

Bank Supervision and Resolution: National and International Challenges

Summary of a Joint Workshop of CEPR, the University of Vienna and the OeNB

On October 3 and 4, 2011, the Center of Economic Policy Research (CEPR), the University of Vienna and the Oesterreichische Nationalbank (OeNB) held a joint research workshop on the topic “Bank Supervision and Resolution: National and International Challenges” at the OeNB in Vienna. In the two days of the workshop twelve papers selected through a call for papers were presented.² In his opening address, Peter Mooslechner (OeNB) went through some of the intricacies of resolution policies in an international context.

Bank Resolution: Facing the Challenges

The workshop took one of its central themes – bank resolution – head on by opening with a policy panel with Thorsten Beck (Tilburg University), Harry Huizinga (Tilburg University), Andreas Ittner (OeNB), Charles Kahn (University of Illinois) and Luc Laeven (IMF). There was a widely shared view among the panelists that resolution regimes are a key element in a multilayered system of financial stability instruments. The key role of resolution regimes comes of the fact that the rules of how institutions that fail will ultimately be dealt with determine very much their ex-ante behavioral incentives. On a practical note, Andreas Ittner pointed out that progress in legislation has to come in the form of special bank resolution frameworks outside the specific insolvency laws, because the heteroge-

neity and complexity of insolvency laws in different countries would make any harmonization attempts a project of decades rather than years.

The first research paper in the program by Max Bruche (CEMFI) provided an analysis of a specific incentive problem supervisors are regularly confronted with: How can banks with a high proportion of bad loans be made to voluntarily foreclose these loans and prevented from concealing their difficulties and gambling for resurrection? In a joint paper with Gerard Lobet (CEMFI), he suggests a mechanism which will provide incentives to voluntarily disclose detailed information on the loan portfolio. The optimal mechanism consists of a two-part tariff, with a fixed payment and a variable subsidy per loan foreclosed. It turns out that this mechanism can be designed such that banks always participate and always foreclose. Furthermore, the informational rents for the banks can be eliminated. In his comment, Ulrich Hege from HEC Paris contrasted the mechanism with an outright nationalization and found some advantages of nationalization over the mechanism. If the public sector can be provided with the right incentives to impose a tough restructuring on nationalized banks and resell the bank to the market afterwards, this sometimes may prove more beneficial than voluntary mechanisms that have the unpleasant feature that something is paid to the bank for revealing that there are problems in the balance sheet.

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² Slides of the presentations and more specific references are available on request. Please mail inquiries to Katharina.Spiegl@oenb.at.

Dealing with Liquidity Issues

Liquidity issues were the central topic during the remainder of the morning of the first workshop day, covered by a paper by Hans Degryse (Tilburg University) and a paper by Cornelia Holthausen (ECB).

In his joint paper with Muhammad Ather Elahi (State Bank of Pakistan) and Maria Fabiana Penas (Tilburg University), Hans Degryse analyzed the issue of regional banking fragility and its impact on cross-border banking contagion. In particular, the authors addressed the question of which banking characteristics in the host region alleviate cross-regional banking contagion. The authors found that regional financial fragility is mitigated by liquidity and capitalization but amplified by concentration. As regards cross-regional contagion, effects stemming from the U.S.A. and Europe affect Asia and Latin America more strongly than contagion between themselves. Finally, the higher bank liquidity and capitalization in a host region, the smaller the impact of contagion from triggering regions.

Cornelia Holthausen presented a joint paper with Jens Eisenschmidt (ECB) on maturity mismatch and liquidity regulation, in which they investigate whether there is a theoretical explanation of why banks with a higher maturity mismatch rely more heavily on central bank liquidity. For the authors this question came up from the experience with the longer-term liquidity measures of the ECB during the recent crisis, where it turned out that especially banks with the need of roll-over funding had a high demand for long-term funds. In their theoretical analysis, the authors find that banks with a high maturity mismatch of assets and liabilities have the highest willingness to pay in long-term central bank auctions (because they aim at reducing

the mismatch). This effect is stronger, the more severe the crisis. The empirical analysis finds that there is a relationship between a measure of maturity mismatch in the banking book and bank risk. Banks under stress display significantly different demand behavior in Eurosystem operations than non-stressed banks.

Issues in Cross-Border Banking

The afternoon of the first workshop day was dedicated to some current issues arising in cross-border banking, from the globalization of banking supervision to ringfencing up to barriers to cross-border banking resulting from the financial safety net and the interactions between home country regulation standards and bank lending standards abroad.

Thorsten Beck (Tilburg University) started the session by presenting a joint paper with his Tilburg colleagues Radomir Todorov and Wolf Wagner, in which the authors attempt to evaluate the costs and benefits of a global banking supervision framework. Motivated by a bon mot by Charles Goodhart, who famously said that “banks are global in life but national in death,” and the recent experience with the limits to resolution options for cross-border banks, the paper provides a cost-benefit analysis of raising bank supervision institutionally to a global level. Based on a theoretical and empirical analysis, the authors find that a global supervisor would improve on the current situation but only if this supervisor would at the same time be equipped with resolution authority. The main concern of the discussant of this paper, Giacomo Calzolari (University of Bologna), was that the empirical analysis, which is based on a very stylized toy model of bank supervision in a multinational context, is not very clear on the exact

distortions that arise from the national supervision of multinational banks.

Eugenio Cerutti (IMF) gave a paper coauthored with his IMF colleagues Anna Ilyina, Yulia Makarova and Christian Schmieder on the implications of ringfencing for European cross-border banks. While, on the one hand, many cross-border banking groups acted as lenders of last resort for their CESEE subsidiaries during the crisis, many host country regulators, on the other hand, might ringfence foreign affiliates within their jurisdictions due to banking-stability considerations (e.g. the need to protect the domestic banking system from negative spillovers from the rest of the group) or macro-stability considerations (e.g. avoiding capital outflows). Against this background, the authors ask the very practical question about the capital needs of banking groups under different ringfencing assumptions. The authors arrive at the following three, very interesting main findings: First, the capital needs of cross-border banking groups to ensure the adequate capitalization of all parts of the group (after a shock) are higher under complete or partial ringfencing than under no ringfencing. Second these differences are more significant for geographically more diversified banking groups. Finally, standard stress tests of cross-border banking groups based on consolidated balance sheet data (which implicitly assume no restrictions on intra-group transfers) may lead to wrong conclusions about the adequate level of the group's capitalization. The capital needs of cross-border banks due to ring fencing may increase by 150% up to 300% according to the authors' calculations.

Cross-border banking issues remained the central topic in the afternoon sessions. Ata Can Bertay (Tilburg University and World Bank) presented

a joint paper with Asli Demirgüç-Kunt (World Bank) and Harry Huizinga (Tilburg University and CEPR) on financial safety nets and barriers to cross-border banking. The authors find in an empirical study that international banks are at a competitive disadvantage compared to domestic banks due to their limited access to public safety nets. As a consequence, international banks are subject to more market discipline by depositors. This creates interesting policy conflicts: While one might wish to level the playing field for all banks, the paper suggests that this might go hand in hand with a decrease in market discipline by international banks, an effect that is clearly undesirable. The discussant Alberto Pozzolo (Università degli Studi del Molise), while appreciating the results and the paper overall, raised doubts whether the effect studied by the authors is – in principle and in view of the magnitude of the effects suggested by the empirical findings – the most important argument in favor of agreements on the bail-outs of international banks.

The first day ended with a presentation by Steven Ongena (Tilburg University) on the interaction between the home regulatory regime and the behavior of banks abroad. As mentioned by the discussant, Ricardo Hauswald (American University Washington), the problem analyzed in the paper could be translated into a family context by raising the question whether strictly prohibiting certain behaviors of the kids at home will have the only effect that they pursue these forbidden behaviors with even more energy outside the house. In Ongena's paper, co-authored by Alexander Popov (ECB) and Greg Udell (Indiana University), the authors look specifically at the issue of risk taking. Their main findings are that ex-ante riskier firms in host country

localities are dominated by banks facing anti-competitive regulation at home and as a consequence face a higher probability of being constrained in terms of new credit. Ex-ante riskier firms in host country localities are dominated by banks facing higher activity restrictions and capital standards and as a consequence a lower probability of being constrained in terms of new credit. These findings seem to suggest that domestic regulation has cross-border spillovers that should be taken into account in regulatory design.

Bank Capital and Macroprudential Regulation

The second workshop day was mainly devoted to different issues in capital regulation. This topic was also the theme of the keynote speech given by Rafael Repullo (CEMFI). Repullo took up an all-time favorite among the topics discussed in capital regulation: the procyclicality issue. His contribution based on joint work with Javier Suarez (CEMFI) is a more formal analysis compared to most of what has been written on the subject, including the Basel Committee's proposals for procyclicality adjustments. Repullo's model aims to, first, assess the extent to which bank capital regulation can lead to amplification of business cycle fluctuations through its effects on the supply of loans, second, to evaluate the impact of the risk-based capital requirements and, third, to compare different regulations in welfare terms. In a quantitative analysis of the theoretical model using calibrations of key parameters the main findings are that Basel II indeed produces procyclical capital buffers and increases the risk of credit crunches. But it also makes banks safer. A welfare comparison demonstrates that Basel II is better than Basel I and that from the

welfare point of view, there are no clear welfare justifications for cyclical adjustments. As with all calibration exercises, these results have to be seen as coming from a pure thought experiment. There is no independent evidence that the formal framework used in the analysis indeed captures the main mechanisms at work in real banking systems. Thus, only a careful debate of the results and the assumptions from which they are derived can eventually bring them into perspective in the general debate about procyclicality.

The first paper after the keynote lecture was the joint work of José-Luis Peydró (Universitat Pompeu Fabra), Gabriel Jiménez (Banco de España), Steven Ongena (Tilburg University) and Jesús Saurina (Banco de España) investigating the now famous Spanish dynamic provisioning experiment. What can be said about this experiment in the light of macroprudential policy goals and the smoothing of excessive credit cycles? The authors find that countercyclical capital buffers strongly mitigate credit supply cycles. Firms are more affected by decreases in credit supply during crisis times when switching from banks with low to high capital buffers is difficult. These are important policy implications for Basel III, bank bailouts, monetary policy and, in general, for macroprudential policy. Individual bank capital matters in crises. The discussant Laurent Bach (Stockholm School of Economics) remarked that the evidence presented in the paper shows that dynamic provisioning reduces fluctuations in total supply of credit by banks but he did not see direct evidence of reduced overlending and reduced credit rationing. He would have needed more evidence to find the evidence as a whole convincing.

Lev Ratnovski (IMF) presented a joint paper with Enrico Perotti (Univer-

sity of Amsterdam) and Razvan Vlahu (Dutch Central Bank) dealing with capital regulation and tail risk. He presented a theoretical model that suggested that bank capital requirements are inadequate to deal with bank incentives to take on tail risk, which needs a separate focus by supervisors and regulators.

Theo Vermaelen (INSEAD) presented a joint paper with George Penacchi (University of Illinois) and Christian Wolff (University of Luxembourg) on a convertible debt instrument (COERC) that would assume the same function as contingent convertible bonds while avoiding some of their undesirable features. Contingent convertibles (CoCos) are bonds that mandatorily convert to equity after a triggering event. The motivation for requiring such an instrument in the capital structure of banks is to provide discipline of debt in good times and to avoid bailouts in bad times. The instrument functions such that if the value of stock plus COERC hits a lower trigger, then the COERC is converted into a large number of common shares that can be repurchased by the original equity holders at par. This security comes with a number of advantages: It increases equity when the bank does poorly, without forcing the bank to raise external capital; it avoids multiple equilibria which plague standard CoCos; it largely eliminates incentives to manipulate the price toward the trigger; and it reduces risk-shifting incentives. The discussant, Josef Zechner (Vienna University of Economics and Business), pointed out some of the potential problems, most importantly the problem that the mechanism features equity injections by existing or new shareholders in times when the bank is doing poorly. These may be exactly the times when it is hard to raise new equity. Zechner also pointed out that in the

likely event that there is asymmetric information, issuing the instrument might be stigmatized, which in turn might require making the issuance mandatory for all institutions.

Bank Supervision

Finally the workshop featured two papers dealing with specific supervision issues. Julio Rotemberg (Harvard Business School) presented a model using behavioral economics to discuss the bank run problem. The gist of the paper is that people like demandable deposits because to them they appear safer than they actually are. People are overconfident about how well they will do in a run. In a world with behavior characterized by overconfidence, it makes sense to control bank assets even without deposit insurance and it makes sense to use mandatory clawbacks in bankruptcy. The final paper by Roman Inderst (University of Frankfurt), coauthored by Sebastian Pfeil (University of Frankfurt), addressed issues of bonus-driven compensation, whether it should be regulated and how such regulation interacts with other policies, such as minimum exposure regulation.

The Bigger Picture

While the papers presented at the workshop were quite heterogeneous in terms of methodology and topics, they also showed quite clearly that with respect to international issues of regulation, there are still remarkable gaps in the way policies are interpreted and in what options are considered desirable. As regards resolution, there seems to be a common understanding that it has to play a key role within the wider framework of financial stability policies. The question of what a good resolution regime would specifically look like remain still very much open.