

Bankruptcy: Why Are Banks Treated Differently Anyway?*

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Abstract

One of the most iconic Government intervention into bank failures is, of course, the bailout of financial institutions. But we have in fact identified twenty nine types of Government interventions into bank bankruptcies. They range from Open-bank assistance, where the central bank provides funding to open and insured, and deemed financially viable banks, to simple forbearance, where regulators knowingly 'look the other way' and do not enforce law & legislation. The study differentiates between ten types of bailouts that a charitable analysis could characterize as relying on long-term investments, and four types of bailouts that seek to bring short-term liquities to distressed banks. Another eleven types of State intervention involve insolvency proceedings idiosyncracies. Fourteen can be assimilated to a loose form of liability, eight of which akin to internalized liability, the rest to externalized liability such as insurance or extended liability. Only four of such solutions to bank failures could be described as being loosely contractual.

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1 Introduction

Bank bankruptcies are treated differently from other bankruptcies. The justifications given for these exceptions involve their sheer size and their failure's negative externalities. The queen of these externalities, systemic risk, characterized as "Armageddon" by one author, is a blanket concept frequently invoked as a reason for these special treatments bestowed upon bank stakeholders. Yet, not only does systemic risk literature suggest that the threat is frequently overestimated, but that it might actually be less important than in the so-called 'real' economy (Kaufman, 1994; Helwege, 2010; Boissay, 2006).

One of the most iconic Government intervention into bank failures is, of course, the bailout of financial institutions. It is so iconic in fact that it has become somewhat of a synonym for "Too Big to Fail", and is sometimes used interchangeably. This paper argues that this is an error.

The first reason it is an error to call the bailout of large financial institutions deemed 'systemically important' as "Too Big to Fail" is, first, that we do in fact bankrupt large failed banks. The single and only failed "Too Big to Fail" bank that was *unambiguously* not put into bankruptcy was the Continental Illinois National Bank in 1984 (see Bédard, 2012), at the time of the Savings & Loans crisis where bank failure were being delayed for as much as years before bankruptcies resolutions were initiated (Gupta and Misra, 1999). Otherwise, at all other failed banks, shareholders have been wiped out. What is too big to let fail is actually the depositors and other creditors, and are rarely allowed to sustain losses.

And it is in fact the second reason why the bailout of large financial institutions shouldn't be synonymous with "Too Big to Fail"; in fact today pretty much every bank is too big to let its creditors fail. In the United States, up and until the FDIC Improvement Act of 1991, nearly no debtor suffered any loss – except for two brief period in the 1980's where the FDIC had become wary of disrupting market discipline (Kaufman, 2004). Since 1991, bank's unsecured and uninsured creditor losses are partially shared with the FDIC. In fact, the history of Too Big to Fail banking in the United States is pretty much the history of the Federal Deposit Insurance Corporation.

The third reason is that bank bailouts are merely one way in which "Too Big to Fail" manifests. We have in fact identified twenty nine types of Government interventions into bank

bankruptcies, not all of which can accurately be described as bailouts. They range from Open-bank Assistance, where the central bank provides funding to open and insured, and deemed financially viable banks, to simple forbearance, where regulators knowingly ‘look the other way’ and do not enforce law & legislation. The study differentiates between ten types of bailouts that a charitable analysis could characterize as relying on long-term investments, and four types of bailouts that seek to bring short-term liquidities to distressed banks. Another eleven types of State intervention involve insolvency proceedings idiosyncrasies. Fourteen can be assimilated to a loose form of liability, eight of which akin to internalized liability, the rest to externalized liability such as insurance or extended liability.

Section 2 will seek to provide a definition of bailouts, and how it differs from regular judicial bankruptcy. Section 3 will detail these different types of Government interventions into preventing bank from following the normal bankruptcy route. We will then highlight the paradox these financial regulation create, and the alternative to this arsenal of Government intervention, and section 6 will conclude.

2 Definitions

Block (1992) offers a definition of bailouts. They are “a form of government assistance or intervention specifically designed or intended to assist enterprises facing financial distress and to prevent enterprise failure.” This is a broad definition that include all forms of government intervention, while in table 1 and the rest of this document we limit the term bailout to those interventions where there is some money transfer. Her definition highlights that they are a form of government subsidy. Whereas general subsidies aim at favoring a particular activity, bailouts focus on saving a defined firm or a defined industry. They aim at preventing or modifying the outcome of bankruptcies, a procedure that is generally considered “good for the economy”, as it weeds out failed plans. In this sense, bailouts may save the ‘wrong’ actors, as less successful plans, and less efficient management, are somehow rewarded. They entail a certain moral hazard. Especially in cases where managers are kept in place and shareholders are partially or completely protected from loss, but also in more minor cases where merely creditors are made full, as creditor protection relieves depositor (and market) discipline.

What this definition however fails to highlight is that in many cases institutions that are bailed out do fail, and in fact most bailouts are conducted retrospectively, after the firm's failure. Bailouts would seem to be better described, then, as preventing creditor losses, and especially depositor losses.

Moreover, failure is to be distinguished from bankruptcy and insolvency, as the three may not always converge. Corporate bankruptcies, for example, are totally disassociated from insolvency, as corporations can enter the protection of Chapter 11 as a defensive device to reorganize themselves. Chapter 11 is most of the time unavailable to banks, as the initiation of bankruptcy is entirely left to chartering authorities and federal regulators (Bliss and Kaufman, 2007). Still, a bank's insolvency may go undetected, and a bank remain out of bankruptcy for some time. The opposite is also true, a bank can enter a form of administrative bankruptcy before it is effectively insolvent, as the authorities are increasingly encouraged to act preemptively and resolve banks early so as to limit losses to deposit insurances. Some level of failure may be said to be present in each of these cases.

Insolvency usually means that the firm has a negative value. There are essentially three kinds of insolvency banks can face; market-value insolvency, book-value insolvency, and regulatory insolvency¹. Market-value insolvency, or economic insolvency, is defined by the market valuation of the assets *vis-à-vis* the face value of liabilities. Book-value insolvency is defined by relevant accounting standards. Regulatory insolvency is determined by the bank's book value, but has higher minimum capital requirements.

Bankruptcy should be thought of as a dispute resolution process aiming to protect the rights of the creditors and debtors. Under Chapter 11, bankruptcy is initiated either by the major creditors of a corporation, or is requested by the debtors themselves. Upon the initiation of bankruptcy, an automatic stay on the business' assets is declared. The automatic stay prevents creditors from claiming their due on the insolvent firm's assets for 120 days. During this period, the debtor in possession has to come up with a reorganization or liquidation plan the creditors and shareholders will agree to. Ultimately, the firm will come out of bankruptcy court with a plan, either resuming its reorganized business, or with a wind-down plan to liquidate it's own

¹One might be tempted to add 'illiquidity' as a type of insolvency, as Bagehot's distinction between insolvent banks and illiquid but solvent banks has no equivalent in regular corporate bankruptcies.

self and pay-off creditors.

It should be clear that bankruptcy, and even liquidation, does not make firms completely disappear overnight. The first and foremost principle of bankruptcy is maximizing the value of the financially distressed firm, which often involves decade long liquidation of assets, but also sometimes quickly selling entire departments. Such was the case during the bankruptcy of Lehman Brothers, where a large portion of its assets were quickly sold to Barclays to avoid losing precious staff and their clients. In that case, bankruptcy stakeholders and judges agreed that the way to liquidate Lehman Brothers that best served the interest of everyone involved was selling large portions untouched, including some of its sales department. In any case, bankruptcy does not need to provoke fire sales when it is against the interest of the stakeholders.

As Table 1 suggests, some types of intervention into bank failures can be compared to bankruptcies. Those should be qualified as *administrative* bankruptcies², as opposed to *judicial* bankruptcies³. During those administrative bankruptcies, the general aims of the process is modified. Because of the moral hazard depositor protection creates, the goal of protecting every party's right materialized through its creditor stay is replaced by Depositor Preference, further discussed in section 3.3. The objective of the insolvency resolution is different, as it seeks not to maximize the value of the distressed firm, but to limit losses to the FDIC. One notorious caveat to that objective is systemic risk. In cases of a threat to financial stability the FDIC may engage in one those more costly, and creditor discipline damaging, Too Big to Fail intervention. Whereas in judicial bankruptcy a trustee is appointed by court⁴ and his actions subject to ex ante judicial review. In administrative bankruptcy the FDIC is named receiver, and judicial review and appeal are limited to ex post treatments.⁵

The main argument in favor of a special regime of bankruptcy for banks is its speed. The FDIC has developed techniques for quickly and cheaply resolving financially distressed banks, classified under Bankruptcy in Table 1, and effective auction techniques to maximize bids. However, while insured depositors are immediately reimbursed, the FDIC typically does not sell the assets until four years after the initiation the procedures. The argument in favor of speed, and liquidity, does

²As governed by the provisions of the FDIA, 12 U.S.C. §§ 1811-1835

³As governed by the Federal Bankruptcy Code, 11 U.S.C. §§ 101-1532

⁴Under Chapter 11 the trustee can be the current manager when it is in the interest of the stakeholders.

⁵For a detailed treatment of the differences between US Corporate and Bank insolvency regimes, see Bliss and Kaufman (2007)

not hold.

This same argument is also sometimes framed in terms of legal costs. As the argument goes, the FDIC does not need creditors approval or representation for its resolution to go through, and equity holders are systematically wiped out, saving on the very costly legal costs involved in a Chapter 11 bankruptcy. However, it is important to remember that the cost not only be considered in monetary terms but in terms of opportunity, as this 'least cost resolution' doctrine might have been a wild card for the FDIC in the past to not consider depositor discipline as long as the direct visible cost remains small. Other kind of costs are not necessarily easy to compute and might include arbitrariness and threat to contracts and property rights.

The alternative to bailout, then, is judicial bankruptcy.

3 “Too Big to Fail” Interventions

This section is devoted to further explaining and clarifying the list of Government intervention into bank bankruptcies found in table 1. These techniques are emphatically not mutually exclusive, as a number of them is used in all government interventions into bank failures.

3.1 Internalized liability

Internalizing liability is generally considered to have a deterrence effect. Managers and shareholders, on whom liability is internalized, will limit the level of risk they are ready to engage in. Internalizing liability can take many shapes.

3.1.1 Double Liability

Double liability for bank shareholders refers to the extension of their civil responsibility beyond their stake into the bank up to par value. Extending the liability of the owners of banks seeks to prevent risk-shifting by establishing some sort of off-balance contingent capital in the form of the bank owners' wealth. Risk-shifting in banking occurs when banks owners take more risky loans because in case of success they will reap the benefits, and in case of failure shift some of the costs unto depositors and others creditors, or unto tax payers in cases of a bailouts.

Table 1: Types of Too Big to Fail interventions⁶

#	Technique	Internalized liability		Waiting	Bailouts		Nationalization	Bankruptcy
		liability	liability		Prospective	Retrospective		
1.	Assessability	X						X
2.	Double liability	X						X
3.	Source-of-strength	X						X
4.	Deposit insurance transfer		X		X			X
5.	Depositor preference		X		X			X
6.	Payoff		X		X			X
7.	Forbearance			X	X			
8.	Holidays			X				
9.	State aid			X				
10.	Stock market intervention							
11.	Liquidity				X			
12.	Monetary policy action				X			
13.	Open-bank assistance					X		
14.	Persuasion					X		
15.	Bad banks		X		X		X	
16.	Bridge banks				X		X	X
17.	Purchase & assumption		X		X		X	X
18.	Nationalization / Conservatorship				X			X
19.	Liquidation	X						X
20.	Systemic overload							
21.	Contingent capital	X						X
22.	Debt-to-equity resolution	X						X
23.	Wind-down plans							X
24.	Transparency							
25.	Stress tests							
26.	Centralization		X					

⁶ Source: Gup (1998), Block (1992) and author.

While historically some banks have established such double liability contractually through their charter provisions, a few states' constitutions – New York, Kansas, Iowa, Indiana, Minnesota amongst others – required double liability for state chartered banks (Macey and Miller, 1992). The National Banking act of 1863 drew from these state provisions and established double liability for national chartered banks. Eventually, almost every state adopted double liability⁷. The National Banking Act era lasted for 70 years, and these policies were ultimately abolished, starting in 1933 with the creation of the Federal Deposit Insurance Corporation. The last state to abolish double liability for bank stockholders was Arizona, in 1956 (Esty, 1998).

Under extended liability regimes, bank owners had incentives to voluntarily and pre-emptively liquidate their banks. According to Esty (1998), out of the 8302 bank liquidations that took place during the double-liability era, 70% of the liquidations were voluntary.

Among the reasons cited by Macey and Miller (1992) for the demise of double liability, is the evolution of bank ownership and the dispersal of shares among the public. Bank shareholders were now generally more numerous, had little to no family relationship or employment status with the bank and exercised little to no control over bank management.

It is interesting to note that despite the benefits of this contingent liability for depositor protection and for risk reduction, additional liability rules might act as a barrier to entry. In cases where liability is both unlimited and joint⁸, 'wealthy' stockholders can oppose the sale of share to 'poor' acquirers, as they would effectively free-ride their liability. Authorities at least implicitly recognized this problem when they forbid banks to split up their shares of less than \$ 100 (Wilson and Kane, 1996). Limiting entry into the market for the ownership of banks limits banks creation, and can lead to inferior levels of capital (Carr and Mathewson, 1988).

⁷The states that kept limited liability for bank stockholders were Alabama, Connecticut, Delaware, Louisiana, Massachusetts, Missouri, New Jersey, Rhode Island, Vermont and Virginia. Colorado went further and adopted triple liability (liability up to twice the face value of the shares), and California adopted unlimited liability.

⁸Joint liability refers to liability where all owners are liable up to the full amount. It is opposed to systems of Several liability, where liability is divided proportionally among parties according to their share of the ownership. A mixed system of Joint and Several Liability exists, where claimants can pursue any defendants for the full amount, and it is then up to them to pursue other defendants. The mixed system reverses the burden of pursuing all defendants on the first pursued defendant. Joint and Several Liability prevails in common law systems.

3.1.2 Contingent Capital

Another way of internalizing responsibility has been largely discussed in recent years and should become a tool available to regulators, is transforming debt into equity. It is unclear if regulators worldwide will interpret these contingent capital measures. It could either be on senior debt, or limited to specific bond clearly labeled as such. It could be triggered either arbitrarily by the regulators or by a financial ratio agreed to in advance. It can either be debt directly transforming into equity, some sort of call option, or a financial instrument closer to an insurance. It is an interesting development that has been notoriously used by some parties such as the Royal Bank of Canada and Michelin.

3.1.3 Debt-to-Equity Resolutions

Debt-to-equity resolutions are one of the much discussed new tool of the FDIC. A version of it has been labeled ‘speed bankruptcy’. It involves resolving bankruptcies by mimicking the outcome of a contingent capital arrangement, that is quickly transferring ownership unto the hands of the most senior creditors. There are some challenges, as it is not sure that the priority of claims could easily and always be respected.

3.1.4 Source-of-strength

According to source-of-strength, affiliate banks in a holdings would have been subject to extended liability, as a way of make sure that affiliates of bank holding companies maintain adequate regulatory capital levels. The source-of-strength policies were attempts to reintroduce some form of extended liability. Though discussed and used as a threat as early as 1972, they only became a part of the regulatory arsenal in 1989, following the failure of a subsidiary of Hawkeye Bancorp in 1987 and the financial distress at many subsidiaries of MCorp of Texas (Schinski and Mullineaux, 1995). This type of extended liability of a holding to one of its subsidiary is unique to banking and does not figure in any other kind of corporate law.

3.2 Externalized liability

Assessability Assessability generally refers to the ability to recover compensation for the creditors of failed banks. Courts can also exceptionally assess shareholders of banks to provide additional capital above the limit to their liability. What we refer to here is the extension of assessability beyond any reasonable measure of liability.

An example of this is the French “solidarité de place”, where in cases of bank failures not only are stockholders assessed to inject additional capital. This “solidarité” in fact goes beyond the firm in the traditional sense, as other banks vaguely defined as stakeholders can be assessed, and creditors “requested” to forget their debt (Marini, 2003).

An example of a bank resolved through “solidarité de place” assessability is the Al Saudi Banque in 1988. Because the authorities wanted to preserve the reputation of the French markets, and since the French deposit insurance does not cover deposits in foreign currencies, 1.9 billion FF_r were levied through “solidarité de place” to protect foreign depositors and creditors (Gup, 1998).

Persuasion There is a fine line between Assessability and Persuasion, where authorities such as the central bank persuade other banks that it is in their interest to come to the rescue of a failing bank. The 1998 failure of Long Term Capital Management (LTCM) following the Russian crisis is a case where authorities persuaded other banks to come to the rescue of LTCM without (directly) supplying the liquidity. The 3.75 billion dollars private bailout orchestrated by the Fed came just a few months after LTCM had decided to voluntarily reduce its capital from \$ 7.3 billion to \$ 4.8 billion to increase their return on capital (Kabir and Hassan, 2005).

3.3 Liquidation

In a liquidation, the assets of the insolvent firm are orderly liquidated to maximize its value and reimburse the stake-holders.

Liquidation do not always involve government intervention into bank bankruptcies, as Helwege (2010) mentions the case of Finova, a bank that briefly underwent the protection of Chapter 11 to emerge with a run-off plan to liquidate its assets.

Payoff The Payoff is the simplest way of dealing with bankruptcies available to the FDIC. Under a payoff resolution, the deposit insurance authority pays off depositors up to their coverage and proceeds to the liquidation of the failed bank. The revenues from liquidation will be shared between the deposit insurance for the funds it advanced, and between the uninsured depositors and creditors. Ultimately, if the collections are higher than the liabilities of the failed bank, the creditors will receive up to their full claim plus interests. This bankruptcy resolution method closely mimics a Chapter 7 bankruptcy.

Deposit Insurance Transfer Deposit Insurance Transfers are transactions where insured and funded deposits of a bankrupt bank are transferred to another bank that will assume its responsibility toward depositors. Losses, if any, will be assumed by the deposit insurance.

Depositor Preference Depositor preference is the practice to treat insured deposits as the most senior claims, above other creditors that might otherwise have had senior debt claims. This measure is not neutral, in the sense that it will disincentivize uninsured creditors to press for the bankruptcy of the bank, and will relieve banks of market discipline. Their claim would benefit from the proceeds of liquidation only after liquidation as covered the insured deposits and the deposit insurance's costs.

Purchase & Assumption In Purchase & Assumption transactions, banks bid to acquire failed banks and ultimately merge with them. It generally allows authorities to receive a substantially higher payment from the acquirer, as goodwill and intangible assets are also acquired rather than be scrambled or outright disappear in a liquidation. If there are losses, they are entirely supported by the FDIC. Resolving failed banks through Purchase & Assumption therefore entails a higher level of protection for uninsured creditors, at the cost of market discipline (Benston et al., 1986).

These transactions might be done on the whole of bank or only on a portion of it. In some cases, a bank might wish to only obtain the liabilities of a failed bank. In those cases, a payment equal to the face value of liabilities is made, and the authorities liquidate the remaining assets.

3.4 Waiting

Another type of policy sometimes used to deal with the financial distress of banking institutions is the use of mandatory cooling off periods by authorities, during which securities cannot be traded.

One example of such standstill requirements are “holidays”, where entire markets are legislatively shut. They are generally thought of as having high welfare costs, as entire segments of market come to screeching halt. But even more-so, the fear of the standstill being enlarged to other markets or other institutions might very worsen informational contagion. The most famous example of such is the “holiday” declared by President Roosevelt in 1933 following episodes of bank panics. There are however more limited version of this type of intervention, such as NSYE or NASDAQ mandated cooling off periods, triggered when securities lose too much value on a short period of time. An even more limited version of this policy, that even has even existed on a contractual basis, is the suspension of convertibility of deposits into currency or specie. The existence of substitutes for those markets might mitigate the costs associated with the temporary disappearance of a market (Selgin, 1993).

These policies are particularly used during informational contagion episodes, such as bank runs turned into bank panics. Another type of informational contagion, when discussing securities, are ‘beauty contests’ where values drift increasingly far from their equilibrium value. While production of signals necessary for securities to reach equilibrium might be paused during those episodes, it is entirely possible that, ensnared in a “death spiral” or other kinds of beauty contest, market participants drift further away from equilibrium, as panic gains momentum. It is important however to realize that the ‘beauty contest’ might be merely the first stage of an entrepreneurial process in which arbitrage opportunities will be discovered. Still, it is reasonable to think the contractual or legal cooling off periods might help investors reassess the quality of the underlying asset.

Forbearance Under forbearance, regulators do not enforce capital requirements and other regulations. It has to be limited to intentional and deliberate cases of regulator inaction to be meaningful. Hence, it does not include instances resulting from their ignorance, such as failures to detect insolvencies, or late detection of insolvencies. Because bank managers have the possibility

to shift risk upon taxpayers, it is important to find and close insolvent firms quickly before they can take on additional risk in a bet to raise themselves out of insolvency. Timely finding and closing insolvent banks limits the losses to the taxpayers.

In the 1980's Savings & Loans crisis, failed Thrifts had been insolvent for an average of 17 months (Gupta and Misra, 1999), but some Thrifts remained insolvent but opened for as much as 10 years. Reasons for this excess forbearance was that the authority insuring the Savings & Loans, the FSLIC simply did not have the funds to resolve so many Thrifts, and some general reluctance of the authorities to recognize the severity of the crisis (Kaufman, 1995). It was seen as a bet to let Thrift institutions try to become solvent again. From a negative net worth of \$ 25 billion at the beginning of the crisis, the costs of this forbearance to the taxpayers by the mid 90s had escalated to \$ 160 billion (Kaufman and Scott, 2003).

State Aid State Aid refers to government legislating in a hurry, or adopting new ad hoc regulation, to stop situations that threaten the banking system. It can take many shapes such as the Troubled Asset Relief Program during the 2008 crisis, but also the pronouncement of national holidays, or legislative time-out periods.

3.5 Bailouts

The term “Bailout” is used to describe many different government interventions. In fact, there are several different interventions that can be described as bailouts. We limit the use of the term “bailout” to instances that imply a money transfer from the Government to the rescued firm. We classify them between prospective and retrospective bailouts, in regard to the timing of the Government intervention. If it is preventive, and prior to the insolvency of the bank, it is prospective; if it intervenes after the bankruptcy has been pronounced, it is retrospective.⁹

If the bailout aims at providing so-called illiquid but solvent banks with temporary liquidity, it can be done both directly and indirectly. Directly providing liquidity to banks suggest either making loans, or buying equity or assets, and can be the result of ad hoc legislation (such as

⁹Another way of classifying bailouts found in the literature, such as Gup (1998), is between bailouts aimed at a long term investment and those aimed as a temporary, liquidity relief. As we both regard the claim that bailout could ever be an investment and Bagehot's distinction with skepticism, we did not use this typology.

the Troubled Asset Relief Program) or of lender-of-last-resort mandates¹⁰. While lender-of-last-resort lending can either be tax payer funded or a monetary policy tool, ad hoc bailouts seem to always be taxpayer funded. Additionally, monetary policy itself, especially during times of crisis, has also become known as a type of bailout.

The existence of a lender-of-last-resort have been justified for a variety of reasons (Freixas et al., 2000), mostly having to do with asymmetric information. It is thought that the interbank lending market could dry up to solvent bank because they do not know which other banks are solvent and which are insolvent. In this situation, it is argued that only a LOLR could lend to solvent but illiquid bank. However, central banks still face ignorance problems. As Goodhart (1987) has argued, the central bank can never know for sure if the banks are merely illiquid or insolvent. The value of asset depends on information that is exclusive to the lender and the borrower, and always includes some degree of uncertainty.

Open-bank Assistance Open-bank assistance are the true ‘Too Big to Fail’ bailouts, in the sense that bank are in fact kept open, and benefit from the financial assistance of the Fed. They are a special case of forbearance where the losses and insolvency are recognized, but the bankruptcy process never initiated and shareholders’ claims are generally left intact. The best example of open-bank assistance is the bankruptcy of Continental Illinois National Bank in 1984 (Kaufman, 2004), but there are other examples such as First Pennsylvania Bank in 1980, BancOklahoma in 1986 and First City Bancorporation in 1988. The FDIC Improvement Act of 1991 sought to put an end to these open-bank assistance programs.

Open-bank assistance is particularly costly policy because it removes any sort market discipline uninsured depositors would have otherwise imposed on the bank. According to Kaufman (2004) the FDIC recognized this in the 1980’s and experimented at various time with alternative methods for resolving financially distressed banks that would impose varying degree of losses on uninsured depositors.

¹⁰Institutions that should be qualified as acting as a lender-of-last-resort are broader than simply the Federal Reserve. During the Great Depression, for example, the Reconstruction Finance Corporation arguably played a lender of last resort role.

3.5.1 Nationalization

Nationalization is an intervention tool that takes many shapes, that does not always involve outright expropriation. Merging a failed bank with a nationalized bank is in some country such as France and Japan, had become a common mean of bailing out financially distressed banks.

Conservatorship Conservatorships are the equivalent of a Chapter 11 bankruptcy, where a government agency would be appointed as the trustee. They are established with the idea of restructuring the bank, and to ultimately privatize it back again. They should be seen as opposed to receiverships where the goal is merely to liquidate the firm.

Bad bank Bad banks are sometimes set up as ad hoc entities for the sole purpose of receiving bad assets, so as to take them out of financially distressed banks. They are sometimes labeled zombie banks, a moniker sometimes also used to refer to insolvent banks that have remained open.

Bridge bank Bridge banks are temporary entities set up by deposit insurances in cases of exceptionally large bank failures. They are operated in a bet to make them solvent again, and minimize losses to the FDIC. They can remain in existence for numerous years, and are another kind of conservatorship.

3.6 Systemic overload

Systemic capital surcharges has been much discussed in the offset of the crisis, and are part of the Basel III proposals, as SIFIs will face an additional 1 to 2,5 percent capital overcharge. Despite the absence of a viable definition of systemic risk, these measures will act as some sort risk weight overcharge on assets of systemically important financial institutions (Dissaux and Lepetit, 2010).

3.7 Wind-down Plans

Wind-down plans are a new measure that requires Systemically Important Financial Institutions to provide regulators with detailed closure plans to quickly wind-down and liquidate the firm, if it ever became financially distressed. Grundfest (2010) uses the analogy of a prenuptial agreement

to describe these plans. However, a major challenge to resolutions of corporate failures banking is complexity.

Implied is that SIFIs are required to keep a simple, easy to dismantle structure, and include a detailed explanation of the structure of the business and the relationships between its various entities. Indeed, SIFI can gather an impressive number of subsidiary, as Lehman Brothers had 2985 different legal entities.

The theory of incomplete contracts refers to the fact that all possible states of the world are not envisaged in the contracts, and due to the fact that predicting all relevant possibilities would not only lead to prohibitive costs, but some real uncertainties would always remain. Indeed, it is impossible to know all the unprecedented new situations that may arise during the contract. Another explanation for the incompleteness of contracts can be found in the confidence that both parties agree to the legal system and meta-rules to resolve conflicts that were not contemplated by the contract. This uncertainty is likely to lead to situations where the contract, namely the closure plan, has no answer for. Of course, this criticism applies generally to all contracts, but all contracts are not concluded with the same anticipation that they will be implemented in unpredictable conditions and for which there is no antecedent. And indeed, crises and situations that lead to the bankruptcy of TBTF are unique. It is not obvious that the closure plans would provide good solutions specific to the crisis occurring.

A second type of uncertainty threatening the successful implementation of these plans is regulatory uncertainty. States have the opportunity not only to legislate and amend their rules, but they regularly do in times of crisis, changing the rules according to their needs. It is quite possible that the wind-down plan runs in a different regulatory environment than the one which it was designed for. It is unclear whether such plan will not only not increase systemic risk, but whether they can simply be implemented.

3.8 Transparency and Centralization

A measure widely discussed, for which the Dodd-Frank Act includes provisions, is the creation of government mandated financial clearinghouses. Such financial clearinghouse system mutualizes the losses of its members and acts as a buffer between the creditor and the debtor. It does

the netting over trades and updates the collateral requirements for its members. In return, it centralizes information about the claims of every party, in an easily available form, while its netting function reduces the need for liquidities. It can also issue clearing house certificates that might sooth informational panics by acting as a lender of last resort. The monitoring of credit risk then rests entirely on the clearinghouse, making margin calls when its management perceives an increase in the member bank's credit risk. Often they operate exclusively on a captive basis, where the clearinghouse system also matches purchases and sales, and requires a harmonization of financial products.

Transparency measures might also include the many types of mandatory disclosures bank are subject to.

4 Government Intervention as a Self-Fulfilling Prophecy

The irony of Government intervention into bank failures is that, in many cases, it can act as a self-fulfilling prophecy and somewhat create the systemic risk it was trying to deal with. It is well recognized that bailouts may create moral hazard. Another good example of such is the role of deposit insurance in making the banking system a fertile ground for systemic risk. Deposit insurance systems might make the failure of banks worse than that of other firms in possibly two fashions; first it relieves bank of depositor imposed discipline, and it delays the identification of insolvent banks.

Criticism of deposit insurance systems has been often based on arguments suggesting that the deposit insurance systems may have the consequence of pushing banks to take more risks. Indeed, the guarantee on deposits reduces the incentive of the depositors to select the bank that seems the best managed, and to act as a monitor to bank solvency. Without this competition among banks for deposits, banks can make relatively riskier loans with relatively less equity. In this sense, deposit insurance can act as an incentive for bankers to take more risks, and can lead to pooled losses and privatized gains.

Indeed, the bank's risk level can be thought of as a confrontation between the creditor's and the equity holders' interests. Creditors would like the bank to take less risk, and have a higher capital ratio, while equity holders would like the bank to have less capital, in a bet to boost

their returns. This struggle, which takes the form of the competition of banks for deposits and bond subscribers, essentially determines the bank's overall ex ante risk such as the types of investments that are made, how liquid they are, the bank's capitalization level and the structure of its liabilities. When the bank's management fails to satisfy depositors, they can take their deposits elsewhere.

The monitoring does not necessarily need to be very sophisticated, as it is in the bank's interest to make this information easily clearly available, and gives rise to third party monitoring opportunities. In most cases, it is merely sufficient for depositors to monitor a noisy signal of bank's performances.

Unfortunately, deposit insurances decrease incentives for depositors to monitor their bank's activities. In cases of bank's failure, their exposition to losses is reduced from full exposure to merely that of deposits in excess of deposit insurance limit. What this does is neuter competition between banks for small deposits. And indeed, today competition between commercial banks is not so much over security and financial soundness, but over other services bank accomplish.

With lessened market discipline imposed over them, banks now have drastically lower capital ratios than before the introduction of deposit insurance, the limit being regulatory minimum capital ratios. While the goal of deposit insurance was to prevent costly bank runs, it has also had the perverse effect of lessening market discipline. It has so much succeeded at its job that has nearly been no significant depositor bank runs since their introduction.

And the suppression of bank runs is the second reason why bank failures are more costly with deposit insurance. Not only did the threat of bank run itself create incentive for banks to maintain sound practices, but when actual run did occur, it acted as a mechanism for quickly closing down insolvent banks. In face of a bank run, banks have the option of selling their assets and borrowing from other banks. If the other banks judged that it was financially viable, and facing mere temporary difficulties, it would lend, or alternatively clearinghouses or other bank syndicates could issue clearinghouse certificates that acted as a money substitute. Depositor lead bank runs, using noisy low quality signals to monitor banks¹¹, actually forced other banks with much greater analysis capabilities to assess their financial situation. These phenomenons lead

¹¹This view of bank runs as a rational reaction to bad news is in direct opposition to Diamond and Dybvig (1983), where bank runs are the results of irrational 'sunspots' herd behavior, and further explored in Gorton (1985)

to the timely and early discovery of insolvent banks, before they could enlarge their losses by shifting their risks on creditors or taxpayers.

With the existence of deposit insurance, bank solvency is exclusively monitored by regulators. What this means is that absent market forces for bank supervision, insolvency will sometimes go unnoticed for some time, and when banks are finally declared insolvent their losses are more important. But the politicization and bureaucratization of bank solvency has also sometimes had the adverse effect of supervisors turning a blind eye to bank insolvencies, as seen previously discussing forbearance.

Ironically, these tendencies of enlarging losses and reducing banks' equity base are a dangerous recipe for systemic risk and financial contagion.

The difficulty of taking into account systemic risk scenarios can also be thought of in terms of black swan theory. Black swans are rare but immense tragedies whose probabilities of occurring are so thin that they cannot be quantified or be given a proper probability distribution, but still have a tremendous impact on history. Protection against adverse black swans can be so expensive that the costs would make the emergence of positive black swans (game changing innovation, growth, positive institutional evolutions) impossible.

This metaphor is particularly useful in the study of systemic risk. For example, the Dodd-Frank Act in the United States includes a wide variety of reform proposals. Some may be capable of scaring positive black swans along with the bad black swans. Others may even threaten to create a phenomenon analogous to the informational contagion, what historian Robert Higgs calls regime uncertainty. Interventions into bank bankruptcy can be thought of as self-fulfilling prophecies could very well be through 'regime uncertainty'; the expectation of a political shock upon property rights. When regulation implementation threatens private property and equality before the law, or more generally the rule of law, it may cause the same effects it is supposed to mitigate.

While systemic risk likely results from a shock on individuals plan prompting a review of expectations, what Higgs refers to is the anticipation of a policy shock on property rights. Still, the 'macro' effects of regime uncertainty are so similar to that of systemic risk that you could almost confuse the two. In both cases, there are flights to the quality, economic stagnation and inertia.

And that is precisely the problem of any reform attempt to limit the effects or causes of systemic risk. If their implementation threatens private property and equality before the law, or more generally the rule of law, it is likely to cause, through the uncertainty regime, the same effects it is supposed to mitigate.

5 The Bankruptcy Alternative

An alternative to Government intervention, which seems to have been completely forgotten, is to let bankruptcy laws handle these events. Though this is not a very original idea, it has been completely excluded from the debate even by authors that are generally skeptic of Government intervention. Indeed, the general movement in recent U.S. reforms has been, quite the contrary, submitting holdings companies that have banks as their subsidiary to the resolution procedures of the FDIC.

Contrary to what might be thought, the idea of letting banks go bankrupt does not stem from a desire to punish the firms. Quite the contrary. Some forms of bailouts, such as bankruptcies resolutions of the FDIC seen in section 3, are much more punitive because they are performed as part of a nationalization, either temporary (conservatorship) or permanent (receivership). Indeed, contrary to FDIC bankruptcy resolutions, the Chapter 11 does not wipe out property rights of shareholders; they remain the residual claimants. However, it is true that bankruptcy creates more market discipline than capital injections engineered by the Fed. In this sense, there might be a form of morality play, but on the account of creditors.

There is nothing automatic in Chapter 11, and the passage under its protection is done at the demand of a creditor of the firm itself. This means that if a default occurs and creditors prefer to negotiate directly with the bank rather than requiring a bankruptcy court stay, nothing automatically pushes the firm into bankruptcy. When initiated, bankruptcy takes the form of a negotiation where creditors choose a representative to control the firm and suggest strategies to get the company out of insolvency. From that moment, the creditors can not come to collect their collaterals and other guarantees anymore. After a few weeks or a few months, the firm and its creditors will have a plan that will vary from total liquidation, where assets are sold separately, to reorganization. Admittedly, it is rare in the case of financial institutions to leave

Chapter 11 still in operation. But liquidation or reorganization can occur at the desired speed by creditors and some resolution of bankruptcy have lasted up to 10 years.

The Chapter 11 has been used in the past to solve many important corporate bankruptcies such as Kmart, Chrysler and General Motors. These last two are examples of very large systemically important car manufacturers, having been at some stage under the protection of Chapter 11 without causing panic or major problems.

The bankruptcy of Drexel Burnham Lambert Group (DBLG) in 1990 gives us an example of what could be the unimpeded failure of a major bank. With \$ 40 billion in assets and over 200 securities, Drexel was a complex mixture of subsidiary companies specializing in certain types of securities. However, without too many problems the insolvent entity was placed under Chapter 11 while its other entities, solvent, remained open. Judicial liquidation took the time it needed, and no further major bankruptcy was caused on the market (Ayotte and Skeel, 2010).

The bankruptcy of Finova in 2001 is another example of a major financial institution going bankrupt without causing systemic problems. Finova was a firm specialized in industrial loans, and borrowing from deposit banks. It was therefore not covered by the FDIC, who's coverage is supposed to be limited to (not so) small deposits. It came under the protection of Chapter 11 in March 2001 with over \$ 11 billion in assets; there is no doubt that it met the definition of TBTF or SIFI (Helwege, 2010). Creditors finally agreed a plan that would maximize their rights, and it emerged from Chapter 11 in August with a plan for liquidation that took more than ten years to execute.

In sum, Chapter 11 is an institution that has proven itself and is flexible enough to evolve and meet the challenges posed by systemically important financial companies.

6 Conclusion

This paper highlights a paradox of financial regulation, where Government intervention into bank's bankruptcy ultimately acts as a self-fulfilling prophecy, sowing the seeds of the threat it sought to avoid. One such way it does so is by enabling systemic risk through the existence of explicit deposit insurance who suppress bank runs, a feedback mechanism essential to timely detect and identify insolvent banks. Another way could very well be through 'regime uncertainty';

the expectation of a political shock upon property rights. When regulation implementation threatens private property and equality before the law, or more generally the rule of law, it may cause the same effects it is supposed to mitigate.

The paper also suggests that we should be more careful on how we use the words ‘bailout’, given the wide variety of Government intervention into bank bankruptcies. Especially, equating bailout, or using the terms interchangeably, with ‘Too Big to Fail’, is particularly misguided. Almost every failed bank is being shut and receives a retrospective bailout, and with Dodd-Frank reforms, bank holding companies will too.

The fact that in most cases equity holders’ claims are wiped should also influence the way we think about bankruptcy and bailouts. A quote that has widely circulated recently is that “Capitalism without bankruptcy is like Christianity without hell.” We should be cautious in the way we describe bankruptcy, as it not a morality play, but a simple dispute resolution arbitration. In fact, in many cases it might be more forgiving than FDIC engineered insolvency procedures. Shareholders and managers are not being punished when they enter bankruptcy, but in fact they are being protected against their creditors.

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