

Financing Rural Businesses: What Role for Public Policy?

By Charles Morris and Mark Drabenstott

Many rural states and communities are proposing rural development programs to bolster their lagging economies in the 1990s. One strategy currently advocated by many rural policymakers is to adopt public programs that would make more credit available to rural businesses. Increased public lending, they argue, would offset a general lack of credit in rural areas in the 1980s. State and local government officials often allege that lack of financing is the culprit for anemic rural business activity.

But what role should public policy play in rural credit delivery? To answer this question, it is first necessary to determine why the growth of credit in rural areas has slowed in the 1980s. If rural credit growth has slowed because rural

lenders are less willing to lend, costly government programs to supplement the supply of funds to rural capital markets might be justified. On the other hand, if the slowdown is simply due to weak business conditions, government lending programs would be more difficult to justify. In that case, rural policymakers should concentrate on other programs if they want to improve rural capital formation.

This article finds that the decline in bank loan growth in most rural areas is primarily due to a slowdown in rural business conditions rather than to a reduction in the willingness of rural bankers to lend. The article concludes that, in general, expensive government credit programs should be avoided and public assistance should be channeled to a handful of low-cost programs that overcome a few problems in rural capital markets.

The first section of the article reviews the rural loan programs that have been proposed partly in response to the sharp slowdown of rural lending in the 1980s. The second section

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shows empirically that this slowdown can be blamed largely on weak business conditions in rural areas, rather than on excessive caution by lenders. The third section identifies promising rural policy alternatives aimed at banks, businesses, and venture capital markets.

I. RURAL GOVERNMENT CREDIT PROGRAMS: A POPULAR APPROACH TO RURAL DEVELOPMENT

Public programs designed to provide loans or loan guarantees to rural businesses are being discussed at the federal and state levels. Government credit programs are being advocated on grounds that rural financial markets do not supply the capital that rural businesses need, an argument long made in defense of farm loan programs. Past farm loan programs, however, have proven expensive to taxpayers. Nonetheless, many advocates of rural loan programs justify the expense of new programs by pointing to recent declines in rural lending.

Recent trends in rural lending

Before undertaking an analysis of rural lending, it is useful to put in perspective recent trends in rural financial markets. Reviewing lending patterns at commercial banks provides a summary picture of rural financial flows in recent years.¹ Data on rural banks verify that

¹ A full picture would include data for all major financial institutions. Unfortunately, rural data for some key institutions—thrifts and venture capital firms, in particular—are extremely limited. Thus, this section chronicles recent loan activity at rural commercial banks, for which data are quite complete. An additional justification for emphasizing bank

rural financial markets have changed dramatically in the 1980s. The most significant change is that rural bank loans have grown much more slowly than in the 1970s, and much more slowly than loans at metropolitan banks.

Data on real income and commercial bank loans, assets, and loan-asset ratios for rural counties from 1972 to 1987 are presented in Table 1. The bank data were aggregated for all commercial banks in a county. Counties were then grouped as metropolitan or nonmetropolitan. The nonmetropolitan counties were further grouped according to the economic sector most important to each: manufacturing, mining, farm, retirement, government, mixed, trade, and other.²

As indicated in Table 1, rural bank loans grew slowly in the 1980s. Total loans at rural banks grew an average of 5.3 percent a year in the decade, less than half the average growth in the 1970s. Loans at metropolitan banks, on the other hand, maintained steady growth of nearly 10.0 percent throughout the 1970s and 1980s.

Rural bank lending became much more diverse in the 1980s. Uneven performance in the rural economy translated into wide variation in rural lending. The rural economy in the 1980s was a mix of strength and weakness, in contrast with the more general prosperity of the 1970s (Henry, Drabenstott, and Gibson 1988).

data is that banks have been the primary source of financing for rural businesses in the past.

² The bank data for this and the next section were assembled from commercial bank call reports from 1970 to 1987. The rural county types are the same ones used by Henry, Drabenstott, and Gibson (1988). The county-type framework was first developed by Lloyd Bender and others (1985). The definition of metropolitan counties was updated annually to be consistent with Department of Commerce designations.

TABLE 1
Selected data on commercial banks in rural counties (percent)

County type	Number of counties*	Growth of real personal income		Growth of total loans		Growth of total assets		Loan-asset ratio	
		1972-79	1980-87	1972-79	1980-87	1972-79	1980-87	1972-79	1980-87
Metropolitan	729	3.1	2.6	9.9	9.9	9.7	7.0	52.3	55.5
Nonmetropolitan	2,238	4.3	1.4	12.7	5.3	10.5	6.7	53.9	51.7
Manufacturing	562	3.7	1.3	11.2	6.3	9.2	7.0	55.3	52.9
Mining	161	5.8	-0.5	15.0	4.9	12.7	6.7	50.8	49.3
Farming	555	3.8	0.6	13.8	2.7	11.2	5.9	51.7	48.5
Retirement	203	6.1	3.5	14.4	8.8	12.2	8.9	53.8	54.5
Government	214	4.1	2.4	12.0	6.7	9.8	7.1	54.2	53.3
Mixed	104	4.1	1.4	13.2	5.3	10.9	6.9	53.9	50.9
Trade	362	4.2	1.0	12.9	3.8	10.7	5.8	53.9	51.4
Other	77	5.3	1.0	15.5	4.2	12.9	6.4	54.8	52.2

*The total number of counties differs from that in Henry, Drabenstott, and Gibson 1988 primarily because there are no banks in some counties.

Note: Growth of real personal income is calculated using annual averages. The growth of total loans, the growth of total assets, and the loan-asset ratio are calculated using end-of-year data from the bank call and income reports.

Sources: Board of Governors of the Federal Reserve System (bank data); U.S. Department of Commerce, Bureau of Economic Analysis (income data); U.S. Department of Agriculture, Economic Research Service (county types).

Real incomes in rural areas grew an average of 1.4 percent a year in the 1980s, while the rate of growth has ranged from -0.5 percent in mining counties to 3.5 percent in retirement counties. Correspondingly, rural loan growth varied widely in the 1980s, depending on county type. Loan growth in rural counties ranged from 2.7 percent in farm counties to 8.8 percent in retirement counties, a sharp contrast with the 1970s when bank loans in every type of rural county grew faster than at urban banks.

Rural bank assets increased faster than rural bank loans in the 1980s. Assets increased at an average annual rate of 6.7 percent in the 1980s, just less than the 7.0 percent rate for urban banks and a rate well above rural loan growth. Given the persistently weak rural

economy throughout the 1980s, it is surprising that rural banks maintained such a solid rate of growth in assets. A more competitive environment for rural deposits, the result of deregulation, may explain the asset growth. Obviously, as rural bank assets outpaced rural loans, loan-asset ratios fell at rural banks in the 1980s. Loan-asset ratios at metropolitan banks, meanwhile, increased in the 1980s.

Overall, rural financial activity in the 1980s reflected the slowdown in the rural economy. The lending activity of the 1970s proved as unsustainable as the lofty rural incomes of the 1970s. Rural lending in the 1980s became quite variable, with the steady growth of lending in retirement counties far ahead of that in farm and other more traditional rural counties.

Proposed government credit programs

Government credit programs are at the heart of a bill being debated in the U.S. Senate (S1036), the first major attempt by Congress in several years to address rural development issues. The proposed Rural Partnerships Act of 1989 has two key loan provisions. First, \$300 million would be given over the next four years to rural development agencies that lend to rural businesses.³ Second, the bill would create a Rural Capital Access Program in the Department of Agriculture. That program would spend \$165 million over the next four years to provide guarantees on certain rural business loans. Both provisions are aimed at making more loans available to rural businesses, though neither would involve direct loans from the federal government to rural businesses.

Government credit programs to spur rural development are also popular in many state legislatures. Policymakers in rural states believe that federal programs may have limited scope due to federal budget constraints; thus states are considering further loan programs of their own. Already, 26 states have direct loan programs for small businesses, and 14 states have

loan guarantee programs (National Association of State Development Agencies 1986). In most cases, these programs are open to rural and urban businesses alike. Many rural states, therefore, are considering new programs or changes to existing programs to channel more funds to rural businesses.

The reasons for implementing new government credit programs are vague. Senate bill S1036, for example, gives the following as motivation for one of its loan provisions: "Access to capital is critical to rural areas to enable such areas to develop a diversified economic base, create jobs, and re-enter the economic mainstream of the nation." Though not stated explicitly, the general argument appears to be that rural credit is scarce and that more rural economic activity is desired; therefore the government should make more rural credit available.

Two reasons for government credit programs might be put forth. First, some might argue that imperfections in rural financial markets impede credit flows to rural borrowers. But financial market developments in the 1980s appear to have corrected many imperfections of the past (Eisenbeis 1987). Advancing technology, financial innovation, and deregulation have broken down many rural financial market imperfections. Rural savers, for example, now have access to a wide array of financial instruments, while rural borrowers have access to a greater number of credit sources. As a result of the greater competition for deposits and loans, rural interest rates now more closely match trends in national interest rates. Farm loan interest rates, for example, respond more quickly to changes in national money market rates and generally track those rates more closely than they once did.

³ The federal dollars would be under the control of a newly created Rural Partnerships Investment Board. That board would capitalize local rural development agencies that provide loans or loan guarantees to rural businesses. The agencies could be a state economic development agency, private nonprofit development organization, or a local economic development governing body. Under the proposed legislation, federal funds would match funds invested by participating banks or other financial institutions. In short, federal funds would serve as the seed capital for agencies that operate revolving loan funds.

Second, some proponents of government credit programs may also suggest that a downturn in the rural economy in the 1980s has left many rural lenders overly cautious, thus reducing the supply of credit to rural businesses. Indeed, recent data verify that rural bank lending did slow in the 1980s. But the critical question to be addressed in the next section is whether the slowdown was the result of reduced supply or weaker demand.

Current proposals for greater public involvement in rural lending are in keeping with a long history of government intervention in rural credit markets. For decades, farmers have argued that rural credit is too scarce. In response, the federal government and some state governments created public institutions to make more credit available to farmers. The Farmers Home Administration (FmHA) and the Farm Credit System are notable examples.

One basic lesson from these government farm loan programs is that they can become

very expensive. Loan delinquencies in the FmHA farm loan program, for example, currently top \$10 billion, about 40 percent of the loans outstanding. While some special factors have led to the FmHA problem, the fact remains that public loan programs can lead to considerable direct cost to taxpayers.

For these reasons, new government credit programs need to be evaluated carefully. The size of the proposed federal program is small relative to current farm loan programs. Nevertheless, rural loan programs, like farm loan programs before them, could become much larger once enacted.

II. AN ANALYSIS OF THE SLOWDOWN IN RURAL BANK LENDING

Rural policymakers may point to the slowdown in rural bank lending in the 1980s as grounds for adopting new programs to make

A reduced-form model of loan growth

$$\begin{aligned}
 \text{LOAN}_{i,t} = & \alpha_i + \sum_{s=0}^2 \beta_{1,s} \text{POP}_{i,t-s} + \sum_{s=0}^2 \beta_{2,s} \text{RPI}_{i,t-s} + \\
 & \sum_{s=0}^2 \beta_{3,s} \text{INF}_{t-s} + \sum_{s=0}^2 \beta_{4,s} \text{TBILL}_{t-s} + \epsilon_{i,t}
 \end{aligned}$$

Definitions:

- LOAN_{i,t} = the growth rate of total loans in county *i* at time *t*
- α_{*i*} = the constant term for county *i*
- POP_{i,t} = the growth rate of population in county *i* at time *t*
- RPI_{i,t} = the growth rate of real personal income in county *i* at time *t*
- INF_{*t*} = the inflation rate measured by the personal consumption expenditures implicit price deflator at time *t*
- TBILL_{*t*} = the change in the 3-month Treasury bill rate at time *t*
- ε_{*i,t*} = the residual that represents the growth of loans purged of the economic factors

more financing available to rural businesses. But before new government credit programs can be justified, a fundamental question must be answered. Has rural bank lending slowed because rural lenders have become overly cautious and are less willing to lend, or has lending slowed because weak business conditions and demographic trends have reduced the demand for loans in rural areas?

Reasons for the lending slowdown

Are rural lenders less willing to lend? One way to answer this question is to estimate the extent to which factors that affect the willingness to lend have caused rural loan growth to decline in the 1980s. But measuring some of these factors, such as the riskiness of loans, is difficult. Therefore, the effect of such factors on loan growth must be measured indirectly.

The willingness of lenders to lend can be measured indirectly by purging the growth in loans of business cycle and demographic factors that affect the demand for loans.⁴ If loan growth net of these factors—net loan growth—is constant over time, the evidence would not support the hypothesis that rural lenders are less

⁴ Net loan growth rates for the different types of counties are calculated using the following procedure. First, a single regression equation is used to estimate the contribution of factors that affect loan demand in each of the eight county types. Second, subtracting the contribution of these factors from total loan growth purges each county's loan growth of the effect of demand factors. That is, the growth of loans net of these factors is simply the residual from the estimated regression. Third, net loan growth for each county type in a given year is calculated by taking a weighted average of the purged loan growth rates across all counties of that type for that year. Finally, the weighted-average rates for net loan growth are examined for systematic patterns over time.

willing to lend. Rather, the evidence would support the hypothesis that the decline in rural loan growth is due to slower growth in the demand for loans caused by adverse business conditions and demographic factors. On the other hand, if net loan growth declines over time, the evidence would support the hypothesis that slower loan growth is due to other factors, such as reduced willingness to lend, that have not been purged from loan growth.

If rural lenders are less willing to lend, of course, this methodology cannot be used to determine why they are supplying fewer loans. Lenders may be overly cautious, for example. On the other hand, lenders may be less willing to lend for valid economic reasons. For example, if the economic environment is riskier in the 1980s than it was in the 1970s, less lending would be a rational response on the part of rural banks.

Statistical methods can be used to estimate the effects of business conditions and demographic factors on the demand for loans. The accompanying box shows the equation used to estimate loan demand. (Of course, the equation is a reduced form, not a structural demand equation. Nevertheless, for expositional convenience, the equation will be referred to as a demand equation.) The variables on the right side of the equation are economic factors that affect loan growth. These factors are population growth, real income growth, inflation, and the change in interest rates.⁵

⁵ Of course, interest rates are not solely demand factors. Changes in interest rates cause the quantity of loans demanded to change along the demand curve and the quantity of loans supplied to change along the supply curve. For expositional convenience, however, the term "demand factors" will be used to refer to interest rates and the factors that affect

Increases in population growth or income growth should lead to an increase in the growth of loan demand. An increase in population causes the demand for goods and services to rise. As a result, when population growth rises, businesses expand to meet current and expected increases in demand. To do this, businesses increase their borrowing. For similar reasons, increases in real income growth should also lead to an increase in the growth of loan demand. To capture the effects of growth in population and income, current and past population growth and income growth are included in the regression.

Since loan growth is expressed in nominal terms, the growth in loan demand should rise with inflation.⁶ The equation includes past

demand.

The reduced-form equation in the box includes the contemporaneous value and two lags of each of the demand factors. The lag lengths were not derived from the explicit model of loan demand. However, because the purpose of the model is to predict loan growth and not to make inferences about the parameters of a structural demand equation, including extra lags should not affect the qualitative results of this article.

The growth in loans was calculated using end-of-year values from December bank call reports. The growth in population, the growth in real income, inflation, and the change in interest rates were calculated using annual averages.

⁶ Nominal loan growth is used as the dependent variable instead of real loan growth because real loan growth is difficult to measure. The reason is that the appropriate price deflator for constructing real loan growth depends on the type of loan. For example, using the overall price level to deflate a portfolio consisting primarily of real estate loans could overstate the growth of real loans. Because the overall price level is used to calculate inflation in the regression, there is no reason to expect the coefficients on inflation to sum to one. Using the overall price level to calculate real loans, in contrast, would impose the constraint that the coefficients on inflation sum to one.

inflation to account for any delayed response of loan growth to inflation.

Increases in interest rates, on the other hand, should lead to a decrease in the quantity of loans demanded. Because the level of loans depends on the level of interest rates, the growth of loans depends on the change in interest rates.⁷ Past changes in interest rates are included in the equation to account for any delayed response of loan growth to changes in interest rates.

The model shown in the box fits the data fairly well.⁸ The explanatory power is typical of regression equations using data that vary both across economic units, such as counties, and over time. The percentage of variation in loan demand explained by the model, as measured by the R²s, ranges from 0.148 in manufacturing counties to 0.241 in farming counties. Overall, the relatively good fit suggests that the

⁷ At the national level, interest rates are endogenous and determined by the demand for and supply of loans. At the county level, however, borrowers and lenders are price-takers who must accept the interest rate determined in the national marketplace. Thus, interest rates can be treated as exogenous with respect to loan demand in the estimated equation, and regressing loan growth on the change in interest rates should not bias the results.

⁸ Time-series cross-section methods can be used to estimate the model because a time series is available for each county. A regression was run for each county type to allow the slope coefficients to differ across county types. To account for county-specific factors, the intercept was also allowed to differ across each individual county. Because there is no reason to expect county-specific effects to be independent and identically distributed random variables, a fixed effects model was estimated instead of a variance components model (Mundlak 1978). Thus, county-specific effects were accounted for by including a dummy variable for every county. The estimated coefficients are in the appendix. All of the sums of coefficients have the signs that would be expected from a simple model of loan growth in small rural credit markets.

model is reasonable for estimating net loan growth.⁹

Charts 1 through 4 show actual loan growth and the growth of loans net of demand factors for manufacturing, retirement, mining, and farming counties. Loan growth net of demand factors is simply actual loan growth less loan growth due to demand factors—that is, loan growth predicted from the regression equations. In other words, net loan growth is the residual loan growth—actual less predicted—not explained by the regression. For each county type, net loan growth in each year is a weighted average of net loan growth across all counties of that type, where the weights are the county's lagged share of total loans.¹⁰

The four county types shown in the charts were chosen because of their special place among rural counties. Manufacturing counties account for the largest share of rural income, retirement counties have been the strongest performers since the early 1970s, mining counties are relatively important to the Tenth District economy, and farming counties are the traditional rural county.

In three of the four principal county types, the decline in actual loan growth is mostly the result of declining loan demand rather than a reduced willingness to lend on the part of commercial banks. There is no downward trend in net loan growth in manufacturing, retire-

⁹ Further evidence that the model fits fairly well appears in Chart 1, where the residuals from the regression equations are shown to be small relative to the dependent variables.

¹⁰ The residual growth rates in each chart do not sum to zero because they are weighted averages of the residuals. The simple average residuals do sum to zero, as they would in any other ordinary least squares regression.

ment, or mining counties. In manufacturing counties, actual loan growth fell 4.9 percentage points from 1972-79 to 1980-87, while net loan growth fell only 0.9 percentage points. In retirement counties, actual loan growth fell 5.6 percentage points, while net loan growth fell only 1.7 percentage points. In mining counties, actual loan growth fell 10.1 percentage points, while net loan growth fell just 2.3 percentage points.¹¹

In farming counties, however, the downward trend in net loan growth is slightly larger. For example, net loan growth is positive in seven of the eight years in the 1970s, while net loan growth is negative in six of the eight years in the 1980s. As a result, from 1972-79 to 1980-87, net loan growth in farming counties fell 5.2 percentage points.¹² Actual loan growth, however, fell 11.1 percentage points

¹¹ A dummy variable equal to 0 from 1972 to 1979 and 1 from 1980 to 1987 was added to the regression equation to determine the significance of the slowdown in net loan growth from 1972-79 to 1980-87. The dummy variable represents the effect of other factors, such as the willingness to lend, on loan growth. The coefficient on the dummy was negative and statistically significant at the 0.01 percent level for all three county types. The high significance level is not surprising, however, because each equation has a large number of observations. More importantly, the dummy variable adds little to the explanatory power of the regression. The dummy variable causes the R^2 to increase 0.008 (5.4 percent) in the manufacturing equation, 0.007 (3.1 percent) in the retirement equation, and 0.012 (5.3 percent) in the mining equation. Thus, demand factors explain a significantly larger share of loan growth than do other factors, such as the willingness to supply loans.

¹² The coefficient on the dummy variable (see footnote 11) is statistically significant at the 0.01 percent level as expected. Of the eight county types, the relative importance of factors other than demand factors is largest in farming counties. The dummy increases the farming county equation R^2 by 0.054 (22.4 percent).

CHART 1
Loan growth in manufacturing counties

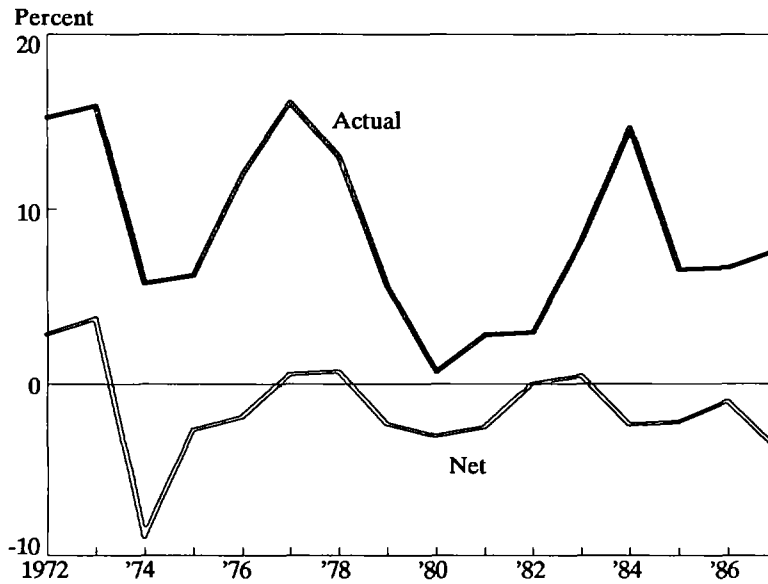


CHART 2
Loan growth in retirement counties

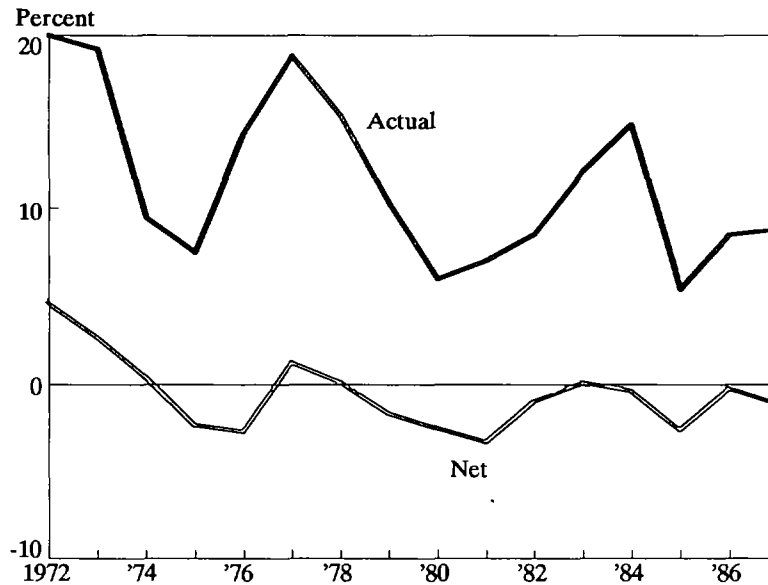


CHART 3
Loan growth in mining counties

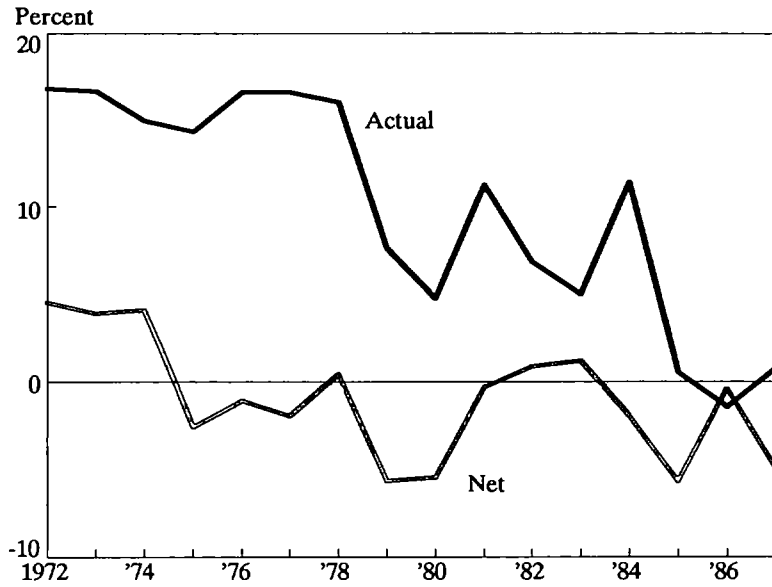
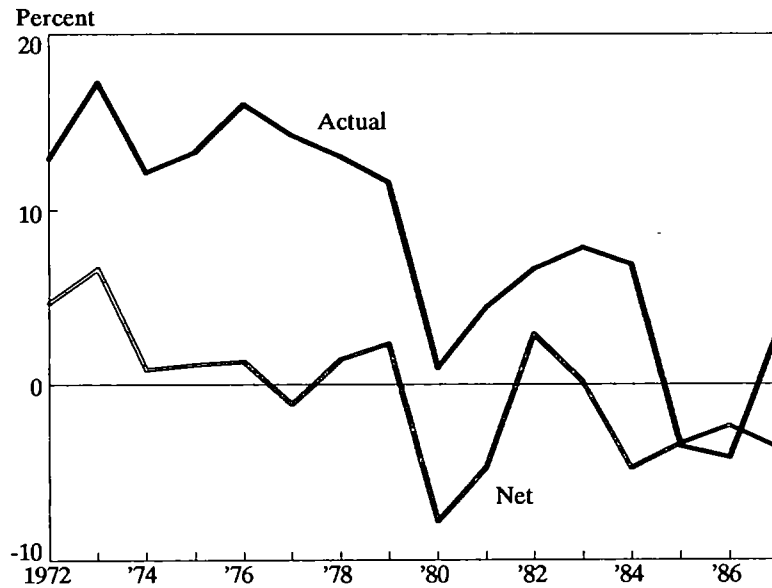


CHART 4
Loan growth in farming counties



over that period. Thus, factors other than demand factors appear to be a more important source of slowing loan growth in farming counties than in manufacturing, retirement, or mining counties.¹³ Nevertheless, more than half of the decline in farming county loan growth is explained by demand factors.

Overall, the evidence suggests that weak business conditions and changing demographics explain most of the decline in rural lending in recent years. Table 2 shows the percentage of the decline in average loan growth from 1972-79 to 1980-87 that is explained by demand factors. For six of the eight county types, demand factors explain more than half of the decline in loan growth. Other factors are the primary cause of slowing loan growth in only one county type—government counties.¹⁴ Thus, empirical evidence suggests that rural lending has declined largely because rural economies have slowed sharply in the 1980s, not because rural bankers have turned their backs on their local communities.

Implications for proposed government credit programs

Empirical evidence on rural lending in the 1980s offers little support for new government credit programs to supplement the supply of credit to rural markets. Overall, the analysis reveals no general pattern of banks withdraw-

¹³ Other factors include economic and noneconomic effects. Thus, part of the decline in net loan growth in farm counties may be the result of a rational response on the part of lenders to economic factors, such as a riskier farm economy.

¹⁴ As in farm counties, when other factors appear to explain a large part of the decline in loan growth, the effects of economic factors, such as risk, cannot be separated from the noneconomic factors.

TABLE 2
Decomposition of growth in loans

Nonmetropolitan county type	Percentage of the decline in loan growth explained by:*	
	Demand factors	Other factors
Manufacturing	82	18
Mining	77	23
Farming	53	47
Retirement	70	30
Government	17	83
Mixed	48	52
Trade	60	40
Other	65	35

*The decline in each component of loan growth is the decline in the average growth rate from 1972-79 to 1980-87.

ing from rural lending. The variation in rural lending across rural counties is largely the result of variation in the demand for credit. Loan growth is fairly rapid in rural counties with strong economies, such as retirement counties, while loan growth is much slower in lagging counties, notably farm counties. Such evidence confirms that rural financial markets work: capital flows to areas of strongest demand.

These results point to the conclusion that rural development may depend on the overall rural business climate more than on the availability of rural credit. The rural business slowdown of the 1980s appears to have been caused by basic economic forces.

In three principal rural county types—manufacturing, retirement, and mining—new rural credit programs do not appear justified. In farm counties, the evidence is mixed. But even there, the lending slowdown of the 1980s

could be a rational response to a more risky farm economy. Thus, further evidence is needed to justify new government credit programs for these counties.

III. RURAL FINANCIAL MARKET POLICY ALTERNATIVES

In light of the finding that lending patterns in most rural areas are largely consistent with demand factors and that there is little justification for broad-based government credit programs, what role remains for public policy in rural financial markets? Rural capital market programs are promising alternatives to government credit programs. These programs aim to improve rural financial flows by overcoming some unique rural capital market imperfections that still exist. Moreover, the programs are less costly than credit programs and would close some remaining financial market gaps while generally allowing overall economic trends to continue. Under this policy approach, three areas appear to be most promising: secondary markets, technical assistance, and venture capital markets.¹⁵

Secondary markets

Secondary markets for rural business loans may be an attractive way of increasing rural capital formation while allowing market forces

to operate. Secondary markets for rural business loans would allow commercial banks and other rural financial institutions to reduce the credit risk from expanding their lending into new business lines. The bank could initiate and service loans, while the credit risk would be borne by investors who purchased the packaged securities.

How such rural loan secondary markets could be formed is unclear. Farmer Mac, created by the Agricultural Credit Act of 1987, will provide a good experiment on the overall success of secondary markets in rural America. It seems unlikely that rural business loans could be securitized if Farmer Mac fails to attract sufficient business. Governors in rural states might take the lead in promoting a new secondary market for rural loans. Such markets would do more to help rural lending than many state-sponsored direct loan programs, and at a fraction of the cost. To be successful, a secondary market for rural business loans would need wide geographic diversification and common underwriting standards.

Technical assistance programs

Technical assistance programs serve a simple purpose: to supply the missing technical or management skills new businesses need to succeed. As rural communities try to diversify into new industries, two potential problems arise. The local bank may have little experience with the new business, or the owner of the firm may have a sound business plan but lack complete technical expertise. Because the community bank plays a leadership role in financing new businesses, technical assistance programs that work through bankers may defuse both problems.

¹⁵ The policy alternatives discussed in this section do not exhaust the options currently receiving attention by policy-makers. They were selected because they appear to hold significant promise of success while being relatively inexpensive to implement. For a more complete discussion of policy choices, see Markley 1988.

Several technical assistance programs are emerging. The federal government provides small business assistance through Small Business Development Centers, administered by the Small Business Association in each state. State bankers' associations are beginning to view technical assistance as an important and possibly necessary tool to encourage local development.¹⁶ The Cooperative Extension Service is reevaluating its role in assisting rural businesses and likely will initiate more business development programs, possibly emphasizing leadership development.

With so many possible providers of technical assistance, state governments can play a useful role in coordinating the programs. Public-private partnership could be especially effective in coordinating assistance. Minnesota, for example, has chartered the Greater Minnesota Corporation to encourage applied research and technology transfer for rural areas and to coordinate start-up and operating financing for new rural businesses.¹⁷

Even though technical assistance programs address a common need of rural businesses, they have generally not received much funding from rural policymakers. The Senate rural development bill, for example, would spend \$15 million for technical assistance, compared with a combined \$465 million on two key loan

programs. Researchers have not verified it, but technical assistance programs probably pay big dividends. The cost of the programs is relatively low, yet in many cases they may be the difference between the success or failure of rural businesses.

Venture capital programs

Many observers consider venture capital programs a key element in the future of rural development policy. While debt markets are generally efficient in rural America, equity markets, and especially venture capital markets, are much less developed. Recent studies suggest that rural businesses generally find sufficient debt financing, but equity funds are sometimes lacking (Popovich and Buss 1987 and Combs, Pulver, and Shaffer 1983). Unfortunately, data on rural venture capital are extremely limited.

The private sector may provide more venture capital to rural America in the future, but public initiatives, possibly in partnership with the private sector, may be critical to the initial development of a well-functioning rural venture capital market. As with government lending programs, much of the impetus for that development will probably rest with state governments.

Several states already have venture capital programs of one type or another. Only one is aimed specifically at rural businesses.¹⁸ The one

¹⁶ The Minnesota Bankers Association, for example, has established the Enterprise Network, a clearinghouse for economic development information. Banking associations in other states are exploring similar programs.

¹⁷ The Greater Minnesota Corporation was publicly chartered in 1987 with \$106 million of state funds. Over time, the founders hope that more of the operating funds will derive from fees and profits derived from new business ventures in the state.

¹⁸ At least ten states have venture capital programs that were started with state appropriations or were made possible through special tax concessions. The ten states are: Connecticut, Indiana, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, New York, and Wisconsin (National Association of State Development Agencies 1986).

exception is the previously mentioned Greater Minnesota Corporation, which has a strong rural orientation. The Kansas program, Kansas Venture Capital Inc., represents a partnership between the public and private sectors. The corporation was chartered with matching \$10 million funds from the state and Kansas bankers, including many rural banks. Permanent operating funds are expected to be generated by the corporation's ongoing profits.

The success of these state programs is currently difficult to assess. Most of the programs were started only recently, and results are limited. The relatively long-running program in Massachusetts (Massachusetts Community Development Finance Corporation) has been quite successful in spurring business activity in depressed parts of the state. Overall, state efforts to increase venture capital have had some success, but little of the improvement has occurred in rural areas.

States have two choices if they want to increase rural venture capital. They can devise new state-funded programs aimed specifically at rural businesses. Teaming with private investors or banks, as in Kansas, would reduce the initial capitalization and the ongoing risk. Or, they can offer tax concessions to encourage private funds for rural venture capital. Indiana has followed this approach with its general venture capital corporation. In either case, the programs should be available to businesses in all industries, since rural development experts agree that diversification will be an important ingredient in spurring rural business activity.

Summary

Rural capital market programs are promising alternatives to costly government credit pro-

grams. New secondary markets for rural business loans, better technical assistance for rural businesses, and more fully developed rural venture capital markets all would improve the flow of financial services to rural areas. The government would be a catalyst for innovation, but the initiative would be in partnership with the private sector. Thus, the cost to taxpayers would be limited.

Another advantage of the rural capital market programs is that they work with, not against, current rural economic forces. The underlying premise of government credit programs is that rural economic decline should be reversed, and more government loans will achieve that goal. The problem is that the United States currently has no rural economic policy that identifies the public's objective for economic activity in rural areas (Drabenstott, Henry, Gibson 1987). In the absence of such policy, programs that run counter to fundamental economic trends, like government credit programs, are especially difficult to justify. Rural capital market programs, which improve rural financial services but allow economic forces to operate, can be justified on their own merit.

IV. CONCLUSIONS

Rural financial markets have changed significantly in the 1980s. Lending by commercial banks in rural areas has slowed dramatically. Partly in response to the lending slowdown, federal and state policymakers are considering a number of new government credit programs to make more loans available to rural businesses.

Government's role in rural credit programs in the 1990s appears limited, however. While rural bank lending has slowed in the 1980s,

empirical analysis suggests the slowdown has resulted mainly from weak business conditions and changing demographics rather than from less willingness to lend on the part of rural banks. Thus, the critical determinant of rural financial activity in the 1990s will probably be the demand for funds.

Although justification for government credit programs may be limited, three other policy options may spur rural economic activity, and at much less cost. These options would

overcome a few problems in rural capital markets. Improving secondary markets for business loans would allow rural financial institutions to manage the credit risk of lending to new types of rural businesses. Technical assistance programs would supply the missing technical and financial expertise necessary for new businesses to succeed. And more fully developed rural venture capital markets would allow rural businesses to better manage their financial needs.

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Appendix
Estimates of reduced-form model of loan growth

<u>Nonmetropolitan county type</u>	<u>Sum of coefficients on:</u>				<u>R²</u>
	<u>Growth in population</u>	<u>Growth in real personal income</u>	<u>Inflation</u>	<u>Change in 3-month Treasury bill rate</u>	
Manufacturing	0.983 (4.10)	0.916 (9.16)	2.322 (10.53)	-4.945 (11.91)	0.148
Mining	0.262 (1.44)	0.827 (9.01)	3.735 (10.20)	-6.582 (9.68)	0.226
Farming	0.903 (7.24)	0.458 (15.67)	5.289 (30.40)	-7.367 (22.90)	0.241
Retirement	0.300 (1.18)	1.408 (9.80)	2.348 (7.00)	-3.287 (5.18)	0.228
Government	0.337 (1.68)	0.664 (6.62)	2.000 (6.37)	-4.107 (6.88)	0.190
Mixed	1.040 (4.80)	0.392 (5.96)	3.351 (8.28)	-5.680 (7.44)	0.171
Trade	0.893 (5.00)	0.672 (11.80)	3.966 (19.17)	-6.005 (15.45)	0.179
Other	1.153 (3.06)	1.024 (5.48)	3.325 (5.81)	-4.849 (4.52)	0.228

Note: Absolute value of t-statistic is in parentheses. Except for the coefficient on the growth in population in mining, retirement, and government counties, the marginal significance level of all coefficients is less than 1 percent. The coefficient on the growth in population has a marginal significance level of 15 percent in mining counties, 24 percent in retirement counties, and 9 percent in government counties.