J. Finan. Intermediation 24 (2015) 590–601

Contents lists available at ScienceDirect

J. Finan. Intermediation

journal homepage: www.elsevier.com/locate/jfi

The impact of deposit insurance on depositor behavior during a crisis: A conjoint analysis approach ☆

Glenn Boyle [a], Roger Stover [b,*], Amrit Tiwana [c], Oleksandr Zhylyevskyy [d]

[a] *Department of Economics and Finance, University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand*
[b] *Department of Finance, Iowa State University, 3111 Gerdin, Ames, IA 50011, USA*
[c] *Terry College of Business, University of Georgia, 305 Brooks Hall, Athens, GA 30602, USA*
[d] *Department of Economics, Iowa State University, 460D Heady Hall, Ames, IA 50011, USA*

A R T I C L E I N F O

Article history:
Received 18 December 2013
Available online 10 February 2015

Keywords:
Deposit insurance
Banking crises
Bank runs
Conjoint analysis

A B S T R A C T

We investigate the effectiveness of initiating deposit insurance at the outset of a banking crisis. Using a conjoint analysis approach that allows us to consider the simultaneous impact of multiple deposit insurance attributes and various counterfactuals, we ask a multinational sample of respondents how they would view hypothetical account profiles following the failure of a large competing bank. Previous experience matters: respondents from countries without explicit deposit insurance exhibit greater withdrawal risk, suggesting that the introduction of deposit insurance during a crisis may be only partially successful in preventing bank runs. They also impose a higher deposit interest rate premium. Having a long-term bank relationship reduces withdrawal risk, as does the absence of co-insurance.

☆ For helpful comments and assistance, we are grateful to Ken Cyree, Christie Smith, Anella Munro, Maros Servatka, Lars Kaiser, Toby Daglish, Aron Veress, Murillo Campello (JFI editor), and, especially, an anonymous JFI referee. Previous versions of this paper were presented at the University of Canterbury, University of Liechtenstein, and the Reserve Bank of New Zealand, and we thank attendees for useful suggestions. Jake Van Diest and Matthew Hakemann provided invaluable research assistance. Finally, we sincerely thank the survey instrument respondents who helped make this research possible.

* Corresponding author.

E-mail addresses: glenn.boyle@canterbury.ac.nz (G. Boyle), rstover@iastate.edu (R. Stover), tiwana@uga.edu (A. Tiwana), oz9a@iastate.edu (O. Zhylyevskyy).

http://dx.doi.org/10.1016/j.jfi.2015.02.001
1042-9573/

1. Introduction

The theoretical advantages and disadvantages of deposit insurance are well known. On the one hand, it provides depositors with confidence about the safety of their funds and hence reduces the likelihood of bank runs following an adverse event. On the other hand, it encourages depositors to scale back on their monitoring of bank risk-taking activities during non-crisis periods, thus making future bank failures more likely.[1] In line with the first argument, Demirgüc-Kunt et al. (2014) point out that countries with explicit deposit insurance schemes in place prior to the 2007–08 global financial crisis saw very few depositor-led bank runs, but a widespread incidence of runs on (uninsured) wholesale funding. At the same time, they also express disquiet about the long-term moral hazard implications of this success.

Most empirical research on deposit insurance has focused on existing insurance schemes, either by comparing insured and uninsured countries, or by comparing insured and uninsured depositors within the same country. By contrast, deposit insurance that is introduced during a crisis appears to have attracted little research interest to date.[2] A natural question is whether such interventions work in the desired manner. That is, can the introduction of deposit insurance during a crisis be effective in mitigating depositor runs?

Given the potential moral hazard and adverse selection costs of deposit insurance, many countries delay the introduction of deposit insurance until a banking crisis strikes.[3] However, such a strategy implicitly assumes that newly-introduced insurance is just as effective in preventing bank runs as long-standing insurance. Perhaps it takes time for depositors to learn about, and gain confidence in, explicit deposit insurance schemes. In that case, deposit insurance introduced following the onset of a crisis may be of limited value compared to the pre-existing kind.

In this paper, we investigate the effectiveness of explicit deposit insurance that is introduced when banking sector problems arise. The usual approach for doing so would compare the actual crisis experiences of countries that had a pre-existing deposit insurance system with those that introduced deposit insurance only once the crisis was underway. Unfortunately, because these countries also differ along a multitude of other dimensions (e.g., deposit insurance systems with widely varying features, different forms of crisis, and so on), implementation of this approach would be a daunting task.[4] Instead, we employ conjoint analysis and ask a sample of respondents to assess a number of hypothetical deposit accounts, all of which are insured to varying degrees, in the presence of a banking sector crisis. Because our sample includes respondents both from (i) countries that have explicit deposit insurance and (ii) countries that do not have such insurance, we are able to use the collected responses to gain insight into the potential effectiveness of crisis-adopted deposit insurance.

Our main finding is that respondents from countries without explicit deposit insurance behave differently. In particular, they exhibit greater withdrawal risk, suggesting that the introduction of deposit insurance during a crisis may be only partially successful in preventing bank runs. More generous insurance schemes are more effective but potentially involve greater long-term system risks. Newly-insured respondents also require a higher interest rate premium than their historically-insured counterparts, although there is no difference between the two groups in their pricing of bank risk.

Many papers have been written about deposit insurance, but ours is the first to examine its introduction during a banking sector crisis and assess its impact using conjoint analysis. This allows us to extend several strands of recent research. For example, Osili and Paulson (2014) find that immigrants from countries with deposit insurance schemes are more likely to use the United States banking system, from which they conjecture that insurance can potentially maintain confidence during a crisis.

[1] As pointed out by an associate editor, this occurs not only because of the well known moral hazard problem, but also because of adverse selection: any insurance-induced reduction in market discipline allows incompetent and inefficient bankers to continue to operate.

[2] Anginer et al. (2012) point out that "(T)here is no study that examines the impact of deposit insurance…during a period of global risk and instability. This is an important gap in our knowledge…".

[3] See Demirgüç-Kunt et al. (2008).

[4] As countries typically only adopt deposit insurance once, such an approach would also have limited data observations relative to the number of potential variations.