

1 Introduction

Beginning in 2007, the largest financial crisis since 1929 hit Europe and the United States. As the value of mortgage-backed securities collapsed, worry turned to panic as more and larger banks began to fail. By fall of 2008, some of the largest banks in the world were under threat. If the financial system collapsed, the damage to the real economy could have rivaled the Great Depression. Therefore, despite public hostility toward bailing out the banks, virtually every state hit by the 2007–2009 financial crisis committed substantial resources to contain the crisis. Some would spend as much as a trillion dollars to rescue banks and limit fallout.

However, the ways in which these states spent their money differed. Although in the popular imagination, all state bailouts of banks were giveaways from taxpayers to financial interests, the actual terms and effects differed substantially. The United States showed great willingness to impose terms on banks, wiping out shareholders of smaller banks and forcing large banks to accept part-nationalizations through capital injections on state-dictated terms. Because of this, the United States actually turned a small profit on its bank rescues after only a few years. The United Kingdom similarly relied on nationalizations and compulsory state aid, imposing even harsher terms on its banks with an eye toward recovering state funds at a profit. Germany, on the other hand, spent a comparable sum on its bailouts but favored generous aid that minimized state ownership, generally being much more willing to shield shareholders from losses. This, in turn, meant that the German plan neither recovered state funds nor was intended to do so.

This fits in a general historical pattern of consistently divergent responses to financial crises across advanced capitalist economies. Contrary to what may be expected, state intervention in systems with a liberal, laissez-faire tradition in economic policy is generally much more compulsory and on harsher terms than in states with a tradition of state-managed, organized, or corporatist capitalism. Those states with liberal financial systems, in which the stock market is a primary source of capital and interbank relationships are generally thin and arm's-length,

2 Saving the Market from Itself

favor state intervention on fairly stringent terms. State aid is generally compulsory and terms are relatively harsh, involving punitive rates of repayment or compulsory nationalization. By contrast, in states with corporatist economies, private banks dominate the provision of capital, and those banks have much tighter interbank relationships, including greater interdependence and stronger private governance associations. Because of this, healthy banks play a much greater role in shaping state responses in the corporatist systems. This means that private banks are willing to shoulder a greater burden of the costs of crisis containment, but also that they will influence the state to offer public assistance on more generous and less invasive terms than in states with liberal financial systems.

Remarkably, the politics surrounding immediate state responses to financial crises have been largely unexplored, with far more attention paid to either debates over financial policies in good times or the longer-term postcrisis reform process. Exploring the dynamics of immediate crisis response is obviously important from a public policy perspective. The nature of bank bailout policies shapes not only the degree of damage financial crises do to the broader economy but also the direct costs to the state. Given the immense upfront costs that states pay, whether the state recovers its money could have a major impact on state finances going forward. Additionally, the terms of response shape the likelihood of future crises: generous rescues that insulate shareholders from losses risk encouraging further reckless actions in the future, while punitive responses that push costs onto shareholders encourage banks to avoid needing such rescues in the future.

Additionally, this research provides insight into the comparative capitalisms literature. The literatures on convergence and comparative capitalisms have long been in tension with one another over whether national diversity in economic systems will persist or collapse into a single “best practices” model under the pressure of increased global interconnectedness. Financial crises provide a crucial test of the stability of financial systems, when major actors are weakened and assumptions about the strengths of the financial system model may be questioned. The ability of national financial systems to self-replicate in these moments of crisis will be crucial to determining whether national diversity persists.

A Primer on Financial Crises and Policy Responses

The literature on financial crises and their responses is vast, spreading across multiple disciplines and with significant divisions over the causes of, culpability for, and best practices in responding to financial crises. This diversity, however, rests on a common fundamental understanding

of the basic technical issues of financial crises, which are worth exploring in some depth to provide a basic lexicon to discuss state responses. This is even more valuable given how different authors may use the same terms in somewhat different fashions. This is most apparent in the case of “bail-outs,” which for some authors refers to all state aid but for others refers only to state aid that substantially insulates private actors from losses, with the attendant moral hazard and perverse redistribution issues.

Financial crises are an aggregate of multiple events, filtered into a single event as a cognitive construct (Mayntz, 2012a, p. 7). Therefore, there may be many different causes and forms of financial crises. Here we are concerned with banking crises, where a large number of banks run into distress, as well as market crashes, when the value of a state’s stock market drops dramatically. The term “financial crisis” may also encompass sovereign debt or fiscal crises, where the state’s ability to pay its debts comes into doubt. Financial crises may also refer to currency crises, when currency traders question the state’s ability to maintain a set value for its currency. Both these sovereign financial crises are outside of the scope of this book, although an expensive bailout may lead to a sovereign crisis by straining a state’s finances or ability to defend its currency.

Banks may fail because they are either insolvent or illiquid. Insolvency is a simpler problem to grasp, though more difficult to fix. If a bank owes more money to investors or depositors than it holds in assets (loans and investments), then the bank will fail simply because it will not be able to pay its obligations unless it somehow increases the value of its assets, typically through an injection of fresh capital from a new investor. Insolvency typically occurs because a bank invests in assets that fail to perform as expected and lose value. In the 2007–2009 crisis, the collapse in value of mortgage-backed securities was a chief driver of bank insolvency. Such a collapse may affect many banks at once, if they are all exposed to the same collapsing assets, as was the case with banks holding mortgage-backed securities in 2007–2009.

Banks may also fail because they run short of liquidity. Banks operate by funding long-term investments with short-term credit. Customers of both commercial and investment banks provide the banks money on a short-term basis, meaning they can withdraw their money at any time. That money, however, is used to fund investments that may not be rapidly converted into cash, such as loans with long periods of repayment or assets that are difficult to sell quickly. Because of this, banks hold some cash back as a “liquid” capital reserve. However, no bank has enough cash on hand to repay all or a significant portion of its creditors. Since the capital reserve earns no profit, banks have an incentive to make it as small as possible while still preserving enough of a liquidity cushion

4 Saving the Market from Itself

to pay back those customers demanding repayment. However, no bank holds enough of a capital reserve to repay all of its customers. If many demand repayment, the bank may be forced to close because it has run short of liquidity, even if it has valuable assets that it simply cannot convert to cash in time. Unless some form of deposit insurance program is in place, everyone who had not already withdrawn their money will lose it when the bank closes. This means that bank runs are rational even if the bank is otherwise healthy: once enough people start withdrawing their money from the banks, the remaining depositors or creditors should also withdraw their funds to avoid losing out when the bank closes, deepening the crisis. This principle holds whether the initial run was sparked by legitimate concerns over the bank or a baseless panic.

This opens up multiple channels of contagion. Since banks frequently engage in interbank lending, other banks may be among the customers wiped out by another bank's failure, especially if loans are inadequately collateralized. Therefore, a single bank's failure may drive other banks into insolvency or illiquidity as well. Additionally, once a high-profile run on one bank occurs, investors in other banks may begin to fear a run on their own banks. Once started, such runs become self-fulfilling prophecies, and otherwise healthy banks can be driven to failure by a contagion panic. This is especially likely if the second bank bears a resemblance to the failing one, such as by holding a similar investment portfolio.

If a bank is illiquid but not insolvent, it can potentially be saved by loans from a third party. So long as the bank is solvent, it has assets that will, in time, pay enough to repay those loans. However, in a banking crisis, lenders may be in scarce supply, either because they are unwilling to risk lending to an illiquid bank or because they are afraid they will need to shepherd their own liquidity reserves should they be subject to a bank run. An insolvent bank, however, can only be saved by making its assets once again greater than its liabilities, either by an infusion of capital, thereby increasing the value of its assets, or by somehow reducing the value of its liabilities.

As Goodhart (2009) notes, in modern financial systems, liquidity and solvency issues may blur together. Banks typically are highly reliant on liquidity from access to interbank lending, collateralized by a claim on the bank's financial assets. If the bank has valuable assets, it should be able to avoid liquidity problems through interbank lending unless a general panic causes other banks to hoard their own liquid reserves. Even then, however, central banks are typically willing to play lender of last resort and provide liquidity to any bank capable of posting adequate collateral. If collateral assets fall in value, banks may face both solvency issues, as their asset portfolio loses value, and liquidity issues, as other

banks demand more collateral to make up for drop in value of collateral assets or higher interest rates to offset the greater risk of default.

Separating liquidity and solvency issues is increasingly difficult, but it remains a matter of great concern to both banks and the state. Other banks may be interested in buying an illiquid bank and, in doing so, may be able to get a good deal on the bank's solvent assets. Buying an insolvent bank, however, would produce a net loss to the purchaser, and therefore banks may buy assets but not an entire insolvent bank. The state may be more willing to provide support to an illiquid but solvent bank. Liquidity crises may be externally caused by a baseless panic rather than by internal mismanagement, meaning there may not be substantial moral hazard in aiding an illiquid but insolvent bank. It is harder to avoid moral hazard issues in providing state aid to an insolvent bank, which is more clearly culpable for its own bad asset purchases.

Further complicating matters are "toxic assets," which may have been overvalued by speculators in the run-up to the crisis but are likely undervalued in the immediate aftermath, as investors shun the formerly popular assets. This makes it virtually impossible to accurately estimate how much value the asset will recover over time. Toxic assets complicate evaluations of both solvency and liquidity. Toxic assets can precipitate a liquidity crisis by limiting access to interbank lending. If toxic assets were used as collateral, the lending bank will favor a low estimation of their current value, decreasing the liquidity available to the borrowing bank. Toxic assets also make it harder to evaluate solvency. The "book value," or precrisis price, is clearly no longer accurate. Valuing toxic assets at current market value may make asset holders insolvent. Valuing at some estimated future price may make the holder solvent, at least on paper, depending on the credibility of the methodology used to make such a valuation. The current asset holder has strong incentives to overestimate that future value, meaning that others may reasonably question the credibility of that estimation.

Responses to Banking Crises

The failure of a bank can easily precipitate the failure of other banks. Failure in the financial sector generally is also more likely to cause harm to the broader economy than in other sectors. Without a steady access to credit, many businesses in the "real" economy would be forced to suspend or contract operations, meaning that a banking crisis can have far wider collateral impact than a comparably sized crisis in, for instance, manufacturing sectors. Therefore, both other banks and the state will have clear interests in taking action to contain banking crises so as to

limit damage to the broader economy. Responses to financial crises come in many varieties, but can all be evaluated on two dimensions: effectiveness at containing the crisis and the degree of moral hazard created by the intervention (Wright, 2010b, p. 18). At one extreme, relying only on private market solutions creates no moral hazard issues but may prove ineffective at containing the crisis. At the other extreme, using state funds to completely insulate market actors from losses contains the crisis but with severe distortions of incentives and massive redistribution of wealth. Responses may be broadly categorized into three groups: private solutions, liquidity solutions, and capital solutions (Rosas and Jensen, 2010, p. 108). Within each category, a number of policies may be implemented, and their effectiveness in containing the crisis and diminishing moral hazard concerns will vary substantially based on their implementation. Without understanding their goals and methods, policy options cannot be easily compared in their moral hazard implications. Therefore, it is important to understand how the policies work and what separates a “good” moral hazard-limiting version of a policy from a “bad” moral hazard-creating one.

Private Solutions

Private solutions, in which no public money is used, are most in keeping with the logic of orthodox classical economics. Any injection of state funds in markets distorts prices, creating inefficient outcomes by encouraging inefficient patterns of behavior (Bagehot, 1892; Wright, 2010b, p. 18). Letting private actors sort out market problems themselves eliminates distortion and generally purges inefficient or unstable firms in favor of the stronger and more prudent. This not only eliminates market distortions but also the problem of moral hazard. If firms know no public rescue is coming and that they will be held accountable for their bad decisions, they will act in a more prudent manner. Because of this, financial crises should be rarer if a laissez-faire state response is expected (Rosas, 2006, 2009; Schneider and Tornell, 2004).¹ Furthermore, the direct cost to states is minimal, as no expensive outlay is required to finance a private response. The indirect effect on the real economy, however, can be immense, dragging GDP down for years. This cost gives policymakers an incentive to intervene despite market distortion and moral hazard problems and gives firms reason to anticipate state intervention if their fall will precipitate a broader economic disaster.

¹ A corollary to this is that speculative booms should also be smaller, as firms are more reluctant to lend.

Do Nothing

The *prima facie* simplest option for policymakers is to not involve the state in a financial crisis, letting market forces and the actions of private actors separate those firms capable of withstanding a crisis from those that cannot. Doing so avoids direct costs to the state and prevents moral hazard. It also most clearly reflects the private risk/private reward logic of free market capitalism.

There are several reasons, however, why this is not the best option for policymakers. Most prominent is the problem of contagion, when the distress or failure of a single firm, or small number of firms, causes a loss of confidence in the sector in general. The financial sector's susceptibility to bank runs makes it uniquely vulnerable to contagion effects. A firm may face failure not through its own actions but because a rival's collapse causes a general lack of faith in the sector. Aid to an otherwise healthy firm suffering from another's poor decisions may be justifiable, especially given the costs to the broader economy of allowing contagion to overrun the sector. Once healthy firms become caught in the panic, only action by the state, with its significantly greater reserves, may serve to stem the panic.

Firm collapse in the financial sector is devastating to an advanced economy, given the sector's central role in allocating capital to the real economy. The resulting broader recession would likely both activate automatic stabilizer welfare programs and create demand for a state economic stimulus package, indirectly causing the state to increase spending even in the absence of a financial rescue. Therefore, there are good reasons to expect significant costs to both the state and the real economy from simply letting a crisis "burn itself out." Furthermore, an action bias will likely prevail among policymakers. The public may not want to spend public funds on the financial sector, but neither will they want a broad economic crisis. Electorally sensitive policymakers will want to appear to be acting to solve the crisis, even if they are skeptical that government intervention will be effective. Voters more readily forgive unsuccessful action than no action at all, which may be perceived as "fiddling while Rome burns."

Nevertheless, states will let even large and important firms fail, for a number of reasons. They may lack the legal or fiscal resources necessary to save the firm or have philosophical or practical objections to state aid. Policymakers may conclude that state aid will create too great market distortions or encourage other firms to engage in risky behavior since they have confidence that they will receive support if they run into trouble. Alternatively, policymakers may conclude that the firm is small

8 Saving the Market from Itself

enough or its troubles have been broadly known long enough that its failure will not cause disastrous repercussions. All of these reasons were cited by people close to the decision by the US government not to save Lehman Brothers in 2008, by far the most prominent recent example of a state letting a firm fail. This action was not unprecedented, however. The Hoover administration chose not to intervene following the Great Crash of 1929, believing that state intervention would ultimately cause more problems than it solved.

Private Rescues

The state does have options to save banks without committing funds directly. States will frequently attempt to broker a rescue of the distressed firm by private actors. Private market solutions, in which other firms act to contain the crisis, are optimal from a policymaker's perspective in a number of ways. If effective, the crisis is contained and damage to the broader economy prevented. Using private funds instead of public monies eliminates redistributive consequences, which should limit negative public fallout. Finally, as bargains between private actors, moral hazard issues in private rescues are limited.

Because of these advantages, policymakers frequently seek to broker private market solutions. A healthy firm may purchase a distressed firm, either in full or by making an investment that increases the distressed firm's capital reserves and makes the healthy one a part owner. Two distressed firms with complementary strengths and weaknesses may merge, such that the merged firm is capable of surviving even if the constituent firms would fail on their own. Finally, healthy firms may provide lending to distressed firms, a solution that addresses liquidity issues but not solvency issues.

Private rescues may also take the form of consortium rescues, in which a group of firms pools their resources to assist distressed firms, either by issuing joint loans or, more rarely, by making a pooled capital injection. Such consortiums may be standing facilities, preexisting institutions ready to provide private funding to firms that require it and meet their qualifications. The German LIKO Bank facility provides an example of such a privately funded facility (Roth, 1994, p. 43). Alternatively, consortium rescues may be conducted on an ad hoc basis. The 1998 rescue of Long-Term Capital Management is an example of the latter. The US Federal Reserve organized a consortium of US financial institutions to provide liquidity assistance to the failing hedge fund. Such rescues distribute the burden of assistance across financial firms but require greater

organizational effort than a relatively simple individual bank-to-bank rescue.

State involvement in brokering such private rescues may be politically problematic. By actively brokering mergers, policymakers risk accusations of undue meddling in markets. They may be seen as cajoling less-than-willing firms to take actions they otherwise would not or as showing favoritism by either acting to preserve favored weak firms or providing advantages for favored strong firms. Policymakers may also be tempted to encourage private solutions by including “sweeteners”: public funds to absorb debts, guarantee loans, or otherwise incentivize the merger. The use of such publically funded sweeteners, however, should be considered a form of public rescue.

Public Rescues

Public assistance in financial crises can be classified into two approaches: liquidity assistance and solvency assistance. Liquidity assistance helps firms meet their immediate cash needs with loans or guarantees, but does not affect the underlying balance sheet of the firm. Liquidity support may buy time for an insolvent firm to find a private solvency solution, but cannot itself solve problems of solvency. Solving solvency issues requires the state to directly address a firm’s capital ratio, generally by taking full or partial ownership of a firm or its assets. Both approaches vary in their moral hazard implications, depending on how state aid is priced and the terms attached to such aid.

Liquidity Approaches

Regulatory Favoritism

The state may assist a firm by altering its regulatory restraints, either temporarily or permanently. Temporary regulatory relief typically removes or relaxes capital reserve requirements. This allows the firm to address liquidity needs without falling below the minimum capital reserves necessary to remain open. Permanent relief involves changing the firm’s legal status. This may be a change in the regulations governing a type of firm, or it may allow the firm to adopt a different legal status that provides certain advantages. For instance, in 2008, US regulators accepted applications from investment banks Morgan Stanley and Goldman Sachs to reclassify themselves as bank holding companies. This put them under increased regulatory supervision, but expanded their ability to borrow from the Federal Reserve. Regulatory favoritism

may alter a firm's legal capital requirements, but, unless accompanied by a capital injection, can only affect a firm's liquidity. A change in the legal minimum capital requirements may change the point at which regulators force a bank to close. This may free up capital to address liquidity concerns and, in doing so, allow a firm more time, but will not actually change the ratio of assets to liabilities, and so this cannot make an insolvent firm solvent again.

Regulatory favoritism does not directly involve state funds, so may introduce fewer moral hazard issues than other state aid approaches. Typically, it is used to allow firms to access state liquidity reserves available to other kinds of firms and thus indirectly puts more state funds in play. The effects, however, are relatively small if the change merely provides the at-risk firm access on the same terms as other, healthy firms. Morgan Stanley and Goldman Sachs' shift to bank holding company status, for instance, was an option available to them in good times as well as bad, at the discretion of the Federal Reserve, so it did not provide them with significant extraordinary access. It merely gave them the same status as existing bank holding companies, granting them certain advantages but also the disadvantage of increased regulatory oversight. Relaxation of capital requirements and other temporary relief are more problematic from a moral hazard standpoint, but still do not directly involve public finances in extraordinary spending. Therefore, the distorting effects are present, but smaller than in rescues involving direct state aid, as the firm is allowed greater lenience than it is entitled to under the existing legal framework.

Guarantees

States may attempt to solve liquidity problems by guaranteeing repayment to creditors or depositors, reducing or eliminating the pressure to withdraw funds and the reluctance to make new loans. State-backed guarantees remove doubts over repayment in the event of firm collapse, making lending to the firm as safe as lending to the state. As such, if guarantees work as intended, the provision of the guarantee itself solves the crisis of confidence, and state funds need never actually be used. If the firm's crisis is purely one of confidence, guarantees can solve the crisis at no direct cost to the state.

Guarantees do create moral hazard issues with both the firms themselves and depositors and creditors. The firm gets to substitute the state's superior creditworthiness for its own, escaping market judgment of its likelihood to honor its obligations. Therefore, the provision of guarantees creates moral hazard by insulating firms from losses, if only prospective ones. Typically states address this concern by charging a fee for