



# Publications and Other Research



2007

Federal Reserve Bank of New York
Research and Statistics Group ■ www.newyorkfed.org/research

### **Contents**

- 1 Introduction
- 2 Economic Policy Review
- 5 EPR Executive Summaries
- 6 Current Issues in Economics and Finance
- 9 Research Update
- 10 Staff Reports
- 21 Outside Journals
- 31 Order Form

Federal Reserve Bank of New York Research and Statistics Group www.newyorkfed.org/research

### **INTRODUCTION**

The Federal Reserve Bank of New York's Research and Statistics Group produces a wide variety of publications and discussion papers of interest to business and banking professionals, policymakers, academics, and the general public.

This catalogue lists recent issues in our research series:

- the *Economic Policy Review*a policy-oriented journal focusing on economic and financial market issues
- 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.

The Research Group also offers two other publications of interest to readers:

- EPR Executive Summaries online versions of selected Economic Policy Review articles, in abridged form
- Research Update
  an online quarterly newsletter providing
  summaries of studies and listings of recent
  publications in our research series.

Members of the Group also publish papers in many economic and finance journals, conference volumes, and scholarly books. A list of these publications begins on page 21.

# **ECONOMIC POLICY REVIEW**

The *Economic Policy Review* is a policy-oriented research journal that focuses on macroeconomic, banking, and financial market topics.

EPR articles are available at www.newyorkfed.org/research/epr.

#### Volume 13

#### Number 1, March 2007

#### Financial Sector FDI and Host Countries: New and Old Lessons

Linda S. Goldberg

Foreign direct investment (FDI) into the financial sectors of emerging economies soared during the 1990s, leaving many countries with banking sectors owned primarily by foreign institutions. While the implications of FDI into emerging markets are well documented, less clearly understood is how the host countries are affected by financial sector FDI specifically. An understanding of this relationship is crucial for countries formulating policy with respect to foreign banks. This article argues that many lessons learned from work on FDI into manufacturing and primary resource industries apply directly to host-country financial sectors. The author provides evidence on such themes as technology transfers, productivity spillovers, wage effects, macroeconomic growth, and fiscal policy to show that financial sector FDI into emerging markets generally has positive effects on the host countries. In banking and finance specifically, she argues that financial sector FDI can potentially strengthen institutional development through improvements to regulation and supervision.

**EPR Executive Summary available** 

### An Examination of Treasury Term Investment Interest Rates

Warren B. Hrung

In November 2003, the Term Investment Option (TIO) program became an official cash management tool of the U.S. Treasury Department. Through TIO, the Treasury lends funds to banks for a set number of days at an interest rate determined by a single-rate auction. One reason why the Treasury introduced TIO was to try to earn a market rate of return on its excess cash balances. This article studies 166 TIO auctions from November 2003 to February 2006 to determine how TIO interest rates have compared with market rates. The author investigates the spread between TIO rates and rates on mortgage-backed-security repos, a close benchmark for TIO rates. He finds that aside from offerings with very short-term lengths, the Treasury receives an interest rate on TIO auctions comparable to market rates. He also documents a negative relationship between an auction's size and the spread between TIO and repo rates. Furthermore, the Treasury's announcement and auctioning of funds on the same day does not adversely affect rate spreads, a finding that suggests that banks are indifferent to more advance notice of TIO auctions.

### Trends in Financial Market Concentration and Their Implications for Market Stability

Nicola Cetorelli, Beverly Hirtle, Donald Morgan, Stavros Peristiani, and João Santos

The link between financial market concentration and stability is a topic of great interest to policymakers and other market participants. Are concentrated markets—those where a relatively small number of firms hold large market sharesinherently more prone to disruption? This article considers that question by drawing on academic studies as well as introducing new analysis. Like other researchers, the authors find an ambiguous relationship between concentration and instability when a large firm in a concentrated market fails. In a complementary review of concentration trends across a number of specific markets, the authors document that most U.S. wholesale credit and capital markets are only moderately concentrated, and that concentration trends are mixed—rising in some markets and falling in others. The article also identifies market

characteristics that might lead to greater, or less, concern about the consequences of a large firm's exit. It argues that the ease of substitution by other firms in concentrated markets is a critical factor supporting market resiliency.

#### **EPR Executive Summary available**

### The Emergence of "Regular and Predictable" as a Treasury Debt Management Strategy

Kenneth D. Garbade

During the 1970s, U.S. Treasury officials revised the framework within which they selected the maturities of new notes and bonds. Previously, they chose maturities on an offering-by-offering basis. By 1982, the Treasury had ceased these "tactical" sales and was selling notes and bonds on a "regular and predictable" schedule. This article describes that key change in the Treasury's debt management strategy. The author shows that in 1975, Treasury officials financed an unusually rapid expansion of the federal deficit with a flurry of tactical offerings. Because the timing and maturities of the offerings followed no predictable pattern, the sales sometimes took investors by surprise, disrupting the market. These events led Treasury officials to embrace a more regularized program of regular and predictable issuance—a program they had been using for decades to auction bills. The Treasury's switch to regular and predictable issuance of notes and bonds was widely praised for reducing the element of surprise in Treasury offering announcements, facilitating investor planning, and decreasing Treasury borrowing costs.

#### **EPR Executive Summary available**

#### Number 2, November 2007 New Directions for Understanding Systemic Risk

A Report on a Conference Cosponsored by the Federal Reserve Bank of New York and the National Academy of Sciences, May 18-19, 2006.

#### Preface

Part 1: Introduction

Part 2: Current Trends in Economic Research on Systemic Risk

- Part 3: Systemic Risk in Ecology and Engineering
- Part 4: The Payments System and the Market for Interbank Funds
- Part 5: Concluding Observations
  Background Paper: "Systemic Risk as

Background Paper: "Systemic Risk and the Financial System"

#### Number 3, December 2007 Hedge Funds, Financial Intermediation, and Systemic Risk

John Kambhu, Til Schuermann, and Kevin J. Stiroh

Hedge funds, with assets under management approaching an estimated \$1.5 trillion in 2006, have become important players in the U.S. and global capital markets. These largely unregulated funds differ from other market participants in their use of a variety of complex trading strategies and instruments, in their liberal use of leverage, in their opacity to outsiders, and in their convex compensation structure. These differences can exacerbate market failures associated with agency problems, externalities, and moral hazard. Counterparty credit risk management (CCRM) practices, used by financial institutions to assess credit risk and limit counterparty exposure, are the first line of defense against market disruptions with potential systemic consequences. This article examines how the unique nature of hedge funds may generate market failures that make CCRM for exposures to the funds intrinsically more difficult to manage, both for regulated institutions and for policymakers concerned with systemic risk. The authors acknowledge that various market failures, such as the one linked to the 1998 collapse of hedge fund Long-Term Capital Management, may make CCRM imperfect. However, CCRM has improved significantly since then, and it remains the appropriate starting point for limiting the potential for hedge funds to generate systemic disruptions.

**EPR Executive Summary available** 

#### A Comparison of Measures of Core Inflation

Robert Rich and Charles Steindel

The ability of central banks to differentiate between permanent and transitory price movements is critical for the conduct of monetary policy. The importance of gauging the persistence of price changes in a timely manner has led to the development of measures of underlying, or "core," inflation that are designed to remove transitory price changes from aggregate inflation data. Given the usefulness of this information to policymakers, there is a surprising lack of consensus on a preferred measure of U.S. core inflation. This article examines several proposed measures of core inflation—the popular ex food and energy series, an ex energy series, a weighted median series, and an exponentially smoothed series—to identify a "best" measure. The authors evaluate the measures' performance according to criteria such as ease of design and accuracy in tracking trend inflation, as well as explanatory content for within-sample and out-of-sample movements in aggregate CPI and PCE inflation. The study reveals that the candidate series perform very differently across aggregate inflation measures, criteria, and sample periods. The authors therefore find no compelling evidence to focus on one particular measure of core inflation, including the series that excludes food and energy prices. They attribute their results to the design of the individual measures and the measures' inability to account for variability in the nature and sources of transitory price movements.

**EPR Executive Summary available** 

### The Role of Retail Banking in the U.S. Banking Industry: Risk, Return, and Industry Structure

Timothy Clark, Astrid Dick, Beverly Hirtle, Kevin J. Stiroh, and Robard Williams

The U.S. banking industry is experiencing a renewed interest in retail banking, broadly defined as the range of products and services provided to consumers and small businesses. This article documents the "return to retail" in the U.S. banking industry and offers some insight into why the shift has occurred. At the bank level, the principal attraction of retail banking seems to be the belief that its revenues are stable and thus can offset volatility in nonretail businesses. At the industry level, the authors show that interest in retail activities fluctuates in rather predictable ways with the performance of nonretail banking and financial market activities. They document the features that the recent "return to retail" has in common with past cycles, but also identify factors suggesting that this episode may be more persistent. The most important of these factors is the role of large banks: this retail banking cycle is being driven almost entirely by the very largest U.S. banking firms. The key role of very large banks gives extra weight to this retail banking episode.

**EPR Executive Summary available** 

### **Forthcoming**

### Signal or Noise? Implications of the Term Premium for Recession Forecasting

Samuel Maurer and Joshua V. Rosenberg

Since the 1970s, an inverted yield curve has been a reliable signal of an imminent recession. One interpretation of this signal is that markets expect monetary policy to ease as the Federal Reserve responds to an upcoming deterioration in economic conditions. Some have argued that the yield curve inversion in August 2006 did not signal an imminent recession, but instead was triggered by an unusually low level of the term premium. This article examines whether changes in the term premium can distort the recession signal given by an inverted yield curve. The authors use the Kim and Wright (2005) decomposition of the term spread into an expectations component and a term premium component to compare recession forecasting models with and without the term premium. They find that the expectations component of the term spread is a leading indicator of recession, while the term premium component is not. Their analysis of recession forecasting performance provides some evidence that a model based on the expectations component is more accurate than the standard model that uses the term spread.

### Understanding Risk Management in Emerging Retail Payments

Michele Braun, James McAndrews, William Roberds, and Richard Sullivan

New technologies used in payment methods can reduce risk, but they can also lead to new risks. Emerging retail payments are prone to operational and fraud risks, especially security breaches and potential use in illicit transactions. This article describes an economic framework for understanding risk control in retail payments. Risk control is a special type of good because it can protect one payment participant without diminishing the protection of other participants. As a result, the authors' economic framework emphasizes risk containment, primarily through the establishment and enforcement of risk management policies. Application of the framework to three types of emerging payments suggests that a payments system can successfully manage risk if it quickly recognizes problems, encourages commitment from all participants to control risk, and uses an appropriate mix of market and public policy mechanisms to align risk management incentives. The authors conclude that providers of emerging payment methods must mitigate risk effectively or face rejection in the payment market.

**EPR** Executive Summary available

#### **EPR Executive Summaries**

Visit our website for concise summaries of *Economic Policy Review* articles.

Our online publication *EPR Executive Summaries* condenses many of the articles published in the *Review*. Readers of the summaries will find timely, policy-oriented studies that are easy to absorb.

The summaries make the technical research of New York Fed economists more accessible to policymakers, educators, business and financial leaders, and others. The series is designed to foster a fuller understanding of our research among those who are in a position to put our ideas and findings to work.

Summaries, in html format, are available for many articles published since 2002.

www.newyorkfed.org/research/epr/executive\_summary.html

### CURRENT ISSUES IN ECONOMICS AND FINANCE

Current Issues in Economics and Finance offers concise studies of topical economic and financial issues.

Second District Highlights—a regional supplement to Current Issues—covers important financial and economic developments in the Federal Reserve System's Second District.

Both series are available in html and pdf formats at www.newyorkfed.org/research/current issues.

#### Volume 13

No. 1, January 2007

#### Who Buys Treasury Securities at Auction?

Michael J. Fleming

The U.S. Treasury Department now releases fuller information about its auctions than in the past, including new information on investor class and bidder category. The investor class data shed light on the distribution of demand for government securities, and the bidder category data, released first, offer an early read on demand. Purchases by indirect bidders, in particular, are a fairly good proxy for foreign purchases of Treasury notes, but not Treasury bills.

No. 2, February 2007

### What Has Homeland Security Cost? An Assessment: 2001-2005

Bart Hobijn and Erick Sager

While homeland security is widely seen as an important national objective, the costs of this effort are not well understood. An analysis of public and private expenditures on homeland security shows that overall spending rose by \$44 billion between 2001 and 2005—a clear increase but one that represents a gain of only ¼ of 1 percent as a share of U.S. GDP. Private sector expenditures increased very modestly in dollar terms and remained unchanged as a fraction of the sector's GDP.

No. 3, March/April 2007

#### Measuring Risk in the Hedge Fund Sector

Tobias Adrian

Recent high correlations among hedge fund returns could suggest concentrations of risk comparable to those preceding the hedge fund crisis of 1998. A comparison of the current rise in correlations with the elevation before the 1998 event, however, reveals a key difference. The current increase stems mainly from a decline in the volatility of returns, while the earlier rise was driven by high covariances—an alternative measure of comovement in dollar terms. Because volatility and covariances are lower today, the current hedge fund environment differs from the 1998 environment.

No. 4, May 2007

#### How Worrisome Is a Negative Saving Rate?

Charles Steindel

The U.S. personal saving rate's negative turn in 2005 has raised concerns that Americans may have to curtail their spending and accept a lower standard of living as they pay off rising debts. However, a closer look at saving trends suggests that the risks to household well-being are overstated. The surge in energy costs may have temporarily dampened saving, while the accounting of household income from stock holdings may be skewing saving estimates. Moreover, broad measures of saving have remained positive, and household wealth is on the rise.

No. 5, June 2007

### Why a Dollar Depreciation May Not Close the U.S. Trade Deficit

Linda Goldberg and Eleanor Wiske Dillon

With the U.S. trade deficit at high levels, many look to a dollar depreciation to curb the U.S. appetite for foreign goods by pushing up the cost of imports. Yet three factors—the use of the dollar in invoicing U.S. trade, the market share concerns of exporters, and sizable U.S. distribution costs—could keep U.S. import prices from rising enough to reduce demand significantly. Evidence suggests that a weaker dollar will boost foreign demand for U.S. exports, but this adjustment by itself is unlikely to close the deficit.

No. 6, July 2007

### Evaluating the Relative Strength of the U.S. Capital Markets

Stavros Peristiani

Concern is growing that the U.S. capital markets are losing market share to overseas competitors. A decline in foreign initial public offerings indeed suggests that the U.S. equity market is becoming less attractive to certain issuers. However, evidence on the competitiveness of the U.S. equity market is mixed, since the trends affecting it are likewise shaping equity markets abroad. A less ambiguous decline in the share of global issuance can be seen in the U.S. corporate bond market, which is facing a growing challenge from the Eurobond market.

No. 7, August 2007

### Job Growth in New York and New Jersey: Mid-2007 Review and Outlook

Jason Bram, James Orr, and Rae Rosen

Employment in the New York—New Jersey region expanded by about 0.9 percent in 2006. Slightly slower job growth—on the order of 0.8 percent—was recorded in the first half of 2007 and is expected to continue throughout the year, in part reflecting moderating growth in the national economy. The employment rise in New York State was led by a strong expansion of services jobs in New York City; any sustained weakening in the city's financial sector would be unlikely to affect employment significantly until 2008.

**Second District Highlights** 

No. 8, September 2007

### Is the United States Losing Its Productivity Advantage?

Mary Amiti and Kevin Stiroh

Strikingly high rates of labor productivity growth in China, India, and other emerging economies have prompted concerns that U.S. workers and firms are losing ground to their competitors in world markets. A closer look at the evidence, however, suggests that rapid foreign productivity growth will bring gains as well as losses to the U.S. economy. Some import-competing firms may be compelled to restructure or leave the market, but consumers will benefit from lower import prices and more import varieties, and U.S. exporters may gain access to cheaper intermediate products from abroad.

No. 9, October 2007

### The Foreign-Born Population in Upstate New York

James Orr, Susan Wieler, and Joseph Pereira

An analysis of upstate New York's foreign-born residents suggests that they contribute to the region's human capital in important ways. This population boasts a greater concentration of college graduates than either the region's native-born population or immigrants downstate. While some immigrants upstate may compete with U.S.-born workers for jobs, the more highly educated appear to be entering skilled occupations—in medicine, science, and research particularly—that complement those of native-born residents.

**Second District Highlights** 

No. 10, November 2007

### Sticky Prices: Why Firms Hesitate to Adjust the Price of Their Goods

Pinelopi Goldberg and Rebecca Hellerstein

Price stickiness—the tendency of prices to remain constant despite changes in supply and demand—has been linked to firms' unwillingness to pay the costs entailed in setting, implementing, and advertising new prices. However, there is little consensus on the size and importance of these "repricing costs." Taking the imported beer market as their subject, the authors of this study find repricing costs to be markedly higher for manufacturers than for retailers and conclude that, at the wholesale level, these costs are a significant deterrent to price adjustment.

No. 11, December 2007

### Financial Globalization and the U.S. Current Account Deficit

Matthew Higgins and Thomas Klitgaard

Despite heavy borrowing in recent years, the United States has financed its large current account deficits without experiencing an unusual buildup in foreign investors' holdings of U.S. assets. A new analysis suggests that this somewhat surprising development is attributable largely to rapid financial globalization, with cross-border flows worldwide rising as fast as flows into the United States. However, it could be harder for the country to sustain large deficits on favorable terms if the current wave of globalization subsided or the rate at which U.S. investors buy foreign assets increased.

### **RESEARCH UPDATE**

Research Update is an online quarterly newsletter designed to keep you informed about the Research Group's current work. The newsletter—which complements this catalogue—offers summaries of selected studies and listings of recent articles and papers in our research series.

*Research Update* also reports on other news within the Group, including:

- staff publication in outside journals,
- presentations by economists at academic conferences and industry gatherings,
- upcoming conferences at the Federal Reserve Bank of New York,
- calls for papers, and
- new publications and services.

The publication is available in html and pdf formats at www.newyorkfed.org/research/research\_update.

### STAFF REPORTS

The *Staff Reports* series features technical research papers designed to stimulate discussion and elicit comments. These papers are intended for eventual publication in leading economic and finance journals.

The series is available only at www.newyorkfed.org/research/staff\_reports.

#### Macroeconomics and Growth

No. 277, February 2007

### A Retrospective Look at the U.S. Productivity Growth Resurgence

Dale W. Jorgenson, Mun S. Ho, and Kevin J. Stiroh It is now widely recognized that information technology (IT) was critical to the dramatic acceleration of U.S. labor productivity growth in the mid-1990s. This paper traces the evolution of productivity estimates to document how and when this perception emerged. Early studies concluded that IT was relatively unimportant. It was only after the massive IT investment boom of the late 1990s that this investment and underlying productivity increases in the IT-producing sectors were identified as important sources of growth. Although IT has diminished in significance since the dot-com crash of 2000, the authors project that private sector productivity growth will average around 2.5 percent per year for the next decade, a pace that is only moderately below the average for the 1995-2005 period.

No. 286, May 2007

### Inflation Persistence: Alternative Interpretations and Policy Implications

Argia M. Sbordone

Sbordone considers the policy implications of two alternative structural interpretations of observed inflation persistence, which correspond to two alternative specifications of the New Keynesian Phillips curve (NKPC). The first specification allows for some degree of intrinsic persistence by way of a lagged inflation term in the NKPC. The second is a purely forward-looking model, in which expectations farther into the future matter and coefficients are time-varying. With a simple quantitative exercise, the author illustrates the consequences of implementing monetary policy, assuming a degree of intrinsic persistence that differs from the true one. The results suggest that the costs of implementing a stabilization policy when the policymaker overestimates the degree of intrinsic persistence are potentially higher than the costs of ignoring actual structural persistence; the result is more clear-cut when the policymaker minimizes a welfare-based loss function.

No. 294, July 2007

#### Monetary Regime Change and Business Cycles

Vasco Cúrdia and Daria Finocchiaro

This paper analyzes how changes in monetary policy regimes influence the business cycle in a small open economy. The authors estimate a dynamic stochastic general equilibrium (DSGE) model on Swedish data, explicitly taking into account the 1993 monetary regime change from exchange rate targeting to inflation targeting. The results confirm that monetary policy reacted primarily to exchange rate movements in the target zone and to inflation in the inflation-targeting regime. Devaluation expectations were the principal source of volatility in the target zone period. In the inflation-targeting period, labor supply and preference shocks have become relatively more important.

No. 298, August 2007

### Job-Finding and Separation Rates in the OECD

Bart Hobijn and Ayşegül Şahin

Hobijn and Şahin provide a set of comparable estimates of aggregate monthly job-finding and separation rates for twenty-seven OECD (Organisation for Economic Co-operation and Development) countries; these estimates can be used for the cross-country calibration of search models of unemployment. They find that crosscountry differences in job-finding rates are much greater than those in separation rates. These results are quantitatively and qualitatively in line with those published in previous studies; however, they cover a much larger set of countries. The authors combine their estimates with evidence on unemployment and labor force participation rates to impute steady-state worker flows for twentythree of the countries in their sample.

No. 310, December 2007

#### Is There Still an Added-Worker Effect?

Chinhui Juhn and Simon Potter

Using matched March Current Population Surveys, Juhn and Potter examine labor market transitions of husbands and wives. They find that the "added-worker effect"—the greater propensity of nonparticipating wives to enter the labor force when their husbands exit employment—is still important among a subset of couples, but that the overall value of marriage as a risk-sharing arrangement has diminished because of the greater positive co-movement of employment within couples. While positive assortative matching on education did increase over time, this shift in the composition of couple types alone cannot account for the increased positive correlation.

#### International

No. 278, March 2007

#### Monetary Policy under Sudden Stops

Vasco Cúrdia

This study proposes a model to investigate the effects of monetary policy in an emerging market economy that experiences a sudden stop of capital inflows. Cúrdia shows that the higher the elasticity of foreign demand, the lower the contraction in output—leading, at the extreme, to the possibility of an expansion. A second result is that the recession is most severe in a fixed exchange rate regime. A comparison of alternative rules shows that low commitment to inflation stabilization allows for less contraction in output and even expansion but at the cost of stronger contraction in capital inflows and higher interest rates. Low credibility and the risk of loose policy imply increased trade-offs, stronger contraction of the economy, and higher interest rates.

No. 280, March 2007

#### **International Capital Flows**

Cédric Tille and Eric van Wincoop

Most theories of international capital flows are based on one-asset models, which have implications only for net capital flows, not for gross flows. Moreover, because there is no portfolio choice, these models allow no role for capital flows as a result of assets' changing expected returns and risk characteristics. This paper develops a method for solving dynamic stochastic general equilibrium open-economy models with portfolio choice. After showing why standard solution methods no longer work in the presence of portfolio choice, the authors extend these methods, giving special treatment to the optimality conditions for portfolio choice. They apply their method to a two-country, two-good, two-asset model. The approach identifies timevarying portfolio shares resulting from assets' time-varying expected returns and risk characteristics as a potential key source of international capital flows.

No. 283, April 2007

#### Why Are Switzerland's Foreign Assets So Low? The Growing Financial Exposure of a Small Open Economy

Nicolas Stoffels and Cédric Tille

Since 1999, Switzerland's international investment position has taken a surprising turn: Large and persistent current account surpluses have failed to boost the value of Swiss foreign assets. This study links this failure to the substantial increase in the leveraging of Switzerland's international assets and liabilities over the last twenty years. Stoffels and Tille estimate the impact of exchange rate and asset price movements on Swiss net foreign assets, and show that they led to substantial valuation losses beginning in 1999. Indeed, these losses account for one-quarter to one-half of the gap between net foreign assets and cumulated current account flows. The valuation effects, the authors suggest, have erased the advantageous return that Switzerland would otherwise have earned on its net foreign asset position.

No. 287, June 2007

#### A Framework for Identifying the Sources of Local Currency Price Stability with an Empirical Application

Pinelopi K. Goldberg and Rebecca Hellerstein

The inertia of traded goods' local currency prices in the face of exchange rate changes is a welldocumented phenomenon in international economics. This paper develops a framework for identifying the sources of local currency price stability. The empirical approach exploits manufacturers' and retailers' first-order conditions—in conjunction with detailed information on the frequency of price adjustments in response to exchange rate changes—to quantify the relative importance of fixed costs of repricing, local-cost nontraded components, and markup adjustment by manufacturers and retailers in the incomplete transmission of exchange rate changes to prices. The approach is applied to micro data from the beer market.

No. 295, July 2007

### The Long-Run Determinants of U.S. External Imbalances

Andrea Ferrero

Ferrero develops a tractable two-country model with life-cycle structure to investigate analytically and quantitatively three potential determinants of the U.S. external imbalances in the last three decades: productivity growth, demographic factors, and fiscal policy. The results suggest that 1) productivity growth differentials are the main driving force at high frequencies, 2) the different evolution of demographic factors across countries accounts for a large portion of the long-run trend, and 3) fiscal policy plays, at best, a minor role. The author's main prediction is that among industrialized countries, capital should generally be expected to flow toward relatively young and rapidly growing economies. In addition, the paper shows that international demographic trends might be partly responsible for the recent declining pattern of the world real interest rate.

#### Microeconomics

No. 275, February 2007

#### How Wages Change: Micro Evidence from the International Wage Flexibility Project

William T. Dickens, Lorenz Goette, Erica L. Groshen, Steinar Holden, Julian Messina, Mark E. Schweitzer, Jarkko Turunen, and Melanie E. Ward

Drawing on information compiled by the International Wage Flexibility Project, Dickens et al. analyze changes in individuals' earnings in thirty-one different data sets from sixteen countries. The 360 wage change distributions they derive from the data show a remarkable amount of variation in earnings changes across workers. These changes have a notably non-normal distribution; they are tightly clustered around the median and also have many extreme values. Furthermore, nearly all countries show asymmetry in their wage distributions below the median. Indeed, the authors find evidence of downward nominal and real wage rigidities and determine that the extent of both rigidities varies substantially across countries. Their results suggest that the degree of union presence in the labor market plays a role in explaining the differing degrees of rigidities among countries.

No. 300, September 2007

#### Can Increasing Private School Participation and Monetary Loss in a Voucher Program Affect Public School Performance? Evidence from Milwaukee

Rajashri Chakrabarti

The Milwaukee voucher program, as implemented in 1990, allowed only nonsectarian private schools to participate in the program. However, following a Wisconsin Supreme Court ruling, the program was expanded to include religious private schools in 1998. In addition, because of some funding changes, the revenue loss per student from vouchers increased. Chakrabarti analyzes, both theoretically and empirically, the effects of these changes on public school performance, as measured by test scores, in Milwaukee. She argues that voucher design matters and that the choice of parameters in a voucher program is crucial in determining the effects of public school incentives and performance. In the context of a theoretical model of public school and household behavior, the author predicts that the policy changes will lead to an improvement in public school performance and then finds that this prediction is validated empirically.

No. 301, September 2007

#### Effect of Redrawing of Political Boundaries on Voting Patterns: Evidence from State Reorganization in India

Rajashri Chakrabarti and Joydeep Roy

This paper analyzes the effect of a redrawing of political boundaries on voting patterns and investigates whether it leads to closer conformity of an electorate's voting patterns with its political preferences. Chakrabarti and Roy study these issues both theoretically and empirically in the context of a reorganization of states in India. In 2000, Madhya Pradesh, the biggest state in India, was subdivided into Madhya Pradesh and Chhattisgarh. Using detailed data on state elections in Madhya Pradesh and Chhattisgarh, the authors find that voting patterns in the two regions were very similar before reorganization, but strikingly different afterwards, with a relative shift in Chhattisgarh toward its inherent political preferences. These findings are consistent with those obtained from the theoretical model and are also robust to various sensitivity checks.

No. 306, October 2007

### Vouchers, Public School Response, and the Role of Incentives: Evidence from Florida

Rajashri Chakrabarti

Chakrabarti analyzes the behavior of public schools facing vouchers. The literature on the effects of voucher programs on public schools typically focuses on student and mean school scores. This paper attempts to go inside the black box to investigate some of the ways in which schools facing the threat of vouchers in Florida behaved. Using highly disaggregated school-level data, a difference-in-differences estimation strategy, and a regression discontinuity analysis, she finds that the threatened schools tended to focus more on students below the minimum criteria cutoffs rather than equally on all; interestingly, however, this improvement did not come at the expense of higher performing students. Second, consistent with incentives, the schools focused on writing rather than reading and math.

#### No. 311, December 2007 Firms and Flexibility

Bart Hobijn and Ayşegül Şahin

Hobijn and Şahin study the effects of labor market rigidities and frictions on firm-size distributions and dynamics. They introduce a model of endogenous entrepreneurship, labor market frictions, and firm-size dynamics with many types of rigidities, such as hiring and firing costs, search frictions with vacancy costs, unemployment benefits, firm entry costs, and a tax wedge between wages and labor costs. The authors use the model to analyze how each rigidity explains firm-size differentials between the United States and France. They find that when all rigidities and frictions except hiring costs and search frictions are included, the model accounts for much of the firm-size differentials between the United States and France. The addition of search frictions with vacancy costs generates implausibly large differentials in firm-size distributions.

#### Banking and Finance

No. 272, January 2007

### Personal Bankruptcy and Credit Market Competition

Astrid Dick and Andreas Lehnert

This study investigates empirically the relationship between credit market competition, lending to households, and personal bankruptcy rates in the United States. Dick and Lehnert exploit the exogenous variation in market contestability brought on by banking deregulation at the state level: after deregulation, banks faced the threat of entry into their state markets. The authors find that deregulation increased competition for borrowers, prompting banks to adopt more sophisticated credit rating technology. In turn, these developments led previously excluded households to enter the credit market. The authors document that, following deregulation, 1) overall lending increased, 2) loss rates on loans decreased, and 3) bankruptcy rates rose.

No. 273, January 2007

#### **Defining and Detecting Predatory Lending**

Donald P. Morgan

Morgan defines predatory lending as a welfarereducing provision of credit. Using a textbook model, he shows that lenders profit if they can tempt households into "debt traps," that is, overborrowing and delinquency. The author then tests whether payday lending fits the definition of predatory. His study finds that in states with higher payday loan limits, less-educated households and households with uncertain income are less likely to be denied credit, but are not more likely to miss a debt payment. Absent higher delinquency, the extra credit from payday lenders does not fit our definition of predatory. Nevertheless, it is expensive. On that point, Morgan finds somewhat lower payday prices in cities with more payday stores per capita, consistent with the hypothesis that competition limits payday loan prices.

No. 274, January 2007

#### Commitment and Equilibrium Bank Runs

Huberto Ennis and Todd Keister

This paper studies the role of commitment in a version of the Diamond-Dybvig model with no aggregate uncertainty. As is well known, the banking authority can eliminate the possibility of a bank run by committing to suspend payments to depositors if a run were to start. The authors show, however, that in an environment without commitment, the banking authority will choose to only partially suspend payments during a run. In some cases, the reduction in early payouts under this partial suspension is insufficient to dissuade depositors from participating in the run. Bank runs can then occur with positive probability in equilibrium. The fraction of depositors participating in such a run is stochastic and can be arbitrarily close to one.

No. 276, February 2007

#### Credit Derivatives and Bank Credit Supply

Beverly Hirtle

The key question addressed in this paper is whether purchase of credit protection through credit derivatives is associated with an increase in bank credit supply. Hirtle examines a micro data set of individual loans made by a sample of banks between 1997 and 2005. She finds evidence suggesting that greater use of credit derivatives is associated with greater supply of bank credit for large term loans—that is, newly negotiated loan extensions to large corporate borrowers—though not for (previously negotiated) commitment lending. On-balance-sheet amounts of commercial and industrial loans also appear to increase as the protection afforded by credit derivatives increases.

No. 279, March 2007

## The Bankruptcy Abuse Prevention and Consumer Protection Act: Means-Testing or Mean Spirited?

Adam B. Ashcraft, Astrid A. Dick, and Donald P. Morgan

Thousands of U.S. households filed for bankruptcy just before the bankruptcy law changed in 2005. That rush-to-file was more pronounced, this study finds, in states with more generous bankruptcy exemptions and lower credit scores. The authors take that finding as evidence that the new law effectively reduces exemptions, which in turn should reduce the "demand" for bankruptcy and the resulting losses to suppliers of consumer credit. Predictably, the savings to suppliers will be shared with borrowers by way of lower credit card rates, although credit card spreads have not yet fallen. If cheaper credit is the upside of the new law, the downside is reduced bankruptcy "insurance" against bad luck. The overall impact of the new law on the average household depends on how one weighs those two sides.

No. 281, April 2007

### Why Does Overnight Liquidity Cost More Than Intraday Liquidity?

Joydeep Bhattacharya, Joseph H. Haslag, and Antoine Martin

The authors argue that the observed difference in the cost of intraday and overnight liquidity is part of an optimal payments system design. In their environment, the interest charged on overnight liquidity affects output, while the cost of intraday liquidity only affects the distribution of resources between money holders and non-money holders. The low cost of intraday liquidity follows from the Friedman rule, but with respect to overnight liquidity, it is optimal to deviate from the Friedman rule. The cost differential simultaneously reduces the incentive to overuse money and encourages risk sharing.

No. 282, April 2007

#### Liquidity-Saving Mechanisms

Antoine Martin and James McAndrews

Martin and McAndrews study the incentives of participants in a real-time gross settlement system with and without the addition of a liquiditysaving mechanism (queue). Participants in the authors' model face a liquidity shock and different costs for delaying payments. They trade off the cost of delaying a payment against the cost of borrowing liquidity from the central bank. The heterogeneity of participants in the model gives rise to a rich set of strategic interactions. The paper's main contribution is to show that the design of a liquidity-saving mechanism has important implications for welfare, even in the absence of netting. In particular, the study finds that parameters will determine whether the addition of a liquidity-saving mechanism increases or decreases welfare.

No. 284, May 2007

#### Reserve Levels and Intraday Federal Funds Rate Behavior

Spence Hilton and Warren B. Hrung

Hilton and Hrung analyze the impact of aggregate reserve levels on the intraday behavior of the federal funds rate over a sample period extending from 2002 to 2005. They study both how the reserve levels accumulated earlier in a maintenance period influence the morning level of the funds rate relative to the target set by the Federal Open Market Committee, and how sameday reserve levels as well as the reserve levels accumulated earlier affect intraday movements of the funds rate. The impact of recurring calendar events on the behavior of the federal funds rate is also explored. In general, the authors find a negative relationship between their measures of reserve levels and their two measures of federal funds rate behavior.

No. 290, July 2007

### Has the Credit Default Swap Market Lowered the Cost of Corporate Debt?

Adam B. Ashcraft and João A. C. Santos

Ashcraft and Santos evaluate the effect that the onset of credit default swap (CDS) trading has on the spreads that underlying firms pay at issue when they seek funding in the corporate bond and syndicated loan markets. Employing matched-sample methods, the authors find no evidence that the onset of CDS trading affects the cost of debt financing for the average borrower. However, they do find economically significant adverse effects to risky and informationally opaque firms. It appears that the onset of CDS trading reduces the effectiveness of the lead bank's retained share in resolving any asymmetric information problems that exist between a lead bank and nonlead participants in a loan syndicate.

No. 291, July 2007

### Hedge Funds, Financial Intermediation, and Systemic Risk

John Kambhu, Til Schuermann, and Kevin J. Stiroh

Hedge funds are significant players in the U.S. capital markets, but differ from other market participants in important ways such as their use of a wide range of complex trading strategies and instruments, leverage, opacity to outsiders, and their compensation structure. The traditional bulwark against financial market disruptions with potential systemic consequences has been the set of counterparty credit risk management (CCRM) practices by the core of regulated institutions. The characteristics of hedge funds make CCRM more difficult as they exacerbate market failures linked to agency problems, externalities, and moral hazard. While various market failures may make CCRM imperfect, it remains the best line of defense against systemic risk.

No. 292, July 2007

### Market Sidedness: Insights into Motives for Trade Initiation

Asani Sarkar and Robert A. Schwartz

Sarkar and Schwartz infer motives for trade initiation from market sidedness. They define trading as more two-sided (one-sided) if the correlation between the numbers of buyer- and seller-initiated trades increases (decreases), and assess changes in sidedness (relative to a control sample) around events that identify trade initiators. Consistent with asymmetric information, trading is more one-sided prior to merger news. Consistent with belief heterogeneity, trading is more two-sided 1) before earnings and macro announcements with greater dispersions of analyst forecasts and 2) after earnings and macro news events with larger announcement surprises. A simultaneous equation system is used to examine the co-determinacy of sidedness, the bidask spread, volatility, the number of trades, and the order imbalance.

No. 293, July 2007

### Public Disclosure, Risk, and Performance at Bank Holding Companies

Beverly Hirtle

Hirtle examines the relationship between the amount of information disclosed by bank holding companies (BHCs) and their subsequent risk profile and performance. Using data from the annual reports of BHCs with large trading operations, she constructs an index of publicly disclosed information about the BHCs' forwardlooking estimates of market risk exposure in their trading and market-making activities. She then examines the relationship between this index and the subsequent risk and return in both the BHCs' trading activities and the firm overall, as proxied by equity market returns. The key findings are that more disclosure is associated with lower risk, especially idiosyncratic risk, and in turn with higher risk-adjusted returns.

No. 296, August 2007

### Rediscounting under Aggregate Risk with Moral Hazard

James T. E. Chapman and Antoine Martin

In a 1999 paper, Freeman proposes a model in which discount window lending and open market operations have different outcomes. Freeman's conclusion that the central bank should absorb losses related to default to provide risk-sharing goes against the concern that central banks should limit their exposure to credit risk. Chapman and Martin extend Freeman's model by introducing moral hazard. With moral hazard, the central bank should avoid absorbing losses, contrary to Freeman's argument. However, the authors show that the outcomes of discount window lending and open market operations can still be distinguished in this new framework. The optimal policy would be for the central bank to make a restricted number of creditors compete for funds. By restricting the number of agents, the central bank can limit the moral hazard problem.

No. 297, August 2007

### Vesting and Control in Venture Capital Contracts

David R. Skeie

Vesting of equity payments to an entrepreneur, which is a form of time-contingent compensation, is very common in venture capital contracts. Skeie shows in a theoretical model that incomplete contracts due to hold-up by the venture capitalist imply that equity compensation, in the form of either short-term or long-term vesting, cannot provide standard contractible equity incentives for the entrepreneur to take an unobservable action involving effort. He introduces a new model of effort based on a verifiable choice of an effort-intensive project, for which the short-term vesting of equity can provide incentives, but which results in a trade-off between incentives and screening. Contingent control rights are a substitute for short-term vesting and provide the largest incentives for effort.

No. 299, August 2007

### How Do Treasury Dealers Manage Their Positions?

Michael J. Fleming and Joshua V. Rosenberg

Using data on U.S. Treasury dealer positions from 1990 to 2006, Fleming and Rosenberg find evidence of a significant role for dealers in the intertemporal intermediation of new Treasury security supply. Dealers regularly take into inventory a large share of Treasury issuance so that dealer positions increase during auction weeks. These inventory increases are only partially offset in adjacent weeks and are not significantly hedged with futures. Dealers seem to be compensated for the risk associated with these inventory changes by means of price appreciation in the subsequent week.

No. 302, September 2007

### Patterns of Rainfall Insurance Participation in Rural India

Xavier Giné, Robert Townsend, and James Vickery

This paper describes the contract design and institutional features of an innovative rainfall insurance policy offered to smallholder farmers in rural India and presents preliminary evidence on the determinants of insurance participation. Insurance take-up is found to be decreasing in basis risk between insurance payouts and income fluctuations, higher among wealthy households, and lower among households that are credit constrained. These results match predictions of a simple neoclassical model appended with borrowing constraints. Other patterns are less consistent with the benchmark model. Namely, participation in village networks and measures of familiarity with the insurance vendor are strongly correlated with insurance take-up decisions, and risk-averse households are found to be less, not more, likely to purchase insurance.

No. 303, September 2007

#### The Microstructure of Cross-Autocorrelations

Tarun Chordia, Asani Sarkar, and Avanidhar Subrahmanyam

This paper examines the mechanism through which the incorporation of information into prices leads to cross-autocorrelations in stock returns. The lead-lag relation between large and small stocks increases with lagged spreads of large stocks. Further, order flows in large stocks significantly predict the returns of small stocks when large stock spreads are high. This effect is consistent with the notion that trading on common information takes place first in the large stocks and is then transmitted to smaller stocks with a lag, suggesting that price discovery takes place in the large stocks.

No. 304, October 2007

#### Buybacks in Treasury Cash and Debt Management

Kenneth D. Garbade and Matthew Rutherford

This paper examines the use of buybacks in Treasury cash and debt management. Garbade and Rutherford review the mechanics and results of the buyback operations conducted in 2000-01, during a time of budget surpluses, and assess the prospective use of buybacks in the absence of a surplus. Possible future applications include 1) managing the liquidity of the new-issue markets when deficits are declining; 2) actively promoting the liquidity of the new-issue markets; 3) limiting the accumulation of large Treasury cash balances; and 4) smoothing week-to-week fluctuations in Treasury bill offerings.

No. 305, October 2007

#### The Effect of Employee Stock Options on Bank Investment Choice, Borrowing, and Capital

Hamid Mehran and Joshua Rosenberg

Mehran and Rosenberg test the hypothesis that granting employee stock options motivates CEOs of banking firms to undertake riskier projects. They also investigate whether granting employee stock options reduces the bank's incentive to borrow while inducing a buildup of regulatory capital. Using a sample of 549 bank-years for publicly traded banks from 1992 to 2002, they find some evidence that the bank's equity volatility (total as well as residual) and asset volatility increase as CEO stock option holdings increase. In addition, it appears that granting employee stock options motivates banks to reduce their borrowing, as evidenced by lower levels of interest expense and federal funds borrowing. Furthermore, the authors show that banking firms that grant more options to their employees build up more capital in future years.

No. 307, November 2007

#### Macro News, Risk-Free Rates, and the Intermediary: Customer Orders for Thirty-Year Treasury Futures

Albert J. Menkveld, Asani Sarkar, and Michel van der Wel

Customer order flow correlates with permanent price changes in equity and non-equity markets. Menkveld, Sarkar, and van der Wel examine macro news events in the thirty-year Treasury futures market to identify causality from customer flow to risk-free rates. They remove the positive feedback trading effect and establish that, in the fifteen minutes subsequent to the news, intermediaries rely on customer orders to determine a substantial part of the announcement's effect on risk-free rates—about one-third relative to the instantaneous effect. Intermediaries appear to benefit from privately observing informed customers, since their own-account trade profitability correlates with access to customer flow, controlling for volatility, competition, and the macro "surprise."

No. 308, November 2007

#### Regulation, Subordinated Debt, and Incentive Features of CEO Compensation in the Banking Industry

Kose John, Hamid Mehran, and Yiming Qian The authors study CEO compensation in the banking industry by considering banks' unique claim structure in the presence of two types of agency problems: the standard managerial agency problem and the risk-shifting problem between shareholders and debtholders. They empirically test two hypotheses derived from this framework: that the pay-for-performance sensitivity of bank CEO compensation 1) decreases with the total leverage ratio and 2) increases with the intensity of monitoring provided by regulators and nondepository (subordinated) debtholders. They construct an index of the intensity of outsider monitoring based on four variables: the subordinated debt ratio, subordinated debt rating, nonperforming loan ratio, and BOPEC rating. John, Mehran, and Qian find supporting evidence for both hypotheses.

No. 309, November 2007

### Payday Holiday: How Households Fare after Payday Credit Bans

Donald P. Morgan and Michael R. Strain

Payday loans are widely condemned as a "predatory debt trap." Morgan and Strain test that claim by researching how households in Georgia and North Carolina have fared since those states banned payday loans in May 2004 and December 2005. Compared with households in all other states, households in Georgia have bounced more checks, complained more to the Federal Trade Commission about lenders and debt collectors, and filed for Chapter 7 bankruptcy protection at a higher rate. North Carolina households have fared about the same. This negative correlation reduced payday credit supply, increased credit problems—contradicts the debt-trap critique of payday lending, but is consistent with the hypothesis that payday credit is preferable to substitutes such as the bounced-check "protection" sold by credit unions and banks or loans from pawnshops.

#### **Ouantitative Methods**

No. 285, May 2007

### A Flexible Approach to Parametric Inference in Nonlinear Time Series Models

Gary Koop and Simon Potter

Many structural break and regime-switching models have been used with macroeconomic and financial data. This paper develops a flexible parametric model that accommodates virtually any of these specifications—and does so in a way that allows for straightforward Bayesian inference. The model adds two conceptsordering and distance—to a standard state space framework. By various reorderings of the data, Koop and Potter can accommodate a wide range of nonlinear time series models. By allowing the state equation variances to depend on the distance between observations, the parameters can evolve in different ways, allowing for models that exhibit abrupt change as well as those that permit a gradual evolution of parameters. The authors show how their model nests every popular model in the regime-switching and structural break literatures.

No. 288, June 2007

#### Generalized Canonical Regression

Arturo Estrella

Estrella introduces a generalized approach to canonical regression, in which a set of jointly dependent variables enters the left-hand side of the equation as a linear combination, formally like the linear combination of regressors in the right-hand side of the equation. Natural applications occur when the dependent variable is the sum of components that may optimally receive unequal weights or in time series models in which the appropriate timing of the dependent variable is not known a priori. The author derives a quasi-maximum likelihood estimator as well as its asymptotic distribution, and provides illustrative applications.

No. 289, June 2007

### Extracting Business Cycle Fluctuations: What Do Time Series Filters Really Do?

Arturo Estrella

Various methods are available to extract the "business cycle component" of a given time series variable. These methods may be derived as solutions to frequency extraction or signal extraction problems, and differ both in their handling of trends and noise and in their assumptions about the ideal time series properties of a business cycle component. The filters are frequently illustrated by application to white noise, but applications to other processes may have very different and possibly unintended effects. This study examines several frequently used filters as they apply to a range of dynamic process specifications and derives some guidelines for the use of such techniques.

### **OUTSIDE JOURNALS**

Members of the Research and Statistics Group publish in a wide range of economic and finance journals, conference volumes, and scholarly books.

#### Published in 2007

#### Macroeconomics and Growth

#### **Roc Armenter**

"Time-Consistent Fiscal Policy and Heterogeneous Agents." *Review of Economic Dynamics* 10, no. 1 (January): 31-54.

#### Stefano Eusepi

"Learnability and Monetary Policy: A Global Perspective." *Journal of Monetary Economics* 54, no. 4 (May): 1115-31.

#### James Kahn and Robert Rich

"Tracking the New Economy: Using Growth Theory to Detect Changes in Trend Productivity." *Journal of Monetary Economics* 54, no. 6 (September): 1670-701.

#### Jonathan McCarthy

"Pass-Through of Exchange Rates and Import Prices to Domestic Inflation in Some Industrialized Economies." *Eastern Economic Journal* 33, no. 4 (fall): 511-37.

#### Jonathan McCarthy and Charles Steindel

"Housing Activity and Consumer Spending." *Business Economics* 42, no. 2 (April): 6-21.

#### Simon Potter

"Estimating and Forecasting in Models with Multiple Breaks," with Gary Koop. *Review of Economic Studies* 74, no. 3 (July): 763-89.

#### Argia Sbordone

"Inflation Persistence: Alternative Interpretations and Policy Implications." *Journal of Monetary Economics* 54, no. 5 (July): 1311-39. Carnegie-Rochester Conference Series on Public Policy: Issues in Current Monetary Policy Analysis.

#### Charles Steindel

"Household Saving and Wealth Accumulation in the United States." Bank for International Settlements *IFC Bulletin*, no. 25 (March): 58-70. Proceedings of the conference *Measuring the Financial Position of the Household Sector*, vol. 1.

"U.S. Policy and the Changing Global Landscape." *NABE News*, no. 186, April 2007.

#### Andrea Tambalotti

"An Investigation of the Gains from Commitment in Monetary Policy," with Ernst Schaumburg. *Journal of Monetary Economics* 54, no. 2 (March): 302-24.

#### International

#### Mary Amiti

"China's Export Boom," with Caroline Freund. *IMF Finance and Development* 44, no. 3 (September): 38-41.

"Economic Geography and Wages," with Lisa Cameron. *Review of Economics and Statistics* 89, no. 1 (February): 15-29.

"Trade Liberalization, Intermediate Inputs, and Productivity: Evidence from Indonesia," with Jozef Konings. *American Economic Review* 97, no. 5 (December): 1611-38.

"Will the Doha Round Lead to Preference Erosion?" with John Romalis. *IMF Staff Papers* 54, no. 2 (September): 338-84.

#### Linda Goldberg

"Exchange Rate Pass-Through to Import Prices in the Euro Area," with José Manuel Campa and José M. González-Mínguez. In Filippo di Mauro and Robert Anderton, eds., *The External Dimension of the Euro Area: Assessing the Linkages*, 63-94. Cambridge: Cambridge University Press.

"The International Exposure of U.S. Banks: Europe and Latin America Compared." In Sebastian Edwards, ed., *International Capital Flows*, 203-32. Chicago: University of Chicago Press.

"Trade Invoicing in the Accession Countries: Are They Suited to the Euro?" In Jeffrey A. Frankel and Christopher A. Pissarides, eds., *NBER International Seminar on Macroeconomics 2005*, 357-93. Cambridge, Mass.: MIT Press.

#### Rebecca Hellerstein

"Is There a Dead Spot? New Evidence on FOMC Decisions before Elections." *Journal of Money, Credit, and Banking* 39, no. 6 (September): 1411-27.

#### Thomas Klitgaard and Cédric Tille

"Borrowing without Debt? Understanding the U.S. International Investment Position," with Matthew Higgins. *Business Economics* 42, no. 1 (January): 17-27.

#### Paolo Pesenti

"Productivity, Terms of Trade, and the 'Home Market Effect," with Giancarlo Corsetti and Philippe Martin. *Journal of International Economics* 73, no. 1 (September): 99-127.

"Smooth Landing or Crash? Model-Based Scenarios of Global Current Account Rebalancing," with Hamid Faruqee, Douglas Laxton, and Dirk Muir. In Richard H. Clarida, ed., G7 Current Account Imbalances: Sustainability and Adjustment, 377-451. NBER conference volume. Chicago: University of Chicago Press.

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#### Cédric Tille

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#### Microeconomics

#### Jonathan McCarthy

"Inventory Dynamics and Business Cycles: What Has Changed?" with Egon Zakrajšek. *Journal of Money, Credit, and Banking* 39, no. 2-3 (March/April): 591-613.

#### Kevin Stiroh

"Information Technology and Productivity Growth in the 2000s," with Matthew Botsch. German Economic Review 8, no. 2: 255-80.

#### Wilbert van der Klaauw

"The Socioeconomic Consequences of 'In-Work' Benefit Reform for British Lone Mothers," with Marco Francesconi. *Journal of Human Resources* 42, no. 1 (winter): 1-31.

#### Banking and Finance

#### Morten Bech

"Central Banks' Interest Calculating Conventions: Deviating from the Intraday/Overnight Status Quo," with George Speight, Matthew Willison, and Jing Yang. In Stephen Millard, Andrew Haldane, and Victoria Saporta, eds., *The Future of Payment Systems*, 160-74. London: Routledge.

"Congestion and Cascades in Payment Systems," with Walter E. Beyeler, Robert J. Glass, and Kimmo Soramäki. *Physica A: Statistical Mechanics and Its Applications* 384, no. 2 (October 15): 693-718.

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"Interbank Payment System and Wide-Scale Disruptions." In Philipp Hartmann, ed., *Risk Measurement and Systemic Risk.*Proceedings of the 4th Joint Central Bank Research Conference on Risk Measurement and Systemic Risk.

"New Approaches for Payment System Simulation Research," with Kimmo Soramäki, Walter E. Beyeler, and Robert J. Glass. In Harry Leinonen, ed., *Simulation Studies of Liquidity Needs, Risks, and Efficiency in Payment Networks*. Proceedings of the Bank of Finland Payment and Settlement System Seminars, 2005-06.

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#### Morten Bech and Bart Hobijn

"Technology Diffusion within Central Banking: The Case of Real-Time Gross Settlement." *International Journal of Central Banking* 3, no. 3 (September): 147-82.

#### Michael Fleming and Kenneth Garbade

"Dealer Behavior in the Specials Market for U.S. Treasury Securities." *Journal of Financial Intermediation* 16, no. 2 (April): 204-28.

#### Beverly Hirtle

"The Impact of Network Size on Bank Branch Performance." *Journal of Banking and Finance* 31, no. 12 (December): 3782-805.

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"The Return to Retail and the Performance of U.S. Banks." *Journal of Banking and Finance* 31, no. 4 (April): 1101-33.

#### Antoine Martin

"Barriers to Network-Specific Innovation," with Michael Orlando. *Review of Economic Dynamics* 10, no. 4 (October): 705-28.

"Optimality of the Friedman Rule in an Overlapping Generations Model with Spatial Separation," with Joseph H. Haslag. *Journal of Money, Credit, and Banking* 39, no. 7 (October): 1741-58.

#### Hamid Mehran

"The Economics of Conflicts of Interest in Financial Institutions," with René M. Stulz. *Journal of Financial Economics* 85, no. 2 (August): 267-96.

#### João Santos

"Institutional Allocation of Bank Regulation: A Review," with Charles Kahn. In D. G. Mayes and G. E. Wood, eds., *The Structure of Financial Regulation*, 185-204. London: Routledge.

#### Asani Sarkar

"Derivatives." In Kaushik Basu, ed., *Oxford Companion to Economics in India*. London: Oxford University Press.

#### Kevin Stiroh

"Explaining a Productive Decade," with Stephen D. Oliner and Daniel E. Sichel. *Brookings Papers on Economic Activity*, no. 1: 81-137.

"Playing for Keeps: Pay and Performance in the NBA." *Economic Inquiry* 45, no. 1 (January): 145-61.

#### Chenyang Wei

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#### Tanju Yorulmazer

"Network Models and Financial Stability," with Erlend Nier, Jing Yang, and Amadeo Alerton. *Journal of Economic Dynamics and Control* 31, no. 6 (June): 2033-60. Tenth Workshop on Economic Heterogeneous Interacting Agents.

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#### George Zanjani

"Regulation, Capital Structure, and the Evolution of Organizational Form in U.S. Life Insurance." *American Economic Review* 97, no. 3 (June): 973-83.

### **Forthcoming**

#### Macroeconomics and Growth

#### Roc Armenter

"A General Theory (and Some Evidence) of Expectations Traps in Monetary Policy." *Journal of Money, Credit, and Banking*.

#### Marco Del Negro

"On the Fit of New Keynesian Models," with Frank Schorfheide, Frank Smets, and Raf Wouters. 2006 JBES Invited Lecture. *Journal of Business and Economic Statistics*.

#### Gauti Eggertsson

"Great Expectations and the End of the Depression." *American Economic Review*.

"The Liquidity Trap." In Lawrence Blume and Steven Durlauf, eds., *New Palgrave Dictionary of Economics*. London: Palgrave Macmillan.

"Optimal Monetary and Fiscal Policy in a Liquidity Trap," with Michael Woodford. In Richard Clarida, Jeffrey Frankel, and Francesco Giavazzi, eds., *NBER International Seminar on Macroeconomics 2004*. Cambridge, Mass.: MIT Press.

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#### Rebecca Hellerstein

"A Framework for Analyzing the Equilibrium Effects of Firms' Costs of Repricing," with Pinelopi Goldberg. *American Economic Review*.

#### Bart Hobijn

"Inflation-Inequality in the United States," with David Lagakos. *Review of Income and Wealth*.

#### James Kahn

"Tariffs and the Great Depression Revisited," with Mario J. Crucini. In Timothy Kehoe, ed., *Great Depressions of the Twentieth Century*. Federal Reserve Bank of Minneapolis.

#### Miklós Koren

"Volatility and Development," with Silvana Tenreyro. *Quarterly Journal of Economics*.

#### Jonathan McCarthy

"Has the Response of Investment to Financial Market Signals Changed?" In Per Gunnar Berglund and Leanne J. Ussher, eds., *Recent Developments in Macroeconomics*. Eastern Economic Association conference volume. London: Routledge.

#### James Orr and Giorgio Topa

"Challenges Facing the New York Metropolitan Area Economy." In Anthony E. Shorris, ed., Beyond Post-9/11: A Colloquium on the Future of the Port Authority of New York and New Jersey.

#### Simon Potter

"Reexamining the Consumption-Wealth Relationship: The Role of Model Uncertainty," with Gary Koop and Rodney Strachan. *Journal of Money, Credit, and Banking*.

#### Charles Steindel

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#### Kevin Stiroh

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#### International

#### Mary Amiti

"Trade Costs and Location of Foreign Firms in China," with Beata S. Javorcik. *Journal of Development Economics*.

#### Leonardo Bartolini

"Money Market Integration," with Spence Hilton and Alessandro Prati. *Journal of Money, Credit, and Banking*.

#### Linda Goldberg

"Pass-Through of Exchange Rates to Consumption Prices: What Has Changed and Why?" with José Manuel Campa. In Takatoshi Ito and Andrew K. Rose, eds., *International* Financial Issues in the Pacific Rim: Global Imbalances, Financial Liberalization, and Exchange Rate Policy. East Asia Seminar on Economics 17. NBER conference volume. Chicago: University of Chicago Press.

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#### Miklós Koren

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#### Paolo Pesenti

"Oil Price Movements and the Global Economy: A Model-Based Assessment," with Selim Elekdag, Rene Lalonde, and Douglas Laxton. *IMF Staff Papers*.

"The Simple Geometry of Transmission and Stabilization in Closed and Open Economies," with Giancarlo Corsetti. In Richard H. Clarida and Francesco Giavazzi, eds., *NBER International Seminar on Macroeconomics* 2007.

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#### Rajashri Chakrabarti

"Can Increasing Private School Participation and Monetary Loss in a Voucher Program Affect Public School Performance? Evidence from Milwaukee." *Journal of Public Economics*.

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#### Donghoon Lee

"Accounting for Wage and Employment Changes in the U.S. from 1968-2000: A Dynamic Model of Labor Market Equilibrium." *Journal of Econometrics*.

#### Ayşegül Şahin

"Costs of Business Cycles for Unskilled Workers," with Toshihiko Mukoyama. *Journal of Monetary Economics*.

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