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DEVELOPING A LARGE DATABASE TO AID FINANCIAL REGULATION

This paper sets forth a discussion framework for the information requirements of systemic financial regulation. It specifically proposes a large macro-micro database for the U.S. based on an extended version of the Flow of Funds. The author argues that such a database would have been of material value to U.S. regulators in ameliorating the recent financial crisis and will be of aid in understanding the potential vulnerabilities of an innovative financial system in the future. The author also argues that the data should — under strict confidentiality conditions — be made available to academic researchers investigating the detection and measurement of systemic risk.

Working Paper 10-22, "Durable Financial Regulation: Monitoring Financial Instruments as a Counterpart to Regulating Financial Institutions," Leonard I. Nakamura, Federal Reserve Bank of Philadelphia

A NEW LOOK AT THE COST OF STARTING A CREDIT RELATIONSHIP

The author studies the terms of credit in a competitive market in which sellers are willing to repeatedly finance the purchases of buyers by extending direct credit. Lenders (sellers) can commit to deliver any long-term credit contract that does not result in a payoff that is lower than that associated with autarky, while borrowers (buyers) cannot commit to any contract. A borrower's ability to repay a loan is privately observable. As a result, the terms of credit within an enduring relationship change over time, according to the history of trades. Two borrowers are treated differently by the lenders with whom they are paired because they have had distinct repayment histories. Although there is free entry of lenders in the credit market, each lender has to pay a cost to contact a borrower. A lower cost makes each borrower better off from the perspective of the contracting date, results in less variability in a borrower's expected discounted utility, and makes each lender uniformly worse off *ex post*. As this cost becomes small, borrowers get nearly the same terms of credit within their credit relationships with lenders, regardless of individual repayment histories.

Working Paper 10-23, "Pairwise Credit and the Initial Cost of Lending," Daniel R. Sanches, Federal Reserve Bank of Philadelphia

EXPLORING THE CYCLICAL PROPERTIES OF A SEARCH AND MATCHING MODEL

The author introduces risk-averse preferences, labor-leisure choice, capital, individual productivity shocks, and

market incompleteness to the standard Mortensen-Pissarides model of search and matching and explores the model's cyclical properties. There are four main findings. First and foremost, the baseline model can generate the observed large volatility of unemployment and vacancies with a realistic replacement ratio of the unemployment insurance benefits of 64 percent. Second, labor-leisure choice plays a crucial role in generating the large volatilities; additional utility from leisure when unemployed makes the value of unemployment close to the value of employment, which is crucial in generating a strong amplification, even with the moderate replacement ratio. Besides, it contributes to the amplification through an adjustment in the intensive margin of labor supply. Third, the borrowing constraint or uninsured individual productivity shocks do not significantly affect the cyclical properties of unemployment and vacancies: Most workers are well insured only with self-insurance. Fourth, the model better replicates the business cycle properties of the U.S. economy, thanks to the co-existence of adjustments in the intensive and extensive margins of labor supply and the stronger amplification.

Working Paper 10-24, "Business Cycles in the Equilibrium Model of Labor Market Search and Self-Insurance," Makoto Nakajima, Federal Reserve Bank of Philadelphia

PRECOMMITTED LINES OF CREDIT, DISTRESSED BANKS, AND THE SUBPRIME CRISIS

Using the subprime mortgage crisis as a shock, this paper shows that commercial borrowers served by more distressed banks (as measured by recent bank stock returns or the nonperforming loan ratio) took down fewer funds from precommitted, formal lines of credit. The credit constraints affected mainly smaller, riskier (by internal loan ratings), and shorter-relationship borrowers, and depended also on the lenders' size, liquidity condition, capitalization position, and core deposit funding. The evidence suggests that credit lines provided only contingent and partial insurance during the crisis, since bank conditions appeared to influence credit line utilization in the short term. It provides a new explanation as to why credit lines are not perfect substitutes for cash holdings for some (e.g., small) firms. Finally, loan level analyses show that more distressed banks charged higher credit spreads on newly negotiated loans but not on funds disbursed from precommitted, formal credit lines. The author's analyses are based on commercial loan flow data from the confidential Survey of Terms of Business Lending.

Working Paper 10-25, "How Committed Are Bank Lines of Credit? Experiences in the Subprime Mortgage Crisis," Rocco Huang, Michigan State University, formerly Federal Reserve Bank of Philadelphia

INVESTIGATING THE IMPACT OF GOVERNANCE AND CONTROL MECHANISMS ON PURCHASE PREMIUMS IN BANK M&As

Few transactions have the potential to generate revelations about the market value of corporate assets and liabilities as mergers and acquisitions (M&As). Corporate governance and control mechanisms such as independent directors, independent blockholders, and managerial share ownership are usually important predictors of the size and distribution of the incremental wealth generated by M&A transactions.

The authors add to this literature by investigating these relationships using a sample of banking organization M&A transactions over the period 1990-2004. Unlike research on nonfinancial firms, the impact of independent directors, share ownership of the top five managers, and independent blockholders on bank merger purchase premiums in this environment is likely to be measured more consistently because of industry operating standards and regulations. It is also the case that research on banks in this area has not received adequate attention. The authors model controls for risk characteristics of the target banks, the deal characteristics, and the economic environment.

Their results are robust. They support the hypothesis that independent directors may provide an important internal governance mechanism for protecting shareholders' interests, especially in large-scale transactions such as mergers and takeovers. The authors also find the results to be consistent with the hypothesis that independent blockholders play an important role in the market for corporate control as does managerial share ownership. But these effects dampen the impact of independent directors on target

shareholders' merger prices. Their overall findings would support policies that promote independent outside directors on the board of banking firms in order to provide protection for shareholders and investors at large.

Working Paper 10-26, "Corporate Governance Structure and Mergers," Elijah Brewer III, DePaul University and Federal Reserve Bank of Chicago; William E. Jackson III, University of Alabama; and Julapa Jagtiani, Federal Reserve Bank of Philadelphia

EXPLORING THE CONTINUING IMPORTANCE OF PORTAGE SITES

The authors examine portage sites in the U.S. South, Mid-Atlantic, and Midwest, including those on the fall line, a geomorphologic feature in the southeastern U.S. marking the final rapids on rivers before the ocean. Historically, waterborne transport of goods required portage around the falls at these points, while some falls provided water power during early industrialization. These factors attracted commerce and manufacturing. Although these original advantages have long since been made obsolete, the authors document the continuing and even increasing importance of these portage sites over time. They interpret this finding in a model with path dependence arising from local increasing returns to scale.

Working Paper 10-27, "Portage: Path Dependence and Increasing Returns in U.S. History," Hoyt Bleakley, University of Chicago, and Jeffrey Lin, Federal Reserve Bank of Philadelphia

CONSTRUCTING AN OPTIMAL MECHANISM FOR REVEALING TRADES

When contracts are unobserved, agents may have the incentive to promise the same asset to multiple counterparties and subsequently default. The author constructs an optimal mechanism that induces agents to reveal all their trades voluntarily. The mechanism allows agents to report every contract they enter, and it makes public the names of agents who have reached some prespecified position limit. In some cases, an agent's position limit must be higher than the number of contracts he enters in equilibrium. The mechanism has some features of a clearinghouse.

Working Paper 10-28, "Inducing Agents to Report Hidden Trades: A Theory of an Intermediary," Yaron Leitner, Federal Reserve Bank of Philadelphia

ANOTHER LOOK AT THE FRIEDMAN RULE IN VARIOUS ENVIRONMENTS

In this comment, the author extends Cavalcanti and Nosal's (2010) framework to include the case of perfectly divisible money and unrestricted money holdings. He shows that when trade takes place in Walrasian markets, counterfeits circulate and the Friedman rule is still optimal.

Working Paper 10-29, "Comment on Cavalcanti and Nosal's 'Counterfeiting as Private Money in Mechanism Design'," Cyril Monnet, Federal Reserve Bank of Philadelphia

WHY CENTRAL COUNTERPARTIES EMERGED

The authors explain why central counterparties (CCPs) emerged historically. With standardized contracts, it is optimal to insure counterparty risk by clearing those contracts through a CCP that uses novation and mutualization. Since netting is not essential for these services, it does not explain why CCPs exist. In over-the-counter markets, as contracts are customized and not fungible, a CCP cannot fully guarantee contract performance. Still, a CCP can help: As bargaining leads to an inefficient allocation of default risk relative to the gains from customization, a transfer scheme is needed. A CCP can implement it by offering partial insurance for customized contracts.

Working Paper 10-30, "The Emergence and Future of Central Counterparties," Thorsten V. Koeppl, Queen's University, and Cyril Monnet, Federal Reserve Bank of Philadelphia

OFFERING INSURANCE AGAINST COLLEGE-FAILURE RISK

Participants in student loan programs must repay loans in full regardless of whether they complete college. But many students who take out a loan do not earn a degree (the dropout rate among college students is between 33 to 50 percent). The authors examine whether insurance against college-failure risk can be offered, taking into account moral hazard and adverse selection. To do so, they develop a model

that accounts for college enrollment, dropout, and completion rates among new high school graduates in the US and use that model to study the feasibility and optimality of offering insurance against college failure risk. The authors find that optimal insurance raises the enrollment rate by 3.5 percent, the fraction acquiring a degree by 3.8 percent and welfare by 2.7 percent. These effects are more pronounced for students with low scholastic ability (the ones with high failure probability).

Working Paper 10-31, "Insuring Student Loans Against the Risk of College Failure," Satyajit Chatterjee, Federal Reserve Bank of Philadelphia, and Felicia Ionescu, Colgate University

PAYDAY LENDERS: EXACERBATION OR RELIEF OF CUSTOMERS' FINANCIAL DIFFICULTIES?

Payday lending is controversial. In the states that allow it, payday lenders make cash loans that are typically for $500 or less that the borrower must repay or renew on his or her next payday. The finance charge for the loan is usually 15 to 20 percent of the amount advanced, so for a typical two-week loan the annual percentage interest rate is about 400 percent. In this article, the author briefly describes the payday lending business and explains why it presents challenging public policy issues. The heart of this article, however, surveys recent research that attempts to answer what the author calls the "big question," one that is fundamental to the public policy dispute: Do payday lenders, on net, exacerbate or relieve customers' financial difficulties?

Working Paper 10-32, "Payday Lending: New Research and the Big Question," John P. Caskey, Swarthmore College, and Visiting Scholar, Federal Reserve Bank of Philadelphia

EXAMINING THE SPATIAL CONCENTRATION OF R&D LABS

The authors document the spatial concentration of more than 1,000 research and development (R&D) labs located in the Northeast corridor of the U.S. using point pattern methods. These methods allow systematic examination of clustering at different spatial scales. In particular, Monte Carlo tests based on Ripley's (1976) K-functions are used to identify clusters of labs — at varying spatial scales — that represent statistically significant departures from random locations reflecting the underlying distribution of economic activity (employment). Using global K-functions, they first identify significant clustering of R&D labs at two different spatial scales. This clustering is by far most significant at very small spatial scales (a quarter of a mile), with significance attenuating rapidly during the first half mile. The authors also observe statistically significant clustering at distances of about 40 miles. This corresponds roughly to the size of the four major R&D clusters identified in the second stage of their analysis — one each in Boston, New York-Northern New Jersey, Philadelphia-Wilmington, and Virginia (including the District of Columbia). In this second stage of the analysis, explicit clusters are identified by a new procedure based on local K-functions, which they designate as the multiscale core-cluster approach. This new approach yields a natural nesting of clusters at different scales. The authors' global finding of clustering at two spatial scales suggests the possibility of two distinct forms of spillovers. First, the rapid attenuation of significant clustering at small spatial scales is consistent with the view that knowledge spillovers are highly localized. Second, the scale at which larger clusters are found is roughly comparable to that of local labor markets, suggesting that such markets may be the source of additional spillovers (e.g., input sharing or labor market matching externalities).

Working Paper 10-33, "The Agglomeration of R&D Labs," Gerald A. Carlino, Federal Reserve Bank of Philadelphia; Jake Carr, Federal Reserve Bank of Philadelphia; Robert M. Hunt, Federal Reserve Bank of Philadelphia; and Tony E. Smith, University of Pennsylvania

WHY DO WORKERS ENGAGE IN ON-THE-JOB SEARCH?

This paper provides a set of simple, yet overlooked, facts regarding on-the-job search and job-to-job transitions using the UK Labour Force Survey (LFS). The LFS is unique in that it asks employed workers whether they search on the job and, if so, why. The author finds that workers search on the job for very different reasons, which lead to different outcomes in both mobility and wage growth. A nontrivial fraction

of workers engage in on-the-job search due to a fear of losing their job. This group mimics many known features of unemployed workers, such as wage losses upon finding a job. Workers also search on the job because they are unsatisfied. This group is roughly equally split into those who are unsatisfied with pay and those who are unsatisfied with other aspects of their job. Distinguishing these two groups allows the author to highlight the importance of the nonpecuniary value of a job. He further shows that the evidence that firms make a counteroffer in response to a worker's outside offer is scarce and that wage outcomes at the time of job-to-job transitions are closely linked to the worker's outside option. The evidence in this paper contributes not only to deepening our understanding of labor reallocation, but it also suggests the fruitful directions of future research in the labor search literature.

Working Paper 10-34, "Reality of On-the-Job Search," Shigeru Fujita, Federal Reserve Bank of Philadelphia