2019 Biennial IADI Research Conference
Towards Building a More Resilient Financial System – Challenges in Deposit Insurance and Bank Resolution

IADI International Association of Deposit Insurers

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2019 Biennial IADI Research Conference Proceedings

The International Association of Deposit Insurers (IADI) hosted its fifth Biennial Research Conference on 23-24 May 2019, at the Bank for International Settlements (BIS) in Basel, Switzerland. The conference was titled “Towards Building a More Resilient Financial System – Challenges in Deposit Insurance and Bank Resolution” and was attended by over 200 participants from 75 jurisdictions. Paper presenters covered the broad topics of credibility of deposit insurance, deposit insurance premiums and arbitrage, bank recapitalisations and effect on government guarantees, private deposit insurance and effect on bank lending, European deposit insurance scheme and cross-subsidisation, optimal liquidity for deposit insurers, bank liquidation, and shadow banking and financial stability.

The Conference featured eight papers chosen from 63 paper submissions received in response to a Call for Papers. Each paper was presented by the author and discussed by a discussant. The authors and discussants were from Brazil, Canada, Germany, Indonesia, Italy, Japan, Nigeria, Portugal, Switzerland, the United Kingdom and the United States. The BIS, the European Central Bank (ECB), the Financial Stability Board (FSB), and the International Monetary Fund (IMF) also contributed speakers and discussants to the conference. The key points emerging from the discussions at various sessions of the Conference are summarised below.

Welcoming Remarks

In his remarks, IADI Secretary General David Walker stressed that a large number of high quality research papers were received for the conference and from these the eight most relevant papers for the conference were selected. The research offered a diverse range of perspectives on issues of critical importance to deposit insurers and resolution authorities, including the impact of financial crisis on credibility and confidence in deposit insurance systems; bank re-capitalisation and risk-shifting in a crisis environment; deposit insurance pricing and its impact on interbank lending behaviour; as well as research into shadow banking, private deposit insurance, the European Deposit Insurance System and bank insolvency regimes.

Opening Remarks

Katsunori Mikuniya, IADI President and Governor of the Deposit Insurance Corporation of Japan, delivered opening remarks stating that each jurisdiction’s mechanism to respond to financial crises has been established through the actual need to deal with real financial difficulties. The more financial transactions are developed, complicated and globalised, the more new challenges are faced. An actual crisis sometimes emerges unexpectedly in a new manner. President Mikuniya emphasised that good supervision and effective resolution and

DIS regimes could prevent and mitigate such impacts and play an important role in keeping the economy resilient.

Keynote Address

Stijn Claessens, Head of Financial Stability Policy and Deputy Head of the Monetary and Economic Department, BIS, delivered keynote address. He reviewed lessons on crisis management from earlier crisis episodes. He said that there are patterns behind crises with overlaps in banking, currency and sovereign crises. But crises are hard to identify. While each crisis has been unique with different policy choices and outcomes, there is commonality in causes. However, the global financial crisis which was more global required much larger liquidity support and monetary and fiscal policy responses which were more accommodative. Bank recapitalisations, additional guarantees, enhanced deposit insurance coverage levels played a big role. The real effects of crises were thus mitigated.

While vulnerabilities can be reduced, crises are likely to recur. He highlighted the need to plan ahead for such cases, including in terms of resolution, not only as regards to individual banks, but also as to the banking system as a whole. He emphasised that deposit insurance serves multiple goals for a single bank and is important in systemic crises too. While more is still to be learned, especially on resolution, an important lesson has been that the speed of resolution can be more demanding that in the past.

Paper 1: The importance of deposit insurance credibility

Chair: Claudio Borio, Head of the Monetary and Economic Department, Bank for International Settlements

Author: Diana Bonfim, Banco de Portugal and João A. C. Santos, Federal Reserve Bank of New York

Discussant: Cathérine Koch, Economist, MED Financial Systems and Regulation, Bank for International Settlements

Diana Bonfim presented her paper that looks at two specific events during the euro area sovereign debt crisis that threatened the credibility of deposit insurance. One event relates to the transformation of foreign bank subsidiaries into branches and the other bailout in Cyprus. She explained that their research offers insight into sensitivity of depositors to sovereign risk and how uncertainty in deposit insurance affects depositor behavior.

She concluded that depositors actively react to events that raise doubts about the credibility of deposit insurance. Depositors value the security of foreign deposit insurance, with total, household, and corporate deposits all increasing when foreign subsidiaries convert to branches. Banks' soundness also plays a role: depositors take their money away from smaller, less profitable and less liquid banks. The paper also reveals the reaction from depositors is stronger for household deposits, as the fraction of insured depositors is much larger for households than for firms. A key policy implication of the paper is that without a complete Banking Union, the sovereign-bank link is still present.

Discussant Cathérine Koch complimented the paper, particularly with respect to utilisation of microdata and direct policy relevance. She felt the rich dataset could be further exploited e.g. to infer differences experienced by domestic/foreign and/or mutual/commercial banks. There could be further consideration given to additional differential effects that may support the identification exercise. Finally, future work may consider reallocation effects that can emerge when depositors shift towards alternative financial instruments, prefer cash holdings, or move money offshore.

Paper 2: The spillover effects of forced bank recapitalisations and government guarantees

Chair: Claudio Borio, Head of the Monetary and Economic Department, Bank for International Settlements

Author: Arun Gupta, Yale School of Management

Discussant: Jean Roy, Professor, HEC Montréal and IADI Advisory Panel Member

Arun Gupta investigates the response of bank holding companies to the enforcement of subsidiary-level capital requirements. He explained the main hypothesis of the paper – when subsidiary-level capital requirements are imposed due to market frictions and imperfections, bank holding companies will be reluctant to issue new shares and will respond by transferring capital from high capital subsidiaries to undercapitalised ones and reducing assets or asset growth. The 1989 announcement of the United States Cross-Guarantee Authority is used to test the hypothesis. This announcement saw corporations making decisions about capitalisation of weak subsidiaries which presented spillover effects on sibling lending.

He concluded that well-capitalised bank conglomerates shift risk onto the deposit insurance fund by strategically undercapitalising weak subsidiaries, and a general reluctance to inject equity via issuing shares externally. The application of these findings to G-SIBs highlights the value of international policy coordination. Unilateral policy actions to protect national deposit insurance funds can lead to negative spillover effects on credit growth of siblings in foreign jurisdictions.

Discussant Jean Roy felt the paper had a well-stated hypothesis that was tested using accounting data with sufficiently large sample, and supported by sound econometric methodology. The paper's conclusion that there is a relationship between higher capital requirements and lower credit supply is not new. It is however the first paper to identify internal capital market and lending spillover effects that occur when parent holding companies are pressured to recapitalise weak subsidiaries. Further exploration of existing literature and articulation of paper's relative contribution would be valuable.

Paper 3: Deposit insurance premiums and arbitrage

Chair: Diane Ellis, Director, Division of Insurance and Research, Federal Deposit Insurance Corporation

Author: Edward Kim, UCLA Anderson School of Management and Marcelo Rezende, Board of Governors of the Federal Reserve System

Discussant: Giovanni Calice, Associate Professor of Finance, School of Business and Economics, Loughborough University

Marcelo Rezende estimates the effects of deposit insurance premiums on bank demand for reserves and on interbank lending in the federal funds market. The paper is in part motivated by important links between deposit insurance and monetary policy implementation tools. He explained that the causation between premiums and reserve demand is established via exploiting a kink in the Federal Deposit Insurance Corporation's schedule of assessing premiums. The empirical strategy examines how excess reserves, Federal funds sold and purchased change as the slope of the assessment rate changes at the five basis point minimum.

He concludes that premiums reduce demand for reserves and increase the supply of federal funds by these banks. Specifically, a 1-basis point increase in the assessment rate decreases excess reserves of the average bank in the sample from $0.8 million to $5.6 million. Optimal deposit insurance pricing may depend on the effects of insurance premiums on monetary policy implementation.

Discussant Giovanni Calice felt the paper could be improved in terms of readability and through further explanation of the methodology applied. He felt it important to emphasise the challenge of establishing causality with so many potentially confounding dynamics at play. There was also some caution flagged concerning generalisation of the results to all financial institutions when only a small sample of banks was studied.

Paper 4: Private deposit insurance, deposit flows and bank lending

Chair: Diane Ellis, Director, Division of Insurance and Research, Federal Deposit Insurance Corporation

Author: Piotr Danisewicz, Chun Hei Lee, Klaus Schaeck, University of Bristol

Discussant: Andrew Campbell, Emeritus Professor of International Banking & Finance Law, School of Law, University of Leeds

Klaus Schaeck examines the role of unlimited private deposit insurance during a recent financial crisis. He explained the main hypothesis of the paper – whether banks with unlimited deposit insurance provided by a private deposit insurance fund receive additional deposit inflows. The research is facilitated by a case study in Massachusetts USA during the 2008 global financial crisis where additional (unlimited) private insurance above FDIC coverage levels was readily available subject to risk adjusted premia. The authors combine annual branch-level deposit data on deposit volume with quarterly bank-level data for branches in Massachusetts and five surrounding states to test for significant effects.

The paper suggests that banks whose deposits are privately insured experienced additional deposit inflows and expanded lending during the recent financial crisis, relative to banks whose deposits are federally insured only.

Discussant Andrew Campbell noted that private deposit insurance can be a controversial topic. He felt that very few depositors would exceed the coverage rates of FDIC insurance and hence minimise the potential impact of any private initiative. In addition, reiterating the strong reputation of the FDIC, he expressed reluctance as to whether additional private cover would be viewed favourably by the public. Regardless, he acknowledged the benefits that were observed during the global financial crisis in Massachusetts, but cautioned against generalising this result to a broader suite of scenarios.

Panel Discussion: Deposit Insurance Fund – Uses and Safeguards

Moderator: Kumudini Hajra, Senior Policy and Research Advisor, International Association of Deposit Insurers

Speakers:

- Dean Cosman, Executive Vice President and Chief Risk Officer, Canada Deposit Insurance Corporation
- Riccardo De Lisa, Senior Advisor, Interbank Deposit Protection Fund, Italy
- Prince Aghatise Erediauwa, Executive Director (Operations), Nigeria Deposit Insurance Corporation
- Ruth Walters, Senior Advisor, Financial Stability Institute, Bank for International Settlements

Moderator Kumudini Hajra presented issues on the theme of alternative uses of funds other than for payout to insured depositors of bank under liquidation. There are safeguards that can be applied to limit the overall costs of resolution and the use of deposit insurance fund.

On the question of framework governing use of deposit insurance funds and changes in the framework since the global financial crisis, panelists from Canada, Nigeria and Italy described the framework for resolution and deposit insurance. Dean Cosman stated that there has been no significant change since the global financial crisis in Canada but the Canada Deposit Insurance Corporation has been given increased authority over time under the legal framework. Riccardo De Lisa described changes in the Italian deposit insurance system following from changes in the broader European framework. Based on findings from an FSI Insights paper, Ruth Walters mentioned that insolvency regimes are not pre-designed and evolving. Prince Aghatise stated that in Nigeria, an attempt is made to follow least disruptive approach for resolving banks, especially larger ones.

The panel also discussed safeguards such as least cost criteria while using deposit insurance funds for bank resolution. De Lisa while describing the Italian approach mentioned that there are direct and indirect safeguards that can be applied and there are practical difficulties in applying least cost criteria. Cosman stated that in Canada the focus is on preserving financial stability and minimising exposure to loss. On alternative uses of deposit insurance find, Walters spoke about emergency liquidity assistance and mentioned that deposit insurers do not have frameworks like central banks have for assessing collaterals and imposing penalties. In Canada, central bank provides liquidity if it’s a viable entity.

Panelists also shared their views regarding the benefits and limitations of having two separate funds for resolution and deposit insurance. Walters mentioned that in the EU, a resolution fund is not a choice as it’s specified in the legislation. FSB Key Attributes also call for some form of resolution funding and deposit insurance funds could play a role in resolution funding. She, however, added that two separate funds could be a burden on the smaller banking markets. De Lisa raised the issue of governance of the fund and decision making for using deposit insurance fund. Cosman mentioned that in Canada, there is one fund as the deposit insurer also has resolution powers. Aghatise stated that Nigeria is in the process of making legislative changes to establish a resolution fund.

Paper 5: “Completing the Banking Union with a European Deposit Insurance Scheme: who is afraid of cross-subsidisation?”

Chair: Giuseppe Boccuzzi, Director General of Interbank Deposit Protection Fund, Italy

Author: Jacopo Carmassi, European Central Bank; Sonja Dobkowitz, University of Bonn; Johanne Evrard, European Central Bank; Laura Parisi, European Central Bank; André F. Silva, Federal Reserve Board; and Michael Wedow, European Central Bank

Discussant: Dirk Cupei, Managing Director, Financial Market Stability, Deposit Protection, of the Association of German Banks

Jacopo Carmassi presented the findings of the joint paper, which based on the use of a micro-level dataset on covered deposits for 2,148 euro area banks assesses the impact of the proposed European Deposit Insurance Scheme (EDIS) on risk-based contributions. The paper finds that both smallest and largest banks (in terms of size of group by total assets) are actually paying less contribution relative to share of the covered deposits. He explained a better approach would be to include minimum requirement for own funds and eligible liabilities (MREL), so that bank with the higher MREL would pay less in terms of risk based contribution.

Carmassi added that the paper also finds that the fund size target of EDIS is sufficient to cover losses on account of larger loss absorbency capacity built after the crisis and contribution of the Single Resolution Fund (SRF). On cross-subsidisation, he added that from the sample of banks (3% of which contains 65 banks and 10% contains 215 banks) only very few countries showed the evidence of cross-subsidisation. He concluded that EDIS would offer large benefits in terms of enhancing confidence, avoiding crisis, ensuring uniform protection of depositors, while in the other hand the risk would be much limited for both EDIS exposure and cross-subsidisation.

Discussant Dirk Cupei contended that the paper could be optimised by adding comparison with stress test on national schemes, as the level of resiliency may appear differently on a stand-alone basis. According to the paper the probability of losses were very low and kept on decreasing on the recent years, he thus suggested adding an aspect of liquidity support into the analysis. Cupei also questioned the reason behind the selection of banks in the sample as well as the significant variations of coverage level on country by country basis. Lastly he also suggested that the paper include a preventive action perspective, given that for some national DGS' within the scope of EDIS undertake measures other than only pay-out.

Paper 6: "In Search of Optimal Liquidity for Deposit Insurers"

Chair: Giuseppe Boccuzzi, Director General of Interbank Deposit Protection Fund, Italy

Author: Jean Roy, Professor, HEC Montréal, Canada

Discussant: Bruno Lund, Head of Research and Modelling, Fundo Garantidor de Créditos

In his paper Jean Roy proposes a new approach of optimal liquidity practices, apart from the widely applied approaches, namely (1) liquidity and ex-ante funding and (2) liquidity at risk approach. The proposed approach is optimal liquidity using the inventory theory model. He introduced two new concepts; the holding cost (the cost of having liquid assets) and the stock out cost (the cost of not having these liquid assets), where he then equated the expected marginal costs between the two. He defined the holding cost for liquid assets as opportunity cost or the rate of return on bank capital deducted by rate of return obtained by the deposit insurer. The stock out costs for liquid assets is defined as the cost of using borrowing, which is equal to issuance cost plus interest costs.

The author uses real data from the Canada Deposit Insurance Corporation, for three sets of scenarios: actual situation, targeted situation and optimal situation. He finds that the higher the stock out cost, the higher the liquidity must be; and the higher the holding cost the lower the stock of inventory was needed. He concluded that: (1) liquidity could be viewed as stock awaiting an uncertain demand and the inventory theory could provide a framework in order to find an optimal solution; (2) to do so, it requires estimating both holding cost and stock out cost; and (3) this new approach could help to improve the understanding of the problem of liquidity for the deposit insurer.

Discussant Bruno Lund agreed that the paper has provided another perspective on the liquidity target, nevertheless he also admitted the difficulties in the determination of the liquidity target. With regards to estimating optimal liquidity through inventory models, he mentioned drawbacks in the holding cost aspect. He observed that the stock out cost was even harder to obtain. Lund stated that inventory theory was a new approach to determine the fund target, however he would rather consider this as an alternative way to get a new confidence level. In terms of the risk management perspective, he added that both holding and stock out cost were actually variable along the time. Therefore them being variable, the level of confidence would also be a variable which might not be viewed as a proper approach from a risk management perspective.

Distinguished Guest Speaker

Distinguished Guest Speaker, Thomas M. Hoenig, former President and Chair of the Executive Council, IADI, and former Vice Chairman, Federal Deposit Insurance Corporation (FDIC), shared his views on the future of banking. He started his speech by stating that there are signs of recovery from the great recession, in the US and parts of Asia and Europe. Globally systemically important banks (GISBs) have also shown improvement in their balance sheet. Financial institutions are better capitalised and those best capitalised have seen the most success.

Hoenig cautioned that memories are short and some are unwisely seeking elimination of prudential standards that have served us well, especially the rules that most affect the use of leverage and bank safety. Push back against standards is evident in the areas of underwriting of highly leveraged loans and derivatives trading.

He supported the idea that regulations that create endless process and establish ever more difficult barriers to entry, encouraging further consolidation, concentration and less choice, should be repealed or amended. Legislation and rules that attempt to account for every possibility and to micro manage markets only build complexity into the system, promote bureaucracies, create barriers to entry and undermine competition. The public is best served by writing simple, clear rules, relying on strong accountable levels of capital so that systemic crises and bailouts are less likely to occur in the first place.

Paper 7: The choice between judicial and administrative sanctioned procedures to manage liquidation of banks

Chair: Stijn Claessens, Head of Financial Stability Policy and Deputy Head of the Monetary and Economic Depart, Bank for International Settlements

Author: Jens-Hinrich Binder, Michael Krimminger, Maria Nieto and Dalvinder Singh

Discussant: Eva Hüpkes, Acting Head of Regulatory and Supervisory Policies, Financial Stability Board

Dalvinder Singh presented the co-authored paper, which reviews bank insolvency procedures in the EU and the US. Although the EU has agreed upon a Eurozone resolution regime, winding-up and insolvency proceedings are currently defined at the national level. This has resulted in the development of idiosyncratic insolvency regimes at the national level by creating differences in efficiency, treatment of creditors, and the application of EU resolution criteria in different jurisdictions. The paper recommends greater political consensus and coordination among member states to reduce existing inconsistencies in insolvency regimes to enhance the credibility and functioning of the European Deposit Insurance System.

Through case studies, the paper demonstrates that there appears to be a low certainty or predictability regarding the BRRD's "public interest" criteria for resolution. Determining this threshold of systemic relevance is difficult without common insolvency proceedings in Europe. Singh concluded that in order for the European Deposit Insurance System to provide equal protection for all euro area deposits, the EU needs to harmonise more aspects of its liquidation procedures, including the depositor preference rule, among member states to ensure there is predictability.

Discussant, Eva Hüpkes, raised the difficulty in deciding which regime functions the best and measuring the term "effectiveness". Effectiveness is a loaded term that can have numerous considerations beyond loss rates, such as market confidence in the operational capacity of resolution authorities and their performance history. Further, the discussant analysed predictability in relation to effectiveness to determine if predictability influences or determines effectiveness. The discussant also considered cross-border effectiveness and the role of crisis management groups. Finally, the discussant examined the plurality of EU procedures and whether if a third option of EU state aid could be used, as well as misalignment between regimes.

Paper 8: Shadow banking and financial stability under limited deposit insurance

Chair: Stijn Claessens, Head of Financial Stability Policy and Deputy Head of the Monetary and Economic Depart, Bank for International Settlements

Author: Lukas Voellmy, Study Center Gerzensee (Swiss National Bank foundation) and University of Bern.

Discussant: Leonardo Gambacorta, Bank for International Settlements and Centre for Economic Policy Research

Lukas Voellmy's paper examines the relationship between shadow banking and financial stability and explores whether a dual banking system could assist in absorbing uninsured deposits during a bank run. With a sufficiently low cap on deposit insurance, the shadow banking sector could be sufficiently large enough to act as a stabilising factor. In this scenario, shadow banking would provide the largest benefit to institutional investors whose deposits are too large to be adequately covered by traditional deposit insurance programs. The model determines the optimal allocation of insured and uninsured deposits across banks and determines the exogenous upper limit on insured deposits to create a stabilising shadow banking sector that also does not pose a significant risk to financial stability.

Voellmy presented two policy prescriptions to ensure the shadow banking system remains in the proper size range. First, fees at commercial banks should be eliminated or set as low as possible to remain competitive with the fee-free shadow banking sector. Second, a marginal tax is needed on uninsured deposits at commercial banks to limit households' surplus savings and encourage the usage of shadow banks. Commercial banks have additional perceived stability as some deposits are insured and less susceptible to bank runs.

The discussant, Leonardo Gambacorta, raised three practical considerations. First, the relation between commercial banks and shadow banks are more complex and the model used in the paper is oversimplified. It has not considered their interconnectedness and how shadow banks provide funds to commercial banks. Second, riskier assets may contribute to greater instability. The paper assumes that assets have no risk, but there could be significant pro-cyclical behavior and deleveraging with a strong market decline. A run on a shadow bank could be more disruptive to a commercial bank than the paper believes. Third, the discussant suggested exploring a few policy instruments and their application in relation to the other.

Regulators' Roundtable: Perspectives on the Global Financial Safety Net

Moderator: David Walker, Secretary General, International Association of Deposit Insurers

Speakers:

- Halim Alamsyah, Chairman, Indonesia Deposit Insurance Corporation
- Diane Ellis, Director, Division of Insurance and Research, Federal Deposit Insurance Corporation
- Jan Nolte, Senior Policy and Research Advisor, International Monetary Fund

The purpose of the roundtable session was to find out from regulators' their perspective on the Research Conference topics and other issues impacting financial stability going forward.

The first presenter, Halim Alamsyah, spoke about financial stability from the perspective of a rapidly growing emerging market financial system - Indonesia. He used the experience of Indonesia in responding to financial crises to emphasise the importance of advanced planning and preparations and the critical role of early warning and supervisory intervention and coordination among safety net authorities. He ended his presentation by bringing attention to the growing risk of regulatory fragmentation in Asia and other regions and the need for a “crisis testability” framework to test reforms already made.

Diane Ellis highlighted two papers from the Conference: the Spillover Effects of Forced Bank Recapitalisation and Government Guarantees (Arun Gupta) and the paper on Deposit Insurance Premiums and Arbitrage (Edward Kim and Marcello Rezende). On the first paper, she highlighted the issue of banks shifting assets into weaker banks and raising the risk exposure of the deposit insurance fund, clearly an area more research was needed given the risks posed to deposit insurers. On the second paper she indicated that deposit insurance premiums on bank demand for reserves and on interbank lending in the fed funds market was a concern for her and this clearly highlighted the interconnectedness of markets.

Jan Nolte discussed from an IMF perspective his views on the research topics. He shared the views of Halim Alamsyah on the importance of information sharing and coordination for resolutions in both domestic and international contexts. He emphasised the importance of having a full resolution tool kit and a certain amount of flexibility in how to apply the tools. For example he said that deposit insurance funds should not only be designated for payouts (such as in the EU) but should be available for purchase and assumption and other resolution options if these tools minimised disruptions and helped reduce the cost of resolutions.

Concluding Remarks

Presenter: Kumudini Hajra, Senior Policy and Research Adviser, International Association of Deposit Insurers

Kumudini Hajra in her concluding remarks highlighted importance of the IADI research conference, which brings together academics and practitioners to discuss ongoing research work in the area of financial stability, bank resolution and deposit insurance.

Reflecting the theme of the conference, paper submissions covered themes such as (i) importance of credibility of deposit insurance, (ii) design of deposit insurance system with important implications on its functioning, and (iii) impact on bank behaviour of crucial policy announcements. Some other papers focused on emerging issues like central bank digital currencies. She highlighted the importance of developing good quality database on deposit insurance especially micro-level data for research purposes. She informed the audience about the recent research initiatives taken by the IADI.

Closing her remarks, she thanked the IADI President, the BIS, speakers at the Conference, IADI advisory panel members, IADI members, and others involved in the preparations for the Research Conference.

2021 IADI Research Conference

IADI intends to hold its sixth Biennial Research Conference in 2021. IADI will invite researchers, deposit insurers, bank resolution and supervisory practitioners, and private sector financial professionals to attend the 2021 Conference. Information regarding the 2021 conference, including a call for Papers, will be posted on the IADI website and in other appropriate forums well in advance of the conference.

The papers and materials for the 2019 conference can be found at http://www.iadi.org.