Magdalena Ignatowski[*]
Josef Korte[**]

CHANGING BANK RESOLUTION REGIMES – THE U.S. CASE[1]

1. INTRODUCTION

Existing resolution tools proved mostly inappropriate when governments were confronted with seriously distressed banks during the global financial crisis and the subsequent European sovereign debt crisis. A comparison of the failure resolution of Lehman Brothers and Washington Mutual in September 2008 illustrates the insufficiencies of applying corporate bankruptcy mechanisms to bank insolvencies as opposed to bank-specific resolution mechanisms. When Lehman Brothers filed for Chapter 11 bankruptcy protection on September 15, 2008, the bankruptcy filing constituted a default action in derivative contracts, leading to massive terminations of derivative positions. As Lehman Brothers was not allowed to provide liquidity to its subsidiaries, its foreign legal entities entered bankruptcy proceedings as well. At the time of Lehman Brother's failure, Washington Mutual experienced a bank run and was put into Federal Deposit Insurance Corporation (FDIC) receivership by its regulator, the Office of Thrift Supervision, on September 25, 2008. FDIC sold Washington Mutual's assets, deposit liabilities and secured debt immediately to JPMorgan Chase and the remaining holding company filed for

[*] Magdalena Ignatowski is a Ph.D. student at Goethe University, Frankfurt, Germany.
[**] Josef Korte is a Ph.D. student Goethe University, Frankfurt, Germany.
[1] This article summarizes and refers to our latest working paper that can be obtained at: https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1659.pdf.

bankruptcy protection the next day. Although Washington Mutual's business had been materially different from Lehman Brothers', its banking business continued to operate without major interruptions, unlike the failure of Lehman Brothers.[2] Since then bank regulators and legislators have realized the importance of effective and appropriate bank resolution mechanisms and brought into force significant changes to resolution regimes in an effort to prevent future crises. Have these enabled regulators to resolve failed banks more effectively? What are the implications of such changes on bank behavior?

This article deals with the question whether resolution mechanisms can discipline banks. We revisit economic theory to determine the requirements for resolution mechanisms to induce incentives for prudent bank behavior and apply this concept in order to examine one particular change in resolution regulation, the introduction of the Orderly Liquidation Authority (OLA). In section 2, we present the theoretical foundations regarding bank resolution and its implications for bank behavior. In section 3, we study the OLA and discuss whether this can be regarded as an effective and credible improvement in resolution technology. The link to new empirical findings is provided in section 4. Section 5 concludes.

2. THEORETICAL BACKGROUND REGARDING RESOLUTION AND BANK BEHAVIOR

Resolution of distressed banks is probably the most intricate regulatory area regarding incentives for prudent bank behavior. Overall, there are two (opposing) regulatory approaches to handling a distressed bank: bailing out the bank in order to preserve it as a going concern and resolving the bank either through acquisition by another financial institution (i.e. purchase and assumption) or straightforward closure and liquidation. Economic theory predicts that the expectation of being bailed out increases banks' moral hazard as creditors anticipate loss protection in case of bank failure and have little incentives to monitor the bank. Empirical evidence tends to support the view that bailout guarantees an increase in bank risk-taking and moral hazard in the long run.[3] Conversely, when bailout guarantees cease to be implicit through a credible and enforceable improvement

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[2] FDIC (2011) provides an extensive discussion of the differences between Lehman Brothers' bankruptcy under Chapter 11 and a hypothetical resolution under a special bank resolution regime, i.e., the Orderly Liquidation Authority.

[3] Black and Hazelwood (2013) and Duchin and Sosyura (2013) provide evidence that (at least large) TARP-funded U.S. banks increased risk-taking after the capital injection. Dam and Koetter (2012) exploit a dataset on capital injections in Germany and find that bailout expectations (through observed capital injections) increase risk-taking in the whole banking sector (measured as probability of default).

in bank resolution regimes, banks should change their behavior towards more prudent behavior and lower probability of distress. A comprehensive theoretical model of how improvements in resolution regimes interact with bank behavior was recently offered by DeYoung et al. (2013). Building on the time-inconsistency problem of bank closure decisions formulated by Mailath and Mester (1994) and Acharya and Yorulmazer (2007), the authors model the regulatory closure of a bank as a trade-off between short-term liquidity and long-term discipline. The model assumes banks that are inherently fragile and suffer from moral hazard with regard to excessive risk, complexity, and volatility. Essentially, there are two alternatives for the regulator to deal with this. On the one hand, banks can be disciplined by a strict closure and resolution policy in case of failure. Unfortunately, this discipline only materializes in the long run. On the other hand, while they help to establish discipline, available resolution technologies usually suffer from limitations. These limitations, such as slow processes, missing information, or legal limits to available regulatory instruments, might (temporarily) lead to illiquidity in the case of bank closures. This might result in a detrimental impact on the economy as a whole (e.g. Ashcraft, 2005). Hence, the regulator – despite knowing about the long run benefits of discipline – also has an intrinsic motivation to prefer bailouts or forbearance over straightforward closure. DeYoung et al. (2013) model the outcome of this trade-off as determined by two parameters. The first one is the time discount rate of the regulator – the higher it is, the stronger is the regulator's preference for liquidity, i.e. bailout. Effectively, this discount rate proxies for the pressure for immediacy that regulators and economic policy makers are experiencing, e.g. political pressure to preserve liquidity during a crisis.[4] The resolution technology available to the regulator is the second parameter determining the trade-off. The better this technology is, the faster and more efficient a bank closure can be executed, the more liquidity is preserved. Consequently, regulators with better resolution technologies at hand are – under the assumption of an equal time discount rate – more induced to enforce discipline, i.e. closure.

This model provides several implications. First, improvements in resolution technology, such as legal changes or operational empowerment of the regulator, make a regulatory policy preferring discipline (i.e. closure in case of failure) more likely. If the technological improvement is known and credible to banks, they will act rationally by adjusting their behavior towards more discipline ex ante. Hence, an improvement in resolution technology should induce more prudent behavior, ceteris paribus. Second, this outcome depends on the credibility of the application of the new resolution technology. The new policy instruments will only be effective

[4] Several empirical studies confirm the tendency for bailout and forbearance in times of macroeconomic or systemic stress. Brown and Dinç (2011) and Kasa and Spiegel (2008), for example, find that regulators are less likely to close a bank if the whole banking system is in a crisis.

and thus credible when complemented by political will, i.e. a low time discount rate that increases the willingness of regulators to accept potential short-term illiquidity following bank resolution for long-term gains in discipline.

3. DISCUSSION OF THE ORDERLY LIQUIDATION AUTHORITY AS AN IMPROVEMENT IN RESOLUTION TECHNOLOGY

In this section, we evaluate whether the introduction of the Orderly Liquidation Authority in the U.S. constitutes an improvement in resolution technology that can create a credible resolution threat in order to discipline bank behavior. The OLA has been established as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (DFA) and signed into law by President Obama on July 21, 2010 with immediate effect. In general, the OLA enables the FDIC to seize control and liquidate any financial institution in distress through its administrative resolution regime.

When the financial crisis hit in 2008 (and surely before), U.S. bank resolution law suffered from two significant shortcomings. We will argue that the OLA represents a significant technological improvement on these two issues. As a first issue, financial institutions in the U.S. were subject to two different insolvency and resolution regimes. One pillar of bank insolvency legislation was the Federal Deposit Insurance Act (FDIA) that covered all insured depository institutions, particularly commercial banks, thrifts, and savings banks holding a national or state charter. The FDIA stipulates a special resolution regime for these institutions – an administrative insolvency procedure. The existence of this special bank resolution regime stems from the conviction that banks are somewhat distinctive, particularly with regard to insolvency. Marinc and Vlahu (2011) provide a detailed analysis of the characteristics of banks that advocate a special resolution regime – among the most important ones are (1) the inherent instability of banking and the threat of runs, (2) particularly negative externalities of bank failures, and (3) the potential for moral hazard due to deposit insurance schemes or implicit guarantees. While the corporate insolvency law does not cover these aspects explicitly, the FDIA regime takes the special role and functioning of financial institutions into account. It is designed to allow timely intervention and resolution of insolvent banks while limiting moral hazard as well as potentially detrimental effects to liquidity, sound banks, and the real economy. In order to achieve the goal of a least cost (and least adverse effects) resolution, the special resolution regime deviates significantly from the regular, judicial insolvency procedure with regard to insolvency triggers and initiation conditions, resolution instruments, financing, and possibilities for appeal and review (Bliss and Kaufman, 2006; Marinc and Vlahu, 2011). Under these provisions, the Federal Deposit Insurance Corporation (FDIC) has

powers to promptly intervene upon certain initiating conditions, such as critical undercapitalization, without having to wait for the filing of a default event or for court decision. In this case, the license of the bank can be revoked by its primary regulator and the FDIC can be determined as the conservator or receiver, ousting management and shareholders, taking over the bank, and ultimately preparing it for purchase and assumption by another financial institution or for closure and liquidation. In order to preserve liquidity, charter value, and operations of the bank, the FDIC typically intervenes overnight or over the weekend and is able to pay off all insured depositors – if need should be – from the Deposit Insurance Fund previously collected from insured institutions (Bliss and Kaufman, 2006; DeYoung et al., 2013).

While the FDIA covers insured depository institutions under national and state bank charters, the FDIC did not have legal powers for intervention when it comes to the failure of bank holding companies, financial holding companies, or other non-bank financial institutions. Instead, the default legal provisions of corporate insolvency law, i.e. the insolvency procedures according to Chapter 7 and Chapter 11 of the U.S. Federal Bankruptcy Code, applied. These procedures typically protect the owners from creditors, take long time periods for resolution, during which funds for depositors and borrowers might not be available, and require a restructuring plan as a precondition before making decisions on larger asset sales (DeYoung et al., 2013). Since the financial holdings and non-bank financial institutions in question – among them several of the institutions that have been identified as systemically important – exhibit similar characteristics to banks as described by Marinc and Vlahu (2011), an application of these corporate insolvency procedures might cause severe disruptions.[5] While these institutions were effectively exempted from the special bank resolution regime, the default corporate law was apparently inappropriate to efficiently resolve their insolvency. Hence, this was widely considered as a major deficiency in the resolution regime for financial holdings and non-bank financial firms, which might have even protected these institutions from actual failure by making bailout the only available choice (FDIC, 2011; Marinc and Vlahu, 2011).

Moreover, even if the FDIC had been legally empowered to apply its resolution procedure to non-bank financial institutions, there would have been a financial limit as to which institutions it could have effectively taken over: While the Deposit Insurance Fund amounted to a record high of USD 52.4 billion at the onset of the financial crisis, the deposits of Bank of America alone were about 10 times larger than this (albeit not all insured). The sheer order of magnitude of this difference

[5] In fact, several studies examine the inapplicability of corporate insolvency law to financial institutions, e.g. referring to one of the few bankruptcy cases of financial firms: Lehman Brothers Holding Inc. (FDIC, 2011).

illustrates the second significant issue gripping the resolution technology available to U.S. regulators before 2010: Not just incomprehensive legal provisions, but also insufficient financial endowment of the regulator prevented an effective application of bank resolution and made bailout the regulator's preferred choice in most cases for financial holdings and non-bank financial companies.

Recognizing the need for alterations in bank resolution law and for stepping-up the operational and financial capabilities of the regulator, U.S. federal legislators passed the Orderly Liquidation Authority as part of a wider financial sector reform package, the Dodd-Frank Act (DFA, Title II). The new provisions stipulated by the OLA can be considered as an improvement regarding the two significant shortcomings of U.S. bank resolution law. First, the OLA extends a special insolvency and resolution regime to financial institutions previously uncovered by bank resolution law. More specifically, it stipulates that any firm determined as a covered financial company according to Sec. 201 and 203 of the DFA can be put into an administrative insolvency and resolution procedure. Effectively, this provision covers any financial institution in the United States.[6] The determination of a financial institution as a covered financial company is made by the Secretary of the Treasury, following the vote of the FED board and FDIC board, and in consultation with the President. It initiates the orderly liquidation procedure, with only limited judicial appeal ex ante.[7] Technically, this procedure is very similar to the existing FDIA regime, with the FDIC being appointed as receiver of the financial company. Once under receivership, the FDIC is empowered to close and liquidate the firm, to pursue a purchase and assumption resolution, or to set up a bridge financial institution. These resolution instruments also resemble the FDIA regime insofar as they cause losses to shareholders and unsecured creditors, replace the management, and protect liquidity in a way that is superior to regular insolvency law.

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[6] The determination as a covered financial company essentially requires three conditions to be fulfilled. Firstly, the firm in question needs to be a financial company, i.e. a bank holding company, a non-bank financial company supervised by the FED board, or any company predominantly engaged in financial activities. Secondly, it is not an insured depository institution covered by the FDIA regime. Finally, the determination is made provided the existence of all criteria outlined in Sec. 203b, i.e. the firm is in (danger of) default, the resolution according to otherwise applicable legal provisions would have adverse consequences for financial stability, there is no viable private sector alternative, the impact on creditors and shareholders is appropriate, all convertible debt has been ordered to be converted, and the OLA is deemed effective (DFA, Title II, Sec 201, 203).

[7] In fact, the board of the determined covered financial company can ask the Secretary of the Treasury to petition for a formal authorization by the U.S. district court in the District of Columbia. This court can order the authorization after finding that the determination as a covered financial company is not arbitrary and capricious. If the court does not decide within 24 hours, the authorization is automatically granted by the operation of law (DFA, Title II, Sec. 202).

Second, Title II of the DFA sets up a new Orderly Liquidation Fund that also financially enables the FDIC to act as the receiver and pursue the orderly liquidation of covered financial companies. While the fund is set up in the Treasury, the FDIC is authorized to borrow from it for covering the cost of orderly liquidation and administrative expenses.[8] Moreover, the FDIC is empowered to charge ex post risk-based assessments to financial companies in order to repay the Orderly Liquidation Fund (DFA, Title II, Sec. 210).[9]

4. EMPIRICAL FINDINGS ON THE IMPACT OF RESOLUTION ON BANK BEHAVIOR

So far empirical evidence on resolution policies has been mostly limited to the (non-)application of resolution rules (Brown and Dinç, 2011; Kasa and Spiegel, 2008; Korte, 2013). To the best of our knowledge, there has not been any study that empirically investigates the impact of changes or improvements in resolution regimes on prudent bank behavior with the exception of Ignatowski and Korte (2014). In their recent paper, the authors empirically test the effects of the introduction of the OLA on bank risk-taking by exploiting the differential relevance of the regulatory change for different types of banks and show that banks that are more affected by the introduction of the OLA significantly decrease their risk-taking and shift towards more prudent business models. Their findings support the view that the Orderly Liquidation Authority can be considered as an effective improvement in existing resolution technology that creates a credible threat for banks and induces incentives for prudent behavior. However, the authors also show that this effect does not hold for the largest and most systemically important banks, concluding that the OLA appears to have left the problem of too-big-to-fail unresolved.

5. CONCLUSION

Taken together, we find that the Orderly Liquidation Authority can be interpreted as a significant improvement to the U.S. resolution regime in at least

[8] The fund is set up as a theoretically unlimited credit line from the Treasury. Sec. 210 allows the FDIC to borrow funds not exceeding 10% of the to-be-resolved financial company's total consolidated assets during the first 30 days of closure. Thereafter the borrowing amount is limited to 90% of the fair value of the total consolidated assets of the to-be-resolved financial company that would be available for repayment of the funds.

[9] More specifically, Sec. 210 stipulates that the assessments are to be imposed on large non-bank financial institutions, precisely bank holding companies with consolidated assets exceeding USD 50 billion and non-bank financial companies supervised by the FED board.

two dimensions. The OLA can be interpreted as an improvement in terms of legal authorities as it alleviates the previous limitation of the FDIC to only place a certain group of financial institutions into a special bank resolution procedure. Rather than focusing only on insured depository institutions, the special resolution regime is now extended to other financial companies as well. Moreover, the establishment of the Orderly Liquidation Fund significantly improves the financial and operational capacity of the FDIC to effectively act as receiver and liquidity guarantor. This leaves the FDIC with less reason to prefer bailout over resolution when financial institutions fail. Ultimately, this should induce more prudent behavior of those banks that are most affected by these changes.

Based on our analysis and the previous literature, we emphasize two fundamental features of effective bank resolution regimes that, in our view, can set incentives for prudent behavior and thus help to prevent future financial crises. First, a bank resolution regime that takes into account the special role of financial institutions (beyond regular and often inapplicable corporate bankruptcy law) and that commands sufficient legal and financial resources is essential to creating a credible resolution threat for financial institutions. Second, comprehensive coverage of financial institutions in general will avoid incentives to shift risks into non-resolvable subsidiaries. A bank resolution regime that incorporates these elements can be an effective and credible threat that disciplines banks towards more prudent behavior.

Abstract

Existing resolution tools proved mostly inappropriate when governments were confronted with seriously distressed banks during the global financial crisis and the subsequent European sovereign debt crisis. Bank regulators and legislators have realized the importance of effective and appropriate bank resolution mechanisms and have brought into force significant changes to resolution regimes in an effort to prevent future crises. This article deals with the question whether resolution mechanisms can discipline banks. We revisit economic theory to determine the requirements for resolution mechanisms to induce incentives for prudent bank behavior and apply this concept in order to examine one particular change in resolution regulation, the introduction of the Orderly Liquidation Authority. Taken together, we find that the Orderly Liquidation Authority can be interpreted as a significant improvement to the U.S. resolution regime.

Key words: bank resolution, Orderly Liquidation Authority

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