

# FDIC losses in bank failures: Has FDICIA made a difference?

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## Introduction and summary

Banks are generally failed and placed in receivership when the value of their assets declines below the value of their deposits and other debt, so that the value of their capital (net worth) becomes negative. The losses exceed the ability of the stockholders to absorb them. As a result, some of their creditors, and in the United States also the Federal Deposit Insurance Corporation (FDIC), which stands in the shoes of, at minimum, the insured depositors up to the insurance coverage ceiling, are likely to suffer losses. Because the FDIC is a federal government agency, if losses from bank failure resolutions are sufficiently high to exceed both the FDIC's reserves and its ability to collect additional revenues by levying sufficient premiums on insured banks to replenish the reserve fund, the losses may need to be paid by the government and thereby the taxpayers. Indeed, taxpayers were required to pay some \$150 billion when losses incurred by the former insurer of deposits at savings and loan associations (S&Ls), the Federal Savings and Loan Insurance Corporation (FSLIC), in resolving the large number of failures in the S&L crisis of the 1980s exceeded its financial capacity to protect all insured deposits at these institutions against loss. Thus, the FDIC loss rate in resolutions is of concern to the uninsured depositors and other bank creditors who share in the loss with the FDIC, to the banks that pay insurance premiums, and to the taxpayers that are widely perceived to have backup liability.<sup>1</sup> It is in the best interest of all of these parties that the FDIC minimize its losses in failure resolutions.

Indeed, it is the losses from bank failures more than the bank failures themselves that are most damaging to both most stakeholders of the failed banks and the FDIC, so that it is more important to minimize this loss rate than the number of bank failures. Inefficient or unlucky banks that become insolvent should be permitted if not encouraged to exit, but with minimum losses.

In this article, I review both the causes of resolution losses to the FDIC and recent legislative and regulatory initiatives intended to reduce such losses, compute the loss rates experienced by the FDIC from 1980 through 2002, and compare and analyze the losses before and after the enactment of the FDIC Improvement Act (FDICIA) at year-end 1991, which, among other things, was intended to minimize such losses. I find that although the number of bank failures declined sharply after the implementation of FDICIA in 1993, the FDIC's loss rate increased significantly. This disturbing conclusion holds even after adjustment for changes in the size distribution of failed banks in the two periods. Only when the failed high-loss larger banks in the second period are also removed from the observations does the loss rate in the post-FDICIA period decline below that of the pre-FDICIA period. I conclude the article with speculation on why the FDIC's loss rate may have failed to decline and recommendations for enhancing the likelihood of loss reductions in the future.

These losses, however, are not necessarily the sole fault of the FDIC. Banks in the United States are declared insolvent and put into receivership or conservatorship under the FDIC by their chartering or primary federal regulatory agency, which is generally not the FDIC. Thus, the overall loss rate is in part determined by the embedded negative net worth of the bank at the time it is declared insolvent by these agencies and handed over to the FDIC.<sup>2</sup>

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## Causes of FDIC losses

Unlike most other firms, chartered banks in the United States are not failed and placed into receivership by the federal bankruptcy courts and are not subject to the federal bankruptcy code.<sup>3</sup> Rather, they are failed and placed in receivership (or conservatorship if the institution is to be kept operating by the FDIC on a temporary basis) by their chartering or primary federal regulatory agency and are subject to the provisions of the Federal Deposit Insurance Act (FDIA). These differ significantly from the provisions of the corporate bankruptcy code.<sup>4</sup> The FDIC is generally appointed as the receiver, and the depositors and other creditors have no representation.<sup>5</sup> The loss rate to the FDIC in bank failure resolutions is determined by a number of factors, including how quickly a bank is placed in receivership or conservatorship after its net worth declines below zero, the relative importance of general creditors and uninsured depositors on the balance sheet, and the ability of the FDIC as receiver to sell the bank or its assets at the highest present value price. The longer insolvent, negative net worth banks are permitted to remain open and in operation under their existing management, either as a result of inadequate monitoring or forbearance by bank regulators, the larger their losses are likely to be on average. These institutions are likely to continue the inefficient operations that contributed to their insolvency and/or increase their risk taking and “gamble for resurrection.” As the insolvent shareholders have no remaining investment in the bank, if they win their gamble they keep all the gains and possibly the bank and, if they lose, they lose their creditors’ funds, not their own. On average, these bets are unlikely to pay off. Regulatory forbearance and inadequate monitoring have been costly in the past (Bartholomew, 1991; and Barth, Bartholomew, and Bradley, 1990; and Kaufman, 1995). The FDIA provides broad discretion to regulators in declaring an institution insolvent, but as amended by FDICIA requires an insured institution to be resolved within a brief period after its tangible equity declines to not less than, at minimum, 2 percent of its total assets.

Resolution losses to the FDIC are equal to the difference between the sum of the present value of the par value of insured deposits and of the recovery claim of uninsured deposits or non-deposit debt plus any protection that the FDIC decides to provide against loss at the insolvent bank being resolved and the lower present value of the recovery value of the bank as a whole or in parts. The lower any protection provided on uninsured claims and the larger the relative size of these claims, the more the FDIC is able to share any

given resolution losses with others and reduce the size of the losses it bears.

The ability of the FDIC to protect uninsured claims and with whom and in what amounts it can share resolution losses are prescribed by law. Since the Depositor Preference Act of 1993, the FDIC’s claim has had equal standing in liquidation with uninsured deposits at domestic offices of insured banks and priority over deposits at foreign offices of insured U.S. banks, general creditors, and other unsecured claimants. Before 1993, the FDIC had equal standing with all depositors and non-subordinated general creditors and priority only over subordinated creditors and equity claimants. Thus, for any given gross loss rate on a bank failure since 1993 and, in the absence of any protection of uninsured non-domestic deposit claimants, the larger the relative importance of non-domestic deposits and of general or subordinated creditors, the lower is the net loss rate to the FDIC. (The potential loss to the FDIC in resolving insolvencies with different liability structures is analyzed further in the appendix.)

Although the FDIC is required to protect all insured deposits at resolved banks fully against loss from par value, it has greater discretion in protecting uninsured deposits and other claims. Indeed, from 1980 through the enactment of FDICIA at year-end 1991, the FDIC effectively protected all uninsured deposits at all large resolved banks and, at times, even not very large banks and most non-deposit creditor claims (Benston and Kaufman, 1997).<sup>6</sup> The FDIC’s discretion was reduced considerably but not eliminated altogether by FDICIA, a primary purpose of which was “to resolve the problems of insured depository institutions at least possible long-term cost to the deposit insurance fund.” In general, FDICIA prohibits the FDIC from protecting any uninsured claims if doing so increases its losses, but there are exceptions. However, the exceptions are substantially more difficult for the FDIC to apply. To obtain a systemic risk exception (SRE), the FDIC must make a recommendation to the Secretary of the Treasury that not protecting some or all uninsured claims at a failed bank “would have serious adverse effects on economic conditions or financial stability and ... [providing partial or complete protection] would avoid or mitigate such adverse effects.”

The recommendation to the Secretary must be made in writing by a vote of no less than two-thirds of both the board of directors of the FDIC and the Board of Governors of the Federal Reserve System. The Secretary must then make the determination in consultation with the President. The Secretary must also maintain all documentation and notify the House and Senate

banking committees. The basis for the determination and any subsequent actions are required to be reviewed by Congress' General Accounting Office (GAO). Furthermore, if the FDIC suffers any losses from providing the protection, the losses must be repaid expeditiously by all banks through a special FDIC assessment based on asset size. Thus, the cost of the protection is paid by the banks and is not passed through to the taxpayers. These provisions may be expected to significantly reduce the likelihood of FDIC protection for uninsured claimants, and since 1992 the FDIC has protected uninsured depositors only in a very few instances at small banks, where the acquiring bank bid a premium to assume the small amount of uninsured deposits that was greater than the pro-rata loss on these deposits.<sup>7</sup> In addition, in these resolutions, the FDIC avoided the costs of identifying and separating the insured and uninsured deposits on the bank's books.<sup>8</sup> Thus, protecting the uninsured deposits in these instances did not increase the FDIC's losses and was consistent with least cost resolution (Benston and Kaufman, 1997).<sup>9</sup>

Lastly, the higher the present value price received by the FDIC as receiver from the sale of the insolvent bank as a whole or in parcels, the lower is its loss. This may involve a tradeoff between waiting to sell the assets in a potentially stronger market at a higher future price that must be discounted back to the date of resolution and selling quickly at a lower price that requires less discounting. Evidence from the experience of both the U.S. in the 1980s and early 1990s and other countries suggests that, although not politically popular, quicker sales and resolutions, on average, achieve higher present values than delayed sales and resolutions, even in periods of widespread bank difficulties (Barth, 1991; Bartholomew, 1993; Ely and Varaiya, 1996; and Kane, 1990).

## FDIC losses

The 1980s saw the largest number of bank and S&L failures in the U.S. since the Great Depression of the 1930s. Between 1983 and 1990, some 1,150 commercial banks, representing 8 percent of the industry in 1980, and some 900 S&Ls, representing fully 25 percent of the industry in 1980, failed and were put in receivership (Kaufman, 1995). Moreover, the associated combined losses to uninsured depositors, other stakeholders, and the FSLIC and FDIC were the highest in U.S. history. As noted earlier, the aggregate losses from the S&L failures alone exceeded the financial resources of the FSLIC to protect all insured depositors at its failed institutions and required an injection of some \$150 billion of taxpayer funds. As a result, the FSLIC was dissolved by Congress and its deposit insurance functions transferred to a new Savings Association Insurance Fund (SAIF) housed in the FDIC.

The increase in S&L failures occurred before the increase in bank failures. When the number and size of bank failures picked up in the late 1980s and losses to the FDIC mounted, there was widespread fear that the banks would go the way of the S&Ls and the FDIC the way of the FSLIC. In response, Congress enacted FDICIA at year-end 1991. Among other provisions, FDICIA attempts to reduce losses to the FDIC from failure resolution by encouraging bank regulators to intervene sooner and more effectively in financially troubled banks to prevent their failure through prompt corrective action (PCA). And, if the intervention was unsuccessful, FDICIA authorized the FDIC to resolve these banks before their book net worth turned negative and, with the systemic risk exception noted above, not to protect any claims other than insured deposits if this would increase its losses and be inconsistent with least-cost resolution (LCR). The remainder of the article considers how successful this legislation and the bank regulators have been in reducing losses from failure resolutions.

Table 1 (overleaf) shows the losses incurred by the FDIC in 1,645 bank failures from 1980 through 2002.<sup>10</sup> Total losses in this period were \$38.5 billion. As a percentage of the sum of on-balance-sheet bank assets on the date each bank was failed, losses averaged 12 percent. This is the loss rate to the FDIC. The table also shows aggregate losses by bank size. Most failed banks were small. Eighty percent had assets of less than \$100 million and another 15 percent had assets between \$100 and \$500 million. Less than 1 percent of failed banks had assets in excess of \$5 billion. The average aggregate loss rate varied with size. It was highest for small banks with assets of under \$100 million and declined progressively with asset size from 21 percent to 6 percent for banks with assets in excess of \$5 billion.<sup>11</sup> Although the loss rate was lowest for the largest banks, total dollar losses per bank were by far the largest at nearly \$765 million at these banks, compared with only \$6 million for banks with under \$100 million in assets. Indeed, the largest 1 percent of all bank failures accounted for 20 percent of the FDIC's total losses.

Because more small than large banks failed, the loss rate computed as an average of individual bank loss rates—average of ratios, where each bank is weighted equally regardless of its size—was considerably higher at 21 percent. The rate again tended to decline with bank size. However, individual bank loss rates varied considerably, ranging from a low of 0 percent to a high of 75 percent in the failure of the First National Bank of Keystone (WV) in 1999, 72 percent in the failure of the BestBank (CO) in 1998, and 71 percent for WestPoint National Bank (San Antonio, TX) in 1988.<sup>12</sup> As can be seen from tables 2 and 3,

TABLE 1

## FDIC losses on failure of BIF insured banks, 1980–2002

	Bank assets (\$millions)					Total
	Under 100	100–500	500–1,000	1,000–5,000	Over 5,000	
<b>1980–2002</b>						
Number of banks <sup>a</sup>	1,313	241	42	39	10	1,645
Percent of number	79.82	14.65	2.55	2.37	0.61	100
Assets (\$millions)	37,722	51,937	27,911	77,700	125,818	321,088
Percent of assets	11.75	16.18	8.69	24.20	39.18	100
Loss (\$millions)	8,029	9,172	3,681	9,990	7,651	38,523
Percent of loss	20.84	23.81	9.56	25.93	19.86	100
Loss/assets (%)	21.28	17.66	13.19	12.86	6.08	12.00
Average of bank loss ratios (%)	22.30	17.33	12.97	13.84	7.26	21.04
Loss per bank (\$millions)	6.11	38.06	87.64	256.15	765.10	23.42
<b>1980–92</b>						
Number of banks	1,247	217	40	37	10	1,551
Percent of number	80.40	13.99	2.58	2.39	0.64	100
Assets (\$millions)	35,329	47,144	26,296	75,354	125,818	309,941
Percent of assets	11.40	15.21	8.48	24.31	40.59	100
Loss (\$millions)	7,610	8,252	3,264	9,035	7,651	35,812
Percent of loss	21.25	23.04	9.11	25.23	21.36	100
Loss/assets (%)	21.54	17.50	12.41	11.99	6.08	11.55
Average of bank loss ratios (%)	22.56	17.15	12.23	12.21	7.26	21.19
Loss per bank (\$millions)	6.10	38.03	81.60	244.2	765.10	23.09
<b>1993–2002</b>						
Number of banks	66	24	2	2	0	94
Percent of number	70.21	25.53	2.13	2.13	0	100
Assets (\$millions)	2,393	4,793	1,615	2,346	0	11,147
Percent of assets	21.47	43.00	14.49	21.04	0	100
Loss (\$millions)	419	921	417	955	0	2,711
Percent of loss	15.44	33.95	15.38	35.23	0	100
Loss/assets (%)	17.49	19.20	25.82	40.71	0	24.32
Average of bank loss ratios (%)	17.48	18.93	27.82	44.02	0	18.63
Loss per bank (\$millions)	6.35	38.38	208.50	477.50	0	28.84
Loss rate for asset distribution in 1980–92 <sup>b</sup> (%)	2.00	2.92	2.19	9.89	0	17.00
Loss rate omitting 2 outliers <sup>c</sup> (%)	17.49	19.20	12.79	13.46	0	17.35
Size normalized loss rate omitting 2 outliers <sup>a</sup> (%)	2.00	2.92	1.08	3.27	0	9.27

<sup>a</sup>All failed FDIC insured institutions from 1980 through 1989 and all failed BIF insured institutions 1990–2002. Omits 12 banks for which complete data are not available (11 banks in 1980–92 period and one bank in 1993–2002 period).

<sup>b</sup>Computed by weighting loss rates in 1993–2002 by percent asset distribution in 1980–92.

<sup>c</sup>Omits First National Bank of Keystone (WV) and NextBank (AZ).

Source: FDIC.

only 5 percent of all failures were resolved by the FDIC with effectively no loss and less than 25 percent with a loss of less than 10 percent of assets.

To examine the impact of FDICIA on FDIC losses in bank resolution, I divided the bank failures into a pre-FDICIA period (1980–92) and a post-FDICIA period (1993–2002).<sup>13</sup> The number of bank failures declined sharply in the later period from 1,551 to only 94. The average individual bank loss rate declined

slightly from 21.2 percent to 18.6 percent, and the percentage of failures resolved with a loss of 10 percent or less increased from 22.4 percent to 31.9 percent. But the average aggregate loss rate to the FDIC more than doubled from 11.6 percent in the first period to 24.3 percent in the second, and the average loss per bank increased from \$23.1 million to \$28.8 million. Only for the smallest banks—those with assets of under \$100 million—did the average loss rate not increase.

TABLE 2

## Distribution of bank loss rates by bank size, 1980–2002

Bank assets (\$millions)	Loss rate (%)							Total	
	0–1	1.1–10	10.1–20	20.1–30	30.1–40	40.1–50	50.1–60		Above 60
	(number of banks)								
<b>Entire period: 1980–2002</b>									
Under 100	49	197	371	362	195	93	28	18	1,313
100–500	30	57	70	40	24	14	3	3	241
500–1,000	5	13	13	7	3	1	0	0	42
1,000–5,000	2	17	10	8	1	0	0	1	39
5,000 or greater	1	6	2	1	0	0	0	0	10
Total	87	290	466	418	223	108	31	22	1,645
<b>Period 1: 1980–1992</b>									
Under 100	44	179	349	352	188	91	28	16	1,247
100–500	30	50	60	38	21	13	3	2	217
500–1,000	5	13	12	7	3	0	0	0	40
1,000–5,000	2	17	9	8	1	0	0	0	37
5,000 or greater	1	6	2	1	0	0	0	0	10
Total	82	265	432	406	213	104	31	18	1,551
<b>Period 2: 1992–2002</b>									
Under 100	5	18	22	10	7	2	0	2	66
100–500	0	7	10	2	3	1	0	1	24
500–1,000	0	0	1	0	0	1	0	0	2
1,000–5,000	0	0	1	0	0	0	0	1	2
5,000 or greater	0	0	0	0	0	0	0	0	0
Total	5	25	34	12	10	4	0	4	94

Source: FDIC.

Moreover, the FDIC loss rate in the second period likely understates the total losses suffered by all claimants in bank failures relative to the FDIC loss rate in the pre-1992 period. As noted earlier, FDICIA required the FDIC to share any losses with uninsured claimants, and depositor preference gave the FDIC priority over nondepositor creditors. This reduced its losses at the expense of these claimants. In contrast, before FDICIA, the FDIC frequently protected all uninsured claimants, particularly at larger banks, and absorbed the total loss (Benston and Kaufman, 1997, and 1998). Thus, its losses would have been larger for the same total loss from a bank failure.

The increase in loss to the FDIC in the post-FDICIA period appears to be inconsistent with both the intent of FDICIA and other legislative and regulatory initiatives in this period and the considerably smaller number of failures, which should have given the regulators more time to devote to each troubled bank under PCA before insolvency to design an LCR solution at insolvency (Eisenbeis and Wall, 2003). The increase suggests that the legislation may have been flawed and ineffective and/or that the regulators failed to vigorously implement its provisions. But the increase in loss rates may also be attributed to other factors, including a change in the size distribution of failed banks and a change

in the incidence of major fraud or gross mismanagement as a cause of bank failure.

As noted, loss rates vary with size of bank, so that the average loss rate can change between two periods if the size composition of the failed banks changed, even if the loss rate in each size category did not. Table 1 shows that, proportionately, somewhat fewer very small—high loss rate—and very large—low loss rate—banks failed in the post-FDICIA period than in the pre-FDICIA period.<sup>14</sup> No very large banks (assets in excess of \$5 billion) failed in the latter period. The relative increases were largest in the next to smallest category of banks. It is possible to estimate the impact on the loss rate of the change in the failed bank size distribution by weighting the loss rate in each of the five size classifications in the second period by the percentage of assets in banks that failed in that size group in the first period. When asset size distribution is held constant, so that the same asset size distribution of failed banks is assumed for the post-FDICIA period as occurred in the pre-FDICIA period, the aggregate average loss rate in the post-FDICIA period declines from 24 percent to 17 percent. But this is still considerably higher than the 12 percent in the earlier period and primarily reflects the absence of large low-loss banks in the second period. Thus, standardizing

TABLE 3

## Percent distribution of bank loss rates by bank size, 1980–2002

Bank assets (\$millions)	Loss rate (%)								Total
	0–1	1.1–10	10.1–20	20.1–30	30.1–40	40.1–50	50.1–60	Above 60	
<i>(percent of banks in each size group)</i>									
<b>Entire period: 1980–2002</b>									
Under 100	3.73	15.00	28.26	27.57	14.85	7.08	2.14	1.37	100.00
100–500	12.45	23.65	29.05	16.60	9.96	5.81	1.24	1.24	100.00
500–1,000	11.90	30.95	30.95	16.67	7.14	2.38	0.00	0.00	100.00
1,000–5,000	5.13	43.59	25.64	20.51	2.56	0.00	0.00	2.56	100.00
5,000 or greater	10.00	60.00	20.00	10.00	0.00	0.00	0.00	0.00	100.00
Total	5.29	17.63	28.33	25.41	13.56	6.57	1.88	1.34	100.00
<b>Period 1: 1980–92</b>									
Under 100	3.53	14.35	27.99	28.23	15.08	7.30	2.25	1.28	100.00
100–500	13.82	23.04	27.65	17.51	9.68	5.99	1.38	0.92	100.00
500–1,000	12.50	32.50	30.00	17.50	7.50	0.00	0.00	0.00	100.00
1,000–5,000	5.41	45.95	24.32	21.62	2.70	0.00	0.00	0.00	100.00
5,000 or greater	10.00	60.00	20.00	10.00	0.00	0.00	0.00	0.00	100.00
Total	5.29	17.09	27.85	26.18	13.73	6.71	2.00	1.16	100.00
<b>Period 2: 1992–2002</b>									
Under 100	7.58	27.27	33.33	15.15	10.61	3.03	0.00	3.03	100.00
100–500	0.00	29.17	41.67	8.33	12.50	4.17	0.00	4.17	100.00
500–1,000	0.00	0.00	50.00	0.00	0.00	50.00	0.00	0.00	100.00
1,000–5,000	0.00	0.00	50.00	0.00	0.00	0.00	0.00	50.00	100.00
5,000 or greater	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Total	5.32	26.60	36.17	12.77	10.64	4.26	0.00	4.26	100.00

Source: FDIC.

for size differences in the two sub-periods reduces but does not eliminate the increase in the FDIC loss rate.

Fraud is a major cause of bank failures in all periods, but may be expected to be relatively more important in good economic times, when few banks fail for economic reasons, than in bad economic times, when more banks fail for economic reasons. Fraud is by definition difficult to detect before failure and can lead to very large losses before it is detected relative to losses from other causes, which are generally easier to detect and to monitor. If so, losses from bank failures in the post-FDICIA period, which generally coincided with prosperous times, would be expected to be relatively higher than in the pre-FDICIA period, when the economy did not perform as well. In addition, a change in the size distribution of failures due to major fraud or gross mismanagement leading to large operating losses can also change the aggregate loss rate. If the presence of major fraud or gross mismanagement may be proxied by large losses, then there appears to be a slight increase in major fraud and gross mismanagement at larger banks in the post-FDICIA period. Two banks, First National Bank of Keystone (WV) in 1999 and NextBank (AZ) in 2002, with assets in excess of \$500 million failed in the post-FDICIA period with loss rates in excess of 40 percent—the costliest 10 percent of all failures—compared

with no such failures in the pre-FDICIA period, although the percentage of all failed banks with such large losses remained about the same in both periods.<sup>15</sup> These two banks accounted for the average loss per bank with assets between \$500 million and \$5 billion more than doubling in the second period.

If these two banks are removed from the analysis, the loss rate for the second period declines from 24.3 percent to 17.4 percent, but still remains significantly higher than in the earlier period. Only if both these two large-loss large banks are omitted and the second period is adjusted for changes in the size distribution of failed banks does the loss rate to the FDIC in the post-FDICIA period decline below that of the pre-FDICIA period. It declines to 9.3 percent. This suggests that both an increase in fraud and gross mismanagement at larger banks and a reduction in the overall number of very large bank failures, which generally incur substantially smaller loss rates, contributed to the increase in the aggregate loss rate in the post-FDICIA period, despite a decrease in the average individual bank loss rate.<sup>16</sup>

However, an analysis of the larger major fraud and gross mismanagement cases in recent years, including the analyses undertaken by the inspector generals of the respective federal regulatory agencies required by

FDICIA when the FDIC incurs material losses (defined as the larger of \$25 million or 2 percent of the resolved bank's total assets), suggests that, among other things, the regulators either delayed on their own accord or were delayed by legal or other actions initiated by the target banks for considerable periods of time after the fraud or mismanagement problems were first detected (for example, Committee on Banking, 2002; U.S. Department of Treasury, 2000, 2000a, and 2002b; and FDIC, 2002). The larger the bank, the greater its incentive to delay the regulators in identifying fraud or gross mismanagement by adopting legal and other challenges to their investigations. To the extent that FDICIA emphasizes prompt corrective action by regulators, the high loss rate in the post-FDICIA period suggests that the regulators need to improve, in particular, their means of detecting fraud and gross mismanagement at larger banks and their reaction time in responding to such evidence.<sup>17</sup> The latter may require additional legislative and regulatory authority from Congress and possibly additional funding to reduce delaying actions by target banks without reducing appropriate due legal process or appeal procedures.

In almost all instances of large losses to the FDIC in recent years, the failed bank reported very rapid growth in assets, exceptionally high earnings on assets and/or equity, and well above average capital ratios shortly before its failure. Evidence over the past 25 years suggests that, while any one of these three measures in isolation does not signal problems and, in the case of earnings and capital is desirable, in combination all three represent a red warning flag (Duncan et al., 2003). In many instances, the actual data were significantly lower than the reported data as, among other things, troubled banks under-reserved for loan losses and overvalued other assets. Bank regulators have often been reminded in these failures that "if something looks too good to be true, it generally isn't true." This suggests that regulators can benefit by redeploying their examiners and supervisors to these banks more rapidly and aggressively. Reducing large losses at large banks is also important, because these are the losses that can reduce the FDIC's reserves significantly and may lead to required increases in insurance premiums on other banks, if the FDIC's reserves decline to less than 1.25 percent of insured deposits as specified in FDICIA, or, if losses are sufficiently large, even to taxpayer support, as in the late 1980s.

## Conclusion

The analysis in this article suggests that a major objective of FDICIA of reducing the losses to the FDIC from bank failures has not been fully realized to date,

despite a benign environment of few bank financial problems and a decline in the average individual bank loss rate. The large losses experienced by the FDIC in the post-FDICIA period relative to the 1980–92 pre-FDICIA period result primarily from large losses incurred in the resolution of a few larger banks. Nevertheless, these are the losses that reduce the FDIC's reserve ratio significantly and are more likely to reduce it below 1.25 percent. At this point, FDICIA requires increases in insurance premiums to restore the ratio. The large losses by the FDIC also indicate large losses by uninsured depositors and other creditors at resolved banks. As a result, the perception that bank failures have high costs is more likely to be maintained and is likely to increase support for public policies that focus on reimbursing depositors at failed banks for their losses rather than on reducing these losses through prompt and more effective regulatory intervention, including resolution before the bank's capital is fully dissipated as is envisioned in FDICIA. Because the latter is clearly the preferred policy in terms of maximizing aggregate social welfare, bank regulators may wish to focus their attention more on uncovering evidence of fraud and gross mismanagement at larger banks and to rely more heavily on readily visible, low-cost red flags of danger, such as unusually rapid growth rates and too-good-to-be-true profitability, to allocate their resources to reduce losses to the FDIC from smaller bank failures.

Again, it should be noted that, although the losses are charged to the FDIC, they are not necessarily the sole fault of the FDIC. Some of the losses were likely to have already been embedded in the banks when they were declared insolvent by their chartering or primary federal regulatory agency and handed over to the FDIC for resolution. Thus, part of the fault lies with bank management and part with the regulatory agency that declared the bank insolvent in not resolving it sooner. The FDIC's share of the loss blame generally begins only after the institution has become the FDIC's responsibility. In addition, these losses are not a condemnation of the PCA program in general. Both the number of failures and the magnitude of the losses may have been even greater in the absence of the PCA provisions. Indeed, the agencies used the powers of the program to successfully rehabilitate a significant percentage of financially troubled institutions before they became insolvent, thereby reducing potential later losses from insolvency (Comptroller of the Currency, 2003, and Salmon et al., 2003). If such application successfully continues and the above suggestions are adopted, at least in part, it is likely that future losses to the FDIC would decline to rates more consistent with the objectives of FDICIA.

## NOTES

<sup>1</sup>The FDIC Improvement Act of 1991 potentially reduces significantly the backup liability of taxpayers for losses to the FDIC by requiring it to raise insurance premiums on banks whenever its reserves decline below 1.25 percent of total insured deposits, in order to replenish the insurance fund to this ratio within one year. The FDIC did not have this authority previously. Any taxpayer liability is and has in the past been implicit—never explicitly spelled out in legislation—but now is more likely to kick in only if the FDIC is unable to raise sufficient funds from higher premiums to keep the reserve ratio from declining below zero (Kaufman, 2001 and 2002, and Kaufman and Wallison, 2001).

<sup>2</sup>Because agencies other than the FDIC do not have the responsibility to reimburse depositors and other creditors of the banks they fail, they do not have their own money at stake. Thus, they may have some incentive to delay declaring a bank insolvent if they believe that the additional time granted may help the bank regain solvency and thereby remove a stain of failure on their watch from the record.

<sup>3</sup>Bank holding companies, in contrast, are failed and placed in receivership subject to the federal corporate bankruptcy code.

<sup>4</sup>An overview of the differences is discussed in Bliss and Kaufman (2004). The difference in the bankruptcy process between chartered banks and most other corporations has important implications for both the timing of legal failure and the losses to uninsured depositors, other creditors, and shareholders. Under FDICIA, the FDIC is subject to both a 2 percent tangible equity to assets closure rule and a least cost resolution provision. In contrast, legal failure for other firms generally occurs only after an actual (or, if voluntary, pending) default on a major scheduled debt or other payment, and bankruptcy courts in the U.S. tend to stretch out the rehabilitation process at high cost to creditors. Thus, it is reasonable to expect that insolvent banks are likely to be resolved sooner and with smaller losses to, at least, uninsured depositors than nonbank corporations.

<sup>5</sup>The process by which the FDIC resolves failed banks is described in Salmon et al. (2003) and Walter (2004).

<sup>6</sup>The FDIC's practice of protecting nearly all claimants in large resolutions before FDICIA gave rise to the misnamed phrase "too big to fail" (TBTF). Although perhaps not always on a timely basis, with rare exception, bank regulators did fail insolvent large banks in terms of terminating their shareholders' claims and transferring ownership and management to an assuming institution. Only in rare instances were insolvent large banks liquidated or closed physically as well as legally. The more accurate but longer term would have been "too large not to protect uninsured non-shareholder claimants." For a history of TBTF, see Kaufman (2004).

<sup>7</sup>The case that these restrictive provisions may be insufficient to prevent future bailouts of uninsured depositors at the very largest banks is made in Stern and Feldman (2004).

<sup>8</sup>Because the ex ante costs of administering the insurance computations when not protecting uninsured depositors are only estimates, the FDIC has some wiggle room in its determination of which resolution strategy represents least cost. However, it is likely that this leeway is significant only for resolving small banks with small amounts of uninsured deposits.

<sup>9</sup>As there have not been any very large bank failures since 1992, this procedure has not been fully tested.

<sup>10</sup>Failed and resolved banks include all failed institutions insured by the FDIC through 1989 and by the FDIC's BIF (Bank Insurance Fund) in 1990–2002. The population excludes S&Ls but includes some savings banks. The table excludes 12 relatively small banks for which loss information was not published by the FDIC. None of these banks had assets in excess of \$500 million. Loss rates are reported by the FDIC as actual for completed resolutions and as estimates for resolutions in process. Thus, reported loss rates may change through time.

<sup>11</sup>The factors determining resolution losses at individual failed banks are analyzed in McDill (2004).

<sup>12</sup>One bank was reported to have been resolved with an eventual gain. A number of other banks may also have eventually been so resolved. Any gains are generally returned to subordinated creditors and shareholders.

<sup>13</sup>The post-FDICIA period starts in 1993 rather than 1992 because many of the provisions were not scheduled to be implemented until then (Benston and Kaufman, 1994).

<sup>14</sup>No adjustment is made for increases in bank size in the second period from inflation effects per se.

<sup>15</sup>Legally fraud is difficult to prove and regulators are frequently cautious in charging it. For example, among other things, NextBank periodically replaced nonperforming credit card loan—its only type of loan—with performing loans to collateralize loans that had been securitized and the resulting bonds sold, so that, contrary to appearances, it implicitly retained the credit risk of the "sold," off-the-balance-sheet loans. When the Comptroller of the Currency adjusted for this, the bank's regulatory risk-based capital was reduced from 17 percent to 5.4 percent. In addition, the bank apparently knowingly misclassified some credit losses as fraud losses, so as to avoid increasing loan loss reserves and decreasing reported capital. Nevertheless, the Inspector General of the Department of the Treasury concluded that the "failure can be attributed primarily to improperly managed rapid growth that led to unacceptable high levels of credit risk, losses, and operational problems" rather than to fraud (U.S. Department of the Treasury, 2002a, p. 5). Losses to the FDIC from the failure of NextBank are likely to be significantly larger than estimated at the time of closure because losses on its credit card loans increased significantly after closure but before the FDIC both sold the bank-owned portfolio and stopped servicing the portfolio that had been securitized and paid the owners of the outstanding bonds (Blackwell, 2002, and FDIC, 2003).

<sup>16</sup>In part, the FDIC may be expected to experience smaller loss rates on more recent large bank failures because, since the enactment of depositor preference in 1993, it has priority in liquidation to nondomestic deposits and other creditor claims, which tend to be most important at large money center banks. Thus, these funds absorb losses before they are charged to the FDIC or uninsured domestic deposits.

<sup>17</sup>Eisenbeis and Wall (2003) suggest that the regulators may be confusing minimizing bank failures with minimizing losses from bank failures and have inappropriately focused on the former at the expense of the latter. Eisenbeis and Wall also report no evidence that any one federal bank regulatory agency had a better track record in minimizing failure losses than the others.



APPENDIX: ACCOUNTING FOR LOSSES TO THE FDIC IN RESOLVING BANK INSOLVENCIES WITH DIFFERENT LIABILITY STRUCTURES

Since the enactment of the Depositor Preference Act in 1993, the FDIC, as receiver, is generally required to pay claims in insured bank resolutions in the following order as funds from the sale of the bank and its assets are received, except if the systemic risk exception that protects some or all *de jure* uninsured depositors and/or other creditors at the insolvent bank is invoked:

1. Administrative expenses of receiver,
2. Secured claims,
3. Depositors at domestic offices,
4. General unsecured creditors and depositors at foreign offices,
5. Subordinated debt holders, and
6. Stockholders.

Secured creditors are paid from the proceeds of the associated collateral. If this is insufficient to satisfy the full claim, they become general creditors for the remainder. Any excess collateral is returned to the bank. The FDIC effectively stands in the shoes of insured depositors and has equal priority with uninsured depositors. Thus, the size of any loss experienced by the FDIC in resolutions depends both on the shortfall in the market value of the bank's assets from the assigned value of its deposits and other debt and on the composition of the bank's liabilities. The former determines the overall loss and the latter the distribution among claimants. For example, the relatively less important are insured deposits, the more the FDIC can share its losses and the smaller is the loss to the FDIC for any given aggregate resolution loss. The relationship between bank liability structure and FDIC loss in resolutions may be demonstrated at greater length with the use of T accounts for a hypothetical, greatly over-simplified bank balance sheet.

Assume a bank that has only assets (A), insured deposits (ID), uninsured deposits (UD), unsecured other debt held by general creditors (OC), and equity capital or net worth held by shareholders (K). When solvent, its balance sheet looks as shown in table A1, panel A.

Assume now that the bank experiences a loss of \$10. This can be shown by a \$10 charge against assets, reducing their value from \$100 to \$90. The balance sheet would now be as shown in panel B.

Table A1

A)

A		L		
A	100	40	ID	
		40	UD	
		10	OC	
		10	K	
Total	100	100	Total	

B)

A		L		
A	90	40	ID	
		40	UD	
		10	OC	
		0	K	
Total	90	90	Total	

C) Allocation of losses

ID	0
UD	0
OC	0
K	10
FDIC	<u>0</u>
Total	10

Any loss is charged first to capital, which can absorb all of the \$10 but is reduced to zero. The bank is declared insolvent by the FDIC and placed in receivership or sold at any positive price greater than zero. In this scenario, the FDIC, depositors, and other creditors do not suffer any loss (panel C). All the loss is borne solely by the shareholders. This reflects the theory underlying the closure rule at a nonnegative capital ratio in FDICIA. If successful, all depositors are fully protected and deposit insurance is effectively redundant.

But what if the FDIC was not able to resolve the institution before its losses exceeded its capital? Then some of the loss has to be charged against stakeholders with higher priority than shareholders. If the loss were \$20, assets would now decline in value to \$80 and capital would be a negative \$10. But limited liability protects the shareholders from paying this full amount. Instead, they absorb only the first \$10 of the loss, eliminating their ownership interest. The remaining \$10 is charged against the general creditors, who have the next lowest priority. Depositors would still be whole and there is no loss to the FDIC. The balance sheet just before liquidation or sale would look like panel A in table A2.

Table A2

A)

A		L		
A	80	40	ID	
		40	UD	
		0	OC	
		0	K	
Total	80	80	Total	

B) Allocation of losses

ID	0
UD	0
OC	10
K	10
FDIC	<u>0</u>
Total	20

If the loss increases to \$30—assets decline to \$70—then depositors would also share in the loss. If the bank did not qualify for protection under the systemic risk exception, the additional \$10 loss would be shared equally by the uninsured depositors and the FDIC standing in the shoes of the insured depositors. Because the FDIC must make the insured depositors whole at \$40 when their deposits are valued at only \$35, it effectively needs to pay \$5 to the bank. This payment increases the bank's assets from \$70 to \$75 and its balance sheet immediately after failure may be shown as in table A3, panel A.

**Table A3**

A)	A		L	
A	75		40	ID
			35	UD
			0	OC
			0	K
Total	75		75	Total

**B) Allocation of losses**

ID	0
UD	5
OC	10
K	10
FDIC	5
Total	<u>30</u>

The FDIC's loss rate would be calculated by its loss as a percentage of the bank's total assets on the date of resolution before any infusion of funds by the FDIC. In this example, this would be \$5/\$70 or 7.1 percent.

But what if the FDIC obtains a systemic risk exception for the bank under FDICIA and acts to protect all depositors but not other creditors at par value? Then it would absorb the entire additional \$10 loss and inject an additional \$5 payment to the bank to make the uninsured as well as the insured depositors whole. This would increase assets from \$70 to \$80 as in table A4, panel A.

**Table A4**

A)	A		L	
A	80		40	ID
			40	UD
			0	OC
			0	K
Total	80		80	Total

**B) Allocation of losses**

ID	0
UD	0
OC	10
K	10
FDIC	10
Total	<u>30</u>

The FDIC's loss rate would double to 14.2 percent (\$10/\$70).

It is evident that capital, other debt, and uninsured deposits act as shock absorbers against losses for the FDIC and that the proportionately greater are these accounts, the proportionately smaller will be any loss to the FDIC from resolving a bank with a given negative net worth.

Alternatively, the FDIC may attempt not to fail the bank legally and invoke SRE to protect the other creditors as well as the uninsured depositors. Then, except for the \$10 borne by the shareholders, the entire remaining \$20 loss would be borne by the FDIC, which would make a \$20 cash infusion to make all nonshareholder claimants whole. This would increase its loss rate again to 28.4 percent. The bank balance sheet would read as in table A5, panel A.

**Table A5**

A)	A		L	
A	90		40	ID
			40	UD
			10	OC
			0	K
Total	90		80	Total

**B) Allocation of losses**

ID	0
UD	0
OC	10
K	10
FDIC	<u>20</u>
Total	30

Lastly, it is also of interest to note how the loss allocations would have differed before the introduction of depositor preference in 1993. At that time, the FDIC did not have priority over other creditors (and deposits at foreign branches). The FDIC had equal standing with uninsured depositors and other creditors. Assume that the bank's balance sheet was as shown in table A1. A loss of \$10 would not have affected the loss allocation. All of this amount would have been absorbed by the equity holders. But if the loss was greater than \$10, the loss distribution would have been different. If the loss was \$20, the \$10 loss not absorbed by the equity holders would be divided proportionately among the FDIC, standing in the shoes of the insured depositors, the uninsured depositors, and the other creditors.<sup>1</sup> Each would have suffered a loss of 11 percent (\$10/\$90). The FDIC would have had to make a cash infusion of \$4.44 ( $0.11 \times \$40$ ) to the bank to offset the loss to the insured deposits. After the infusion, the balance sheet would have looked like panel A of table A6.

**Table A6**

A)		A	L	
A	84.44		40.00	ID
			35.56	UD
			8.88	OC
			0	K
Total	84.44		84.44	Total

**B) Allocation of losses**

ID	0
UD	4.44
OC	1.12
K	10.00
FDIC	<u>4.44</u>
Total	20.00

The FDIC's loss rate would be \$4.44/\$80 or 5.5 percent, compared with 0 percent after depositor preference. Thus, the FDIC and the uninsured depositors would both have been worse off and the other creditors better off (see table A2).

Likewise, if the loss was \$30 and the systemic risk exemption was not invoked, the \$20 not borne by the shareholders would be borne proportionately by the three other claimant classes. This would compute to 22 percent ( $\$20/\$90 = 0.22$ ) of claims of each class. For the FDIC, this would amount to \$8.88. The bank balance sheet would be as shown in table A7, panel A.

**Table A7**

A)		A	L	
A	78.88		40.00	ID
			31.12	UD
			7.76	OC
			0	K
Total	78.88		78.88	Total

**B) Allocation of losses**

ID	0
UD	8.88
OC	2.24
K	10.00
FDIC	<u>8.88</u>
Total	30.00

Thus, without depositor preference, the FDIC would have lost \$8.88, or \$3.88 more than in table A4, when it lost only \$5.00, and its loss rate would have been 12.7 percent ( $\$8.88/\$70$ ), up from 7.1 percent with depositor preference.

<sup>1</sup>A more thorough analysis of the implications of depositor preference appears in Kaufman (1997) and Marino and Bennett (1999).

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