



**24<sup>th</sup> Issue**

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### **Lead Articles**

**8th European Banking Center Network Conference, “Bank credit in a post-crisis economy”, Tilburg, Netherlands, 27-28 October 2016.**

The 8th edition of the Financial Stability Conference was held on the campus of Tilburg University on October 27-28. The conference, organized by the European Banking Center in cooperation with CEPR, brought together academics and researchers from all over the world to discuss studies about this year’s theme: “Bank credit in a post-crisis economy”. For this year’s conference, the program committee selected 12 papers to participate in the event, next to the keynote speech given by Gary Gorton from Yale University.

The first session started with a presentation by Rafael Matta (University of Amsterdam, joint work with Enrico Perotti). Rafael showed that the decision of bank funding between secured and unsecured loans may improve or reduce financial stability. In a realistic bankruptcy process, the pledging of collateral to repo debt creates a trade-off between funding cost and the chance of runs by affecting risk allocation and liquidity across lenders. In particular, bank runs are rare when unpledged liquid assets are abundant, rise as more repo funding shifts risk, and fall again as less liquidity is available for early withdrawals. In addition, there is a mismatch between the private and social optimum: profit-maximizing banks favor repo debt, increasing the frequency of runs, while the socially optimum minimizes runs by limiting repo or by subsidizing a high rollover yield on unsecured debt. Afterward, Joel Shapiro (Oxford University, joint work with Alessio Piccolo) presented a paper on the interaction between credit rating agencies and credit market risk information. Using a model where CRAs trade off current profit and future reputation while incorporating information from public and private sources, the authors found that the interaction between the CRA and the market price has two contrasting effects. On one hand, a more accurate rating decrease the quality of the market trading information (investors have fewer incentives to acquire information); on the other hand, more informative trading increases CRA’s incentives to make accurate ratings in order to protect its reputation. The authors highlighted a perverse result that follows if the first effect is strong enough: policies that increase reputational sanctions to CRAs, incentivizing them to generate more accurate ratings, decrease the total amount of information produced.

In the second session, Jennie Bai (McDonough School of business, Georgetown University, joint work with Reena Aggarwal and Luc Laeven) shed some light on the link between the securities lending market and the repo market. Using price and volume data for the European Government Bond Market for the period 2006-2014, the authors found evidence of the flight-to-quality effect during a period of market stress. Specifically, they provide evidence of a higher increase of fees for high-quality bonds (from core countries) compare to low-quality bonds (issued by peripheral countries) accompany by a decrease (increase) in the supply (demand) of high-quality bonds. Simultaneously, the authors found that in stressed times, when cash is scarce, borrowers are more likely to use noncash collateral in the securities lending market to borrow

high-quality government bond of core countries. With an empirical approach as well, Guillaume Vuillemeys (HEC Paris, joint work with Christophe Pérignon and David Thesmar) sought to answer whether wholesale dry-ups are demand or supply driven (when investors are uninformed but homogeneous vs. when some investors are informed), finding strong support for the latter. Their conclusion is based on testing the predictions of the two competing models in the European market for certificates of deposits. The authors showed that wholesale funding dry-ups are mostly bank-specific and driven by information about future bank quality, contrasting with the idea of market-wide disruptions which follows from the assumption of homogeneous lenders. In the same order of ideas, the authors found that the cross-sectional allocation of funds in wholesale funding markets is not primarily driven by adverse selection between lenders and borrowers in time of stress.

After lunch, the keynote speaker, Gary Gorton (Yale University, joint work with Guillermo Ordóñez) discussed how credit booms are not rare, are usually preceded by a burst in productivity and can end in a crisis (bad booms) or not (good booms). Empirical evidence suggests that a boom turns into a “bad” one when the productivity shock dies off fast enough, indicating that not all crises are the result of contemporaneous negative shock but their seeds may be sewn long in the past. The authors proposed a model that can replicate this stylized facts. In their model, financial crises are defined by credit markets operation under a different information regime. In essence, after the arrival of a new technology, firms finance projects that use that technology; given the state of the economy, it is not optimal for lenders to learn about the quality of the collateral, which in turn leads to more assets used as collateral, more projects financed and a credit boom. However, as the credit boom evolves, the average productivity of the economy may decay fast enough leading to a change of the information regime, lenders start to examine the collateral and some firms that used to obtain loans become credit constrained, output declines and a crisis occurs. Once in the crisis, average productivity improves and the process restarts. As a result, bad booms in this model can become completely endogenous.

The third session began with a presentation by Matteo Crosignani (Fed Board, joint work with Luisa Carpinelli, Bank of Italy). Using a unique dataset, the authors investigate the effects of the 3-year Long Term Refinancing Operation (LTRO), the liquidity injection conducted in December 2011 by the European Central Bank, on the Italian bank credit supply. After overcoming some empirical challenges, the authors found that banks with a large exposure to the foreign wholesale market reduce their credit supply during the sudden funding contraction (run) and expand it during the LTRO intervention. In addition, during the run period, banks reduce their credit supply evenly across firms but, following the liquidity provision, they increase their credit supply mainly to low leverage firms. Overall, the authors found that the 3-year LTRO increased by 2% the credit supply in Italy. The next presentation covered a highly related topic. Stine Daetz (Copenhagen Business School, joint work with Marti Subrahmanyam, NYU Stern, Dragon Tang, University of Hong Kong and Sarah Wang, Warwick Business School) investigated whether the ECB injections help the real economy, specifically their impact on corporate policies (including cash holdings, financing, investment and unemployment). In this empirical paper, the authors found that, in overall, the ECB’s unconventional monetary policies do not affect positively investment or employment in the Eurozone. In fact, the authors discuss evidence showing that non-financial corporations decrease their investment when the banks in their home countries receive more money from the LTRO programs regardless of their industry structure or taxation environment. Interestingly, non-financial corporations in the Eurozone are affected by ECB liquidity injection in terms of cash holding and leverage, however, corporations seem to simply hoard the cash instead of hiring or investing, eliminating any possible effect on the real economy.

In the first session on Friday, Jose Azar (Universidad de Navarra, joint work with Sahil Raina and Martin Schmalz, University of Michigan) discussed the implications of bank ownership on bank competition and, ultimately, in the behavior of prices consumers pay for storing their savings (deposit account interest rates, maintenance fee, and fee thresholds). Using US banks as a case of study, the authors found that fees and

thresholds have increased markedly over the last decade and exhibit larger cross-sectional variation. This variation is not correlated with the Herfindahl-Hirschman index (HHI) of market concentration, which the authors argue is due to the inability of this index to consider the high and increasing degree of overlapping ownership between banks. In order to overcome this limitation, the authors propose a generalization of the market concentration index (GHHI) which accounts not just for common ownership but also for cross-ownership. In contrast to the traditional index, the proposed GHHI is strongly correlated with all fees and thresholds, suggesting that bank regulators should consider ownership when measuring bank concentration and its effects. Later, Massimiliano Stacchini (Bank of Italy, joint work with Fabio Schiantarelli and Philip Strahan, Boston College) provides empirical evidence regarding the occurrence that Italian banks can be vulnerable to run-like behavior when borrowers choose to delay payment in response to evidence of their bank's distress from past bad loans. Borrowers seem to default because they observe other borrowers doing so, highlighting an additional channel through which credit risk might impair bank stability: delay in payments motivated by bank weakness. The authors discuss the reasonability of the delays in payments to weaker banks: first, firms would be more likely to delay a payment because the expected value of the continuation of the relationship is small. Second, bigger firms (with greater bargaining power) would take advantage of the reluctance of weak bank to lose a large customer and finally, because arguably it is harder for a weak bank to recover their interest through the courts. This last claim is supported empirically as the magnitude of these "borrower runs" increases in areas of Italy where legal disputes take longer to resolve.

In the fifth session, Rui Albuquerque (Boston College, joint with Luis Cabral and José Corrêa Guedes) presented theoretical work on relative performance compensation. The model is surprisingly simple (featuring two identical banks with risk neutral shareholders and risk averse CEO's) yet sharply points out the existence of strategic complementarities under relative performance compensation. The authors stress that risk-averse bank CEOs are likely to coordinate on common projects as a means to reduce the variance in pay. The authors investigate various policies to reduce systemic risk and find that the intended effects are undone as a consequence of this. The next paper in this session was presented by Jing Zeng (Frankfurt School of Finance and Management, joint with John Kuong). The paper deals with the connection between foreclosures decisions of mortgages and the securitization of mortgages. The authors provide a theory in which excessive foreclosure policy, in addition to the retention of junior securities, serves as costly signals to reduce informational frictions inherent in the securitization process. The model produces some empirical predictions in line with observations on the mortgage securitization industry. Importantly, the authors suggests that mortgage servicers could act as commitment devices such that the securitiser can commit to ex post excessive foreclosure policies. As a result, the mortgage servicing contracts appear to have incentives biased towards foreclosure, and the servicer-specific capacity related to foreclosures can be informative of mortgage pool quality.

In the last session of the conference, Dmitriy Sergeyev (Bocconi University) a paper studying optimal monetary and macro-prudential policy jointly in a currency union. This implies that monetary policy is set optimally for the entire union whereas macro-prudential policies are country-specific depending on the amount of slack in a country. Because monetary policy is set for the entire union, there is room for a stabilization role for regional financial regulation. Optimal macroprudential policy is then used to stabilize business cycles even when fiscal transfers are allowed among the union members, and these transfers are set optimally. However, in general, the fiscal transfers cannot achieve a flexible price allocation in every country. As a result, macroprudential policy are partly used to stabilize inefficient business cycle fluctuations. Another result in this paper is related to the benefits of global coordination of regional macroprudential policies. The author identifies different externalities leading to three sources of gains of coordination in the international context. An interesting extension of the model, as pointed out by the author self, is to consider unconventional monetary policy tools. Finally, Sjoerd van Bakkum (Erasmus School of Economics, joint with Marc Gabarro and Rustom Irani) presented empirical work on collateral eligibility and risk-taking. The authors evaluated the impact of a loosening in collateral policy on bank lending and risk taking. In 2012, the ECB relaxed collateral eligibility criteria implying that residential mortgage-backed

securities (RMBS) rated as low as BBB- to be eligible as collateral. The authors have used impressively detailed data on loan portfolios of Dutch Banks. The authors are able to observe the loan portfolios in fine detail, their data contains loan-, property-, and borrower-level identifiers, as well as related characteristics. The authors use their data to assess the impact of the collateral eligibility rule change on bank lending and risk-taking using a difference-in-differences approach. The authors find that the policy change stimulated bank lending but may have negative side effects as it leads to excessive bank-risk taking which could spill over to the sovereign via guarantees.

Besides all the presentations of scientific research and active discussions following up on these presentations, there was room for a less serious note. On Thursday evening during the dinner at *Villa De Vier Jaargetijden*, participants to the conference expressed their appreciation for the organization of the EBC conference and we are looking forward to the next EBC network conference in Lancaster.

### Call for Papers

- 9<sup>th</sup> European Banking Center Network Conference (Lancaster). <https://www.tilburguniversity.edu/research/institutes-and-research-groups/ebc/events/show/item-nine-european-banking-center-network-conference/>

### Upcoming Conferences

- “Avoiding and Resolving Banking Crises”, joint conference by De Nederlandsche Bank, European Banking Center (Tilburg University) and CEPR, De Nederlandsche Bank, Amsterdam. 20-21 April, 2017. Web: <https://www.tilburguniversity.edu/research/institutes-and-research-groups/ebc/events/show/event-ebc-avoiding-resolving-banking-crises/>
- 2<sup>nd</sup> EBC Network Workshop, Luxembourg School of Finance, May 11-12, 2017.

### Selected Publications

Acharya, V., **M. Pagano** and P. Volpin, 2016. Seeking Alpha: Excess Risk Taking and Competition for Managerial Talent. *Review of Financial Studies*, 29(10), 2565-2599.

**Beck, T., V. Ioannidou** and L. Schafer. Foreigners vs. Natives: Bank Lending Technologies and Loan Pricing, *Management Science*, forthcoming

**Beck, T., H. Degryse, R. De Haas** and **N. van Horen**. When arms' length is too far: relationship banking over the business cycle, *Journal of Financial Economics*, forthcoming.

**Braggion, F., N. Dwarkasing** and L. Moore. Nothing Special About Banks: Competition and Bank Lending in Britain, 1885-1925, *Review of Financial Studies*, forthcoming.

Di Maggio, M. and **M. Pagano**. Financial Disclosure and Market Transparency with Costly Information Processing, *Review of Finance*, forthcoming.

**Norden, L.**, 2017. Information in CDS spreads. *Journal of Banking and Finance*, 75, 118-135.

Behr, P., D. Foos and **L. Norden**, 2017. Cyclicity of SME lending and government involvement in banks. *Journal of Banking and Finance*, 77, 64-77.