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UPDATE

from the Federal Reserve Bank of New York

RESEARCH AND MARKET ANALYSIS GROUP

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Our new on-line publication—*EPR Executive Summaries*—enhances the delivery of New York Fed research by condensing many of the articles in our flagship journal. Readers of these summaries will find timely, policy-oriented studies that are easier and faster to absorb, with links to key charts, related articles, and other resources.

The summaries make the technical research of New York Fed economists more accessible to policymakers, educators, business and financial leaders, and others. They aim to promote a fuller understanding of our research among those in a position to put our ideas and findings to work.

Summaries are now available for a range of papers from a recent volume on financial innovation and monetary transmission:

- Are U.S. Reserve Requirements Still Binding?—*Paul Bennett and Stavros Peristiani*
- Assessing Changes in the Monetary Transmission Mechanism: A VAR Approach—*Jean Boivin and Marc Giannoni*

- Monetary Policy Transmission through the Consumption-Wealth Channel—*Sydney Ludvigson, Charles Steindel, and Martin Lettau*
- Monetary Policy Transmission to Residential Investment—*Jonathan McCarthy and Richard W. Peach*
- On the Causes of the Increased Stability of the U.S. Economy—*James A. Kahn, Margaret M. McConnell, and Gabriel Perez-Quiros*
- Credit Effects in the Monetary Mechanism—*Cara S. Lown and Donald P. Morgan*
- Securitization and the Efficacy of Monetary Policy—*Arturo Estrella*

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New Research: July–September 2002

Coordination and Cost Problems Hinder Adoption of Electronic Billing

When electronic bill presentment and payment (EBPP) was introduced in the mid-1990s, it was widely expected to find immediate favor. The promised benefits were compelling—low processing and customer service costs for billers, savings in time and postage for customers. Surprisingly, however, firms and households have been slow to accept the new technology. Industry estimates suggest that less than 1 percent of consumer and business-to-business bills in the United States in 2001 were delivered and paid over the Internet.

In a new study (“Why Hasn’t Electronic Bill Presentment and Payment Taken Off?” *Current Issues in Economics and Finance*, vol. 8, no. 7), Chris Stefanadis attributes the weak reception given electronic billing to the difficulty of coordinating participants on the two sides of the billing transaction. “In the absence of any assurance that most customers will accept the new technology,” the author writes, “billers have refrained from adopting it.” By the same token, “customers have resisted the new systems in the belief that only some of their billers will implement EBPP.”

The substantial up-front costs of EBPP have added to the difficulty of mobilizing billers and customers, according to Stefanadis. Billers fear that they will be unable to recover their large fixed investment in the technology—ranging from \$150,000 to \$1 million—because not enough customers will link to the new systems. Customers, for their part, are reluctant to commit the time needed to learn a technology that may give them access to only a portion of their bills.

To resolve the coordination problem, Stefanadis suggests, EBPP providers could step up research and development efforts to create electronic billing systems so clearly superior to paper-based systems that they would win over large numbers of both billers and customers. Alternatively, providers and billers could establish standard-setting committees to promote uniformity in EBPP systems, undertake aggressive advertising campaigns to alert customers to the benefits of electronic billing, or offer bonuses and discounts to customers who enroll in the networks.

Publications and Papers

The Research and Market Analysis Group produces a wide range of publications:

- *The Economic Policy Review*—a policy-oriented journal focusing on economic and financial market issues.
- *Current Issues in Economics and Finance*—a newsletter-style publication offering concise and timely analyses of economic and financial topics.
- *Second District Highlights*—a regional supplement to *Current Issues* covering financial and economic developments in the Federal Reserve System’s Second District.
- *Staff Reports*—technical papers intended for publication in leading economic and finance journals. This series is available only on-line.
- *Publications and Other Research*—an annual catalogue of the Group’s research output.

New Titles in the *Staff Reports* Series

The following new *Staff Reports* are available at www.newyorkfed.org/rmaghome/staff_rp/.

Macroeconomics and Growth

No. 153

Borrowers' Financial Constraints and the Transmission of Monetary Policy: Evidence from Financial Conglomerates

Adam B. Ashcraft and Murillo Campello

Building on recent evidence on the functioning of internal capital markets in financial conglomerates, the authors conduct a novel test of the balance-sheet channel of monetary policy. Specifically, they investigate how the lending response to monetary policy differs across small banks that are affiliated with the same bank holding company but operate in different geographical areas. These banks face similar constraints accessing internal and external sources of funds, but have different pools of borrowers. Because the banks typically concentrate their lending with small local businesses, the authors can exploit cross-sectional differences in local economic indicators at the time of a policy shock to study whether the strength of borrowers' balance sheets affects the response of bank lending. They find evidence that the negative response of bank loan growth to a monetary contraction is significantly stronger when borrowers have weaker balance sheets.

International

No. 150

Stop-Loss Orders and Price Cascades in Currency Markets

C. L. Osler

This analysis of high-frequency exchange rates offers three main findings to support the hypothesis that stop-loss orders contribute to rapid, self-reinforcing price movements, or “price cascades.” Namely, it finds that: exchange rate trends are unusually fast when rates reach levels at which stop-loss orders cluster; the response to stop-loss orders is larger than the response to take-profit orders, which generate negative-feedback trading and are unlikely to contribute to price cascades; and the response to stop-loss orders lasts longer than the response to take-profit orders. These results indicate that stop-loss orders propagate trends and are sometimes triggered in waves, contributing to price cascades. Stop-loss-propagated price cascades may help explain the well-known “fat tails” of the distribution of exchange rate returns and the high frequency of large exchange rate moves.

No. 151

Uncertainty, Exchange Rate Regimes, and National Price Levels

Christian Broda

Large differences in national price levels exist across countries. This paper develops a general equilibrium model predicting that these differences should be related to countries' exchange rate regimes. The empirical findings confirm that countries with fixed exchange rate regimes have higher national price levels than countries with flexible regimes. At the disaggregate level, the relationship between exchange rate regimes and national price levels is stronger for nontraded goods than for traded goods. The study also finds that measuring the misalignment in national price levels around times of regime shifts without considering a break in its equilibrium value results in an overestimation of the true misalignment.

No. 152

Self-Validating Optimum Currency Areas

Giancarlo Corsetti and Paolo Pesenti

A currency area can be a self-validating optimal policy regime, even when monetary unification does not foster real economic integration and intra-industry trade. In the authors' model, firms choose the optimal degree of exchange rate pass-through to export prices while accounting for expected monetary policies, and monetary authorities choose optimal policy rules while taking firms' pass-through as given. The authors show that two equilibria exist, each of which defines a self-validating currency regime. In the first, firms preset prices in a domestic currency and let

prices in the foreign currency be determined by the law of one price. Optimal policy rules then target the domestic output gap, and floating exchange rates support the flex-price allocation. In the second, firms preset prices in a consumer currency, and a monetary union is the optimal policy choice for all countries. Although a common currency helps synchronize business cycles across countries, flexible exchange rates deliver a superior welfare outcome.

Banking and Finance

No. 154

Diversification in Banking: Is Noninterest Income the Answer?

Kevin J. Stiroh

The U.S. banking industry is steadily increasing its reliance on nontraditional business activities that generate fee income, trading revenue, and other types of noninterest income. This paper assesses potential diversification benefits from this shift. At the aggregate level, declining volatility of net operating revenue reflects reduced volatility of net interest income, rather than diversification benefits from noninterest income, which is quite volatile and has become more correlated with net interest income. At the bank level, growth rates of net interest income and noninterest income have also become more correlated in recent years. Finally, greater reliance on noninterest income, particularly trading revenue, is associated with higher risk and lower risk-adjusted profits. These results suggest little obvious diversification benefit from the ongoing shift toward noninterest income.

Recently Published

- Arturo Estrella. 2002. "Dynamic Inconsistencies: Counterfactual Implications of a Class of Rational Expectations Models," with Jeffrey Fuhrer. *American Economic Review* 92, no. 4 (September).
- Michael Fleming. 2002. "Are Larger Treasury Issues More Liquid? Evidence from Bill Reopenings." *Journal of Money, Credit, and Banking* 34, no. 3 (August): 707-35.
- Michael Fleming. 2002. "U.S. Treasury Securities," with Frank J. Fabozzi. In Frank J. Fabozzi, ed., *The Handbook of Financial Instruments*, 185-201. Hoboken, N.J.: John Wiley & Sons.
- Andrew Houghton. 2002. "Public Infrastructure Investments, Productivity, and Welfare in Fixed Geographic Areas." *Journal of Public Economics* 83, no. 3: 405-28.
- Margaret McConnell. 2002. "Policymakers' Revealed Preferences and the Output-Inflation Variability Trade-off: Implications for the European System of Central Banks," with Stephen G. Cecchetti. *Manchester School of Economic and Social Studies* 70, no. 4: 596-618.
- Donald Morgan. 2002. "Rating Banks: Risk and Uncertainty in an Opaque Industry." *American Economic Review* 92, no. 4 (September).
- Paolo Pesenti. 2002. "Can Nontradables Generate Substantial Home Bias?" with Eric van Wincoop. *Journal of Money, Credit, and Banking* 34, no. 1: 25-50.
- Joshua Rosenberg. 2002. "Empirical Pricing Kernels," with Robert F. Engle. *Journal of Financial Economics* 64, no. 3: 341-72.
- Til Schuermann. 2002. "Ratings Migration and the Business Cycle, with Applications to Credit Portfolio Stress Testing," with Anil Bangia and Francis Diebold. *Journal of Banking and Finance* 26, no. 2-3: 235-64.
- Kevin Stiroh. 2002. "The Economic Impacts of Information Technology." In Hossein Bidgoli, ed., *Encyclopedia of Information Systems*, 1-15. Amsterdam: Academic Press.
- Kevin Stiroh. 2002. "Investment and Productivity Growth: A Survey from the Neoclassical and New Growth Perspectives." In Someshwar Rao and Andrew Sharpe, eds., *Productivity Issues in a Canadian Context*, 441-79. Calgary: University of Calgary Press.
- Kevin Stiroh. 2002. "Measuring Information Technology and Productivity in the New Economy." *World Economics* 3, no. 1: 43-58.
- George Zanjani. 2002. "Pricing and Capital Allocation in Catastrophe Insurance." *Journal of Financial Economics* 65, no. 2 (August): 283-305.

Papers Presented by Economists in the Research and Market Analysis Group

“Modeling Regional Interdependencies,” *Til Schuermann*. National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts, July 24. With M. Hashem Pesaran and Scott Weiner.

The authors develop a modeling framework with a compact representation of factor and regional interdependencies to forecast global macroeconomic and financial variables.

“Deposit Insurance and Risk Management: How Much? How Safe? Who Pays?” *Til Schuermann*. Federal Deposit Insurance Corporation Conference, Washington, D.C., September 13. With M. Hashem Pesaran and Scott Weiner.

This paper examines deposit insurance by analyzing a fund’s size, coverage pricing, and ownership of loss. It finds that funds with reserves sufficient to cover about 99.85 percent of any loss distribution would have a corresponding rating of about BBB+.

“Exclusive Dealing,” *Chris Stefanadis*. Western Economic Association Conference, Seattle, Washington, July 1.

The paper argues that free riding—rather than efficiency gains—may be the driving force behind anticompetitive exclusive dealing.

“Reassessing the Role of IT in the Production Function: A Meta-Analysis,” *Kevin Stiroh*. National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts, July 29.

Using a meta-analysis across twenty studies, Stiroh finds that methodological differences account for about 40 percent of the variation in the estimated output elasticity of information technology.

“How Valuable Is Exchange Rate Flexibility? Optimal Monetary Policy under Sectoral Shocks,” *Cédric Tille*. Society for Economic Dynamics Annual Meeting, New York University, New York City, June 30.

The paper analyzes the optimal monetary policy response to productivity shocks while allowing for incomplete international specialization. Tille finds that the value of exchange rate flexibility is significantly lower than the value found in earlier studies that assume complete international specialization.

Other New Publications

- ***The Regional Economy of Upstate New York***: This quarterly newsletter, produced by the New York Fed’s Buffalo Branch, focuses on issues of importance to upstate New York. In the summer issue, authors Jane Schmitt, Richard Deitz, and Ramon Garcia report on a recent conference exploring the challenges faced by Buffalo’s manufacturing sector.

www.newyorkfed.org/rmaghome/regional/newsletter.html

“Can Vertical Specialization Explain the Growth of World Trade?” *Kei-Mu Yi*. Centre for Economic Policy Research Annual European Workshop in International Trade, University of Munich, Munich, Germany, June 16.

Yi shows that adding vertical specialization to standard trade models helps produce a more accurate explanation of world trade growth in the past forty years.

“A Simple Explanation of the Border Effect,” *Kei-Mu Yi*. Society for Economic Dynamics Annual Meeting, New York University, New York City, June 30.

This paper argues that the border effect—a puzzle in which the volume of international trade should be much higher than it is in relation to the volume of regional domestic trade—can be explained by two facts: goods are usually made in multiple stages, and moving these goods at various stages within a region costs less than moving them across international borders.

RESEARCH AND MARKET ANALYSIS GROUP PUBLICATIONS AND PAPERS: July-September 2002

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Economic Policy Review, Forthcoming

A special volume devoted to policies to promote affordable housing:

The Twenty-Fifth Anniversary of the Community Reinvestment Act: Past Accomplishments and Future Regulatory Challenges

William C. Apgar and Mark Duda

State of New York City's Housing and Neighborhoods: An Overview of Recent Trends

Michael H. Schill and Glynis Daniels

Government Regulation and Changes in the Affordable Housing Stock

C. Tsuriel Somerville and Christopher J. Mayer

The Impact of Building Restrictions on Housing Affordability

Edward L. Glaeser and Joseph Gyourko

Current Issues in Economics and Finance, Vol. 8

No. 7

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The views expressed in the publications and papers summarized in Research Update are those of the authors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.