

BAIL-INS: CYCLICAL EFFECTS OF A COMMON RESPONSE TO FINANCIAL CRISES

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In the wake of financial crises, public authorities often respond by using law to modify private contracts, transferring value from those who fare better in the crisis to those who fare worse. From the perspective of the crisis victim, this is a bailout. Because this Article focuses on the perspective of the other party to the contract (specifically on the incentives this response creates to the other party), this Article will refer to such a response as a “bail-in.” Recent examples include staying foreclosures, authorizing bankruptcy courts to modify mortgage terms, or threatening criminal prosecution to induce banks to undo transactions made with their clients.

Bail-ins have greater political appeal than other forms of redistributive government action (e.g., increased government spending and taxation). Bail-ins are expected to reduce future investment, as investors fear similar actions in future crises. But how harmful is this? Market skeptics question that the market correctly determines the optimal amount of investment and are thus untroubled by government’s manipulation of investment. And to appease those who do trust market allocation of investment, government can offset the investment reduction by subsidizing investment (e.g., making mortgage interest tax deductible to encourage lending and offsetting the effects of staying foreclosures or of court-modified mortgage terms).

This Article argues that bail-ins are significantly harmful from both market-trusting and market-skeptic perspectives. Rather than a permanent reduction in future investment, bail-ins reduce investment cyclically—significantly when the bail-in is imposed but declining gradually as cognitive biases cause managers to underestimate the risk of future contract modifications and as agency costs incentivize the managers to increase investment regardless of future bail-in risk.

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Cyclical fluctuation in investment deterrence may seem less harmful than permanent deterrence, but, in fact, the opposite is true. As this Article explains, cyclical fluctuation of investment makes bail-ins harmful from the perspectives of both market skeptics and market trusters, and it exacerbates the magnitude of future business cycles.

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I. INTRODUCTION

Though the future occurrence of financial crises is all but guaranteed, when a crisis occurs, those who suffer from it are usually seen as having unexpectedly bad fortune, and those who benefit from it are seen as being beneficiaries of a windfall. To correct these perceived imbalances (that are perhaps simply due to political calculus), a common public response to a financial crisis involves retroactively modifying existing commercial investments in a way that aids the crisis victims (e.g., stays on home foreclosures) or reduces the benefits to the crisis’ beneficiaries (e.g., “windfall taxes” on oil producers). From the perspective of the crisis victim, such a response is a form of bailout. Because this Article focuses on the perspective of the other party to the contract (specifically on the incentives this response creates to the other party), this Article will refer to such a response as a “bail-in.”

The prevalent view among economists is that actions such as bail-ins, which retroactively reduce the return on investments that were already made, are harmful to social welfare because they produce a constant future reduction in investment. For example, a lender would reduce the amount of credit offered in the future, knowing that come crisis he or she could not rely on the ability to foreclose collateral.

In this Article, I argue that bail-ins are in fact harmful, but not because they cause a permanent reduction in investment. Scholarship on cognitive biases has highlighted the impact of availability bias on assessing the probability of a given event.¹ Thus, we tend to overestimate the likelihood that law affecting our commercial investments will be retroactively modified when we observe instances of such modification to others' investments (such as at a time of financial crisis), and we underestimate the same risk when we do not observe instances of such modification to others' investments (such as at a time of prosperity).

Furthermore, even an unbiased manager is unlikely to factor the expected harm from future bail-ins in his or her investment decisions as long as a financial crisis does not seem imminent because of an agency problem: a manager's tenure is often shorter than a full business cycle, and so the loss caused by bail-ins that follow in the wake of a financial crisis will likely occur during the tenure of another manager. Meanwhile, if he or she were cautious and factored in the cost of future bail-ins in the investment decision, the manager would forego what at that time seem to be profitable investment opportunities, possibly costing the manager his or her job.² This was captured by Citibank's former CEO, Chuck Prince, who said (very shortly before the recent financial crisis erupted), "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance."³

Thus, the actual affect of bail-ins on investment is cyclical: investment is reduced around the time bail-ins are imposed, but this effect dissipates as the business cycle turns and the economy is booming again. At first glance, a cyclical fluctuation in investment may seem better than a constant reduction in investment, but, in fact, it is typically significantly worse for social welfare. Bail-ins deepen the shortage in investment during the crisis without dampening excessive investment during booms; they make the economy more cyclical than it otherwise would be.

There are several reasons why this cyclical effect is worse than a constant reduction in investment. For those who believe investment was excessive and should be curtailed (e.g., a judge who denies foreclosure to deter future lending by a firm believed to be "pushing" its loans on people it knew were likely to default), a constant reduction in investment is a good thing, but a reduction in investment occurring during busts (when investment is already scarce) but not during booms (when excessive investment tends to occur) is harmful. Conversely, those who believe government should not curtail investment can offset a constant reduction in investment by subsidizing the same investment (e.g., offsetting

1. See, e.g., Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 *COGNITIVE PSYCHOL.* 207 (1973).

2. For a similar analysis applied to the recent financial crisis of 2008, see Donald C. Langevoort, *Brokers As Fiduciaries*, 71 *U. PITT. L. REV.* 439, 451 (2010).

3. Michiyo Nakamoto & David Wighton, *Bullish Citigroup Is 'Still Dancing' to the Beat of the Buy-out Boom*, *FIN. TIMES*, July 10, 2007, at 1.

the stay of foreclosures with a subsidy to mortgage lending, such as allowing individuals to deduct their interest payments). Such subsidies, however, would not offset a cyclical effect on investment; rather, they would simply replace insufficient investment during a bust with excessive investment during a boom phase of the business cycle.

This Article proceeds as follows: Part II presents a few examples of bail-ins to demonstrate both the variety of areas in which they are used and the wide range of government actors that use them. Part III explains the political appeal of bail-ins and the reasons that market skeptics often find bail-ins desirable and market trusters find them tolerable. The heart of this Article, Part IV, describes why, contrary to common assumptions, the effect of bail-ins on investment is likely to be cyclical. It also discusses why bail-ins require market skeptics to reassess their support of such measures and why market trusters are more concerned about these measures. Part V concludes that a correct assessment of the effects of bail-ins is particularly important because of the inevitability of future financial crises and because of the prevalent use of bail-ins in such crises.

II. EXAMPLES OF BAIL-INS

A. *Foreclosure Relief*

Bail-ins are used by all branches of government, though their political appeal makes their use more attractive to elected officials. In the case of foreclosure relief, all three branches of government have at times attempted retroactive modification of mortgage terms.

(1) Legislative bail-ins: An early example of U.S. legislative bail-in was a wave of debtor relief legislation prompted by the Panic of 1819. Much of this legislation took two forms:

[Stay laws] postponed execution of property when the debtor signed a pledge to make the payment at a certain date in the future. Minimum appraisal laws provided that no property could be sold for execution below a certain minimum price, the appraised value being generally set by a board of the debtors' neighbors.⁴

Foreclosure relief diminishes the value of the lender's investment by curtailing the ability to access the collateral (i.e., the real estate property) when the debtor defaults. Stay laws delay foreclosure, while minimum appraisal laws reduce the probability that a sale could take place by setting a floor price that may be above the market price of the property.⁵

4. MURRAY N. ROTHBARD, *THE PANIC OF 1819: REACTIONS AND POLICIES* 32 (1962).

5. The appraisers, who are the debtor's neighbors, are likely to appraise the house at above its market value for three reasons. First, they are likely to have social ties to the debtor and thus may want to set a price that would either thwart the foreclosure sale or would leave a surplus for the debtor after satisfying the loan. Second, the sale price of neighboring properties could affect the market value of the appraisers' own property, and thus the appraisers have an incentive to set a high price for the property to boost (or at least prevent a decline in) their own property's value. Third, even if the appraisers do not act strategically, they are likely to be

Several states passed foreclosure relief statutes following the Panic of 1819. For example, Maryland passed a stay law,⁶ while Pennsylvania passed a minimum appraisal law.⁷

Foreclosure relief legislation was not a new phenomenon in 1819. Ohio, for example, “had a minimum appraisal law since its inception as a state in 1803,”⁸ and one scholar presented both stay laws and minimum appraisal laws as “an intermittent feature of American government since early colonial Virginia.”⁹

Nor is foreclosure relief legislation a relic of the past, or unique to U.S. law. The recent financial crisis has prompted legislatures worldwide to consider such measures. Latvia’s prime minister, for example, has proposed legislation that would limit Latvian homeowners’ mortgage liabilities to the value of their homes,¹⁰ retroactively converting the mortgages into nonrecourse loans.

(2) Judicial bail-ins: When foreclosures require judicial approval, judges can and sometimes do provide what effectively amounts to foreclosure relief by dismissing or delaying foreclosure proceedings. In the recent financial crisis, judges in several states have dismissed or delayed foreclosures for a variety of reasons (e.g., not being satisfied with evidence that the creditor owned the mortgage, or delaying proceedings until the creditor provided an affidavit explaining why it, a collection agency, and other financial entities provided identical addresses).¹¹ Such actions are not necessarily motivated by an interest in thwarting the foreclosures; mortgages are often acquired and sold multiple times, and thus ownership of the mortgage is not always obvious. Likewise, dismissal of a judicial proceeding for technical defects is not uncommon. The incidence of foreclosure proceeding dismissals seems to increase during financial crises, however, suggesting that judges may at least scrutinize foreclosure petitions for defects more actively during crises. Even if judges do not abuse the letter of the law, the enhanced standards applied during financial crises (if they differ from the standards that existed at the time the mortgage was made) increase the cost and reduce the certainty of the foreclosure remedy for creditors and therefore deter future loans. This concern increases when judges have greater discretion in evaluating the petitions (thus increasing the judge’s ability to modify the

affected by an endowment effect that makes them value their neighborhood at a price higher than they would value it had they not already lived there. If the marginal buyer is an outsider, the market price would not include the value added by the endowment effect; thus, even good-faith appraisers may price a neighboring property above its market value.

6. ROTHBARD, *supra* note 4, at 34.

7. *Id.* at 39.

8. *Id.* at 40.

9. *Id.* at 32.

10. See Richard Barley, ‘Riga Mortis’ Won’t Spread from Latvia, WALL ST. J., Oct. 8, 2009, at C10; Latvia’s Hard Decision, FIN. TIMES, Oct. 8, 2009, at 18.

11. Amir Efrati, Foreclosure Challenges Raise Questions About Judicial Role, WALL ST. J., Dec. 24, 2009, at A15; Amir Efrati, Some Judges Stiffen Foreclosure Standards, WALL ST. J., July 26–27, 2008, at A3.

contract without exceeding their authority), and when judges are elected for their position or consider their judicial position a stepping stone to an elected position (thus increasing the judge's incentive to modify the contract in response to popular sentiment).

(3) Executive bail-ins: Local law enforcement can engage in a bail-in by refusing to cooperate in the execution of a foreclosure. In the recent financial crisis, Sheriff Thomas J. Dart of Chicago suspended evictions of residents of foreclosed properties, and Sheriff John D. Green of Philadelphia suspended sales of foreclosed properties.¹²

Local law enforcement does not have the authority to modify private contracts, and they did not present their actions as attempting this. Rather, the enforcement suspension was purportedly aimed to mitigate abuse of the foreclosure process, such as creditors' failure to provide advance notice and grace periods to the debtors. Sheriff Dart claimed that "[j]ust in the past month, about a third of the people we were asked to evict were under very questionable circumstances. It got to the point that enough was enough."¹³ Given, however, that the suspension affected all mortgage enforcement and not only abusive enforcement, these measures increased cost and reduced certainty of the foreclosure remedy for law abiding creditors; therefore, the expectation of similar actions in the future should affect creditors' calculus in making future loans.

B. Bankruptcy

Bankruptcy law inherently involves the restructuring of private contracts, though it can increase (rather than reduce) investment if it provides greater certainty as to the way in which contracts would be restructured (since the alternative would be a scramble among creditors to seize the insolvent debtor's assets).

The focus on restructuring, however, makes bankruptcy law a natural vehicle for less-predictable modifications designed to redistribute the payoffs of private contracts in favor of victims of the financial crisis. The recent crisis provided several illustrations of potential bail-ins.

One example is proposed legislation (which has not, as of yet, been enacted) that authorizes bankruptcy courts to modify mortgage terms such as repayment periods and "excessive" interest rates.¹⁴ Another example is the Chrysler bankruptcy proceeding, in which Chrysler sold its desirable assets to a newly formed entity controlled by some of its creditors (the U.S. government and the United Auto Workers union), effectively restructuring the company despite the protests of some of its credi-

12. See John Leland, *Sheriff in Chicago Ends Evictions in Foreclosures*, N.Y. TIMES, Oct. 9, 2008, at A14.

13. *Id.*

14. Helping Families Save Their Homes Act of 2009, H.R. 1106, 111th Cong. §§ 103–104 (as referred to the Senate, Mar. 9, 2009); Amir Efrati, *Provision to Alter Loans Is Sought*, WALL ST. J., Sept. 24, 2008, at A4.

tors who alleged that the priority of their claims to Chrysler's assets was violated.¹⁵

If these allegations are correct, the Chrysler bankruptcy is an example of a bail-in, transferring wealth from Chrysler's senior creditors to other stakeholders who would have suffered from Chrysler's liquidation, such as United Auto Workers (which was an unsecured creditor), Chrysler's employees, dealers, and suppliers. Whether the allegations are correct, however, is difficult to ascertain.¹⁶ The procedure used by Chrysler maintained opacity as to the market value of Chrysler's assets, and therefore it is impossible to determine whether priorities were violated. The U.S. Court of Appeals for the Second Circuit affirmed the bankruptcy court's approval of the sale.¹⁷

Whether or not the Chrysler bankruptcy modified bargained-for priorities, the procedure used in the Chrysler bankruptcy can be misused to result in such modifications, whether intentionally or inadvertently.¹⁸ Given this risk and the likelihood that courts would be more accommodating to bankruptcy proceedings when they are sponsored by the government and occur during a time of financial crisis, the threat of such sales may act as a bail-in and deter some future investment.

C. *Dissolving Contracts in Response to Fraud Allegations*

Another type of bail-in takes the form of allegations that the party that benefitted from a certain type of financial transaction misrepresented the risks involved to the party that lost from the contract. Such allegations—typically made in civil or criminal charges by a law enforcement agency—are then settled in return for a sweeping dissolution of the financial transaction, regardless of whether a given transaction was tainted by misrepresentations.

A recent example is the settlement of charges regarding Auction Rate Securities (ARS), a debt security (like a bond) that offers higher yields than short-term debt in return for a higher liquidity risk (a risk of not being able to sell the investment). The liquidity risk seemed negligible when financial markets were healthy, but the market disappeared almost entirely as the financial crisis snowballed. Many investors found themselves stranded with these securities and unable to sell them. In the wake of the crisis, several state attorneys general opened investigations

15. See generally Mark J. Roe & David Skeel, *Assessing the Chrysler Bankruptcy*, 108 MICH. L. REV. 727 (2010).

16. See *id.* at 729–30. For a critical view of the effects of the U.S. government's actions, see Ralph Brubaker & Charles Jordan Tabb, *Bankruptcy Reorganizations and the Troubling Legacy of Chrysler and GM*, 2010 U. ILL. L. REV. 1375.

17. See *Ind. State Police Pension Trust v. Chrysler LLC (In re Chrysler LLC)*, 576 F.3d 108, 119 (2d Cir. 2009). This decision was vacated by the Supreme Court which ordered the Second Circuit to dismiss the appeal as moot (but vacated the decision because it did not hear the substantive issues). See *Ind. State Police Pension Trust v. Chrysler LLC*, 130 S. Ct. 1015 (2009).

18. See Roe & Skeel, *supra* note 15, at 761.

alleging that investment banks that sold ARS products mislead their customers into underestimating the liquidity risk. To settle these charges, the investment banks agreed to buy back billions of dollars worth of ARS, essentially assuming the losses that accrued to the buyers of these securities.¹⁹

There may have been instances—perhaps even many instances—in which banks have mislead their customers about the liquidity risks inherent in ARS. The settlement, however, made no effort to identify the scope of such misconduct, to apply the remedy against the banks in proportion to the misconducts or to apply the remedy in favor of customers who suffered from the misconduct. Instead, a large swath of investors was bailed out under the threat of prosecution. Since liability had more to do with the amount of ARS sales a bank made than with its culpable behavior, liability becomes a cost of doing business that factors into the bank's cost-benefit calculus of future investment.

D. Why Focus on Retroactive Bail-ins?

The analysis that is undertaken in this Article, which assesses the social cost of public modifications of private contracts, applies equally well to retroactive and prospective modifications. Prospective modifications may, however, be aimed at improving net social welfare by enhancing the regulation of the governed transactions (e.g., by limiting certain transaction terms that proved prone to abuse in the past). If this is the effect of the contract modification, then we must offset the benefits of the enhanced regulation from harms that resulted from deterring future investment. Assessing such benefits would require a case-by-case analysis and is beyond the scope of this Article.

The fact that a modification is made retroactively, in contrast, provides evidence that it was designed as a redistributive measure, since one would expect that a regulatory enhancement, if believed to be beneficial, would apply to future conduct that can be “nudged” towards more socially beneficial ends, rather than applying it to past conduct that cannot be influenced. Furthermore, if the motivation is indeed redistributive, a solely retroactive measure would provide crisis victims with one-time support. A prospective measure would support these victims indefinitely, which makes little political or redistributive sense because the victims of today's crisis may not be deserving of additional support in the future.

Thus, this Article presumes that a retroactive (but not necessarily a prospective) public modification of a contract has redistributive effects (of supporting crisis victims), but not regulatory reform effects (of improving the social efficiency of future transactions). Redistribution may

19. See *Kicked in the ARS*, *ECONOMIST*, Aug. 16, 2008, at 69; see also Song Jung-a, *Outcry over Korean 'Kiko' Suspensions*, *FIN. TIMES*, Apr. 2, 2009, at 23 (explaining that currency derivatives contracts that resulted in large losses to Korean exporters were suspended by Korean court rulings).

be a legitimate goal, but as a wealth transfer it (in itself) neither adds to nor reduces social welfare.²⁰ Thus, the costs assessed in Part IV below are net costs of the measure to social welfare.

Determining which modifications are retroactive is less certain than it may seem.²¹ Retroactive modification of a contract amounts to imposing different terms when the contract is applied than those the parties agreed to when the contract was formed. Most contracts, however, cannot be written in a way that creates complete certainty as to the enforcement of all of their terms, whether because of parties' inability to predict all future contingencies,²² because efficient enforcement of the term requires the enforcer to use his or her discretion,²³ or because—regardless of efficiency—the enforcing institution (e.g., a court, a regulatory agency, or the legislature) is given discretion in intervening with the contract.

Since some uncertainty always exists as to how a contract will be enforced, a party to a contract should anticipate some (perhaps very remote) possibility that any contractual term might be ignored or modified. Thus, a very narrow definition of retroactivity might view no modification as retroactive; any court decision not to enforce express contractual terms that were previously thought to be enforceable may be seen as nonretroactive because parties could anticipate these were possible (though highly improbable) contingencies. I doubt, however, that such a

20. For an argument that, under many circumstances, consumers are harmed by policies that pursue proconsumer redistributive goals at the expense of the transaction's efficiency, see Richard Craswell, *Passing on the Costs of Legal Rules: Efficiency and Distribution in Buyer-Seller Relationships*, 43 STAN. L. REV. 361 (1991).

21. For an excellent analysis of retroactivity in the context of statutory interpretation, see Jill E. Fisch, *Retroactivity and Legal Change: An Equilibrium Approach*, 110 HARV. L. REV. 1055, 1067–73 (1997). For a discussion comparing retroactivity in the criminal and civil legislative, see also Harold J. Krent, *The Puzzling Boundary Between Criminal and Civil Retroactive Lawmaking*, 84 GEO. L.J. 2143, 2146–52 (1996).

22. This fact of life, that contracts cannot address ex ante all possible contingencies, is the basis of the theory of incomplete contracts. See Richard Craswell, *The "Incomplete Contracts" Literature and Efficient Precautions*, 56 CASE W. RES. L. REV. 151, 152–65 (2005) (explaining how the theory of incomplete contracts affects contract law). Incomplete contracts must have their terms completed ex post by some third party (e.g., a court). The alternative—that incomplete contracts would not be enforced—would negate most benefits of contract law. Tess Wilkinson-Ryan, *Do Liquidated Damages Encourage Breach? A Psychological Experiment*, 108 MICH. L. REV. 633, 648 (2010) (“The doctrine of incomplete contracts allows for two possibilities when relevant terms or contingencies are not specified in the contract: either no enforceable contract exists, or the gaps can be filled using default rules of one kind or another. However . . . most contracts are incomplete, so the possibility of having no enforceable contract in all these cases is unrealistic.”).

23. This is, for example, a common justification for fiduciary duties, in which a court has discretion to interpret whether certain behavior which does not violate express contractual restrictions nonetheless exposes the actor to liability. See John H. Langbein, *The Contractarian Basis of the Law of Trusts*, 105 YALE L.J. 625, 656–57 (1995) (“Be it in trust law or in other fields of fiduciary obligation (for example, corporations, agency, or partnership), fiduciary duties are default norms imposed in juridical relations that feature ‘scope for the exercise of discretion.’ . . . This combination of broad discretion in the trustee, coupled with fiduciary norms to protect the beneficiary against abuse of discretion, is a second-best solution to the problem of enforcing the trust deal. Ideally . . . the deal between settlor and trustee would contain ‘specific rules that dictate how the fiduciary should manage the asset in the beneficiary’s best interests.’ Alas, ‘the fiduciary’s obligations are open-ended. Because asset management necessarily involves risk and uncertainty, the specific behavior of the fiduciary cannot be dictated in advance.’”).

view would be endorsed by many, since it would empty the term “retroactivity” of content.

While I readily acknowledge the difficulty in a precise definition of “retroactivity,” such definition is not needed for the purposes that the concept is used in this Article. As mentioned above, retroactivity is used in this Article as a proxy to indicate that the sole purpose of a bail-in is redistributive—designed to assist crisis victims rather than to prevent socially harmful behavior in the future. Because I treat the redistributive goal as socially neutral (neither harmful nor beneficial to overall social welfare), a bail-in that is purely distributive causes a net loss of social welfare resulting from deterring investment, as described in Part IV.A below. If, on the other hand, a bail-in is incidentally redistributive but also prevents socially harmful behavior in the future, the social welfare calculus requires that this benefit be deducted from the investment-detering harm—making the calculus of social welfare more complex.

Yet this added complexity does not obviate the argument this Article makes—that the investment-detering effects of bail-ins are underestimated because their pattern is misunderstood. And the added complexity is significant only in borderline cases, where the benefits of the bail-in are significant enough that they may offset its harms. In such cases—when the benefits of the bail-in are both clear and significant—the proxy that retroactivity offers is not needed, since the benefits should clearly be considered in the calculus. And in borderline cases, one can operate without a precise threshold for retroactivity by using a sliding scale in which the more retroactive the bail-in (i.e., the more remote the modification seemed at the time the contract was formed), the less likely it is that offsetting benefits of the bail-in need to be assessed.

III. THE APPEAL OF BAIL-INS

A. *Political Appeal*

Bail-ins allow government actors to support victims of a financial crisis in a more politically feasible way than alternatives. Of course, victims can and often do receive public funding to support them, whether within the existing social safety nets or in the form of ad hoc bailouts or stimulus packages.

Economic realities, however, present a high cost to public funding. The financial crisis typically reduces the government’s tax revenue, creating or exacerbating a budget deficit even before the cost of a bailout is considered. Never-popular tax increases are particularly resented when taxpayers feel the pinch of a crisis and may also hinder recovery by reducing taxpayer spending. Borrowing more money, another method of financing a bailout, risks raising interest rates and crowding private borrowers out of the capital markets, which may also hinder recovery. Fi-

nally, “printing money” (i.e., having the central bank purchase government bonds) may spur inflation. The costs associated with each of these financing alternatives limit the funds a government can allocate to supporting victims of a crisis.

Forced private funding provides an often politically attractive alternative to public funding of crisis victims, particularly when the private parties forced to fund the victims are perceived to have profited from the crisis (e.g., short sellers) or perceived to have caused it (e.g., investment banks and large commercial banks).

Some forced private funding is explicit, such as the Obama administration’s proposal to tax large banks that received taxpayer assistance, in order to reimburse the Troubled Asset Relief Program for losses suffered in bailing out ailing firms.²⁴ Implicit forced private funding, which transfers wealth to crisis victims by modifying the victims’ contracts with other private parties rather than by explicit taxation, is often politically more feasible, however. The cost of the wealth transfer is often invisible to the public and sometimes not clear even to parties to the modified contract. Furthermore, it is easier to present contract modifications than taxes as reforms derived as lessons from the crisis and designed to prevent future abuses.

B. Perceived Economic Impact—Market Skeptic’s View

If one is skeptical of the free market’s ability to allocate investments adequately (a group I will call “market skeptics”), bail-ins may be seen as a welcome intervention. Some scholars express concern that during times of abundant capital, financial institutions expand their business (and their profits) by forcing loans on customers who are likely to default, with the intent of profiting by charging fees and higher interest rates following a default.²⁵ If these concerns are correct, one may reason, then a bail-in that deters future investment may be a blessing, since the market overallocates capital to financial markets that then employ it in predatory ways. If some capital is scared away, this concern may be mitigated. This is, of course, a second-best solution compared to regulation identifying and directly prohibiting lending that is predatory. When it is difficult to identify which lending is predatory and which is socially valu-

24. See Jackie Calmes, *Taxing Banks for the Bailout: A Levy on Big Finance Firms Could Raise More Than \$100 Million*, N.Y. TIMES, Jan. 15, 2010, at B1; Jonathan Weisman & David Enrich, *Obama Unveils \$90 Billion Bank Tax with Sharp Words*, WALL ST. J., Jan. 15, 2010, at A4. This proposal was originally included in the bill that became the Dodd-Frank Wall Street Reform and Consumer Protection Act but was dropped from the final version of the act. See Damian Paletta & Greg Hitt, *Financial-Rules Overhaul Clears a Major Hurdle*, WALL ST. J., June 30, 2010, at A3; Matt Viser, *Brown’s Threat Gets Bank Tax Removed: Finance Bill’s Funding Reworked*, BOS. GLOBE, June 30, 2010, at A1.

25. See Ronald J. Mann, *Bankruptcy Reform and the “Sweat Box” of Credit Card Debt*, 2007 U. ILL. L. REV. 375, 384–92.

able, however, a crude reduction in the total amount of money allocated to lending may be the best method to mitigate predatory lending.²⁶

In sum, from the perspective of a market skeptic, the bail-in may be perceived to be a blessing precisely because it reduces future investment.

C. *Perceived Economic Impact—Market Truster’s View*

Bail-ins deter some future investment that would have been made were markets left to their own devices. If one trusts that markets allocate financial investment in a more efficient way than governments would (a group I will call “market trusters”), then this outcome should be harmful to social welfare since it reduces investment below the efficient level. For example, consider a bail-in in the form of a stay on foreclosures. Such a measure would likely reduce investment in future mortgages, which would be socially harmful if the previous (market-determined) level of investment was the efficient level.

This concern was raised at least as early as 1820, when an author identified as a “Pennsylvanian” wrote an op-ed. arguing against stay and minimum appraisal legislation.²⁷ The author claimed that these laws not only failed to correct the causes of the Panic of 1819, but “they would induce the withdrawal of large amounts of capital now employed and mitigating the distress.”²⁸ Examining interest rates on securities, the author concluded that a large amount of idle capital awaits the return of public confidence, and the legislation was destroying this confidence.²⁹

The harm may be mitigated, however, by an offsetting subsidy.³⁰ For example, the government may allow borrowers to deduct interest

26. A similar justification was given for usury laws (which are public modifications of private contracts but are not retroactive and thus not a bail-in under this Article’s definition). Where government cannot identify and prohibit exploitative loans, it uses interest rates not only as a crude proxy for exploitation but also as a limit to the profitability of lending, which reduces the amount of lending. See Jared Rubin, *Social Insurance, Commitment, and the Origin of Law: Interest Bans in Early Christianity*, 52 J.L. & ECON. 761 (2009).

27. ROTHBARD, *supra* note 4, at 39.

28. *Id.* at 40.

29. *Id.*

30. Careful readers may wonder why the bail-in itself is not an offsetting subsidy. One may expect potential beneficiaries of bail-ins to increase their demand for contracts from which they are likely to be bailed out, a phenomenon known as moral hazard. See Geoffrey P. Miller & Gerald Rosenfeld, *Intellectual Hazard: How Conceptual Biases in Complex Organizations Contributed to the Crisis of 2008*, 33 HARV. J.L. & PUB. POL’Y 807, 810–12 (2010). As they compete with each other over these contracts, potential bailout beneficiaries may be expected to offer better terms to the party on which the bail-in will be imposed, up to the expected value of the bailout. Should this happen, the forced private party would be indifferent to the bail-in, since it would receive its expected value in the form of improved contract terms from the party that expects to be bailed out. Yet such automatic offsetting subsidy is unlikely for two reasons. First, there is significant uncertainty as to whether a bail-in/-out would occur and what its exact terms would be. Since most crisis victims have a single contract (e.g., a mortgage) and not a diversified portfolio of contracts, their risk aversion should cause them to significantly discount the expected benefit from a bailout. Second, the value lost to the party suffering from a bail-in is not necessarily identical to the value gained by the party that is being bailed in. If the wealth transfer has some costs or inefficiencies, the value lost will be greater than the value gained. Yet the party anticipating a bailout would pay no more than the expected value of the bailout, which in such cases would fall short of the expected harm from the bail-in.

payments on their mortgages from their taxable income.³¹ The deduction should allow lenders to charge higher interest rates, since a portion of the interest would be offset by tax savings. This could compensate for the deterrent effect of bail-ins and thus facilitate a return to an optimal level of investment. Of course, it is difficult, if not impossible, to calculate precisely the magnitude of the subsidy necessary to match the deterrent effect of a bail-in, but through gradual tweaking of the subsidy in response to the effect on investment, one may approximate the prebail-in level of investment.

Why would a government, which seems bent on forcing private parties to pay for supporting crisis victims then be interested in subsidizing the forced private parties? Such a move may allow politicians controlling the government's policy to make a "double play"—scoring political points with the victims by compensating them (and where the forced private parties are unpopular, scoring additional points for forcing them to foot the bill). The politicians then score political points with the forced private parties by creating a subsidy that offsets the harm caused by the bail-in. In addition, a subsidy can be structured to directly benefit someone other than the forced private parties (e.g., homeowners receiving the mortgage interest deduction) while indirectly benefiting the forced private parties. In such cases, politicians still score political points with both the forced private parties and the homeowners who are direct beneficiaries of the subsidy, and they also avoid the appearance of subsidizing the forced private parties (who may be unpopular).³²

In sum, from the perspective of a market truster, a bail-in reduces social welfare but can be corrected relatively easily by an offsetting subsidy.

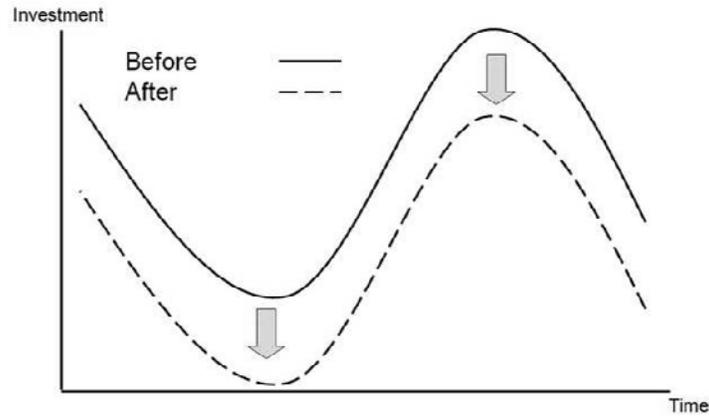
IV. THE REAL ECONOMIC IMPACT OF BAIL-INS

A. *Cyclical—Not Constant—Reduction in Investment*

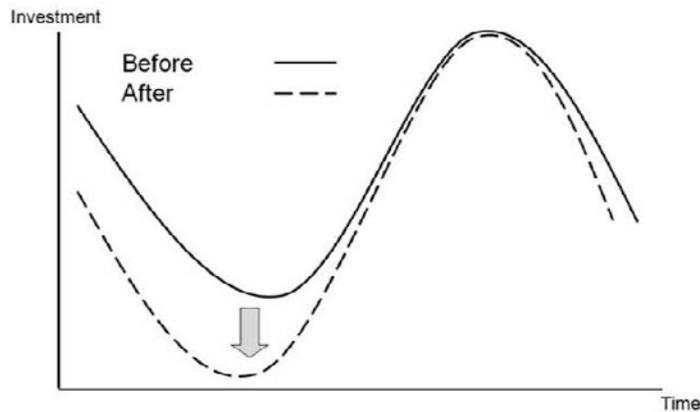
From the analysis presented above, one may conclude that bail-ins are beneficial at best and harmful but manageable at worst. The analysis, however, suffers from a fatal flaw—it assumes that following a bail-in, future investment is permanently reduced. This assumption, illustrated in Figure 1 (which shows investment levels throughout the business cycle, before and after a bail-in affects investment levels), is likely incorrect in most cases.

31. In tweaking the appropriate level of subsidies, the government is not limited to pecuniary benefits such as grants or the foregoing of taxes, but can also experiment with regulatory cost reductions, such as changes to zoning requirements, exemption from or shortened regulatory procedures, etc.

32. In addition, the subsidy and the bail-in do not have to be created at the same time. The bail-in may be imposed when the crisis victims are politically significant, and the subsidy may be created when the forced private parties are politically significant.

FIGURE 1: A **CONSTANT** INVESTMENT DISINCENTIVE

Instead, a bail-in is likely to significantly reduce investment immediately following its imposition (likely during or immediately following a business cycle bust), but then the investment-detering effect is likely to gradually wear off, possibly disappearing by the time the business cycle reaches its next boom. Figure 2 illustrates fluctuating investment deterrence (the solid line represents investment levels over the business cycle without the bail-in effect, while the dashed line represents levels of investment after the bail-in effect is introduced).

FIGURE 2: A **FLUCTUATING** INVESTMENT DISINCENTIVE

Two reasons cause the magnitude of investment deterrence to fluctuate: cognitive biases affecting the perceived risk of a future bail-in and an agency problem caused by the fact that many managers' tenure is shorter than a full business cycle (those at the helm during recovery and boom phases may rationally expect that they would not be at their position by the next financial bust, when bail-ins will be prevalent again).

Cognitive biases, and particularly the availability bias, cause managers to overestimate the likelihood and harm to their firm from bail-ins when such actions are common and to underestimate the same when bail-ins are uncommon. The availability bias is a cognitive pattern by which people “assess the frequency of a class or the probability of an event by the ease with which instances or occurrence can be brought to mind.”³³ Therefore, if we recently encountered, read about, or heard from others of a certain event, we are likely to overestimate the frequency or probability of that event. The availability bias may be exacerbated by another bias: social amplification—the tendency of one’s perception of a risk to be influenced by others’ perceptions.³⁴ As a result of these two biases, a highly publicized bail-in (or even debates on imposing a bail-in) may cause overestimation of the probability of future bail-ins. The imposition of a bail-in often receives significant coverage since the imposer often wishes to earn political capital for supporting the crisis victims, and this media coverage makes the existence or contemplation of a bail-in known to a much larger number of managers. The “availability” of such an event triggers the availability bias and is likely to cause an increase in the risk perceived by each manager. In addition, because the same media coverage is observed by many people in the manager’s social vicinity (such as other managers), the increase in perceived risk would be exacerbated through social amplification, as one manager’s heightened concern with bail-ins would cause an increase in the same concern by other managers.

It is worth noting that the availability bias is not a form of information asymmetry—the manager may be aware of the history of bail-ins being imposed. The fact that examples of bail-ins are not readily available, however, (because he or she has not read about them or recently talked about them with others) makes the manager underestimate the likelihood that new bail-ins will be imposed. Since one’s attention is a finite resource, the opposite effect occurs when other issues occupy a manager’s attention and bail-ins are not discussed. For example, during the boom phase, availability bias and social amplification (or rather its inverse, social attenuation) cause the manager to underestimate the probability of future bail-ins.

In addition to cognitive biases, which may cause a manager to misperceive the probability of bail-ins and therefore reduce investment too sharply during the bust phase and too little during the boom phase, an agency problem may even cause a manager who perceives the probability of bail-ins correctly to consciously and intentionally allocate investment in the same way. The reason is that a manager’s tenure is typically short-

33. Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *SCIENCE* 1124, 1127 (1974).

34. Cass R. Sunstein, *The Laws of Fear*, 115 *HARV. L. REV.* 1119, 1130 (2002) (reviewing PAUL SLOVIC, *THE PERCEPTION OF RISK* (2000)).

er than the business cycle. Therefore, a manager making investment decisions during the recovery phase or early in the boom phase would be reasonable to expect that the next bust (and the bail-ins that will follow in its wake) will occur after his or her tenure as manager has already ended and therefore would not affect the performance of the firm attributable to him or her.

Furthermore, if enough of the directors or shareholders of the manager's firm underestimate the probability of future bail-ins, they would view the manager's caution as excessive and press to deploy more of the firm's resources. Even if the directors and shareholders in the manager's firm do not misperceive the probability of a future bail-in, they may evaluate the manager's performance by comparing it to rivals' performance. If these rivals' managers, directors, or shareholders underestimate the probability of future bail-ins and therefore do not reduce investments vulnerable to such bail-ins, then the rivals' short-term profitability (prior to the bust phase) may be greater, putting pressure on the unbiased manager to mimic the rivals and act less cautiously, or risk losing his or her job well before the business cycle turns, bail-ins are imposed, and the manager is vindicated.

Similar concerns occur at the bust phase of the business cycle, causing even an unbiased manager to reduce investment more than is warranted by the threat of future bail-ins. If enough directors or shareholders are biased and overestimate the risk of future bail-ins at a time that they are highly available and socially amplified, then a manager who does not aggressively cut the firm's investment (let alone a manager who increases investment to take advantage of other firms' excessive caution) would be seen as reckless and possibly replaced.

Thus, an unbiased manager could rationally conclude that he or she should reduce investment during the bust phase of the business cycle in excess of what his or her assessment of the actual bail-in risk would dictate, and likewise could be rational in increasing investment during the boom phase in excess of what the actual bail-in risk suggests. Neither action would be in the best interest of the firm, but each may be required for the manager to maintain his or her job.

B. Actual Economic Impact—Market Skeptic's View

At first blush the above claim—that bail-ins cause not a constant decrease in investment but a fluctuating one—seems to mitigate an assessment of the harm from bail-ins that is already not very alarming. This is wrong. The fluctuating nature of the decrease in investment significantly exacerbates the harm caused by bail-ins that is already not very alarming.

As explained above, market skeptics believe that markets (at least in some financial sectors) do not allocate investments as well as a regulator could.³⁵ Their concern is typically that during the boom phase of the business cycle (when capital is plentiful), financial firms force their loans on people likely to default, with the intent of profiting by charging fees and higher interest rates following a default. A corresponding concern, though one that receives less attention, is that during the bust phase of the business cycle (when capital is scarce), creditworthy and profitable potential borrowers are unable to access credit.

A fluctuating decrease in investment, such as the one caused by bail-ins, creates problems at both the boom and the bust phases. The decrease in investments is most pronounced during the bust phase, when new bail-ins are imposed—reducing investment further precisely when market skeptics would be concerned about individuals' lack of access to credit. The investment-reduction effect gradually wanes, becoming negligible by the next boom—precisely the time market skeptics would like to reduce investment.

Thus, given a market skeptic's preferences as to investment allocation, and assuming that bail-ins cause a fluctuating decrease in investment,³⁶ the actual economic effect of a bail-in is not positive,³⁷ but rather neutral during the boom phase of the business cycle and negative during the bust phase.

C. *Actual Economic Impact—Market Truster's View*

A market truster generally expects the market to allocate investments better than a regulator would and would therefore consider the investment-decreasing effect of the bail-in to result in reduced social welfare. Market trusters may perceive bail-ins as tolerable exercises of political pandering, however, as long as their harmful economic effects are offset by a corresponding subsidy that returns investment roughly to the levels that existed before the bail-in caused distortions.³⁸

The fluctuating nature of investment deterrence caused by bail-ins makes an offsetting subsidy nearly politically impossible. The fluctuating effect of bail-ins causes investment during a bust to be lower than it would be absent the bail-in, yet investment during the recovery and into the boom phase approach the levels they would be absent the bail-in. As illustrated in Figure 3, a fixed subsidy throughout the business cycle would simply replace one problem (insufficient investment during the bust phase of the business cycle) with another problem (excessive investment during the boom phase).

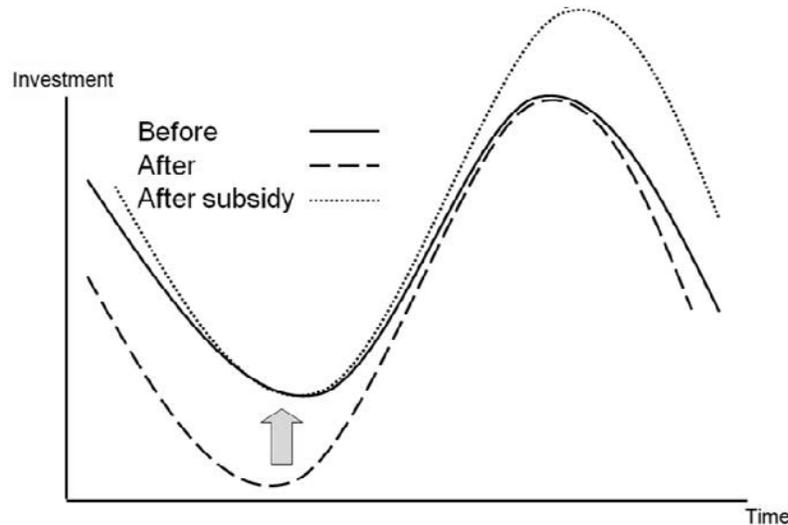
35. See *supra* Part III.B.

36. See *supra* Part IV.A.

37. This is suggested by the earlier analysis *supra* Part III.B.

38. See *supra* Part III.C.

FIGURE 3: EFFECT OF A SUBSIDY
UNDER A FLUCTUATING INVESTMENT DISINCENTIVE



A fluctuating subsidy that would correct the bail-in distortion would need to subsidize during the bust and decline afterwards, eventually disappearing as the boom phase approaches. This, however, is politically very unlikely. Subsidies and tax breaks are characterized by strong inertia and are politically difficult to remove once established. Their removal is particularly difficult during boom times, when the public is happy with financial performance and would not like to “rock the boat.” Woe to the politician who sponsored the removal of the subsidy if the market peaked soon thereafter, and rivals persuaded the public that it was the removal of the subsidy that precipitated the end of the boom and the beginning of decline. Furthermore, when the subsidy is given directly to the forced private parties and those parties are not popular, providing the subsidy during the bust phase—as appropriate policy dictates—would conspicuously align the sponsoring politician with highly unpopular parties at the peak of resentment toward these parties (e.g., subsidizing investment bankers during the height of the financial crisis).

Given a market truster’s preferences as to investment allocation and assuming that bail-ins cause a fluctuating decrease in investment,³⁹ the actual economic effect of a bail-in is negative, and the prospects for implementing corrective policies that would mitigate the harm are much worse than expected in the earlier analysis.⁴⁰

39. See *supra* Part IV.A.

40. See *supra* Part III.C.

V. CONCLUSION: AVOIDING A BAD RESPONSE TO AN INEVITABLE CRISIS

A common failure, tied to the nature of investment goods, lies behind most financial crises. Under most circumstances, markets have a negative feedback mechanism between price and demand which maintains their balance. For example, consider the book market. You know how much a book is worth to you, and if you can get it for a price below its value to you, then you buy it. Suppose that there is a shortage of books and their price goes up. If the price of the book rises above its value to you, you will not buy the book. Since other people do the same, demand for books drops, and this causes the price of books to stop rising.

This feedback mechanism can fail—and even work in reverse—when dealing with investment goods. Investment goods are things we value not because we use them, but because we hope to sell them later at a higher price to someone else. When you buy stock in Microsoft, for example, owning the stock does not make your life better. The only reason to buy the stock is because, hopefully, you will later be able to sell it to someone else at a higher price.

Determining the value of investment goods is much more difficult than determining the value of goods you consume. You know how much you will enjoy reading a book, and so you know how much you would be willing to pay for it regardless of what anyone else thinks about the book. But you cannot do the same with the Microsoft stock—it is not worth anything to you in itself; rather, its value depends on how much you think other people would pay you for it in the future.

This is where the market's price feedback mechanism fails: if investment goods acted like consumable goods, then a rise in the price of the investment good would reduce demand for that good. But the rise in price conveys new information on how much the investment good is worth to others. So the rise in price may make you revise how much you think others would pay for the investment good, and therefore you may be willing to pay more for it following the rise in price. Thus, demand might actually increase as the price rises, causing the price to rise further.

This is how market bubbles are created. They are sustained even if market participants realize that prices are unsustainable, because it is rational to buy an overpriced investment good if you can sell it to someone else at an even higher price before the bubble bursts. Because bubbles can persist for years, businessmen and businesswomen who resist bubbles and stay out of the market may lose their jobs for poor performance long before the bubble bursts and vindicates them.

Because market bubbles—and the financial crises that occur when they implode—are inevitable, it is important to understand the effects of government actions that are politically feasible and prevalent in the wake of a crisis. Bail-ins—the retroactive modification of private contracts to

relieve crisis victims—are common actions because of the incentives for the politicians sponsoring them. Because the effect of bail-ins is thought to be a permanent reduction in investment, resistance to such measures tends to be light: market skeptics applaud them as a way to reduce the previous boom's excesses, while market trusters tolerate them since the harm they cause seems to be easily corrected with a corresponding subsidy.

This Article demonstrated that in most cases, bail-ins are likely to cause not a permanent reduction in investment but a cyclical one: investment is likely to decline significantly during the bust phase of the business cycle, but increase over time until the effect of the bail-in on investment becomes nearly negligible late in the recovery and during the next boom phase. Given these dynamics, the Article explained why both market skeptics and market trusters should be more wary of bail-ins, and why both groups are currently likely underestimating the harm from these measures to social welfare. Despite (and perhaps because) of the political appeal of bail-ins, greater resistance may be warranted.