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EFFECT OF THE FARM FINANCIAL SITUATION ON RURAL BANKS

Patrick J. Sullivan, Daniel L. Milkove, and James J. Mikesell
Financial Economists, Economic Research Service

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The farm sector is in the midst of a difficult financial and structural transition. Farm-sector returns are depressed and farm real estate values have declined sharply over the last year. Forecasts of market conditions facing U.S. agriculture for the next several years suggest little prospect for improvements in demand for farm products sufficient to justify the high prices paid for farm land in the late 70's. As a result, some farmers who purchased high priced land through debt financing are now experiencing significant financial stress. Furthermore, financial problems of farmers have spread to the agribusiness sector and rural communities generally, both directly through farmers' reduced purchasing power and indirectly through the farm sector's adverse effect on rural lenders.

This paper examines the effect that farm financial problems are having on rural commercial banks and, through banks, on communities serving agricultural areas of the country. Before addressing this issue, we present a brief overview of the farm sector's financial condition, along with its implication for farm lenders generally.

FARM FINANCIAL CONDITIONS

While most farmers are in tolerable financial condition, USDA's January 1985 Farm Cost and Returns Survey indicated that 10 to 12 percent of farm operators were in serious financial stress as measured by the combination of a high debt/asset ratio and a negative cash flow [2]. Developments since January in commodity and land markets suggest that the farm financial situation has worsened. There is little likelihood that many of these farmers can, on their own, solve their current financial problems and remain in farming.

Financial problems in the farm sector reflect an inability to service the existing interest repayment and debt load of the sector from total operator earnings. These problems have been made critical by a fundamental downward adjustment of asset values. Nearly $150 billion in owner's equity was lost through land value depreciation between 1981 and 1985. This reflects a 19 percent nationwide decline in the value of farmland during this four year period. In the Midwest, declines in the average value of farmland approached 50 percent over this period [3]. Recent evidence indicates that land values have continued to fall in some parts of the country, particularly in the Midwest, during 1985. As a result, owner's equity (principally in land) can no longer shield the sector from its inability to repay its debt from current and expected future earnings. Farmer income is often too low to keep loan payments up-to-date and farmer assets are too low to allow debt to be rolled over, forcing an increasing number of farmers to quit farming. 1/

Besides causing an increasing number of farm failures, financial stress in the agricultural sector has also contributed to depressed economies in many rural communities and failures by nonfarm rural businesses. As farmers attempt to cope with lower commodity prices and declining asset values, the financial viability of farm machinery firms and other agricultural input suppliers is threatened. The drop in farm income also affects retailers serving heavily agricultural areas as farm families reduce their discretionary spending. As a result, current problems within the agricultural sector have adversely affected the general rural economy, especially in the Midwest.

FARM LENDER CONDITIONS

Financial problems in the agricultural sector get transmitted eventually to farm lenders. As cash flow problems cause farmers and farm-related businesses to fall behind on loan payments, the quality of lender loan portfolios deteriorates, loan loss reserves have to be increased, and profit margins decline. As agricultural lenders adjust to problems with their farm loans, their portfolio decisions can affect credit availability for the community at large.

The major institutions involved in agricultural lending are the Farm Credit System, the commercial banking system, and the Farmers Home Administration. These three lenders held over two thirds of total farm debt outstanding at the beginning of the year (table 1). Remaining farm debt was held by individuals, life insurance companies, the Commodity Credit Corporation, and other lenders.

The USDA's Farm Cost and Returns Survey (FCRS) is the most reliable source of nationwide data suitable for assessing fundamental problems with each major lender's agricultural loan portfolio. The FCRS surveys farm operators to determine their cash flows and debt burdens, among other characteristics. Based on the most recent survey, farms which produced at least $1,000 worth of agricultural products or spent at least $1,000 for equipment and supplies to produce agricultural products owed $118 billion in farm debt. The remaining $95 billion in farm debt outstanding was presumably owed by very small farming operations, or by nonoperator landlords.

Based on current prices for agricultural products, input costs, and asset values, most farms probably start having difficulties meeting debt commitments at debt/asset ratios of around 0.4 [2, p.5]. Therefore, debt owed by farm operators with negative cash flows (i.e. farm and nonfarm income is insufficient to pay current production expenses, debt repayment, and family living expenses) and with debt/asset ratios of 0.4 or more is considered risky. Of this, debt owed by farm operators with debt/asset ratios of 0.7 or more is considered very risky. Barring some form of government intervention, or unexpected improvements in commodity prices, a sizable portion of the very risky debt is likely to be uncollectable within a year or two.

Table 1 presents FCRS estimates of the amount of each major lender's portfolio that is at risk based on the combination of a negative cash flow and a high debt/asset ratio for farm operators. Roughly 45 percent of the debt owed by farm operators to the Farm Credit System, commercial banks, and other non-FmHA lenders is considered risky. Being the "lender of last resort," over 60 percent of the FmHA's farm operator loan portfolio is at risk. The proportion of each lender's agricultural loan portfolio that is very risky varies from 20 to 40 percent of farm operator debt outstanding. Even assuming that the $95 billion in debt not covered by the FCRS survey is safe, these figures still translate into hefty potential losses for farm lenders.

Heavy losses by any of the major farm lenders can have a detrimental effect on rural communities. The Farm Credit System's (FCS) lending activity is almost exclusively for agricultural purposes. If the FCS continues to experience large loan losses, the interest rates it charges will increase, potential borrowers may be turned away, and financially sound farmers may find less costly sources of credit. The net result could be a reduced level of lending by the FCS, which implies a reduced flow of funds into rural communities. While this could have a profound indirect impact on the rural economy, direct effects would be restricted to the agricultural sector unless the FCS defaults on its own securities. The same can be said of the FmHA's farm lending programs. High loan loss rates might lead Congress either to increase or decrease FmHA's lending authority, but they have little impact on FmHA's current lending decisions. These decisions are important for rural communities, but the direct impact is limited to agriculture.

Of the major lenders, only commercial banks actively serve the credit needs of farm and nonfarm rural businesses alike. Thus, bank operations directly and broadly affect the economy in rural communities. The remainder of this paper looks at the impact financial stress among farmers is having on commercial banks and what this means for rural communities.

AGRICULTURAL BANKS AND FARM FINANCIAL STRESS

Over half of the commercial banks headquartered in rural America are defined as "agricultural banks" by the Federal Reserve Board, meaning they have a higher than average concentration of agricultural loans within their loan portfolios. As a group, rural banks, and even agricultural banks continued to show a strong capital position through the end of 1984. Nonetheless, several signs indicate that the current financial problems being experienced by farmers are having a detrimental effect on some agricultural banks.

Much of the eight-fold increase in the number of annual bank failures since 1981 has been among agricultural lenders. As of October 31, 94 commercial banks have failed in 1985 -- a post depression high; 51 of the failed banks were agricultural. Nonetheless, these numbers are far below the 600 bank

Table 1--Farm debt held by major lenders, January 1985.

Lender	Total farm debt 1/	Farm operator debt 2/		
		Total	Portion considered: Risky 3/	Very risky 4/
	---$Billions---		---Percent---	
Farm Credit System	67.9	41.2	44.7	20.5
Commercial banking system	49.9	33.3	45.0	21.7
Farmers Home Administration	25.7	15.9	63.4	40.0
All others	69.4	27.6	45.7	23.0
Total	212.9	118.0	47.6	24.0

1/ Federal Reserve Board of Governors, Agricultural Finance Databook.
2/ Economic Research Service, Farm Cost and Return Survey.
3/ Debt owed by farm operators with negative cash flows and debt to asset ratios of 0.4 or more.
4/ Debt owed by farm operators with negative cash flows and debt to asset ratios of 0.7 or more.

Table 2--Potentially vulnerable commercial banks and bank failures.

Item	Dec. 1982	June 1983	Dec. 1983	June 1984	Dec. 1984	June 1985
	------Number of Banks------					
Past due and nonperforming loans greater than capital: 1/						
Agricultural banks 2/	94	96	133	195	239	302
Other banks	365	323	320	276	375	387
Total	459	419	453	471	614	689
Bank failures during the preceeding 6 months:						
Agricultural banks	6	2	5	10	22	34
Other banks	14	24	14	33	13	18
Total	20	26	19	43	35	52

1/ Includes loans past due 30 days or more and still accruing interest, nonaccruing loans, and renegotiated loans.
2/ Commercial banks with a ratio of agricultural loans to total loans greater than the unweighted average for all insured commercial banks.
Source: Federal Reserve Board of Governors [1].

failures recorded annually during the 1920's and the failed banks are generally small.

Equally troublesome within a credit availability context is the growing number of agricultural banks experiencing serious financial problems. Between June 30, 1983 and June 30, 1985, the number of agricultural banks at which past due and nonperforming loans exceeded bank capital increased 215 percent. Over the same period, the number of "vulnerable" nonagricultural banks increased by only 20 percent (table 2). A similar trend is evident from the Federal Deposit Insurance Corporation's "problem bank" counts. The FDIC considers a commercial bank to be agricultural if 25 percent or more of its loan portfolio is in agricultural loans. Between January 1, 1984 and September 30, 1985, the number of agricultural banks on the FDIC's "problem bank" list increased by nearly 170 percent, to 390; the rate of increase among other commercial banks over this period was 35 percent, to 617 banks. The FDIC places a bank on its problem list when it determines that substantive corrective action is needed to prevent the bank from failing. Attempts by "problem" agricultural banks to cover bad loans may reduce the availability of credit to existing customers and to new businesses. In areas with a high incidence of problem banks, a lack of local credit may impede future growth.

The extent to which farm financial problems will ultimately affect the overall stability of the commercial banking system is open to question. Agricultural loans and bank holdings of Farm Credit System securities combined amount to only 3 or 4 percent of the banking system's total assets (and most of this is not seriously at risk given current estimates of the number of farms experiencing loan repayment problems). Nonetheless, continuing farm financial stress could seriously affect the banking systems serving several States. The majority of the total volume of commercial bank lending in Iowa, North Dakota, and Nebraska is by agricultural banks (figure 1). Commercial bank credit availability in these and several other States is very sensitive to developments in the agricultural sector.

For many rural businesses, it is credit availability at the local level that matters, not credit conditions at the State or National levels. Deteriorating loan quality would most probably have a detrimental effect on the banking systems serving those local economies highly dependent upon agriculture as a source of income. While many of these communities are located in the Midwest, they are present in other regions of the country as well.

BANKS SERVING AGRICULTURAL COUNTIES

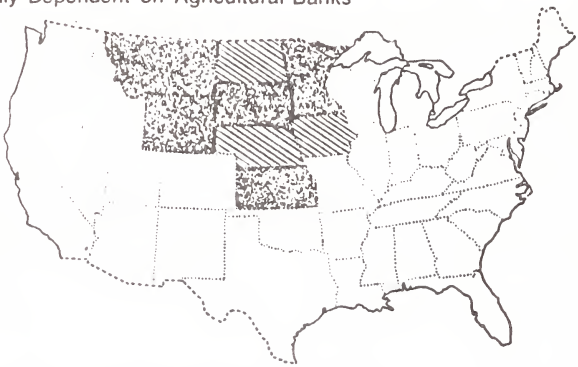
Most of the 1,618 counties in the U.S. with one or more agricultural bank headquarters are served by other banks as well; indeed, many are metropolitan counties with highly competitive, diversified local banking structures. The same cannot be said for many of the 702 agricultural counties in the 48 contiguous States -- nonmetropolitan counties in which 20 percent or more of total labor and proprietory income was derived from farming over the 1975-79 period (figure 2). 2/ These agricultural counties average 3.4 bank headquarters; the average number of bank firms serving agricultural counties (i.e. bank headquarters or the branch(s) of a bank headquartered outside of the county) is 3.9. While these averages are considerably lower than those for metropolitan counties, they are similar to the averages for nonmetro counties as a whole. But averages mask the fact that about 2 percent of agricultural counties have no office of a commercial bank. A further 16 percent of agricultural counties are served by only one bank with an office in the county, and an additional 22 percent rely on only 2 bank firms for their local supply of loanable funds (table 3). Local access to credit could be significantly affected by the current financial condition of agriculture in these counties if a local bank has to adjust its loan portfolio.

A commercial bank can take several steps when it experiences deteriorating quality in its agricultural loan portfolio. If the bank serves an area characterized by a highly diversified economy with unmet loan demand by the nonfarm sector, it can shift its loan activity away from financially strapped farmers toward nonfarm businesses. Banks with branches across the State or banks which are part of a multibank holding company (MBHC) are likely to find it easiest to shift loanable funds away from the agricultural sector. Unit banks, on the other hand, are more likely to face a localized market for their services. The continued viability of a unit bank tends to be tied to the economic viability of local borrowers. If a high percentage of local borrowers are farmers experiencing financial problems, as might be expected in many agricultural counties, unit banks may make every legal effort to continue servicing farm credit needs in spite of their borrowers' cash-flow problems.

Even when the bank has the option of shifting loanable funds away from agriculture and finds this a prudent longer-term strategy, it may not radically alter its loan activity over a short time period. To do so might force those farmers denied credit extensions into bankruptcy, converting problem loans into actual losses. Thus, commercial banks may choose to extend additional credit to farmers experiencing cash-flow problems, allowing them to continue to operate in the hope that the farmer's financial plight will improve enough for him to continue servicing his loan requirements. Such a strategy obviously has its limits and is not without costs. Extending additional credit to risky borrowers reduces the overall quality of a bank's loan portfolio. Bank regulators would require that the bank increase its loan loss reserves. This tends to reduce the bank's ability to service the credit needs of other local borrowers. Thus, in continuing to support financially strapped farmers, commercial banks may have to reduce their loan activity to financially sound farm and nonfarm businesses. Depending upon local market conditions, banks serving agricultural areas of the country may also raise the interest rates and/or collateral required of all their loan customers to recoup the higher costs of serving risky farm borrowers.

To the extent that communities are served by a diversified, competitive bank structure, problems experienced by individual banks will have less of

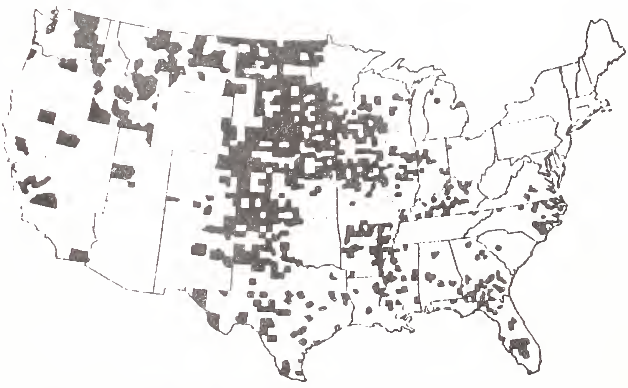
Figure 1:
States Highly Dependent on Agricultural Banks



Agricultural banks account for over 50 percent of total bank loans
Agricultural banks account for 20 to 50 percent of total bank loans

Source: Federal Reserve Board of Governors, Report of Condition and Income, June 1985.

Figure 2:
Farming-Dependent Counties



Note: Delineated by Bernal Green and Peggy Ross, EDD ERS, U.S. Department of Agriculture. Counties are defined as those with 20 percent or more of labor and proprietory income from farming, 1975-79 an impact on local credit availability. The number of banks serving a community is one indicator of the degree of competition among local lenders. However, in agricultural counties, large numbers of banks, all heavily dependent on the economic health of the local farming sector, do not guarantee a stable local supply of credit. Of the 689 agricultural counties served by one or more commercial bank firms, only 32 percent are served by a "nonagricultural bank" that might be more insulated from the financial condition of local farmers. If the nonfarm sector is also affected by the farm sector, the presence of a bank not dependent on agriculture is less likely to provide a continued local source of credit. This seems likely in many agriculturally-dependent communities since financial problems experienced by farmers tend to depress the local economy. 3/ Even nonagricultural lenders are likely to find their deposit base growing only slowly, if at all, and losses on the nonfarm loans they have made to local businesses increasing. The presence of a branch of a large bank, or a bank which is a member of a large multibank holding company would be a better indication that the local banking system could withstand prolonged agricultural stress. 4/ Only 27 percent of agricultural counties have a large bank or a large MBHC bank operating within their borders (table 3). Thus, most agriculturally-dependent counties lack direct service by larger, more diversified financial institutions.

Given the character of the banking systems serving agricultural counties, it is not surprising that agricultural loans make up a high percentage of the total loans made by banks with offices in agricultural counties. The typical bank serving agricultural counties tends to be a small agricultural bank, except in statewide branching States where large regional and money center banks significantly raise the mean size of banks serving agricultural counties. For the average bank serving agricultural counties, 45 percent of loan volume was for agricultural purposes, compared to 11 percent for the average bank with no office in an agricultural county. The relative dominance of agricultural loans is greatest for banks serving agricultural counties in unit banking States, and smallest for banks serving agricultural counties in States which allow statewide bank branching.

For the majority of agricultural counties, heavy involvement in agricultural lending makes the local banking system vulnerable to deteriorating financial conditions in the farm sector. The ability of the local banking systems in unit banking and limited branching States to continue providing credit within agricultural counties may be particularly hampered because of the small size of their banks and the scarcity of larger, more diversified financial institutions.

CURRENT CONDITIONS AND FUTURE PROSPECTS

The depressed farm economy has already taken its toll on many of the banks serving agriculturally-dependent counties. Of the 89 commercial banks that failed prior to October 11, 1985, 26 were headquartered in agricultural

Table 3--Structure of local commercial banking systems, June 1983.

Banking system characteristic	Type of County		
		Nonmetro	
	Metro	Total	Agricultural
	------Percent------		
Number of bank firms: 1/			
None	0	1	2
1 or 2	6	29	37
3 or 4	14	33	28
5 or more	80	36	33
Banking system includes:			
A nonagricultural bank	98	68	33
A large bank 2/	60	23	11
A large MBHC bank 3/	71	34	25
Either a large bank or a large MBHC bank	79	41	27

1/ The number of FDIC-insured commercial banks either headquartered or operating a bank office within the county.
2/ Either the headquarters or a branch office of a bank with total assets of $500 million or more.
3/ An affiliate of a multibank holding company with combined bank assets of $500 million or more.
Source: Calculated from the Summary of Deposits file, Federal Deposit Insurance Corporation and the Report of Condition and Income file, Federal Reserve Board of Governors.

Table 4--The simulated effect of varying loss rates for agricultural loans on the capital position of commercial banks, 1984. 1/

Assumed loss rate on agricultural loans	Primary capital as a percentage of assets			
	Under 2%	2 to 5.5%	5.5 to 8%	8% or more
	------Percent of U.S. Commercial Banks------			
None (Baseline)	0.8	2.5	20.4	76.3
2 percent	1.1	2.8	22.9	73.1
5 percent	1.3	3.6	27.0	68.0
7.5 percent	1.5	5.0	29.7	63.7
10 percent	1.9	7.3	30.9	59.9
25 percent	10.9	14.8	28.9	45.4
	------Percent of Banks in Ag Counties------			
None (Baseline)	0.8	2.7	10.7	85.8
2 percent	1.1	3.5	16.8	78.6
5 percent	1.8	5.6	26.8	65.8
7.5 percent	2.4	10.3	32.0	55.3
10 percent	3.5	17.2	33.8	45.6
25 percent	34.5	28.5	19.1	17.9

1/ Simulation allows estimated bank profits to offset losses on agricultural loans. Primary capital and assets include loan loss reserves. Percentages are based on a total of 14,457 U.S. commercial banks and 2,371 banks headquartered in agricultural counties.
Source: Calculated from the December 31, 1984 Report of Condition and Report of Income file, Federal Reserve Board of Governors.

counties. This amounts to an annual failure rate of nearly 1.5 percent -- more than twice the failure rate for banks headquartered elsewhere. As of June 1985, the percentage of agricultural production loans classified as nonperforming averaged 5.6 percent for banks headquartered in agricultural counties; it was only 3.3 percent for banks headquartered elsewhere. Over 25 percent of banks headquartered in agricultural counties had nonperforming loans in excess of 8 percent of their production loan portfolio. These banks are already having to make adjustments which could curtail their lending activities.

It is difficult to predict, based on publicly available data, which rural banks will be severely affected if financial problems persist in agriculture. The actual losses the commercial banking system could expect to incur, given a fixed level of farm bankruptcies, depend on several factors: the number of troubled farmers with loans from commercial banks, the value of their assets, the number of other creditors involved in the bankruptcy proceedings, and the order of their claims against farm assets. Based on the Farm Cost and Returns Survey, anywhere from 14 to 22 percent of commercial bank loans for agriculture are very risky; 30 to 45 percent of commercial bank agriculture loan portfolios could be considered risky if problems persist in the farm sector. When coupled with the facts that 81 percent of commercial bank agricultural loans are for operating capital (which would normally not have first claim against farm assets) and that farm real estate values and the resale value of used farm equipment continue to decline, it appears likely that commercial banks, particularly those in agricultural areas, may incur substantial losses if farm financial problems persist.

Simulations based on loan portfolios and profit rates at the start of 1985 show that, if commercial banks write-off 10 percent of the value of their agricultural loan portfolio over the course of a year, roughly 2 percent would be placed in imminent danger of failure, with primary capital falling below 2 percent of assets (table 4). Over 9 percent of commercial banks, serving 913 counties (297 of which are agriculturally-dependent counties), would have primary capital falling below 5.5 percent of total assets -- the minimum level established by new guidelines of the Federal Reserve Board. In four States -- Nebraska, Idaho, South Dakota, and Iowa -- more than 20 percent of the commercial banks would have inadequate levels of capital after writing off 10 percent of their farm debt. Among banks headquartered in agricultural counties, 4 percent would be in imminent danger of failure and nearly 21 percent would have inadequate levels of primary capital following a 10 percent farm loan write-off.

While these simulation results are based on a very high write-off rate by historical standards, they may not be unrealistic for some midwestern banks with large loan concentrations in cash grain farming. Furthermore, to the extent that this simulation exercise identifies the number of banks which will have to make adjustments to cover farm loan losses (rather than the number that will fail), it serves its purpose. It is the adjustment of the commercial banking system to the farm sector's financial problems which ultimately affects rural communities.

IMPLICATIONS FOR RURAL CREDIT

While the financial problems being experienced by the Farm Credit System are attracting most of the attention on Capitol Hill and in the popular press, problems faced by agricultural banks are at least as severe. These problems have already resulted in the failure of 51 agricultural banks this year, amid predictions that agricultural bank failures will increase again next year.

While bank failures dramatically portray the problems being experienced by farm lenders, they generally do not have as devastating an impact on local banking services as many fear. While bank failures do impose costs on a community, based on Federal Deposit Insurance Corporation data on insured banks, the majority of failed rural banks are reopened almost immediately under new ownership. 5/ As troublesome from a credit availability point of view is the growth in the number of agricultural banks experiencing serious financial problems. As banks adjust their lending decisions to deal with weaknesses identified by bank regulators, "marginally qualified" borrowers are likely to be denied credit. This may force some farmers into bankruptcy, but it will also reduce credit availability for nonfarm rural businesses, putting rural communities in agricultural areas of the country at a comparative disadvantage in attracting new businesses and holding existing firms. Depending upon the size and structure of the local banking system, this could dampen the growth potential of the local nonfarm economy at a time when off-farm employment may be critical to the ultimate survival of the family-sized farm and to the economic wellbeing of people displaced from agriculture.

Agricultural communities located in unit banking and limited branching States have local banking systems heavily involved in agricultural loans. Furthermore, since the viability of small agricultural banks is tied to the economic vitality of local borrowers, these banks will likely make every effort to service the credit needs of farmers in spite of their cash-flow problems. This may help some farmers who would otherwise be denied credit, but could depress the community's economy if local banks support agriculture at the expense of the nonfarm sector.

Agricultural communities with branches of a large bank or affiliates of a large multibank holding company are likely to find themselves in a different situation. Creditworthy borrowers should continue to have access to credit despite the financial condition of the agricultural sector, but farmers experiencing cash-flow problems may find it more difficult to obtain financing if they have traditionally gone to the branch of a large bank for their credit needs.

NOTES

1/ While reliable information on the number of farmers being forced out of business is unavailable, results of several recent surveys of agricultural lenders and extension agents indicate that the trend is toward more farm failures [4].

2/ These 702 counties are home to approximately one-third of the total number of farmers in the U.S. and accounted for an equal share of agricultural sales in 1982.

3/ As of June 1985, the proportion of nonagricultural loans classified as nonperforming was 3.8 percent for banks headquartered in agriculturally-dependent counties and 2.6 percent for banks headquartered elsewhere.

4/ Of course, bank operating policy is an important factor in determining how helpful "outsider" banks are in stabilizing credit conditions in agriculturally-dependent counties. At this point, we can say that branches of large banks should have the resources available to continue extending credit; we can't say that credit will continue to be extended, however.

5/ A bank failure can threaten uninsured deposits, can cause serious problems for loan customers with past due, nonperforming, and undercollateralized loans, and can alter the availability of credit within a community. Furthermore, in the 10 percent of cases where an assuming bank is not found, a bank failure results in the permanent closure of the bank.

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