An Index to the Microfilm Edition of

Studies in Global Crisis

The Global Financial and Economic Crisis

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Studies in Global Crisis:
The Global Financial and Economic Crisis

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Scope and Content Note

> *"With the fires still raging, scorching industry after industry, it might seem premature to ask what should rise from the ashes. But policymakers are understandably keen to start work on redesigning their financial systems. If 2008 was the year when the flaws in the old model became painfully clear, 2009 is likely to be the one when governments embrace…efforts to fix it."* Economist, 1/15/09

When there can be little margin of error concerning the facts and recommendations on complex and volatile issues, key government officials and federal executive departments depend upon an elite group of private and governmental "think tanks," military service schools, and private contractors to deliver the research studies and analyses that help mold U.S. policy.

The documents in the *Studies in Global Crises Series* are diverse in scope and emphasis. They dissect specific global crises--explore the historic and contemporary causes, illuminate the psychology behind the crisis, trace its origins, and address the formidable problem of developing feasible policies to alleviate the crisis.

The value of these materials is both immediate and historical. They provide up-to-date information, while documenting the manner the various crises have been perceived and addressed over the last decade. These seminal studies are important now and will remain of value in the future.

This publication, *The Global Financial and Economic Crisis*, delivers the full story leading to the current global economic and financial crisis—highlighting corporate finance, joint ventures and M&A, country profiles, capital markets, investor relations, currencies, banking, risk management, direct investment, money management and all the rest—specifically tailored for faculty and students around the world.

This series provides students with a multi-disciplinary, policy-focused examination of the global economy with essential reports, analyses, and working papers focusing on the complex changes in the global economy, including the emerging patterns of financial, trade, and human capital flows and their effect on national economies; the effect of globalization on state capacity, policy autonomy, and national economic conditions; the relationship between economic, political, and social outcomes; corporate governance and competition; and the interaction of interest groups, states, and multilateral agreement and organizations.

Global Finance and Economics aims to deepen understanding of international economic and financial issues, to explore the international repercussions of decisions taken in the public and private sectors, and to examine the choices made by policymakers.

> *"…the global economy is teetering on the brink of recession. The downturn after four years of relatively fast growth is due to a number of factors: the global fallout from the financial crisis in the United States, the bursting of the housing bubbles in the US and in other large economies, soaring commodity prices, increasingly restrictive monetary policies in a number of countries, and stock market volatility."* Kanaga Raja

REEL INDEX

The following is a listing of the folders comprising the microfilm publication entitled *Studies in Global Crisis: The Global Financial and Economic Crisis.* The Reel Index lists the frame number, folder title, as well as a listing of the major subjects for each folder.

REEL 1

Frame #

Banking

0001 **Bliss, Robert R.,** ***U.S. Corporate and Bank Insolvency Regimes: An Economic Comparison and Evaluation*****, Federal Reserve Bank of Chicago, January 10, 2006. 35pp.**

In the U.S., the insolvency resolution of most corporations is governed by the federal bankruptcy code and is administered by special bankruptcy courts. Most large corporate bankruptcies are resolved under Chapter 11 reorganization proceedings. However, commercial bank insolvencies are governed by the Federal Deposit Insurance Act and are administered by the FDIC. These two resolution processes--corporate bankruptcy and bank receiverships--differ in a number of significant ways, including the type of proceeding (judicial versus administrative); the rights of managers, stockholders and creditors in the proceedings; the explicit and implicit goals of the resolution; the prioritization of creditors--claims; the costs of administration; and the timeliness of creditor payments. These differences derive from perceptions that "banks are special." This paper elucidates these differences, explores the effectiveness of the procedural differences in achieving the stated goals, and considers the potential economic consequences of the different structures.

0036 **Andolfatto, David and Ed Nosal,** ***Moral Hazard in the Diamond-Dybvig Model of Banking*****, Federal Reserve Bank of Cleveland, December 2006. 30pp.**

This paper modifies the Diamond-Dybvig model studied in Green and Lin to incorporate a self-interested banker who has a private record-keeping technology. A public record-keeping device does not exist. It finds that there is a trade-off between sophisticated contracts that possess relatively good risk-sharing properties but allocate resources inefficiently for incentive reasons, and simple contracts that possess relatively poor risk-sharing properties but economize on the inefficient use of resources. While this trade-off depends on model parameters, the authores find that simple contracts prevail under a wide range of empirically plausible parameter values. Although moral hazard in banking may simplify the optimal structure of deposit liabilities, this simple structure does not enhance the prospect of bank runs.

0066 **Claessens, Stijn and Neeljte Van Horen,** ***Location Decisions of Foreign Banks and Competitive Advantage*****, World Bank, January 2007. 21pp.**

Familiarity with working in a specific institutional environment compared to its competitors can provide a firm with a competitive advantage, making it invest in specific host countries. We examine whether this notion of institutional competitive advantage drives banks to seek out specific markets. Using detailed, bilateral data of bank ownership for a large number of countries over 1995-2006 and using a first-difference model, this paper finds that institutional competitive advantage importantly drives banks' location decisions. Results are robust to different samples and model specifications, various econometric techniques and alternative measures of institutional quality. This finding has some policy implications, including on the increased cross-border banking among developing countries.

0087 **Scotti, Chiara, et al, *Markov Switching Garch Models of Currency Turmoil in Southeast Asia*, Division of International Finance, Federal Reserve Board, January 2007. 38pp.**

This paper analyzes exchange rate turmoil with a Markov Switching GARCH model. It distinguishes between two different regimes in both the conditional mean and the conditional variance: "ordinary" regime, characterized by low exchange rate changes and low volatility, and "turbulent" regime, characterized by high exchange rate movements and high volatility. The authors also allow the transition probabilities to vary over time as functions of economic and financial indicators. They find that real effective exchange rates, money supply relative to reserves, stock index returns, and bank stock index returns and volatility contain valuable information for identifying turbulence and ordinary periods.

0125 **Neely, Christopher J., and Paul A. Weller, *Central Bank Intervention with Limited Arbitrage*, Federal Reserve Bank of St. Louis, February 3, 2007. 27pp.**

Shleifer and Vishny (1997) pointed out some of the practical and theoretical problems associated with assuming that rational risk-arbitrage would quickly drive asset prices back to long-run equilibrium. In particular, they showed that the possibility that asset price disequilibrium would worsen, before being corrected, tends to limit rational speculators. Uniquely, Shleifer and Vishny (1997) showed that “performance-based asset management” would tend to reduce risk-arbitrage when it is needed most, when asset prices are furthest from equilibrium. This paper analyzes a generalized Shleifer and Vishny (1997) model for central bank intervention. It shows that increasing availability of arbitrage capital has a pronounced effect on the dynamic intervention strategy of the central bank. Intervention is reduced during periods of moderate misalignment and amplified at times of extreme misalignment. This pattern is consistent with empirical observation.

0152 **Cull, Robert, and Maria Soledad Martinez Peria, *Foreign Bank Participation and Crises in Developing Countries*, World Bank, February 2007. 43pp.**

This paper describes the recent trends in foreign bank ownership in developing countries, summarizes the existing evidence on the causes and implications of foreign bank presence, and reexamines the link between banking crises and foreign bank participation. Using data on the share of banking sector assets held by foreign banks in over 100 developing countries during 1995-2002, the results show that countries that experienced a banking crisis tended to have higher levels of foreign bank participation than those that did not. Furthermore, panel regressions indicate that foreign participation increased as a result of crises rather than prior to them. However, post-crisis increases in foreign participation did not coincide with increased credit to the private sector, perhaps because in many cases foreign banks acquired distressed banks.

0195 **Brewer III, Elijah, and Julapa Jagtiani, *How Much Would Banks Be Willing to Pay to Become "Too-Big-To-Fail" and to Capture Other Benefits,* Federal Reserve Bank of Kansas City, July 2007. 40pp.**

This paper examines an important aspect of the "too-big-to-fail" (TBTF) policy employed by regulatory agencies in the United States. How much is it worth to become TBTF? How much has the TBTF status added to bank shareholders' wealth? Using market and accounting data during the merger boom (1991-2004) when larger banks greatly expanded their size through mergers and acquisitions, the authors find that banking organizations are willing to pay an added premium for mergers that will put them over the asset sizes that are commonly viewed as the thresholds for being TBTF. They estimate at least $14 billion in added premiums for the nine merger deals that brought the organizations over $100 billion in total assets. These added premiums may reflect that perceived benefits of being TBTF and/or other potential benefits associated with size.

0235 **Evanoff, Douglas D., et al, *The Potential Role of Subordinated Debt Programs in Enhancing Market Discipline in Banking*, Federal Reserve Bank of Kansas City, September 2007. 44pp.**

Previous studies have found that subordinated debt (sub-debt) markets do differentiate between banks with different risk profiles. This finding satisfies a necessary condition for regulatory proposals which would mandate increased reliance on sub-debt in the bank capital structure to discipline banks' risk taking. Such proposals, however, have not been implemented, partially because there are still concerns about the quality of the signal generated in current debt markets. This paper argues that previous studies evaluating the potential usefulness of sub-debt proposals have evaluated spreads in an environment that is very different from the one that will characterize a fully implemented sub-debt program. With a fully implemented program, the market will become deeper, issuance will be more frequent, debt will be viewed as a more viable means to raise capital, bond dealers will be less reluctant to publicly disclose more details on debt transactions, and generally, the market will be more closely followed. As a test to see how the quality of the signal may change, it evaluates the risk-spread relationship, accounting for the enhanced market transparency surrounding new debt issues. The empirical results indicate a superior risk-spread relationship surrounding the period of new debt issuance due to greater liquidity and transparency. The results overall suggest that the degree of market discipline would likely be enhanced by a mandatory sub-debt program requiring banks to regularly approach the market to issue sub-debt.

0279 **Kose, John, et al., *Regulation, Subordinated Debt, and Incentive features of CEO Compensation in the Banking Industry*, Federal Reserve Bank of New York, November 2007. 40pp.**

This paper studies 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 debt holders. It empirically tests 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 non-depository (subordinated) debt holders. The authors 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 (regulators' assessment of a bank's overall health and financial condition). They find supporting evidence for both hypotheses. The results hold after controlling for the endogeneity among compensation, leverage, and monitoring; they are robust to various regression specifications and sample criteria.

0321 **Barlevy, Gadi, *A Leverage-based Model of Speculative Bubbles*, Federal Reserve Bank of Chicago, January 3, 2008. 50pp.**

This paper develops an equilibrium model of speculative bubbles that can be used to explore the role of various policies in either giving rise to or eliminating the possibility of asset bubbles, e.g. restricting the use of certain types of loan contracts, imposing down-payment restrictions, and changing inter-bank rates. As in previous work by Allen and Gorton (1993) and Allen and Gale (2000), a bubble arises in the model because traders are assumed to purchase assets with borrowed funds. My model adds to this literature by allowing creditors and traders to enter into a more general class of contracts, as well as by allowing speculators to trade strategically.

0371 **Correa, Ricardo, *Bank Integration and Financial Constraints: Evidence from U.S. Firms*, Division of International Finance, Federal Reserve Board, March 2008. 53pp.**

This paper uses data on publicly-traded firms in the U.S. to analyze the effect of interstate bank integration on the financial constraints borrowers face. A firm-level investment equation is estimated in order to test if bank integration reduces the sensitivity of capital expenditures to the level of internal funds. The staggered deregulation of cross-state bank acquisitions that took place in the U.S. between 1978 and 1994 helps estimate the model. Integration decreases financing constraints for bank-dependent firms. The change in firms' access to external finance is explained by an increase in the share of locally headquartered geographically diversified banks.

0424 **Correa, Ricardo, *Cross-Border Bank Acquisitions: Is There A Performance Effect?* Division of International Finance, Federal Reserve Board, March 2008. 44pp.**

This paper uses a unique database that includes deal and bank balance sheet information for 220 cross-border acquisitions between 1994 and 2003 to analyze the characteristics and performance effects of international takeovers on target banks. A discrete choice estimation shows that banks are more likely to get acquired in a cross-border deal if they are large, bad performers, in a small country, and when the banking sector is concentrated. Post-acquisition performance for target banks does not improve in the first two years relative to domestically-owned financial institutions. This result is explained by a decrease in the banks' net interest margin in developed countries and an increase in overhead costs in emerging economies.

0468 **Duttagupta, Rupa, and Paul Cashin, *The Anatomy of Banking Crisis*, International Monetary Fund, April 2008. 37pp.**

This paper uses a Binary Classification Tree (BCT) model to analyze banking crises in 50 emerging market and developing countries during 1990-2005. The BCT identifies key indicators and their threshold values at which vulnerability to banking crisis increases. The three conditions identified as crisis-prone - (i) very high inflation, (ii) highly dollarized bank deposits combined with nominal depreciation or low liquidity, and (iii) low bank profitability - highlight that foreign currency risk, poor financial soundness, and macroeconomic instability are key vulnerabilities triggering banking crises. The main results survive under alternative robustness checks, confirming the importance of the BCT approach for monitoring banking system vulnerabilities.

0505 **Berger, Allen N., et al., *How Do Large Banking Oragnizations Manage Their Capital Ratios?* Federal Reserve Bank of Kansas City, April 2008. 39pp.**

Large banking organizations in the U.S. hold significantly more equity capital than the minimum required by bank regulators. This capital cushion has built up during a period of unusual profitability for the banking system, leading some observers to argue that the capital merely reflects recent profits. Others contend that the banks deliberately choose target capital levels based on their risk exposures and their counterparties' sensitivities to default risk. In either case, the existence of "excess" capital makes it difficult to observe how banks manage their capital levels, particularly in response to regulatory changes (such as Basel II). This paper proposes several hypotheses to explain this "excess" capital, and test these hypotheses using annual panel data for large, publicly traded U.S. bank holding companies (BHCs) from 1992 through 2006, and an innovative partial adjustment approach that allows both the target capital ratios and the speed of adjustment toward those targets to vary with firm-specific characteristics. It presents evidence to suggest that large BHCs actively managed their capital ratios during our sample period. The tests suggest that large BHCs choose target capital levels substantially above well-capitalized regulatory minima; that these targets increase with BHC risk but decrease with BHC size; that BHCs adjust toward these targets relatively quickly; and that adjustment speeds are faster for poorly capitalized BHCs, but slower (ceteris paribus) for BHCs under severe regulatory pressure.

0544 **Hannan, Timothy H., *Consumer Switching Costs and Firm Pricing: Evidence from Bank Pricing of Deposit Accounts*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, May 12, 2008. 36pp.**

This paper employs extensive information on bank deposit rates and county migration patterns to test for pricing relationships implied by the existence of switching costs. While these relationships are derived formally, the intuition for them can be readily stated. Because some areas experience more in-migration than others, banks, in addressing the trade-off between attracting new customers and exploiting old ones, offer higher deposit rates in areas (and at times) experiencing more in-migration. Further, because out-migration implies that on average a locked-in customer will not be with the bank as many periods, greater out-migration should change the bank’s assessment of this trade-off such that the bank will offer lower deposit rates in areas (and during periods) exhibiting greater out-migration, all else equal. Also, because this effect of out-migration logically depends on the existence and extent of in-migration, an interaction effect is implied. Evidence strongly supporting these implied relationships is reported. Other tests of the implications of switching costs in the banking industry are also conducted.

0581 **Basu, Susanto, et al, *The Value of Risk: Measuring the Service Output of U.S. Commercial Banks*, Federal Reserve Bank of Boston, May 21, 2008. 37pp.**

Rather than charging direct fees, banks often charge implicitly for their services via interest spreads. As a result, much of bank output has to be estimated indirectly. In contrast to current statistical practice, dynamic optimizing models of banks argue that compensation for bearing systematic risk is not part of bank output. This paper applies these models and find that between 1997 and 2007, in the U.S. National Accounts, on average, bank output is overestimated by 21 percent and GDP is overestimated by 0.3 percent. Moreover, compared with current methods, the new estimates imply more plausible estimates of the share of capital in income and the return on fixed capital.

0618 **Amel, Dean F., et al, *Banking Market Definition: Evidence from the Survey of Consumer Finances*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 7, 2008. 24pp.**

Antitrust analysis of bank mergers defines banking markets to be geographically local and to consist of the cluster of financial products supplied by commercial banks. This definition is based on assumptions about households' and small businesses' behavior in purchasing banking services. This article utilizes data from the Survey of Consumer Finances to examine how households' use of financial services and institutions changed between 1989 and 1998.

0644 **Wiegand, Johannes, *Bank Recycling of Petro Dollars to Emerging Market Economies During the Current Oil Price Boom*, International Monetary Fund, July 2008. 26pp.**

This paper analyzes the extent to which (i) oil exporters use bank deposits to invest these surpluses, and (ii) banks are lending on these funds to emerging market economies. Bank recycling of petro dollars to emerging market economies is found to be almost as important as in the 1970s and 1980s, even though petro dollar bank flows tend to originate in countries like Russia, Libya, or Nigeria rather than in the Middle East. As one consequence, a fall in oil prices could yet again disrupt financing flows to emerging economies. Especially at risk could be countries that rely heavily on bank loans to finance external deficits, many of them in Emerging Europe.

0670 **Financial Stability Forum, *Credit Risk Transfer, Developments from 2005 to 2007*, Joint Forum, Bank for International Settlements, July 2008. 81pp.**

In March 2007 the Financial Stability Forum (FSF) asked that the Joint Forum consider the extent to which its March 2005 report Credit Risk Transfer (CRT) required updating as a result of the continued growth and rapid innovation in the CRT markets. The market turmoil since the summer of 2007 led to a desire for the Joint Forum to be able to report quickly and present a brief paper at the March 2008 meeting of the FSF. Accordingly the Joint Forum sought to keep the scope of its work focused on what is achievable in that time scale, yet provide as much useful information as possible.

0751 **Brevoort, Kenneth P., and John D. Wolken, *Does Distance Matter in Banking?*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 10, 2008. 36pp.**

Deregulation and technological change have reduced the transactions costs that led to the dominance of local financial service suppliers, leading some to question if distance still matters in banking. This debate has been particularly acute in small business banking, where transactions costs are believed to be particularly high. This paper provides a detailed review of the literature on distance in banking markets, highlighting the reasons why geographic proximity is believed to be important and examining the changes that may have affected its importance. Relying on new data from the 2003 Survey of Small Business Finances, it examines how distances between small firms and their financial service suppliers changed over the 1993-2003 decade. The analysis reveals that distances increased, though the extent varied substantially across financial services and supplier types. Generally, increases were observed in the early half of the decade, while distances declined in the following five years. There was also a trend towards less in person interaction between small firms and their suppliers of financial services. Nevertheless, most relationships remained local, with a median distance of 5 miles in 2003. The results suggest that distance, while perhaps not as tyrannical as in the past, remains an important factor in banking.

0787 **Hardy, Daniel C., and Alexander F. Tieman, *Innovation in Banking and Excessive Loan Growth*, International Monetary Fund, July 2008. 28pp.**

The volume of credit extended by a bank can be an informative signal of its abilities in loan selection and management. It is shown in this paper that, under asymmetric information, banks may therefore rationally lend more than they would otherwise in order to demonstrate their quality, thus negatively affecting financial system soundness. Small shifts in technology and uncertainty associated with new technology may lead to large jumps in equilibrium outcomes. Prudential measures and supervision are therefore warranted.

0815 **Black, Lamont K., *Insider Rates vs. Outsider Rates in Lending*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 2008. 24pp.**

The presence of private information about a firm can affect the competition among potential lenders. In the Sharpe (1990) model of information asymmetry among lenders (with the von Thadden (2004) correction), an uninformed outside bank faces a winner's curse when competing with an informed inside bank. This paper examines the model's prediction for observed interest rates at an inside vs. outside bank. Although the outside bank wins more bad firms than the inside bank, the winner's curse also causes the outside rate conditional on firm type to be lower in expectation than the inside rate conditional on firm type.

0839 **Tamirisa, Natalia T., and Deniz O. Igan, *Are Weak Banks Leading Credit Booms? Evidence from Emerging Europe*, International Monetary Fund, September 2008. 21pp.**

This paper examines the behavior of bank soundness indicators during episodes of brisk loan growth, using bank-level data for central and eastern Europe and controlling for the feedback effect of credit growth on bank soundness. No evidence is found that rapid loan expansion has weakened banks during the last decade, but over time weaker banks seem to have started to expand at least as fast as, and in some markets faster than, stronger banks. These findings suggest that during credit booms supervisors need to carefully monitor the soundness of rapidly expanding banks and stand ready to take action to limit the expansion of weak banks.

0860 **Nier, Erlend, and Lea Zicchino,** ***Bank Losses, Monetary Policy and Financial Stability--Evidence on the Interplay from Panel Data,*** **International Monetary Fund, September 2008. 30pp.**

This paper assesses the extent to which loan losses affect banks' provision of credit to companies and households and examine how feedback from losses to a reduction in credit is affected by the monetary policy stance. Using a unique cross-country dataset of more than 600 banks from 32 countries, it finds that losses lead to a reduction in credit and that this effect is more pronounced when either initial bank capitalization is thin or when monetary policy is tight. Moreover, in the face of credit losses, ample capital is more important in cushioning the effect of loan losses when monetary policy is tight. In other words, capital buffers and accommodating monetary policy act as substitutes in offsetting the adverse effect of losses on loan growth. While most of these effects are stronger in crisis times, it finds them to operate both in and outside full-blown banking crises. These findings have important implications for the interplay between financial stability and monetary policy, which this paper also draws out.

0890 **Aydin, Burcu,** ***Banking Structure and Credit Growth in Central and Eastern European Countries*****, International Monetary Fund, September 2008. 44pp.**

Recent developments have increased questions about vulnerabilities in Central and Eastern European Countries (CEE) that are experiencing credit booms. This paper analyzes the role of foreign-owned banks in these credit booms. The results show that the CEE countries depend on foreign banks, and these foreign banks depend on interbank funding. Lending by foreign banks seems driven by economic growth and interest rate margins. This lending appears independent of economic but not financial conditions in the foreign bank's home country.

0934 **Chailloux, Alexandre, et al.,** ***Central Bank Response to the 2007-08 Financial Market Turbulence: Experiences and Lessons Drawn*****, International Monetary Fund, September 2008. 52pp.**

The paper reviews the policy response of major central banks during the 2007-08 financial market turbulence and suggests that there is scope for convergence among central bank operational frameworks through the adoption of those elements that proved most instrumental in calming markets. These include (i) rapid liquidity provision to a broad range of counterparties; (ii) a congruence of collateral policies with market developments; (iii) an ability to increase the average maturity of liquidity provision; and (iv) central bank cooperation to facilitate the use of cross-border collateral. Flexible use of open market operations was needed to avoid the stigma associated with traditional standing facilities, and allowed central banks to maintain at least basic market functioning. Having a flexible framework, however, requires careful consideration of the desirable limits to market intervention.

0986 **Rice, Tara, and Philip E. Strahan, *Does Credit Supply Affect Small Firm Finance?*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 29, 2008. 50pp.**

States were granted authority to limit interstate branching following passage of Federal legislation in 1994, relaxing restrictions on geographical expansion by banks. This paper shows that differences in state's branching restrictions affect credit supply. In states more open to branching, small firms borrow at interest rates 25 to 45 basis points lower than firms operating in less open states. Firms in open states also are more likely to borrow from banks. Despite this evidence that interstate branch openness expands credit supply, it finds no effect of variation in state restrictions on branching on small-firm borrowing or other indicators of credit constraints.

01036 **U.S. General Accountability Office, *The Nation's Long-Term Fiscal Outlook, September 2008 Update,* U.S. General Accountability Office, September 2008. 14pp.**

Since 1992, GAO has published long-term fiscal simulations of what might happen to federal deficits and debt levels under varying policy assumptions. The GAO developed the long-term model in response to a bipartisan request from Members of Congress who were concerned about the longterm effects of fiscal policy. GAO runs two simulations: (1) "Baseline Extended" follows the Congressional Budget Office's (CBO) September baseline estimates for the first 10 years and then simply holds revenue and spending other than large entitlement programs constant as a share of gross domestic product (GDP); and (2) The "Alternative" simulation is based on historical trends and recent policy preferences. Discretionary spending grows with GDP rather than inflation during the first 10 years, Medicare physician payment rates are not reduced as in CBO's baseline, and all tax provisions are extended until 2018 and then revenues are brought back to about their historical level. GAO updates our simulations as new estimates become available from CBO and the Social Security and Medicare Trustees. This update incorporates CBO's most recent baseline projections that were released in September. This paper responds to congressional interest in receiving updated simulation results.

REEL 2

Frame #

Banking cont.

0001 **Williams, Orice M., *Risk-Based Capital: New Basel II Rules Reduced Certain Competitive Concerns, but Bank Regulators Should Address Remaining Uncertainties*, U.S. General Accountability Office, September 2008. 72pp.**

Basel II, the risk-based capital framework based on an international accord, is being adopted by individual countries. It includes standardized and advanced approaches to estimating capital requirements. In the United States, bank regulators have finalized an advanced approaches rule that will be required for some of the largest, most internationally active banks (core banks) and proposed an optional standardized approach rule for non-core banks that will also have the option to remain on existing capital rules. In light of possible competitive effects of the capital rules, GAO was asked to examine (1) the markets in which banks compete, (2) how new capital rules address U.S. banks' competitive concerns, and (3) actions regulators are taking to address competitive and other potential negative effects during implementation. Among other things, GAO analyzed data on bank products and services and the final and proposed capital rules; interviewed U.S. and foreign bank regulators, officials from U.S. and foreign banks; and computed capital requirements under varying capital rules.

0072 **Huang, Jing-zhi, and Hao Zhou,** ***Specification Analysis of Structural Credit Risk Models*****, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 2008. 42pp.**

In this paper the authors conduct a specification analysis of structural credit risk models, using term structure of credit default swap (CDS) spreads and equity volatility from high-frequency return data. This study provides consistent econometric estimation of the pricing model parameters and specification tests based on the joint behavior of time-series asset dynamics and cross-sectional pricing errors. The empirical tests reject strongly the standard Merton (1974) model, the Black and Cox (1976) barrier model, and the Longstaff and Schwartz (1995) model with stochastic interest rates. The double exponential jump-diffusion barrier model (Huang and Huang, 2003) improves significantly over the three models. The best model is the stationary leverage model of Collin-Dufresne and Goldstein (2001), which the authors cannot reject in more than half of the sample firms. However, the empirical results document the inability of the existing structural models to capture the dynamic behavior of CDS spreads and equity volatility, especially for investment grade names. This points to a potential role of time-varying asset volatility, a feature that is missing in the standard structural models.

0116 **Valencia, Fabian,** ***Banks' Precautionary Capital and Persistent Credit Crunches,*** **International Monetary Fund, October 2008. 35pp.**

Periods of banking distress are often followed by sizable and long-lasting contractions in bank credit. They may be explained by a declined demand by financially impaired borrowers (the conventional financial accelerator) or by lower supply by capital-constrained banks, a "credit crunch". This paper develops a bank model to study credit crunches and their real effects. In this model, banks maintain a precautionary level of capital that serves as a smoothing mechanism to avert disruptions in the supply of credit when hit by small shocks. However, for larger shocks, highly persistent credit crunches may arise even when the impulse is a one time, non-serially correlated event. From a policy perspective, the model justifies the use of public funds to recapitalize banks following a significant deterioration in their capital position.

0151 **Beechey, Meredith, et al.,** ***Testing the Expectations Hypothesis When Interest Rates Are Near Integrated*****, Division of International Finance, Federal Reserve Board, October 7, 2008. 32pp.**

Nominal interest rates are unlikely to be generated by unit-root processes. Using data on short and long interest rates from eight developed and six emerging economies, this paper test the expectations hypothesis using cointegration methods under the assumption that interest rates are near integrated. If the null hypothesis of no cointegration is rejected, it then tests whether the estimated cointegrating vector is consistent with that suggested by the expectations hypothesis. The results show support for cointegration in ten of the fourteen countries under consideration, and the cointegrating vector is similar across countries. However, the parameters differ from those suggested by theory. The authors relate their findings to existing literature on the failure of the expectations hypothesis and to the role of term premia.

0183 **Laeven, Luc, and Fabian Valencia, *The Use of Blanket Guarantees in Banking Crises*, International Monetary Fund, October 2008. 43pp.**

In episodes of significant banking distress or perceived systemic risk to the financial system, policymakers have often opted for issuing blanket guarantees on bank liabilities to stop or avoid widespread bank runs. In theory, blanket guarantees can prevent bank runs if they are credible. However, guarantee could add substantial fiscal costs to bank restructuring programs and may increase moral hazard going forward. Using a sample of 42 episodes of banking crises, this paper finds that blanket guarantees are successful in reducing liquidity pressures on banks arising from deposit withdrawals. However, banks' foreign liabilities appear virtually irresponsive to blanket guarantees. Furthermore, guarantees tend to be fiscally costly, though this positive association arises in large part because guarantees tend to be employed in conjunction with extensive liquidity support and when crises are severe.

0226 **Paulson, Anna, and Una Okonkwo Osili, *Bank Crises and Investor Confidence*, Federal Reserve Bank of Chicago, November 28, 2008. 32pp.**

In addition to their direct effects, episodes of financial instability may decrease investor confidence. Measuring the impact of a crisis on investor confidence is complicated by the fact that it is difficult to disentangle the effects on investor confidence from coincident direct effects of the crisis. In order to isolate the effects of financial crises on investor confidence, this paper studies the investment behavior of immigrants in the U.S. The findings indicate that systemic banking crises have important effects on investor behavior. Immigrants who have experienced a banking crisis in their countries of origin are significantly less likely to have bank accounts in the U.S. This finding is robust to including important individual controls like wealth, education, income, and age. In addition, the effect of crises is robust to controlling for a variety of country of origin characteristics, including measures of financial and economic development and specifications with country of origin fixed effects.

0258 **Laeven, Luc, and Fabian Valencia, *Systemic Banking Crises: A New Database*, International Monetary Fund, November 2008. 78pp.**

This paper presents a new database on the timing of systemic banking crises and policy responses to resolve them. The database covers the universe of systemic banking crises for the period 1970-2007, with detailed data on crisis containment and resolution policies for 42 crisis episodes, and also includes data on the timing of currency crises and sovereign debt crises. The database extends and builds on the Caprio, Klingebiel, Laeven, and Noguera (2005) banking crisis database, and is the most complete and detailed database on banking crises to date.

0336 **Bech, Morten L., et al., *Which Bank Is the "Central" Bank? An Application of Markov Theory to the Canadian Large Value Transfer System*, Federal Reserve Bank of New York, November 2008. 19pp.**

Recently, economists have argued that a bank's importance within the financial system depends not only on its individual characteristics but also on its position within the banking network. A bank is deemed to be "central" if it is predicted to hold the most liquidity. This paper uses a method similar to Google's PageRank procedure to rank banks in the Canadian Large Value Transfer System (LVTS). In doing so, the authors obtain estimates of the payment processing speeds for the individual banks. These differences in processing speeds are essential for explaining why observed daily distributions of liquidity differ from the initial distributions, which are determined by the credit limits selected by banks.

0355 **de la Torre, Augusto, et al., *Drivers and Obstacles to Banking SMEs: The Role of Competition and the Institutional Framework*, World Bank, December 2008. 49pp.**

This paper studies the factors banks perceive as drivers and obstacles to financing small and medium enterprises (SMEs), focusing on the role of competition and the institutional framework. Using a survey of banks in Argentina and Chile, the paper shows that, despite alleged differences in the countries' environments regarding rules, regulations, and ease of doing business, SMEs have become a strategic segment for most banks in both countries. In particular, banks have begun to target SMEs due to the significant competition in the corporate and retail sectors. Banks perceive the SMEs market as highly profitable, large, and with good prospects. Moreover, banks are developing coping mechanisms to overcome the particular institutional obstacles present in each country and to compete for SMEs. Banks'interest in SMEs is not based on government programs, yet policy action might help reduce the cost of providing financing, especially long-term lending.

0404 **Spilimbergo, Antonio, et al., *Fiscal Policy for the Crisis*, International Monetary Fund, December 29, 2008. 38pp.**

The fiscal policy crisis calls for two main sets of policy measures. First, measures to repair the financial system. Second, measures to increase demand and restore confidence. While some of these measures overlap, the focus of this note is on the second set of policies, and more specifically, given the limited room for monetary policy, on fiscal policy. The optimal fiscal package should be timely, large, lasting, diversified, contingent, collective, and sustainable: timely, because the need for action is immediate; large, because the current and expected decrease in private demand is exceptionally large; lasting because the downturn will last for some time; diversified because of the unusual degree of uncertainty associated with any single measure; contingent, because the need to reduce the perceived probability of another "Great Depression" requires a commitment to do more, if needed; collective, since each country that has fiscal space should contribute; and sustainable, so as not to lead to a debt explosion and adverse reactions of financial markets. Looking at the content of the fiscal package, in the current circumstances, spending increases, and targeted tax cuts and transfers, are likely to have the highest multipliers. General tax cuts or subsidies, either for consumers or for firms, are likely to have lower multipliers.

0442 **Little, Jane Sneddon, and Teresa Foy Romano, *Inflation Targeting--Central Bank Practice Overseas*, Federal Reserve Bank of Boston, January 26, 2009. 30pp.**

This policy brief, which is based on an internal memo, summarizes the institutional and operational features observed in the 27 countries that have gained experience with inflation targeting (IT). It finds considerable convergence in many IT practices across countries over the past 10 to 15 years but much variation in policymakers' choices concerning such key issues as how they treat the borders of the target range. On the whole, most IT banks have chosen to practice inflation targeting in a more flexible and, thus, resilient fashion than many analysts once feared - seemingly without much loss of credibility. Currently, however, after a prolonged period of rapidly rising commodity and asset prices, followed by a period of sharp oil and asset price declines, IT is clearly facing the greatest challenges in its short history of relatively widespread use. Fortunately, one key lesson that emerges from our experience to date is that much of the ability of inflation targeting to help moor inflation expectations likely stems from the premium it places on improving transparency standards. These standards are available to all central banks, whether they choose to practice inflation targeting or not.

0472 **Cetorelli, Nicola, and Linda S. Goldberg, *Banking Globalization and Monetary Transmission*, Federal Reserve Bank of New York, February 2009. 41pp.**

The globalization of banking in the United States is influencing the monetary transmission mechanism both domestically and in foreign markets. Using quarterly information from all U.S. banks filing call reports between 1980 and 2006, this paper shows that globalized banks activate internal capital markets with their overseas affiliates to insulate themselves partially from changes in domestic liquidity conditions. The existence of these internal capital markets directly contributes to an international propagation of domestic liquidity shocks to lending by affiliated banks abroad. While these results imply a substantially more active lending channel than documented in Kashyap and Stein (2000), they also imply that the lending channel within the United States is declining in strength as banking becomes more globalized and monetary transmission abroad likewise increases in strength.

Business Cycles

0513 **Bordo, Michael D., *Globalization and Imbalances in Historical Perspective*, Federal Reserve Bank of Cleveland, January 2006. 11pp.**

Global imbalances associated with the U.S. current account deficit have given rise to speculation about the nature of the impending adjustment: Will it be smooth and gradual, or will it be sudden and costly? This paper summarizes the two views and then considers three historical periods with similar pressures--an earlier era of globalization from 1870 to 1914, the interwar gold standard, and Bretton Woods. A comparison of the periods and their outcomes suggests current global imbalances might resolve themselves quietly.

0524 **Raffo, Andrea, *Net Exports, Consumption Volatility, and International Real Business Cycle Models*, Federal Reserve Bank of Kansas City, March 2006. 39pp.**

Conventional two-country RBC models interpret countercyclical net exports as reflecting, in large part, the dynamics of capital. This paper shows that, quantitatively, theoretical economies rely on counterfactual terms of trade effects: trade fluctuations, on the contrary, are driven primarily by consumption smoothing, thus generating procyclical net trade in goods. It then considers a class of preferences that embeds home production in a reduced form: consumption volatility increases so that countercyclical net exports reflect primarily a strong relation between income and imports, as in the data. The major discrepancy between theory and data concerns the variability of international prices.

0563 **Hatchondo, Juan Carlos, et al, *Computing Business Cycles in Emerging Economy Models*, Federal Reserve Bank of Richmond, December 5, 2006. 20pp.**

This paper shows that computing business cycles in emerging economy models using the discrete state space technique may be misleading. It solves the models of sovereign default presented by Aguiar and Gopinath (2006) using interpolation. It finds that the simulated behavior of the spread is quite different from the behavior obtained using discrete state space. In fact, some of the results obtained by Aguiar and Gopinath (2006) using discrete state space are reversed when using interpolation. The analysis thus provides a new set of benchmark results for quantitative models of sovereign default.

0583 **Estrella, Arturo, *Extracting Business Cycle Fluctuations: What Do Time Series Filters Really Do?*, Federal Reserve Bank of New York, June 2007. 36pp.**

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 in both their handling of trends and noise and 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 paper 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.

0619 **Mojon, Benoit, *Monetary Policy, Output Compensation and the Great Moderation*, Federal Reserve Bank of Chicago, June 2007. 40pp.**

This paper shows how U.S. monetary policy contributed to the drop in the volatility of U.S. output fluctuations and to the decoupling of household investment from the business cycle. The paper estimates a model of household investment, an aggregate of non durable consumption and corporate sector investment, inflation and a short-term interest rate. Subsets of the models and parameters can vary along independent Markov Switching processes.

0659 **Ergungor, O. Emre, *On the Resolution of Financial Crises: The Swedish Experience*, Federal Reserve Bank of Cleveland, June 2007. 13pp.**

Sweden was one of the Scandinavian countries experiencing a severe financial crisis In the late 1980s and early 1990s. This paper reviews the policy choices and external factors that pushed the country's financial system over the edge and then examine the steps the government took to make its resolution of the crisis one of the most successful in the past 30 years.

0672 **Curdia, Vasco, and Daria Finocchiaro, *Monetary Regime Change and Business Cycles*, Federal Reserve Bank of New York, July 2007. 59pp.**

This paper analyzes to what extent changes in monetary policy regimes influence the business cycle in a small open economy and investigates the impact of policy breaks on the estimation procedure. The authors estimate a DSGE model on Swedish data, explicitly taking into account the monetary regime change in 1993, from exchange rate targeting to inflation targeting. The results suggest that monetary policy reacted strongly to exchange rate movements in the former, and mostly to inflation in the latter. The external sector plays an important role in the economy and the international transmission mechanism is significantly affected by the choice of exchange rate regime. A counter-factual experiment that applies the inflation targeting policy rule on the disturbances from the exchange rate targeting period suggests that such a policy would have led to higher output and employment, but also to a depreciated currency, higher inflation and a more volatile economy. It also shows evidence that ignoring the break in the estimation leads to spurious results for both the parameters associated with monetary policy as well as those that are policy-independent.

0731 **Aruoba, S. Boragan, *Real-Time Measurement of Business Conditions*, Division of International Finance, Federal Reserve Board, July 24, 2007. 35pp.**

This paper constructs a framework for measuring economic activity in real time (e.g., minute-by-minute), using a variety of stock and flow data observed at mixed frequencies. Specifically, it proposes a dynamic factor model that permits exact filtering, and explores the efficacy of the methods both in a simulation study and in a detailed empirical example.

0766 **Veracierto, Marcelo, *Establishments Dynamics and Matching Frictions in Classical Competitive Equilibrium*, Federal Reserve Bank of Chicago, August 2007. 41pp.**

This paper develops a Walrasian equilibrium theory of establishment level dynamics and matching frictions and uses it to evaluate the effects of congestion externalities in the matching process and determine the government interventions that are needed to implement a Pareto optimal allocation. The optimal policy, which involves a tax on the creation of help-wanted ads and an unemployment subsidy, is highly contractionary. However, it leads to large welfare gains. The policy also plays an important role in dampening the response of the economy to aggregate productivity shocks.

0808 **Ellul, Andrew, et al., *External Governance and Debt Agency Costs of Family Firms*, Division of International Finance, Federal Reserve Board, November 2007. 57pp.**

This paper investigates the impact of family blockholders on the firm's debt agency costs under different investor protection environments. On one hand, families - through their undiversified investments, inter-generation presence, and reputation concerns - can mitigate debt agency costs. On the other hand, families – through their unique power position that can lead to private benefits extraction and higher bankruptcy risk – can exacerbate debt agency costs. The actual impact can go either way and what matters should be the creditors' protection environment. Using international bond issues from 1995 to 2000 for 1,072 international firms originating from 24 different countries, this paper finds that family firms originating from low investor protection environments suffer from higher debt costs compared to non-family firms, while family firms originating from high investor protection environments benefit from lower debt costs compared to non-family firms. It finds no impact from non-family blockholdings. These results are robust to various specifications and confirmed by an out-of-sample test using bonds issued by U.S. and foreign firms listed in the U.S. originating from 27 different countries.

0865 **Conesa, Juan Carlos, et al., *Modeling Great Depressions: The Depression in Finland in the 1990s*, Federal Reserve Bank of Minneapolis, November 2007. 63pp.**

This paper is a primer on the great depressions methodology developed by Cole and Ohanian (1999, 2007) and Kehoe and Prescott (2002, 2007). It uses growth accounting and simple dynamic general equilibrium models to study the depression that occurred in Finland in the early 1990s. It finds that the sharp drop in real GDP over the period 1990-93 was driven by a combination of a drop in total factor productivity (TFP) during 1990-92 and of increases in taxes on labor and consumption and increases in government consumption during 1989-94, which drove down hours worked in Finland. The authors attempt to endogenize the drop in TFP in variants of the model with an investment sector and with terms-of-trade shocks but are unsuccessful.

0928 **Walker, David M., *Long-Term Fiscal Outlook: Action Is Needed to Avoid the Possibility of a Serious Economic Disruption in the Future*, U.S. General Accountability Office, January 29, 2008. 19pp.**

Simulations by GAO, the Congressional Budget Office (CBO), and others all show that despite a 3-year decline in the budget deficit, the U.S. faces large and growing structural deficits driven primarily by rising health care costs and known demographic trends. Under any plausible scenario, the federal budget is on an imprudent and unsustainable path.

0947 **Arseneau, David M., and Sunjay K. Chugh, *Competitive Search Equilibrium in a DSGE Model,* Division of International Finance, Federal Reserve Board, February 17, 2008. 22pp.**

This paper shows how to implement a competitive search equilibrium in a fully-specified DSGE environment. Competitive search, an equilibrium concept well-understood in labor market theory, offers an alternative to the commonly-used Nash bargaining in search-based macro models. The simulation-based results show that business cycle fluctuations under competitive search equilibrium are virtually identical to those under Nash bargaining for a broad range of calibrations of Nash bargaining power. This paper proves that business cycle fluctuations under competitive search equilibrium are exactly identical to those under Nash bargaining restricted to the popularly-used Hosios condition for search efficiency. This latter result extends the efficiency properties of competitive search equilibrium to a DSGE environment. The results thus provide a foundation for researchers interested in studying business cycle fluctuations using search-based environments to claim that the sometimes-awkward assumption of bargaining per se does not obscure interpretation of results.

0969 **Mendoza, Enrique G., and Vivian Z. Yue, *A Solution to the Default Risk-Business Cycle Disconnect*, Division of International Finance, Federal Reserve Board, March 2008. 41pp.**

Models of business cycles in emerging economies explain the negative correlation between country spreads and output by modeling default risk as an exogenous interest rate on working capital. Models of strategic default explain the cyclical properties of sovereign spreads by assuming an exogenous output cost of default with special features, and they underestimate debt-output ratios by a wide margin. This paper proposes a solution to this default risk-business cycle disconnect based on a model of sovereign default with endogenous output dynamics. The model replicates observed V-shaped output dynamics around default episodes, countercyclical sovereign spreads, and high debt ratios, and it also matches the variability of consumption and the countercyclical fluctuations of net exports. Three features of the model are key for these results: (1) working capital loans pay for imported inputs; (2) imported inputs support more efficient factor allocations than when these inputs are produced internally; and (3) default on the foreign obligations of firms and the government occurs simultaneously.

REEL 3

Frame #

Business Cycles cont.

0001 **Guajardo, Jaime, *Business Cycles in Small Developed Economies: The Role of Terms of Trade and Foreign Interest Rate Shocks*, International Monetary Fund, April 2008. 25pp.**

Empirical evidence for small developed economies finds that consumption is procyclical and as volatile as output, and real net exports are coutercyclical. Earlier studies have not been able to reproduce these regularities in a DSGE small open economy model when productivity shocks drive the business cycles and households have a normal intertemporal elasticity of substitution. Instead, these studies have reduced this elasticity to make consumption more procyclical and volatile and real net exports countercyclical. This paper shows that a standard model can reproduce these regularities, without lowering the intertemporal substitution, if the terms of trade and foreign interest rate are added as source of business cycle fluctuations. These shocks, compared to productivity shocks, make consumption and investment more volatile and procyclical relative to output, and make real net exports countercyclical.

0026 **Boz, Emine, et al., *Emerging Market Business Cycles Revisited: Learning about the Trend*, Division of International Finance, Federal Reserve Board, April 2008. 38pp.**

The data reveal that emerging markets do not differ from developed countries with regards to the variance of permanent TFP shocks relative to transitory. They do differ, however, in the degree of uncertainty agents face when formulating expectations. Based on these observations, this paper builds an equilibrium business cycle model in which the agents cannot perfectly distinguish between the permanent and transitory components of TFP shocks. When formulating expectations, they assign some probability to TFP shocks being permanent even when they are purely transitory. This is sufficient for the model to produce "permanent-like" effects in response to transitory shocks. The imperfect information model calibrated to Mexico predicts a higher variability of consumption relative to output and a strongly negative correlation between the trade balance and output, without the predominance of trend shocks. The same model assuming perfect information and calibrated to Canada accounts for developed country business cycle regularities. The estimated relative variance of trend shocks in these two models is similar.

0064 **Haltmaier, Jane, *Predicting Cycles in Economic Activity*, Division of International Finance, Federal Reserve Board, April 2008. 50pp.**

Predicting cycles in economic activity is one of the more challenging but important aspects of economic forecasting. This paper reports the results from estimation of binary probit models that predict the probability of an economy being in a recession using a variety of financial and real activity indicators. The models are estimated for eight countries, both individually and using a panel regression. Although the success of the models varies, they are all able to identify a significant number of recessionary periods correctly.

0114 **Kose, M. Ayhan, et al., *Global Business Cycles: Convergence or Decoupling?* International Monetary Fund, June 2008. 49pp.**

This paper analyzes the evolution of the degree of global cyclical interdependence over the period 1960-2005. It categorizes the 106 countries in our sample into three groups - industrial countries, emerging markets, and other developing economies. Using a dynamic factor model, the authors decompose macroeconomic fluctuations in key macroeconomic aggregates - output, consumption, and investment - into different factors. These are: (i) a global factor, which picks up fluctuations that are common across all variables and countries (ii) three group-specific factors, which capture fluctuations that are common to all variables and all countries within each group of countries (iii) country factors, which are common across all aggregates in a given country and (iv) idiosyncratic factors specific to each time series. The main result is that, during the period of globalization (1985-2005), there has been some convergence of business cycle fluctuations among the group of industrial economies and among the group of emerging market economies. Surprisingly, there has been a concomitant decline in the relative importance of the global factor. In other words, there is evidence of business cycle convergence within each of these two groups of countries but divergence (or decoupling) between them.

0163 **Mendoza, Enrique G., and Marco E. Terrones, *An Anatomy of Credit Booms: Evidence from Macro Aggregates and Micro Data*, Division of International Finance, Federal Reserve Board, July 2008. 58pp.**

This paper studies the characteristics of credit booms in emerging and industrial economies. Macro data show a systematic relationship between credit booms and economic expansions, rising asset prices, real appreciations and widening external deficits. Micro data show a strong association between credit booms and leverage ratios, firm values, and banking fragility. It also finds that credit booms are larger in emerging economies, particularly in the nontradables sector; most emerging markets crises are associated with credit booms; and credit booms in emerging economies are often preceded by large capital inflows but not by financial reforms or productivity gains.

0221 **Carlson, Mark A., et al., *Distress in the Financial Sector and Economic Activity*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, August 13, 2008. 22pp.**

This paper explores the relationship between the health of the financial sector and the rest of the economy. We develop an indicator of financial sector health using a distance-to-default measure based on a Merton-style option pricing model. The measure spans over three decades and appears to capture periods when financial sector institutions were strong and when they were weak. The authors use vector autoregressions to assess whether the indicator of financial-sector health affects the real economy, in particular non-residential investment. The results indicate that the measure has a considerable impact. Moreover, this paper finds that this financial channel amplifies changes in investment resulting from shocks to non-financial firm profitability.

0243 **Durdu, Ceyhun Bora, and Serdar Sayan, *Emerging Market Business Cycles with Remittance Fluctuations*, Division of International Finance, Federal Reserve Board, September 2008. 27pp.**

0270 **Kaira, Sanjay, *Global Volatility and Forex Returns in East Asia*, International Monetary Fund, September 2008. 31pp.**

During 2001-07, increases in mature market volatility were associated with declines in forex returns for East Asian countries, consistent with an overall flight to "safety" effect. Estimates from GARCH models suggest that a 5 percentage point increase in mature market equity volatility generated an exchange rate depreciation of up to ½ percent. This sensitivity rose during the latter period in the sample, suggesting greater integration of Asian financial markets with global markets. Unconditional standard deviations estimated from these models also provide operational measures of "long-term" and "excess" volatility in forex markets. Long-run forex volatility declined as Asian economies settled down with generally stronger fundamentals in the post-crisis period to more flexible regimes along with a generally lower level of mature market volatility.

0301 **World Economic Studies Division, *World Economic Outlook: Financial Stress, Dowturns, and Recoveries*, International Monetary Fund, October 2008. 321pp.**

The October 2008 edition examines commodity prices and inflation, economic cycles in the aftermath of financial crises, the role of fiscal policy during downturns, and current account imbalances in emerging economies. Recent analytic chapters have examined climate change, the housing cycle, commodity prices, capital inflows, globalization and inequality, and the global business cycle.

0622 **McGrattan, Ellen R., and Lee E. Ohanian, *Does Neclassical Theory Account for the Effects of Big Fiscal Shocks? Evidence from World War II*, Federal Reserve Bank of Minneapolis, November 2008. 40pp.**

Much debate surrounds the usefulness of the neoclassical growth model for assessing the macroeconomic impact of fiscal shocks. This paper tests the theory using data from World War II, which is by far the largest fiscal shock in the history of the United States. It takes observed changes in fiscal policy during the war as inputs into a parameterized, dynamic general equilibrium model and compare the values of all variables in the model to the actual values of these variables in the data. The main finding is that the theory quantitatively accounts for macroeconomic activity during this big fiscal shock.

0662 **Nanto, Dick K., et al., *The U.S. Financial Crisis: The Global Dimension with Implications for U.S. Policy*, Congressional Research Service, November 25, 2008. 91pp.**

What began as a bursting of the U.S. housing market bubble and a rise in foreclosures has ballooned into a global financial crisis. Some of the largest and most venerable banks, investment houses, and insurance companies have either declared bankruptcy or have had to be rescued financially. In October 2008, credit flows froze, lender confidence dropped, and one after another the economies of countries around the world dipped toward recession. The crisis exposed fundamental weaknesses in financial systems worldwide, and despite coordinated easing of monetary policy by governments and trillions of dollars in intervention by governments and the International Monetary Fund, the crisis continues.

0753 **Williams, Orice M., *Systemic Risk: Regulatory Oversight and Recent Initiatives to Address Risk Posed by Credit Default Swaps*, U.S. General Accountability Office, March 5, 2009. 29pp.**

The U.S. financial system is more prone to systemic risk today because (1) the current U.S. financial regulatory system is not designed to adequately oversee today's large and interconnected financial institutions, (2) not all financial activities and institutions fall under the direct purview of financial regulators, and (3) market innovations have led to the creation of new and sometimes complex products that were not envisioned as the current regulatory system developed. Credit default swaps (CDS) are one of the products that have assumed a key role in financial markets.

Exchange Rates

0782 **Huo, Hui, and Robert Savickas, *Idiosyncratic Volatility, Economic Fundamentals, and Foreign Exchange Rates*, Federal Reserve Bank of St. Louis, April 15, 2006. 52pp.**

This paper shows that a relatively high level of average U.S. industry- or firm-level idiosyncratic stock volatility is usually associated with a future appreciation in the U.S. dollar. For most foreign currencies, the relation is statistically significant in both in sample and out-of-sample tests, even after the authors use a bootstrap procedure to explicitly account for data mining. Italso documents a positive and significant relation between a country's idiosyncratic volatility and the future U.S. dollar price of its currency - in France, Germany, and Japan. Moreover, among a number of commonly used financial variables, only idiosyncratic volatility forecasts output growth in both U.S. and foreign countries. The results suggest that there might be a close link between exchange rates and economic fundamentals.

0834 **Lagos, Ricardo, *Asset Prices and Liquidity in an Exchange Economy*, Federal Reserve Bank of Minneapolis, May 2006. 71pp.**

This paper develops an asset-pricing model in which financial assets are valued for their liquidity--the extent to which they are useful in facilitating exchange--as well as for being claims to streams of consumption goods. The implications for average asset returns, the equity-premium puzzle and the risk-free rate puzzle, are explored in a version of the model that nests the work of Mehra and Prescott (1985).

0905 **Neely, Christopher J., *Identifying the Effects of U.S. Intervention on the Levels of Exchange Rates*, Federal Reserve Bank of St. Louis, May 21, 2006. 44pp.**

Most intervention studies have been silent on the assumed structure of the economic system -- implicitly imposing implausible assumptions -- despite the fact that inference depends crucially on such issues. This paper identifies the cross-effects of intervention and the level of exchange rates using the likely timing of intervention, macroeconomic announcements as instruments and the nonlinear structure of the intervention reaction function. Proper identification of the effects of intervention indicates that it effectively changes the levels of exchange rates. Such inference depends on careful attention to nonlinearity and seemingly innocuous identification assumptions.

0949 **Duarte, Margarida, and Michael Dotsey, *Nontraded Goods, Market Segmentation, and Exchange Rates*, Federal Reserve Bank of Richmond, May 2006. 39pp.**

Empirical evidence suggests that movements in international relative prices are large and persistent. Nontraded goods, both in the form of final consumption goods and as an input into the production of final tradable goods, are an important aspect driving international relative price movements. This paper shows that nontraded goods play an important role in the context of an otherwise standard open-economy macromodel. The quantitative study with nontraded goods generates implications along several dimensions that are more closely in line with the data relative to the model that abstracts from nontraded goods.

0988 **Bordo, Michael D., et al., *Bretton Woods and the U.S. Decision to Intervene in the Foreign-Exchange Market, 1957-1962*, Federal Reserve Bank of Cleveland, August 2006. 54pp.**

The deterioration in the U.S. balance of payments after 1957 and an accelerating loss of gold reserves prompted U.S. monetary authorities to undertake foreign exchange market interventions beginning in 1961. This paper discusses the events leading up to these interventions, the institutional arrangements developed for that purpose, and the controversies that ensued. Although these interventions forestalled a loss of U.S. gold reserves, in the end, they only delayed more fundamental adjustments and, in that respect, were a failure.

REEL 4

Frame #

Exchange Rates cont.

0001 **Arellano, Cristina, and Jonathan Heathcote, *Dollarization and Financial Integration*, Federal Reserve Bank of Minneapolis, January 2007. 38pp.**

This paper builds a simple theoretical model designed to study dollarization. Each period, a benevolent government decides whether or not to dollarize, how much to borrow or lend on an international bond market, and, if dollarization has not occurred, the devaluation rate. In equilibrium, international borrowing is limited endogenously such that the government always chooses to repay when the penalty for default is permanent future exclusion from financial markets. Dollarization implies the loss of the devaluation rate as a policy instrument, but may still be optimal. The reason is that floating defaulters can use the devaluation rate as a substitute for debt in responding to country-specific shocks while dollarized economies in default find themselves in a more uncomfortable situation. Thus dollarization reduces a government's incentives to default, and thereby increases a country's ability to borrow in equilibrium.

0039 **Beine, Michel, et al, *Central Bank Intervention and Exchange Rate Volatility, Its Continuous and Jump Components*, Federal Reserve Bank of St. Louis, February 2007. 36pp.**

This paper analyzes the relationship between interventions and volatility at daily and intra-daily frequencies for the two major exchange rate markets. Using recent econometric methods to estimate realized volatility, the authors employ bipower variation to decompose this volatility into a continuously varying and jump component. Analysis of the timing and direction of jumps and interventions imply that coordinated interventions tend to cause few, but large jumps. Most coordinated operations explain, statistically, an increase in the persistent (continuous) part of exchange rate volatility. This correlation is even stronger on days with jumps.

0075 **Neely, Christopher J., et al, *The Adaptive Markets Hypothesis: Evidence from the Foreign Exchange Market*, Federal Reserve Bank of St. Louis, March 8, 2007. 51pp.**

This paper analyzes the intertemporal stability of returns to technical trading rules in the foreign exchange market by conducting true, out-of-sample tests on previously published rules. The excess returns of the 1970s and 1980s were genuine and not just the result of data mining. But these profit opportunities had disappeared by the mid-1990s for filter and moving average (MA) rules. Returns to less-studied rules, such as channel, ARIMA, genetic programming and Markov rules, also have declined, but have probably not completely disappeared. The volatility of returns makes it difficult to estimate mean returns precisely. The most likely time for a structural break in the MA and filter rule returns is the early 1990s. These regularities are consistent with the Adaptive Markets Hypothesis (Lo, 2004), but not with the Efficient Markets Hypothesis.

0126 **Kehoe, Patrick J., et al,** ***If Exchange Rates are Random Walks, Then Almost Everything We Say about Monetary Policy Is Wrong,*** **Federal Reserve Bank of Minneapolis, March 2007. 15pp.**

The key question asked by standard monetary models used for policy analysis is, How do changes in short-term interest rates affect the economy? All of the standard models imply that such changes in interest rates affect the economy by altering the conditional means of the macroeconomic aggregates and have no effect on the conditional variances of these aggregates. This paper argues that the data on exchange rates imply nearly the opposite: the observation that exchange rates are approximately random walks implies that fluctuations in interest rates are associated with nearly one-for-one changes in conditional variances and nearly no changes in conditional means. In this sense, standard monetary models capture essentially none of what is going on in the data. The authors argue that almost everything said about monetary policy using these models is wrong.

0141 **Neely, Christopher J.,** ***Central Bank Authorities' Beliefs about Foreign Exchange Intervention,*** **Federal Reserve Bank of St. Louis, April 6, 2007. 44pp.**

This paper presents the results of a survey of monetary authorities with respect to foreign exchange intervention. The survey offers evidence on new issues that would otherwise be difficult to investigate, such as response times, non-foreign exchange factors in intervention and profitability. The survey also reveals new evidence on previously studied issues, such as channels of effectiveness. Respondents disagreed with predominant views on intervention and volatility and common arguments against intervention. Exchange rate regimes explain central bank beliefs about important aspects of intervention, including factors that lead to detection of secret interventions and the potential profitability of intervention.

0185 **Kamin, Steven B., et al,** ***U.S. External Adjustment: Is It Disorderly? Is It Unique? Will It Disrupt the Rest of the World?*** **Division of International Finance, Federal Reserve Board, April 2007. 46pp.**

In recent years, a number of studies have analyzed the experiences of a broad range of industrial economies during periods when their current account deficits have narrowed. Such studies identified systematic aspects of external adjustment, but it is unclear how good a guide the experience of other countries may be to the effects of a future narrowing of the U.S. external imbalance. In contrast, this paper focuses in depth on the historical experience of external adjustment in the United States. Using data from the past thirty-five years, it compares economic performance in episodes during which the U.S. trade balance deteriorated and episodes during which it adjusted. This paper finds trade balance adjustment to have been generally benign: U.S. real GDP growth tended to fall, but not to a statistically significant extent; housing construction slumped; inflation generally rose modestly; and although nominal interest rates tended to rise, real interest rates fell. The paper then compares these outcomes to those in foreign industrial economies. The authors find that the economic performance of the United States during periods of external adjustment is remarkably similar to the foreign experience. Finally, they also examine the performance of the foreign industrial economies during the periods of U.S. deterioration and adjustment. Contrary to concerns that U.S. adjustment will prove injurious to foreign economies, the analysis suggests that the foreign economies fared reasonably well during past periods when the U.S.

trade deficit narrowed: the growth of domestic demand and real GDP abroad generally strengthened during such episodes, although inflation and interest rates tended to rise as well.

0231 **Gagnon, Joseph E., and Alain P. Chaboud, *What Can the Data Tell Us about Carry Trades in Japanese Yen*, Division of International Finance, Federal Reserve Board, July 2007. 30pp.**

This paper examines the available data that may shed light on the carry trade in Japanese yen. It defines an individual or a sector to be engaged in the carry trade if it has a short position in yen and a long position in other currencies. The tendency of large yen movements to be skewed toward appreciations is consistent with the existence of substantial carry positions, and other evidence from market prices provides some modest support for an effect from the carry trade. Data on bank loans and bond holdings by currency reveal a large apparent yen carry position of the Japanese official sector and modest carry positions in the Japanese and foreign banking sectors. The Japanese private non-banking sector has a large long foreign-currency position, but does not have a short yen position, and is thus not engaged in the yen carry trade in the aggregate. However, it is possible that exporters and investors in Japan use the derivatives markets to hedge some of their long foreign-currency exposure, with the private non-banking sector outside of Japan (including most hedge funds) likely to be taking on most of the associated carry exposure.

0261 **Vigfusson, Robert J., et al, *Exchange Rate Pass-Through to Export Prices: Assessing Some Cross-Country Evidence*, Division of International Finance, Federal Reserve Board, September 2007. 40pp.**

A growing body of empirical work has found evidence of a decline in exchange rate pass-through to import prices in a number of industrial countries. The paper complements this work by examining pass-through from the other side of the transaction; that is, it assesses the exchange rate sensitivity of export prices (denominated in the exporter's currency). The authors first sketch out a streamlined analytical model that highlights some key factors that determine pass-through. Using this model as reference, they find that the prices charged on exports to the United States are more responsive to the exchange rate than is the case for export prices to other destinations, which is consistent with results in the literature suggesting that import price pass-through in the U.S. market is relatively low. They also find that moves in the exchange rate sensitivity of export prices over time have been significantly affected by country and region-specific factors, including the Asian financial crisis (for emerging Asia), deepening integration with the United States (for Canada), and the effects of the 1992 ERM crisis (for the United Kingdom).

0301 **Chaboud, Alain P., et al, *Trading Activity and Exchange Rates in High Frequency EBS Data*, Division of International Finance, Federal Reserve Board, September 2007. 31pp.**

The absence of data has precluded virtually all research on trading volume in the foreign exchange market. This paper introduces a high-frequency foreign exchange dataset from EBS (Electronic Broking Service) that includes trading volume in the global interdealer spot market. The dataset gives volumes and prices at the one-minute frequency over a five-year time period in the euro-dollar and dollar-yen currency pairs. This paper first documents intraday volume patterns in euro-dollar and dollar-yen trading, noting the effects of macroeconomic news announcements but also purely institutional factors. Then study the effects of UK-specific holidays on euro-dollar and dollar-yen trading volume and find that these holidays cause a sharp decline in trading volume even among dealers outside the UK, a natural experiment that the authors interpret as further evidence that trading activity is not driven solely by the flow of news about fundamentals. Studying the reaction to U.S. macroeconomic announcements, this paper shows that a sharp pickup in trading volume generally occurs in the minutes following news announcements. This rise in trading volume happens even if the data release is entirely in line with market expectations, and it is often negatively related to the dispersion of ex-ante market expectations. Finally, focusing on one particular data release at the one-second frequency, it documents a two-stage reaction whereby the price jumps immediately after the announcement without much trading volume, while trading volume and volatility then surge about 15 seconds after the data release.

0332 **Thomas, Clarence P., et al, *Measuring U.S. International Relative Prices: A WARP View of the World*, Division of International Finance, Federal Reserve Board, January 2008. 62pp.**

This paper constructs a new measure of U.S. prices relative to those of its trading partners and uses it to reexamine the behavior of U.S. net exports. The measure differs from existing measures of the dollar's real effective exchange rate (REER) in that it explicitly incorporates both the difference in price levels between the United States and developing economies and the growing importance of these developing economies in world trade. Unlike existing REERs, the measure shows that relative U.S. prices have increased significantly over the past 15 years. In terms of simple correlations, the relationship between the measure of relative prices and U.S. net exports is much more coherent than that between existing REERs and net exports. To explore this relationship further, the authors use the measure to construct an index of foreign prices relevant for U.S. export volumes and reexamine several export equations. They find that export equations with the new index dominate those with previous measures in terms of in-sample fit, out-of-sample fit, and parameter constancy. In addition, they find that with the new index of foreign prices the estimated elasticity of U.S. exports with respect to foreign income is a good bit higher than the unitary elasticity found in previous studies using other price measures. This has implications for U.S. current account adjustment.

0394 **Gradojevic, Nikola and Christopher J. Neely, *The Dynamic Interaction of Order Flows and the CAD/USD Exchange Rate*, Federal Reserve Bank of St. Louis, February 2, 2008. 34pp.**

This paper explores the relationship between disaggregated order flow, the Canada/U.S. dollar (CAD/USD) market and U.S. macroeconomic announcements. Three types of CAD order flow and the CAD/USD are cointegrated. Financial order flow appears to contemporaneously drive the CAD/USD while commercial order flow seems to contemporaneously respond to exchange rate movements. Past order flow and lagged exchange rates strongly explain most types of order flow. Despite this predictability and the contemporaneous correlation of order flow with exchange rate returns, exchange rate returns are not predictable by either statistical or economic criteria (trading rule). This negative finding contrasts with that of Rime et al (2007), who use a different data set. There is strong evidence of structural breaks in the order-flow-exchange rate systems in 1994, 1996-1997 and 1999-2000.

0428 **Nason, James M., and John H. Rogers, *Exchange Rates and Fundamentals: A Generalization*, Division of International Finance, Federal Reserve Board, May 21, 2008. 44pp.**

Exchange rates have raised the ire of economists for more than 20 years. The problem is that few, if any, exchange rate models are known to systematically beat a naive random walk in out of sample forecasts. Engel and West (2005) show that these failures can be explained by the standard-present value model (PVM) because it predicts random walk exchange rate dynamics if the discount factor approaches one and fundamentals have a unit root. This paper generalizes the Engel and West (EW) hypothesis to the larger class of open economy dynamic stochastic general equilibrium (DSGE) models. The EW hypothesis is shown to hold for a canonical open economy DSGE model. It shows that all the predictions of the standard-PVM carry over to the DSGE-PVM. The DSGE-PVM also yields an unobserved components (UC) model that is estimated using Bayesian methods and a quarterly Canadian-U.S. sample. Bayesian model evaluation reveals that the data support a UC model that calibrates the discount factor to one implying the Canadian dollar-U.S. dollar exchange rate is a random walk dominated by permanent cross-country monetary and productivity shocks.

0473 **Bodenstein, Martin, *International Asset Markets and Real Exchange Rate Volatility*, Division of International Finance, Federal Reserve Board, July 2008. 41pp.**

The real exchange rate is very volatile relative to major macroeconomic aggregates and its correlation with the ratio of domestic over foreign consumption is negative (Backus-Smith puzzle). These two observations constitute a puzzle to standard international macroeconomic theory. This paper develops a two country model with complete asset markets and limited enforcement for international financial contracts that provides a possible explanation of these two puzzles. The model performs better than a standard incomplete markets model with a single non-contingent bond unless very tight borrowing constraints are imposed in the latter. With limited enforcement for both domestic and international financial contracts, the model's asset pricing implications are brought into line with the empirical evidence, albeit at the expense of raising real exchange rate volatility.

0514 **Alvarez, Fernando, et al, *Time-Varying Risk, Interest Rates, and Exchange Rates in General Equilibrium*, Federal Reserve Bank of Minneapolis, August 2008. 52pp.**

Under mild assumptions, the data indicate that fluctuations in nominal interest rate differentials across currencies are primarily fluctuations in time-varying risk. This finding is an immediate implication of the fact that exchange rates are roughly random walks. If most fluctuations in interest differentials are thought to be driven by monetary policy, then the data call for a theory which explains how changes in monetary policy change risk. This paper proposes such a theory based on a general equilibrium monetary model with an endogenous source of risk variation -- a variable degree of asset market segmentation.

0566 **Kehoe, Timothy J., and Caroline M. Betts, *Real Exchange Rate Movements and the Relative Price of Non-Traded Goods*, Federal Reserve Bank of Minneapolis, October 2008. 40pp.**

This paper studies the quarterly bilateral real exchange rate and the relative price of non-traded to traded goods for 1225 country pairs over 1980–2005. It shows that the two variables are positively correlated, but that movements in the relative price measure are smaller than those in the real exchange rate. The relation between the two variables is stronger when there is an intense trade relationship between two countries and when the variance of the real exchange rate between them is small. The relation does not change for rich/poor country bilateral pairs or for high inflation/low inflation country pairs. This paper identifies an anomaly: the relation between the real exchange rate and relative price of non-traded goods for US/EU bilateral trade partners is unusually weak.

0606 **Kehoe, Timothy J., and Claustre Bajona, *Trade, Growth, and Convergence in a Dynamic Heckscher-Ohlin Model*, Federal Reserve Bank of Minneapolis, October 2008. 48pp.**

This paper studies the properties of a dynamic Heckscher-Ohlin model -- a combination of a static two-good, two-factor Heckscher-Ohlin trade model and a two-sector growth model -- with infinitely lived consumers where international borrowing and lending are not permitted. The paper presents two main results: First, even if factor prices are equalized, countries that differ only in their initial endowments of capital per worker may converge or diverge in income levels over time, depending on the elasticity of substitution between traded goods. Divergence can occur for parameter values that would imply convergence in a world of closed economies and vice versa. Second, factor price equalization in a given period does not imply factor price equalization in future periods.

0654 **Blavy, Rodolphe, and Luciana Juvenal, *Mexico's Integration into NAFTA Markets: A View from Sectoral Real Exchange Rates*, Federal Reserve Bank of St. Louis, December 9, 2008. 36pp.**

Using a threshold autoregressive model, we confirm the presence of nonlinearities in sectoral real exchange rate (SRER) dynamics across Mexico, Canada and the US in the pre-NAFTA and post-NAFTA periods. Measuring transaction costs using the estimated threshold bands, we find evidence that Mexico still faces higher transaction costs than their developed counterparts. Trade liberalization is associated with reduced transaction costs and lower relative price differentials among countries. Other determinants of transaction costs are distance and nominal exchange rate volatility.This paper's results show that the half-lives of SRERs shocks, calculated by Monte Carlo integration, imply much faster adjustment in the post-NAFTA period.

0689 **Wang, Jian, and Jason J. Wu, *The Taylor Rule and Interval Forecast for Exchange Rates*, Division of International Finance, Federal Reserve Board, January 2009. 39pp.**

This paper attacks the Meese-Rogoff puzzle from a different perspective: out-of-sample interval forecasting. Most studies in the literature focus on point forecasts. This paper applies Robust Semiparametric (RS) interval forecasting to a group of Taylor rule models. Forecast intervals for twelve OECD exchange rates are generated and modified tests of Giacomini and White (2006) are conducted to compare the performance of Taylor rule models and the random walk. The paper's contribution is twofold. First, Taylor rule models generate tighter forecast intervals than the random walk, given that their intervals cover out-of-sample exchange rate realizations equally well. This result is more pronounced at longer horizons. The results suggest a connection between exchange rates and economic fundamentals: economic variables contain information useful in forecasting the distributions of exchange rates. The benchmark Taylor rule model is also found to perform better than the monetary and PPP models. Second, the inference framework proposed in this paper for forecast-interval evaluation can be applied in a broader context, such as inflation forecasting, not just to the models and interval forecasting methods used in this paper.

Housing and the Mortgage Crisis

0728 **Getter, Darryl E., et al, *Financial Crisis? The Liquidity Crunch of August 2007*, Congressional Research Service, September 21, 2007. 26pp.**

Firms are said to be liquid when they are able to meet current obligations or short-term demand for funds. A firm is said to be solvent but illiquid when its assets exceed its liabilities but it is unable to liquidate assets rapidly enough to meet current obligations. Markets are said to be liquid when a large volume of financial securities can be traded without price distortions because there is a ready and willing supply of buyers and sellers. Liquid markets are a sign of normalcy.

0754 **GAO, *Information on Recent Default and Foreclosure Trends for Home Mortgages and Associated Economic and Market Developments*, U.S. General Accountability Office, October 16, 2007. 59pp.**

Substantial growth in the mortgage market in recent years has helped many Americans become homeowners. As of June 2007, more than 1 million mortgages were in default or foreclosure, an increase of 50 percent compared with June 2005. Defaults and foreclosures on home mortgages can impose significant costs on borrowers, lenders, mortgage investors, and neighborhoods. Additionally, recent increases in defaults and foreclosures have contributed to concern and increased volatility in certain U.S. and global financial markets. These developments have raised questions about the extent and causes of problems in the mortgage market. To provide some insights on these issues, Congress asked GAO to analyze (1) the scope and magnitude of recent default and foreclosure trends, and how these trends compare with historical values, and (2) developments in economic conditions and the primary and secondary mortgage markets associated with these trends.

0813 **Jickling, Mark, *Averting Financial Crisis*, Congressional Research Service, March 21, 2008. 18pp.**

There is no precise definition of “financial crisis,” but a common view is that disruptions in financial markets rise to the level of a crisis when the flow of credit to households and businesses is constrained and the real economy of goods and services is adversely affected. Since mid-2007, central bankers — including the Federal Reserve — have labored to keep the downturn in U.S. subprime housing from developing into such a crisis.

0831 **Shorter, Gary, *Bear Stearns: Crisis and "Rescue" for a Major Provider of Mortgage-Related Products*, Congressional Research Service, March 26, 2008. 12pp.**

In March 2008, Bear Stearns, the nation’s fifth largest investment banking firm, was battered by what its officials described as a sudden liquidity squeeze related to its large exposure to devalued mortgage-backed securities. On March 14, the Federal Reserve System announced that it would provide Bear Stearns with an unprecedented short-term loan. This was rendered essentially moot when, on March 16, a major commercial bank, JP Morgan Chase, agreed to buy Bear Stearns in an exchange of stock shares for about 1.5% of its share price of a year earlier, a price that translated to $2/share. To help facilitate the deal, the Federal Reserve agreed to provide special financing in connection with the transaction for up to $30 billion of Bear Stearns's less liquid assets. The Fed's unprecedented role has generated widespread debate on the implications of such an intervention.

0843 **Weiss, N. Eric, *Government Interventions in Financial Markets: Economic and Historic Analysis of Subprime Mortgage Options*, Congressional Research Service, March 25, 2008. 16pp.**

This report summarizes and analyzes four previous government market interventions (Home Owners Loan Corporation in 1933, Continental Illinois in 1984, the savings and loan insurance fund shortfall in 1989, and the Latin American debt crisis in 1989), in light of current mortgage market conditions. Current proposals to help delinquent homeowners share many features in common with all of these actions.

0859 **Ashcraft, Adam B., and Til Schuermann, *Understanding the Securitization of Subprime Mortgage Credit*, Federal Reserve Bank of New York, March 2008. 82pp.**

This paper provides an overview of the subprime mortgage securitization process and the seven key informational frictions that arise. It discusses the ways that market participants work to minimize these frictions and speculate on how this process broke down. It provides a complete picture of the subprime borrower and the subprime loan, discussing both predatory borrowing and predatory lending. It presents the key structural features of a typical subprime securitization, documents how rating agencies assign credit ratings to mortgage-backed securities, and outlines how these agencies monitor the performance of mortgage pools over time. Throughout the paper, it draws upon the example of a mortgage pool securitized by New Century Financial during 2006.

0941 **Dell'Ariccia, Giovanni, et al, *Credit Booms and Lending Standards: Evidence from the Subprime Mortgage Market*, International Monetary Fund, April 2008. 37pp.**

This paper links the current sub-prime mortgage crisis to a decline in lending standards associated with the rapid expansion of this market. It shows that lending standards declined more in areas that experienced larger credit booms and house price increases. It finds that the underlying market structure mattered, with entry of new, large lenders triggering declines in lending standards by incumbent banks. Finally, lending standards declined more in areas with higher mortgage securitization rates. The results are consistent with theoretical predictions from recent financial accelerator models based on asymmetric information, and shed light on the relationship between credit booms and financial instability.

0978 **Orszag, Peter R., *Policy Options for the Housing and Financial Markets*, Congressional Budget Office, April 2008. 34pp.**

This paper updates and expands upon the discussion of the housing and mortgage markets in an earlier CBO analysis of policy options for addressing the general weakness of the economy (Options for Responding to Short-Term Economic Weakness, January 2008). It expands upon that earlier work in a number of ways. First, it discusses in depth the market developments and failures that led to the current situation. Second, it discusses options for influencing the mortgage markets, especially those that might help arrest the downward spiral of house prices. Some of those options would require a federal commitment of funds, in the form of either credit guarantees or direct subsidies. Finally, considers the advantages and disadvantages of establishing a new agency to assist in the restructuring of mortgages.

1012 **Mayer, Chris, and Karen Pence, *Subprime Mortgages: What, Where, and to Whom?* Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, ca. April 2008. 46pp.**

This paper explores the types of data used to characterize risky subprime lending and consider the geographic dispersion of subprime lending. First, it describes the strengths and weaknesses of three different datasets on subprime mortgages using information from LoanPerformance, HUD, and HMDA. These datasets embody different definitions of subprime mortgages. The authors show that estimates of the number of subprime originations are somewhat sensitive to which types of mortgages are categorized as subprime. Second, this paper describes what parts of the country and what sorts of neighborhoods had more subprime originations in 2005, and how these patterns differed for purchase and refinance mortgages. Subprime originations appear to be heavily concentrated in fast-growing parts of the country with considerable new construction, such as Florida, California, Nevada, and the Washington DC area. These locations saw house prices rise at faster-than-average rates relative to their own history and relative to the rest of the country. However, this link between construction, house prices, and subprime lending is not universal, as other markets with high house price growth such as the Northeast did not see especially high rates of subprime usage. Subprime loans were also heavily concentrated in zip codes with more residents in the moderate credit score category and more black and Hispanic residents. Areas with lower income and higher unemployment had more subprime lending, but these associations are smaller in magnitude.

REEL 5

Frame #

Housing and the Mortgage Crisis cont.

0001 **World Economic Studies, *World Economic Outlook: Housing and the Business Cycle,* International Monetary Fund, April 2008. 302pp.**

The world economy has entered new and precarious territory. The U.S. economy continues to be mired in the financial problems that first emerged in subprime mortgage lending but which have now spread much more broadly. Strains that were once thought to be limited to part of the housing market are having considerable negative effects across the entire economy, with rising defaults, falling collateral, and tighter credit working together to create a powerful and hard-to-defeat financial decelerator.

0303 **Technical Committee, *Report on the Subprime Crisis,* International Organization of Securities Commissions, May 2008. 50pp.**

The rise in foreclosures in the subprime retail mortgage market in the United States has led to instability in global credit markets. As a consequence of these events, at the November 2007 meeting of the International Organization of Securities Commissions (IOSCO), the Technical Committee agreed to establish a Chairmen's Task Force to systematically study the subprime market turmoil and its effects on the public capital markets and make any necessary recommendations to better protect public markets from the spillover effects resulting from possible systemic problems caused by activity on private markets. The Task Force's analysis and recommendations proved useful not to just securities regulators but to other international organizations studying the issue as well.

0353 **Foote, Christopher L., et al, *Subprime Facts: What (We Think) We Know about the Subprime Crisis and What We Don't*, Federal Reserve Bank of Boston, May 30, 2008. 57pp.**

Using a variety of datasets, this paper documents some basic facts about the current subprime crisis. Many of these facts are applicable to the crisis at a national level, while some illustrate problems relevant only to Massachusetts and New England.

0410 **Davis, Morris, and Robert F. Martin, *Housing, Home Production, and the Equity and Value Premium Puzzles*, Division of International Finance, Federal Reserve Board, June 2008. 30pp.**

This paper tests if a standard representative agent model with a home-production sector can resolve the equity premium or value premium puzzles. In this model, agents value market consumption and a home consumption good that is produced as an aggregate of the stock of housing, home labor, and a labor-augmenting technology shock. It constructs the unobserved quantity of the home consumption good by combining observed data with restrictions of the model. It tests the first-order conditions of the model using GMM. The model is rejected by the data; it cannot explain either the historical equity premium or the value premium.

0440 **Tong, Hui, and Shang-Jin Wei, *Real Effects of the Subprime Mortgage Crisis: Is It a Demand or a Finance Shock*, International Monetary Fund, July 2008. 37pp.**

This paper develops a methodology to study how the subprime crisis spills over to the real economy. This paper asks "Does it manifest itself primarily through reducing consumer demand or through tightening liquidity constraint on non-financial firms?" Since most non-financial firms have much larger cash holding than before, they appear unlikely to face significant liquidity constraint. It proposes a methodology to estimate these two channels of spillovers. The authors first propose an index of a firm's sensitivity to consumer demand, based on its response to the 9/11 shock in 2001. They then construct a separate firm-level index on financial constraint based on Whited and Wu (2006). They find that both channels are at work, but a tightened liquidity squeeze is economically more important than a reduced consumer spending in explaining cross firm differences in stock price declines.

0477 **Beltran, Daniel O., et al, *Foreign Exposure to Asset-Backed Securities of U.S. Origin*, Division of International Finance, Federal Reserve Board, August 6, 2008. 27pp.**

The financial turmoil which began in August 2007 originated, in part, because investors reassessed the quality of the assets underlying many asset-backed securities (ABS), particularly U.S. mortgages. The prominence of European banks in the early stages of the turmoil created the perception that foreigners held an outsized share of risky U.S. securities and prompted questions of why Europeans were so exposed. This paper evaluates that perception by quantifying foreign exposure to ABS with U.S. underlying collateral. Using survey data on foreign portfolio holdings of U.S. securities, this paper finds that the ultimate losses that foreigners could incur arising from U.S. underlying assets are small relative to most scale variables, although initial total mark-to-market losses are estimated to be significantly larger. Among other reasons for this difference between ultimate and initial losses, it demonstrates that the securitization chain can amplify mark-to-market price declines in the presence of uncertainty or illiquidity. Finally, it shows that, relative to the size of the market, foreigners' holdings of U.S. mortgage-backed securities do not appear to be elevated compared with their holdings of other U.S. assets.

0504 **Frank, Nathaniel, et al, *Transmission of Liquidity Shocks: Evidence from the 2007 Subprime Crisis*, International Monetary Fund, August 2008. 21pp.**

This paper examines the linkages between market and funding liquidity pressures, as well as their interaction with solvency issues surrounding key financial institutions during the 2007 subprime crisis. A multivariate GARCH model is estimated in order to test for the transmission of liquidity shocks across U.S. financial markets. It is found that the interaction between market and funding illiquidity increases sharply during the recent period of financial turbulence, and that bank solvency becomes important.

0525 **Lutz, Byron F., *The Connection between House Price Appreciation and Property Tax Revenues*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 12, 2008. 31pp.**

This paper explores two aspects of the connection between property tax revenues and house prices. First, it estimates the elasticity of property tax revenues with respect to house prices. This elasticity does not necessarily equal 1 as governments may adjust effective tax rates to offset changes in property values. Second, it examines the timing of the relationship. Institutional features of the property tax make it unlikely that changes in house prices will immediately influence tax revenues. The results suggest that the elasticity eventually equals 0.4 and that it takes three years for house price changes to impact tax revenues.

0556 **Shan, Hui, *The Effect of Capital Gains Taxation on Home Sales: Evidence from the Taxpayer Relief Act of 1997*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 28, 2008. 51pp.**

The Taxpayer Relief Act of 1997 (TRA97) significantly changed the tax treatment of housing capital gains in the United States. Before 1997, homeowners were subject to capital gains taxation when they sold their houses unless they purchased replacement homes of equal or greater value. Since 1997, homeowners have been allowed to exclude $500,000 of capital gains when they sell their houses. Such drastic changes provide a good opportunity to study the lock-in effect of capital gains taxation on home sales. Using ZIP-code-level housing price indexes and data on sales of single-family houses from 1982 to 2006 in 16 affluent towns within the Boston metropolitan area, this paper finds that TRA97 reversed the lock-in effect of capital gains taxes on houses with low and moderate capital gains. However, TRA97 may have generated an unintended lock-in effect on houses with capital gains over the maximum exclusion amount. In addition, this paper exploits legislative changes in capital gains tax rates to estimate the tax elasticity of home sales during the post-TRA97 period.

0607 **Office of the Comptroller of the Currency and Office of Thrift Supervision, *OCC and OTS Mortgage Metrics Report: Disclosure of National Bank and Federal Thrift Mortgage Loan Data, January-June 2008*, Department of the Treasury, September 2008. 25pp.**

The OCC and OTS Mortgage Metrics Report presents performance data on first lien residential mortgages serviced by national banks and federally regulated thrifts, focusing on delinquencies, loss mitigation actions, and foreclosures. This is the first joint report by the Office of the Comptroller of the Currency (OCC) and the Office of Thrift Supervision (OTS) and allows the agencies to present a more comprehensive picture of mortgage performance, loss mitigation, and foreclosures among federally regulated banks and thrifts. The combined report reflects the activities of many of the industry's largest mortgage servicers, and incorporates information on all mortgages serviced, not just subprime. The report presents loan-level data on each of the 34.7 million loans in this portfolio; none of the data is estimated.

0632 **Shan, Hui, *Property Taxes and Elderly Mobility*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 16, 2008. 47pp.**

The recent housing market boom in the U.S. has caused sharp increases in residential property taxes. Housing-rich but income-poor elderly homeowners often complain about rising tax burdens, and anecdotal evidence suggests that some move to reduce their tax burden. There has been little systematic analysis, however, of the link between property tax levels and the mobility rate of elderly homeowners. This paper investigates this link using household-level panel data from the Health and Retirement Study (HRS) and a newly collected dataset on state-provided property tax relief programs. These relief programs generate variation in effective property tax burdens that is not due solely to arguably endogenous local community choices about taxes and expenditure programs. The findings provide evidence suggesting that higher property taxes raise mobility among elderly homeowners. The point estimates from instrumental variable estimation using relief programs to generate instruments suggest that a $100 increase in annual property taxes is associated with a 0.76 percentage point increase in the two-year mobility rate for homeowners over the age of 50. This is an eight percent increase from the baseline two-year mobility rate of nine percent. These results are robust to alternative specifications.

0679 **Hjalmarsson, Erik, and Randi Hjalmarsson, *Efficiency in Housing Markets: Which Home Buyers Know How to Discount*, Division of International Finance, Federal Reserve Board, October 2008. 43pp.**

This paper presents the test of efficiency in the market for Swedish co-ops by examining the negative relationship between the sales price and the present value of future monthly payments or `rents'. If the co-op housing market is efficient, the present value of co-op rental payments due to underlying debt obligations of the cooperative should be fully reflected in the sales price. However, this paper finds that, on average, a one hundred kronor increase in the present value of future rents only leads to an approximately 75 kronor reduction in the sales price; co-ops with higher rents are thus relatively overpriced compared to those with lower rents. It also finds that these inefficiencies are larger at the lower end of the housing market and in poorer, less educated regions (though they are still observed in all geographic regions). These findings appear to reflect both the role played by liquidity constraints in price formation and there being more informed and `sophisticated' buyers in higher educated areas who push prices closer to efficiency. Overall, the findings suggest that there is some systematic failure to properly discount the future stream of rent payments relative to the up front sales price.

0722 **Cordell, Larry, et al, *The Incentives of Mortgage Servicers: Myths and Realities*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, October 13, 2008. 37pp.**

As foreclosure initiations have soared over the past couple of years, many have questioned whether mortgage servicers have the right incentives to work out troubled subprime mortgages so that borrowers can avoid foreclosure and remain in their homes. Some critics claim that because servicers, unlike investors, do not bear the losses associated with foreclosure, they have little incentive to modify troubled loans by reducing interest rates or principal, or by extending the term. This paper's analysis suggests that while servicers have substantially improved borrower outreach and increased loss mitigation efforts, some foreclosures still occur where both borrower and investor would benefit if such an outcome were avoided. It discusses servicers’ incentives and the obstacles to working out delinquent mortgages. It finds that loss mitigation is costly for servicers, in large part because servicers currently lack adequate staff and technology; unfortunately, servicers have few financial incentives to expand capacity. Two additional factors appear to be damping workouts of nonprime loans, the group that has seen the largest increase in delinquencies. First, affordable solutions are more difficult to achieve for borrowers with these loans than for those with prime mortgages. Second, these loans are generally funded by private-label mortgage backed securities, for which investors provide little or no guidance to servicers about what modifications are appropriate. More generally, investors are wary that modifications might turn out to be unsuccessful, thus delaying and increasing ultimate losses. Given the significant deadweight losses incorporated in recent quarters’ loss rates of 50 percent or more, it presents options for further improving servicer performance. The authors discuss supporting further industry efforts to expand borrower outreach and establish servicing guidelines, educating investors, paying servicers fees for appropriate loan workouts, and improving measures of servicer performance.

0759 **Jickling, Mark, *Containing Financial Crisis*, Congressional Research Service, November 24, 2008. 27pp.**

There is no precise definition of “financial crisis,” but a common view is that disruptions in financial markets rise to the level of a crisis when the flow of credit to households and businesses is constrained and the real economy of goods and services is adversely affected. Since mid-2007, governments have tried with limited success to keep the downturn in U.S. subprime housing from developing into such a crisis.

0786 **Martin, Robert F., *Housing Market Risks in the United Kingdom*, Division of International Finance, Federal Reserve Board, November 2008. 23pp.**

House prices in the United Kingdom rose rapidly in recent years. The run-up, larger than any other in U.K. history, leveled off in 2008. House prices are currently declining at rates faster than those seen in the early 1990's downturn. The housing downturn, however, is far from complete. Using the price-rent ratio as a guide, house prices are likely to fall at least a further 30 percent before leveling off. Given the historic links between housing and real activity, the downturn is likely to be associated with very slow growth.

0809 **Mayer, Christopher J., et al, *The Rise in Mortgage Defaults*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, November 2008. 36pp.**

The mortgage market began suffering serious problems in mid-2005. According to data from the Mortgage Bankers Association, the share of mortgage loans that were "seriously delinquent" (90 days or more past due or in the process of foreclosure) averaged 1.7 percent from 1979 to 2006, with a low of about 0.7 percent (in 1979) and a high of about 2.4 percent (in 2002). But by the second quarter of 2008, the share of seriously delinquent mortgages had surged to 4.5 percent. These delinquencies foreshadowed a sharp rise in foreclosures: roughly 1.2 million foreclosures were started in the first half of 2008, an increase of 79 percent from the 650,000 in the first half of 2007 (Federal Reserve estimates based on data from the Mortgage Bankers Association). No precise national data exist on what share of foreclosures that start are actually completed, but anecdotal evidence suggests that historically the proportion has been somewhat less than half (Cordell, Dynan, Lehnert, Liang, Mauskopf, 2008).

0845 **Rosen, Richard J., *The Role of Lenders in the Home Price Boom*, Federal Reserve Bank of Chicago, November 2008. 29pp.**

This paper examines the relationship between real estate prices during the home price boom from the late 1990s into 2005 and competition among mortgage lenders. The mortgage lending business, especially with the rise of the originate-to-distribute model, had competitors with very different non-mortgage activities and regulation. It shows that in local markets, when banks increased their share of mortgages relative to lenders such as mortgage brokers, home prices started increasing at a faster pace. Home prices also affected market shares, but primarily through changes at the national level. When national home prices increased at a faster pace, there was a shift from banks to mortgage brokers in local markets.

0874 **Office of the Comptroller of the Currency and Office of Thrift Supervision, *OCC and OTS Mortgage Metrics Report: Disclosure of National Bank and Federal Thrift Mortgage Loan Data, Third Quarter 2008*, Department of the Treasury, December 2008. 38pp.**

The OCC and OTS Mortgage Metrics Report presents performance data on first lien residential mortgages serviced by national banks and federally regulated thrifts. This is the second joint report by the Office of the Comptroller of the Currency and the Office of Thrift Supervision and provides a comprehensive picture of mortgage servicing activities of most of the industry's largest mortgage servicers, and incorporates information on all types of mortgages serviced, including subprime. The Mortgage Metrics Report focuses on delinquencies and foreclosures, with the range of events that lead to home forfeiture now expanded to include short sales and deed-in-lieu-of-foreclosure as well as completed foreclosures. This report also includes the first available data on the performance of loans that have previously been modified to encourage home retention. Data on the performance of modified loans provide insight into the effectiveness of loss mitigation actions. The conclusion of the report, in brief, is that delinquencies continue to rise, foreclosures and other actions leading to home forfeiture also continued to rise, and loan modifications were associated with high levels of re-default.

0912 **Scire, Mathew J., *Troubled Asset Relief Program: Status of Efforts to Address Defaults and Foreclosures on Home Mortgages*, U.S. General Accountability Office, December 4, 2008. 22pp.**

Default and foreclosure rates for home mortgages rose sharply from the second quarter of 2005 through the second quarter of 2008, reaching a point at which more than 4 in every 100 mortgages were in the foreclosure process or were 90 or more days past due. These levels are the highest reported in the 29 years since the Mortgage Bankers Association began keeping complete records and are based on its latest available data. The subprime market, which consists of loans to borrowers who generally have blemished credit and that feature higher interest rates and fees, experienced substantially steeper increases in default and foreclosure rates than the prime or government-insured markets, accounting for over half of the overall increase. In the prime and subprime market segments, adjustable-rate mortgages experienced steeper growth in default and foreclosure rates than fixed-rate mortgages. Every state in the nation experienced growth in the rate at which loans entered the foreclosure process from the second quarter of 2005 through the second quarter of 2008. The rate rose at least 10 percent in every state over the 3-year period, but 23 states experienced an increase of 100 percent or more. Several states in the “Sun Belt” region, including Arizona, California, Florida, and Nevada, had among the highest percentage increases.

Inflation

0934 **Ihrig, Jane E., et al, *Exchange-Rate Pass-Through in the G-7 Countries*, Division of International Finance, Federal Reserve Board, January 2006. 34pp.**

This paper examines the current thinking on exchange-rate pass-through to both import prices and consumer prices and estimates the extent to which they have fallen in the G-7 countries since the late 1970s and 1980s. For import-price pass-through it finds that all countries experience a numerical decline in the responsiveness of import prices to exchange-rate movements; for nearly half of these countries the decline between 1975-1989 and 1990-2004 is statistically significant. The authors estimate that while a 10 percent depreciation in the local currency would have increased import prices by nearly 7 percent on average across these countries in the late 1970s and 1980s, it would have only increased import prices by 4 percent in the last 15 years. The responsiveness of consumer prices to exchange-rate movements declines for nearly every country, with the decline being statistically significant for two countries. Specifically, while a 10 percent depreciation in the local currency would have increased consumer prices by almost 2 percent on average in the late 1970s and 1980s, it would have had a neutral effect on consumer prices in the last 15 years.

0968 **Aurelio, Marcela Meirelles, *Targeting Inflation and the Fiscal Balance: What Is the Optimal Policy Mix?*, Federal Reserve Bank of Kansas City, June 2006. 37pp.**

This paper identifies optimal policy rules in the presence of explicit targets for both the inflation rate and public debt. This issue is investigated in the context of a dynamic stochastic general equilibrium model that describes a small open economy with capital accumulation, distortionary taxation and nominal price rigidities. The model is solved using a second-order approximation to the equilibrium conditions. Optimal policy features a strong anti-inflation stance and strict fiscal discipline. Targeting a domestic inflation index - as opposed to CPI - improves welfare because it reduces the inefficiencies that stem from both price stickiness and income taxes.

1005 **Atissimo, Filippo, et al., *Fast Micro and Slow Macro: Can Aggregation Explain the Persistence of Inflation?*, Federal Reserve Bank of Chicago, September 2006. 30pp.**

An aggregation exercise is proposed that aims at investigating whether the fast average adjustment of the disaggregate inflation series of the euro area CPI translates into the slow adjustment of euro area aggregate inflation. This paper estimates a dynamic factor model for 404 inflation sub-indices of the euro area CPI. This allows to decompose the dynamics of inflation sub-indices in two parts: one due to a common macroeconomic shock and one due to sector specific idiosyncratic shocks. Although idiosyncratic shocks dominate the variance of sectoral prices, one common factor, which accounts for 30 percent of the overall variance of the 404 disaggregate inflation series, is the main driver of aggregate dynamics. In addition, the heterogenous propagation of this common shock across sectoral inflation rates, and in particular its slow propagation to inflation rates of services, generates the persistence of aggregate inflation. This paper concludes that the aggregation process explains a fair amount of aggregate inflation persistence.

REEL 6

Frame #

Inflation cont.

0001 **Velde, Francois R., *Chronicles of a Deflation Unforetold*, Federal Reserve Bank of Chicago, November 21, 2006. 66pp.**

Suppose the nominal money supply could be cut literally overnight by, say, 20%. What would happen to prices, wages, output? The answer can be found in 1720s France, where just such an experiment was carried out, repeatedly. Prices adjusted instantaneously and fully on one market only, that for foreign exchange. Prices on other markets (such as commodities) as well as prices of manufactured goods and industrial wages fell slowly, over many months, and not by the full amount of the nominal reduction. Coincidentally or not, the industrial sector (as represented by manufacturing of woolen cloths) experienced a contraction of 30%. When the government changed course and increased the nominal money supply overnight by 20%, prices responded much more, and the woolen industry rebounded.

0067 **Armenter, Roc, and Martin Bodenstein, *Of Nutters and Doves*, Division of International Finance, Federal Reserve Board, November 29, 2006. 26pp.**

This paper argues that there are conditions such that any inflation targeting regime is preferable to full policy discretion, even if long-run inflation rates are identical across regimes. The key observation is that strict inflation targeting outperforms the discretionary policy response to sufficiently persistent shocks. Under full policy discretion, inflation expectations over the medium term respond to the shock and thereby amplify its impact on output. As a result, little output stabilization is achieved at the cost of large and persistent inflation fluctuations.

0093 **Hornstein, Andreas, *Notes on the Inflation Dynamics of the New Keynesian Phillips Curve*, Federal Reserve Bank of Richmond, ca. January 2007. 15pp.**

This paper contains the derivations for results stated without proof in Hornstein (2007). First, it derives the log-linear approximation of the inflation dynamics in the Calvo-model with elements of backward-looking pricing when the approximation takes place around a positive average inflation rate. It derives a version of the "hybrid" New Keynesian Phillips Curve (NKPC) that can be estimated using standard GMM techniques. Second, it characterizes the inflation dynamics implied by the NKPC when marginal cost follows an AR(1) process. For this purpose it derives the autocorrelation and crosscorrelation structure of inflation.

0108 **Ihrig, Jane E., et al, *Some Simple Tests of the Globalization and Inflation Hypothesis*, Division of International Finance, Federal Reserve Board, April 2007. 68pp.**

This paper evaluates the hypothesis that globalization has increased the role of international factors and decreased the role of domestic factors in the inflation process in industrial economies. Toward that end, it estimates standard Phillips curve inflation equations for 11 industrial countries and use these estimates to test several predictions of the globalization and inflation hypothesis. The results provide little support for that hypothesis. First, the estimated effect of foreign output gaps on domestic consumer price inflation is generally insignificant and often of the wrong sign. Second, it finds no evidence that the trend decline in the sensitivity of inflation to the domestic output gap observed in many countries owes to globalization. Finally, and most surprisingly, the econometric results indicate no increase over time in the responsiveness of inflation to import prices for most countries. However, even though it finds no evidence that globalization is affecting the parameters of the inflation process, globalization may be helping to stabilize real GDP and hence inflation. Over time, the volatility of real GDP growth has declined by more than the volatility of domestic demand, suggesting that net exports increasingly are acting to buffer output from fluctuations in domestic demand.

0176 **Sbordone, Argia M., *Inflation Persistence: Alternative Interpretations and Policy Implications*, Federal Reserve Bank of New York, May 2007. 38pp.**

This paper 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. In this specification, most of the observed inflation persistence is attributed to fluctuations in the underlying inflation trend, which are a consequence of monetary policy rather than a structural feature of the economy. With a simple quantitative exercise, it 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.

0214 **Gagnon, Etienne, *Price Setting during Low and High Inflation: Evidence from Mexico*, Division of International Finance, Federal Reserve Board, May 2007. 53pp.**

This paper provides new insight into the relationship between inflation and consumer price setting by examining a large data set of Mexican consumer prices covering episodes of both low and high inflation, as well as the transition between the two. Overall, the economy shares several characteristics with time-dependent models when the annual inflation rate is low (below 10-15%), while displaying strong state dependence when inflation is high (above 10-15%). At low inflation levels, the aggregate frequency of price changes responds little to movements in inflation because movements in the frequency of price decreases partly offset movements in the frequency of price increases. When the annual inflation rate rises beyond 10-15 percent, however, there are no longer enough price decreases to counterbalance the rising occurrence of price increases, making the frequency of price changes more responsive to inflation. It is shown that a simple menu-cost model with idiosyncratic technology shocks predicts remarkably well the level of the average frequency and magnitude of price changes over a wide range of inflation.

0267 **Beechey, Meredith J., et al, *Are Long-Run Inflation Expectations Anchored More Firmly in the Euro Area than in the United States*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 27, 2007. 37pp.**

This paper compares the recent evolution of long-run inflation expectations in the euro area and the United States, using evidence from financial markets and surveys of professional forecasters. Survey data indicate that long-run inflation expectations are reasonably well-anchored in both economies, but also reveal substantially greater dispersion across forecasters' long-horizon projections of U.S. inflation. Daily data on inflation swaps and nominal-indexed bond spreads - which gauge compensation for expected inflation and inflation risk - also suggest that long-run inflation expectations are more firmly anchored in the euro area than in the United States. In particular, surprises in macroeconomic data releases have significant effects on U.S. forward inflation compensation, even at long horizons, whereas macroeconomic news only influences euro area inflation compensation at short horizons.

0304 **Poole, Robert, and Randal Verbrugge, *Explaining the Rent-OER Inflation Divergence, 1999-2006*, U.S. Bureal of Labor Statistics, October 2007. 30pp.**

Between 1999 and 2006, there were two episodes during which inflation in the Rent index in the CPI diverged markedly from inflation in the index for Owner's Equivalent Rent (OER); early in 2007, these series began to diverge again. Such divergence often prompts many to question CPI methods. A key difference between these two series is that OER indexes are based upon rents which have received a utilities adjustment — an adjustment which is necessary because the OER index is intended to track pure rent-of-shelter, not shelter-plus-utilities. Critics have claimed that the Rent-OER inflation divergences stem from an inappropriate utilities adjustment. In this paper, we decompose the Rent-OER inflation differential into its various determinants, and explore the multiple causes of this divergence over time. There is only one divergence episode — of only six months duration — which is primarily attributable to the utilities adjustment procedure. Indeed, the utilities adjustment sometimes reduced potential divergence between the two series.

0334 **Carlstrom, Charles T., at al, *Inflation Persistence, Inflation Targeting and the Great Moderation*, Federal Reserve Bank of Cleveland, December 2007. 30pp.**

There is growing evidence that the empirical Phillips curve within the U.S. has changed significantly since the early 1980's. In particular, inflation persistence has declined sharply. The paper demonstrates that this decline is consistent with a standard Dynamic New Keynesian (DNK) model in which: (i) the variability of technology shocks has declined, and (ii) the central bank more aggressively responds to inflation.

0364 **Doh, Taeyoung, *What Does the Yield Curve Tell Us About the Federal Reserve's Implicit Inflation Target?*, Federal Reserve Bank of Kansas City, December 2007. 35pp.**

This paper studies the time variation of the Federal Reserve's inflation target between 1960 and 2004 using both macro and yield curve data. It estimates a New Keynesian dynamic stochastic general equilibrium model in which the inflation target follows a random-walk process. It also compares estimation results obtained from both macroeconomic and yield curve data, two estimates obtained with only macro data, in order to determine what the yield curve tells us about the inflation target. In the joint estimation, the estimated inflation target is much higher during the mid 1980s than in the corresponding macro estimation. Also, some part of the decline in the inflation target during the early or the mid 1980s seems to be perceived as temporary when private agents have to filter out the random walk part of the inflation target from the composite inflation target. This paper's findings suggest that financial market participants were skeptical of the Fed's commitment to low inflation even after the Volcker disinflation period of the early 1980s.

0399 **Guerrieri, Luca, et al, *International Competition and Inflation: A New Keynesian Perspective*, Division of International Finance, Federal Reserve Board, January 2008. 46pp.**

This paper develops and estimates an open economy New Keynesian Phillips curve (NKPC) in which variable demand elasticities give rise to movements in desired markups in response to changes in competitive pressure from abroad. A parametric restriction on our specification yields the standard NKPC, in which the elasticity is constant, and there is no role for foreign competition to influence domestic inflation. By comparing the unrestricted and restricted specifications, this paper provides evidence that foreign competition plays an important role in accounting for the behavior of inflation in the traded goods sector. Estimates suggest that foreign competition accounted for more than half of a 4 percentage point decline in domestic goods inflation in the 1990s. The results also provide evidence against demand curves with a constant elasticity in the context of models of monopolistic competition.

0445 **Arseneau, David M., and Sanjay K. Chugh, *Optimal Fiscal and Monetary Policy in Customer Markets*, Division of International Finance, Federal Reserve Board, January 31, 2008. 49pp.**

A growing body of evidence suggests that ongoing relationships between consumers and firms may be important for understanding price dynamics. This paper investigates whether the existence of such customer relationships has important consequences for the conduct of both long-run and short-run policy. The central result is that when consumers and firms are engaged in long-term relationships, the optimal rate of price inflation volatility is very low even though all prices are completely flexible. This finding is in contrast to those obtained in first-generation Ramsey models of optimal fiscal and monetary policy, which are based on Walrasian markets. Echoing the basic intuition of models based on sticky prices, unanticipated inflation in our environment causes a type of relative price distortion across markets. Such distortions stem from fundamental trading frictions that give rise to long-lived customer relationships and makes pursuing inflation stability optimal.

0494 **Kamil, Herman, *Is Central Bank Intervention Effective Under Targeting Regimes?*, International Monetary Fund, April 2008. 42pp.**

Policymakers in many emerging markets are attempting to resist currency appreciation while simultaneously meeting targets for inflation. Using the recent experience of Colombia between 2004 and 2007, this paper examines the effectiveness of the Central Bank's intervention in stemming domestic currency appreciation under an inflation targeting regime. The results indicate that exchange rate intervention was effective during 2004-2006, when foreign currency purchases were undertaken during a period of monetary easing. During 2007, on the other hand, intervention was ineffective in reversing or slowing down domestic currency appreciation, as large-scale intervention became incompatible with meeting the inflation target in an overheating economy. Currency derivative markets-which have grown in depth and sophistication-played a key role in blunting the effectiveness of intervention.

0536 **Ciccarelli, Matteo, and Benoit Mojon, *Global Inflation*, Federal Reserve Bank of Chicago, April 2008. 38pp.**

This paper shows that inflation in industrialized countries is largely a global phenomenon. First, the inflation rates of 22 OECD countries have a common factor that alone accounts for nearly 70 percent of their variance. This large variance share that is associated with Global Inflation is not only due to the trend components of inflation (up from 1960 to 1980 and down thereafter) but also to fluctuations at business cycle frequencies. Second, itshows that, in conformity to the prediction of New Keynesian open economy models, there is little spillover of inflationary shocks across countries. The comovement of inflation comes largely from common shocks. Global Inflation is a function of real developments at short horizons and monetary developments at longer horizons. Third, there is a robust "error correction mechanism" that brings national inflation rates back to Global Inflation. A simple model that accounts for this feature consistently beats the previous benchmarks used to forecast inflation 4 to 8 quarters ahead across samples and countries.

0575 **Krichene, Noureddine,** ***Recent Inflationary Trends in World Commodities Markets,*** **International Monetary Fund, May 2008. 26pp.**

Expansionary monetary policies in key industrial countries and sharply depreciating U.S. dollar exchange rate sent commodities prices soaring at unprecedented rates during 2003–2007. Food prices rose to alarming levels threatening malnutrition and food riots. In contrast, consumer price indices, a leading indicator for monetary policy, were showing almost no inflation and posed a price puzzle insofar their evolution was not responsive to record low interest rates, double digit commodities inflation, and sharp exchange rate depreciation. Commodities prices were shown to be driven by one common trend, identified as a monetary shock. Policy makers may have to face a policy dilemma: maintain monetary policy stance with accelerating commodities price inflation, subsequent world recession, and financial disorder; or tighten monetary policy with subsequent world recession followed by recovery and financial and price stability.

0601 **Wright, Jonathan H.,** ***Term Premiums and Inflation Uncertainty: Empirical Evidence from an International Panel Dataset*****, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, May 2008. 48pp.**

This paper provides cross-country empirical evidence on term premia, inflation uncertainty, and their relationship. It has three components. First, I construct a panel of zero-coupon nominal government bond yields spanning ten countries and eighteen years. From these, it constructs forward rates and decompose these into expected future short-term interest rates and term premiums, using both statistical methods (an affine term structure model) and using surveys. Second, it constructs alternative measures of time-varying inflation uncertainty for these countries, using actual inflation data and survey expectations. The paper discusses some possible determinants of inflation uncertainty. Finally, the author uses panel data methods to investigate the relationship between term premium estimates and inflation uncertainty measures, and find a strong positive relationship. The economic determinants of term premia remain mysterious; but this evidence points to uncertainty about intermediate- to long-run inflation rates being a substantial part of the explanation for why yield curves slope up.

0649 **Billi, Roberto M.,** ***Optimal Inflation for the U.S. Economy,*** **Federal Reserve Bank of Kansas City, June 2008. 37pp.**

This paper characterizes the optimal inflation rate for the U.S. economy in a New Keynesian sticky-price model with an occasionally binding zero lower bound on the nominal interest rate. Real-rate and mark-up shocks jointly determine the optimal inflation rate to be positive but not large. Even allowing for the possibility of extreme model misspecification, the optimal inflation rate is robustly below 1 percent. The welfare costs of optimal inflation and the lower bound are limited.

0686 **Kiley, Michael T.,** ***Estimating the Common Trend Rate of Inflation for Consumer Prices and Consumer Prices Excluding Food and Energy Prices,*** **Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 16, 2008. 27pp.**

This paper examines the common trend in inflation for consumer prices and consumer prices excluding prices of food and energy. Both the personal consumption expenditure (PCE) indexes and the consumer price indexes (CPI) are examined. The statistical model employed is a bivariate integrated moving average process; this model extends a univariate model that fits the data on inflation very well. The bivariate model forecasts as well as the univariate models. The results suggest that the relationship between overall consumer prices, consumer prices excluding the prices of food and energy, and the common trend has changed significantly over time. In the 1970s and early 1980s, movements in overall prices and prices excluding food and energy prices both contained information about the trend; in recent data, the trend is best gauged by focusing solely on prices excluding food and energy prices.

00713 **Beechey, Meredith J., *Lowering the Anchor: How the Bank of England's Inflation-Targeting Policies Have Shaped Inflation Expectations and Perceptions of Inflation Risk*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, August 13, 2008. 29pp.**

Inflation targeting as practiced by the Bank of England has undergone several changes since its adoption in 1992, including redefinition of the goal, measures to increase transparency and the granting of independence to the central bank. These changes are likely to have affected long-run inflation expectations and perceptions of future inflation risk. To that end, this paper estimates a no-arbitrage, affine, factor model of the term structure of inflation compensation in the United Kingdom. The model yields time series of expected inflation and inflation risk premia at short and long horizons estimated in a theoretically consistent manner. The results reveal that long-run inflation expectations drifted down slowly during the first five years of inflation targeting, but inflation risk premia moved down abruptly only once the Bank of England was granted independence. This event, which arguably signalled more credible commitment by the central bank to its inflation anchor, appears to have been more important in shaping inflation expectations and perceptions of inflation risk than changes in the definition of the target or measures to increase transparency.

0742 **Bodenstein, Martin, et al, *Optimal Monetary Policy with Distinct Core and Headline Inflation Rates*, Division of International Finance, Federal Reserve Board, August 2008. 43pp.**

In a stylized DSGE model with an energy sector, the optimal policy response to an adverse energy supply shock implies a rise in core inflation, a larger rise in headline inflation, and a decline in wage inflation. The optimal policy is well-approximated by policies that stabilize the output gap, but also by a wide array of "dual mandate" policies that are not overly aggressive in stabilizing core inflation. Finally, policies that react to a forecast of headline inflation following a temporary energy shock imply markedly different effects than policies that react to a forecast of core, with the former inducing greater volatility in core inflation and the output gap.

0785 **Hasan, Maher, and Hesham Alogeel, *Understanding the Inflationary Process in the GCC Region: The Case of Saudi Arabia and Kuwait*, International Monetary Fund, August 2008. 37pp.**

This paper investigates the factors that affect inflation in the GCC region by examining the inflationary processes in Saudi Arabia and Kuwait. The paper utilizes a model that accounts for foreign factors affecting inflation, such as trading partners' inflation and exchange rate pass-through effect, as well as domestic influences. The analysis concludes that, in the long run, higher inflation in trading partners' countries is the main driving force for inflation in the two countries, with significant but lower contributions from the exchange rate pass-through effect and oil prices. Demand and money supply shocks affect inflation in the short run.

0822 **Clark, Todd E., and Troy Davig, *An Empirical Assessment of the Relationships Among Inflation and Short and Long-Term Expectations*, Federal Reserve Bank of Kansas City, November 2008. 50pp.**

This paper uses a detailed literature review and an empirical analysis of three models to assess the links among inflation and survey measures of long- and short-term expectations. In the first approach, it jointly estimates a model of inflation, survey expectations and monetary policy, where each is a function of a common time-varying inflation trend. In the estimates, long-term expectations track closely the unobserved trend that is an important factor in inflation dynamics, implying that changes in long-run expectations can lead to persistent movements in inflation. In the second approach, it estimates a time-varying parameter VAR with stochastic volatility. This model relaxes the cross-equation and constant parameter restrictions from the first model. Impulse response analysis shows a relatively stable relationship between inflation and survey measures of inflation, although with some modest changes consistent with improved anchoring of long-term expectations. Finally, it relies on a conventional VAR framework incorporating several macroeconomic variables, including both short- and long-term measures of expected inflation. In these estimates, shocks to either measure of expectations lead to a rise in the other measure and some limited pass-through to inflation. Shocks to inflation cause both short- and long-term expectations to rise. Other factors such as monetary policy, economic activity, and food price inflation also affect expectations and inflation.

0872 **Haubrich, Joseph, et al, *Estimating Real and Nominal term Structures Using Treasury Yields, Inflation, Inflation Forecasts, and Inflation Swap Rates*, Federal Reserve Bank of Cleveland, November 2008. 52pp.**

This paper develops and estimates an equilibrium model of the term structures of nominal and real interest rates. The term structures are driven by state variables that include the short term real interest rate, expected inflation, a factor that models the changing level to which inflation is expected to revert, as well as four volatility factors that follow GARCH processes. It derives analytical solutions for the prices of nominal bonds, inflation-indexed bonds that have an indexation lag, the term structure of expected inflation, and inflation swap rates. The model parameters are estimated using data on nominal Treasury yields, survey forecasts of inflation, and inflation swap rates. It finds that allowing for GARCH effects is particularly important for real interest rate and expected inflation processes, but that long–horizon real and inflation risk premia are relatively stable. Comparing our model prices of inflation-indexed bonds to those of Treasury Inflation Protected Securities (TIPS) suggests that TIPS were underpriced prior to 2004 but subsequently were valued fairly. It finds that unexpected increases in both short run and longer run inflation implied by our model have a negative impact on stock market returns.

0924 **Doh, Taeyoung, *Long Run Risks in the Term Structure of Interest Rates: Estimation*, Federal Reserve Bank of Kansas City, December 2008. 53pp.**

This paper specifies and estimates a long run risks model with inflation by using the nominal term structure data in the United States from 1953 to 2006. The negative correlation between expected inflation and expected consumption growth in conjunction with the Epstein-Zin (1989) recursive preferences generates an upward sloping yield curve and fits the yield curve data better than the alternative specifications. However, the variations of the forward looking components of consumption growth and inflation in the estimated model are much smaller than implied by calibrated parameter values in the previous literature. An extended model with time varying volatilities alleviates this problem. In the extended model, estimated long run risks and volatilities, especially for inflation, are in line with survey data and the estimated inflation volatility explains a significant portion of the time variation of term premium.

0977 **Billi, Roberto M., *Price-Level Targeting and Risk Management in a Low-Inflation Economy*, Federal Reserve Bank of Kansas City, December 2008. 27pp.**

With inflation and policy interest rates at historically low levels, policymakers show great concern about "downside tail risks" due to a zero lower bound on nominal interest rates. Low probability or tail events, such as sustained deflation or recession, are disruptive for the economy and can be difficult to resolve. This paper shows that price-level targeting mitigates downside tail risks respect to inflation targeting when policy is conducted through a simple interest-rate rule subject to a zero lower bound. Thus, price-level targeting is a more effective policy framework than inflation targeting for the management of downside tail risks in a low-inflation economy. At the same time, the average performance of the economy is not very different if policy implements price-level targeting instead of inflation targeting through a simple interest-rate rule. Price-level targeting may imply less variability of inflation than inflation targeting because policymakers can shape private-sector expectations about future inflation more effectively by targeting directly the price level path rather than inflation.

1004 **Pruitt, Seth, *Uncertainty Over Models and Data: The Rise and Fall of American Inflation*, Division of International Finance, Federal Reserve Board, December 2008. 36pp.**

An economic agent who is uncertain of her economic model learns, and this learning is sensitive to the presence of data measurement error. This paper investigates this idea in an existing framework that describes the Federal Reserve's role in U.S. inflation. This framework successfully fits the observed inflation to optimal policy, but fails to motivate the optimal policy by the perceived Philips curve trade-off between inflation and unemployment. It modifies the framework to account for data uncertainty calibrated to the actual size of data revisions. The modified framework ameliorates the existing problems by adding sluggishness to the Federal Reserve's learning: the key point is that the data uncertainty is amplified by the nonlinearity induced by learning. Consequently there is an explanation for the rise and fall in inflation: the concurrent rise and fall in the perceived Philips curve trade-off.

REEL 7

Frame #

Inflation cont.

0001 **Hakkio, Craig, *Global Inflation Dynamics*, Federal Reserve Bank of Kansas City, January 2009. 36pp.**

This paper examines the dynamics of various measures of national, regional, and global inflation. The paper calculates the first two common factors for four measures of industrial country inflation rates: total CPI, core CPI, cyclical total CPI, and cyclical core CPI. The paper then demonstrates that the first common factor is sometimes helpful in forecasting national inflation rates. It also shows that the second common factor and the first common factor for cyclical inflation is sometimes helpful in forecasting national CPI inflation rates. Finally, the paper suggests that the commonality of industrial inflation rates reflects the commonality of the determinants of inflation.

0037 **Neely, Christopher J., and David E. Rapach, *Is Inflation an International Phenomenon?*, Federal Reserve Bank of St. Louis, January 2009. 47pp.**

Common shocks, similarities in central bank reaction functions, and international trade potentially produce common components in international inflation rates. This paper characterizes such links in international inflation rates with a dynamic latent factor model that decomposes 65 national inflation rates into world, regional, and idiosyncratic components. The world and regional components account for 34% and 16%, respectively, of annual inflation variability on average across countries. That is, international influences together explain half of inflation variability. The importance of the world and regional components, however, differs substantially across countries. Economic policy choices and development measures strongly explain the cross-section variation in the relative importance of international influences. A subsample analysis reveals that the importance of the world component for national inflation rates is relatively stable over time, although it does become markedly more important for a number of Asian economies since 1979.

0084 **Davig, Troy, and Taeyoung Doh, *Monetary Policy Regime Shifts and Inflation Persistence*, Federal Reserve Bank of Kansas City, January 2009. 29pp.**

This paper reports the results of estimating a Markov-Switching New Keynesian (MSNK) model using Bayesian methods. The broadest and best fitting MSNK model is a four-regime model allowing independent changes in the regimes governing monetary policy and the volatility of the shocks. It uses the estimates to investigate the mechanisms that lead to a decline in the persistence of inflation. It shows that the population moment describing the serial correlation of inflation is a weighted average of the autocorrelation parameters of the exogenous shocks. Changes in the monetary or shock volatility regimes shift weight over these serial correlation parameters and affect the serial correlation properties of inflation. Estimation results indicate that a shift to a monetary regime that reacts more aggressively to inflation reduces the weight on the more persistent shocks, so lowers inflation persistence. Similarly, a shift to the low-volatility regime reduces the weight on the more persistent shocks and also contributes to reducing inflation persistence. Estimates of model-implied inflation persistence indicate that it began rising in the late 1960s and peaked around the Volcker disinflation. The subsequent decline in persistence is due to both a more aggressive monetary policy regime and less volatile shocks.

0113 **Gagnon, Joseph E., *Currency Crashes in Industrial Countries: Much Ado About Nothing?* Division of International Finance, Federal Reserve Board, February 2009. 56pp.**

Sharp exchange rate depreciations, or currency crashes, are associated with poor economic outcomes in industrial countries only when they are caused by inflationary macroeconomic policies. Moreover, the poor outcomes are attributable to inflationary policies in general and not the currency crashes in particular. On the other hand, crashes caused by rising unemployment or external deficits have always had good economic consequences with stable or falling inflation rates.

0169 **Adrian, Tobias, and Hao Wu, *The Term Structure of Inflation Expectations*, Federal Reserve Bank of New York, February 2009. 49pp.**

This paper uses evidence from the term structure of inflation expectations implicit in the nominal yields and survey forecasts of inflation to address the question of whether or not monetary policy is effective. It constructs a model that accommodates forecasts over multiple horizons from multiple surveys and Treasury yields by allowing for differences between risk-neutral, subjective, and objective probability measures. In addition, it extracts private sector expectations of inflation from this model and establish that they are driven by inflation, real activity and one latent factor, which is correlated with survey forecasts. This paper shows that the interest rate responds to this survey factor. The inflation premium and out-of-sample estimates of the inflation longrun mean and persistence suggest that monetary policy became effective over time. As an implication, this model outperforms a standard macro-finance model in inflation and yield forecasting.

Investments

0218 **Busse, Matthias, and Jose Luis Groizard, *Foreign Direct Investment, Regulations, and Growth*, World Bank, April 2006. 26pp.**

The paper explores the linkage between income growth rates and foreign direct investment (FDI) inflows. So far the evidence is rather mixed, as no robust relationship between FDI and income growth has been established. It argues that countries need a sound business environment in the form of good government regulations to be able to benefit from FDI. Using a comprehensive data set for regulations, the authors test this hypothesis and find evidence that excessive regulations restrict growth through FDI only in the most regulated economies. This result is robust to different specifications of the econometric model.

0244 **Technical Committee, IOSCO, *Examination of Governance for Collective Investment Schemes: Final Report, Part I*, International Organization of Securities Commissions, June 2006. 50pp.**

During its Amman meeting on May 17, 2004, the IOSCO Technical Committee approved the mandate proposed by Technical Committee Standing Committee 5 on Investment Funds ("SC5") regarding "Examination of Governance for Collective Investment Schemes." The mandate directs SC5 to establish broad general principles for Collective Investment Schemes ("CIS") Governance based on a review of both its past work and the results of a survey concerning CIS Governance in SC5 member jurisdictions.

0294 **Emerging Markets Committee, IOSCO, *Collective Investment Schemes in Emerging Markets*, International Organization of Securities Commissions, July 2006. 182pp.**

The CIS type of financial institution is extremely important for emerging market countries as it focuses on the function of transferring funds from savers (especially small savers) to investors, not only within borders, but also across borders. The CIS offers a flexible, simple and convenient means of participating in the future growth of a country and its economy. It offers to the wider general public and those investors who do not have investments in any enterprise, expert investment advise at relatively low cost and participation in investment opportunities.

0476 **Lel, Ugur, and Darius P. Miller, *International Cross-listing, Firm Performance and Top Management Turnover: A Test of the Bonding Hypothesis*, Division of International Finance, Federal Reserve Board, September 2006. 60pp.**

This paper examines a primary outcome of corporate governance, the ability to identify and terminate poorly performing CEOs, to test the effectiveness of U.S. investor protections in improving the corporate governance of cross-listed firms. It finds that firms from weak investor protection regimes that are cross-listed on a major U.S. exchange are more likely to terminate poorly performing CEOs than non-cross-listed firms. Cross-listings on exchanges that do not require the adoption of the most stringent investor protections (OTC, private placements and London listings) are not associated with a higher propensity to shed poorly performing CEOs. Overall, the results provide direct support for the bonding hypothesis of Coffee (1999) and Stulz (1999), and suggest that the functional convergence of legal systems is indeed possible.

0536 **Multilateral Investment Guarantee Agency, *Investment Promotion Agency Performance Review 2006: Providing Information to Investors*, World Bank, October 2006. 83pp.**

In the increasingly competitive environment for FDI, a fundamental challenge for investment promotion agencies (IPAs) in the developing world is to meet the information requirements of investors researching sites to locate their projects. The stakes are very high for IPAs to make a good first impression or risk losing the opportunity for consideration. This paper publishes a study that benchmarks the performance of IPAs in providing information to investors engaged in their initial screening, or "long listing" of project locations.

0619 **Medvedev, Denis, *Beyond Trade: The Impact of Preferential Trade Agreements on Foreign Direct Investment Flows*, World Bank, November 2006. 66pp.**

The author investigates the effects of preferential trade agreements (PTAs) on the net foreign direct investment (FDI) inflows of member countries using a comprehensive database of PTAs in a panel setting. He finds that PTA membership is associated with a positive change in net FDI inflows, and the FDI gains are increasing in the market size of the PTA partners and their proximity to the host country. The author identifies several different channels through which preferential trade liberalization may affect FDI, and confirms that both threshold effects (signing the agreement) and market size effects (joining a larger and faster-growing common market) are important determinants of net FDI inflows, although the latter seem to dominate. The estimated relationship is largely driven by North-South PTAs, and is most pronounced in the late 1990s and early 2000s, the period when the majority of deep integration PTAs had been advanced.

0685 **Tille, Cedric, and Eric van Wincoop, *International Capital Flows*, Federal Reserve Bank of New York, March 2007. 52pp.**

The sharp increase in both gross and net international capital flows over the past two decades has prompted renewed interest in their determinants. Most existing 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 first- and second-order solution methods no longer work in the presence of portfolio choice, the methods are extended, giving special treatment to the optimality conditions for portfolio choice. It applies our solution method to a particular two-country, two-good, two-asset model and show that it leads to a much richer understanding of both gross and net capital flows. The approach identifies the time-varying portfolio shares that result from assets' time-varying expected returns and risk characteristics as a potential key source of international capital flows.

0737 **Nosal, Ed, and Michael Smart, *Limited Liability and the Development of Capital Markets*, Federal Reserve Bank of Cleveland, March 2007. 32pp.**

This paper studies the consequences of the introduction of widespread limited liability for corporations. In the traditional view, limited liability reduces transactions costs and enhances investment incentives for individuals and firms. But this view does not explain several important stylized facts of the British experience, including the slow rate of adoption of limited liability by firms in the years following legal reforms. The paper constructs an alternative model that accounts for this and other features of the nineteenth century British experience. In the model, project risk is private information, and a firm's decision to adopt limited liability may be interpreted in equilibrium as a signal the firm is more likely to default. Hence less risky firms may choose unlimited liability or forego investments entirely. It also shows the choice of liability rule can lead to development traps, in which profitable investments are not undertaken, through its effect on equilibrium beliefs of uninformed investors in the economy.

0769 **Fan, Joseph P.H., et al., *Does "Good Government" Draw Foreign Capital? Explaining China's Exceptional Foreign Direct Investment Inflow*, World Bank, April 2007. 40pp.**

China is now the world's largest destination of foreign direct investment (FDI), despite assessments highlighting its institutional deficiencies. But this FDI inflow corresponds closely to predicted FDI flows into China from a model that predicts FDI inflow based on government quality indicators and controls and is estimated across a sample of other weak-institution countries. The only real discrepancy is that, if government quality is measured by constraints on executive power, China receives somewhat more FDI than the model predicts. This might reflect an underestimation of the strength of these constraints in China, a unique institutional setting for FDI operations, FDI based on expected future institutional improvements, or a unique Chinese model of development. The authors conclude that Ockham's razor disfavors the last. They also note that FDI may be elevated because Chinese institutions protect foreign firms better than domestic ones.

0809 **Curcuru, Stephanie E., et al., *The Stability of Large External Imbalances: The Role of Returns Differentials*, Division of International Finance, Federal Reserve Board, April 2007. 49pp.**

Were the U.S. to persistently earn substantially more on its foreign investments ("U.S. claims") than foreigners earn on their U.S. investments ("U.S. liabilities"), the likelihood that the current environment of sizeable global imbalances will evolve in a benign manner increases. However, utilizing data on the actual foreign equity and bond portfolios of U.S. investors and the U.S. equity and bond portfolios of foreign investors, the authors find that the returns differential of U.S. claims over U.S. liabilities is essentially zero. Ending the sample in 2005, the differential is positive, whereas through 2004 it was negative; in both cases the differential was statistically indecipherable from zero. Moreover, were it not for the poor timing of investors from developed countries, who tend to shift their U.S. portfolios toward (or away from) equities prior to the subsequent underperformance (or strong performance) of equities, the returns differential would have been even lower. Thus, in the context of equity and bond portfolios they find no evidence that the U.S. can count on earning more on its claims than it pays on its liabilities.

0858 **Harding, Torfinn, and Beata Smarzynska Javorciker, *Developing Economies and International Investors: Do Investment Promotion Agencies Bring Them Together?* World Bank, August 2007. 51pp.**

Many countries spend significant resources on investment promotion agencies in the hope of attracting inflows of foreign direct investment. Despite the importance of this question for public policy choices, little is known about the effectiveness of investment promotion efforts. This study uses newly collected data on national investment promotion agencies in 109 countries to examine the effects of investment promotion on foreign direct investment inflows. The empirical analysis follows two approaches. First, it tests whether sectors explicitly targeted by investment promotion agencies receive more foreign direct investment in the post-targeting period relative to the pre-targeting period and non-targeted sectors. Second, it examines whether the existence of an investment promotion agency is correlated with higher foreign direct investment inflows. Results from both approaches point to the same conclusion. Investment promotion efforts appear to increase foreign direct investment inflows to developing countries. Moreover, agency characteristics, such as the agency's legal status and reporting structure, affect the effectiveness of investment promotion. There is also evidence of diversion of foreign direct investment due to investment incentives offered by other countries in the same geographic region.

0909 **Skeie, David R., *Vesting and Control in Venture Capital Contracts,* Federal Reserve Bank of New York, August 2007. 37pp.**

Vesting of equity payments to an entrepreneur, which is time contingent compensation, is ubiquitous in venture capital contracts and has been shown empirically to be of economic importance. This paper shows that vesting equity to an entrepreneur over a longer period of time, late vesting, acts as a screening device against bad entrepreneur types. But if contracts are incomplete such that payments and vesting cannot initially be contracted upon later outcomes, then late vesting gives lower effort incentives than early (short time-period) vesting since it is subject to holdup by the venture capitalist. Comparative statics show how equilibrium outcomes of screening, effort and assignment of control rights vary based on the ex-ante probability and the ex-interim signal of the entrepreneur's type. Control rights are a substitute for early vesting and allow for the largest effort incentives by fully protecting the entrepreneur from holdup. It also finds that a new explanation for the link between equity control rights and equity cash flow claims is that residual equity control rights over the firm are necessary to protect residual equity claims from holdup.

0946 **Irving, Susan J., *Debt Management: Treasury Has Improved Short-Term Investment Programs, but Should Broaden Investments to Reduce Risks and Increase Return,* U.S. General Accountability Office, September 2007. 57pp.**

In managing the funds that flow through the federal government’s account, Treasury frequently accumulates cash because of timing differences between when borrowing occurs, taxes are received, and agency payments are made. Treasury often receives large cash inflows in the middle of the month and makes large, regular payments in the beginning of the month.

1003 **Cravino, Javier, et al., *Substitution between Foreign Capital in China, India, the Rest of the World, and Latin America: Much Ado About Nothing?,* World Bank, September 2007. 30pp.**

This paper explores the impact of the emergence of China and India on foreign capital stocks in other economies. Using bilateral data from 1990-2003 and drawing from the knowledge-capital model of the multinational enterprises to control for fundamental determinants of foreign capital stocks across countries, the evidence suggests that the impact of foreign capital in China and India on other countries'foreign capital stocks has been positive. This finding is robust to the use of ordinary least squares, Poisson, and negative binomial estimators; to the inclusion of time and country-pair fixed effects; to the inclusion of natural-resource endowments; and to the use of the sum of foreign capital stocks in Hong Kong (China) and mainland China instead of using only the latter's foreign capital stocks. There is surprisingly weak evidence of substitution in manufacturing foreign capital stocks away from Central America and Mexico in favor of China, and from the Southern Cone countries to India, but these findings are not robust to the use of alternative estimation techniques.

REEL 8

Frame #

Investments cont.

0001 **Emerging Markets Committee, IOSCO,** ***Collective Investment Schemes Administration in Emerging Markets*****, International Organization of Securities Commissions, December 2007. 32pp.**

In June 2006 at its meeting in Hong Kong, the IOSCO Emerging Markets Committee (EMC) EMC Working Group on Investment Management (WG5) approved the initiative to carry out a mandate on the basis of the Collective Investment Schemes Administration ("CIS Administration") in emerging markets. To this end the group has set itself the goal of examining through a survey the principles on which the regulation of CIS Administration is based in the jurisdictions of the group to outline the similarities and differences existing.

0033 **Jackson, James K.,** ***Foreign Ownership of U.S. Financial Assets: Implications of a Withdrawal*****, Congressional Research Service, January 14, 2008. 19pp.**

This report provides an overview of the role foreign investment plays in the U.S. economy and an assessment of possible actions a foreign investor or a group of foreign investors might choose to take to liquidate their investments in the United States. Concerns over the potential impact of disinvestment have grown as national governments have become more active investors and as uncertainty over the risks associated with securities backed by sub-prime mortgages has increased volatility in financial markets. Actions taken by foreign investors to liquidate their holdings could affect the U.S. economy in a number of ways due to the role foreign investment plays in the United States and due to the current mix of economic policies the United States has chosen. The impact of any such action on the economy would also depend on the overall condition and performance of the economy and the financial markets. If the economy were experiencing a strong rate of economic growth, the impact of a foreign withdrawal likely would be minimal, especially given the dynamic nature of credit markets. If a withdrawal occurred when the economy were not experiencing robust rate of growth or if credit financial markets were under duress, the withdrawal could have a stronger effect on the economy. The particular course of action foreign investors might choose to take and the overall strength and performance of the economy at the time of their actions could affect the economy in different ways. Congress likely would become involved as a result of its direct role in making economic policy and its oversight role over the Federal Reserve. In addition, the actions of foreign investors could complicate domestic economic policymaking.

0052 **Falato, Antonio,** ***Happiness Maintenance and Asset Prices*****, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, January 2008. 54pp.**

This paper constructs a simple dynamic asset pricing model which incorporates recent evidence on the influence of immediate emotions on risk preferences. Investors derive direct utility from both consumption and financial wealth and, consistent with the happiness maintenance feature documented by Isen (1999) and others, become more cautious toward their wealth in good times. Mild pro-cyclical changes in risk aversion over wealth cause large pro-cyclical fluctuations in the current price-dividend ratio which, due to general equilibrium restrictions, translate into counter-cyclical variation in the current consumption-wealth ratio and, in turn, in expected future returns. With a realistic consumption growth process and reasonable preference parameters, the model generates a sizable equity premium, a low and stable risk-free rate, volatile and predictable stock returns, and price-dividend and Sharpe ratios in line with the data.

0106 **Berrospide, Jose M., et al., *Corporate Hedging, Investment and Value*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, February 2008. 44pp.**

This paper considers the effect of hedging with foreign currency derivatives on Brazilian firms in the period 1997 through 2004, a period that includes the Brazilian currency crisis of 1999. We find that, derivative users have valuations that are 6.7-7.8% higher than non-user firms. Hedging with currency derivatives allows firms to sustain larger capital investments, and also removes the sensitivity of investment to internally generated funds. Thus, it mitigates the underinvestment friction of Froot, Scharfstein, and Stein (1993), at a time when capital in the economy as a whole is scarce. It further shows that hedging increases the foreign currency debt capacity of a firm, and that foreign debt is a cheaper source of capital than domestic debt during our period of study.

0150 **Curcuru, Stephanie E., et al., *Cross-Border Returns Differentials*, Division of International Finance, Federal Reserve Board, February 2008. 44pp.**

Were the U.S. to persistently earn substantially more on its foreign investments ("U.S. claims") than foreigners earn on their U.S. investments ("U.S. liabilities"), the likelihood that the current environment of sizeable global imbalances will evolve in a benign manner increases. However, the authors find that the returns differential of U.S. claims over U.S. liabilities is far smaller than previously reported and, importantly, is near zero for portfolio equity and debt securities. For portfolio securities, they confirm findings using a separate dataset on the actual foreign equity and bond portfolios of U.S. investors and the U.S. equity and bond portfolios of foreign investors; in the context of equity and bond portfolios they find no evidence that the U.S. can count on earning more on its claims than it pays on its liabilities. Finally, they reconcile the finding of a near zero returns differential with observed patterns of cumulated current account deficits, the net international investment position, and the net income balance.

0194 **Calvaresi-Barr, Ann M., *Foreign Investment: Laws and Policies Regulating Foreign Investment in 10 Countries*, U.S. General Accountability Office, February 2008. 109pp.**

Foreign acquisitions of U.S. companies can pose a significant challenge for the U.S. government because of the need to balance the benefits of foreign investment with national security concerns. The Exon-Florio amendment to the Defense Production Act authorizes the President to suspend or prohibit foreign acquisitions of U.S. companies that may harm national security. To better understand how other countries deal with similar challenges, GAO was asked to identify how other countries address the issues that Exon-Florio is intended to address. Specifically, this report describes selected countries' (1) laws and policies enacted to regulate foreign investment to protect their national security interests and (2) implementation of those laws and policies. This report updates a 1996 GAO report that describes how four major foreign investors in the United States--France, Germany, Japan, and the United Kingdom--monitored foreign investment in their own countries to protect national security interests. It also examines foreign investment in six additional countries: Canada, China, India, the Netherlands, Russia, and the United Arab Emirates (UAE). GAO reviewed selected laws and regulations and interviewed foreign government officials and others concerning their implementation and any planned changes to their foreign investment laws, regulations, and policies.

0303 **Technical Committee, IOSCO, *An Experiment Within the Technical Committee Standing Committee on Investment Management to Establish a Framework for Identifying Strategic Priorities, Final report*, International Organization of Securities Commissions, June 2008. 39pp.**

Through the framework, SC5 has attempted to conduct a first attempt at identifying strategic priorities by assessing global trends, considering new products and market trends. The framework has highlighted the need for better and more harmonized statistical data concerning collective investment schemes (CIS). IOSCO may wish to consider establishing formal relations with international organizations with a view to gaining additional insight into available CIS statistics and their methodologies, and possibly to obtain additional data.

0342 **Justiniano, Alejandro, et al., *Investment Shocks and Business Cycles*, Federal Reserve Bank of Chicago, July 16, 2008. 47pp.**

This paper studies the driving forces of fluctuations in an estimated New Neoclassical Synthesis model of the U.S. economy with several shocks and frictions. In this model, shocks to the marginal efficiency of investment account for the bulk of fluctuations in output and hours at business cycle frequencies. Imperfect competition and, to a lesser extent, technological frictions are the key to their transmission. Labor supply shocks explain a large fraction of the variation in hours at very low frequencies, but are irrelevant over the business cycle. This is important because their microfoundations are widely regarded as unappealing.

0389 **Dunne, Timothy, and Xiaoyi Mu, *Investment Spikes and Uncertainty in the Petroleum Refining Industry*, Federal Reserve Bank of Cleveland, July 2008. 33pp.**

This paper investigates the effect of uncertainty on the investment decisions of petroleum refineries in the U.S. It constructs uncertainty measures from commodity futures market and use data on actual capacity changes to measure investment episodes. Capacity changes in U.S. refineries occur infrequently and a small number of investment spikes account for a large fraction of the change in industry capacity. Given the lumpy nature of investment adjustment in this industry, we empirically model the investment process using hazard models. An increase in uncertainty decreases the probability a refinery adjusts its capacity. The results are robust to various investment thresholds. The findings lend support to theories that emphasize the role of irreversibility in investment decisions.

0422 **McGrattan, Ellen R., and Edward C. Prescott, *Openness, Technology Capital, and Development*, Federal Reserve Bank of Minneapolis, July 2008. 38pp.**

This paper extends the growth model to include firm-specific technology capital and use it to assess the gains from opening to foreign direct investment. A firm's technology capital is its unique know-how from investing in research and development, brands, and organization capital. What distinguishes technology capital from other forms of capital is the fact that a firm can use it simultaneously in multiple domestic and foreign locations. Foreign technology capital is exploited by permitting foreign direct investment by multinationals. In both steady-state and transitional analyses, the extended growth model predicts large gains to being open.

0460 **Jackson, James K., *The United States as a Net Debtor Nation: Overview of the International Investment Position*, Congressional Research Service, July 22, 2008. 19pp.**

The international investment position of the U.S. is an annual measure of the assets Americans own abroad and the assets foreigners own in the United States. The net position, or the difference between the two, sometimes is referred to as a measure of U.S. international indebtedness. Although this designation is not strictly correct, the net international investment position does reveal the difference between the total assets Americans own abroad and total amount of assets foreigners own in the United States. These assets generate flows of capital into and out of the economy that have important implications for the value of the dollar in international exchange markets. Some Members of Congress and some in the public have expressed concerns about the U.S. net international investment position because of the role foreign investors are playing in U.S. capital markets and the potential for large outflows of income and services payments. Some observers also argue that the U.S. reliance on foreign capital inflows leaves the economy vulnerable to financial crises.

0479 **Coulibaly, Brahima, and Jonathan N. Millar, *The Asian Financial Crisis, Uphill Flow of Capital, and Global Imbalances: Evidence from a Micro Study*, Division of International Finance, Federal Reserve Board, August 21, 2008. 39pp.**

This study assesses the role of the Asian financial crisis of the late 1990s in the emergence and persistence of the large current account surpluses across non-China emerging Asia, which have been a significant counterpart to the U.S. current account deficit. Using panel data encompassing nearly 3,750 firms, it traces the current account surpluses to a marked and broad-based decline in corporate expenditures on fixed investment in the aftermath of the crisis that cuts across a wide spectrum of countries, industries, and firms. The lower corporate spending in turn depressed aggregate investment rates, widened the saving-investment gap, and allowed the region to turn into a net exporter of capital. It then considers the factors behind this reduction in postcrisis corporate investment. While weaker firm-level fundamentals in the postcrisis period
seem to explain part of the drop in investment rates, ongoing re-structuring owing to large debts accumulated and excess investment undertaken in the run-up to the crisis has been the main source of restraint postcrisis corporate investment. The results suggest that even after a decade, the effect of the financial crisis is still affecting corporate investment decisions in emerging Asia, and that as the restructuring completes its course, investment rates will likely rise to contribute to a gradual reduction in the region's current account surpluses.

0518 **Fung, K.C., et al., *China and Central and Eastern European Countries: Regional Networks, Global Supply Chain, or International Competitors*, World Bank, August 2008. 43pp.**

China has emerged as one of the world's leading recipients of foreign direct investment (FDI). Meanwhile, the successful transition experience of many Central and Eastern

European countries (CEECs) also enables them to attract an increasing share of global foreign investment, particularly from the European Union (EU). This paper conceptualizes the relationship according to three alternative paradigms: 1) China and the CEECs each exist in its own regional production network, with no linkage between FDI flows into China and into CEECs; 2) China and the CEECs together comprise a global production network, so that FDI into China is positively related to FDI into CEECs; and 3) FDI into China is a substitute for FDI into the CEECs, so that the correlation between them is negative. This paper employs panel data to study this issue in detail. Specifically, it compares empirical estimates for 15 CEECs over the 15-year period 1990-2004 using four different econometric approaches: FGLS with Random effects, FGLS with fixed effects, EC2SLS and GMM. The result supports the conclusion that China's inward FDI does not crowd out CEECs' inward FDI. In fact, it shows that in some circumstances FDI flows in these two regions are moderately complementary. In addition, the analysis confirms the importance for FDI flows of recipient-country characteristics such as market size, degree of trade liberalization and labor quality, as well as a healthy global capital market.

0561 **Korniotis, George M., and Alok Kumar, *Do Behavioral Biases Adversely Affect the Macro-Economy*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 12, 2008. 55pp.**

This study investigates whether the adverse effects of investors' behavioral biases extend beyond the domain of financial markets to the broad macro-economy. It focuses on the risk sharing (or income smoothing) role of financial markets and demonstrate that risk sharing levels are higher in U.S. states in which investors have higher cognitive abilities and exhibit weaker behavioral biases. Further, states with better risk sharing opportunities achieve higher levels of risk sharing if investors in those states exhibit greater financial sophistication. Among the various determinants of risk sharing, behavioral factors have the strongest effects. The average level of risk sharing in states with unsophisticated investors (= 0.121) is less than half of the average risk sharing level in states with financially sophisticated investors (= 0.308). Collectively, the evidence indicates that the high risk sharing potential of financial markets is not fully realized because the aggregate behavioral biases of individual investors impede state-level risk sharing.

0616 **Contessi, Silvio, et al., *The Cyclical Properties of Disaggregated Capital Flows*, Federal Reserve Bank of St. Louis, October 28, 2008. 75pp.**

This paper describes the second-moment properties of the components of international capital flows and their relationship to business cycle variables for 22 industrial and emerging countries. Inward flows are procyclical. Outward and net flows are countercyclical for most industrial and emerging countries, except for the G7. Results for individual flows are ambiguous except for inward FDI flows that are procyclical in industrial countries, but countercyclical in emerging countries. Using formal statistical tests, mixed evidence of changes in the covariance and correlation of capital flows with a set of macroeconomic variables in the G7 countries is found.

0691 **Contessi, Silvio, and Pierangelo De Pace, *Do European Capital Flows Comove?*, Federal Reserve Bank of St. Louis, November 2008. 28pp.**

This paper studies cross-section correlations of net, total, and disaggregated capital flows for the major source and recipient European Union countries. The authors seek evidence of changes in these correlations since the introduction of the euro to understand whether the European Union can be considered a unique entity with regard to its international capital flows. They make use of Ng's (2006) "uniform spacing" methodology to rank cross-section correlations and shed light on potential common factors driving international capital flows. They find that a common factor structure is suitable for equity flows disaggregated by sign but not for net and total flows. The authors only find mixed evidence that correlations between types of flows have changed since the introduction of the euro.

0719 **Chai, Jingqing, and Rishi Goyal, *Tax Concessions and Foreign Direct Investment in the Eastern Caribbean Currency Union*, International Monetary Fund, November 2008. 33pp.**

Tax concessions have been employed as a central component of the development strategy in the small island states comprising the Eastern Caribbean Currency Union. This paper compares the costs of concessions in terms of revenues forgone with the benefits in terms of increased foreign direct investment. The costs are very large, while the benefits appear to be marginal at best. Forgone tax revenues range between 9½ and 16 percent of GDP per year, whereas total foreign direct investment does not appear to depend on concessions. A rethinking of the use of concessions in the region is needed urgently.

0752 **Raddatz, Claudio, and Sergio L. Schmukler, *Pension Funds and Capital Market Development: How Much Bank for the Buck?*, World Bank, December 2008. 91pp.**

This paper studies the relation between institutional investors and capital market development by analyzing unique data on monthly asset-level portfolio allocations of Chilean pension funds between 1995 and 2005. The results depict pension funds as large and important institutional investors that tend to hold a large amount of bank deposits, government paper, and short-term assets; buy and hold assets in their portfolios without actively trading them; hold similar portfolios at the asset-class level; simultaneously buy and sell similar assets; and follow momentum strategies when trading. Although pension funds may have contributed to the development of certain primary markets, these patterns do not seem fully consistent with the initial expectations that pension funds would be a dynamic force driving the overall development of capital markets. The results do not appear to be explained by regulatory restrictions. Instead, asset illiquidity and manger incentives might be behind the patterns illustrated in this paper.

Labor & Employment

0844 **Hu, Luojia, and Christopher Taber, *Displacement, Asymmetric Information and Heterogeneous Human Capital*, Federal Reserve Bank of Chicago, February 2008. 40pp.**

This paper takes advantage of many years of Displaced Workers Survey (DWS) data to examine how the difference in wage losses across plant closing and layoff varies with race and gender. It finds that the differences between white males and the other groups are striking and complex. The "lemons" effect of layoff holds for white males as in the GK model, but not for the other three demographic groups (white females, black females, and black males). These three all experience a greater decline in earnings at plant closings than at layoffs. This results from two reinforcing effects. First, plant closings have substantially more negative effects on minorities than on whites. Second, layoffs seem to have more negative consequences for white men than the other groups. These findings suggest that the GK asymmetric information model is not sufficient to explain all of the data.

0884 **Rocheteau, Guillame, and Murat Tasci, *Positive and Normative Effects of a Minimum Wage*, Federal Reserve Bank of Cleveland, February 2008. 38pp.**

This paper reviews the positive and normative effects of a minimum wage in various versions of a search-theoretic model of the labor market.

0922 **Giandrea, Michael D., et al., *Self-Employment Transitions among Older American Workers with Career Jobs*, Bureau of Labor Statistics, April 10, 2008. 37pp.**

Older Americans are staying in the labor force longer than prior trends would have predicted and many change jobs later in life. These job transitions are often within the same occupation or across occupations within wage- and-salary employment. The transition can also be out of wage-and-salary work and into self employment. Indeed, national statistics show that self employment becomes more prevalent with age, partly because self employment provides older workers with opportunities not found in traditional wage-and-salary jobs, such as flexibility in hours worked and independence. This paper analyzes transitions into and out of self employment among older workers who have had career jobs. We utilize the Health and Retirement Study, a nationally-representative dataset of older Americans, to investigate the prevalence of self employment among older workers who made a job transition later in life and to explore the factors that determine the choice of wage- and-salary employment or self employment. We find that post-career transitions into and out of self employment are common and that health status, career occupation, and financial variables are important determinants of these transitions. As older Americans and the country as a whole face financial strains in retirement income in the years ahead, self employment may be a vital part of the pro-work solution.

0959 **Barnichon, Regis, *Productivity, Aggregate demand and Unemployment Fluctuations*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 10, 2008. 49pp.**

This paper presents new empirical evidence on the cyclical behavior of U.S. unemployment that poses a challenge to standard search and matching models. The correlation between cyclical unemployment and the cyclical component of labor productivity switched sign in the mid 80s: from negative it became positive, while standard search models imply a negative correlation. It argues that the inconsistency arises because search models do not allow output to be demand determined in the short run, and presents a search model with nominal rigidities that can rationalize the empirical findings. In addition, it shows that the interaction of hiring frictions and nominal frictions can generate a new propagation mechanism absent in standard New-Keynesian models.

1008 **Figura, Andrew, and William Wascher, *The Causes and Consequences of Economic Restructuring: Evidence from the Early 21st Century*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, August 2008. 54pp.**

A number of industries underwent large and permanent reductions in employment growth at the beginning of this decade, a process labeled as restructuring. This paper describes how restructuring occurred and what its consequences were for the economy. In particular, it finds that restructuring stemmed largely from relative demand shocks (though technology shocks were important in some industries) and that elevated levels of permanent job destruction and permanent layoffs were distinguishing features of industries subject to restructuring. In addition, most workers displaced in restructuring industries relocated to other sectors. While this process of reallocation led to large increases in productivity (and a reduction in labor's share) in industries shedding workers, it also resulted in prolonged periods of unemployment for displaced workers. Moreover, relocating workers suffered sizable reductions in earnings, consistent with substantial losses in their specific human capital. Putting these pieces together, this paper estimates the cost of restructuring to have been between ½ and 1 percent of aggregate income per year.

REEL 9

Frame #

Labor & Employment cont.

0001 **Vidangos, Ivan, *Fluctuations in Individual Labor Income: A Panel VAR Analysis*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 9, 2008. 50pp.**

This paper studies variation in individual labor income over time using a panel vector autoregression (PVAR) in income, the wage rate, hours of work, and hours of unemployment. The framework is used to investigate how much of the residual variation in labor income is due to residual variation in the wage rate, work hours, and unemployment hours. It also explores the dynamic effects of unanticipated changes in each of the variables in the system, investigate their interactions, and assess their contribution to short-run and long-run income movements. The model is estimated on a sample of male household heads from the Panel Study of Income Dynamics (PSID). It finds that innovations in the wage rate and work hours (conditional on unemployment) are about equally important in the short run. Wage innovations are very persistent, while the effect of changes in hours is mostly transitory. As a result, the wage rate is much more important in the determination of income movements in the long run. Innovations in unemployment have a relatively small, but very persistent effect on income which operates through the wage rate.

0051 **Shan, Hui, *Property Taxes and Elderly Labor Supply*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 16, 2008. 45pp.**

The housing market boom in the U.S. caused sharp increases in residential property taxes. Anecdotal evidence suggests that rising property taxes have induced elderly homeowners to increase their labor supply. This paper uses 1992-2004 panel data from the Health and Retirement Study (HRS) as well as a newly collected dataset on state-provided property tax relief programs to investigate the effect of property taxes on the labor supply of elderly homeowners. It is the first rigorous study on the link between property taxes and elderly labor supply. It examines both the extensive margin - whether elderly homeowners delay retirement or reenter the labor market in the face of rising property taxes, and the intensive margin - whether elderly homeowners work longer hours when property taxes increase. A simulated IV approach is used to address the potential endogeneity problem associated with property taxes. It finds little evidence that property taxes have a significant impact on elderly homeowners' decisions to retire, to re-enter the labor force, or to increase working hours.

0096 **Mach, Traci L., and John A. Holmes, *The Use of Alternative Employment Arrangements by Small Businesses: Evidence from the 2003 Survey of Small Business Finances*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, September 4, 2008. 35pp.**

According to the CPS, employees in alternative work arrangements make up over 10 percent of U.S. workers. Because of the pervasiveness of these types of arrangements, it is important to understand why firms are choosing to use them. Using data from the 2003 Survey of Small Business Finances, the author's model the firm's decision to use alternative employment arrangements using a large representative sample of small businesses in the U.S. In general, our results are similar to previous establishment-level studies that have examined the use of these types of employment arrangements. However, many of these previous studies have been narrow in scope because of data limitations. This paper finds evidence to support each of the following hypotheses: 1) firms may be using alternative employment arrangements (AEA) in an attempt to generate cost savings by substituting standard employees with AEA employees when internal wages and benefit costs are high; 2) firms may be using AEA to meet irregular product demand constraints; and 3) firms may be using AEA to take advantage of economies of scale for certain tasks or services. Additionally, it presents some additional findings that add to the relatively limited establishment level literature on alternative employment arrangements.

0131 **Arseneau, David M., and Sanjay K. Chugh, *Tax Smoothing in Frictional Labor Markets*, Division of International Finance, Federal Reserve Board, November 23, 2008. 55pp.**

This paper re-examines the optimality of tax smoothing from the point of view of frictional labor markets. Its central result is that whether or not this cornerstone optimal fiscal policy prescription carries over to an environment with labor market frictions depends crucially on the cyclical nature of labor force participation. If the participation rate is exogenous at business-cycle frequencies -- as is typically assumed in the literature -- the authors show it is not optimal to smooth tax rates on labor income in the face of business-cycle shocks. However, if households do optimize at the participation margin, then tax-smoothing is optimal despite the presence of matching frictions. To understand these results, it develops a concept of general-equilibrium efficiency in search-based environments, which builds on existing (partial-equilibrium) search-efficiency conditions. Using this concept, the authors develop a notion of search-based labor-market wedges that allows us to trace the source of the sharply-contrasting fiscal policy prescriptions to the value of adjusting participation rates. The paper's results demonstrate that policy prescriptions can be very sensitive to the cyclical nature of labor-force participation in search-based environments.

0186 **Bradbury, Katharine, and Jane Katz*, The Responsiveness of Married Women's Labor Force Participation to Income and Wages: Recent Changes and Possible Explanations*, Federal Reserve Bank of Boston, November 25, 2008. 59pp.**

One contributor to the twentieth century rise in married women's labor force participation was declining responsiveness to husbands' wages and other family income. Now that the rapid rise in married women's participation has slowed and even begun to reverse, this paper asks whether married women's cross-wage elasticities have continued to fall. Using the outgoing rotation group of the monthly Current Population Survey (CPS) and estimating coefficients separately for each year from 1994 through 2006, the authro's find that the decline in responsiveness to husbands' wages has come to an end—at least for the time being—and even find evidence of rising responsiveness to husbands' wages. This increase in the cross-wage elasticity of participation occurs largely between 1997 and 2002 and is concentrated among younger women and women with children. It also explores a number of possible explanations for this development and concludes that declining divorce rates, rising child care costs, and the increasing prevalence of high work hours for high pay—all of which were more pronounced at the high end of the income distribution—along with rising income inequality may have played a role. Also possible is that some of the decline is an artifact of changes in the tax system and the way income is measured. In addition, this paper observes some backsliding in attitudes supportive of gender equality in the market and at home, and perhaps a change in lifecycle timing among Generation X women.

0245 **Aaronson, Daniel, et al., *The Spending and Debt Response to Minimum Wage Hikes*, Federal Reserve Bank of Chicago, December 29, 2008. 58pp.**

This paper presents evidence that spending increases more than income, and thus debt rises, in households with minimum wage workers following a minimum wage hike. Furthermore, it shows that the size, timing, persistence, and composition of spending is inconsistent with the basic certainty equivalent life cycle model. However, the findings are consistent with a model where households can borrow against part of the value of their durable goods.

0303 **Brown, J. David, et al., *Undocumented Worker Employment and Firm Survivability*, Federal Reserve Bank of Atlanta, December 2008. 39pp.**

Using administrative data from the state of Georgia, this paper investigates the incidence of undocumented worker employment across firms and how it affects firm survival. Firms are found to engage in herding behavior, being more likely to employ undocumented workers if competitors do. Rivals' undocumented employment harms firms' ability to survive while firms' own undocumented employment strongly enhances their survival prospects. This finding suggests that firms enjoy cost savings from employing lower-paid undocumented at workers wages less than their marginal revenue product. The herding behavior and competitive effects are found to be much weaker in geographically broad product markets, where firms have the option to shift labor-intensive production out of state or abroad.

Macroeconomic News Reporting

0342 **Robitaille, Patrice, and Jennifer Roush, *How Do FOMC Actions and U.S. Macroeconomic Data Announcements Move Brazilian Sovereign Yield Spreads and Stock Prices?* Division of International Finance, Federal Reserve Board, September 2006. 51pp.**

This paper provides a robust structural identification of the effects of U.S. interest rates on an emerging economy's asset values. Using newly available intraday data, it investigates how surprises associated with U.S. macro data and FOMC announcements move the yield spread on a benchmark Brazilian government dollar-denominated bond and the Brazilian broad stock price index. This study covers the period February 1999 to April 2005. The authors find that FOMC announcements that lead to an increase in U.S. interest rates are associated with a systematic increase in Brazil's bond spread and a systematic decline in the stock price index. Several U.S. macro data surprises, including for nonfarm payrolls and the CPI, prompt an increase in the Brazilian bond yield spread and a fall in Brazilian share prices. These combined findings suggest that, for Brazil during this period, the financial risks of higher U.S. interest rates in response to positive news about the U.S. economy dominated any benefits through trade or other channels in the determination of Brazilian asset valuations.

0393 **Debortoli, Davide, and Ricardo Nunes, *Loose Commitment*, Division of International Finance, Federal Reserve Board, December 2007. 38pp.**

Due to time-inconsistency or policymakers' turnover, economic promises are not always fulfilled and plans are revised periodically. This fact is not accounted for in the commitment or the discretion approach. This paper considers two settings where the planner occasionally defaults on past promises. In the first setting, a default may occur in any period with a given probability. In the second, the authors make the likelihood of default a function of endogenous variables. They formulate these problems recursively, and provide techniques that can be applied to a general class of models. This method can be used to analyze the plausibility and the importance of commitment and characterize optimal policy in a more realistic environment. We illustrate the method and results in a fiscal policy application.

0431 **D'Amico, Stefania, and Athanasios Orphanides, *Uncertainty and Disagreement in Economic Forecasting*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, July 2008. 40pp.**

Using the probabilistic responses from the Survey of Professional Forecasters, this paper studies the evolution of uncertainty and disagreement associated with inflation forecasts in the United States since 1968. It compares and contrasts alternative measures summarizing the distributions of mean forecasts and forecast uncertainty across individuals at an approximate one-year-ahead horizon. In light of the heterogeneity in individual uncertainty reflected in the survey responses; the authors provide quarterly estimates for both average uncertainty and disagreement regarding uncertainty. They propose direct estimation of parametric distributions characterizing the uncertainty across individuals in a manner that mitigates errors associated with rounding and approximation of responses when individual uncertainty is small. The results indicate that higher average expected inflation is associated with both higher average inflation uncertainty and greater disagreement about the inflation outlook.

Disagreement about the mean forecast, however, may be a weak proxy for forecast uncertainty. This paper also examines the relationship of these measures with the term premia embedded in the term-structure of interest rates.

0471 **Mach, Traci L., et al., *Starting Small and Ending Big -- The Effect of Monetary Incentives on Response Rates in the 2003 Survey of Small Business Finances: An Observational Experiment*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, 2008. 27pp.**

In 2003, the Survey of Small Business Finances (SSBF), conducted by the Federal Reserve Board, implemented the use of incentives to increase response rates. This study examines the effects of some of the characteristics of the implementation - such as level of effort, time in queue, and consecutively-increasing incentive amounts - on unit response. The estimates suggest that as the number of days increase between the initial screener and main interview, the probability of completion decreases. Similarly, as the number of days increases between each consecutive incentive offer the probability of completion decreases. Additional effort, as measured by additional calls, increases the probability of completion. Finally, each consecutive offer after the initial offer decreases the probability of completion.

0498 **Beechey, Meredith J., and Jonathan H. Wright, *The High-Frequency Impact of News on Long-Term Yields and Forward Rates: Is It Real?* Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, 2008. 34pp.**

This paper uses high-frequency intradaily data to estimate the effects of macroeconomic news announcements on yields and forward rates on nominal and index-linked bonds, and on inflation compensation. It is the first study in the macro announcements literature to use intradaily real yield data, which allow the authors to parse the effects of news announcements on real rates and inflation compensation far more precisely than we can using daily data. Long-term nominal yields and forward rates are very sensitive to macroeconomic news announcements. They find that inflation compensation is sensitive to announcements about price indices and monetary policy. However, for news announcements about real economic activity, such as nonfarm payrolls, the vast majority of the sensitivity is concentrated in real rates. Accordingly, they conclude that most of the sizeable impact of news about real economic activity on the nominal term structure of interest rates represents changes in expected future real short-term interest rates and/or real risk premia rather than changes in expected future inflation and/or inflation risk premia. This suggests that explanations for the puzzling sensitivity of long-term nominal rates need to look beyond just inflation expectations and toward models that encompass uncertainty about the long-run real rate of interest.

0532 **Lahaye, Jerome, et al., *Jumps, Cojumps, and Macro Announcements*, Federal Reserve Bank of St. Louis, October 2008. 35pp.**

This paper uses recently proposed tests to extract jumps and cojumps from three types of assets: stock index futures, bond futures, and exchange rates. The authors then characterize the dynamics of these discontinuities and informally relate them to U.S. macroeconomic releases before using limited dependent variable models to formally model how news surprises explain (co)jumps. Nonfarm payroll and federal funds target announcements are the most important news across asset classes. Trade balance shocks are important for foreign exchange jumps. This paper relates the size, frequency and timing of jumps across asset classes to the likely sources of shocks and the relation of asset prices to fundamentals in the respective classes.

0567 **Demers, Elizabeth, and Clara Vega, *Soft Information in Earnings Announcements: News or Noise?* Division of International Finance, Federal Reserve Board, October 2008. 57pp.**

This paper examines whether, and under what conditions, the "soft" information contained in the text of management's quarterly earnings press releases is incrementally informative over company-issued "hard" information. The authors use several textual-analysis programs to extract various dimensions of managerial net optimism from more than 20,000 corporate earnings announcements over the period 1998 to 2006 and document that unanticipated net optimism in managers' language affects announcement period abnormal returns and predicts post-earnings announcement drift. They further find, consistent with economic theory, that two key aspects of the information environment influence the price-responsiveness to net optimism: (i) the informativeness of the contemporaneously available hard information; and (ii) the likely credibility of the net optimism itself. We also show that the second moment of soft information, the level of uncertainty in the text, attenuates the market's response to earnings announcement surprises, is associated with contemporaneous announcement period idiosyncratic volatility, and predicts future idiosyncratic volatility incrementally to "hard" information.

0624 **Kilian, Lutz, and Clara Vega, *Do Energy Prices Respond to U.S. Macroeconomic News? A Test of the Hypothesis of Predetermined Energy Prices*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, November 2008. 27pp.**

Models that treat innovations to the price of energy as predetermined with respect to U.S. macroeconomic aggregates are widely used in the literature. For example, it is common to order energy prices first in recursively identified VAR models of the transmission of energy price shocks. Since exactly identifying assumptions are inherently untestable, this approach in practice has required an act of faith in the empirical plausibility of the delay restriction used for identification. An alternative view that would invalidate such models is that energy prices respond instantaneously to macroeconomic news, implying that energy prices should be ordered last in recursively identified VAR models.This paper proposes a formal test of the identifying assumption that energy prices are predetermined with respect to U.S. macroeconomic aggregates. The test is based on regressing cumulative changes in daily energy prices on daily news from U.S. macroeconomic data releases. Using a wide range of macroeconomic news, we find no compelling evidence of feedback at daily or monthly horizons, contradicting the view that energy prices respond instantaneously to macroeconomic news and supporting the use of delay restrictions for identification.

Macroeconomics and Monetary Policy

0653 **Yeyati, Eduardo Levy, et al., *International Financial Integration through the Law of One Price*, World Bank, April 2006. 43pp.**

This paper argues that the cross-market premium (the ratio between the domestic and the international market price of cross-listed stocks) provides a valuable measure of international financial integration, reflecting accurately the factors that segment markets and inhibit price arbitrage. Applying to equity markets recent methodological developments in the purchasing power parity (PPP) literature, this paper shows that non-linear Threshold Autoregressive (TAR) models properly capture the behavior of the cross-market premium. The estimates reveal the presence of narrow non-arbitrage bands and indicate that price differences outside these bands are rapidly arbitraged away, much faster than what has been documented for good markets. Moreover, it finds that financial integration increases with market liquidity. Capital controls, when binding, contribute to segment financial markets by widening the non-arbitrage bands and making price disparities more persistent. Crisis episodes are associated with higher volatility, rather than by more persistent deviations from the law of one price.

0696 **Knotek, Edward S., II, *Regime Changes and Monetary Stagflation*, Federal Reserve Bank of Kansas City, May 2006. 39pp.**

This paper examines whether monetary shocks can consistently generate stagflation in a dynamic, stochastic setting. It assumes that the monetary authority can induce transitory shocks and longer-lasting monetary regime changes in its operating instrument. Firms cannot distinguish between these shocks and must learn about them using a signal extraction problem. The possibility of changes in the monetary regime greatly improves the ability of money to generate stagflation. This is true whether the regime actually changes or not. If the monetary regime changes on average once every ten years, stagflation occurs in 76% of model simulations. The intuition for this result is simple: increased output volatility due to learning coupled with inflation inertia produce conditions conducive to the emergence of stagflation. The incidence of stagflation can be reduced by a stable, transparent central bank.

0735 **Bodenstein, Martin, *Closing Open Economy Models*, Division of International Finance, Federal Reserve Board, August 2006. 56pp.**

Several methods have been proposed to obtain stationarity in open economy models. The author finds substantial qualitative and quantitative differences between these methods in a two-country framework, in contrast to the results of Schmitt-Grohé and Uribe (2003). In models with a debt elastic interest rate premium or a convex portfolio cost, both the steady state and the equilibrium dynamics are unique if the elasticity of substitution between the domestic and the foreign traded good is high. However, there are three steady states if the elasticity of substitution is sufficiently low. With endogenous discounting, there is always a unique and stable steady state irrespective of the magnitude of the elasticity of substitution. Similar to the model with convex portfolio costs or a debt elastic interest rate premium, though, there can be multiple convergence paths for low values of the elasticity in response to shocks.

0791 **Leduc, Sylvain, and Keith Sill, *Monetary Policy, Oil Shocks, and TFP: Accounting for the Decline in U.S. Volatility*, Division of International Finance, Federal Reserve Board, August 2006. 35pp.**

The volatility of the U.S. economy since the mid-1980s is much lower than it was during the prior 20-year period. The proximate causes of the increased stability and their relative importance remain unsettled, but the sharpness of the volatility decline and its timing has led authors such as Taylor (2000) to argue that a sudden shift in monetary policy is a prime candidate. The authors assess this claim using a calibrated stochastic dynamic general equilibrium model to quantify the contribution of monetary policy and exogenous shocks to the postwar volatility pattern for U.S. output. Their principal finding is that the change in monetary policy played a relatively small role in the postwar volatility decline, accounting for 10 to 15 percent of the drop in real output volatility. The model attributes most of the output volatility decline to smaller TFP shocks: oil shocks end up increasing volatility in the post-84 period relative to the pre-79 period. Negative oil shocks do lead to significant downturns in real output in the model, but the pattern of exogenous shocks post-84 is not different enough from the pre-79 pattern to play a meaningful role in lowering output volatility.

0826 **Scotti, Chiara, *A Bivariate Model of Fed and ECB Main Policy Rates*, Division of International Finance, Federal Reserve Board, September 2006. 41pp.**

This paper studies when and by how much the Fed and the ECB change their target interest rates. It develops a new nonlinear bivariate framework, which allows for elaborate dynamics and potential interdependence between the two countries, as opposed to linear feedback rules, such as a Taylor rule, and it uses a novel real-time data set. A Bayesian estimation approach is particularly well suited to the small data sample. Empirical results support synchronization between the central banks and non-zero correlation between magnitude shocks, but they do not support follower behavior. Institutional factors and inflation represent relevant variables for timing decisions of both banks. Inflation rates are important factors for magnitude decisions, while output plays a major role in U.S. magnitude decisions.

0867 **Davig, Troy, and Eric Leeper, *Endogenous Monetary Policy Regime Change*, Federal Reserve Bank of Kansas City, September 2006. 37pp.**

This paper makes changes in monetary policy rules (or regimes) endogenous. Changes are triggered when certain endogenous variables cross specified thresholds. Rational expectations equilibria are examined in three models of threshold switching to illustrate that (i) expectations formation effects generated by the possibility of regime change can be quantitatively important; (ii) symmetric shocks can have asymmetric effects; (iii) endogenous switching is a natural way to formally model preemptive policy actions. In a conventional calibrated model, preemptive policy shifts agents' expectations, enhancing the ability of policy to offset demand shocks; this yields a quantitatively significant "preemption dividend.".

0904 **Aruoba, S. Boragan, and Sanjay K. Chugh, *Optimal Fiscl and Monetary Policy When Money is Essential*, Division of International Finance, Federal Reserve Board, October 6, 2006. 49pp.**

This paper studies optimal fiscal and monetary policy in an environment where explicit frictions give rise to valued money, making money essential in the sense that it expands the set of feasible trades. The main results are in stark contrast to the prescriptions of earlier flexible-price Ramsey models. Two especially important findings emerge from our work: the Friedman Rule is typically not optimal and inflation is stable over time. Inflation is not a substitute instrument for a missing tax, as is sometimes the case in standard Ramsey models. Rather, the inflation tax is exactly the right tax to use because the use of money has a rent associated with it. Regarding the optimal dynamic policy, realized (ex-post) inflation is quite stable over time, in contrast to the very volatile ex-post inflation rates that arise in standard flexible-price Ramsey models. The authors also find that because capital is underaccumulated, optimal policy includes a subsidy on capital income. Taken together, these findings turn conventional wisdom from traditional Ramsey monetary models on its head.

0953 **Hausman, Joshua, and Jon Wongswan, *Global Asset Prices and FOMC Announcements*, Division of International Finance, Federal Reserve Board, November 2006. 58pp.**

This paper documents the impact of U.S. monetary policy announcement surprises on foreign equity indexes, short- and long-term interest rates, and exchange rates in 49 countries. We use two proxies for monetary policy surprises: the surprise change to the current target federal funds rate (target surprise) and the revision to the path of future monetary policy (path surprise). The authors find that different asset classes respond to different components of the monetary policy surprises. Global equity indexes respond mainly to the target surprise; exchange rates and long-term interest rates respond mainly to the path surprise; and short-term interest rates respond to both surprises. On average, a hypothetical surprise 25-basis-point cut in the federal funds target rate is associated with about a 1 percent increase in foreign equity indexes and a 5 basis point decline in foreign short-term interest rates. A surprise 25-basis-point downward revision in the path of future policy is associated with about a ½ percent decline in the exchange value of the dollar against foreign currencies and 5 and 8 basis points declines in short- and long-term interest rates, respectively. We also find that asset prices' responses to FOMC announcements vary greatly across countries, and that these cross-country variations in the response are related to a country's exchange rate regime. Equity indexes and interest rates in countries with a less flexible exchange rate regime respond more to U.S. monetary policy surprises. In addition, the cross-country variation in the equity market response is strongly related to the percentage of each country's equity market capitalization owned by U.S. investors (a financial linkage), and the cross-country variation in short-term interest rates' responses is strongly related to the share of each country's trade that is with the United States (a real linkage).

REEL 10

Frame #

Macroeconomics and Monetary Policy cont.

0001 **Giduskova, Maria, and Borja Larrain,** ***International Risk-Taking, Volatility, and Consumption Growth*****, Federal Reserve Bank of Boston, November 2006. 64pp.**

This paper shows that countries that take on more international risk are rewarded with higher expected consumption growth. International risk is defined as the beta of a country's consumption growth with world consumption growth. High-beta countries hold more foreign assets, as predicted by the theory. Despite the positive effects of beta, a country's idiosyncratic volatility is negatively correlated with expected consumption growth. Therefore, uninsured shocks affect not only current growth, but also future consumption growth. High-volatility countries have worse net foreign asset positions, suggesting that solvency constraints limit their future growth.

0065 **Claessens, Stijn, and Sergio L. Schmukler,** ***International Financial Integration through Equity Markets: Which Firms from Which Countries Go Global?*** **World Bank, March 2007. 49pp.**

This paper studies international financial integration analyzing firms from various countries raising capital, trading equity, and/or cross-listing in major world stock markets. Using a large sample of 39,517 firms from 111 countries covering the period 1989-2000, we find that, although international financial integration increases substantially over this period, only relatively few countries and firms actively participate in international markets. Firms more likely to internationalize are from larger and more open economies, with higher income, better macroeconomic policies, and worse institutional environments. These firms tend to be larger, grow faster, and have higher returns and more foreign sales. While changes occur with internationalization, these firm attributes are present before internationalization takes place. The results suggest that international financial integration will likely remain constrained by country and firm characteristics.

0114 **Curdia, Vasco,** ***Monetary Policy under Sudden Stops*****, Federal Reserve Bank of New York, March 2007. 60pp.**

This paper proposes a model to investigate the effects of monetary policy in an emerging market economy that experiences a sudden stop of capital inflows. The model features credit frictions, debt denominated in foreign currency, imported inputs, and households that have access to the international capital market only indirectly, through their ownership of leveraged firms. The sudden stop is modeled as a change in the perceptions of foreign lenders that brings about an increase in the cost of borrowing. I show that the higher the elasticity of foreign demand, the lower the contraction in output—leading, at the extreme, to the possibility of an expansion, depending on policy. A second result is that the recession is most severe in a fixed exchange rate regime. Taylor rules that react to inflation and output are more stabilizing. 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 much stronger contraction in capital inflows and higher interest rates. Credibility is also shown to have an important role, with low credibility and the risk of loose policy implying increased trade-offs, stronger contraction of the economy, and higher interest rates.

0174 **Arseneau, David M., and Sanjay K. Chugh, *Optimal Fiscal and Monetary Policy with Costly Wage Bargaining*, Division of International Finance, Federal Reserve Board, April 2007. 54pp.**

Costly nominal wage adjustment has received renewed attention in the design of optimal policy. In this paper, the authors embed costly nominal wage adjustment into the modern theory of frictional labor markets to study optimal fiscal and monetary policy. The main result is that the optimal rate of price inflation is highly volatile over time despite the presence of sticky nominal wages. This finding contrasts with results obtained using standard sticky-wage models, which employ Walrasian labor markets at their core. The presence of shared rents associated with the formation of long-term employment relationships sets our model apart from previous work on this topic. The existence of rents implies that the optimal policy is willing to tolerate large fluctuations in real wages that would otherwise not be tolerated in a standard model with Walrasian labor markets; as a result, any concern for stabilizing nominal wages does not translate into a concern for stabilizing nominal prices. This model also predicts that smoothing of labor tax rates over time is a much less quantitatively-important goal of policy than standard models predict. The results demonstrate that the level at which nominal wage rigidity is modeled - whether simply lain on top of a Walrasian market or articulated in the context of an explicit relationship between workers and firms - can matter a great deal for policy recommendations.

0228 **Siu, Henry E., *Time Consistent Monetary Policy with Endogenous Price Rigidity*, Federal Reserve Bank of Minneapolis, April 2007. 43pp.**

The author characterizes time consistent equilibrium in an economy with price rigidity and an optimizing monetary authority operating under discretion. Firms have the option to increase their frequency of price change, at a cost, in response to higher inflation. Previous studies, which assume a constant degree of price rigidity across inflation regimes, find two time consistent equilibria - one with low inflation, the other with high inflation. In contrast, when price rigidity is endogenous, the high inflation equilibrium ceases to exist. Hence, time consistent equilibrium is unique. This result depends on two features of the analysis: (1) a plausible quantitative specification of the fixed cost of price change, and (2) the presence of an arbitrarily small cost of inflation that is independent of price rigidity.

0271 **Bullard, James, and Aarti Singh, *Worldwide Macroeconomic Stability and Monetary Policy Rules*, Federal Reserve Bank of St. Louis, May 29, 2007. 53pp.**

This paper studies the interaction of multiple large economies in dynamic stochastic general equilibrium. Each economy has a monetary policymaker that attempts to control the economy through the use of a linear nominal interest rate feedback rule. It shows how the determinacy of worldwide equilibrium depends on the joint behavior of policymakers worldwide. It also shows how indeterminacy exposes all economies to endogenous volatility, even ones where monetary policy may be judged appropriate from a closed economy perspective. In the 1970s, worldwide equilibrium was characterized by a two-dimensional indeterminacy, despite U.S. adherence to a version of the Taylor principle. In the last 15 years, worldwide equilibrium was still characterized by a one-dimensional indeterminacy, leaving all economies exposed to endogenous volatility. The analysis provides a rationale for a type of international policy coordination, and the gains to coordination in the sense of avoiding indeterminacy may be large.

0324 **Gavin, William T., *Recent Developments in Monetary Macroeconomics and U.S. Dollar Policy*, Federal Reserve Bank of St. Louis, June 2007. 14pp.**

This paper summarizes recent developments in the theory and practice of monetary policy in a closed economy and explains what these developments mean for United States dollar policy. There is no conflict between what is appropriate U.S. monetary policy at home or abroad because the dollar is the world's key currency. Both at home and abroad, the main problem for U.S. policymakers is to provide an anchor for the dollar. Recent experience in other countries suggests that a solution is evolving in the use of inflation targets.

0338 **Bordo, Michael, et al., *Three Great American Disinflations*, Division of International Finance, Federal Reserve Board, June 2007. 42pp.**

This paper analyzes the role of transparency and credibility in accounting for the widely divergent macroeconomic effects of three episodes of deliberate monetary contraction: the post-Civil War deflation, the post-WWI deflation, and the Volcker disinflation. Using a dynamic general equilibrium model in which private agents use optimal filtering to infer the central bank's nominal anchor, the authors demonstrate that the salient features of these three historical episodes can be explained by differences in the design and transparency of monetary policy, even without any time variation in economic structure or model parameters. For a policy regime with relatively high credibility, our analysis highlights the benefits of a gradualist approach (as in the 1870s) rather than a sudden change in policy (as in 1920-21). In contrast, for a policy institution with relatively low credibility (such as the Federal Reserve in late 1980), an aggressive policy stance can play an important signalling role by making the policy shift more evident to private agents.

0380 **Arseneau, David M., and Sanjay K. Chugh, *Bargaining, Fairness, and Price Rigidity in a DSGE Environment*, Division of International Finance, Federal Reserve Board, July 31, 2007. 71pp.**

A growing body of evidence suggests that an important reason why firms do not change prices nearly as much as standard theory predicts is out of concern for disrupting ongoing customer relationships because price changes may be viewed as unfair. Existing models that try to capture this concern regarding price-setting are all based on goods markets that are fundamentally Walrasian. In Walrasian goods markets, transactions are spot, making the idea of ongoing customer relationships somewhat difficult to understand. This paper develops a simple dynamic general equilibrium model of a search-based goods market to make precise the notion of a customer as a repeat buyer at a particular location. In this environment, the transactions price plays a distributive role as well as an allocative role. It exploits this distributive role of prices to explore how concerns for fairness influence price dynamics. Using pricing schemes with bargaining-theoretic foundations, it shows that the particular way in which a fair outcome is determined matters for price dynamics. The most stark result is that the complete price stability can arise endogenously. There are issues about which models based on standard Walrasian goods markets are silent.

0451 **Nakov, Anton, and Andrea Pescatori, *Oil and the Great Moderation*, Federal Reserve Bank of Cleveland, November 2007. 28pp.**

This paper assesses the extent to which the great U.S. macroeconomic stability since the mid-1980s can be accounted for by changes in oil shocks and the oil share in GDP. To do this the authors estimate a DSGE model with an oil-producing sector before and after 1984 and perform counterfactual simulations. They nest two popular explanations for the Great Moderation: (1) smaller (non-oil) real shocks; and (2) better monetary policy. They find that the reduced oil share accounted for as much as one-third of the inflation moderation, and 13% of the growth moderation, while smaller oil shocks accounted for 11% of the inflation moderation and 7% of the growth moderation. This notwithstanding, better monetary policy explains the bulk of the inflation moderation, while most of the growth moderation is explained by smaller TFP shocks.

0479 **Erceg, Christopher J., et al., *The Transmission of Domestic Shocks in Open Economies*, Division of International Finance, Federal Reserve Board, November 2007. 70pp.**

This paper uses an open economy DSGE model to explore how trade openness affects the transmission of domestic shocks. For some calibrations, closed and open economies appear dramatically different, reminiscent of the implications of Mundell-Fleming style models. However, stark differences hinge on calibrations that impose an implausibly high trade price elasticity and Frisch elasticity of labor supply. Overall, the results suggest that the main effects of openness are on the composition of expenditure, and on the wedge between consumer and domestic prices, rather than on the response of aggregate output and domestic prices.

0549 **Durdu, Ceyhun Bora, et al., *Precautionary Demand for Foreign Assets in Sudden Stop Economies: An Assessment of the New Mercantilism*, Division of International Finance, Federal Reserve Board, December 2007. 37pp.**

Financial globalization had a rocky start in emerging economies hit by Sudden Stops. Foreign reserves have grown very rapidly since then, as if those countries were practicing a New Mercantilism that views foreign reserves as a war-chest for defense against Sudden Stops. This paper conducts a quantitative assessment of this argument using a stochastic intertemporal equilibrium framework in which precautionary foreign asset demand is driven by output variability, financial globalization, and Sudden Stop risk. In this framework, credit constraints produce endogenous Sudden Stops. This paper finds that financial globalization and Sudden Stop risk can explain the surge in reserves but output variability cannot. These results hold using the intertemporal preferences of the Bewley-Aiyagari-Hugget precautionary savings model or the Uzawa-Epstein setup with endogenous impatience.

0586 **Bastani, Houtan, and Luca Guerrieri, *On the Application of Automatic Differentiation to the Likelihood Function for Dynamic General Equilibrium Models*, Division of International Finance, Federal Reserve Board, February 2008. 18pp.**

A key application of automatic differentiation (AD) is to facilitate numerical optimization problems. Such problems are at the core of many estimation techniques, including maximum likelihood. As one of the first applications of AD in the field of economics, the authors used Tapenade to construct derivatives for the likelihood function of any linear or linearized general equilibrium model solved under the assumption of rational expectations. They view their main contribution as providing an important check on finite-difference (FD) numerical derivatives. They also construct Monte Carlo experiments to compare maximum-likelihood estimates obtained with and without the aid of automatic derivatives. This paper finds that the convergence rate of our optimization algorithm can increase substantially when AD derivatives are used.

0604 **Gruber, Joseph W., and Steven B. Kamin, *Do Differences in Financial Development Explain the Global Pattern of Current Account Imbalances?* Division of International Finance, Federal Reserve Board, March 2008. 68pp.**

This paper addresses the popular view that differences in financial development explain the pattern of global current account imbalances. One strain of thinking explains the net flow of capital from developing to industrial economies on the basis of the industrial economies' more advanced financial systems and correspondingly more attractive assets. A related view addresses why the United States has attracted the lion's share of capital flows from developing to industrial economies; it stresses the exceptional depth, breadth, and safety of U.S. financial markets.

0672 **Teles, Pedro, et al., *Optimal Fiscal and Monetary Policy: Equivalence Results*, Federal Reserve Bank of Minneapolis, April 2008. 44pp.**

This paper analyzes the implications of price setting restrictions for the conduct of cyclical fiscal and monetary policy. The authors consider an environment with monopolistic competitive firms, a shopping time technology, prices set one period in advance, and government expenditures that must be financed with distortionary taxes. They show that the sets of (frontier) implementable allocations are the same indepedendently of the degree of price stickiness. Furthermore, the sets of policies that decentralize each allocation are also the same except in the extreme cases of flexible and sticky prices, where the sets are larger.

0716 **Kramer, Charles F., et al., *Challenges to Monetary Policy from Financial Globalization: The Case of India*, International Monetary Fund, May 2008. 43pp.**

The question of how India should adapt monetary policy to ongoing financial globalization has gained prominence with the recent surge in capital inflows. This paper documents the degree to which India has become financially globalized, both in absolute terms and relative to emerging and developed countries. The authors find that despite a relatively low degree of openness, India's domestic monetary conditions are highly influenced by global factors. They then review the experiences of countries that have adapted to financial globalization, drawing lessons for India. While this paper finds no strong relationship between the degree of stability in monetary conditions and the broad monetary policy regime, the findings suggest that improvements in monetary operations and communication - sometimes prompted by a shift to an IT regime - have helped stabilize broader monetary conditions. In addition, the experience of countries which used non-standard instruments suggests that room to regulate capital flows effectively through capital controls diminishes as financial integration increases.

0759 **Kuester, Keith, and Volker Wieland,** ***Insurance Policies for Monetary Policy in the Euro Area*****, Federal Reserve Bank of Philadelphia, May 6, 2008. 47pp.**

This paper aims to design a monetary policy for the euro area that is robust to the high degree of model uncertainty at the start of monetary union and allows for learning about model probabilities. To this end, the authors compare and ultimately combine Bayesian and worst-case analysis using four reference models estimated with pre-EMU synthetic data. They start by computing the cost of insurance against model uncertainty, that is, the relative performance of worst-case or minimax policy versus Bayesian policy. While maximum insurance comes at moderate costs, the paper highlights three shortcomings of this worst-case insurance policy: (i) prior beliefs that would rationalize it from a Bayesian perspective indicate that such insurance is strongly oriented toward the model with highest baseline losses; (ii) the minimax policy is not as tolerant of small perturbations of policy parameters as the Bayesian policy; and (iii) the minimax policy offers no avenue for incorporating posterior model probabilities derived from data available since monetary union. Thus, the authors propose preferences for robust policy design that reflect a mixture of the Bayesian and minimax approaches. They show how the incoming EMU data may then be used to update model probabilities, and investigate the implications for policy.

0806 **Strum, Brad E.,** ***Monetary Policy in a Forward-Looking Input-Output Economy*****, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, June 23, 2008. 43pp.**

This paper examines the implications for monetary policy of sticky prices in both final and intermediate goods in a New Keynesian model. Both optimal policy under commitment and discretionary policy, which is the minimization of a simple loss function, are studied. Consumer utility losses under alternative simple loss functions are compared, including their robustness to model and shock misperceptions, and parameter uncertainty. Targeting inflation in both consumer and intermediate goods performs better than targeting a single price index; price-level targeting of both consumer and intermediate goods prices performs significantly better. Moreover, targeting prices in both sectors yields superior robustness properties.

0849 **Saxton, Jim,** ***The U.S. Housing Bubble and the Global Financial Crisis: Vulnerabilities of the Alternative Financial System*****, Joint Economic Committee, June 2008. 58pp.**

This study identifies the microeconomic causes that contributed to this credit expansion and then explains how stress in U.S. housing and housing-related finance caused a global financial crisis. Essentially, an alternative financial system based on securitization and highly leveraged non-depository financial institutions now performs the same the economically vital, but inherently risky functions of intermediation and liquidity and maturity transformation that banks traditionally performed. However, this alternative financial system, which is largely outside of the regulatory and supervisory framework necessary to contain financial contagion, proved vulnerable to a modern version of 19th century bank runs. Three misaligned private incentives in this alternative financial system and two regulatory factors contributed to the inflation of housing bubble, while two regulatory factors aggravated the global financial crisis once the bubble popped.

0907 **Labonte, Marc, and Mindy Levitt, *Financing Issues and Economic Effects of American Wars*, Congressional Research Service, July 29, 2008. 21pp.**

The increased government outlays associated with wars can be financed in four ways: through higher taxes, reductions in other government spending, government borrowing from the public, or money creation. The first two methods are unlikely to have an effect on economic growth (aggregate demand) in the short run: the expansion in aggregate demand caused by greater military outlays is offset by the contraction in aggregate demand caused by higher taxes or lower non-military government spending. The latter two methods increase aggregate demand. Thus, a by-product of American wars has typically been a wartime economic boom in excess of the economy's sustainable rate of growth. Wars may shift resources from nonmilitary spending to military spending, but because military spending is included in GDP, it is unlikely to lead to a recession. Just as wars typically boost aggregate demand, the reduction in defense expenditures after a war removes some economic stimulus as the economy adjusts to the return to peacetime activities.

0928 **Nunes, Ricardo, and Davide Debortoli, *Political Disagreement, Lack of Commitment and the Level of Debt*, Division of International Finance, Federal Reserve Board, July 2008. 43pp.**

This paper analyzes how public debt evolves when successive policymakers have different policy goals and cannot make credible commitments about their future policies. It considers several cases to be able to disentangle and quantify the respective effects of imperfect commitment and political disagreement. Absent political turnover, imperfect commitment drives the long-run level of debt to zero. With political disagreement, debt is a sizeable fraction of GDP and increasing in the degree of polarization among parties, no matter the degree of commitment. The frequency of political turnover does not produce quantitatively relevant effects. These results are consistent with much of the existing empirical evidence. Finally, the authors find that in the presence of political disagreement the welfare gains of building commitment are lower.

0971 **Kumhof, Michael, et al., *Simple Monetary Rules Under Fiscal Dominance,* Division of International Finance, Federal Reserve Board, July 2008. 31pp.**

This paper asks whether an aggressive monetary policy response to inflation is feasible in countries that suffer from fiscal dominance, as long as monetary policy also responds to fiscal variables. The authors find that if nominal interest rates are allowed to respond to government debt, even aggressive rules that satisfy the Taylor principle can produce unique equilibria. But following such rules results in extremely volatile inflation. This leads to very frequent violations of the zero lower bound on nominal interest rates that make such rules infeasible. Even within the set of feasible rules the optimal response to inflation is highly negative, and more aggressive inflation fighting is inferior from a welfare point of view. The welfare gain from responding to fiscal variables is minimal compared to the gain from eliminating fiscal dominance.

1002 **Diebold, Francis X., and Kamil Yilmaz, *Measuring Financial Asset Return and Volatility Spillovers, with Application to Global Equity Markets*, Federal Reserve Bank of Philadelphia, August 2008. 20pp.**

This paper provides a simple and intuitive measure of interdependence of asset returns and/or volatilities. In particular, the authors formulate and examine precise and separate measures of return spillovers and volatility spillovers. The framework facilitates study of both non-crisis and crisis episodes, including trends and bursts in spillovers; both turn out to be empirically important. In particular, in an analysis of 19 global equity markets from the early 1990s to the present, the authors find striking evidence of divergent behaviour in the dynamics of return spillovers vs. volatility spillovers: return spillovers display a gently increasing trend but no bursts, whereas volatility spillovers display no trend but clear bursts.

REEL 11

Frame #

Macroeconomics and Monetary Policy cont.

0001 **Gozzi, Juan Carlos, et al., *Patterns of International Capital Raisings*, World Bank, August 2008. 56pp.**

This paper documents several new patterns associated with firms issuing securities in foreign markets that motivate the need for and help guide future research. Besides noting that these international capital raisings grew almost four-fold from 1991 to 2005, accounting for 35 percent of all capital raised through security issuances, the paper has three main findings. First, a large and growing fraction of capital raisings, especially debt issuances, occurs in international markets, but a very small number of firms accounts for the bulk of international capital raisings, highlighting the distributional implications of financial globalization. Second, changes in firm performance following equity and debt issuances in international markets are qualitatively similar to those following domestic issuances, suggesting that capital raisings abroad are not intrinsically different from domestic ones. Third, after firms start accessing international markets, they significantly increase the amount raised in domestic markets, suggesting that international and domestic markets are complements.

0057 **Ericsson, Neil R., and Steven B. Kamlin, *Constructive Data Mining: Modeling Argentine Broad Money Demand*, Division of International Finance, Federal Reserve Board, September 2008. 30pp.**

This paper assesses the empirical merits of PcGets and Autometrics -- two recent algorithms for computer-automated model selection -- using them to improve upon Kamin and Ericsson's (1993) model of Argentine broad money demand. The selected model is an economically sensible and statistically satisfactory error correction model, in which cointegration between money, inflation, the interest rate, and exchange rate depreciation depends on the inclusion of a "ratchet" variable that captures irreversible effects of inflation. Short-run dynamics differ markedly from the long run. Algorithmically-based model selection complements opportunities for the researcher to contribute value added in the empirical analysis.

0087 **Debortoli, Davide, and Ricardo Nunes, *The Marcoeconomic Effects of External Pressures on Monetary Policy,* Division of International Finance, Federal Reserve Board, September 2008. 42pp.**

Central banks, whether independent or not, may occasionally be subject to external pressures to change policy objectives. This paper analyzes the optimal response of central banks to such pressures and the resulting macroeconomic consequences. It considers several alternative scenarios regarding policy objectives, the degree of commitment and the timing of external pressures. The possibility to adopt more liberal objectives in the future increases current inflation through an accommodation effect. Simultaneously, the central bank tries to anchor inflation by promising to be even more conservative in the future. The immediate effect is an output contraction, the opposite of what the pressures to adopt more liberal objectives may be aiming. We also discuss the opposite case, where objectives may become more conservative in the future, which may be the relevant case for countries considering the adoption of inflation targeting.

0129 **Eusepi, Stefano, and Bruce Preston, *Stabilizing Expectations under Monetary and Fiscal Policy Coordination*, Federal Reserve Bank of New York, September 2008. 60pp.**

This paper analyzes how the formation of expectations constrains monetary and fiscal policy design. Economic agents have imperfect knowledge about the economic environment and the policy regime in place. Households and firms learn about the policy regime using historical data. Regime uncertainty substantially narrows, relative to a rational expectations analysis of the model, the menu of policies consistent with expectations stabilization. When agents are learning about the policy regime, there is greater need for policy coordination: the specific choice of monetary policy limits the set of fiscal policies consistent with macroeconomic stability - and simple Taylor-type rules frequently lead to expectations-driven instability. In contrast, non-Ricardian fiscal policies combined with an interest rate peg promote stability. Resolving uncertainty about the prevailing monetary policy regime improves stabilization policy, enlarging the menu of policy options consistent with stability. However, there are limits to the benefits of communicating the monetary policy regime: the more heavily indebted the economy, the greater is the likelihood of expectations-driven instability. More generally, regardless of agents' knowledge of the policy regime, when expectations are anchored in the long term, short-term dynamics display greater volatility than under rational expectations.

0189 **Hornbeck, J. F., *The U.S. Financial Crisis: Lessons from Chile,* Congressional Research Service, September 29, 2008. 6pp.**

From 1981-1984, Chile experienced a banking crisis that in relative terms had a cost comparable in size to that perhaps facing the U.S. today. The Chilean Central Bank acted quickly and decisively in three ways to restore faith in the credit markets. It restructured firm and household loans, purchased nonperforming loans temporarily, and facilitated the sale or liquidation of insolvent financial institutions. These three measures increased liquidity in the credit markets and restored the balance sheets of the viable financial institutions. This report explores this incident in detail and in relation to the current financial situation in the U.S.

0195 **Ammer, John, et al., *Do Fundamentals Explain the International Impact of U.S. Interest Rates? Evidence at the Firm Level*, Division of International Finance, Federal Reserve Board, October 2008. 46pp.**

This paper analyzes the impact of U.S. monetary policy announcement surprises on U.S. and foreign firm-level equity prices. The authors find that U.S. monetary policy has important influences on foreign equity prices on average, but with considerable variation across firms. They have found that this differing response reflects a range of factors, including the extent of a foreign firm's exposure to U.S. demand, its dependence on external financing, the behavior of interest rates in its home country, and its sensitivity to portfolio adjustment by U.S. investors. The cross-firm variation in the response is correlated with the firm's CAPM beta; but it cannot fully explain this variation. More generally, they see these results as shedding some additional light on the nature and extent of the monetary and financial linkages between the U.S. and the rest of the world. In particular, since they are able to explain differences across foreign firms' responses through established theories of monetary transmission, the results are consistent with the surprisingly large average foreign response to U.S. rates reflecting fundamentals, rather than an across-the-board behavioral over-reaction.

0241 **Chari, V.V., et al., *Facts and Myths about the Financial Crisis of 2008*, Federal Reserve Bank of Minneapolis, October 2008. 41pp.**

The U.S. is indisputably undergoing a financial crisis and is perhaps headed for a deep recession. This paper examines three claims about the way the financial crisis is affecting the economy as a whole and argue that all three claims are myths. It also presents three underappreciated facts about how the financial system intermediates funds between households and corporate businesses.Conventional analyses of the financial crisis focus on interest rate spreads. The authors argue that such analyses may lead to mistaken inferences about the real costs of borrowing and argue that, during financial crises, variations in the levels of nominal interest rates might lead to better inferences about variations in the real costs of borrowing. Moreover, they argue that even if current increase in spreads indicate increases in the riskiness of the underlying projects, by itself, this increase does not necessarily indicate the need for massive government intervention. They call for policymakers to articulate the precise nature of the market failure they see, to present hard evidence that differentiates their view of the data from other views which would not require such intervention, and to share with the public the logic and evidence that burnishes the case that the particular intervention they are advocating will fix this market failure.

0282 **Yeyati, Eduardo Levy, et al., *Crises, Capital Controls, and Financial Integration*, World Bank, November 2008. 37pp.**

This paper analyzes the effects of capital controls and crises on financial integration, using stocks from emerging economies that trade in both domestic and international markets. The cross market premium provides a valuable measure of how capital controls and crises affect international financial integration. The paper shows that capital controls affect cross market premium in a sustainable way. Controls on capital inflows put downward pressure on domestic markets relative to international ones, generating a negative premium. The opposite happens in case of capital outflows. Crises affect financial integration by generating more volatility in the premium and putting more downward pressure on domestic prices.

0319 **Beltran, Daniel O., and David Draper, *Estimating the Parameters of a Small Open Economy DSGE Model: Identifiability and Inferential Validity*, Division of International Finance, Federal Reserve Board, November 2008. 38pp.**

This paper estimates the parameters of a stylized dynamic stochastic general equilibrium model using maximum likelihood and Bayesian methods, paying special attention to the issue of weak parameter identification. Given the model and the available data, the posterior estimates of the weakly identified parameters are very sensitive to the choice of priors. The authors provide a set of tools to diagnose weak identification, which include surface plots of the log-likelihood as a function of two parameters, heat plots of the log-likelihood as a function of three parameters, Monte Carlo simulations using artificial data, and Bayesian estimation using three sets of priors. They find that the policy coefficients and the parameter governing the elasticity of labor supply are weakly identified by the data, and posterior predictive distributions remind us that DSGE models may make poor forecasts even when they fit the data well. Although parameter identification is model- and data-specific, the lack of identification of some key structural parameters in a small-scale DSGE model such as the one we examine should raise a red flag to researchers trying to estimate--and draw valid inferences from--large-scale models featuring many more parameters.

0357 **Ericsson, Neil R., *The Fragility of Sensitivity Analysis: An Encompassing Perspective*, Division of International Finance, Federal Reserve Board, November 2008. 24pp.**

Robustness and fragility in Leamer's sense are defined with respect to a particular coefficient over a class of models. This paper shows that inclusion of the data generation process in that class of models is neither necessary nor sufficient for robustness. This result holds even if the properly specified model has well-determined, statistically significant coefficients. The encompassing principle explains how this result can occur. Encompassing also provides a link to a more common-sense notion of robustness, which is still a desirable property empirically; and encompassing clarifies recent discussion on model averaging and the pooling of forecasts.

0381 **Eitelman, Paul S., and Justin T. Vitanza, *A Non-Random Walk Revisited: Short and Long-Term Memory in Asset Prices*, Division of International Finance, Federal Reserve Board, November 2008. 45pp.**

This paper tests for short and long memory in asset prices across 44 emerging and industrialized economies. Using methodology from Lo and MacKinlay (1988) and Lo (1991), the authors find that markets with a poor Sharpe ratio are more likely to reject the random walk than better performing markets. They also make a methodological contribution. Contrary to the Baillie (1996) criticism, our long memory analysis suggests that the choice of a truncation lag is not as important as one might initially believe. Tests that reject the null hypothesis tend to do so across any reasonable choice in lag.

0426 **Nanto, Dick K., et al., *The U.S. Financial Crisis: The Global Dimension with Implications for U.S. Policy*, Congressional Research Service, November 18,2008. 88pp.**

What began as a bursting of the U.S. housing market bubble and a rise in foreclosures has ballooned into a global financial crisis. Some of the largest and most venerable banks, investment houses, and insurance companies have either declared bankruptcy or have had to be rescued financially. In October 2008, credit flows froze, lender confidence dropped, and one after another the economies of countries around the world dipped toward recession. The crisis exposed fundamental weaknesses in financial systems worldwide, and despite coordinated easing of monetary policy by governments and trillions of dollars in intervention by governments and the International Monetary Fund, the crisis continues.

0514 **Daniel, Betty C., and Christos Shiamptanis, *Fiscal Policy in the European Monetary Union*, Division of International Finance, Federal Reserve Board, December 2008. 36pp.**

A country entering the EMU surrenders its monetary policy, and its debt becomes denominated in terms of a currency over which it has no direct control. A country's promise to uphold the fiscal limits in the Maastricht Treaty and the Stability and Growth Pact is implicitly a promise not to allow its fiscal stance to deteriorate to a position in which it places pressure on the central bank to forgo its price level target to finance fiscal deficits. Violation of these limits has raised questions about potential fiscal encroachment on the monetary authority's freedom to determine the price level. This paper specifies a simple model of fiscal policy in which the fiscal authority faces an upper bound on the size of its primary surplus. Policy is determined by a fiscal rule, specified as an error correction model, in which the primary surplus responds to debt and a target variable. The authors show that for the monetary authority to have the freedom to control price, the primary surplus must respond strongly enough to lagged debt. Using panel techniques that allow for unit roots and for heterogeneity and cross-sectional dependence across countries, they estimate the coefficients of the error correction model for the primary surplus in a panel of ten EMU countries over the period 1970-2006. The group mean estimate for the coefficient on lagged debt is consistent with the hypothesis that the monetary authority can control the price level in the EMU, independent of fiscal influence.

0550 **Cuevas, Alfredo, and Secil Topak, *Monetary Policy and Relative Price Shocks in South Africa and Other Inflation Targeters*, International Monetary Fund, December 2008. 25pp.**

When faced with a relative price shock, monetary authorities often aim to contain its second round effects on inflation while accepting first round effects.This paper analyzes the experience of South Africa and other inflation targeters to explore whether and when this policy prescription implies changing the monetary policy stance. Inflation targeting central banks differ on how aggressively they typically react to relative price shocks, reflecting differences in resilience of underlying inflation to such shocks. An examination of individual policy decisions reveals the importance of the broader economic context in framing the responses to relative price shocks.

0575 **Mendoza, Enrique G., *Sudden Stops, Financial Crises and Leverage: A Fisherian Deflation of Tobin's Q*, Division of International Finance, Federal Reserve Board, December 2008. 33pp.**

This paper shows that the quantitative predictions of a DSGE model with an endogenous collateral constraint are consistent with key features of the emerging markets' Sudden Stops. Business cycle dynamics produce periods of expansion during which the ratio of debt to asset values raises enough to trigger the constraint. This sets in motion a deflation of Tobin's Q driven by Irving Fisher's debt-deflation mechanism, which causes a spiraling decline in credit access and in the price and quantity of collateral assets. Output and factor allocations decline because the collateral constraint limits access to working capital financing. This credit constraint induces significant amplification and asymmetry in the responses of macro-aggregates to shocks. Because of precautionary saving, Sudden Stops are low probability events nested within normal cycles in the long run.

0608 **Jickling, Mark, *Causes of the Financial Crisis*, Congressional Research Service, January 29, 2009. 10pp.**

The current financial crisis began in August 2007, when financial stability replaced inflation as the Federal Reserve's chief concern. The roots of the crisis go back much further, and there are various views on the fundamental causes. It is generally accepted that credit standards in U.S. mortgage lending were relaxed in the early 2000s, and that rising rates of delinquency and foreclosures delivered a sharp shock to a range of U.S. financial institutions. Beyond that point of agreement, however, there are many questions that will be debated by policymakers and academics for decades. This report consists of a table that presents very briefly some of the arguments for particular causes, presents equally brief rejoinders, and includes a reference or two for further reading.

0618 **Webel, Baird, et al., *The Cost of Government Financial Interventions, Past and Present*, Congressional Research Service, January 8, 2009. 11pp.**

Between March and September 2008, the federal government intervened financially with private corporations on three occasions, resulting in the government receiving significant debt and equity considerations. The firms affected were Bear Stearns, Fannie Mae and Freddie Mac, and AIG. Dissatisfaction with the case-by-case approach to addressing the ongoing financial turmoil led Treasury to propose a more comprehensive approach on September 19, 2008. On October 3, 2008, the Emergency Economic Stabilization Act (EESA, P.L. 110-343) was signed into law, authorizing the Troubled Assets Relief Program (TARP). TARP gave Treasury the option of purchasing or insuring up to $700 billion of assets from financial firms. On October 14, 2008, Treasury announced it was shifting its focus towards direct capital injections into banks through the purchase of preferred shares.

0629 **Rocheteau, Guillaume, *A Monetary Approach to Asset Liquidity*, Federal Reserve Bank of Cleveland, January 2009. 60pp.**

This paper offers a monetary theory of asset liquidity – one that emphasizes the role of assets in payment arrangements – and it explores the implications of the theory for the relationship between assets' intrinsic characteristics and liquidity, and the effects of monetary policy on asset prices and welfare. The environment is a random-matching economy where fiat money coexists with a real asset, and no restrictions are imposed on payment arrangements. The liquidity of the real asset is endogenized by introducing an informational asymmetry in regard to its fundamental value. The model delivers the following insights. A monetary equilibrium exists irrespective of the per capita supply of the real asset, provided that inflation is not too high. The illiquidity premium paid to the real asset tends to increase as the asset becomes riskier and more abundant. Monetary policy affects the real asset's return when its quantity is not too large and inflation is in some intermediate range. The model predicts a negative relationship between inflation and the real asset's expected return.

0689 **Adrian, Tobias, and Hyun Song Shin, *Money, Liquidity, and Monetary Policy*, Federal Reserve Bank of New York, January 2009. 14pp.**

In a market-based financial system, banking and capital market developments are inseparable, and funding conditions are closely tied to fluctuations in the leverage of market-based financial intermediaries. Offering a window on liquidity, the balance sheet growth of broker-dealers provides a sense of the availability of credit. Contractions of broker-dealer balance sheets have tended to precede declines in real economic growth, even before the current turmoil. For this reason, balance sheet quantities of market-based financial intermediaries are important macroeconomic state variables for the conduct of monetary policy.

0703 **Kennickell, Arthur B., *Ponds and Streams: Wealth and Income in the U.S., 1989-2007*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, January 7, 2009. 89pp.**

Much discussion treats the working definitions of wealth and income as if they were self-evident, but definitional choices can make substantial differences in the overall picture. To provide a clear basis on which to examine family wealth and income their interrelationship, this paper begins with a basic discussion of a range of possible measures of those concepts. Using the measures developed, the paper examines the distributions of wealth and income and their joint properties using data from the 1989–2007 waves of the Survey of Consumer Finances (SCF). Among other things, the data show a complicated pattern of shifts in the wealth distribution, with clear gains across the broad middle and at the top. For income, there is a more straightforward picture of rising inequality. Over this period, wealth as a fraction of income moved up across both the distributions of wealth and income. Nonetheless, their joint copula distributions (a type of distribution with uniform margins) do not show noticeable changes over this time. The consistent pattern is that very high wealth and income and very low wealth and income go together, but in between these poles, the relationship is fairly diffuse. The paper also presents information on the composition of wealth and income over the 18-year period; the general patterns of holdings across the distributions did not change markedly, but there were some important shifts. For wealth, debt increased as a share of assets across the wealth distribution, the share of principal residences rose mainly below the median of net worth, the share of taxdeferred retirement accounts rose and the share of other financial assets declined. For income, the clearest change was a general decline in the relative importance of capital income other than that from businesses.

0792 **Kuester, Keith, et al., *The Role of Labor Markets for Euro Area Monetary Policy*, Federal Reserve Bank of Philadelphia, January 7, 2009. 58pp.**

This paper explores the role of labor markets for monetary policy in the euro area in a New Keynesian model in which labor markets are characterized by search and matching frictions. The authors first investigate to which extent a more flexible labor market would alter the business cycle behavior and the transmission of monetary policy. They find that while a lower degree of wage rigidity makes monetary policy more effective, i.e. a monetary policy shock transmits faster onto inflation, the importance of other labor market rigidities for the transmission of shocks is rather limited. Second, having estimated the model by Bayesian techniques they analyze to which extent labor market shocks, such as disturbances in the vacancy posting process, shocks to the separation rate and variations in bargaining power are important determinants of business cycle fluctuations. The results point primarily towards disturbances in the bargaining process as a significant contributor to inflation and output fluctuations. In sum, the paper supports current central bank practice which appears to put considerable effort into monitoring euro area wage dynamics and which appears to treat some of the other labor market information as less important for monetary policy.

0850 **Liu, Zheng, et al., *Sources of the Great Moderation: Shocks, Frictions, or Monetary Policy?*, Federal Reserve Bank of San Francisco, January 13, 2009. 50pp.**

This paper studies the sources of the Great Moderation by estimating a variety of medium-scale dynamic stochastic general equilibrium (DSGE) models that incorporate regime switches in shock variances and the inflation target. The best-fit model—the one with two regimes in shock variances—gives quantitatively different dynamics compared with the benchmark constant-parameter model. The estimates show that three kinds of shocks accounted for most of the Great Moderation and business-cycle fluctuations: capital depreciation shocks, neutral technology shocks, and wage markup shocks. In contrast to the existing literature, the authors find that changes in the inflation target or shocks in the investment-specific technology played little role in macroeconomic volatility. Moreover, our estimates indicate considerably fewer nominal rigidities than the literature suggests.

0900 **Dilger, Robert Jay, *States and Proposed Economic Recovery Plans*, Congressional Research Service, January 16, 2009. 16pp.**

This report examines the arguments presented by the National Conference of State Legislatures (NCSL) and the National Governors Association (NGA) to include state fiscal assistance in an economic recovery plan, several arguments to exclude state assistance from such a plan, and the implications the proposals presented by NCSL and NGA might have for the economy. It also examines issues related to the targeting of state fiscal assistance and arguments for and against including infrastructure construction projects in an economic recovery plan.

0916 **Cooney, Stephen, et al., *U.S. Motor Vehicle Industry: Federal Financial Assistance and Restructuring*, Congressional Research Service, January 30, 2009. 53pp.**

The Detroit 3 have been affected by a long-term decline in their U.S. motor vehicle sales market share, plus the impact of a general decline in U.S. motor vehicle sales in 2008 resulting from a severe constriction of credit related to problems in U.S. and global financial markets. The rise in gasoline prices in mid-2008 caused a sales decline and a structural shift in motor vehicle consumption patterns. Motor vehicle purchases fell substantially in late 2008 despite the subsequent decline in gasoline prices.

0969 **Morrison, Wayne M., *China and the Global Financial Crisis: Implications for the United States*, Congressional Research Service, February 9, 2009. 9pp.**

Over the past several years, China has enjoyed one of the world's fastest-growing economies and has been a major contributor to world economic growth. However, the current global financial crisis has significantly slowed China's economy; real gross domestic product (GDP) fell from 13.0% in 2007 to 8.0% in 2008. Several Chinese industries, particularly the export sector, have been hit hard by crisis, and millions of workers have reportedly been laid off. This situation is of great concern to the Chinese government, which views rapid economic growth as critical to maintaining social stability. China is a major economic power and holds huge amounts of foreign exchange reserves, and thus its policies could have a major impact on the global economy.

0978 **Gravelle, Jane G., et al., *Economic Stimulus: Issues and Policies*, Congressional Research Service, February 27, 2009. 23pp.**

The National Bureau of Economic Research (NBER), in December 2008, declared the economy in recession since December 2007. With the worsening performance of the economy beginning in September 2008, Congress passed and President Obama signed a much larger stimulus package composed of spending and tax cuts. The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), a $787 billion package with $286 billion in tax cuts and the remainder in spending, was signed into law on February 17, 2009. It includes spending for infrastructure, unemployment benefits, and food stamps, revenue sharing with the states, middle class tax cuts, and business tax cuts. Also in 2008 and 2009, the government intervened in specific financial markets by providing financial assistance to troubled firms and enacting legislation granting authority to the Treasury Department to purchase $700 billion in assets. The broad intervention into the financial markets was passed to avoid the spread of financial instability; but there are disadvantages, including leaving the government holding large amounts of mortgage debt.

1001 **Weiss, Martin A., *The Global Financial Crisis: The Role of the International Monetary Fund (IMF)*, Congressional Research Service, February 4, 2009. 10pp.**

This report discusses two potential roles the International Monetary Fund (IMF) may have in helping to resolve the current global financial crisis: (1) immediate crisis control through balance of payments lending to emerging market and less-developed countries and (2) increased surveillance of the global economy through better coordination with the international financial regulatory agencies.

1011 **Panousi, Vasia, and George-Marios Angeletos, *Revisiting the Supply-Side Effects of Government Spending*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, February 2009. 46pp.**

This paper revisits the macroeconomic effects of government consumption in the neoclassical growth model when agents face uninsured idiosyncratic investment risk. Under complete markets, a permanent increase in government consumption has no long-run effect on the interest rate and the capital-labor ratio, while it increases hours due to the negative wealth effect. These results are upset once we allow for incomplete markets. The same negative wealth effect now causes a reduction in risk taking and the demand for investment. This leads to a lower risk-free rate and, under certain conditions, also to a lower capital-labor ratio, and lower productivity.

REEL 12

Frame #

Macroeconomics and Monetary Policy cont.

0001 **Jackson, James K., *The Financial Crisis: Impact on and response by the European Union*, Congressional Research Service, March 9, 2009. 36pp.**

According to the most recent National Threat Assessment, the global financial crisis and its geopolitical implications pose the primary near-term security concern of the United States. Over the short run, both the EU and the United States are attempting to resolve the financial crisis while stimulating domestic demand to stem the economic downturn. These efforts have born little progress so far as the economic recession and the financial crisis have become reinforcing events, causing EU governments to forge policy responses to both crises. In addition, both the United States and the EU likely will confront the prospect of growing economic and political instability in Eastern Europe and elsewhere over the impact of the economic recession on restive populations. In the long run, the United States and the EU likely will search for a regulatory scheme that provides for greater stability while not inadvertently offering advantages to any one country or group.

Securities

0037 **Guo, Hui, and Christopher J. Neely, *Investigating the Intertemporal Risk-Return Relation in International Stock Markets with the Component GARCH Model*, Federal Reserve Bank of St. Louis, January 26, 2006. 23pp.**

This paper revisits the risk-return relation using the component GARCH model and international daily MSCI stock market data. In contrast with the previous evidence obtained from weekly and monthly data, daily data show that the relation is positive in almost all markets and often statistically significant. Likelihood ratio tests reject the standard GARCH model in favor of the component GARCH model, which strengthens the evidence for a positive risk-return tradeoff. Consistent with U.S. evidence, the long-run component of volatility is a more important determinant of the conditional equity premium than the short-run component for most international markets.

0060 **Joint Forum, *Regulatory and Market Differences: Issues and Observations*, Joint Forum, May 2006. 34pp.**

As a follow-up to the Joint Forum's 2001 paper on core principles, which was a comparison of the broad supervisory frameworks established in each of the three sectors, the objective of this initiative was to compare how those principles are applied – i.e. to compare the practices actually employed – by supervisory agencies in fulfilling their obligations in each of the sectors and in multiple regions. The Joint Forum acknowledges that there may be very good reasons for sectoral differences in regulatory approaches to the same risk. For example, the long-term nature of liabilities in a life insurance company relative to those of a bank may warrant differences in the focus of insurance and banking supervisors when they conduct reviews of firms' asset-liability management (ALM). Consequently, the Working Group did not approach this assignment in the belief that cross-sectoral convergence in regulatory approaches is desirable in every instance.

0094 **Benediktsdottir, Sigridur, *An Empirical Analysis of Specialist Trading Behavior at the New York Stock Exchange*, Division of International Finance, Federal Reserve Board, September 2006. 26pp.**

This paper presents stylized empirical facts about the trading behavior of New York Stock Exchange specialists. Specifically, the author looks at the effect of future price movements, the specialist's explicit role, and the specialist's inventory levels on specialist trading behavior. The motivation for this empirical study is to infer whether the specialist behaves like an active investor who has an information advantage which he obtains while acting as a broker for other traders. If this were the case, one would expect that the specialist would engage in a profit maximizing strategy, buying low and selling high, which is opposite to the prediction of the traditional inventory model.

0120 **Pasquariello, Paolo, and Clara Vega, *Informed and Strategic Order Flow in the Bond Markets*, Division of International Finance, Federal Reserve Board, September 2006. 46pp.**

This paper studies the role played by private and public information in the process of price formation in the U.S.Treasury bond market. To guide the analysis, the authors developed a parsimonious model of speculative trading in the presence of two realistic market frictions – information heterogeneity and imperfect competition among informed traders – and a public signal. They tested its equilibrium implications by analyzing the response of two-year, five-year, and ten-year U.S. bond yields to order flow and real-time U.S. macroeconomic news. They found strong evidence of informational effects in the U.S. Treasury bond market: unanticipated order flow has a significant and permanent impact on daily bond yield changes during both announcement and nonannouncement days. The analysis further shows that, consistent with our stylized model, the contemporaneous correlation between order flow and yield changes is higher when the dispersion of beliefs among market participants is high and public announcements are noisy.

0166 **Bauer, Gregaory H., and Clara Vega, *The Monetary Origins of Asymmetric Information in International Equity Markets*, Division of International Finance, Federal Reserve Board, September 2006. 55pp.**

Previous studies using low frequency data have found that macroeconomic shocks contribute little to international stock market covariation. However, these studies have not accounted for the presence of asymmetric information where sophisticated investors generate private information about the fundamentals that drive returns in many countries. In this paper, the authors use a new microstructure data set to identify better the effects of private and public information shocks about US monetary policy and equity returns. High-frequency private and public information shocks help forecast domestic money and equity returns over daily and weekly intervals. In addition, these shocks are components of factors that are priced in a model of the cross section of international returns. Linking private information to an important economic fundamental is useful for many domestic and international asset pricing tests.

0221 **Andersen, Torben G., et al., *Real-Time Price Discovery in Global Stock, Bond, and Foreign Exchange Markets*, Division of International Finance, Federal Reserve Board, September 2006. 34pp.**

Using a unique high-frequency futures dataset, this paper characterizes the response of U.S., German and British stock, bond and foreign exchange markets to real-time U.S. macroeconomic news. The authors find that news produces conditional mean jumps; hence high-frequency stock, bond and exchange rate dynamics are linked to fundamentals. Equity markets, moreover, react differently to news depending on the stage of the business cycle, which explains the low correlation between stock and bond returns when averaged over the cycle. Hence the results qualify earlier work suggesting that bond markets react most strongly to macroeconomic news; in particular, when conditioning on the state of the economy, the equity and foreign exchange markets appear equally responsive. Finally, this paper also documents important contemporaneous links across all markets and countries, even after controlling for the effects of macroeconomic news.

0255 **Technical Committee, IOSCO, *The Regulatory Environment for Hedge Funds: A Survey and Comparison*, International Organization of Securities Commissions, November 2006. 36pp.**

In February 2005 the IOSCO Technical Committee mandated its Standing Committee on Investment Management (SC5) to update its report on “Regulatory and Investor Protection Issues Arising from the Participation by Retail Investors in (Funds-of) Hedge funds” of 2003 (the “2003 TC Report”). SC5 was mandated to “seek to update the 2003 TC Report by mapping different approaches taken in each SC5 member jurisdiction to take account of any regulatory reforms in hedge fund regulation or in the concept of retail client as related to hedge funds. The goal of this mandate was to see if any additional work on hedge funds should be done by IOSCO.

0291 **Arteta, Carlos, and Galina Hale, *Sovereign Debt Crises and Credit to the Private Sector*, Division of International Finance, Federal Reserve Board, November 7, 2006. 41pp.**

This paper argues that, through its effect on aggregate demand and country risk premia, sovereign debt restructuring can adversely affect the private sector’s access to foreign capital markets. Using fixed effect analysis, it estimates that sovereign debt rescheduling episodes are indeed systematically accompanied by a decline in foreign credit to emerging market private firms, both during debt renegotiations and for over two years after the agreements are reached. This decline is large (over 20%), statistically significant, and robust when controlled for a host of fundamentals. The authors find that this effect is different for financial sector firms, for exporters, and for nonfinancial firms in the non–exporting sector. We also find that the effect depends on the type of debt rescheduling agreement.

0332 **Andersen, Torben G., and Luca Benzoni, *Do Bonds Span Volatility Risk in the U.S. Treasury Market? A Specification Test for Affine Term Structure Models*, Federal Reserve Bank of Chicago, December 14, 2006. 60pp.**

This paper investigates whether bonds span the volatility risk in the U.S. Treasury market, as predicted by most "affine" term structure models. To this end, the authors construct powerful and model-free empirical measures of the quadratic yield variation for a cross-section of fixed-maturity zero-coupon bonds ("realized yield volatility") through the use of high-frequency data. They find that the yield curve fails to span yield volatility, as the systematic volatility factors are largely unrelated to the cross-section of yields. The paper concludes that a broad class of affine diffusive, Gaussian-quadratic and affine jump-diffusive models is incapable of accommodating the observed yield volatility dynamics. An important implication is that the bond markets per se are incomplete and yield volatility risk cannot be hedged by taking positions solely in the Treasury bond market. We also advocate using the empirical realized yield volatility measures more broadly as a basis for specification testing and (parametric) model selection within the term structure literature.

0392 **Technical Committee, IOSCO, *Market Intermediary Management of Conflicts That Arise in Securities Offerings: Consultation Report,* International Organization of Securities Commissions, February 2007. 31pp.**

This discussion paper deals with the issue of addressing conflicts of interest that may arise when market intermediaries are involved in securities offerings, in particular the management of information flows in conflicted situations. While the discussion paper notes that legal obligations may exist in this context (whether arising from statutory, general law or industry standards), its focus is on the processes at the market intermediary that should be in place to appropriately address conflicts of interest in the offerings context.

0423 **Technical Committee, IOSCO, *International Disclosure Principles for Cross-Border Offerings and Listings of Debt Securities by Foreign Issuers: Final Report*, International Organization of Securities Commissions, March 2007. 40pp.**

IOSCO believes that the International Debt Disclosure Principles are especially pertinent given the increased volume of public offerings and listings of debt securities in the international capital markets, and the increased participation of retail investors in these markets. The purpose of these Principles is not to override existing requirements, but rather to facilitate a better understanding of issues that should be considered in developing disclosure requirements for debt securities as a means of enhancing investor protection. High quality debt disclosures facilitate investors' access to appropriate investment opportunities, as well as issuers' access to capital. The International Debt Disclosure Principles should provide useful guidance to securities regulators who are developing or reviewing their regulatory disclosure regimes for cross-border offerings and listings of debt securities.

0463 **Torre, Augusto de la, eta al., *Stock Market Development Under Globalization: Whither the Gains from Reforms?*, World Bank, April 2007. 38pp.**

Over the past decades, many countries have implemented significant reforms to foster domestic capital market development. These reforms included stock market liberalization, privatization programs, and the establishment of regulatory and supervisory frameworks. Despite the intense reform efforts, the performance of capital markets in several countries has been disappointing. To study whether reforms have had the intended effects on capital markets, the authors analyze the impact of six capital market reforms on domestic stock market development and internationalization using event studies. They find that reforms tend to be followed by significant increases in domestic market capitalization, trading, and capital raising. Reforms are also followed by an increase in the share of activity in international equity markets, with potential negative spillover effects on domestic markets.

0501 **Melecky, Martin, *Choosing the Currency Structure for Sovereign Debt: A Review of Current Approaches*, World Bank, June 2007. 36pp.**

This paper acknowledges the fact that some countries have to borrow in foreign currencies due to the various constraints they face. Starting from this point, the author reviews approaches for trying to determine the currency structure for sovereign debt, and discusses some issues inherent in these approaches. The analysis mainly focuses on the correlations of domestic fundamentals with the actual versus equilibrium exchange rate in light of the long-term perspective of a debt manager and changing exchange rate regimes. In addition, the author makes some observations on the characterization of exchange rate volatilities in the existing approaches.

0537 **Benzoni, Luca, et al., *Portfolio Choice Over the life-Cycle When the Stock and Labor Markets Are Cointegrated*, Federal Reserve Bank of Chicago, June 2007. 45pp.**

This paper studies portfolio choice when labor income and dividends are cointegrated. Economically plausible calibrations suggest young investors should take substantial short positions in the stock market. Because of cointegration the young agent's human capital electively becomes stock-like. However, for older agents with shorter times-to-retirement, cointegration does not have sufficient time to act, and thus their human capital becomes more bond-like. Together, these exacts create hump-shaped lifecycle portfolio holdings, consistent with empirical observation. These results hold even when asset return predictability is accounted for.

0582 **Kambhu, John, et al., *Hedge Funds, Financial Intermediation, and Systemic Risk*, Federal Reserve Bank of New York, July 2007. 33pp.**

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 potential market failures stemming from 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 counterparty credit risk 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 events surrounding 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.

0615 **Guidolin, Massimo, and Giovanna Nicodano, *Small Caps in International Equity Portfolios: The Effects of Variance Risk*, Federal Reserve Bank of St. Louis, July 2007. 45pp.**

This paper shows that predictable covariances between means and variances of stock returns may have a first order effect on portfolio composition. In an international asset menu that includes both European and North American small capitalization equity indices, the authors find that a three-state, heteroskedastic regime switching VAR model is required to provide a good fit to weekly return data and to accurately predict the dynamics in the joint density of returns. As a result of the non-linear dynamic features revealed by the data, small cap portfolios become riskier in bear markets, i.e. display negative co-skewness with other stock indices. Because of this property, a power utility investor ought to hold a well diversified portfolio, despite the high risk premium and Sharpe ratios offered by small capitalization stocks. On the contrary small caps command large optimal weights when the investor ignores variance risk, by incorrectly assuming joint normality of returns. These results provide the missing partial equilibrium rationale for the presence of co skewness in the empirical asset pricing models that have been proposed to explain the cross-section of stock returns.

0660 **Lagos, Ricardo, et al., *Crashes and Recoveries in Illiquid Markets*, Federal Reserve Bank of Cleveland, August 2007. 68pp.**

This paper studies the dynamics of liquidity provision by dealers during an asset market crash, described as a temporary negative shock to investors' aggregate asset demand. The authors consider a class of dynamic market settings where dealers can trade continuously with each other, while trading between dealers and investors is subject to delays and involves bargaining. They derive conditions on fundamentals, such as preferences, market structure and the characteristics of the market crash (e.g., severity, persistence) under which dealers provide liquidity to investors following the crash. The authors also characterize the conditions under which dealers' incentives to provide liquidity are consistent with market efficiency.

0728 **Guidolin, Massimo, and Giovanna Nicodano, *Managing International Portfolios with Small Capitalization Stocks*, Federal Reserve Bank of St. Louis, August 2007. 47pp.**

In the context of an international portfolio diversification problem, this paper finds that small capitalization equity portfolios become riskier in bear markets, i.e. display negative co-skewness with other stock indices and high co-kurtosis. Because of this feature, a power utility investor ought to hold a well-diversified portfolio, despite the high risk premium and Sharpe ratios offered by small capitalization stocks. On the contrary small caps command large optimal weights when the investor ignores variance risk, by incorrectly assuming joint normality of returns. The dominant factor in inducing such shifts in optimal weights is represented by the co-skewness, the predictable, time-varying covariance between returns and volatilities. The authors calculate that if an investor were to ignore co-skewness and co-kurtosis risk, he would suffer a certainty-equivalent reduction in utility equal to 300 basis points per year under the steady-state distribution for returns. The results are qualitatively robust when both European and North American small caps are introduced in the analysis. Therefore this paper offers robust evidence that predictable covariances between means and variances of stock returns may have a first order effect on portfolio composition.

0775 **Chaboud, Alain, et al., *Frequency of Observation and the Estimation of Integrated Volatility in Deep and Liquid Financial Markets*, Division of International Finance, Federal Reserve Board, September 2007. 48pp.**

Using two newly available ultrahigh-frequency datasets, this paper investigates empirically how frequently one can sample certain foreign exchange and U.S. Treasury security returns without contaminating estimates of their integrated volatility with market microstructure noise. Using the standard realized volatility estimator, it finds that one can sample dollar/euro returns as frequently as once every 15 to 20 seconds without contaminating estimates of integrated volatility; 10-year Treasury note returns may be sampled as frequently as once every 2 to 3 minutes on days without U.S. macroeconomic announcements, and as frequently as once every 40 seconds on announcement days. Using a simple realized kernel estimator, this sampling frequency can be increased to once every 2 to 5 seconds for dollar/euro returns and to about once every 30 to 40 seconds for T-note returns. These sampling frequencies, especially in the case of dollar/euro returns, are much higher than those that are generally recommended in the empirical literature on realized volatility in equity markets. The higher sampling frequencies for dollar/euro and T-note returns likely reflect the superior depth and liquidity of these markets.

0823 **Heathcote, Jonathan, and Fabrizio Perri, *The International Diversification Puzzle Is Not as Bad as You Think*, Federal Reserve Bank of Minneapolis, October 2007. 44pp.**

In simple one-good international macro models, the presence of non-diversifiable labor income risk means that country portfolios should be heavily biased toward foreign assets. The fact that the opposite pattern of diversification is observed empirically constitutes the international diversification puzzle. This paper embeds a portfolio choice decision in a frictionless two-country, two-good version of the stochastic growth model. In this environment, which is a workhorse for international business cycle research, the authors fully characterize equilibrium country portfolios. These are biased towards domestic assets, as in the data. Home bias arises because endogenous international relative price fluctuations make domestic assets a good hedge against non-diversifiable labor income risk. The authors then use this theory to link openness to trade to the level of diversification, and find that it offers a quantitatively compelling account for the patterns of international diversification observed across developed economies in recent years.

0867 **Durdu, Ceyhun Bora, *Quantitative Implications of Indexed Bonds in Small Open Economies*, Division of International Finance, Federal Reserve Board, October 2007. 43pp.**

This paper analyzes the macroeconomic implications of real-indexed bonds, indexed to the terms of trade or GDP, using a general equilibrium model of a small open economy with financial frictions. Although indexed bonds provide a hedge to income fluctuations and can thereby mitigate the effects of financial frictions, they introduce interest rate fluctuations. Because of this tradeoff, there exists a nonmonotonic relation between the degree of indexation (i.e., the percentage of the shock reflected in the return) and the benefits that these bonds introduce. When the nonindexed bond market is shut down and only indexed bonds are available, indexation strengthens the precautionary savings motive, increases consumption volatility and deepens the impact of Sudden Stops for degrees of indexation higher than a certain threshold. When the nonindexed bond market is retained, nonmonotonic relationship between the degree of indexation and the benefits of indexed bonds still remain. Degrees of indexation higher than a certain threshold lead to more volatile consumption than lower degrees of indexation. The threshold degree of indexation depends on the volatility and persistence of income shocks as well as on the relative openness of the economy.

0910 **Technical Committee, IOSCO, *Market Intermediary Management of Conflicts That Arise in Securities Offerings: Final Report*, International Organization of Securities Commissions, November 2007. 77pp.**

This Discussion Paper deals with the issue of addressing conflicts of interest that may arise when market intermediaries are involved in securities offerings, in particular the management of information flows in conflicted situations. While the Discussion Paper notes that legal obligations may exist in this context (whether arising from statutory, general law or industry standards), its focus is on the processes at the market intermediary that should be in place to appropriately address conflicts of interest in the offerings context.

0987 **Bertaut, Carol C., and Ralph W. Tryon, *Monthly Estimates of U.S. Cross-Border Securities Positions*, Division of International Finance, Federal Reserve Board, November 2007. 50pp.**

This paper reports monthly estimates of U.S. cross-border securities positions obtained by combining the (now) annual TIC surveys with monthly transactions data adjusted for various differences in the two reporting standards. The approach is similar to that of Thomas, Warnock, and Wongswan (2004), but in addition to having a somewhat larger dataset the authors are able to make some simplifications to the numerical procedure used and incorporate additional adjustments to the transactions data. This paper describes the procedure used and presents the monthly results. In addition, they discuss how the procedure can be extended to extrapolate holdings estimates beyond the most recent survey values. They focus primarily on U.S. liabilities to foreign holders, because more data is available than for U.S. claims, but show how the methodology can be applied to U.S. claims as well. The authors also provide some guidance on how the changes in estimated holdings can be decomposed into flows, valuation changes, and other factors.

REEL 13

Frame #

Securities cont.

0001 **Hjalmarsson, Erik, *The Stambaugh Bias in Panel Predictive Regressions*, Division of International Finance, Federal Reserve Board, November 29, 2007. 17pp.**

This paper analyzes predictive regressions in a panel data setting. The standard fixed effects estimator suffers from a small sample bias, which is the analogue of the Stambaugh bias in time-series predictive regressions. Monte Carlo evidence shows that the bias and resulting size distortions can be severe. A new bias-corrected estimator is proposed, which is shown to work well in finite samples and to lead to approximately normally distributed t-statistics.

Overall, the results show that the econometric issues associated with predictive regressions when using time-series data to a large extent also carry over to the panel case. The results are illustrated with an application to predictability in international stock indices.

0018 **Emerging Markets Committee, IOSCO, *Corporate Governance Practices in Emerging Markets*, International Organization of Securities Commissions, December 2007. 35pp.**

This report is being issued by the Emerging Markets Committee in order to identify dominant trends of corporate governance standards in Emerging Market jurisdictions.

0053 **Yeyati, Eduardo Levy, et al., *Emerging Market Liquidity and Crises*, World Bank, December 2007. 23pp.**

Whereas conventional wisdom argues that markets shut down during crises, with sellers struggling to find buyers, the authors find that markets continue to operate during financial turmoil even in narrow and volatile emerging economies. Specifically, volume traded increases when crises erupt, decreasing only later as crises progress. This higher trading activity is accompanied by an increase in the cost of making transactions. Prices react more strongly to each dollar transacted (pushing the Amihud illiquidity measure up) and bid-ask spreads widen. That is, while trading activity moves inversely to trading costs during tranquil times (and across securities), both increase during crises.

0076 **Emerging Markets Committee, IOSCO, *Factors Influencing Liquidity in Emerging Markets*, International Organization of Securities Commissions, December 2007. 41pp.**

This report, aims to examine closely the relationships between market liquidity and factors such as market structures, financial policies, regulatory framework, trading infrastructure, the level of financial innovation and the breadth of a varied investor base. It seeks to identify and highlight initiatives by the various emerging markets to enhance liquidity and the success of such initiatives in achieving their objectives. It is also the intention of this report to provide emerging market regulators with a greater understanding of the factors affecting market liquidity—i.e. those that typically lower transaction costs, facilitate trading and timely settlement, and ensure that large trades have only limited impact on market prices. Additionally, this report provides a review of the perspectives and experiences of other regulators in formulating policy and operational initiatives to enhance liquidity in their markets.

0117 **Carlson, Mark, and Jason Steinman, *Market Conditions and Hedge Fund Survival*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, December 2007. 39pp.**

As the hedge fund industry has grown, there has been increased concern that, during sharp market moves, hedge fund failures could exacerbate the deterioration in financial conditions and deepen a crisis. However, there has not been much formal analysis regarding the impact of financial market conditions on hedge fund survival. To help fill this gap, this paper examines the relationship between financial market conditions and the likelihood of hedge fund failure after controlling for performance and other characteristics. The analysis is conducted using data on individual funds and industry aggregates. The authors find that market returns and volatility influence fund failures, although the impact depends on the funds' investment strategies. The results of the analysis are then used to predict hedge fund failures based on actual market returns and on stress scenarios. We find that the hedge fund industry is generally robust to different shocks.

0156 **Ammer, John, and Fang Cai,, *Sovereign CDS and Bond Pricing Dynamics in Emerging Markets: Does the Cheapest-to-Deliver Option Matter?*, Division of International Finance, Federal Reserve Board, December 9, 2007. 43pp.**

This paper examines the relationships between credit default swap (CDS) premiums and bond yield spreads for nine emerging market sovereign borrowers. The authors find that these two measures of credit risk deviate considerably in the short run, due to factors such as liquidity and contract specifications, but they estimate a stable long-term equilibrium relationship for most countries. In particular, CDS premiums tend to move more than one-for-one with yield spreads, which they show is broadly consistent with the presence of a significant cheapest-to-deliver (CTD) option. In addition, this paper finds a variety of cross-sectional evidence of a CTD option being incorporated into CDS premiums. In the analysis of the short-term dynamics, it finds that CDS premiums often move ahead of the bond market. However, the authors also find that bond spreads lead CDS premiums for emerging market sovereigns more often than has been found for investment-grade corporate credits, consistent with the CTD option impeding CDS liquidity for our riskier set of borrowers. Furthermore, the CDS market is less likely to lead for sovereigns that have issued more bonds, suggesting that the relative liquidity of the two markets is a key determinant of where price discovery occurs.

0199 **Guidolin, Massimo, and Stuart Hyde, *Equity Portfolio Diversification Under Time-Varying Predictability and Comovements: Evidence from Ireland, the US, and the UK,* Federal Reserve Bank of St. Louis, January 2008. 34pp.**

This paper uses multivariate regime switching vector autoregressive models to characterize the time-varying linkages among short-term interest rates (monetary policy) and stock returns in the Irish, the US and UK markets. This paper finds that two regimes, characterized as bear and bull states, are required to characterize the dynamics of returns and short-term rates. This implies that the authors cannot reject the hypothesis that the regimes driving the markets in the small open economy are largely synchronous with those typical of the major markets. They compute time-varying Sharpe ratios and recursive mean-variance portfolio weights and document that a regime switching framework produces out-of-sample portfolio performance that outperforms simpler models that ignore regimes. Interestingly, the portfolio shares derived under regime switching dynamics implies a fairly low committment to the Irish market, in spite of its brilliant unconditional risk-return trade-off.

0233 **Amromin, Gene, and Steven A. Sharpe, *Expectations of Risk and Return Among Household Investors: Are Their Sharpe Ratios Countercyclical?* Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, January 2008. 43pp.**

Data obtained from special questions on a series of Michigan Surveys of Consumer Attitudes are used to analyze stock market beliefs and portfolio choices of household investors. This paper finds that expected risk and returns are strongly influenced by expected economic conditions. When investors believe macroeconomic conditions are more expansionary, they tend to expect both higher returns and lower volatility. This finding is sharply at odds with the canonical view that stock market returns should compensate investors for exposure to macroeconomic risks. The authors further find that perceived risk in equity returns (though not the expected returns) is strongly influenced by a number of well-documented behavioral biases. The relevance of investors' reported expectations is supported by the finding that portfolio equity positions tend to be higher for those respondents that anticipate higher expected returns and lower uncertainty.

0276 **Hatchondo, Juan Carlos, and Leonardo Martinez, *Long-Duration Bonds and Sovereign Defaults*, Federal Reserve Bank of Richmond, ca. January 2008. 22pp.**

This paper extends the baseline framework used in recent quantitative studies of sovereign default by assuming that the government can borrow using long-duration bonds. This contrasts with previous studies, which assume the government can borrow using bonds that mature after one quarter. The authors show that, when they assume that the government issues bonds with a duration similar to the average duration of sovereign bonds in emerging economies, the model generates an interest rate that is substantially higher and more volatile than the one obtained assuming one-quarter bonds. This narrows the gap between the predictions of the model and the data, which indicates that the introduction of long-duration bonds may be a useful tool for future research about emerging economies. The analysis is also relevant for the study of other credit markets.

0298 **Guidolin, Massimo, and Stuart Hyde, *What Tames the Celtic Tiger? Portfolio Implications from a Multivariate Morkov Switching Model*, Federal Reserve Bank of St. Louis, January 2008. 42pp.**

This paper uses multivariate regime switching vector autoregressive models to characterize the time-varying linkages among the Irish stock market, one of the top world performers of the 1990s, and the US and UK stock markets. The authors find that two regimes, characterized as bear and bull states, are required to characterize the dynamics of excess equity returns both at the univariate and multivariate level. This implies that the regimes driving the small open economy stock market are largely synchronous with those typical of the major markets. However, despite the existence of a persistent bull state in which the correlations among Irish and UK and US excess returns are low, they find that state comovements involving the three markets are so relevant to reduce the optimal mean-variance weight carried by ISEQ stocks to at most one-quarter of the overall equity portfolio. They compute time-varying Sharpe ratios and recursive mean-variance portfolio weights and document that a regime switching framework produces out-of-sample portfolio performance that outperforms simpler models that ignore regimes. These results appear robust to endogenizing the effects of dynamics in spot exchange rates on excess stock returns.

0340 **International Organization of Securities Commissions, *Objectives and Principles of Securities Regulation*, International Organization of Securities Commissions, February 2008. 56pp.**

This document sets out three objectives upon which securities regulation is based. Although there are local differences in market structures, these objectives form a basis for an effective system of securities regulation. The document also sets out thirty principles of securities regulation that give practical effect to the objectives. The discussion provides some examples of current practices, recognizing that these practices will and should change as the markets change and as technology and improved coordination among regulators makes other strategies available. The securities and derivatives markets are vital to the growth, development and strength of market economies. They support corporate initiatives, finance the exploitation of new ideas and facilitate the management of financial risk. Further, since retail investors are placing an increasing proportion of their money in mutual funds and other collective investments, securities markets have become central to individual wealth and retirement planning.

0396 **D'Amico, Stefania, et al., *Tips from TIPS: The Informational Content of Treasury Inflation-Protected Security Prices*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, February 27, 2008. 66pp.**

TIPS breakeven inflation rate, defined as the difference between nominal and TIPS yields of comparable maturities, is potentially useful as a real-time measure of market inflation expectations. This paper provides evidence that a fairly large TIPS liquidity premium existed until recently, using a multifactor no-arbitrage term structure model estimated with nominal and TIPS yields, inflation and survey forecasts of interest rates. Ignoring the TIPS liquidity premiums leads to counterintuitive implications for inflation expectations and inflation risk premium, and produces large pricing errors for TIPS. In contrast, models incorporating a TIPS liquidity factor generate much better fit for these variables and reveal a TIPS liquidity premium that was until recently quite large (» 1%) but has come down in recent years, consistent with the common perception that TIPS market grew and liquidity conditions improved. The results indicate that after taking proper account of the liquidity conditions in the TIPS market, the movement in TIPS breakeven inflation rate can provide useful information for identifying real yields, expected inflation and inflation risk premium.

0462 **Han, Song, and Hao Zhou, *Effects of Liquidity on the Nondefault Component of Corporate Yield Spreads: Evidence from Intraday Transactions Data*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, March 2008. 55pp.**

This paper estimates the nondefault component of corporate bond yield spreads and examine its relationship with bond liquidity. The authors measure bond liquidity using intraday transactions data and estimate the default component using the term structure of credit default swaps (CDS) spreads. With swap rate as the risk free rate, the estimated nondefault component is generally moderate but statistically significant for AA-, A-, and BBB-rated bonds and increasing in this order. With Treasury rate as the risk free rate, the estimated nondefault component is the largest in basis points for BBB-rated bonds but as a fraction of yield spreads for AAA-rated bonds. Controlling for the unobservable firm heterogeneity, we find a positive and significant relationship between the nondefault component and illiquidity for investment-grade bonds but no significant relationship for speculative-grade bonds. We also find that the nondefault component comoves with macroeconomic conditions - negatively with the Treasury term structure and positively with the stock market implied volatility.

0517 **Hjalmarsson, Erik, *Interpreting Long-Horizon Estimates in Predictive Regressions*, Division of International Finance, Federal Reserve Board, March 2008. 17pp.**

This paper analyzes the asymptotic properties of long-horizon estimators under both the null hypothesis and an alternative of predictability. Asymptotically, under the null of no predictability, the long-run estimator is an increasing deterministic function of the short-run estimate and the forecasting horizon. Under the alternative of predictability, the conditional distribution of the long-run estimator, given the short-run estimate, is no longer degenerate and the expected pattern of coefficient estimates across horizons differs from that under the null. Importantly, however, under the alternative, highly endogenous regressors, such as the dividend-price ratio, tend to deviate much less than exogenous regressors, such as the short interest rate, from the pattern expected under the null, making it more difficult to distinguish between the null and the alternative.

0534 **Gordy, Michael B., and Sandeep Juneja, *Nested Simulation in Portfolio Risk Measurement*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, April 8, 2008. 32pp.**

Risk measurement for derivative portfolios almost invariably calls for nested simulation. In the outer step one draws realizations of all risk factors up to the horizon, and in the inner step one re-prices each instrument in the portfolio at the horizon conditional on the drawn risk factors. Practitioners may perceive the computational burden of such nested schemes to be unacceptable, and adopt a variety of second-best pricing techniques to avoid the inner simulation. This paper questions whether such short cuts are necessary. The author shows that a relatively small number of trials in the inner step can yield accurate estimates, and analyze how a fixed computational budget may be allocated to the inner and the outer step to minimize the mean square error of the resultant estimator. Finally, this paper introduces a jackknife procedure for bias reduction and a dynamic allocation scheme for improved efficiency.

0566 **Chiquoine, Benjamin, and Erik Hjalmarsson, *Jackknifing Stock Return Predictions*, Division of International Finance, Federal Reserve Board, May 2, 2008. 25pp.**

This paper shows that the general bias reducing technique of jackknifing can be successfully applied to stock return predictability regressions. Compared to standard OLS estimation, the jackknifing procedure delivers virtually unbiased estimates with mean squared errors that generally dominate those of the OLS estimates. The jackknifing method is very general, as well as simple to implement, and can be applied to models with multiple predictors and overlapping observations. Unlike most previous work on inference in predictive regressions, no specific assumptions regarding the data generating process for the predictors are required. A set of Monte Carlo experiments show that the method works well in finite samples and the empirical section finds that out-of-sample forecasts based on the jackknifed estimates tend to outperform those based on the plain OLS estimates. The improved forecast ability also translates into economically relevant welfare gains for an investor who uses the predictive regression, with jackknifed estimates, to time the market.

0591 **Ammer, John, et al., *Why Do U.S. Cross-Listings Matter?*, Division of International Finance, Federal Reserve Board, May 2008. 32pp.**

This paper investigates the underlying determinants of home bias using a comprehensive sample of U.S. investor holdings of foreign stocks. The authors document that U.S. cross-listings are economically important, as U.S. ownership in a foreign firm roughly doubles upon cross-listing in the United States. They explore the cross-sectional variation in this "cross-listing effect" and show that increases in U.S. investment are largest in firms from weak accounting backgrounds and in firms that are otherwise informationally opaque, indicating that U.S. investors value the improvements in disclosure associated with cross-listing. in addition, they confirm that relative equity valuations rise for cross-listed stocks, and provide evidence suggesting that valuation increases are due in part to increases in U.S. shareholder demand and in part to the fact that the equities become more attractive to non-U.S. shareholders.

0623 **Hjalmarsson, Erik, *Predicting Global Stock Returns*, Division of International Finance, Federal Reserve Board, June 12, 2008. 50pp.**

This paper tests for stock return predictability in the largest and most comprehensive data set analyzed so far, using four common forecasting variables: the dividend- and earnings-price ratios, the short interest rate, and the term spread. The data contain over 20,000 monthly observations from 40 international markets, including 24 developed and 16 emerging economies. In addition,the author develops new methods for predictive regressions with panel data. Inference based on the standard fixed effects estimator is shown to suffer from severe size distortions in the typical stock return regression, and an alternative robust estimator is proposed. The empirical results indicate that the short interest rate and the term spread are fairly robust predictors of stock returns in developed markets. In contrast, no strong or consistent evidence of predictability is found when considering the earnings- and dividend-price ratios as predictors.

0673 **Technical Committee, IOSCO, *Report on Funds of Hedge Funds*, International Organization of Securities Commissions, June 2008. 50pp.**

This report examines on the first hand, the existing regulations of funds of hedge funds (or proposed regulations) in various TC Standing Committee on Investment Management (“SC5”) member jurisdictions, and identifies on the second hand, with the help of industry representatives, present issues of concern to regulators in this area. This report finally proposes on the basis of the SC5 members’ assessment, to consider the potential development in specific areas of “elements of international regulatory standards on funds of hedge funds” based on best market practices.

0723 **Kim, Don H., *Zero Bound, Option-Implied PDFs and Term Structure Models*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, June 12, 2008. 36pp.**

This paper points out that several known ways of modeling non-negative nominal interest rates lead to different implications for the risk-neutral distribution of the short rate that can be checked with options data. In particular, Black's boundary models ("interest rates as options") imply a probability density function (pdf) that contains a Dirac delta function and a cumulative distribution function (cdf) that is nonzero at the zero boundary, while models like the CIR and positive-definite quadratic-Gaussian (QG) models have a zero cdf at the boundary. Eurodollar futures options data are found to favor Black's boundary models: the CIR/QG models, even multifactor versions, have difficulty capturing option prices accurately not only in low interest rate environments but also in higher interest rate environments, and data in early 2008 provide an almost tangible signature of the Dirac delta function in Black's boundary pdf models. Options data also contradict the prediction of well-known models whose cdf is zero at the zero boundary, namely that the risk-neutral pdf is always positively skewed.

0759 **Arvai, Zsofia, and Geoffrey Heenan, *A Framework for Developing Secondary Markets for Government Securities*, International Monetary Fund, July 2008. 55pp.**

This paper consolidates previous work on the development of secondary markets for government securities, and focuses on the sequencing of measures necessary for their development. Six main lessons are identified: (i) a commitment to achieving and maintaining a stable macroeconomic environment, especially prudent fiscal policy, should underpin market development; (ii) a sound and transparent public debt management strategy supports secondary market activity; (iii) a deep and diverse investor base is required; (iv) poor market infrastructure leads to high transaction costs, slow order execution, and excessive operational risk, which all inhibit trading; (v) secondary market growth is facilitated by effective monetary policy implementation; and (vi) reforms should be sequenced to ensure even development of all the structures supporting the secondary market.

0814 **Bertaut, Carol C., et al., *How Long Can the Unsustainable U.S. Current Account Deficit Be Sustained*, Division of International Finance, Federal Reserve Board, July 2008. 66pp.**

This paper starts with projections of a detailed partial-equilibrium model of the U.S. balance of payments. Based on plausible assumptions of the key drivers of the U.S. external balance, they indicate that the current account deficit will resume widening and the negative NIIP/GDP ratio will continue to expand. The authors' projections suggest that even by the year 2020, the negative NIIP/GDP ratio will be no higher than it is in several industrial economies today, and U.S. net investment income payments will remain very low. The share of U.S. claims in foreigners' portfolios will likely rise, but not to an obviously worrisome extent. All told, it seems likely it would take many years for the U.S. debt to cumulate to a level that would test global investors' willingness to extend financing. Finally, they explore the historical responsiveness of asset prices and the current account in industrial economies to measures of external imbalances and debt. They find little evidence that, as countries' net indebtedness rises, the developments needed to correct the current account - including changes in growth rates, asset prices, or exchange rates - materialize all that rapidly.

0880 **Beltran, Daniel O., et al., *Foreign Exposure to Asset-Backed Securities of U.S. Origin*, Division of International Finance, Federal Reserve Board, August 6, 2008. 27pp.**

The financial turmoil which began in August 2007 originated, in part, because investors reassessed the quality of the assets underlying many asset-backed securities (ABS), particularly U.S. mortgages. The prominence of European banks in the early stages of the turmoil created the perception that foreigners held an outsized share of risky U.S. securities and prompted questions of why Europeans were so exposed. This paper evaluates that perception by quantifying foreign exposure to ABS with U.S. underlying collateral. Using the latest survey data on foreign portfolio holdings of U.S. securities, the authors find that the ultimate losses that foreigners could incur arising from U.S. underlying assets are small relative to most scale variables, although initial total mark-to-market losses are estimated to be significantly larger. Among other reasons for this difference between ultimate and initial losses, the authors demonstrate that the securitization chain can amplify mark-to-market price declines in the presence of uncertainty or illiquidity. Finally, this paper shows that, relative to the size of the market, foreigners' holdings of U.S. mortgage-backed securities do not appear to be elevated compared with their holdings of other U.S. assets.

0907 **Kotter, Jason, and Ugur Lel, *Friends or Foes? The Stock Price Impact of Sovereign Wealth Fund Investments and the Price of Keeping Secrets*, Division of International Finance, Federal Reserve Board, August 2008. 59pp.**

This paper examines the stock price impact of 163 announcements of Sovereign Wealth Fund (SWF) investments. It documents an average positive risk-adjusted return of 2.1 percent for target firms during two days surrounding SWF acquisition announcements. The announcement effect is both statistically and economically significant. A multivariate analysis shows that the degree of transparency of SWF activities is an important determinant of the market reaction, and both the SWF and the existing shareholders of the target firm benefit from improved SWF disclosure. In addition, target firms' profitability, growth, and governance do not change significantly in the three-year period following the SWF investment relative to a control sample. These results are robust to a battery of tests. Overall, the findings suggest that SWF investments convey a positive signal to market participants about the target firm, increased SWF transparency is enjoyed by both the SWF and existing shareholders, and SWFs are passive investors.

0966 **Executive Committee, IOSCO, *Analysis of the Application of IOSCO's Objectives and Principles of Securities Regulation for Islamic Securities Products*, International Organization of Securities Commissions, September 2008. 41pp.**

The market for Islamic capital securities and in particular Shariah-compliant funds and bonds (Sukuk) has grown rapidly in recent years. There has been a wider geographical expansion of these markets beyond the traditional spheres of activity in the Middle East and East Asia. Although the IOSCO Core Principles were designed to be flexible enough to accommodate variations in the conventional securities markets, there has been a degree of uncertainty as to how the IOSCO Core Principles are applicable to the Islamic securities market. IOSCO thus set a mandate to assess the compatibility of IOSCO's core principles with the products and practices of Islamic finance. This report principally deals with this mandate and builds on the initial report from the IOSCO Islamic Capital Market Task Force (ICMTF) in 2004.

REEL 14

Frame #

Securities cont.

0001 **Curcuru, Stephanie E., et al.,** ***Current Account Sustainability and Relative Reliability*, Division of International Finance, Federal Reserve Board, September 2008. 52pp.**

The sustainability of the large and persistent U.S. current account deficits is one of the biggest issues currently being confronted by international macroeconomists. Some very plausible theories suggest that the substantial global imbalances can continue in a benign manner, other equally plausible theories predict a disorderly resolution, and in general it is very difficult to discern between competing theories. To inform the debates, the authors view competing theories through the perspective of the relative reliability of the data the theories rely on. Their analysis of the dark matter theory is cursory; from a relative reliability perspective, it fails as it is built on the assumption that an item that is largely unmeasured is the most accurate component of the entire set of international accounts. Similarly, the best data currently available suggest that U.S. returns differentials are much smaller than implied by the exorbitant privilege theory. The analysis opens up questions about potential inconsistencies in the international accounts, which they address by providing rough estimates of various holes in the accounts.

0053 **Fernandes, Nuno, et al.,** ***Escape from New York: The Market Impact of SEC Rule 12h-6*, Division of International Finance, Federal Reserve Board, September 2008. 46pp.**

This paper examines the stock market impact of SEC Rule 12h-6 which eased the ability of foreign firms to deregister with the SEC and as a result terminate their U.S. disclosure obligations under the 1934 Securities Exchange Act. The authors document that the market reacted negatively to the ability of firms from weak disclosure and governance countries to more easily opt out of the stringent U.S. reporting and legal environment. The findings suggest that shareholders of non-U.S firms place significant value on U.S. securities regulations, especially when the home country investor protections are weak.

0099 **Hatchondo, Juan Carlos, et al.,** ***Heterogenous Borrowers in Quantitative Models of Sovereign Default*, Federal Reserve Bank of Richmond, September 2008. 40pp.**

This paper extends the model used in recent quantitative studies of sovereign default, allowing policymakers of different types to stochastically alternate in power. It shows that a default episode may be triggered by a change in the type of policymaker in office, and that such a default is likely to occur only if there is enough political stability and if policymakers encounter poor economic conditions. Under high political stability, political turnover enables the model to generate a weaker correlation between economic conditions and default decisions, a higher and more volatile spread, and lower borrowing levels after a default episode.

0139 **General Accountability Office, *Private Equity: Recent Growth in Leveraged Buyouts Exposed Risks That Warrant Continued Attention*, U.S. General Accountability Office, September 2008. 132pp.**

Academic research that GAO reviewed generally suggests that recent private equity LBOs have had a positive impact on the financial performance of the acquired companies, but determining whether the impact resulted from the actions taken by the private equity firms versus other factors is difficult. The research also indicates that private equity LBOs are associated with lower employment growth than comparable companies. However, uncertainty remains about the employment effect—in part because, as one study found, target companies had lower employment growth before being acquired. Further research may shed light on the causal relationship between private equity and employment growth, if any.

0271 **Kotz, H. David, *SEC's Oversight of Bear Stearns and Related Entities: Broker-Dealer Risk Assessment Program,* Securities and Exchange Commission, September 25, 2008. 46pp.**

This report reasserts an OIG recommendation made in 2002, that TM should update and finalize temporary rules 17h-1T and 17h-2T, which govern the Broker-Dealer Risk Assessment program and enforce broker-dealer compliance with these rules. It is also critical for TM to determine whether the broker-dealers associated with Bear Stearns are required to file Form 17-H with the Commission in light of the significant amount of customer accounts carried by these broker-dealers.

0317 **Jones, Yvonne D., and Loren Yager, *Sovereign Wealth Funds: Publicly Available Data on Sizes and Investments for Some Funds Are Limited,* U.S. General Accountability Office, September 2008. 58pp.**

Sovereign wealth funds (SWF) are government-controlled funds that seek to invest in other countries. With new funds being created and many growing rapidly, some see these funds providing valuable capital to world markets, but others are concerned that the funds are not transparent and could be used to further national goals and potentially harm the countries where they invest. GAO plans to issue a series of reports on various aspects of SWFs. This first report analyzed (1) the availability of publicly reported data from SWFs and others on their sizes and holdings internationally, and (2) the availability of publicly reported data from the U.S. government and other sources on SWFs' U.S. investments. GAO reviewed foreign government disclosures, Department of the Treasury (Treasury) and Department of Commerce (Commerce) reporting, and private researcher data to identify SWFs and their activities. GAO also analyzed information from international organizations and securities filings. Treasury and Commerce commented that GAO's report provides timely and useful contributions to the SWF debate; SEC noted that U.S. securities requirements apply to all large investors, including SWFs.

0375 **Bertaut, Carol C., *Assessing the Potential for Further Foreign Demand for U.S. Assets: Has Financing U.S. Current Account Deficits Made Foreign Investors Overweight in U.S. Securities?* Division of International Finance, Federal Reserve Board, October 2008. 51pp.**

Since 2001, foreign investors have acquired roughly $5 trillion in U.S. securities - more than doubling their holdings of U.S. equities and bonds - as both official and private inflows have financed record U.S. current account deficits. Although the rapid growth of foreign holdings of U.S. securities raises concerns that foreign investors may have become too heavily weighted in U.S. assets, foreign investors have not in fact materially changed the relative allocations between U.S. and other foreign securities in their portfolios in recent years. Based on data from the most recent comprehensive surveys of foreign portfolio investment, the 2006 IMF Coordinated Portfolio Investment Surveys (CPIS), most foreign investors remain relatively more underweight in both U.S. equities and bonds than they do in foreign securities in general. Although the underweight position suggests that there remains potential for foreign investors to continue to acquire U.S. securities, econometric evidence indicates that the underweight position itself reflects a preference by foreign investors for securities of countries with which they have strong economic or cultural ties, consistent with recent research that suggests "location" or "information" preferences in both domestic and international portfolios. As securities markets abroad continue to deepen, such factors are likely to continue to attract investment from "nearby" markets, especially from European investors.

0426 **Berkelmans, Leon, *Imperfect Information and Monetary Models: Multiple Shocks and Their Consequences*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, October 2008. 36pp.**

This paper examines the role of multiple aggregate shocks in monetary models with imperfect information. Because agents can draw mistaken inferences about which shock has occurred, the existence of multiple aggregate shocks profoundly influences macroeconomic dynamics. In particular, after a contractionary monetary shock these models can generate an initial increase in inflation (the "price puzzle") and a delayed disinflation (a "hump"). A conservative numerical illustration exhibits these patterns. In addition, the model shows that increased price flexibility is potentially destabilizing.

0462 **Morrison, Wayne M., and Marc Labonte, *China's Holdings of U.S. Securities: Implications for the U.S. Economy,* Congressional Research Service, November 20, 2008. 17pp.**

Given its relatively low savings rate, the U.S. economy depends heavily on foreign capital inflows from countries with high savings rates (such as China) to help promote growth and to fund the federal budget deficit. China has intervened heavily in currency markets to limit the yuan's appreciation. As a result, China has become the world's largest and fastest growing holder of foreign exchange reserves (FER). China has invested a large share of its FER in U.S. securities, which, as of June 2007, totaled $922 billion, making China the 2nd largest foreign holder of U.S. securities (after Japan). These securities include long-term (LT) Treasury debt, LT U.S. agency debt, LT U.S. corporate debt, LT U.S. equities, and short-term debt.

0479 **Cohen-Cole, Ethan, et al., *Looking Behind the Aggregates: A Reply to "Facts and Myths about the Financial Crisis of 2008"*, Federal Reserve Bank of Boston, November 12, 2008. 14pp.**

As Chari et al (2008) point out in a recent paper, aggregate trends are very hard to interpret. They examine four common claims about the impact of financial sector phenomena on the economy and conclude that all four claims are myths. This paper argues that to evaluate these popular claims, one needs to look at the underlying composition of financial aggregates. The findings show that most of the commonly argued facts are indeed supported by disaggregated data.

0493 **Hammer, Cornelia, et al., *Sovereign Wealth Funds: Current Institutional and Operational Practices*, International Monetary Fund, November 2008. 22pp.**

While SWFs as a group share broad common institutional and operational practices, these practices also differ considerably reflecting the diversity of these institutions. These differences derive from the nature of the SWF (i.e., their original intent) as well as its legal personality. Thus, while SWF practices will continue to evolve, the fundamental objectives of different types of SWFs will continue to shape their practices going forward.

0515 **Ball, Steffan G., *Stock Market Participation, Portfolio Choice and Pensions over the Life-Cycle*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, November 12, 2008. 39pp.**

The empirical evidence on stock market participation and portfolio choice defies the predictions of standard life-cycle theory. In this paper, the authors develop and estimate a model of portfolio choice that can account for the limited stock market participation and substantial portfolio diversification seen in the data. We present three realistic extensions to the basic framework: per period fixed costs, public pension provision, and a small chance of a disastrous event in the stock market. The estimated model is able to explain observed patterns at reasonable wealth levels, while keeping to a fairly simple framework. This paper demonstrates that it is no longer necessary to assume counterfactual asset holdings, heterogeneity in preferences, or implausible parameter values, in order to match key financial statistics.

0554 **McCabe, Patrick E., *The Economics of the Mutual Fund Trading Scandal,* Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, December 9, 2008. 73pp.**

This paper examines the economic incentives behind the mutual fund trading scandal, which made headlines in late 2003 with news that several asset management companies had arranged to allow abusive - and, in some cases, illegal-trades in their mutual funds. Most of the gains from these trades went to the traders who pursued market-timing and late-trading strategies. The costs were largely borne by buy-and-hold investors, and, eventually, by the management companies themselves. A puzzle emerges when one examines the scandal from the perspective of those management companies. In the short run, they collected additional fee revenue from arrangements allowing abusive trades. When those deals were revealed, investors redeemed shares en masse and revenues plummeted; management companies clearly made poor decisions, ex post. However, the analysis indicates that those arrangements were also uneconomic, ex ante, because - even if the management companies had expected never to be caught - estimated revenue from the deals fell well short of the present value of expected lost revenues due to poor performance in abused funds. Why some of the mutual fund industry's largest firms chose to collude with abusive traders remains something of a mystery. The author explores several possible explanations, including owner-manager conflicts of interest within management companies (between their shareholders and the executives who benefitted from short-term asset growth), but none fully resolves the puzzle. Management companies' decisions to allow abuses that harmed themselves as well as mutual fund shareholders convey a broader lesson, that shareholders, customers, and fiduciary clients be cautious about relying too heavily on firms' own self-interest to govern their behavior.

0628 **Office of the Chief Accountant, *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Market-to-Market Accounting*, Securities and Exchange Commission, December 30, 2008. 257pp.**

On October 3, 2008, the Emergency Economic Stabilization Act of 2008 ("EESA" or the "Act") was signed into law.1 Section 133 of the Act mandates that the U.S. Securities and Exchange Commission (the "SEC" or "Commission") conduct, in consultation with the Board of Governors of the Federal Reserve System ("Federal Reserve") and the Secretary of the Treasury, a study on mark-to-market accounting standards as provided by Financial Accounting Standards Board ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 157, Fair Value Measurements ("SFAS No. 157"). As discussed further in this study, SFAS No. 157 does not itself require mark-to-market or fair value accounting. Rather, other accounting standards in various ways require what is more broadly known as "fair value" accounting, of which mark-to-market accounting is a subset. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in U.S. generally accepted accounting principles ("GAAP"), and requires expanded disclosures about fair value measurements. However, to ensure that this study was responsive to the policy debate discussed below, for purposes of this study the SEC Staff (the "Staff") considered the issue of fair value accounting in this larger context, including both mark-to-market accounting and SFAS No. 157. The events leading up to the Congressional call for this study illustrated the need for identifying and understanding the linkages that exist between fair value accounting standards and the usefulness of information provided by financial institutions.

0885 ***Issues Involving the Use of the Futures Markets to Invest in Commodity Indexes*, U.S. General Accountability Office, January 30, 2009. 35pp.**

This report examines various issues surrounding how commodity-index futures trading is addressed by various laws and regulations. Futures exchange regulations that can affect such trading include margins, or performance bonds, which are deposits that futures traders make with their broker to ensure that they can meet the financial obligations associated with their futures positions. To prevent excessive speculation that could cause unwarranted changes in futures prices, the Commodity Futures Trading Commission (CFTC) and futures exchanges place limits on the size of futures positions—the number of contracts—that a trader may hold.

0920 **Jickling, Mark, and Edward V. Murphy, *Who Regulates Whom? An Overview of U.S. Financial Supervision*, Congressional Research Service, February 24, 2009. 40pp.**

Federal financial regulation in the United States has evolved through a series of piecemeal responses to developments and crises in the markets. This report provides an overview of current U.S. financial regulation: which agencies are responsible for which institutions and markets, and what kinds of authority they have. U.S. banking regulation is largely based on a quid pro quo that was adopted in the 1930s in response to widespread bank failures.

0960 **Kotz, H. David, *Practices related to Naked Short Selling Complaints and Referrals*, Securities and Exchange Commission, March 18, 2009. 54pp.**

The OIG received numerous complaints alleging that Enforcement failed to take sufficient action regarding naked short selling. Many of these complaints asserted that investors and companies lost billions of dollars because Enforcement has not taken sufficient action against naked short selling practices. In light of these complaints and based on the audit plan, the authors conducted an audit to assess whether Enforcement: (1) established policies and guidelines that enabled Enforcement to respond appropriately to complaints and referrals, including those involving naked short selling; and (2) followed existing policies and procedures for responding to complaints and referrals, including those pertaining to naked short selling.

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