

CHAPTER 5

The Rise of Bail-Ins and the Quest for Credible Laissez-Faire Banking

GARETT JONES

George Mason University

In 2008 and the early weeks of 2009, I and others said that there was a practical alternative to bailouts.¹ There was an alternative to having the US Treasury buy shares in the big banks, an alternative to having the Federal Deposit Insurance Corporation (FDIC) guarantee bank bonds. That alternative was debt-to-equity conversions, a quick, efficient version of bankruptcy. Rather than have the government itself buy new bank shares as in a bailout, the troubled bank's own bondholders would instead be told, as Harvard's Greg Mankiw wrote in February 2009, "Congratulations, you are the new equity holders." By rapidly cutting away at unrealistic promises to bondholders while simultaneously increasing the amount of equity holdings, troubled banks would beef up their equity layer faster with no need for government cash.

The federal bailouts of 2008 seem inevitable in retrospect, but that is partly a case of hindsight bias. Economists including Harvard's Mankiw, Stanford's Robert Hall, Nobelist Joseph Stiglitz, and Chicago's Luigi Zingales explicitly offered some debt-to-equity conversion proposals in some form or another before, during, or in the months after the crisis—some as a plausible hypothetical, some as a more concrete, do-it-now plan.² In the years since, this approach

has gone by various informal names: I offered “speed bankruptcy,” but the less dangerous-sounding expressions such as “bondholder bail-in,” “haircut,” or “shared sacrifice” have caught on since then. In any case, it probably could have been done.

But it did not happen, and it is worthwhile to ask why. My claim is that the political temptation to act boldly and decisively in a crisis, the temptation to come to the market’s rescue, creates a nearly insurmountable temptation for politicians to bail out big financial institutions. When a financial crisis hits, regardless of the rules on the books, politicians will almost always rescue the biggest financial institutions if there is any substantial threat of contagion. One can blame well-connected financial industry insiders for the pro-bailout bias, which surely is a problem, but the bigger issue is a deeply fearful voting public that wants to avoid a risky-sounding bankruptcy plan for the nation’s biggest banks.

Therefore, a key goal for policymakers who want to avoid future bailouts should be to either reduce the likelihood of banking crises (partly by increasing the capital ratios for the biggest banks) or to make it politically feasible to take a leap into the dark by enacting a bondholder bail-in—a leap at least as large as the one Federal Reserve Chairman Ben Bernanke and Treasury Secretary Henry Paulson took when Lehman Brothers failed.

No democratically elected politician “wants another Lehman,” so activists and policy advisers pushing for an alternative to bailouts need to demonstrate that their path is not going to lead to another Lehman. Politicians should plan today to create a world tomorrow where they themselves would be willing to press the button on financial discipline. It has been said that there are no atheists in foxholes, and no true believers in *laissez-faire* amid a financial crisis. At least in the halls of power, the latter statement is largely true, so individuals who want market-disciplined banking policy need to plan today if they want a more market-disciplined future. And as I argue, a loud and clear government promise of “no bailouts” might, alas, turn out to be an excellent way to create future bailouts.

Indeed, some form of bailout for financial institutions might be unavoidable—there might be heavily politically connected firms or some firms that genuinely are too big to fail, or politicians might understandably be afraid of taking that step into the dark. I suspect there is always going to be some set of financial institutions that politicians, openly or quietly, deem

in need of a government guarantee. At the very least, the biggest banks are likely to receive massive government liquidity injections during a crisis. But when a potential financial crisis looms again in the rich countries, there should be real alternatives to 100 percent bailouts. There should be a continuum of options, not just pure laissez-faire versus blanket guarantees as far as the eye can see. Russ Roberts of the Hoover Institution has said this quite a few times since the crisis: If a policy of “no bailouts” was not feasible for some political or economic reasons, how did 100 percent bailouts for the big banks become the only alternative?³

Here I will set out why the market discipline approach is in fact safer than it seems, but since that story has been told well before, I will discuss it only briefly before reviewing how policymakers across the rich countries have enacted more pro-bail-in rules and regulations since 2008. That will demonstrate that the academic musings of 2008 and 2009 have become at least a partial political reality. Then I will turn to why bondholder bail-ins are important for the economy’s long-run health, and why good economic policy should focus on nonutopian alternatives to 100 percent bailouts. Janos Kornai’s work on the soft budget constraint, a feature of the economics of socialism, will be a focus of the penultimate section of the chapter. Future researchers will be able to judge to what extent the economics of socialism apply to the politics of banking policy.

BONDHOLDER BAIL-INS: A REVIEW

Consider a bank with one trillion dollars in assets, as in the top panel of table 1. One-third of the assets are conventional loans to customers, one-third are asset-backed securities (ABS)—essentially bonds backed by credit card repayments—and one-third are bonds and other readily tradable investments. In the United States, banks this large are not going to be funded solely by deposits and equity alone; it is a safe bet that at least a quarter of their funding will have come from the bond markets.

To keep it simple, consider a bank with a 10 percent capital ratio, so the other side of the balance sheet has \$100 billion in publicly traded shares. Another \$300 billion will be long-term bonds, so quite a few investors have placed long-term bets that this bank is reasonably safe. The remaining \$600

Table 1. A Bail-In or Bondholder Haircut (in billions \$)

	Precrisis: 10% Capital Ratio (100/1000)		
	Assets		Liabilities + Equity
Loans:	334	Deposits:	600
ABS:	333	Bonds:	300
Bonds:	<u>333</u>	Equity:	<u>100</u>
Total	1,000		1,000
	Crisis: A Plunge in Asset Values Causes a 0% Capital Ratio, Weaker Bond Prices		
	Assets		Liabilities + Equity
Loans:	334	Deposits:	600
ABS:	133	Bonds:	200
Bonds:	<u>333</u>	Equity:	0
Total	800	=	800
	Post-Bail-In: 25% Capital Ratio (200/800)		
	Assets		Liabilities + Equity
Loans:	334	Deposits:	600
ABS:	133	Bonds (wiped out, became new equity)	0
Bonds:	<u>333</u>	Equity:	200
Total	800	=	800

billion comes from depositors. One trillion in assets equals one trillion in liabilities and equity, so the balance sheet balances.

On a day-to-day basis, as financial markets react to good and bad news about the health of the bank's assets, it is the equity holders not the bondholders whose investment values fluctuate the most. The price of the stock rises on good news and sinks on bad news. Bonds react a little, but not too much, since bondholders have a contractual guarantee of repayment. Shareholders only get whatever is left over after everyone else is paid out—that is the peril of being the residual claimant.

But consider a case where devastating news hits the market for asset-backed securities. This time it is the credit card market, and investors are in grave doubt about whether Americans are going to repay their credit cards. And if

credit cards do not get paid off, securities backed by credit card repayments will not get paid in full—they will head into some sort of default. So awful news about credit card-backed securities will surely cause the bank's share price to plummet. The bank's investors will start to wonder whether there is enough money around to pay the bondholder's regular coupon payments, whether the bank will be able to roll over its bonds that are coming due, even whether the bank can raise enough short-term cash in the money market to meet fluctuating day-to-day needs. Who wants to lend to a bank that might be bankrupt in a month? Consider an extreme case: If the asset-backed securities fall in value by \$200 billion, the bank is not worth enough to fully, credibly repay both its depositors and its bondholders: It now only has \$800 billion in assets but \$900 billion in contractual (bond + deposit) liabilities. The share price would drop to essentially zero, and the bank's bond prices would plummet by a third to reflect the impending doom.

In the corporate world, if you are able to meet eight-ninths of your legal financial obligations, you are just as bankrupt as if you are able to meet just one-ninth. Bankruptcy is (at least in principle, and often in practice) driven by balance sheets, not cash flows.

As a practical matter, the kind of megabank that is the focus here can only become critically illiquid if investors fear the bank might be gone in a week. A megabank can find willing short-term lenders if the market is convinced the megabank has a sound balance sheet. Indeed, as Taylor and Williams showed, during the financial crisis in the United States, a variety of forms of evidence suggested that the rise in interest rates looked more like solvency risk (in the form of counterparty risk) than a narrow liquidity problem.⁴ Of course, central banks are there to provide emergency liquidity, but even before the Federal Reserve arrives with aid, other bank and nonbank firms with liquid wealth would be glad to earn big yields by lending to sound but illiquid megabanks. Solvency is the best line of credit.

So if the bank appears to be insolvent, what is the best solution? In the 2008 world, the answer was to have the government buy shares in the bank and to guarantee any new bond issues the bank made. The share purchases gave ready cash to the bank plus a *de facto* promise to keep the bank afloat. The bond guarantee meant investors would gladly lend to the bank, helping the bank to roll over old bonds. In the worlds of 2009 and 2010, the price of asset-backed securities recovered, so the government was able to sell its shares

at a profit and the federal bond guarantees never had to be tested. So far, it sounds like it was a free lunch—but this was partly a classic case of the seen versus the unseen.

If instead the government had run the bank through a rapid bankruptcy-like process, it could have told the bondholders on Friday that on Monday they would be shareholders. In the simplest and most extreme case, the old shareholders would be wiped out, told that their shares were worthless and that the old bondholders would be handed new shares in proportion to their previous bondholdings. So an investor who owned 1 percent of the entire precrash face value of the bank's bonds would now own 1 percent of the shares in the firm. Now the bank's liabilities would be simple: \$600 billion in deposits plus \$200 billion in shares, just equal to the \$800 billion in postcrisis asset value.

As I discussed in detail in my 2010 article on "Speed Bankruptcy,"⁵ there are good reasons for being less generous to bondholders and for instead diluting the old shareholders rather than wiping them out. In our example, 1,000 shares could be divided up with 100 going to old shareholders and 900 going to the old bondholders. That would give the old shareholders a more-than-token \$20 billion in value of the reborn firm (\$20 billion = 10 percent of 25 percent of the \$800 billion), and so the older, possibly better-informed investors would have a voice at the table. Also it would assuage legal concerns that shareholders had been unfairly treated; such concerns are not baseless, since after all there was always *some* chance the firm could have gambled for resurrection and won.

In addition, there are good reasons for cutting the promised face value of the bonds rather than wiping them out. That would work in our example: Cutting the value of the bonds by one-half or two-thirds and then also giving bondholders some shares in the new firm would be a practical option, since the remaining \$800 billion in assets is still enough to guarantee *some* repayment to bondholders, even if it is not enough to guarantee dollar-for-dollar repayment. The depositors are owed a mere \$600 billion, after all. Thirty-three or fifty cents on the dollar would then be the new face value of the bonds (leaving aside for now important details of maturity dates, present values, and coupons). In addition, the old bondholders would also receive shares in the new postcrisis bank.

Given a bankruptcy judge or an FDIC regulator with a strong mandate to quickly resolve the legal situation, this could be done in a matter of days. Bailing in the bondholders makes the bank sound: fewer debt promises and a restored layer of equity, all without a dollar of government aid. The bondholders took a

risk when they invested in the bank; now they are experiencing the downside of risk.

Of course, in the 2008-type scenario, if the asset prices later recover, then the bondholders (and the diluted shareholders) can recover much or even all of their lost value. The loss on the downside is paired with potential benefit on the upside. This might be small comfort to the bondholder who thought she held a \$10,000 bond but now holds a \$3,000 bond and some paper shares, but if she had wanted government guaranteed repayment she could always have bought US Treasuries. The net result of speed bankruptcy is a highly solvent bank with no extra legal or regulatory entanglements. And since solvency is the best credit line, other self-interested financial institutions will have a strong incentive to line up to end any liquidity problems.

BONDHOLDER BAIL-IN REFORM: A VICTORY LAP FOR SPEED BANKRUPTCY

These examples are not just hypotheticals. Since the financial crisis, European governments as well as governments in Canada, Mexico, and Brazil have moved to make bondholder bail-ins more likely. How can one tell that it is not just smoke and mirrors, a vague promise that will be quickly forgotten in a crisis? The political battles over bail-ins, the blunt talk from credit rating agencies, and the sizable bondholder bail-ins during the Cyprus banking crisis all suggest that next time really will be different.

First, the political debate: European Union states are currently under mandates to reform their bankruptcy and finance laws to ensure that bail-ins would be practical and legal, particularly for senior debtholders. As Bloomberg put it, reporting on the debate over a German bill:

After the European debt crisis turned German taxpayers into bailout masters, the country is trying to make sure more parties are on the hook for losses.⁶

And the bill that Germans debated is no piece of credibility-free, pie-in-the-sky legislation promising no bailouts ever. Instead, it builds on the EU's own law. Continuing with Bloomberg:

The German bill is intended to facilitate the EU resolution law, which requires creditors to bear losses equivalent to

8 percent of a bank's liabilities, including senior debt if necessary, before recourse can be made to rescue funds.⁷

The EU's proposal—if actually deployed in a crisis—effectively raises the private capital ratio for the firm before the government comes in. Since 8 percent of liabilities is only slightly less than 8 percent of assets in today's heavily leveraged banks, this amounts to a massive increase in purely private, risk-bearing capital in the firm. For example, in the 2016 US bank stress tests, the biggest banks had to prove that in a deep financial crisis they would still maintain a Tier 1 leverage ratio of 4 percent of total assets. In that ratio, the numerator is overwhelmingly common stock and retained earnings, while the denominator is total bank assets, without any form of risk weighting. A layer of credible bail-in bonds worth 8 percent of assets effectively triples the private capital layer in the bank, providing perhaps as hard a budget constraint as one can imagine in the real world.

Germany is not the only country to move down the road to legal bail-ins. Ireland has substantially burned junior bondholders recently. Anglo Irish Bank posted Ireland's biggest corporate losses ever and had 50 billion euros in deposits, massive for a country of 5 million. And while the bank was nationalized and received government funds, it also forced losses on junior bondholders.⁸ Likewise, the Cyprus banking crisis was resolved by burning bondholders and even some depositors. The response to the Cypriot banking crisis—which observers at the time said might set off global contagion—combined bail-ins and bailouts, something that may be the most market-oriented practical path forward.⁹ Those considering investing in European bank bonds have good reason to think that next time actually will be different.

Do financial markets believe this? At the least the credit rating agencies appear to. Consider these two quotes from a 2015 Fitch Ratings report:

EU [has made] progress in finding ways to resolve failed banks without disruption to financial stability and without requiring state resources . . .

[and in] identifying senior debt as a distinct category of liability that can be “bailed in” ahead of counterparties and “uninsured” depositors.¹⁰

Another piece of evidence: Irish Finance Minister Michael Noonan's now-famous 2013 statement: "Bail-in is now the rule."¹¹ It has been repeated often enough that at the least, market participants are concerned about the risk of market discipline. And it has worked in practice: In 2013, the Dutch government wiped out over a billion dollars in subordinated debt in a bank as part of a government takeover. And as of 2015, a Moody's report finds that some Latin American governments are making progress, naming Brazil and Mexico for their relatively credible plans, although Moody's has doubts about the credibility of the bail-in proposals in other Latin American countries.

It appears that junior bondholders are already in the crosshairs of bank regulators. And while the categories of "junior" and "senior" investors are surely legally murky and a topic largely for attorneys rather than economists, senior bondholders are next in line, and Europe's bailout-weary voting public may be willing to accept some risk of financial contagion rather than bail out yet another banking system. Indeed, that the Cypriot banking crises failed to set off contagion and that weeks of bargaining with Greece's Syriza in 2015 set off little sustained contagion throughout European financial markets are signs that investors both believe and have good reasons to believe that contagion is harder to spread than was once feared.

Of course, doubts quite reasonably still exist, especially with senior debtholders, according to a 2014 *Wall Street Journal* "Heard on the Street" column:

Despite political statements that bank creditors should bear the costs of poor lending decisions, senior bondholders have been protected in many cases.¹²

Among the likely reasons: When regulators consider holding bondholders accountable for their investments, concerns of "panic" are never far off. From the same *Wall Street Journal* column:

The failure to protect bondholders of Washington Mutual in September 2008 when the bank was acquired by JPMorgan Chase probably contributed to greater panic in the US financial system.

Then again, the column continues, senior debtholders may in fact be on the hook:

But the clock is ticking for senior debt's unofficial protected status. From 2016, Europe has ruled that it won't be excluded from being bailed-in, and could take losses in a restructuring if equity and subordinated debt proves insufficient.

The bondholder bail-in has become a standard talking point in financial circles since the global financial crisis, and when bail-ins have happened, long-lasting contagion did not. So major bail-ins are economically feasible.

And markets believe that bail-ins are relatively likely. A crucial example that itself is a tool for making bail-ins more likely: cocos. Cocos are “contingent convertible” bonds that become equity in time of need, such as when the bank's equity layer drops below 5 percent or when government regulators declare a financial crisis. Cocos are preplanned speed bankruptcy, and their issuance has exploded recently, partly because of favorable Basel rules.

At the time of my 2010 paper when I discussed cocos, they were little more than a theorist's dream, but in 2014 and again in 2015, over \$100 billion in cocos were issued globally. Cocos are now so widely traded that at least one market index for them exists, the Bank of America Merrill Contingent Capital Index (ticker symbol COCO). And indeed, the yield on the COCO index is about 2 percent higher than the yield on even high-yield European bonds.¹³ That yield premium means markets believe cocos face a substantial likelihood of actually converting to equity at some point in the future. Another piece of evidence: During a wave of bad news about European banks early in 2016, European bank coco price movements started closely tracking the price movements of European banks. That is just what a finance theorist would expect if cocos were actually likely to convert into equity if the conversion trigger requirements were met.¹⁴

While the evidence suggests that markets believe bail-ins or haircuts of some sort are more likely in the next crisis—at least outside the United States—two important questions follow: What are the long-run costs of bailouts, and what precrisis policy actions can reduce the odds—and the size—of bailouts in the next crisis?

THE SOFT BUDGET CONSTRAINT: EASY CHOICES NOW, BIG COSTS LATER

Governments have a good reason for promising not to bail out firms: They do not want to subsidize bad behavior. It is a classic case of moral hazard. If banks know that any time they make a bad investment they can get bailed out, and in particular if the bank's top managers know they can accept a bailout and still keep their well-paying jobs, the bank has little incentive to behave prudently. It is tails I win, heads I win double. A world of bailouts offers all the thrills of the private sector—competition against worthy rivals, a chance to make it big—along with the vast safety net of the public sector—where if you make a big mistake it just might mean a slower promotion rather than a pink slip.

So in principle, a prudent government wants some degree of market discipline, but in the midst of a crisis it is tempted to say, in the spirit of the youthful Saint Augustine, “Lord, grant me market discipline, but not yet.”

Here, the work of Hungarian economist Janos Kornai comes to the fore. He was the foremost economist of socialism, and his best-known work was on what he called the problem of the *soft budget constraint*. He noted that within socialism, there was little incentive for government enterprises to enforce any kind of budget discipline. If a government firm ran up debts because it produced too little output to cover its costs, it was easy for the government to cancel the debt. After all, the debt was just an accounting fiction, some amount of money that one government entity owed to another government entity. Why not forgive and forget? Of course, this created awful incentives, and as Kornai found, all of the solutions for the problem of the soft budget constraint contained their own problems. In an essay in the *Financial Times* in 2009, Kornai noted that the soft budget constraints were becoming a problem after the financial crisis:

One strong concern expressed more than once in discussions on the present financial crisis has been this: the interventions by the state are smuggling a bit of socialism into the capitalist economy.¹⁵

The soft budget constraint is a form of the moral hazard. But soft budget constraints refer to a narrower class of problems: Soft budget constraints involve cases where one party is de facto or de jure spending someone else's

money, while moral hazard can involve the decision to wear seat belts or to behave badly at work, or any of the thousands of situations where moral hazard has been studied. In addition, soft budget constraints by default involve work situations, just the kind of situations where one would expect instrumental rationality rather than emotion and caprice to rule. When a soft budget constraint exists, there are reasonably informed, reasonably rational parties, one of which is spending the other party's money.

When a government agency overspends for the year, knowing that it will be reimbursed by the legislature early next year, that is a case of the soft budget constraint; when a teenager runs up his credit card, knowing that his parents will bail him out, that is also a case of a soft budget constraint. And when a highly leveraged entrepreneur takes big risks with his company knowing that if the company fails, he can hand the firm over to the bank, that too is a soft budget constraint. A soft budget constraint deters the spender from shepherding his resources wisely. A soft budget constraint weakens prudence and causes misallocation. Whenever a person can count on outside help from a third party to pay the bills, it is a case of a soft budget constraint. Employees routinely face soft budget constraints at work; office supplies are an obvious example for desk jobs, and Johnny Cash's Cadillac built a piece at a time is an example from the assembly line. Business owners try to harden the budget constraint by making sure that employees do not steal or use business inputs for private use or waste time on smart phones when they should be working. And of course private business owners have reasonably strong incentives to harden budget constraints in a way that government managers (and indeed corporate managers) rarely do.

How might modern megabanks and systemically important financial institutions (SIFIs) shape their behavior in response to a soft budget constraint, an expectation of likely bailouts in the event of a crisis? How might bond buyers shape their behavior in response to an expectation that they will get blanket bailout coverage? How will these responses shape the overall economy?

The simple microeconomic story is the right place to start: If managers face less market discipline, they will tend to take bigger risks with the bank's money and they will be less cautious about cost control, or perhaps both. And potential bond buyers will put less effort into scrutinizing the bank's health if they believe it has a degree of de facto government insurance. The net effect is likely more financial resources poured into weaker, less efficient, less productive

banks. The soft budget constraint makes both bond investors and managers less cautious, to society's loss.

And the soft budget constraint is not the only downside of government bailouts and bond guarantees. Government bailouts mean government ownership of banks, at least for a period of time. And here one can turn to an international empirical literature that looks into what happens to the financial sector and the overall economy when the government owns part of the banking sector. The comparison is not a perfect one, since international studies focus on long-term government ownership and bailout situations are typically short term. But even during the US Treasury's brief stint as a partial owner of major banks, government officials were faced with political pressures to urge the banks to pursue political rather than financial-value-maximizing goals. Since controlled experiments are so rare in economics, it is certainly worth a look at the international literature on government-owned banks to give us an idea of the possible downsides of government-owned banks.

In an influential paper, La Porta, Lopez-De-Silanes, and Shleifer looked at whether the economy grows faster or slower when the government owns part of the banking system and found that "higher government ownership of banks in 1970 [was] associated with slower subsequent financial development and lower growth of per capita income and productivity."¹⁶ Notably, their study includes both banks that were partially owned by a nation's government and banks that were wholly government-owned. Even partial government ownership seems to predict weaker economic growth. In addition, a similarly influential paper by Demirgüç-Kunt and Detragiache looked at the effects of deposit insurance on the likelihood of bank collapses.¹⁷ The FDIC's guarantees of bank bonds after the financial crisis were similar enough to deposit insurance that one should ask whether deposit insurance is likely to help rather than hurt financial stability. And both pieces of evidence should give bailout advocates pause: Even partial government ownership of banks appears to have bad effects on economic growth, and deposit insurance appears to predict more, not fewer, bank collapses. The advocate of laissez-faire who thinks that government intervention in the banking system is bound to lead to bad results can find a lot of support in this international literature.

Of course, cross-country comparisons might miss important differences: Perhaps one cannot compare permanently-partially-government-owned banks in middle-income countries to temporarily-partially-government-

owned banks in the United States. That debate will not be settled here, but the international evidence should make us more interested in finding an alternative to bailouts and blanket bond guarantees. The international evidence should spur us to find a practical way to make greater market discipline a reality.

MAKING THE PERFECT THE ENEMY OF THE MARKET

Every politician and every government official involved in bank regulation should ask two questions when deciding whether a megabank's overall business strategy is prudent:

1. Would you let Fannie Mae and Freddie Mac follow this strategy?
2. If not, why would you allow complex, trillion-dollar banks to do it?

The megabanks have explicit protections from deposit insurance and implicit protections from the well-founded belief that governments will not allow big banks to wholly fail. They are all, to a substantial degree, Fannie and Freddie. One plausible response to the second question would be "because we credibly believe that these banks really will face market discipline in a crisis." But that "plausible" response only becomes a "good" response if that credibility is well-founded.

A 2014 GAO report found that markets do seem to believe that Dodd-Frank's new Orderly Liquidation Authority regime is at least somewhat credible. The best evidence for the new regime's credibility is that megabank bonds are no longer trading at substantially lower yields when compared to other somewhat smaller banks:

GAO's analysis . . . suggests that large bank holding companies had lower funding costs than smaller ones during the financial crisis but provides mixed evidence of such advantages in recent years. [M]ost models suggest that such advantages [to megabanks] may have declined or reversed.¹⁸

But any such gains depend heavily on the government's willingness to enforce reasonably hard budget constraints. Plenty of politicians are happy

to denounce bailouts, but if a politician's actions during normal times make bailouts more likely during a crisis, then that politician is pro-bailout in practice. What types of actions raise the probability of future bailouts? Here is a partial list:

1. Opposing higher capital requirements for the largest banks.
2. Insisting on a full-blown bankruptcy process for megabanks that fail, with strong rights of appeal that tie up megabanks and their assets in courts for years.
3. More speculatively, opposing medium-sized de facto bailout funds such as the borrowing powers included in Dodd-Frank's Orderly Liquidation Authority. Without such a fund, future politicians will be more likely to face a stark choice between a zero-bailout leap into the void versus another 2008-style crisis-enacted bailout fund. A medium-sized bailout fund may be the best way to prevent a massive bailout.

In 2008, a divided House of Representatives voted against the Troubled Asset Relief Program (TARP) bailout fund only to vote for it a few days later: fear changed the vote. And if a legislature is against bailouts for 999 days in a row but votes for a bailout when a financial panic happens on the one-thousandth day, that legislature is objectively pro-bailout. Market participants try to figure out whether the government is bluffing when it says it is anti-bailout, and market participants often successfully call the government's bluff.

Legislatures and regulators who want to create an objectively lower-bailout future have to give politicians some non-bailout buttons they can reasonably press in a crisis. One of those is the debt-to-equity conversions discussed here. But even that would likely require serious advance planning, including well-rehearsed "funeral plans" and thick capital layers for the biggest banks: The Treasury and Fed might be willing to have a bondholder bail-in for one particularly troubled megabank, but it is hard to imagine them doing it for three or four separate trillion-dollar banks within a week. A combination of thick capital layers, cocos, or other explicitly subordinated debt and a range of emergency liquidity programs are the kind of *ex ante* plans that raises the odds that politicians will let the technocrats have *ex post* control during a crisis.

In the typical country, when the government owns bank shares and insures bank deposits, the economy grows more slowly and the banking system is less

stable. Taking a few policy steps to make dollar-for-dollar bailouts less likely and to ensure that bank bonds are not as government-backed as bank deposits will help create a stronger economy and a more stable financial system. If the two options on the table are zero bailouts versus 100 percent bailouts, a politician in a crisis, regardless of party, will always choose 100 percent bailouts. But if the alternative to 100 percent bailouts is instead a well-rehearsed crisis contingency plan—not *laissez-faire* but a mix of *cocos*, capital planning, and a liquidity line—it is a lot easier to imagine a politician choosing greater market discipline. If policymakers remember what happened last time, then perhaps with some credible planning, next time really will be different.

NOTES

1. Among the others were Jones, “Imitate FDR’s Treasury Secretary”; Zingales, “Cramdown,” 8; Zingales, “Why Paulson Is Wrong”; and Mankiw, “Nationalization or Pre-Privatization?”
2. Clement, “Interview with Robert E. Hall”; see also Stiglitz, “Reforming the Global Economic Architecture”; and Jones, “Speed Bankruptcy.”
3. Roberts, “Gambling with Other People’s Money”; and “Roberts on the Crisis.”
4. Taylor and Williams, “Black Swan in the Money Market,” 58.
5. Jones, “Speed Bankruptcy.”
6. Groendahl, “Two Shades of German Seniors.”
7. *Ibid.*, emphasis added.
8. See Gergeley, “Anglo Irish Bank”; O’Dwyer, “IBRC Junior Bondholders”; and Declan Brennan, “Anglo Irish Accounts.”
9. Atkins and Watkins, “Cypriot Contagion Risk Rattles Investors.”
10. Fitch Ratings, “Fitch.”
11. *Der Spiegel*, “Bail-Ins.”
12. Barley, “Senior Bondholders Keep Dodging Bullets.”
13. Thompson, “Coco Sell-off Unveils High-yield Bargains.” For more detail on the growing *Coco* market, see Greene, “Understanding CoCos.”
14. Hale, “Music Stops for Buyers of *Coco* Debt.”
15. Janos Kornai’s comments appear in Buitert, “Kornai on Soft Budget Constraints.”
16. La Porta, Lopez-de-Silanes, and Shleifer, “Government Ownership of Banks.”
17. Demirgüç-Kunt and Detragiache, “Does Deposit Insurance Increase?”
18. GAO, “Large Bank Holding Companies.”

REFERENCES

- Atkins, Ralph, and Mary Watkins. "Cypriot Contagion Risk Rattles Investors." *Financial Times*, March 18, 2013. <http://www.ft.com/intl/cms/s/0/e36274d4-8fe3-11e2-ae9e-00144feabdc0.html>.
- Barley, Richard. "Senior Bondholders Keep Dodging Bullets." *Wall Street Journal Heard on the Street*, August 4, 2014. <http://www.wsj.com/articles/heard-on-the-street-senior-bondholders-keep-dodging-bullets-1407168870>.
- Brennan, Declan. "Anglo Irish Accounts Did Not Link Funding with €7.2bn ILP Transactions." *Irish Times*, March 11, 2015. <http://www.irishtimes.com/business/financial-services/anglo-irish-accounts-did-not-link-funding-with-7-2bn-ilp-transactions-1.2569643>.
- Buiter, William. "Kornai on Soft Budget Constraints, Bail-Outs and the Financial Crisis." *Financial Times*, October 14, 2009. <http://blogs.ft.com/maverecon/2009/10/kornai-on-soft-budget-constraints-bail-outs-and-the-financial-crisis/>.
- Clement, Douglas. "Interview with Robert E. Hall." *The Region* 24, no. 2 (June 2010): 26–37.
- Demirgüç-Kunt, Asli, and Enrica Detragiache. "Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation." *Journal of Monetary Economics* 49, no. 7 (2002): 1373–406.
- Der Spiegel. "Bail-Ins: EU Deal Protects Taxpayers in Bank Bailouts." June 27, 2015. <http://www.spiegel.de/international/business/eu-deal-would-require-bail-ins-in-future-bank-rescue-plans-a-908175.html>.
- Fitch Ratings. "Fitch: German Senior Debt Law Would Improve Bank Resolvability." Press Release, March 24, 2015. <https://www.fitchratings.com/site/fitch-home/pressrelease?id=981792>.
- Gergeley, Andras. "Anglo Irish Bank Posts Ireland's Biggest Loss Ever." *Reuters*, March 31, 2010. <http://www.reuters.com/article/us-angloirishbank-idUSTRE62U38C20100331>.
- Government Accountability Office (GAO). "Large Bank Holding Companies: Expectations of Government Support." GAO-14-621, July 31, 2014.
- Greene, Robert W. "Understanding CoCos: What Operational Concerns & Global Trends Mean for U.S. Policymakers." M-RCBG Associate Working Paper Series, No. 62, Harvard Kennedy School, June 2016.
- Groendahl, Boris. "Two Shades of German Seniors Show Bail-In Pecking Order." *Bloomberg.com*, April 1, 2015. <http://www.bloomberg.com/news/articles/2015-04-01/germany-leads-senior-bank-debt-revamp-to-ease-bail-in>.
- Hale, Thomas. "Music Stops for Buyers of Coco Debt." *Financial Times*, February 11, 2016. <http://www.ft.com/intl/cms/s/0/f921e592-d0af-11e5-831d-09f7778e7377.html>.
- Jones, Garrett. "Imitate FDR's Treasury Secretary: Bankruptcy Not Bailouts." *U.S. Exchequer* (Fall 2008): 45–46.
- . "Speed Bankruptcy: A Firewall to Future Crises." *Journal of Applied Corporate Finance* 22, no. 3 (2010): 73–84.
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. "Government Ownership of Banks." *Journal of Finance* 57, no. 1 (2002): 265–301.
- Mankiw, Gregory. "Nationalization or Pre-Privatization?" *Greg Mankiw's Blog*. February 16, 2009. <http://gregmankiw.blogspot.kr/2009/02/nationalization-or-pre-privatization.html>.

- Moody's. "Final Functionality of Bail-in Regimes in LatAm and Canada Is Uncertain." Announcement. January 22, 2015. https://www.moodys.com/research/Moodys-Final-functionality-of-bail-in-regimes-in-LatAm-and--PR_316970.
- O'Dwyer, Peter. "IBRC Junior Bondholders Submit Claims of €285m." *Irish Examiner*, October 7, 2015. <http://www.irishexaminer.com/business/ibrc-junior-bondholders-submit-claims-of-285m-357956.html>.
- Roberts, Russ. "Gambling with Other People's Money." Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, 2010.
- . "Roberts on the Crisis," *Econtalk Podcast*, May 17, 2010. http://www.econtalk.org/archives/2010/05/roberts_on_the_2.html.
- Seleanu, David. "Canadian Banking Outlook Downgraded over 'Bail-In' Move, Adding to Recent Financial Stability Concerns." *Reuters*, July 17, 2014. <http://blogs.reuters.com/financial-regulatory-forum/2014/07/17/canadian-banking-outlook-downgraded-over-bail-in-move-adding-to-recent-financial-stability-concerns>.
- Stiglitz, Joseph E. "Reforming the Global Economic Architecture: Lessons from Recent Crises." *Journal of Finance* 54, no. 4 (August 1999): 1508–21.
- Taylor, John B., and John C. Williams. "A Black Swan in the Money Market." *American Economic Journal: Macroeconomics* 1, no. 1 (2009): 58–83.
- Thompson, Christopher. "Coco Sell-off Unveils High-yield Bargains." *Financial Times*, August 14, 2014. <http://www.ft.com/intl/cms/s/0/e9d5fca-2308-11e4-a424-00144feabdc0.html>.
- Zingales, Luigi. "Cramdown: How to Fix the Credit Mess without a Government Bailout: Quickie Bankruptcies." *Forbes*, October 27, 2008. <http://www.forbes.com/forbes/2008/1027/030.html>.
- . "Why Paulson Is Wrong." *The Economists' Voice* 5, no. 5 (2008): art. 2.