

# Research Update

These papers by Philadelphia Fed economists, analysts, and visiting scholars represent preliminary research that is being circulated for discussion purposes.

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## Strategic Default Among Private Student Loan Debtors: Evidence from Bankruptcy Reform

Bankruptcy reform in 2005 restricted debtors' ability to discharge private student loan debt. The reform was motivated by the perceived incentive of some borrowers to file bankruptcy under Chapter 7 even if they had, or expected to have, sufficient income to service their debt. Using a national sample of credit bureau files, the authors examine whether private student loan borrowers distinctly adjusted their Chapter 7 bankruptcy filing behavior in response to the reform. The authors do not find evidence to indicate that the moral hazard associated with dischargeability appreciably affected the behavior of private student loan debtors prior to the policy.

Supersedes Working Paper 15-17/R.

Working Paper 17-38. Rajeev Darolia, University of Kentucky and Federal Reserve Bank of Philadelphia Visiting Scholar; Dubravka Ritter, Federal Reserve Bank of Philadelphia Payment Cards Center.

## The Aggregate Effects of Labor Market Frictions

Labor market frictions are able to induce sluggish aggregate employment dynamics. However, these frictions have strong implications for the source of this propagation: They distort the path of aggregate employment by impeding the flow of labor across firms. For a canonical class of frictions, the authors show how observable measures of such flows can be used to assess the effect of frictions on aggregate employment dynamics. Application of this approach to establishment microdata for the United States reveals that the empirical flow of labor across firms deviates markedly from the predictions of canonical labor market frictions. Despite their ability to induce persistence in aggregate employment, firm-size flows in these models are predicted to respond aggressively to aggregate shocks but react sluggishly in the data. This paper therefore concludes that the propagation mechanism embodied in standard models of labor market frictions fails to account for the sources of observed employment dynamics.

Working Paper 17-40. Michael W.L. Elsby, University of Edinburgh; Ryan Michaels, Federal Reserve Bank of Philadelphia Research Department; David Ratner, Federal Reserve Board of Governors.

## Stuck in Subprime? Examining the Barriers to Refinancing Mortgage Debt

Despite falling interest rates and major federal policy intervention, many borrowers who could financially gain from refinancing have not done so. The authors investigate the rates at which, relative to prime borrowers, subprime borrowers seek and take out refinance loans, conditional on not experiencing mortgage default. They find that starting in 2009, subprime borrowers are about half as likely as prime borrowers to refinance, although they still shop for mortgage credit, indicating their interest in refinancing. The disparity in refinancing is driven in part by the tightened credit environment post-financial crisis, along with the fact that many subprime borrowers are ineligible for the Home Affordable Refinance Program (HARP), which is the major policy initiative designed to assist borrowers in refinancing their mortgages. The authors argue that these barriers to refinancing for subprime borrowers have long-term implications for social stratification and wealth building. These concerns are exacerbated by an additional finding of our work that refinance rates have been significantly lower for black and Hispanic borrowers, even after controlling for borrower credit status.

Working Paper 17-39. Lauren Lambie-Hanson, Federal Reserve Bank of Philadelphia Supervision, Regulation and Credit; Carolina Reid, University of California-Berkeley.

## Model Secrecy and Stress Tests

Conventional wisdom holds that the models used to stress test banks should be kept secret to prevent gaming. The authors show instead that secrecy can be suboptimal, because although it deters gaming, it may also deter socially desirable investment. When the regulator can choose the minimum standard for passing the test, the authors show that secrecy is suboptimal if the regulator is sufficiently uncertain regarding bank characteristics. When failing the bank is socially costly, then under some conditions, secrecy is suboptimal when the bank's private cost of failure is either sufficiently high or sufficiently low.

Working Paper 17-41. Yaron Leitner, Federal Reserve Bank of Philadelphia Research Department; Basil Williams, New York University.

## Long-Run Trade Elasticity and the Trade-Comovement Puzzle

The authors show that the trade-comovement puzzle—theory’s failure to account for the positive relation between trade and business cycle synchronization—is intimately related to its counterfactual implication that short- and long-run trade elasticities are equal. Based on this insight, the authors show that modeling the disconnect between the low short- and the high long-run trade elasticity in consistency with the data is promising in resolving the puzzle. In a broader context, the authors’ findings are relevant for analyzing business cycle transmission in a large class of models and caution against the use of static elasticity models in cross-country studies.

Working Paper 17–42. Lukasz A. Drozd, Federal Reserve Bank of Philadelphia Research Department; Sergey Kolbin, Amazon; Jaromir B. Nosal, Boston College.

## Incumbency Disadvantage in U.S. National Politics: The Role of Policy Inertia and Prospective Voting

The authors document that postwar U.S. national elections show a strong pattern of “incumbency disadvantage”: If the presidency has been held by a party for some time, that party tends to lose seats in Congress. The authors develop a model of partisan politics with policy inertia and prospective voting to explain this finding. Positive and normative implications of the model are explored.

Supersedes Working Paper 16–36.  
Working Paper 17–43. Satyajit Chatterjee, Federal Reserve Bank of Philadelphia Research Department; Burcu Eyigungor, Federal Reserve Bank of Philadelphia Research Department.

## The Paper Trail of Knowledge Spillovers: Evidence from Patent Interferences

The authors show evidence of localized knowledge spillovers using a new database of multiple invention from U.S. patent interferences terminated between 1998 and 2014. Patent interferences resulted when two or more independent parties simultaneously submitted identical claims of invention to the U.S. Patent Office. Following the idea that inventors of identical inventions share common knowledge inputs, interferences provide a new method for measuring spillovers of tacit knowledge compared with existing (and noisy) measures such as citation links. Using matched pairs of inventors to control for other factors contributing to the geography of invention and distance-based methods, the authors find that interfering inventor pairs are 1.4 to 4 times more likely to live in the same city or region. These results are not driven exclusively by observed social ties among interfering inventor pairs. Interfering inventors are also more geographically concentrated than inventors who cite the same prior patent. Our results emphasize geographic distance as a barrier to tacit knowledge flows.

Working Paper 17–44. Ina Ganguli, University of Massachusetts–Amherst; Jeffrey Lin, Federal Reserve Bank of Philadelphia Research Department; Nicholas Reynolds, Brown University.

## Greed as a Source of Polarization

The political process in the United States appears to be highly polarized: evidence from voting patterns finds that the political positions of legislators have diverged substantially, while the largest campaign contributions come from the most extreme lobby groups and are directed to the most extreme candidates. Is the rise in campaign contributions the cause of the growing polarity of political views? In this paper, we show that, in standard models of lobbying and electoral competition, a free-rider problem amongst potential contributors leads naturally to a divergence in campaign contributors without any divergence in candidates’ policy positions. However, we go on to show that a modest departure from standard assumptions—allowing candidates to directly value campaign contributions (because of “ego rents” or because lax auditing allows them to misappropriate some of these funds)—delivers the ability of campaign contributions to cause policy divergence.

Working Paper 18–01. Igor Livshits, Federal Reserve Bank of Philadelphia Research Department; Mark L.J. Wright, Federal Reserve Bank of Minneapolis, CAMA, NBER.

## **Redefault Risk in the Aftermath of the Mortgage Crisis: Why Did Modifications Improve More Than Self-Cures?**

This paper examines changes in the redefault rate of mortgages that were selected for modification during 2008–2011, compared with that of similarly situated self-cured mortgages during the same period. We find that while the performance of both modified and self-cured loans improved dramatically over this period, the decline in the redefault rate for modified loans was substantially larger, and the authors attribute this difference to a few key factors. First, the modification terms regarding repayments have become increasingly more generous, including more principal reduction, resulting in greater financial relief to the borrowers. Second, modifications in later vintages also benefited from improving economic conditions. Modifications became more effective as unemployment rates declined and home prices recovered. Third, the authors find that the difference between redefault rate improvement between modified loans and self-cured loans continue to persist even after controlling for all the relevant risk and economic factors. They attribute this difference to the servicers' learning process—such as data collection and information sharing among industry participants—known as “learning-by-doing.” Early in the mortgage crisis, many servicers had limited experience selecting the best borrowers for modification. As modification activity increased, lenders became more adept at screening borrowers for modification eligibility and in selecting appropriate modification terms. The authors' empirical findings suggest that mortgage modification effectiveness could be enhanced through the industry's “learning-by-doing” process.

Working Paper 18–02. Paul Calem, Federal Reserve Bank of Philadelphia Supervision, Regulation and Credit; Julapa Jagtiani, Federal Reserve Bank of Philadelphia Supervision, Regulation and Credit; Raman Maingi, Federal Reserve Bank of Philadelphia Supervision, Regulation and Credit; David Abell, Federal Reserve Bank of Philadelphia Supervision, Regulation and Credit.

## **Did the ACA's Dependent Coverage Mandate Reduce Financial Distress for Young Adults?**

We analyze whether the passage of the Affordable Care Act's dependent coverage mandate in 2010 reduced financial distress for young adults. Using nationally representative, anonymized consumer credit report information, we find that young adults covered by the mandate lowered their past due debt, had fewer delinquencies, and had a reduced probability of filing for bankruptcy. These effects are stronger in geographic areas that experienced higher uninsured rates for young adults prior to the mandate's implementation. Our estimates also show that some improvements are transitory because they diminish after an individual ages out of the mandate at age 26.

Working Paper 18–03. Nathan Blascak, Federal Reserve Bank of Philadelphia Payment Cards Center; Vyacheslav Mikhed, Federal Reserve Bank of Philadelphia Payment Cards Center

## **The Economics of Debt Collection: Enforcement of Consumer Credit Contracts**

Creditors often outsource the task of obtaining repayment from defaulting borrowers to third-party debt collectors. We argue that by hiring third-party debt collectors, creditors can avoid competing in terms of their debt collection practices. This explanation fits several empirical facts about third-party debt collection and is consistent with the evidence that third-party debt collectors use harsher debt collection practices than original creditors. Our model shows that the impact of third-party debt collectors on consumer welfare depends on the riskiness of the pool of borrowers and provides insights into which policy interventions may improve the functioning of the debt collection market.

Supersedes Working Paper 15–43.

Working Paper 18–04. Viktor Fedaseyev, Bocconi University; Robert Hunt, Federal Reserve Bank of Philadelphia Consumer Finance Institute and Payment Cards Center.

## **Screening on Loan Terms: Evidence from Maturity Choice in Consumer Credit**

We exploit a natural experiment in the largest online consumer lending platform to provide the first evidence that loan terms, in particular maturity choice, can be used to screen borrowers based on their private information. We compare two groups of observationally equivalent borrowers who took identical unsecured 36-month loans; for only one of the groups, a 60-month loan was also available. When a long-maturity option is available, fewer borrowers take the short-term loan, and those who do default less. Additional findings suggest borrowers self-select on private information about their future ability to repay.

Working Paper 18–05. Andrew Hertzberg, Federal Reserve Bank of Philadelphia Research Department; Andres Liberman, New York University; Daniel Paravisini, London School of Economics.