

## CHAPTER 1:

# Deposit Insurance, Bank Resolution, and Market Discipline

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*At some point I would like to see  
a system with no federal deposit  
insurance at all.*

—Alan Greenspan, address at  
The Heritage Foundation,  
March 23, 1985

**G**overnment-backed deposit insurance weakens market discipline, increases moral hazard, and leads to higher financial risk than the economy would otherwise have, thus weakening the banking system as a whole. Less government, and more private insurance or shareholder equity, increases private consumers' and capital suppliers' incentives to care about the financial risks and health of banks, thus introducing market discipline into the system, lowering moral hazard, and strengthening the banking system. The provision of government deposit insurance also shifts investment away from equity markets and toward bank-based finance.

### A SNAPSHOT OF DEPOSIT INSURANCE

As of the first quarter of 2016, the Federal Deposit Insurance Corporation (FDIC)

guaranteed almost \$6.7 trillion in deposits, backed by an insurance fund of \$75 billion, representing a reserve (or capital) ratio of just over 1 percent. Another \$5.6 trillion in uninsured deposits resides in the U.S. banking system, bringing the total of both insured and uninsured deposits to just over \$11 trillion. The current number of U.S. insured depository institutions (banks and thrifts) is 6,122.<sup>1</sup>

Despite the large number of insured depository institutions, over half of insured deposits are held by the 980 banks supervised by the Office of the Comptroller of the Currency (OCC). The vast majority of these insured deposits are held by the 25 institutions whose total assets exceed \$100 billion. An approximate breakdown is that these 25 insured depositories hold total insured deposits equal to the other 6,097 depositories. Combined, the largest three commercial banks—Bank of America, JPMorgan Chase, and Wells Fargo—hold more than one-third of all insured deposits.

Aggregate trends in deposit insurance can mask considerable churning of deposits. In the first quarter of 2016, the FDIC reported that insured deposits increased at 3,900 institutions, decreased at 2,201 institutions, and remained flat at only 30 institutions. This

breakdown is similar to that found in previous quarters. Even during the worst of the financial crisis, between June 30, 2008, and September 30, 2008, insured deposits increased at 4,820 institutions, decreased at 3,508 institutions, and remained flat at 35 institutions.<sup>2</sup> As will be discussed below, sometimes this churning represents the flowing of deposits away from unhealthy banks, and to healthier banks.

**Why Deposit Insurance?** Historically, government-provided deposit insurance has been defended on two grounds: (1) protecting the payments system and (2) protecting small, unsophisticated depositors. As bank “demand deposits” are currently payable upon the demand of the depositor, there exist circumstances under which depositors may run to remove their deposits from a bank (or the banking system) even if the bank (or system) in question were perfectly solvent. This outcome is the result of combining a fractional reserve system with requiring that depositors are paid in full sequentially (first come, first served). Relaxing either of these restrictions can eliminate runs. In fact, prior to the widespread adoption of deposit insurance, potential runs were halted via suspension of services—so-called bank holidays.

While protecting the payments system may well be an important end in itself, the more important issue is the impact of a failure of the payments system on the broader economy. If a large number of banks fail, overall lending in the economy may decline if the remaining banks are not able to cover the decline in lending. Failing banks might also push firms and households into bankruptcy as loans are recalled to meet depositor claims. Although the preceding is theoretically feasible, it has rarely, if ever, been witnessed in practice.

A crucial question is to what extent “runs” are largely withdrawals on troubled institutions, as opposed to a system-wide run. Since, as with any industry, failure helps to remove poor or even fraudulent business practices, protecting the payment system should not, itself, be a policy goal. Put differently, runs

on failing banks improve the allocation of financial resources. Protecting failed banks prolongs this misallocation of resources, and can also undermine the viability of otherwise solvent banks as the protected banks pursue risky business strategies. Insulating poorly performing banks from failure can also keep destructive business practices and culture in place. Such propping up can also reduce economic growth and labor productivity as the least-productive banks remain in business instead of being eliminated from the industry.

Whether deposit withdrawals are “indiscriminate panics,” or a reallocation of deposits from troubled to healthy banks, is ultimately an empirical question. Researchers at the FDIC found that between the second quarter (Q2) of 2008 and the end of 2010, the worst of the financial crisis, uninsured depositors were leaving the least-healthy banks (those with CAMELS<sup>3</sup> ratings of 4 and 5), and going to the healthiest banks (those with CAMELS ratings of 1 and 2).<sup>4</sup> This shift is especially impressive given that CAMELS ratings are not public, yet uninsured depositors were largely able to distinguish good banks from bad and move their deposits accordingly. This “reallocation” view is also supported by the fact that during that time the total amount of domestic deposits in U.S. banks and thrifts was continually increasing on a quarterly basis. There quite simply was no broad-based (indiscriminate) run on U.S. banks in the 2008 financial crisis. Such was also true for uninsured deposits, which were not leaving the banking system, but rather were being reallocated within the system.

Economic models of financial crises can generally be characterized as either “belief-based” or “fundamentals-based.”<sup>5</sup> Belief-based models gained popularity with the work of John Maynard Keynes and later Charles Poor Kindleberger.<sup>6</sup> This early work was mostly verbal in nature. The most prominent formal model of belief-based crises is that of Douglas Diamond and Philip Dybvig.<sup>7</sup> Channeling Keynes, these models are essentially driven by “animal spirits,” or depositor

confidence. In their most extreme form, such models imply that financial panics can just happen, indiscriminately and without any change in economic fundamentals. This class of models provides the theoretical foundation for both deposit insurance and broad lender-of-last-resort facilities. As these models rarely offer any empirical predictions, they are notoriously difficult, if not impossible, to test or disprove, which perhaps explains their continued popularity.

In contrast, fundamentals-based models of financial crises are based on the argument that underlying weaknesses in either the economy or the financial system are the drivers of financial crises. Much of this work is empirical, looking for drivers in the data indicating which “fundamentals” drive crises.<sup>8</sup> It is this work, discussed below, which provides evidence that deposit insurance may be a contributor to financial instability, rather than a stabilizer, as suggested by the beliefs-based models. It is my argument herein that fundamentals-based models offer a more accurate description of real-world financial crises and are better supported by the existing empirical evidence.

While it is beyond the scope of this chapter, deposit insurance has also been explained as an attempt to protect smaller banks from the competitive pressures of larger banks.<sup>9</sup> To the extent that deposit insurance results in a more fragmented and less-diversified financial system, it further contributes to reducing financial stability.

## DEPOSIT INSURANCE, MARKET DISCIPLINE, AND FINANCIAL STABILITY

In a world without government-provided deposit insurance, depositors would seek some assurance that their money was safe. Some might purchase private insurance and, as was long done in the case of credit unions and depositors above the insured limits, most are likely to look for outward signs of bank strength. The most important source of bank strength is the equity of its

shareholders, which would absorb losses before depositors do. In the absence of deposit insurance, banks would be pressured to hold additional capital in order to attract deposits, and indeed this is what was witnessed both before the creation of the FDIC, as well as when comparing uninsured and insured banks in those states that offered deposit insurance before 1934.

With the creation of the FDIC, banks were no longer pressured to increase their own capital by depositors and, unsurprisingly, capital levels quickly declined.<sup>10</sup> Unfortunately, this shift not only reduced the cushion protecting depositors from loss, but in reducing the likelihood of insolvency, it also changed the incentives facing shareholders. When shareholders (and their agents, management) bear most of the downside of their risk-taking, they face strong incentives to internalize that risk. If, however, losses are more likely to fall on others, either depositors or the insurance fund, then shareholders are incentivized to take more risk. Perversely, not only does the provision of deposit insurance reduce the cushion of equity in banks, it also increases the variance (risk) of their investments. Thus, both the asset and liability sides of the bank balance sheet are distorted in destructive ways by deposit insurance.

Proponents also claim that deposit insurance helps mitigate contagion, whereby one bank failure causes other healthy banks to fail, but the contagion effect of panics has been grossly exaggerated.<sup>11</sup> The spread of poor incentives encouraged by deposit insurance—another type of contagion—have not been broadly recognized. Because deposit insurance reduces the incentives to hold more capital, shareholders seeking greater returns on equity will shift toward banks with higher leverage. Management will face competitive pressures to increase leverage or else be disadvantaged. As Kevin Dowd has rightly observed, “Deposit insurance thus makes a strong capital position a liability, putting well-capitalized banks at a competitive disadvantage.”<sup>12</sup>

This disadvantage is not just a theoretical curiosity. One of the “victims” of deposit insurance was, ironically enough, First National Bank, which had distinguished itself as a “safe” bank by widely advertising its strong capital position. This strength was one reason it weathered the Great Depression, but the creation of the FDIC eroded its ability to compete for deposits on the basis of that strong capital position. It was ultimately forced to sell out to National City Bank (the early version of Citibank). As *The New York Times* observed on the event of this merger in 1954, “When people began to cease worrying about the safety of their deposits the premium declined on a bank that had made a name for itself as the epitome of conservatism.”<sup>13</sup>

**A Brief History of Deposit Insurance in the United States.** Deposit insurance is generally associated with the Banking Act of 1933, which also instituted the separation of commercial and investment banking.<sup>14</sup> A handful of states, however, experimented with government-backed deposit insurance, beginning with New York’s bank-obligation fund in 1829, which covered circulating bank notes as well as deposits. Five additional states followed New York’s lead in creating deposit-insurance funds in the antebellum period—Vermont, Indiana, Michigan, Ohio, and Iowa.<sup>15</sup> Ohio and Iowa only insured circulating bank notes, which was the common medium of exchange before the National Bank Act of 1863.

All six state funds worked quite differently than the current FDIC model. Three of the six only paid claims once a bank liquidation was completed, and while two paid claims immediately, those claims were in part covered by special assessments on the remaining solvent banks in the state. All six states established some form of examination and supervision of covered institutions, as well as requiring regular condition reports.

Michigan’s deposit insurance fund was the first to fail, closing its doors in 1842 with a deficit in current dollars of over \$1 million (almost \$28 million in 2016 dollars). Vermont

followed next with a minor deficit. New York, Ohio, and Iowa wound down their funds by 1866 with the spread of “free banking” and the creation of the national banking system. Deposit insurance, at the state level, would continue to be debated, but another fund would not be created until 1908 in Oklahoma. Between then and World War I, Kansas, Nebraska, Texas, Mississippi, South Dakota, North Dakota, and Washington State would follow with their own deposit-insurance funds.

Washington State’s fund was created in 1917 and failed in 1921. By 1930, the remaining state funds had closed, often leaving behind considerable bills to be paid by their citizens.<sup>16</sup> Despite, or perhaps because of, the failure of state-level deposit-insurance funds, and the evidence that such funds increased bank failures, Congress considered around 150 separate proposals between 1886 and 1933, when the Federal Deposit Insurance Fund was created on a temporary basis, and later made permanent in the Banking Act of 1935.

What ultimately provided the momentum for congressional action was the mass of bank failures (suspensions) in the early 1930s. While the boom years of the 1920s witnessed around 600 failures per year, of mostly small agricultural banks, in 1930 alone, bank failures surpassed 1,000. Annual failures eventually peaked with 4,000 failures in 1933, as depositors pulled gold out of banks in anticipation of President Franklin Roosevelt’s eventual devaluation and abandonment of the gold standard. Total losses for depositors were relatively small as a percent of total deposits during this time. Even in the worst year for bank failures, 1933, total losses represented just over 2 percent of total system deposits. Even limited to failing banks in 1933, depositors on average received 85 percent of their deposits.

Under the Banking Act of 1933 the FDIC was authorized to pay a maximum of \$2,500 to depositors of failed, insured banks, equal to around \$46,000 in 2016 dollars. Lydia Lob-siger was the first depositor to receive a check from the FDIC (for \$1,250) when the Fond du

Lac State Bank in East Peoria, Illinois, was the first FDIC-insured bank to fail in May 1934.<sup>17</sup>

Between its creation and the beginning of World War II, the FDIC handled the failure of 370 banks. After recoveries, losses amounted to around \$20 million (about \$350 million in 2016 dollars) for those 370 pre-WWII-insured failures. The war years and following Cold War period were quiet ones in terms of bank failures, with annual failures remaining in the single digits until 1975.

Not long after the failure of Fond du Lac State Bank in 1934, coverage was raised to \$5,000 per depositor, where it remained until 1950, when it was raised to \$10,000.<sup>18</sup> Coverage levels were increased to \$15,000 in 1966, to \$20,000 in 1969, and quickly thereafter doubled to \$40,000 in 1974.<sup>19</sup> The increase to \$100,000 occurred in 1980,<sup>20</sup> which remained in place until 2005, when it was increased to \$250,000 for retirement accounts,<sup>21</sup> which was later made permanent for all accounts by the Dodd–Frank Act.<sup>22</sup> The current \$250,000 ceiling is, in inflation-adjusted terms, more than six times the original 1933 coverage limit.

The conventional wisdom is that by reducing the number of bank runs, the FDIC has reduced the cost of bank failures. While there are theoretical reasons to both support and reject that contention, it is ultimately an empirical question. Rutgers University professor Eugene White made an initial attempt after the bank failures of the 1980s to determine if the FDIC did indeed reduce costs. Professor White concluded that “deposit insurance did not substantially reduce aggregate losses from bank failures and may have raised them.”<sup>23</sup> White is clear that such a conclusion depends on a number of assumptions, but that reasonable assumptions suggest skepticism over any claim that the FDIC has reduced the losses from bank failures. His analysis also leaves out losses from the savings and loans (S&Ls), as well as those of the 2008 financial crisis.

The period between the New Deal and the S&L crisis is sometimes called the Quiet Period in American banking, for its relative stability. One regularly heard rationale for this

relative stability is the existence of deposit insurance, which is claimed to have ended panics. Undercutting this hypothesis is that the percentage of deposits explicitly insured was considerably *smaller* during the Quiet Period than after, when two major crises occurred and several smaller bank crises ensued. Between the establishment of the FDIC and 1980, approximately half of deposits were insured, implying that the other half were uninsured (and hence subject to runs). Since 1980, almost two-thirds of deposits have been explicitly insured. The 1980s also gave rise to the notion of Too Big to Fail, with the rescue of Continental Illinois. If there has been an implicit guarantee of uninsured deposits, it has undoubtedly been stronger since 1980. In terms of the commercial banking sector, the explicit (and likely implicit) safety net was actually smaller during the Quiet Period relative to recent decades, yet panics have still occurred.<sup>24</sup>

## BROKERED DEPOSITS<sup>25</sup>

Between 7 percent and 10 percent of deposits are channeled via deposit “brokers”—individuals or organizations that assemble large amounts of deposits and then place those deposits in banks and thrifts. The primary purpose of brokering is to allow individuals to spread their deposits across institutions, thereby obtaining insurance coverage in excess of the coverage cap (currently \$250,000). Brokers are also used to assist large depositors in searching for the banks that offer the highest deposit rates.

The use of brokered deposits has long attracted regulatory scrutiny. In the early 1980s, for instance, the FDIC attempted to deny insurance coverage to brokered deposits, only to have its effort overturned due to a lack of statutory authority.<sup>26</sup> This scrutiny derives from two sources: First, brokering can be viewed as an attempt to circumvent the coverage limit, which is intended to restrict coverage to “retail” depositors. It is fair to say that few working-class or middle-class families use deposit brokers; their holdings of deposits are simply too small. Second, the use of

brokered deposits has long been associated with a higher probability of bank failure. Concern about brokered deposits has thus been expressed both in terms of fairness as well as safety and soundness.

The most recent FDIC analysis of brokered deposits finds that the largest 36 banks, those with over \$50 billion in assets, account for half of all brokered deposits. The more than 6,000 banks with under \$1 billion in assets account for less than 9 percent of brokered deposits. Essentially, the largest banks are using brokered deposits as a form of insured wholesale funding. In fact, more than half of insured depositories report not holding any brokered deposits. Just over a third of brokered deposits consist of “sweep” accounts used by investment banks on behalf of their clients, whereby idle customer balances are swept into insured accounts.

Currently, the only significant restrictions on the use of brokered deposits are for banks that are critically undercapitalized, which at any time constitute a small number. To further the public interest and improve financial stability, Congress should eliminate FDIC insurance coverage for brokered deposits. The FDIC lacks authority to do so on its own. This action would end insurance coverage for just over \$500 billion in deposits. Such could be achieved applying insurance coverage limits to individuals, rather than allowing multiple accounts for individuals. If Congress is unwilling, as it has been in the past, to eliminate coverage for brokered deposits completely, the use of brokered deposits for any single bank should be limited to no more than 10 percent of said bank’s total deposits.

## DEPOSIT INSURANCE AROUND THE WORLD

Despite the conventional American wisdom that deposit insurance increases financial stability, which is contradicted by a large body of research, few other countries embraced deposit insurance before the 1970s. In fact, before 1970, the number of countries with explicit deposit insurance systems was

still in the single digits. A large push by international government organizations resulted in a massive expansion of deposit insurance with almost 90 countries today having explicit deposit insurance schemes.<sup>27</sup> Another 34 countries are currently considering some form of official deposit insurance or are in the process of implementing such.<sup>28</sup>

The financial crisis of 2008 resulted in substantial increases in explicit government deposit insurance coverage. Before the crisis, most European countries offered coverage equivalent to around 140 percent of per capita income. The United States maintained higher coverage of around 210 percent of per capita income, and, subsequently, expanded coverage to over 540 percent of per capita income. Post-crisis Europe now displays coverage levels of almost 500 percent of per capita income.

In dollar-equivalent terms, only Australia offers higher deposit insurance coverage than the United States. Most countries in Western Europe currently offer coverage of approximately \$137,000, just over 50 percent of the value of U.S. coverage. A number of EU countries also cover the deposits of local branches of foreign banks, where the U.S. does not. The U.S. does, however, offer some coverage to foreign branches of U.S. banks.<sup>29</sup>

Coverage levels are not the only differences among deposit insurance systems. The U.S., for instance, is one of the few systems that cover interbank deposits. A number of deposit insurance systems require coinsurance, where the depositors bear some portion of the loss, in order to reduce moral hazard. Usually, coinsurance is at the level of 10 percent or 20 percent of coverage, meaning that depositors are responsible for between 10 percent and 20 percent of any losses. Coinsurance is at 10 percent in many European countries.<sup>30</sup> A small number of countries, such as Switzerland and Luxembourg, with explicit deposit insurance systems leave the administration and funding of those systems to the private sector.<sup>31</sup> A few countries also allow deposits to be offered without compulsory coverage. The U.S. system could be improved by adopting

some of the characteristics of other deposit insurance systems, as suggested by Thomas Hogan and Kristine Johnson.<sup>32</sup>

The introduction of deposit insurance schemes has direct effects on other financial sectors within the economy. Deposit insurance will change the incentives facing households in terms of where those households should place their savings. Scholars have found, for instance, that countries with explicit deposit insurance schemes have smaller equity markets, all else being equal.<sup>33</sup> Such coverage may not only increase financial instability, it may ultimately reduce economic growth as investment is pulled away from more productive uses within the economy.

While the expansions of coverage in both the U.S. and Europe was mistakenly seen as necessary for stabilizing the financial system and the broader economy, these expansions will likely result in greater financial crises, especially in Europe, where commercial banks dominate the financial system to a greater degree than in the United States. European countries, as well as those in Asia, would better serve the goals of financial stability by rolling back the recent extensions in deposit insurance coverage. Movements toward an EU-wide deposit insurance fund should also be abandoned, as such would greatly reduce market discipline, especially on banks in Southern Europe. Similarly, China should abandon its efforts at creating a government-backed deposit insurance system. The United States' experience with deposit insurance should largely be viewed as model of what not to do.

## DEPOSIT INSURER AS RECEIVER

The FDIC is primarily known to the public as the insurer of bank deposits. However, the FDIC plays another important role in our financial markets, especially in times of crisis: the role of receiver, or liquidator, of failed banks.<sup>34</sup>

A receiver or conservator is essentially an administrative agency that performs the same role as would a bankruptcy court. Prior to the creation of the FDIC, courts were often appointed as receivers for failed institutions.

In some instances, state bank regulators have also served as administrative receivers for banks chartered under their authority.

The primary purpose of a resolution regime, whether an administrative receiver or a court-supervised bankruptcy, is to determine the allocation of losses among shareholders and creditors. A receivership is generally limited to instances where the assets of a bank are less than its liabilities. To put it bluntly, not everyone is going to get what they were promised, and the main task of the receiver is to referee who gets how much.

Generally “who gets what” is determined ahead of time by a “chain of priorities.” For instance, debt holders would be paid in full before any distribution to equity holders. Within the group of equity holders, preferred shareholders would receive funds before any distribution to common shareholders, who generally receive little, if anything, in a resolution. There will also be a chain of priorities among debt holders, with some creditors senior to others. Secured creditors are generally paid before unsecured creditors. Administrative expenses of the receiver, such as maintaining the operations of the bank, are first in priority. Even uninsured depositors are likely to receive something in a receivership, despite their uninsured status. While a receiver has some discretion, chains of priority are often “hardwired” into statute or regulation, with the primary role of the receiver as estimating the value of assets and claims, and accordingly the payouts resulting from those claims.

Bankruptcy courts generally respect the chain of priorities to which private parties have contracted. Common shareholders are paid last; such was the deal going in. Laws governing receivership often explicitly favor certain creditors over others.<sup>35</sup> Under a bank receivership, for instance, the FDIC has generally treated foreign depositors differently than U.S. domestic depositors.<sup>36</sup> The very structure of the FDIC treats depositors as a class separate from unsecured creditors.

Receivers are occasionally claimed to be superior to a court-supervised bankruptcy

due to concerns over potential contagion or panics. During the 2008 financial crisis, for instance, it was often claimed that firms could not enter bankruptcy without causing a broader panic. The failure of Lehman Brothers is perhaps the best-known example of this concern.<sup>37</sup> While there is little debate over the ability of bankruptcy courts to resolve financial firms and allocate losses, the question is often one of speed. The FDIC, for instance, allows insured depositors, and occasionally other creditors, to be paid immediately. While this is allowable under the bankruptcy code, it is not usual practice. Title II of Dodd–Frank is essentially a mechanism for quickly resolving non-bank financials in a manner similar to the mechanism for banks, with the exception that Title II appears on its surface only to allow liquidation. It also allows protection of certain creditors to forestall a panic. Accordingly, an administrative resolution regime is presented as an avenue for containing financial market contagion.

Whether an administrative resolution is quicker than a court-supervised bankruptcy is an empirical question. Both an administrative agency and court face similar tasks, such as judging the validity of claims. For most, if not all, of these tasks the FDIC has no “special sauce” that the courts lack. The limited data that exist suggest that FDIC receiverships are no faster than the typical Chapter 11 proceeding; both have a median time to resolution of 28 months.<sup>38</sup> Since the FDIC is generally the largest creditor in the resolution of a depository, FDIC management of a failed depository may indeed offer some cost savings. In the case where the FDIC is not the largest creditor, for instance with an insurance company, it is unlikely that FDIC management is cost-effective.

Prior to the passage of the Dodd–Frank Act, the FDIC could only serve as the receiver for a federally insured depository. If that depository were a subsidiary of a larger holding company, the FDIC could only look to the assets of that subsidiary. For instance, had American International Group (AIG) been allowed to enter

bankruptcy, the receivership authorities of the FDIC would have only applied to the depository subsidiary and not the remainder of AIG. This arrangement has occasionally left the FDIC in the role of general creditor, subject to the deliberations of a bankruptcy court. The FDIC has long sought to have receiver authority over holding companies that contain depository subsidiaries. That authority, along with potential receivership of any failing large non-bank financial, was finally granted under the Dodd–Frank Act.<sup>39</sup>

A critical difference between a court-supervised bankruptcy and an FDIC-supervised receivership is the relative availability of outside funding. A bankrupt company may seek “debtor-in-possession” or other short-term senior financing to facilitate a re-organization, but the court itself has no access to outside funds that can then be used to pay creditors. In contrast, the FDIC has the deposit insurance fund, which it has occasionally used to cover creditor claims that would not have otherwise been recoverable solely from the assets of a failed institution. Because of this built-in availability of funds, creditors are more likely to be protected in a FDIC receivership than under a court-supervised bankruptcy.

Sections 201 and 204 of the Dodd–Frank Act give the FDIC further authority under the orderly liquidation of a non-bank financial to pay creditors beyond what they could have recovered from a failed institution’s assets. For instance, Section 201 allows the FDIC to pay “any obligations” it believes are “necessary and appropriate.” Section 204 allows the FDIC to purchase any debt obligation of a failing institution at, or even above, par. Depending on how the FDIC chooses to conduct the orderly liquidation of a failing non-bank, creditors to that institution may be ultimately protected from market discipline, increasing moral hazard and undermining financial stability. This may well be the reason that Dodd–Frank’s orderly liquidation authority mirrors a proposal first put forth by a large bank.<sup>40</sup>

Authorities similar to Dodd–Frank’s orderly liquidation authority were created to

cover Fannie Mae and Freddie Mac under the Housing and Economic Recovery Act of 2008. Despite being granted such authorities, and having the ability to protect the taxpayer from loss and the option of imposing losses on creditors, regulators chose to ignore those options and protect creditors at the expense of taxpayers. As regulators were unwilling to protect taxpayers and impose market discipline in the case of Fannie Mae and Freddie Mac, it remains at best an open question whether regulators would take that course of action in the case of large banks or other financial companies.<sup>41</sup>

At a minimum, the FDIC's role in the resolution of non-bank financials should return to the role it had prior to the Dodd-Frank Act. If ultimately, as proposed below, deposit insurance coverage is significantly reduced, the role of the FDIC in bank resolution can also be reduced. As long as there are large numbers of FDIC-insured depositors, having a single organization, such as the FDIC, act on their behalf in a resolution is likely the most cost-effective route. Other creditors, such as large debt holders, however, may be best situated to represent their own interests, as would happen under a court-supervised bankruptcy. Congress may also choose to clarify uninsured creditor priorities under a receivership. If there are indeed legitimate concerns regarding depositor runs, uninsured depositors can be made senior to other uninsured creditors, such as bondholders.

## POLICY SOLUTIONS

The public interest would be further served if Congress reduced federal deposit insurance coverage to the pre-S&L crisis limit of \$40,000. To further the goal of reducing systemic risk, Congress should also limit the total deposit insurance coverage of any one bank to 5 percent of total insured deposits. Given the current amount of FDIC-insured deposits, approximately \$7 trillion, such would imply that no one bank would hold more than \$350 billion in insured deposits. There are currently only four banks above

that level. A transition plan would have to be developed to allow these banks to either shed their excess insured deposits or shift to other funding sources.

The FDIC, as of (Q1) 2016, backs almost \$7 trillion in deposits, approximately 60 percent of outstanding U.S. domestic deposits. This figure also represents a 50 percent increase—more than \$2 trillion—in insured deposits since year-end 2007. Perhaps more shocking is that the amount also represents an almost doubling of insured deposits since 2003. Part of this increase was due to the Federal Deposit Insurance Reform Act of 2005, which raised the limit for deposit insurance for retirement accounts to \$250,000. Congress should repeal those provisions of the 2005 act that raised the limits. Congress also, within the Troubled Asset Relief Program (TARP), raised the deposit insurance cap to \$250,000 until January 1, 2010. Dodd-Frank essentially made TARP's coverage expansion permanent.

Dodd-Frank's Section 335 extends the 2005 retirement coverage limit of \$250,000 to all accounts. According to the Federal Reserve's Survey of Consumer Finance, the median U.S. household held \$4,100 in a checking account.<sup>42</sup> For the less than 10 percent that held certificates of deposit, the median holding was \$16,000.<sup>43</sup> A cap of \$40,000 (the pre-S&L crisis limit) would more than adequately cover the vast majority of U.S. households while also greatly improving market discipline of U.S. banks. Even the typical (median) retirement account, not all of which are held at banks, is under \$60,000. A reduced cap should also apply to brokered deposits, in order to both reduce the incentives to evade the cap and to reduce moral hazard on the part of depositors. In order to facilitate this reform, insurance coverage should only be available to parties that hold deposit accounts in their own name.

The holdings of deposits are also highly concentrated. For instance, a fourth of all deposits are held by the wealthiest 1 percent of households.<sup>44</sup> The top 10 percent of households hold 67 percent of all deposits.<sup>45</sup>

These wealthiest households also, on average, have considerable non-deposit sources of wealth. Middle-income and low-income families would still be completely protected after significant reductions are made to FDIC deposit insurance coverage. Furthermore, because the presence of FDIC insurance crowds out firms that would otherwise offer private deposit insurance, reducing the coverage of FDIC insurance would likely bring more private capital into the private deposit insurance market.

## CONCLUSIONS

Government-backed deposit insurance weakens market discipline, increases moral hazard, and leads to higher financial risk than would otherwise exist, thus weakening the banking system. Less government and more private insurance or shareholder equity

increases private consumers' and capital suppliers' incentives to worry about the financial risks and health of banks, thus introducing market discipline into the system, lowering moral hazard, and strengthening the banking system.

Ultimately, government-provided deposit insurance should be phased out fully. Doing so would likely result in reduced bank leverage (higher shareholder equity), more market discipline, a larger equity market relative to the banking system, less volatility in bank assets, and overall greater financial stability. In the interim, coverage should be reduced to more closely align with protecting small retail investors. Coverage could easily be reduced to around \$40,000 per individual while continuing to cover the overwhelming majority of household accounts.

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## ENDNOTES:

1. General statistics on the FDIC's deposit insurance fund can be found, on a quarterly basis, in the *FDIC Quarterly*, <https://www.fdic.gov/bank/analytical/quarterly/> (accessed October 8, 2016).
2. Federal Deposit Insurance Corporation, *FDIC Quarterly*, "Quarterly Banking Profile: Third Quarter 2008," Vol. 2, No. 4 (2008), p. 14, [https://www.fdic.gov/bank/analytical/quarterly/2008\\_vol2\\_4/FDIC139\\_QuarterlyVol2No4\\_Web.pdf](https://www.fdic.gov/bank/analytical/quarterly/2008_vol2_4/FDIC139_QuarterlyVol2No4_Web.pdf) (accessed October 8, 2016).
3. The CAMELS rating classifies banks' overall condition. The acronym stands for Capital adequacy, Assets, Management capability, Earnings, Liquidity, and Sensitivity to market risk.
4. Rosalind Bennett, Vivian Hwa, and Myron Kwast, "Market Discipline by Bank Creditors During the 2008–2010 Crisis," *Journal of Financial Stability*, Vol. 20 (2015), pp. 51–69, [https://www.fdic.gov/bank/analytical/cfr/2014/wp2014/WP\\_2014\\_03.pdf](https://www.fdic.gov/bank/analytical/cfr/2014/wp2014/WP_2014_03.pdf) (accessed October 8, 2016).
5. For a good introductory discussion to both sets of models, see Todd Knoop, *Modern Financial Macroeconomics: Panics, Crashes, and Crises* (Malden, MA: Blackwell Publishing, 2008), Chap. 8. See also Charles Calomiris and Gary Gorton, "The Origins of Banking Panics, Models, Facts, and Bank Regulation," in Glenn Hubbard, ed., *Financial Markets and Financial Crises* (Chicago: University of Chicago Press, 1991).
6. Charles Poor Kindleberger. *Manias, Panics, and Crashes: A History of Financial Crises* (New York: Palgrave Macmillan, 1978).
7. Douglas W. Diamond and Philip H. Dybvig, "Bank Runs, Deposit Insurance, and Liquidity," *Journal of Political Economy*, Vol. 91, No. 3 (1983), pp. 401–419.
8. Fundamentals-based models also have a long lineage, starting at least with Wesley Clark Mitchell, *Business Cycles and Their Causes* (Berkeley, CA: University of California Press, 1941). An early and influential formal model, building upon Mitchell, is Franklin Allen and Douglas Gale, "Optimal Financial Crises," *The Journal of Finance*, 1998, Vol. 53 (1998), pp. 1245–1284.
9. For instance, see Charles Calomiris and Stephen Haber, *Fragile by Design: The Political Origins of Banking Crises and Scarce Credit* (Princeton, NJ: Princeton University Press, 2014).
10. Clifford Thies and Daniel Gerlowski, "Deposit Insurance: A History of Failure," *Cato Journal*, Vol. 8 (1989), pp. 677–693.
11. See, for instance, Bong-Chan Kho, Dong Lee, and Rene Stulz, "U.S. Banks, Crises, and Bailouts: From Mexico to LTCM," *American Economic Review*, Vol. 90, No. 2 (2000), pp. 28–31, <https://fisher.osu.edu/supplements/10/10402/US-Banks-Crises-Bailouts.pdf> (accessed October 8, 2016).
12. Kevin Dowd, "Deposit Insurance: A Skeptical View," *Federal Reserve Bank of St. Louis Economic Review* (January/February 1993), [https://research.stlouisfed.org/publications/review/93/01/Dowd\\_Jan\\_Feb1994.pdf](https://research.stlouisfed.org/publications/review/93/01/Dowd_Jan_Feb1994.pdf) (accessed October 8, 2016).
13. Cited in Harold van B. Cleveland and Thomas F. Huertas, *Citibank, 1812–1970* (Cambridge: Harvard University Press, 1985), p. 240.
14. Specifically, federal deposit insurance was created under Section 8 of the act of June 16, 1933 (Public Law 66), which amended Section 12B of the Federal Reserve Act. Section 12B was later amended by Section 101 of the act of August 23, 1935 (Public Law 305). Section 12B was later withdrawn and made into its own act known as the Federal Deposit Insurance Act.
15. Warren Weber, "Bank Liability Insurance Schemes Before 1865," Federal Reserve Bank of Minneapolis *Working Paper* No. 679, December 2011, <https://www.minneapolisfed.org/research/wp/wp679.pdf> (accessed October 8, 2016).
16. See, for example, in the case of Texas, Linda Hooks and Kenneth Robinson, "Deposit Insurance and Moral Hazard: Evidence from Texas Banking in the 1920s," *Journal of Economic History*, Vol. 62, No. 3 (2002), pp. 833–853.
17. Federal Deposit Insurance Corporation, *Annual Report*, 1994, p. 34, [https://fraser.stlouisfed.org/docs/publications/fdic/fdic\\_ar\\_1994.pdf](https://fraser.stlouisfed.org/docs/publications/fdic/fdic_ar_1994.pdf) (accessed October 8, 2016).
18. Christine M. Bradley, "A Historical Perspective on Deposit Insurance Coverage," *FDIC Banking Review*, December 2000, [https://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2\\_1.pdf](https://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_1.pdf) (accessed October 8, 2016).
19. *Ibid.*
20. *Ibid.*
21. The 2005 increase was part of the Federal Deposit Insurance Reform Act of 2005 (Title II, Subtitle B, of the Deficit Reduction Act of 2005, Public Law 109–171, February 8, 2006).
22. Section 335 of Dodd–Frank made the 2005 change permanent: Mark Calabria, "Rethinking Title III: The Federal Deposit Insurance Corporation and Other Subtitles," in Norbert J. Michel, ed., *The Case Against Dodd–Frank: How the "Consumer Protection" Law Endangers Americans* (Washington, DC: The Heritage Foundation, 2016), <http://thf-reports.s3.amazonaws.com/2016/The%20Case%20Against%20Dodd-Frank.pdf> (accessed October 8, 2016).

23. Eugene White, "The Legacy of Deposit Insurance: The Growth, Spread, and Cost of Insuring Financial Intermediaries," in Michael D. Bordo, Claudia Goldin, and Eugene N. White, eds., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century* (Chicago: University of Chicago Press, 1988).
24. Joe Weisenthal, "There Really Was a Massive Run on WaMu," *Business Insider*, October 29, 2009, <http://www.businessinsider.com/there-really-was-a-massive-run-on-wamu-2009-10> (accessed October 8, 2016), and Jonathan Rose, "Old-Fashioned Deposit Runs," Federal Reserve Board of Governors, *Finance and Economics Discussion Series 2015-111*, November 2015, <https://www.federalreserve.gov/econresdata/feds/2015/files/20151111pap.pdf> (accessed October 8, 2016).
25. This section is largely based on: Federal Deposit Insurance Corporation, "Study on Core Deposits and Brokered Deposits," July 8, 2011, <https://www.fdic.gov/regulations/reform/coredeposits.html> (accessed October 8, 2016). The report was mandated by Section 1506 of the Dodd–Frank Wall Street Reform and Consumer Protection Act.
26. The FDIC's authorities over brokered deposits can be found under Section 29 of the Federal Deposit Insurance Act, <https://www.fdic.gov/regulations/laws/rules/1000-3000.html#dic1000sec.29> (accessed November 1, 2016).
27. For a full list of deposit insurance schemes by country, see International Association of Deposit Insurers, "Deposit Insurance Systems Worldwide," June 10, 2016, <http://www.iasi.org/en/deposit-insurance-systems/dis-worldwide/> (accessed October 8, 2016).
28. International Association of Deposit Insurers, "Systems Under Development," August 26, 2016, <http://www.iasi.org/en/deposit-insurance-systems/systems-under-development/> (accessed October 8, 2016).
29. For coverage limits by country, see International Association of Deposit Insurers, "Enhanced Guidance for Effective Deposit Insurance Systems: Deposit Insurance Coverage," March 2013, [http://www.iasi.org/en/assets/File/Papers/Approved%20Guidance%20Papers/IADI\\_Coverage\\_Enhanced\\_Guidance\\_Paper.pdf](http://www.iasi.org/en/assets/File/Papers/Approved%20Guidance%20Papers/IADI_Coverage_Enhanced_Guidance_Paper.pdf) (accessed October 8, 2016).
30. Asli Demircug-Kunt, Baybars Karacaovali, and Luc Laeven, "Deposit Insurance Around the World: A Comprehensive Database," The World Bank, April 2005, [http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/DepositInsuranceDatabasePaper\\_DKL.pdf](http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/DepositInsuranceDatabasePaper_DKL.pdf) (accessed October 8, 2016).
31. Policymakers have proposed privatizing the FDIC, though such plans have never been implemented. See, for instance, Peter Wallison, *Back from the Brink: A Practical Plan for Privatizing Deposit Insurance and Strengthening Our Banks and Thrifts* (Washington, DC: AEI Press, 1990).
32. Thomas Hogan and Kristine Johnson, "Alternatives to the Federal Deposit Insurance Corporation," *The Independent Review* (Winter 2016), <http://www.independent.org/publications/tir/article.asp?a=1115> (accessed October 8, 2016).
33. Mikael Bergbrant et al., "Does Deposit Insurance Retard the Development of Non-Bank Financial Markets?" *Journal of Banking & Finance*, Vol. 66 (May 2016), pp. 102–125.
34. Generally, see Phoebe White and Tanju Yorulmazer, "Bank Resolution Concepts, Trade-offs, and Changes in Practices," Federal Reserve Bank of New York *Economic Policy Review*, December 2014, pp. 153–173, <https://www.newyorkfed.org/medialibrary/media/research/epr/2014/1412whit.pdf> (accessed October 8, 2016).
35. The main contours of bank receivership law are found in Sections 11, 12, and 13 of the Federal Deposit Insurance Act; implementing regulations are found at Part 360 "Resolution and Receivership Rules," <https://www.fdic.gov/regulations/laws/rules/2000-7800.html> (accessed November 1, 2016), and codified under 12 U.S. Code 1821(d)(1), 1821(d)(10)(C), 1821(d)(11), 1821(e)(1), 1821(e)(8)(D)(i), 1823(c)(4), and 1823(e)(2).
36. Christopher Curtis, "The Status of Foreign Deposits Under the Federal Depositor-Preference Law," *University of Pennsylvania Journal of International Economic Law*, Vol. 21 (Summer 2000), pp. 237–271.
37. Federal Deposit Insurance Corporation, "The Orderly Liquidation of Lehman Brothers Holdings under the Dodd–Frank Act," *FDIC Quarterly*, Vol. 5, No. 2 (2011), [https://www.fdic.gov/bank/analytical/quarterly/2011\\_vol5\\_2/lehman.pdf](https://www.fdic.gov/bank/analytical/quarterly/2011_vol5_2/lehman.pdf) (accessed October 8, 2016).
38. For data sources, see Mark Calabria, "Failing Banks: Bankruptcy or Receivership?" *Cato at Liberty*, May 3, 2010, <http://www.cato.org/blog/failing-banks-bankruptcy-or-receivership> (accessed October 8, 2016).
39. 12 U.S. Code 5389; 12 U.S. Code 5390(s)(3); 12 U.S. Code 5390(b)(1)(C); 12 U.S. Code 5390(a)(7)(D); 12 U.S. Code 5381(b); 12 U.S. Code 5390(r); and 12 U.S. Code 5390(a)(16)(D). These provisions also appear at Federal Deposit Insurance Corporation, "Certain Orderly Liquidation Authority Provisions under Title II of the Dodd–Frank Wall Street Reform and Consumer Protection Act," *Federal Register*, Vol. 76, July 15, 2011, p. 41639, <https://www.fdic.gov/regulations/laws/federal/2011/11finaljuly15.pdf> (accessed November 1, 2016).
40. Jamie Dimon, "Banks Should Be Allowed to Expand—and Fail," *The Washington Post*, November 13, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/11/12/AR2009111209924.html> (accessed October 8, 2016).

41. Mark Calabria, "The Resolution of Systematically Important Financial Institutions: Lessons from Fannie and Freddie," Cato Institute *Working Paper* No. 25, January 13, 2015, <http://www.cato.org/publications/working-paper/resolution-systematically-important-financial-institutions-lessons-fannie> (accessed October 8, 2016).
42. Federal Reserve Board of Governors, "Changes in U.S. Family Finances from 2010 to 2013: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, Vol. 100, No. 4 (September 2014), p. 16, <http://www.federalreserve.gov/pubs/bulletin/2014/pdf/scf14.pdf> (accessed October 8, 2016).
43. Ibid.
44. See Table 7 in Edward Wolff, "Household Wealth Trends in the United States, 1962–2013: What Happened Over the Great Recession?" NBER *Working Paper* No. 20733, 2014, <http://www.nber.org/papers/w20733> (accessed October 8, 2016).
45. Ibid.