamid Mehran, and Joel Shapiro (*Staff Reports*, no. 456, June 2010) – 283 downloads
- "Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature," by Benjamin E. Hermalin and Michael S. Weisbach (*Economic Policy Review*, vol. 9, no. 1, April 2003) – 211 downloads

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

Recently Published

Tobias Adrian. 2010. "The Changing Nature of Financial Intermediation and the Financial Crisis of 2007-2009," with Hyun Song Shin. *Annual Review of Economics* 2, September: 603-18.

Tobias Adrian. 2010. "Liquidity and Leverage," with Hyun Song Shin. *Journal of Financial Intermediation* 19, no. 3 (July): 418-37.

Tobias Adrian and Emanuel Moench. 2010. "Macro Risk Premium and Intermediary Balance Sheet Quantities," with Hyun Song Shin. *IMF Economic Review* 58, no. 1 (August): 179-207.

Olivier Armantier, Giorgio Topa, and Wilbert van der Klaauw. 2010. "Expectations of Inflation: The Role of Demographic Variables, Expectation Formation, and Financial Literacy," with Wändi Bruine de Bruin, Julie S. Downs, and Baruch Fischhoff. *Journal of Consumer Affairs* 44, no. 2 (June): 381-402.

Carlos Carvalho. 2010. "Imperfectly Credible Disinflation under Endogenous Time-Dependent Pricing," with Marco Bonomo. *Journal of Money, Credit, and Banking* 42, no. 5 (August): 799-831.

Vasco Cúrdia. 2010. "Credit Spreads and Monetary Policy," with Michael Woodford. *Journal of Money, Credit, and Banking* 42, no. s1: 3-35.

Marco Del Negro. 2010. "Tax Buyouts," with Fabrizio Perri and Fabiano Schivardi. *Journal of Monetary Economics* 57, no. 5 (July): 576-95.

Stefano Eusepi. 2010. "Central Bank Communication and Expectations Stabilization," with Bruce Preston. *American Economic Journal: Macroeconomics* 2, no. 3 (July): 235-71.

Rebecca Hellerstein. 2010. "Outsourcing and Pass-Through," with Sofia B. Villas-Boas. *Journal of International Economics* 81, no. 2 (July): 170-83.

Sagiri Kitao. 2010. "Individual Retirement Accounts, Saving, and Labor Supply." *Economics Letters* 108, no. 2 (August): 197-200.

Antoine Martin and James McAndrews. 2010. "A Study of Competing Designs for a Liquidity-Saving Mechanism." *Journal of Banking and Finance* 34, no. 8 (August): 1818-26.

Ayşegül Şahin. 2010. "Aggregate Labor Market Outcomes: The Roles of Choice and Chance," with Per Krusell, Toshihiko Mukoyama, and Richard Rogerson. *Quantitative Economics* 1, no. 1 (July): 97-127.

Ayşegül Şahin. 2010. "The Labor Market in the Great Recession," with Michael W. L. Elsby and Bart Hobijn. *Brookings Papers on Economic Activity: Spring 2010*: 1-48.

Joseph Tracy. 2010. "Housing Busts and Household Mobility," with Fernando Ferreira and Joseph Gyourko. *Journal of Urban Economics* 68, no. 1 (July): 34-45. ■

Papers Presented

"Productivity and the Density of Human Capital," Jaison Abel. Barcelona Institute of Economics Workshop on Urban Economics, Barcelona, Spain, July 12. With Ishita Dey and Todd Gabe.

"Sectoral Price Facts in a Sticky-Price Model," Carlos Carvalho. Society for Economic Dynamics Annual Meeting, Montreal, Canada, July 10. With Jae Won Lee. Also presented at the NBER Summer Institute Workshop on Methods and Applications for Dynamic Stochastic General Equilibrium Models, Cambridge, Massachusetts, July 16.

"The Central-Bank Balance Sheet as an Instrument of Monetary Policy," Vasco Cúrdia. Swiss National Bank Research Conference on Monetary Policy after the Financial Crisis, Zurich, Switzerland, September 24. With Michael Woodford.

"The Great Escape? A Quantitative Evaluation of the Fed's Non-Standard Policies," Marco Del Negro and Gauti Eggertsson. With Andrea Ferrero and Nobuhiro Kiyotaki. Presented by Del Negro at the Society for Economic Dynamics, Montreal, Canada, July 8, the Twenty-Fifth Annual Congress of the

European Economic Association, Glasgow, Scotland, August 26, and the Swiss National Bank Research Conference on Monetary Policy after the Financial Crisis, Zurich, Switzerland, September 24. Presented by Eggertsson at the Conference on the Future of Monetary Policy, Rome, Italy, September 30.

"The Advantage of Flexible Targeting Rules," Andrea Ferrero. Society for Computing in Economics and Finance seminar, London, England, July 16.

"Evaluating Interest Rate Rules in an Estimated DSGE Model," Andrea Ferrero. Society for Economic Dynamics seminar, Montreal, Canada, July 9. With Vasco Cúrdia and Andrea Tambalotti. Also presented at the Twenty-Fifth Annual Congress of the European Economic Association, Glasgow, Scotland, August 24.

"Bailouts and Financial Fragility," Todd Keister. Summer Workshop in Macro Finance, Sciences Po, Paris, France, July 2. Also presented at the Norges Bank Workshop on Government Intervention and Moral Hazard in the Financial Sector, Oslo, Norway, September 3, and the New York University Stern School of Business Finance Seminar, New York City, September 22.

"Labor-Dependent Capital Income Taxation," Sagiri Kitao. Society for Economic Dynamics Annual Meeting, Montreal, Canada, July 8. Also presented at a University of Quebec at Montreal seminar, Montreal, Canada, September 10.

"Financial Intermediation, Asset Prices, and Macroeconomic Dynamics," Emanuel Moench. Society for Economic Dynamics Annual Meeting, Montreal, Canada, July 10. With Tobias Adrian and Hyun Song Shin. Also presented at the European Finance Association Annual Meeting, Frankfurt, Germany, August 28, and the German Economic Association Annual Meeting, Kiel, Germany, September 10.

"The Persistent Effects of a False News Shock," Emanuel Moench. With Carlos Carvalho and Nicholas Klagge. European Finance Association Annual Meeting, Frankfurt, Germany, August 28.

"Stigma in Financial Markets," Asani Sarkar. Norges Bank seminar, Oslo, Norway, September 3. With Olivier Armantier, Eric Ghysels, and Jeffrey Shrader. Also presented at the Liquidity and Liquidity Risks conference, sponsored by the Deutsche Bundesbank, the European Banking Center, and the European Business School, Frankfurt, Germany, September 23.

"How Well Did Libor Measure Bank Wholesale Funding Rates during the Crisis?" David Skeie. Conference sponsored by the Centre for Applied Research in Finance, the Bocconi University Department of Finance, and Intesa Sanpaolo, Milan, Italy, September 28. With Dennis Kuo and James Vickery.

"Bank Liquidity, Interbank Markets, and Monetary Policy," David Skeie. Conference on the Future of Monetary Policy, Rome, Italy, September 30. With Antoine Martin.

"Household Debt and Saving during the 2007 Recession," Wilbert van der Klaauw. Household Heterogeneity and Household Finance Conference, cosponsored by the Deutsche Bundesbank and the Federal Reserve Bank of Cleveland, Cleveland, Ohio, September 10.

"MBS Ratings and the Mortgage Credit Boom," James Vickery. NBER Meetings on Credit Rating Agencies, Cambridge, Massachusetts, July 16. With Adam Ashcraft and Paul Goldsmith-Pinkham. Also presented at the conference on Transparency, Disclosure, and Market Discipline in Banking Regulation, sponsored by the Centre for Economic Policy Research, the Einaudi Institute for Economics and Finance, and the European Commission, Rome, Italy, September 16.

Forecasting When It Matters: Evidence from Semi-Arid India," James Vickery. Econometric Society World Congress, Shanghai, China, August 18. With Xavier Giné and Robert Townsend.

"Deferred Compensation, Risk, and Company Value: Investor Reactions to CEO Incentives," Chenyang Wei. China International Conference in Finance, Beijing, China, July 7. With David Yermack. ■

Research and Statistics Group Publications and Papers: July-September

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

ECONOMIC POLICY REVIEW, VOL. 16

Number 1, August 2010

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

Conference Opening Remarks
Patricia C. Mosser

Conference Overview and Summary of Proceedings
Matthew Denes, Daniel Greenwald, Nicholas Klagge, Ging Ce Ng, Jeffrey Shrader, Michael Sockin, and John Sporn

Central Bank Liquidity Tools

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

Financial Amplification Mechanisms and the Federal Reserve's Supply of Liquidity during the Financial Crisis
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