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Should Defaults Be Forgotten? Evidence from Variation in Removal of Negative Consumer Credit Information

Practically all industrialized economies restrict the length of time that credit bureaus can retain borrowers' negative credit information. There is, however, a large variation in the permitted retention times across countries. By exploiting a quasi-experimental variation in this retention time, the authors investigate what happens when negative information is deleted earlier from credit files. The authors find that the loss of information led banks to tighten their lending standards significantly as the expected retention time was diminished from on average three-and-a-half to three years exactly. Simultaneously, they find that borrowers who experience this shorter retention time default more frequently. Since borrowers nevertheless obtain more net access to credit and total defaults do not increase overall, the authors cannot rule out that this reduction in retention time is optimal.

Working Paper 14-21. Marieke Bos, SOFI, Stockholm University, Federal Reserve Bank of Philadelphia Visiting Scholar; Leonard Nakamura, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-21.pdf.

Fiscal Policy: Ex Ante and Ex Post

The surge in fiscal deficits since 2008 has put a renewed focus on our understanding of fiscal policy. The interaction of fiscal and monetary policy during this period has also

been the subject of much discussion and analysis. This paper gives new insight into past fiscal policy and its influence on monetary policy by examining the U.S. Federal Reserve Board staff's Greenbook forecasts of fiscal policy. The authors create a real-time database of the Greenbook forecasts of fiscal policy, examine the forecast performance in terms of bias and efficiency, and explore the implications for the interaction of fiscal policy and monetary policy. The authors also attempt to provide advice for fiscal policy by showing how policymakers learn over time about the trajectory of the U.S. federal government's fiscal balance as well as the changing roles of structural and cyclical factors.

Working Paper 14-22. Dean Croushore, University of Richmond, Federal Reserve Bank of Philadelphia Visiting Scholar; Simon van Norden, HEC Montréal, CIRANO, CIREQ, and Federal Reserve Bank of Philadelphia Visiting Scholar. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-22.pdf.

The Impact of the Home Valuation Code of Conduct on Appraisal and Mortgage Outcomes

During the housing crisis, it came to be recognized that inflated home mortgage appraisals were widespread during the subprime boom. The New York State Attorney General's office investigated this issue with respect to one particular lender and Fannie Mae and Freddie Mac. The investigation resulted in an agreement between the Attorney General's office, the government-sponsored enterprises (GSEs), and the Federal Housing Finance Agency (the GSEs' federal regu-

lator) in 2008, in which the GSEs agreed to adopt the Home Valuation Code of Conduct (HVCC). Using unique data sets that contain both approved and nonapproved mortgage applications, this study provides an empirical examination of the impact of the HVCC on appraisal and mortgage outcomes. The results suggest that the HVCC has reduced the probability of inflated valuations and induced a significant increase in low appraisals. The HVCC also made it more difficult to obtain mortgages in the aftermath of the financial crisis.

Working Paper 14-23. Lei Ding, Federal Reserve Bank of Philadelphia; Leonard Nakamura, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-23.pdf.

Liquidity, Trends, and the Great Recession

The authors study the impact that the liquidity crunch in 2008-2009 had on the U.S. economy's growth trend. To this end, the authors propose a model featuring endogenous productivity a la Romer and a liquidity friction a la Kiyotaki-Moore. A key finding in the authors' study is that liquidity declined around the Lehman Brothers' demise, which led to the severe contraction in the economy. This liquidity shock was a tail event. Improving conditions in financial markets were crucial in the subsequent recovery. Had conditions remained at their worst level in 2008, output would have been 20 percent below its actual level in 2011. The authors show that a subsidy to entrepreneurs would have gone a long way toward averting the crisis.

Working Paper 14-24. Pablo A. Guerron-Quintana, Federal Reserve Bank of Philadelphia; Ryo Jinnai, Texas A&M University. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-24.pdf.

Credit Access After Consumer Bankruptcy Filing: New Evidence

This paper uses a unique data set to shed new light on credit availability to consumer bankruptcy filers. In particular, the authors' data allow them to distinguish between Chapter 7 and Chapter 13 bankruptcy filings, to observe changes in credit demand and credit supply explicitly, and to differentiate existing and new credit accounts. The paper has four main findings. First, despite speedy recovery in their risk scores after bankruptcy filing, most filers have much reduced access to credit in terms of credit limits, and the impact seems to be long lasting (well beyond the discharge date). Second, the reduction in credit access stems mainly from the supply side as consumer inquiries recover significantly after the filing, while credit limits remain low. Third, new lenders do not treat Chapter 13 filers more favorably than Chapter 7 filers. In fact, Chapter 13 filers are much less likely to receive new credit cards than Chapter 7 filers even after controlling

for borrower characteristics and local economic environment. Finally, the authors find that Chapter 13 filers overall end up with a slightly larger credit limit amount than Chapter 7 filers (both after the filing and after discharge) because they are able to maintain more of their old credit from before bankruptcy filing. The authors' results cast doubt on the effectiveness of the current bankruptcy system in providing relief to bankruptcy filers and especially its recent push to get debtors into Chapter 13.

Working Paper 14-25. Supersedes Working Paper 13-24. Julapa Jagtiani, Federal Reserve Bank of Philadelphia; Wenli Li, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-25.pdf.

Agglomeration and Innovation

This paper reviews academic research on the connections between agglomeration and innovation. The authors first describe the conceptual distinctions between invention and innovation. They then discuss how these factors are frequently measured in the data and note some resulting empirical regularities. Innovative activity tends to be more concentrated than industrial activity, and the authors discuss important findings from the literature about why this is so. The authors highlight the traits of cities (e.g., size, industrial diversity) that theoretical and empirical work link to innovation, and they discuss factors that help sustain these features (e.g., the localization of entrepreneurial finance).

Working Paper 14-26. Gerald Carlino, Federal Reserve Bank of Philadelphia; William R. Kerr, Harvard University, Bank of Finland, NBER. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-26.pdf.

Reverse Mortgage Loans: A Quantitative Analysis

Reverse mortgage loans (RMLs) allow older homeowners to borrow against housing wealth without moving. Despite growth in this market, only 2.1% of eligible homeowners had RMLs in 2011. In this paper, the authors analyze reverse mortgages in a calibrated life-cycle model of retirement. The average welfare gain from RMLs is \$885 per homeowner. The authors' model implies that low-income, low-wealth, and poor-health households benefit the most, consistent with empirical evidence. Bequest motives, nursing-home-move risk, house price risk, and loan costs all contribute to the low take-up. The Great Recession may lead to increased RML demand, by up to 30% for the lowest-income and oldest households.

Working Paper 14-27. Supersedes Working Paper 13-27. Makoto Nakajima, Federal Reserve Bank of Philadelphia; Irina A. Telyukova, University of California–San Diego. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-27.pdf.

Identity Theft as a Teachable Moment

This paper examines how instances of identity theft that are sufficiently severe to induce consumers to place an extended fraud alert in their credit reports affect their risk scores, delinquencies, and other credit bureau variables on impact and thereafter. We show that for many consumers these effects are relatively small and transitory. However, for a significant number of consumers, especially those with lower risk scores prior to the event, there are more persistent and generally positive effects on credit bureau variables, including risk scores. We argue that these positive changes for subprime consumers are consistent with the effect of increased salience of credit file information to the consumer at the time of the identity theft.

Working Paper 14-28. Julia Cheney, Federal Reserve Bank of Philadelphia; Robert Hunt, Federal Reserve Bank of Philadelphia; Vyacheslav Mikhed, Federal Reserve Bank of Philadelphia; Dubravka Ritter, Federal Reserve Bank of Philadelphia; Michael Vogan, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-28.pdf.

Analyzing Data Revisions with a Dynamic Stochastic General Equilibrium Model

The authors use a structural dynamic stochastic general equilibrium model to investigate how initial data releases of key macroeconomic aggregates are related to final revised versions and how identified aggregate shocks influence data revisions. The analysis sheds light on how well preliminary data approximate final data and on how policymakers might condition their view of the preliminary data when formulating policy actions. The results suggest that monetary policy shocks and multifactor productivity shocks lead to predictable revisions to the initial release data on output growth and inflation.

Working Paper 14-29. Dean Croushore, University of Richmond; Keith Sill, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-29.pdf.

Microeconomic Uncertainty, International Trade, and Aggregate Fluctuations

The extent and direction of causation between micro volatility and business cycles are debated. The authors examine, empirically and theoretically, the source and effects of fluctuations in the dispersion of producer-level sales and production over the business cycle. On the theoretical side, the authors study the effect of exogenous first- and second-moment shocks to producer-level productivity in a two-country DSGE model with heterogeneous producers and an endogenous dynamic export participation decision.

First-moment shocks cause endogenous fluctuations in producer-level dispersion by reallocating production internationally, while second-moment shocks lead to increases in trade relative to GDP in recessions. Empirically, using detailed product-level data in the motor vehicle industry and industry-level data of U.S. manufacturers, the authors find evidence that international reallocation is indeed important for understanding cross-industry variation in cyclical patterns of measured dispersion.

Working Paper 14-30. George Alessandria, University of Rochester, Federal Reserve Bank of Philadelphia, NBER; Horag Choi, Monash University; Joseph P. Kaboski, University of Notre Dame and NBER; Virgiliu Midrigan, New York University and NBER. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-30.pdf.

Credit, Bankruptcy, and Aggregate Fluctuations

The authors ask two questions related to how access to credit affects the nature of business cycles. First, does the standard theory of unsecured credit account for the high volatility and procyclicality of credit and the high volatility and countercyclicality of bankruptcy filings found in U.S. data? Yes, it does, but only if we explicitly model recessions as displaying countercyclical earnings risk (i.e., rather than having all households fare slightly worse than normal during recessions, we ensure that more households than normal fare very poorly). Second, does access to credit smooth aggregate consumption or aggregate hours worked, and if so, does it matter with respect to the nature of business cycles? No, it does not; in fact, consumption is 20 percent more volatile when credit is available. The interest rate premia increase in recessions because of higher bankruptcy risk discouraging households from using credit. This finding contradicts the intuition that access to credit helps households to smooth their consumption.

Working Paper 14-31. Makoto Nakajima, Federal Reserve Bank of Philadelphia; José-Victor Ríos-Rull, University of Minnesota, Federal Reserve Bank of Minneapolis. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-31.pdf.

The Supply and Demand of Skilled Workers in Cities and the Role of Industry Composition

The share of high-skilled workers in U.S. cities is positively correlated with city size, and this correlation strengthened between 1980 and 2010. Furthermore, during the same time period, the U.S. economy experienced a significant structural transformation with regard to industrial composition, most notably in the decline of manufacturing and the rise of high-skilled service industries. To decompose and investigate these trends, this paper develops and estimates

a spatial equilibrium model with heterogeneous firms and workers that allows for both industry-specific and skill-specific technology changes across cities. The estimates imply that both supply and demand of high-skilled labor have increased over time in big cities. In addition, demand for skilled labor in large cities has increased somewhat within all industries. However, this aggregate increase in skill demand in cities is highly concentrated in a few industries. The finance, insurance, and real estate sectors alone account for 35 percent of the net change over time.

Working Paper 14-32. Jeffrey C. Brinkman, Federal Reserve Bank of Philadelphia. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-32.pdf.

An Anatomy of U.S. Personal Bankruptcy Under Chapter 13

The authors build a structural model of Chapter 13 bankruptcy that captures salient features of personal bankruptcy under Chapter 13. The authors estimate their model using a novel data set they construct from bankruptcy court dockets recorded in Delaware between 2001 and 2002. The authors' estimation results highlight the importance of debtor's choice of repayment plan length on Chapter 13 outcomes under the restrictions imposed by the bankruptcy law. The authors use the estimated model to conduct policy experiments to evaluate the impact of more stringent provisions of Chapter 13 that impose additional restrictions on the length of repayment plans. The authors find that these provisions would not materially affect creditor recovery rates and would not necessarily make discharge more likely for debtors with income above the state median income.

Working Paper 14-33. Supersedes Working Paper 07-31. Hülya Eraslan, Rice University; Gizem Koşar, Johns Hopkins University; Wenli Li, Federal Reserve Bank of Philadelphia; Pierre-Daniel Sartre, Federal Reserve Bank of Richmond. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-33.pdf.

Sourcing Substitution and Related Price Index Biases

The authors define a class of bias problems that arise when purchasers shift their expenditures among sellers charging different prices for units of precisely defined and interchangeable product items that are nevertheless regarded as different for the purposes of price measurement. For business-to-business transactions, these shifts can cause sourcing substitution bias in the Producer Price Index (PPI) and the Import Price Index (MPI), as well as potentially in the proposed new true Input Price Index (IPI). Similarly, when consumers shift their expenditures for the same products temporally to take advantage of promotional sales or among retailers charging different per unit prices, this can cause a promotions bias problem in the Consumer Price Index (CPI) or a CPI outlet substitution bias. The authors recommend alternatives to conventional price indexes that make use of unit values over precisely defined and interchangeable product items. They argue that our proposed ideal target indexes could greatly reduce these biases and make use of increasingly available electronic scanner data on prices and quantities. The authors also address the challenges national statistics agencies must surmount to produce price index measures more like the specified target ones.

Working Paper 14-34. Alice O. Nakamura, University of Alberta; W. Erwin Diewert, University of British Columbia, University of New South Wales; John S. Greenlees, Bureau of Labor Statistics (Retired); Leonard I. Nakamura, Federal Reserve Bank of Philadelphia; Marshall B. Reinsdorf, U.S. Bureau of Economic Analysis. www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-34.pdf.