Kansas Banking in the 1930s: The Deposit Insurance Choice and Implications for Public Policy

By Kenneth Spong and Kristen Regehr

The recent financial crisis is reopening the debate about how much public assistance to give to distressed financial institutions. Key elements of the public safety net—deposit insurance and Federal Reserve lending to depository institutions—were greatly expanded during this crisis. Additional aid provided by policymakers included public capital assistance to banks through the Troubled Asset Relief Program, FDIC guarantees of newly issued bank debt, arranged mergers and bailouts of certain large institutions, and Federal Reserve lending to selected nonbank entities. These efforts helped financial markets function during the crisis and prevented a broader economic collapse. However, such actions raise two concerns. The first is the cost to taxpayers, and the second is whether this expanded protection gives financial institutions a greater incentive to take on risk, thus making the financial system more vulnerable.

The effect on the financial system of this emergency assistance and related risk-taking incentives is difficult to assess and measure. However, a unique circumstance in the 1930s provides an insight into how a piece of the federal safety net—federal deposit insurance—has

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altered the financial landscape. The vast majority of U.S. banks quickly became insured after the Federal Deposit Insurance Corporation (FDIC) began offering deposit insurance in 1934. Many state-chartered banks in Kansas, however, chose to remain uninsured. Why did these Kansas banks think they could operate successfully without deposit insurance following the worst banking crisis in U.S. history? Also, how did these banks differ from the banks that quickly adopted deposit insurance, and what might these differences tell us about deposit insurance?

This article examines these uninsured state banks in Kansas and finds notable differences between them and state banks that offered FDIC-insured deposits. The uninsured banks, in fact, were generally stronger institutions that exhibited higher capital ratios, fewer real estate lending problems, and far less need for public assistance from the Reconstruction Finance Corp. In contrast, the FDIC-insured banks were typically weaker institutions and thus were likely to have a greater need for deposit insurance.

Section I of this article provides an overview of the state banks in Kansas and the choices they made about adopting deposit insurance. Section II analyzes the differences between the banks that remained uninsured after the FDIC was established and the banks that adopted deposit insurance. Section III reviews the incentives that deposit insurance may provide to banks and the implications for public safety nets.

I. KANSAS BANKS AND THE DEPOSIT INSURANCE CHOICE

When federal deposit insurance was introduced in 1934, participation was mandatory both for national banks and for state banks that were members of the Federal Reserve.[1] State nonmember banks, however, could choose whether to participate. By June 1934, 326 Kansas banks—more than 58 percent of all state banks in Kansas—were still uninsured (Table 1). Also, more than 42 percent of the total deposits in state banks in Kansas were in uninsured banks.[2]

In this regard, the Kansas banking system differed from that of almost every other state. Only 14 percent of state banks in other states were uninsured compared to the 58 percent in Kansas. Also, only 1.4 percent of all commercial bank deposits and 3.1 percent of all state

Table 1
NUMBER OF UNINSURED STATE BANKS IN KANSAS

Year*	Number of Uninsured Banks	Total Number of State Banks**	Uninsured Banks as a percent of All State Banks	Percent of State Bank Deposits in Uninsured Banks
1930		775		
1932		636		
1934	326	556	58.6%	42.2%
1936	240	513	46.8%	32.3%
1938	220	494	44.5%	29.1%
1940	211	481	43.9%	27.9%
1942	188	465	40.4%	25.4%
1944	168	441	38.1%	Unavailable
1946	160	435	36.8%	Unavailable
1948	152	432	35.2%	23.1%
1950	146	434	33.6%	21.1%
1952	135	432	31.3%	19.3%
1954	126	433	29.1%	17.4%
1956	73	427	17.1%	9.2%
1958	40	424	9.4%	3.1%
1960* **	3	419	0.7%	0.1%

**These state bank totals include state banks that are members of the Federal Reserve System and which were required to have federal deposit insurance. These state member banks ranged in number from 13 in 1934 to 46 in 1960.
***During the latter half of the 1950s, the Kansas Bank Commissioner had been encouraging uninsured banks to apply for FDIC insurance. After the failure of an uninsured bank in July 1958, all of the remaining uninsured banks became insured except for three banks, which were allowed to provide protection to their depositors through blanket fidelity bonds and annual audits by certified accountants.
Sources: Banking and Monetary Statistics: 1914-41, Board of Governors of the Federal Reserve System, 1943; and The Biennial Reports of the Bank Commissioner of the State of Kansas, 1930–60.
Reporting dates vary by year and range between June 15 and October 4.

bank deposits in the United States were in uninsured banks in October 1934. In its 1934 Annual Report, the FDIC noted that many of the uninsured banks were "located in three states in which the insurance program has met with general opposition and disapproval."[3] While the FDIC did not identify the three states, much of this opposition likely was centered in Kansas.

As late as 1950, more than one-third of the state banks in Kansas still were uninsured, thus indicating their commitment to operating without deposit insurance and their ability to survive without it. This era of uninsured banks ended after an uninsured bank failed in 1958.

Following the bank's failure, the State Bank Commissioner and Kansas Legislature required Kansas banks to have FDIC insurance or to take comparable steps to protect depositors.[4]

The experience of uninsured banks in Kansas is notable in that FDIC deposit insurance was one of the key banking reforms adopted in response to the banking crisis of the early 1930s. Deposit insurance was designed to protect depositors, end banking panics, and restore the loss of public confidence that threatened to bring down the financial system. At the depth of the crisis in 1933, more than 4,000 banks were closed or absorbed by other banks. In Kansas, more than 300 banks (about 30 percent of all Kansas banks) closed during 1930-33 with much of the decline involving state banks (Table 1). The severity of the panic led President Roosevelt to declare a one-week, nationwide banking holiday in March 1933, during which all banks were closed. To reopen, banks had to meet certification standards. Federal Reserve member banks had to obtain a license to reopen from the Secretary of the Treasury, while state nonmember banks had to be licensed by their state banking departments. Congress also quickly adopted financial reform legislation, which included the introduction of federal deposit insurance in 1934.

In this environment, federal deposit insurance quickly gained acceptance throughout the United States and was popular among depositors after the losses many had experienced in the previous years. The FDIC initially insured each depositor in a bank for up to $2,500, but in July 1934, Congress increased this amount to $5,000.[5] All Federal Reserve member banks licensed to reopen after the banking holiday became part of the FDIC system. State banks that were not Federal Reserve members first had to receive certificates of solvency from their state banking department. They also had to be examined by the FDIC and found to have assets sufficient to cover all liabilities to depositors and other creditors. The FDIC worked with banks that failed the exam to correct the impairments. In 1935, Congress directed the FDIC to consider a broader range of factors for admitting state nonmember banks.

State banks in Kansas, though, were a major exception to this rapid adoption of FDIC deposit insurance. Although the reasons why Kansas banks declined to join are unclear, the FDIC's 1934 Annual Report does list why some banks across the United States remained uninsured.

Some banks objected to insurance in theory and principle and to its expense. Others said they had sufficient liquidity and did not need deposit insurance. Another criticism of deposit insurance was that stronger banks would subsidize the weaker, more risk-prone banks and would bear the burden and expense when weaker banks failed.

Kansas banks, however, may also have drawn on their own unique experience in questioning the desirability of deposit insurance. Kansas had a voluntary deposit insurance system between 1909 and 1929.[6] Initially, the system was popular among bankers and depositors, and more than 65 percent of the state banks in Kansas eventually participated (Wheelock and Kumbhakar 1995). Wheelock and Kumbhakar found Kansas officials were concerned from the start that the deposit insurance system would be most attractive to the riskier banks and took steps to limit such incentives. Kansas set standards for admitting banks into the system, implemented interest rate ceilings on insured deposits, and charged insurance premiums that declined when banks held more capital. The bank commissioner also could suspend insurance at a bank that violated state banking regulations.

These steps, though, were insufficient to prevent a collapse of the system. Declining agricultural prices and an economic downturn in the early to mid-1920s led to rising failures among Kansas banks, especially among insured banks.[7] The Kansas insurance program allowed banks to withdraw after giving six months notice and many left the program after special deposit insurance assessments were imposed. Despite the assessments, it became clear the insurance fund was inadequate to deal with the rising number of failures. With the insolvency of the insurance fund, it became impossible to pay the remaining claims on the final 88 insured banks that failed (FDIC 1956). Kansas repealed the deposit insurance law in 1929.

This experience of Kansas banks with state and FDIC deposit insurance systems illustrates the benefits and costs associated with this banking reform.[8] From a beneficial standpoint, FDIC and other forms of deposit insurance can contribute to banking stability by promoting public confidence and reducing the threat of depositor "runs" to withdraw bank deposits during times of distress. As a result, deposit insurance may also put banks in a better position to provide liquidity during times of stress and continue to meet credit needs throughout the economy (Pennacchi 2006).

Deposit insurance can, however, create adverse selection and moral hazard problems. Wheelock and Kumbhakar (1995), for example, concluded the Kansas deposit insurance system suffered from both problems. Deposit insurance led to adverse selection because weaker banks were more likely to join. It led to moral hazard because deposit insurance gave banks incentives to take on greater risk. For depositors, deposit insurance removes any financial incentive they might have to play a disciplinary role by keeping their funds out of riskier banks or demanding higher interest rates on deposits at such banks. In fact, deposit insurance—to the extent it provides a credible guarantee—converts insured deposits into a risk-free instrument and relieves depositors of any concern about their accounts. In turn, this freedom from depositor discipline means bankers will see less reward for maintaining higher capital levels and controlling risk exposures. In a competitive marketplace, a possible outcome of this moral hazard problem could be a decline in bank capital levels, more risk taking by individual banks, and a more vulnerable banking system.[9]

II. COMPARING UNINSURED AND INSURED BANKS IN KANSAS

The presence of both uninsured and insured banks in Kansas after the FDIC was established offers an opportunity to test the incentives federal deposit insurance may provide and identify banks most likely to find deposit insurance attractive. The data for this analysis largely comes from the 1934 Biennial Report of the Bank Commissioner of the State of Kansas. This report provides balance sheet data for all state banks in Kansas as of Sept. 12, 1934. At that time, 304 state banks were uninsured and 235 were insured. Of the insured banks, 14 were members of the Federal Reserve System that were initially accepted into the FDIC system.[10]

One advantage in comparing these banks is that all were operating under the same Kansas banking laws, although the FDIC-insured banks and Federal Reserve member banks also had to follow any additional requirements imposed by those agencies. Similarly, all of these banks were examined by the Kansas Banking Department. This examination responsibility was shared with the Federal Reserve for member banks and with the FDIC for insured state nonmember banks (although the

FDIC's examination experience was limited at this time). Banks seeking deposit insurance also had to meet the FDIC's admission requirements, and the FDIC's Annual Report in 1934 indicates most banks met these requirements.

The balance sheet information in the Kansas Bank Commissioner's report is much less detailed than the data banks must now disclose. Moreover, this report contains no information on a bank's total income or on separate income or expense items. Thus, the comparisons between uninsured and insured banks must focus primarily on major balance sheet ratios for 1934.

The first set of tests compares selected balance sheet ratios of the uninsured and insured state banks. This analysis also examines investments in these banks by the Reconstruction Finance Corp. (RFC), a government entity established in 1932 to help recapitalize banks and other businesses. The bank balance sheet ratios and other selected data are then used together to construct a model that predicts which state banks are most likely to choose FDIC deposit insurance. After that, the choices that state banks in Kansas made on FDIC insurance are compared to the choices these banks previously made about the Kansas voluntary state deposit insurance program. A final test examines the trends in capital ratios for uninsured and insured Kansas banks after 1934.

Balance sheet ratios

Table 2 examines a number of financial ratios for the uninsured and insured state banks and compares the means of these ratios for all banks in each group. One key difference is that the mean capital/asset ratio for uninsured banks is 18.9 percent compared to 13.2 percent for insured banks—a large difference of 5.7 percentage points that is statistically significant at the 1 percent level.[11]

The capital/asset ratio provides one of the better means of judging a bank's condition, particularly after the banking collapse of the 1930s. This ratio, for instance, indicates the capital resources banks and their stockholders still had after dealing with the crisis—resources that could then be used to protect depositors and to address future problems. Capital also was important because state banks in Kansas operated until 1937 under a system of double liability (Kirkwood 1981). Under double liability, stockholders could lose their investment in the bank if

Table 2

MEAN BALANCE SHEET RATIOS FOR UNINSURED AND INSURED BANKS (SEPTEMBER 12, 1934)

Balance Sheet Ratio	Uninsured Banks (304)	Insured Banks (235)	Difference
Capital/Assets	.189	.132	0.057***
Preferred Stock/ Assets	.000	.038	-0.038***
Loans/Assets	.430	.401	0.029**
Deposits/Assets	.804	.820	-0.016**
Cash/Assets	.326	.321	0.005
Bonds/Assets	.106	.113	-0.007
Other Real Estate Owned/Assets	.014	.020	-0.006***
Total Assets	$210,071	$403,700	-$193,629***

*These variables are statistically signifigant within a margin of error of 10 percent.
**Margin of error of 5 percent.
***Margin of error of 1 percent.

it failed, and banking officials could assess stockholders an additional charge up to the par value of the common stock to cover any remaining claims of depositors and other creditors. Accordingly, double liability made capital an even more important factor in protecting depositors.[12] The substantial difference in capital ratios in Table 2 consequently suggests that stockholders and managers of uninsured banks had far more resources to cover losses and thereby protect depositors. As a result, they may not have needed deposit insurance as much as other banks to support their operations and attract deposits.

Uninsured banks also made much less use of preferred stock than insured banks, which may reflect the success of uninsured banks in maintaining stronger, more permanent forms of capital. Uninsured banks had almost no preferred stock, while insured banks had a mean preferred stock/asset ratio of 3.8 percent. Almost all preferred stock likely was bought by the RFC, which gained authority during the 1933 banking holiday to buy preferred stock in weak and poorly capitalized banks (Todd 1992; Keeton 1992). One benefit of the RFC's investment in preferred stock, in fact, was that it gave weaker banks enough capital to qualify for federal deposit insurance (See Box). While this preferred stock gave some support to banks, it did not represent permanent capital like common stock, because it had to be repaid in full and also included required dividend payments. As a result, the preferred stock-

INVESTMENTS BY THE RECONSTRUCTION FINANCE CORPORATION

As seen in Table 2 and Table 3, insured banks, on average, had a much higher preferred stock/assets ratio than did uninsured banks. This preferred stock is of special interest because much of it represents Reconstruction Finance Corp. (RFC) investments designed for weaker banks and that often were used to give weaker banks enough capital to qualify for FDIC insurance. The Kansas Bank Commissioner's Report for 1934 does not distinguish between preferred stock issued to private investors and that issued to the RFC. However, a special report from the RFC, which shows the amount of RFC investments outstanding at Kansas banks on Aug. 31, 1936, provides a means to make this distinction (RFC 1936).

According to this report, the RFC had injected more than $5.1 million in 192 state and national banks in Kansas by 1936, and all but a small amount of this money was still outstanding at that time. A comparison of the RFC data to the preferred stock holdings shown in the 1934 Kansas Bank Commissioner's Report indicates that 107 of the 235 insured state banks had RFC preferred stock in 1934. Moreover, the RFC reported 42 of these banks were delinquent in their payments on interest and/or dividends in 1936; the RFC listed four banks as having failed by 1936 without paying down any of their RFC investment. Only four Kansas banks appeared to have issued preferred stock to private investors. Finally, 35 other state banks without any preferred stock in 1934 had issued preferred stock to the RFC by 1936. Of these banks, 23 were uninsured in 1934, but all had obtained FDIC insurance by 1936. None of the banks remaining uninsured appeared to have had RFC preferred stock.

Overall, the RFC data suggests that many of the state banks seeking and getting FDIC insurance were in need of capital support from the RFC. In contrast, the banks that remained uninsured relied entirely on their own capital resources. This would appear to be another sign that uninsured banks overall were generally stronger than FDIC-insured banks.

holdings of insured banks was likely a sign of weakness, and capital/asset ratios that exclude preferred stock should provide a better measure of banking strength and support for depositors.

Other balance sheet ratios generally imply that uninsured banks were performing as well as or better than insured banks. Uninsured banks had higher loan-to-asset ratios on average than insured banks. While loans generally entailed more risk than other banking assets, it is not clear that greater lending was a sign of riskier banks in 1934. Higher loan/asset ratios could instead be a sign that uninsured banks were better able to meet credit needs after the banking collapse of the early 1930s. Uninsured banks had a lower deposit/asset ratio than that of insured banks. This difference, which is statistically significant at the 5 percent level, could indicate a greater reliance on deposits among insured banks—a factor that would make deposit insurance more important. However, the difference in this ratio between uninsured and insured banks is not large in a practical sense. There is even less difference in the cash/asset and bond/asset ratios for these two groups of banks, which might indicate uninsured banks believed they had less need to hold liquid and marketable assets to serve depositors.

Other real estate owned (OREO) was not a major balance sheet category in 1934, but it provides an indication that loan quality may have been higher at uninsured banks than at insured banks. OREO, for instance, is a measure of the amount of real estate banks have acquired as collateral on bad loans. Uninsured banks had a significantly lower mean level of OREO, thus suggesting that they had fewer problems with loans secured by real estate compared to insured banks.

Overall, these balance sheet comparisons of uninsured and insured state banks in Kansas indicate that the uninsured banks appeared to be stronger as a group. However, these results could be influenced by differences in the size distribution of uninsured and insured banks. The last line of Table 2 shows the average size of uninsured banks by total assets was smaller than that of insured banks. Consequently, an additional test was done of the differences in means of the same balance sheet ratios after individual banks were placed into one of four size categories based on their total assets in 1934—(1) total assets less than $100,000; (2) total assets between $100,000 and $200,000; (3) total assets between $200,000 and $400,000; and (4) total assets over $400,000 (Table 3).

Table 3

MEAN BALANCE SHEET RATIOS FOR UNINSURED AND INSURED BANKS BY BANK SIZE GROUPS (SEPT. 12, 1934)

	Assets < $100,000			$100,000 ≤ Assets < $200,000			$200,000 ≤ Assets < $400,000			Assets ≥ $400,000		
Balance Sheet Ratio	**Uninsured Banks**	**Insured Banks**	**Difference**	**Uninsured Banks**	**Insured Banks**	**Difference**	**Uninsured Banks**	**Insured Banks**	**Difference**	**Uninsured Banks**	**Insured Banks**	**Difference**
Capital/Assets	.260	.202	0.058***	.186	.144	0.042***	.149	.119	0.030***	.123	.107	0.016*
Preferred Stock/Assets	.001	.050	-0.049***	.001	.054	-0.053***	.000	.036	-0.036***	.000	.021	-0.021***
Loans/Assets	.474	.472	0.002	.422	.457	-0.035*	.426	.395	0.031	.364	.332	0.032
Deposits/Assets	.734	.738	-0.004	.807	.800	0.007	.846	.840	0.006	.865	.848	0.017
Cash/Assets	.290	.326	-0.036	.334	.314	0.020	.343	.309	0.034	.341	.339	0.002
Bonds/Assets	.078	.047	0.031**	.109	.088	0.021	.112	.123	-0.011	.156	.151	0.005
Other Real Estate Owned/ Assets	.015	.028	-0.013	.013	.021	-0.008**	.016	.025	-0.009**	.017	.012	0.005
Number of Banks in Each Size Group	78	28		119	62		75	74		32	71	

*These variables are statistically signifigant within a margin of error of 10 percent.
**Margin of error of 5 percent.
***Margin of error of 1 percent.

The comparisons by size groups mostly mirror the results for the entire population of uninsured and insured banks. Within each size group, the uninsured banks had a higher mean capital/asset ratio than the insured banks. The difference in these ratios was both sizeable and statistically significant at the 1 percent level for all but the largest size group. Uninsured banks in all size groups had lower mean preferred stock/asset ratios—results which were significant at the 1 percent level in all cases. As a result, uninsured banks in each size group were much less dependent on RFC investments than their insured counterparts. In only a few cases were the differences in means for the other balance sheet ratios significant. Most notably, uninsured banks in the smallest size group held significantly more bonds in relation to assets than their insured counterparts. Also, uninsured banks in the two middle size groups had significantly lower mean levels of OREO relative to assets. Thus, the size group results provide a similar picture of the uninsured banks being stronger on several key ratios when compared to the insured banks.

Choosing deposit insurance

A more rigorous way to examine which banks were more likely to choose FDIC insurance in 1934 is through a probit regression model using a variety of balance sheet measures and other data to explain whether a state bank has FDIC deposit insurance. The probit model offers the advantage of incorporating a range of factors influencing the deposit insurance choice and assessing which factors are important in this choice.

Under this model, the dependent variable takes on a value of 1 if a bank has insurance and 0 if it does not. The balance sheet measures used to explain the deposit insurance choice include most of those in Table 2: capital/assets, loans/assets, OREO/assets, and deposits/assets. A combined measure of liquid and marketable assets—(cash plus bonds)/deposits—was also used in the model. Other variables included were the log of total assets as a measure of bank size and the age of the bank.[13] To the extent that weaker banks may have a greater need for deposit insurance, the choice to have deposit insurance (dependent variable is 1) might be expected to have a negative relationship with the capital/

Table 4

THE CHOICE OF FDIC INSURANCE ESTIMATED THROUGH A PROBIT MODEL (DEPENDENT VARIABLE IS 1 IF INSURED AND 0 IF UNINSURED)

Variables	Coefficient Estimates
Capital/Assets	-16.634***
Cash plus Bonds/Deposits	-.741
Loans/Assets	-1.315*
OREO/Assets	5.227*
Deposits/Assets	-12.581***
Ln Assets	.228**
Date Bank Established	.000
Log Likelihood (Pseudo R2)	-280.651 (0.240)

*These variables are statistically signifigant within a margin of error of 10 percent.
**Margin of error of 5 percent.
***Margin of error of 1 percent.

assets ratio and with cash and bonds/deposits, a positive relationship with OREO/assets, and several of the other variables are less certain.

According to the regression results, the sounder banks were less likely to choose FDIC insurance. Banks are less likely to choose FDIC insurance if they have higher levels of capital, more lending, greater deposit funding, fewer OREO problems, and tend to be somewhat smaller (Table 4). These results are mostly as expected. Moreover, several of the variables are quite important in terms of their marginal effect on the deposit insurance choice. In particular, a 1-percentage-point increase in the capital-to-asset ratio is associated with a 6.6 percent lower likelihood of choosing deposit insurance.

Other variables are also of interest. Normally, less lending might suggest less risk, but after the banking collapse of the 1930s, the results in Table 4 suggest that it may have been the stronger, less risky, and uninsured banks that were in the best position to continue their lending activities. Banks with higher levels of deposits might also be expected to have the greatest need for deposit insurance instead of less need as found in Table 4. However, banks that achieved higher levels of deposit funding in the aftermath of the banking panic may have been the stronger banks and may have felt that they were doing well in attracting deposits without deposit insurance.[14]

Most of these results thus suggest that FDIC insurance was more appealing and necessary for weaker banks. In general, this outcome could indicate that deposit insurance—like many other types of insurance—poses an adverse selection issue in which the riskiest banks will be the most likely to apply for insurance.

Comparison with choices under the previous state insurance program

Another point of interest is whether the uninsured banks were largely the same banks that declined to join the earlier voluntary state deposit insurance program in Kansas. Did their opposition to FDIC insurance reflect their prior rejection of the Kansas system, or did the failure of the Kansas system lead them to be more cautious about FDIC insurance? To answer this question, the FDIC insurance status of banks in 1934 is compared with that of the same banks under the Kansas deposit insurance program in 1922—one of the years of highest membership. Thirty-six banks with state charters in 1934 were dropped from this comparison because they did not yet exist in 1922, leaving 283 uninsured banks and 220 insured banks from 1934 that were also operating in 1922.

Overall, the uninsured banks in 1934 were somewhat less likely to have participated in the Kansas deposit insurance system in 1922 than the banks that adopted FDIC insurance. Of the 283 banks that were uninsured in 1934, 159 (56 percent) had Kansas deposit insurance in 1922 and 124 did not. Of the 220 insured banks in 1934, 159 (more than 72 percent) were part of the Kansas insurance system in 1922. Thus, the banks that subsequently spurned FDIC insurance were more reluctant to participate in the Kansas system than the FDIC-insured banks, but there was not an overwhelming difference in the participation rates.

Choosing to participate in the Kansas and FDIC insurance systems also may have additional implications. Only the 124 banks that remained uninsured under both systems could be viewed as having a long-standing opposition to deposit insurance that spanned both periods. For the other 159 banks without FDIC insurance that participated in the Kansas system in 1922, their subsequent opposition to FDIC insurance may have been more a result of their earlier experience with a failing system in Kansas. That nearly 28 percent of the FDIC-insured banks were not insured in 1922 suggests that the banking crises of the early 1930s left them with a greater need for deposit insurance.

Table 5

CAPITAL-TO-ASSET RATIOS FOR UNINSURED AND INSURED BANKS

Year	Uninsured Banks	Insured Banks	Difference
1934	15.70%	13.96%	1.74%
1936	13.30%	11.70%	1.60%
1938	15.50%	12.84%	2.66%
1940	15.26%	12.71%	2.55%
1942	11.21%	9.38%	1.83%
1944		Unavailable	
1946		Unavailable	
1948	6.01%	5.64%	0.37%
1950	7.07%	6.47%	0.60%
1952	7.58%	6.87%	0.71%
1954	8.58%	7.38%	1.20%
1956	10.20%	8.17%	2.03%
1958	11.56%	9.04%	2.52%
1960	10.89%	9.50%	1.39%

Notes: These capital-to-asset ratios are the aggregate capital stock (common), surplus and undivided profits held by all banks in the group—either uninsured or insured banks—divided by the total assets held by all banks in the same group. This is in contrast to Tables 2 and 3, in which the ratios are calculated for each of the individual banks and an unweighted average ratio is then calculated across all the banks in the particular group.

Overview of the trends in capital ratios after 1934

A remaining set of questions is whether the differences between uninsured and insured banks continued after 1934 and whether FDIC insurance led to moral hazard problems by enabling and encouraging insured banks to take on greater risk. Detailed answers would require collecting individual bank balance sheet data for uninsured and insured banks from the Reports of the Kansas Bank Commissioner for selected years after 1934. A quicker overview is obtained from the tables in those reports that provide aggregate measures of capital, assets, and other items for both uninsured and insured banks as separate groups.

Table 5 shows capital-to-asset ratios for uninsured and insured banks from 1934 to 1960, constructed from the aggregate measures in the Kansas Bank Commissioner Reports. Although this table is based on aggregate data, and changes in the size distribution of banks could influence the capital trends, uninsured banks clearly continued to maintain higher capital ratios than insured banks throughout the entire period. Moreover, except for the period after World War II in which

Kansas bank capital ratios were particularly low, the capital differences between uninsured and insured banks were often greater than in 1934. These differences in capital generally suggest that deposit insurance was appealing to weaker banks and enabled them to continue operating with much less capital than uninsured banks. The ability of insured banks in Kansas to operate with lower capital levels suggests that moral hazard may have played a role in encouraging these banks to adopt a riskier structure. In contrast, the uninsured banks faced a continuing need to reassure depositors about the banks' sound condition and to maintain capital and other resources sufficient to address any changes in depositor confidence.

III. A SUMMARY OF THE ISSUES SURROUNDING DEPOSIT INSURANCE

This analysis of insured and uninsured banks in Kansas suggests that FDIC insurance was most appealing to weaker banks because it enabled them to compete for deposits on the same basis with stronger institutions. Other studies (Wheelock and Kumbhakar 1995; Grossman 1992) have examined this same issue of adverse selection under deposit insurance and come to similar conclusions. Moreover, these studies and an analysis of capital trends in Kansas banks indicate that deposit insurance can lead to moral hazard problems, which can provide an incentive for banks to take on more risk after they become insured and no longer face the discipline of depositors.

An important question is what implications the Kansas experience with uninsured banks might have for public policy and deposit insurance today. Deposit insurance is now a critical and seemingly permanent piece of the public safety net in the United States. Not only is deposit insurance important in protecting small depositors, but it is also key to maintaining financial stability and public confidence during periods of financial stress. However, as shown by Kansas banks, deposit insurance removes a strong incentive that banks once had to maintain higher capital and exert tight control over risk exposures in order to attract and keep depositors.

To the extent that these incentive issues under deposit insurance remain unresolved, the financial system may become more risky and more vulnerable to crises like the most recent one and the thrift

industry collapse in the 1980s (Barth and others 2006). In the most recent crisis, for instance, a key concern was that deposit insurance and other forms of public protection may have motivated financial institutions to pursue riskier strategies under the assumption that they would not have to bear the full weight of any losses. In the thrift collapse of the 1980s, deposit insurance may have enabled many thrift institutions that were at or near the point of failure to attract new deposits and fund highly speculative gambles for their survival, thus putting taxpayers at greater risk. The Kansas experience, as well as these more recent crises, further indicates that deposit insurance might be leading to a costly misallocation of resources in the financial sector and throughout the economy, since this insurance allows weaker banks with poorer lending records to attract funds just as readily as stronger institutions.[15]

Policymakers and others have suggested a variety of options for dealing with the incentive problems inherent in deposit insurance and which were illustrated among the Kansas banks (Calomiris 1989; O'Driscoll 1990; and Hanc 1999). The most common suggestion is increased banking regulation. Policymakers have pursued numerous reforms since the 1930s in an effort to improve the regulatory framework and put regulators in a better position to protect the interests of insured depositors, who no longer need to play a disciplinary role.

Reflecting what happened in Kansas, many regulatory reforms have focused on efforts to require FDIC-insured banks to hold more capital and constrain the amount of risk they take. Another set of "solutions" is risk-based pricing of deposit insurance, which was mandated for the FDIC in 1991, and risk-based capital standards, which were introduced in the Basel Capital Accord of 1988. Other suggestions have included reducing the amount of deposit insurance coverage that is available to individual depositors, privatizing all or a part of deposit insurance, and introducing coinsurance in which depositors, particularly those with larger accounts, are only partially insured.[16]

Although these reforms attempt to replace depositor discipline or replicate how it works, each has its own drawbacks and unintended consequences. For instance, greater regulation and higher capital requirements largely try to block the ways that insured banks in Kansas and the rest of the United States might respond to the moral hazard incentives inherent in deposit insurance. However, if such incentives still remain operative banks may try to increase their risk exposures through

other means. Attempts by public authorities to price deposit insurance may also fall short, given that these authorities cannot hope to duplicate the full complexity of market pricing and may not identify risks quickly enough to impose appropriate and timely price incentives (Pennacchi 2006). Even more notable, deposit insurance pricing may be a very weak substitute for the pressures that bankers once faced to build a balance sheet that was strong enough to secure the confidence of depositors. A final drawback is that many of these options impose additional costs on the banking system through increased regulatory burdens, limits on how banks can conduct their business, and added supervisory expenses.

The banking collapse of the 1930s and an overview of the issues surrounding FDIC deposit insurance thus suggest that there are no easy solutions to protecting bank depositors. Deposit insurance generally has maintained depositor confidence and prevented a widespread banking collapse like in the 1930s, but deposit insurance still raises a number of issues and is not without serious side effects. The story of Kansas bankers and their choices about FDIC insurance in the 1930s indicate that the incentive issues with deposit insurance are more than hypothetical. The recent financial crisis also shows that policymakers still struggle to find a good solution despite steps taken to tighten regulation and supervision. Consequently, it may be time to re-examine deposit insurance and rethink how far it should be extended and what risks and activities insured banks should have the authority to pursue.

ENDNOTES

[1]For more information on FDIC deposit insurance and its history, see FDIC (1998).

[2]In June 1934, 196 national banks also operated in Kansas and had FDIC insurance from the beginning. These national banks made up 26 percent of the banks in Kansas, but held 58.5 percent of all banking deposits in Kansas.

[3]See FDIC (1934), p.63.

[4]For a discussion of this failure of an uninsured bank and the subsequent steps that were taken, see the 1960 Report of the Bank Commissioner of Kansas.

[5]Each insured bank was charged an assessment fee of 0.5 percent of its deposits eligible for insurance with half to be paid when admitted to FDIC deposit insurance and the remainder upon call by the FDIC. In 1935, the annual assessment rate became one-twelfth of total deposits (less certain adjustments), with the unused portion of a bank's previous assessments to be credited toward the new assessments.

[6]Seven other states had deposit insurance systems during this time, but only two were voluntary like Kansas and their experience differed in several ways from that in Kansas. In one state, nearly all the state banks joined, and in the other voluntary state system, only one large bank failed.

[7]See Wheelock and Kumbhakar (1995) and Wheelock and Wilson (1994) for evidence on the higher failure rates and greater risk taking among the insured state banks in Kansas compared to the uninsured banks.

[8]For a more detailed discussion of the benefits and costs surrounding deposit insurance see Grossman (1992).

[9]Grossman (1992) found that the state chartered thrifts that obtained deposit insurance from the Federal Savings and Loan Insurance Corp. shortly after its inception in 1934 became more risky relative to uninsured thrifts as the length of time they were insured increased. This result is consistent with deposit insurance posing a moral hazard problem and with insured institutions having less depositor discipline and less incentive to control risk taking.

[10]The 1934 Report of the Bank Commissioner of Kansas has two more banks in the list of active state banks in Kansas, but those banks were removed from the analysis because they were undergoing voluntary liquidations and their balance sheets did not reflect a typical bank.

[11]The capital measure used here includes common stock, surplus, and undivided profits.

[12]For more on the double liability effect on bank stockholders and risk taking, see Grossman (2001) and Macey and Miller (1992).

[13]Many of these variables were also used by Wheelock and Kumbhakar (1995) in their analysis of the Kansas voluntary deposit insurance system, and the results in

Table 4 are similar to much of what they found, although the banking environment of the 1930s was typically more adverse than the period of their study.

[14]The results in the probit model for the deposits/asset ratio differ from the results in Table 2, but because the probit analysis also adjusts for a variety of other factors, it likely provides a better picture of how deposit/asset ratios influence a bank's choice of FDIC insurance.

[15]This resource allocation problem under deposit insurance was most apparent in the thrift crisis of the 1980s when problem thrifts took heavy losses on the speculative commercial real estate and development loans they made.

[16]Hanc (1999) provides a discussion of the details, merits, and drawbacks of many of the options for dealing with the moral hazard issues in deposit insurance.

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