Abstracts of research papers produced by the economists at the Philadelphia Fed

You can find more Research Rap abstracts on our website at: www.philadelphiafed.org/research-and-data/publications/research-rap/. Or view our working papers at: www.philadelphiafed.org/research-and-data/publications/.

### IMPOSING EXCESS CASH FLOW SWEEP COVENANTS IN LOAN CONTRACTS

With free cash flows, borrowers can accumulate cash or voluntarily pay down debts. However, sometimes creditors impose a mandatory repayment covenant called "excess cash flow sweep" in loan contracts to force borrowers to repay debts ahead of schedule. About 17 percent of borrowers in the author's sample (1995-2006) have this covenant attached to at least one of their loans. The author finds that the sweep covenant is more likely to be imposed on borrowers with higher leverage (i.e., where risk shifting by equity holders is more likely). The results are robust to including borrower fixed effects or using industry median leverage as a proxy. The covenant is more common also in borrowers where equity holders appear to have firmer control, e.g., when more shares are controlled by institutional block holders, when firms are incorporated in states with laws more favorable to hostile takeovers, or when equity holders place higher valuation on excess cash holdings. These determinants suggest that the sweep covenant may be motivated by creditor-shareholder conflicts. Finally, the author shows that the covenant has real effects: borrowers affected by the sweep covenant indeed repay more debts using excess cash flows, and they spend less in capital investment and pay out fewer dividends to shareholders.

Working Paper 09-30, "Creditor Control of Free Cash Flow," Rocco Huang, Federal Reserve Bank of Philadelphia

## CORPORATE POLITICS: EFFECTS ON INTERNAL CAPITAL ALLOCATIONS AND LENDING BEHAVIOR

This study looks inside a large retailbanking group to understand how influence within the group affects internal capital allocations and lending behavior at the member bank level. The group consists of 181 member banks that jointly own a headquarters. Influence is measured by the divergence from oneshare-one-vote. The authors find that more influential member banks are allocated more capital from headquarters. They are less likely to decrease lending after negative deposit growth or to increase lending following positive deposit growth. These effects are stronger in situations in which information asymmetry between banks and the headquarters seems greater. The evidence suggests that influence can be useful in overcoming information asymmetry.

Working Paper 09-31, "Internal Capital Markets and Corporate Politics in a Banking Group," by Martijn Cremers, Yale School of Management; Rocco Huang, Federal Reserve Bank of Philadelphia; and Zacharias Sautner, University of Amsterdam

# CURRENCY DENOMINATIONS AND THE PRICES OF EXPORT GOODS: HOW IMPORTANT ARE THEY?

The authors show that standard alternative assumptions about the currency in which firms price export goods are virtually inconsequential for the properties of aggregate variables, other than the terms of trade, in a quantitative open-economy model. This result is in contrast to a large literature that empha-

sizes the importance of the currency denomination of exports for the properties of open-economy models.

Working Paper 09-32, "How Important Is the Currency Denomination of Exports in Open-Economy Models?" Michael Dotsey, Federal Reserve Bank of Philadelphia, and Margarida Duarte, University of Toronto

### WORKER FLOWS AND JOB FLOWS: SOURCES OF DIFFERENCES OVER THE BUSINESS CYCLE

Worker flows and job flows behave differently over the business cycle. The authors investigate the sources of the differences by studying quantitative properties of a multiple-worker version of the search/matching model that features endogenous job separation and intra-firm wage bargaining. Their calibration incorporates microand macro-level evidence on worker and job flows. The authors show that the dynamic stochastic equilibrium of the model replicates important cyclical features of worker flows and job flow simultaneously. In particular, the model correctly predicts that hires from unemployment move countercyclically while the job creation rate moves procyclically. The key to this result is to allow for a large hiring flow that does not go through unemployment but is part of job creation, for which procyclicality of the job finding rate dominates its cyclicality. The authors also show that the model generates large volatilities of unemployment and vacancies when a worker's outside option is at 83 percent of aggregate labor productivity.

Working Paper 09-33, "Worker Flows and Job Flows: A Quantitative Investigation," Shigeru Fujita, Federal Reserve Bank of Philadelphia, and Makoto Nakajima, Federal Reserve Bank of Philadelphia

## TOO-BIG-TO-FAIL: HOW MUCH WERE BANKS WILLING TO PAY?

This paper estimates the value of the too-big-to-fail (TBTF) subsidy. Using data from the merger boom of 1991-2004, the authors find that banking organizations were willing to pay an added premium for mergers that would 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 eight merger deals that brought the organizations to over \$100 billion in assets. In addition, the authors find that both the stock and bond markets reacted positively to these deals. Their estimated TBTF subsidy is large

enough to create serious concern, since recent assisted mergers have allowed TBTF organizations to become even bigger and for nonbanks to become part of TBTF banking organizations, thus extending the TBTF subsidy beyond banking.

Working Paper 09-34, "How Much Did Banks Pay to Become Too-Big-To-Fail and to Become Systemically Important?" Elijah Brewer III, DePaul University, and Julapa Jagtiani, Federal Reserve Bank of Philadelphia

### CAN WE INSURE 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 U.S. and use that model to study the feasibility and optimality of offering insurance against college failure risk. They 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 a high probability of failure).

Working Paper 10-1, "Insuring College Failure Risk," Satyajit Chatterjee, Federal Reserve Bank of Philadelphia, and Felicia Ionescu, Colgate University

#### WELFARE COSTS OF INFLATION

This paper studies the steady-state and dynamic consequences of inflation in an estimated dynamic stochastic general equilibrium model of the U.S. economy. The author finds that 10 percentage points of inflation entail a steady-state welfare cost as high as 13 percent of annual consumption. This large cost is mainly driven by staggered price contracts and price indexation. The transition from high to low inflation inflicts a welfare loss equivalent to 0.53 percent. The role of nominal/real frictions as well as that of parameter uncertainty is also addressed.

Working Paper 10-2, "The Implications of Inflation in an Estimated New-Keynesian Model," Pablo Guerron-Quintana, Federal Reserve Bank of Philadelphia