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Reciprocal Deposits and the Banking Turmoil of 2023

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Reciprocal deposits are deposits exchanged between banks to effectively increase deposit insurance coverage. Their use grew significantly during the banking turmoil of 2023. This *Economic Commentary* describes what they are, their connection to brokered deposits, how their legal treatment has changed over time, and which banks use them the most. It also discusses longer-run trends in uninsured deposits.

Topics Financial crises, Bank policy and regulation, Financial stability

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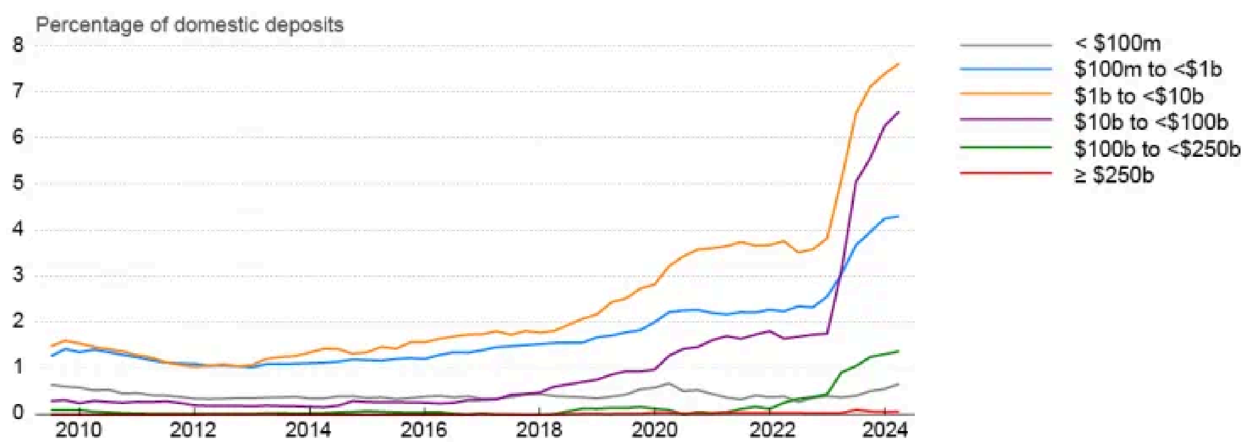
Introduction

In March of 2023, there was a run on Silicon Valley Bank (SVB) when its depositors, almost all of whom were uninsured, realized that the bank was in trouble as a result of unrealized losses on its securities portfolio. Several other banks also experienced runs, most notably Signature Bank and First Republic Bank. While the panic among US bank depositors subsided when federal bank regulators guaranteed the funds of uninsured depositors at SVB and Signature, the turmoil and uncertainty gave US banks additional incentive to reassure their uninsured depositors of the safety of their funds. One way they did this was to increase their use of reciprocal deposits as a means of effectively increasing deposit insurance coverage.

Reciprocal deposits are deposits exchanged between banks within a network of participating banks. The banks exchange the deposits to provide more deposit insurance to depositors. For example, if a person had a deposit account with a balance of $600,000, only $250,000 of these funds, the standard limit per account insured by the Federal Deposit Insurance Corporation (FDIC), would be insured if the bank failed. The other $350,000 would not be protected. By participating in the network, however, the depositor’s bank could exchange $250,000 of this deposit with another bank in the network and $100,000 with yet another bank, and thus all $600,000 of the original deposit would be FDIC insured. Legally, the deposit is spread across three banks, but the depositor interacts with only one bank. The company that runs the network charges banks fees to use reciprocal deposits.

The first reciprocal deposit network was created by Promontory (now IntraFi Network) in 2003 for certificates of deposit (CDs) (Shaffer, 2012), but several other companies now operate networks as well, and the networks now exchange more types of deposits than just CDs. Figure 1 reports reciprocal deposits as a share of domestic deposits over time and broken out by commercial bank size class. [1]

Figure 1: Reciprocal Deposits by Bank Size Class



Source: Call Reports

Notes: Reflects reciprocal deposits as share of domestic deposits by bank size class. The Call Report started collecting reciprocal deposit data in 2009.

Over time, there is a steady and slow increase in their usage until 2019, when there is a noticeable increase because of a regulatory change, as will be discussed later in this article. Even more striking, however, is the large increase in 2023 resulting from the banking turmoil that spring. This increase was concentrated in intermediate-sized banks, the class of banks most affected by spring 2023 bank runs.

In 2024, a majority of US banks are members in a network, and many of them use it. IntraFi claims that 64 percent of US banks participate in its network. [2] According to the Call Report, 44 percent of US commercial banks had a positive amount of reciprocal deposits at the end of 2023.

The purpose of this *Economic Commentary* is to describe the history of reciprocal deposits, why they have been mostly used by intermediate-sized banks, and what limits their wider use. We will also describe longer-term trends in deposit insurance that have contributed to the increase in the use of reciprocal deposits.

Brokered Deposits and Reciprocal Deposits

Since the creation of the FDIC in 1934, depositors have had the ability to increase the amount of their deposits that are insured by opening accounts at multiple banks. The US federal deposit insurance system sets deposit insurance limits on a per-depositor, per-bank basis, so a depositor could open accounts at more than one bank in order to get more insurance coverage. [3]

While some depositors have always opened and operated multiple bank accounts, doing so takes time and makes managing payments and liquidity more complicated for the depositor. The brokered deposit market exists for time deposits in part to reduce these inconveniences. Section 29 of the Federal Deposit Insurance Act defines a brokered deposit as a deposit accepted through a deposit broker, broadly speaking, a person or third party in the business of placing deposits, in other words, receiving the deposits and then distributing them on behalf of the depositor to various banks. [4]

According to Goodman and Shaffer (1984), brokered deposits did not originally develop to increase effective deposit insurance limits. Instead, they developed in the 1960s and 1970s as a way for banks to acquire time deposits, for example, CDs, from outside of their own market and for depositors to get higher rates. But, in 1982 Penn Square Bank failed, and the FDIC liquidated it because the FDIC was unable to find a buyer; holders of uninsured Penn Square CDs took losses. [5] These losses led deposit brokers to start breaking up CDs into $100,000 increments—the FDIC insurance limit at the time—to provide more deposit insurance.

Brokered deposits are generally considered risky. Penn Square famously funded much of its rapid growth with brokered deposits, and so did many thrifts that ultimately failed during the savings and loan crisis of the 1980s. Generally, studies find that brokered deposits are positively correlated with bank failure and with the size of FDIC losses in failed banks. [6]

Because of brokered deposits' associations with risk, there are legal restrictions on them. These were first put into law by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 and then modified by subsequent laws.[7] Presently, there are limits on which banks can accept brokered deposits:[8]

1. A bank that is well-capitalized can accept and roll over brokered deposits without limit.
2. An adequately capitalized bank can accept new brokered deposits or roll over existing ones with a waiver from the FDIC. Furthermore, such a bank cannot pay rates above a cap that is calculated by the FDIC.
3. A bank that is less than adequately capitalized cannot accept brokered deposits or roll them over.

Furthermore, brokered deposits enter into the formula that the FDIC uses to set its deposit insurance premia. The exact impact depends on bank size and other factors, but broadly brokered deposits will increase a bank's premia. Finally, supervisors have historically considered brokered deposits to be a less stable source of funds than core deposits and will adjust their level of supervision in response.[9]

When reciprocal deposits were introduced in 2003, they were treated as brokered deposits under the definition of a deposit broker that the FDIC used at the time. However, the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 changed the definition of brokered deposits to exclude a bank's insured reciprocal deposits up to the lesser of $5 billion or 20 percent of a bank's total liabilities.[10] Rules reflecting this change were implemented by the FDIC in 2019, and that is why there was an increase in reciprocal deposit usage in that year, as shown in Figure 1.

Which Banks Use Reciprocal Deposits?

Given the costs involved, the only reason to use reciprocal deposits is to effectively increase insured deposits. Table 1 reports the distribution of uninsured deposits by bank size class. The column titled "p50" shows the holding of uninsured deposits of the median bank in each size class. Median uninsured deposit share increases with bank size. The median bank in the smallest size class, those with less than $100 million in assets, has only 16 percent of deposits that are uninsured.[11] Furthermore, as reflected in Figure 1, this class of banks makes little use of reciprocal deposits, so presumably its depositors are small businesses and households that hold smaller balances and do not need the extra insurance that comes with a reciprocal deposit.

Table 1: Distribution of Uninsured Deposits by Bank Size as of 2023:Q4

	N	Mean	SD	Min	p5	p25	p50	p75	p95	Max
< $100 million	608	19	13	0	5	11	16	24	45	88
$100 million–< $1 billion	2564	26	12	0	11	18	24	31	48	100
$1 billion–< $10 billion	691	33	14	1	13	25	31	40	57	93
$10 billion–< $100 billion	108	39	15	1	14	31	39	46	64	97
$100 billion–< $250 billion	16	37	18	6	6	24	37	46	73	73
≥ $250 billion	13	53	22	25	25	40	44	51	99	99

Source: Call Reports

Notes: Uninsured deposits are reported as percent of deposits. Only domestic deposits are considered. Banks with $1 billion or more in total assets are required to provide an estimate of the amount of uninsured deposits in their domestic offices. For these banks, we take their estimate of uninsured deposits. For all other banks, we estimate uninsured deposits as the amount of deposits in accounts exceeding $250,000 minus the $250,000 of FDIC insured funds for each account that exceeds $250,000.

The other banks that make proportionally little use of reciprocal deposits are those in the largest size classes. There is some increase in use in 2023 for the $100 billion to $250 billion class, but this only slightly exceeds 1 percent of their domestic deposits. For this class, the $5 billion cap on the brokered deposit exception is likely a factor. For the largest banks, the $5 billion cap is an even smaller percentage of their deposit base, so they, too, would not be able to reduce their uninsured deposits much without counting them as brokered deposits. Furthermore, the market perceives the very largest banks as "too big to fail" and so would view their uninsured deposits as effectively being insured. [12]

It is the intermediate-sized banks that hold the most reciprocal deposits. These banks are large enough to have customers with large deposits but still small enough that they might be allowed to fail. There is a noticeable increase in the rate of growth of these deposits starting after 2018, a situation which is likely a result of the legal change described above. Even more striking, however, is the 20 percent increase in 2023 for banks with assets between $1 billion and $100 billion. Some of these banks turned to reciprocal deposits during the banking turmoil to increase effective insurance limits for their customers.

Table 2 reports the fraction of banks for which the $5 billion or 20 percent of liabilities cap for the treatment of nonbrokered deposits is binding. We see that, in 2023, the percentage of banks that get close to or exceed their cap increases from 1.7 percent in 2022 to more than 4 percent during 2023. Furthermore, these banks go from holding around 11 percent of total reciprocal deposits to around 40 percent.

Table 2: Fraction of Banks for Which Reciprocal Deposits Are Near Their Nonbrokered Reciprocal Deposit Cap

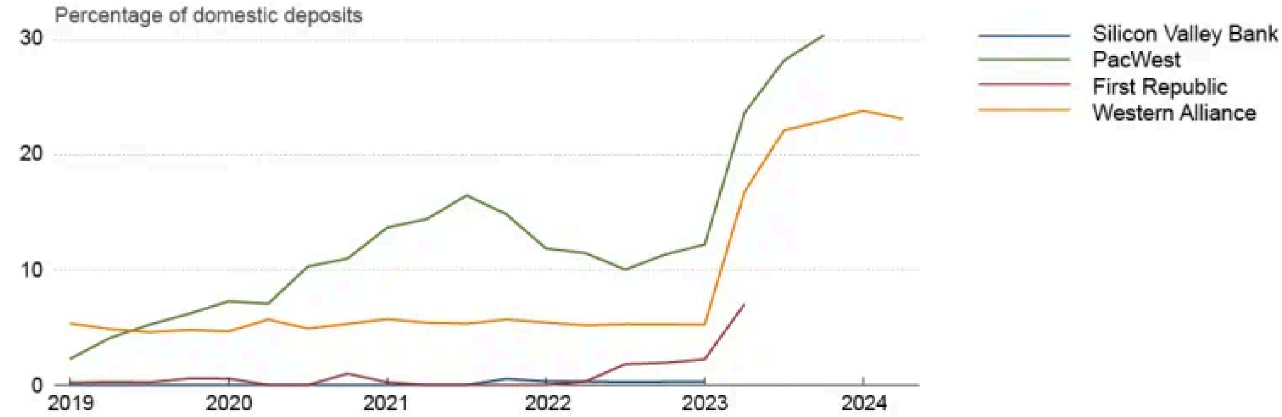
	Percentage of banks	Percentage of industry reciprocal deposits in these banks
2022:Q1	1.7	11.4
2022:Q2	1.7	10.6
2022:Q3	1.5	9.9
2022:Q4	1.7	10.4
2023:Q1	3.0	28.6
2023:Q2	3.9	36.0
2023:Q3	4.1	41.5
2023:Q4	4.3	39.5
2024:Q1	4.8	41.9

Source: Call Reports

Notes: Reports banks with reciprocal deposits of at least 90 percent of the lesser of $5 billion or 20 percent of their liabilities. No adjustment is made for banks subject to the special cap.

What Table 2 suggests is that some banks faced confidence problems and turned to reciprocal deposits to reassure their uninsured depositors by making them insured. Figure 2 reports reciprocal deposit shares for SVB and three other West Coast regional banks with similar customer bases that were affected by the 2023 turmoil. SVB shows no change in reciprocal deposits. Part of the reason for this is that SVB's was the first major bank run of the panic, but the lack of change is also consistent with a failure of SVB to manage its risks (Federal Reserve, 2023). In contrast, First Republic started using reciprocal deposits in 2022 and then grew them dramatically in the first quarter of 2023. However, the two banks that really stand out are PacWest and Western Alliance. Both were large users of reciprocal deposits prior to the panic and then greatly increased their use starting in 2023. PacWest's share reached 30 percent. For both banks, this part of their strategy was successful. PacWest gained enough time to raise capital and merge with the healthy, albeit smaller, Banc of California, while Western Alliance was able to preserve its independence.[13]

Figure 2: Reciprocal Deposits



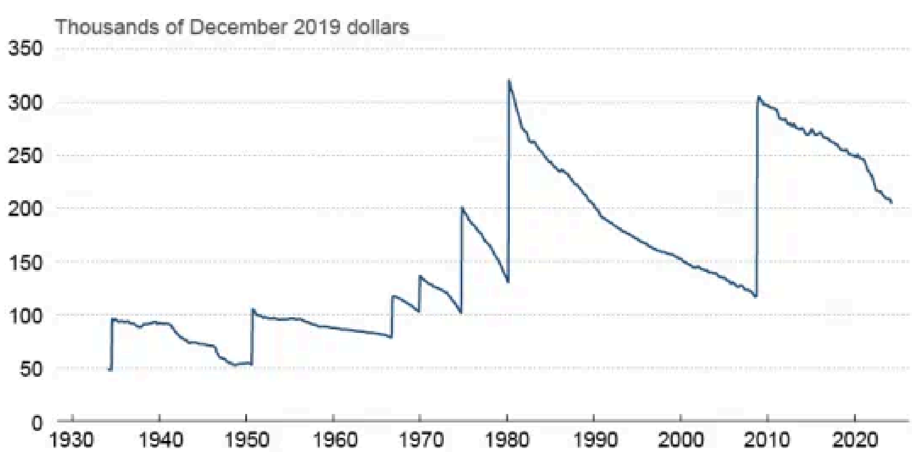
Source: Call Reports

Notes: Reciprocal deposits as share of domestic deposits for selected banks affected by the banking turmoil in 2023. Silicon Valley Bank and First Republic ceased to exist by 2023:Q1 and 2023:Q2, respectively. PacWest merged with Banc of California in November 2023, so it is not reported past 2023:Q3.

A Longer-Run Perspective on Demand for Insured Deposits

While the sharp increase in reciprocal deposit use in 2023 was driven by the turmoil, there are also longer-run trends in deposits that have increased the share of deposits that are uninsured and thus have increased the pool of deposits that could be made reciprocal deposits. Figure 3 reports the real value of the deposit insurance limit for a single account owner going back to 1934.

Figure 3: Real Value of Deposit Insurance Limit



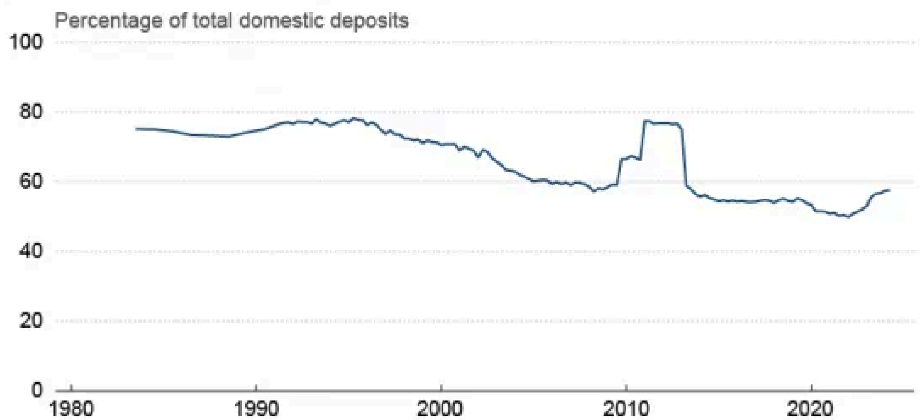
Sources: Federal Deposit Insurance Corporation, Bureau of Labor Statistics

Notes: Real value of the deposit insurance limit for an individual account over time, expressed in December 2019 dollars. Nominal deposit insurance levels are from FDIC (2023a). The deposit insurance limit is deflated by the consumer price index for all items in US city average, all urban consumers, nonseasonally adjusted.

The series is characterized by steady declines over time, declines which reflect inflation, and discrete, sharp increases, which correspond to increases in the limit made by laws. For example, the large increase in 1980 is due to the Depository Institutions Deregulation and Monetary Control Act, which raised the insurance amount to $100,000. From then, there is a steady decline in the real value until 2008, when the limit was increased to $250,000 during that financial crisis. But after that point, the trend continues to decline, and then there is a rapid decline in 2021, when the recent episode of inflation began. [14] This figure suggests that a smaller fraction of deposits held by households and businesses will be covered by deposit insurance than in the past.

Consistent with this suggestion, for the commercial banking sector as a whole, insured deposits as a share of deposits is significantly lower than it was in the 1980s and early 1990s. Figure 4 reports our estimate of the share of deposits in commercial banks that are insured going back to 1983. [15] In the 1980s and first half of the 1990s, the share of deposits that are insured is between 70 percent and 80 percent. Starting in the mid-1990s, however, the share starts to decline and falls to about 60 percent just prior to the financial crisis of 2008. The spike up reflects the increase in the insurance limit to $250,000 and temporary expansions of deposit insurance to cover non-interest-bearing transaction accounts, but then the share quickly comes down as the temporary programs end, dropping to just below 50 percent in 2021. It then rebounds upward starting in 2022:Q1. [16]

Figure 4: Estimate of Insured Deposits in Commercial Banks



Source: Call Reports

Notes: Insured deposits as percentage of total domestic deposits for commercial banks. The estimate of insured deposits was calculated as the total amount of deposits in accounts below the deposit insurance limit plus an amount equal to the deposit insurance limit for each account exceeding the deposit insurance limit. When available, we use banks' own estimates of uninsured deposits to estimate the insured amount. The increases shown in 2009 and 2010 reflect only some of the increases made during that financial crisis. Other increases raised the insured amounts further, but these are not included. The decrease at the end of 2012 reflects the expiration of a temporary program that insured non-interest-bearing transaction accounts on a voluntary basis. For additional detailed information, please refer to endnote 16 in the main text.

Of course, other factors may have also reduced the share of insured deposits, such as the low short-term interest rates that followed the 2008 financial crisis and which reduced the opportunity cost of holding alternative liquid assets such as Treasury bills. Regardless of the reason, the large fraction of deposits that are uninsured suggests that when depositors are worried about bank failures, there will be spikes in demand for reciprocal deposits like the spike that occurred in 2023. [17] This behavior would mean that reciprocal deposits have, in effect, raised the deposit insurance limit. Whether that is good policy is beyond the scope of this paper. However, as the FDIC (2023b) discussion of options for deposit insurance reform points out, an increase in deposit insurance limits has tradeoffs. It reduces the risk of a bank run, but it also raises the cost to the FDIC of resolving a failed bank and contributes to moral hazard.

Conclusion

This *Economic Commentary* provides a history of reciprocal deposits and explains how changes in brokered deposit regulations made them more appealing to banks and, in turn, how reciprocal deposits increase the effective deposit insurance limit. It also shows which classes of banks use these deposits and why. Their increased use during the banking turmoil of 2023 suggests that this innovation will likely be used whenever the demand for insured deposits increases. The widescale adoption of reciprocal deposits has implications for the efficacy of the deposit insurance system that bear further research.

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Endnotes

1. All deposit data used in this article is domestic deposits held by US chartered commercial banks as reported in Call Reports. Savings banks, savings and loan associations, industrial loan corporations, and credit unions are excluded. Foreign deposits are excluded because they cannot be insured by the FDIC. Finally, we also exclude US branches of foreign banks because even though they can receive FDIC insurance for domestic deposits and they can participate in reciprocal deposit programs, the Call Report form they file does not collect reciprocal deposit data. Return to 1
2. See https://www.intrafi.com/banks. Link accessed on April 12, 2024. Return to 2
3. Presently, the deposit insurance limit is $250,000 per person at a bank, so a joint account owned by two people would provide $500,000 in total coverage. (Different accounts owned by an individual at the same bank are combined for deposit insurance coverage purposes.) However, coverage can be increased by making accounts payable on death to a beneficiary. Return to 3
4. There are further definitions of what constitutes a deposit broker, along with exclusions; for example, the trustee of a pension who places pension funds in deposits is not considered a deposit broker. For details regarding the definitions, see FDIC (2021). Return to 4
5. For a description of Penn Square’s failure and why the FDIC was neither able to find a buyer nor willing to provide open-bank assistance to it, see Sprague (1986). Return to 5
6. See the analysis and literature review in FDIC (2011) or Cole and White (2012). For a history of brokered deposits as well as a different view on the risks of brokered deposits, see Barth and Sun (2018). For some early analysis of reciprocal deposit risk see Shaffer (2012, 2013). Return to 6
7. The FDIC and the Federal Home Loan Bank Board first wrote regulations about brokered deposits in 1984. However, a Court of Appeals found in 1985 that these regulations exceeded the authority of the Federal Deposit Insurance Act. For the legal history of brokered deposits, see FDIC (2011). Return to 7

8. For details on brokered deposit restrictions, see FDIC (2024b). Definitions of "well capitalized" and "adequately capitalized" were first created by the prompt corrective action provisions of FDICIA in 1991 that gave regulators authority to restrict a bank's activities, including acceptance of brokered deposits, if its capital ratio was below certain thresholds. The precise definition of these thresholds has changed over time. For the definition as of the writing of this article, see FDIC (2024a). Return to 8
9. See, for example, Office of the Comptroller of the Currency et al. (2001). Return to 9
10. There is a special cap on total reciprocal deposits that also applies to banks that are either not well rated or not well capitalized. Roughly, this special cap is the average amount of reciprocal deposits held in the four quarters before the bank stopped being well rated or well capitalized. Banks that exceed the special cap must report all reciprocal deposits as brokered reciprocal deposits. For details, see FDIC regulations CFR Section 337.6 on brokered deposits. Return to 10
11. The actual fraction of uninsured deposits in banks of less than $1 billion in assets is likely smaller for reasons described in the note to Table 1. Furthermore, many states require uninsured deposits of municipalities and the state to be collateralized, so these deposits are protected in the event of a bank failure. If we treat these collateralized deposits as just as safe as insured deposits, then the median bank in the < $100 million category would have only "uninsured" deposits of 8 percent. Significant though smaller drops in estimates of "uninsured deposits" would also occur for all the other size classes with less than $100 billion in assets. Return to 11
12. For more on too big to fail in banking, see Stern and Feldman (2009). For a history of the origins of US too-big-to-fail policy, see Nurisso and Prescott (2020). Return to 12
13. For details on Western Alliance's actions during the turmoil, see Fitzgerald (2024). Return to 13
14. We deflated by inflation, but this deflator is far from perfect. Over time, people are wealthier in real terms, so their demand for checking and time deposits should grow at a faster rate than inflation. Return to 14
15. In 1983, all Call Report filers started reporting the number and amount of deposit accounts exceeding the deposit insurance limit. These values were reported annually in the June report. We use these values to estimate the amount of insured deposits. Return to 15
16. The figure leaves out some of the increases in deposit insurance enacted during the 2008 financial crisis. First, although the deposit insurance limit was first raised from $100,000 to $250,000 in October 2008, the Call Report did not reflect the new deposit insurance limit until September 2009, so our estimate understates the insured amount for that short period. Second, our estimate also leaves out insurance provided by the FDIC's Temporary Account Guarantee (TAG) program from October 2008 through December 31, 2010. The TAG program provided deposit insurance to all deposits in non-interest-bearing transaction accounts. Bank participation was voluntary, and banks had to pay a fee to participate. The Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 replaced TAG with an explicit program that covered the same deposits through December 31, 2012. Return to 16
17. There could also be increases in other alternatives to uninsured deposits such as money market mutual funds or sweep products that repo deposits for securities. Return to 17

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