

Rural Financial Market Performance

Two major commercial lenders on which Congress requested information—the commercial banking system and the Farm Credit System—are in sound financial shape and have access to an ample supply of loanable funds to meet the commercial credit needs of qualified rural borrowers. But not all creditworthy borrowers have equal access to these two types of institutions. Furthermore, local financial market conditions can affect the willingness of these and other lenders to allocate credit efficiently. As discussed in the previous section, rural communities typically have far fewer lenders than urban communities, and financial market segmentation further reduces competition among existing lenders. As a result, it seems likely that some borrowers in some communities may face higher credit costs or credit availability constraints unrelated to their creditworthiness.

But are broad classes of rural borrowers seriously disadvantaged in their access to competitively priced credit? The Congressional mandate for this study requested a report on credit market conditions in rural areas for agriculture, housing, and rural development. Each of these sectors faces a different set of potential lenders and, therefore, could have very different credit market experiences. Appendix B contains detailed analyses of financial market conditions and performance facing each of these sectors, with the rural business sector considered separately from other development finance. This chapter summarizes the research and statistical evidence on the performance of rural financial markets with respect to these economic sectors.

In general, limited evidence precludes strong conclusions about rural financial market performance. Sufficient information is not available to gauge whether credit is as readily available in rural as in urban markets, but comparisons of average interest rates paid by rural and urban borrowers suggest that differences in borrowing costs are minor. On average, rural borrowers who successfully obtain credit generally pay interest rates comparable to those paid by urban borrowers, based on the limited data available to support such comparisons. Nonetheless, financial markets serving agriculture and rural housing, business, and community development are segmented by geographic location, loan riskiness, and loan terms including size, term to

maturity, collateral, and purpose. As a result, overall averages can mask significant disparities among individual borrowers and communities.

Cost of Rural and Urban Credit

Since relatively little hard evidence exists on rural borrower access to credit, measures of credit market performance rely heavily on comparisons of the cost of credit. However, comparing simple averages of interest rates on rural and urban loans can be misleading for a number of reasons (see box). The interest rate comparisons presented in appendix B, and in the literature cited here, attempt to adjust for some of the factors that can distort such comparisons, but sufficient information simply is not available to precisely measure the risk-adjusted cost of credit in either rural or urban markets. As a result, the evidence presented here is merely suggestive of the relative performance of rural and urban credit markets.

The fact that bank deposits (the most widely used measure of bank market concentration) are far more concentrated in typical rural than in urban financial markets suggests that inefficient market behavior is more easily perpetuated in rural settings, but it is not proof that rural credit markets are inefficient. However, if average risk-adjusted effective interest rates on rural loans are significantly higher than they are on similar urban loans, that would provide strong evidence that widespread rural credit market problems exist.¹⁶

Appendix B includes comparisons of average interest rates on rural and urban SBA Section 7(a) guaranteed small business loans and home mortgages originated during 1995, controlling for as many cost-related factors as the data support. In neither case did average interest rates differ greatly. SBA-guaranteed small business loans appear to be slightly less expensive in rural than in urban areas. While this result is somewhat surprising, it may be a function of the way the Section 7(a) program is used by rural and urban lenders. Earlier research based on the Federal Reserve Board's National Survey of Small Business Finance found rural and urban interest rates virtually identical for similar types of loans, with few significant differences in loan terms apparent on the typical rural and urban small business loan. In addition, preliminary

¹⁶ Minor differences in risk-adjusted interest rates are possible even in efficient markets because of variations in loan transaction costs.

Factors Affecting Interest Rate Comparisons

While interest charges constitute a major part of the total cost of borrowing, other fees and loan requirements also need to be taken into account (see “Data Limitations Impair Credit Cost Comparisons” in appendix B.). The relative importance of noninterest fees tends to increase as loan size declines, distorting cost comparisons between portfolios of various sized loans.

The cost per dollar borrowed (i.e., the effective interest rate) generally declines with loan size because of relatively fixed loan evaluation and processing costs. As a result, since the typical rural borrower’s loan is smaller than the typical urban borrower’s, average borrowing costs will be higher in rural areas, other things being equal.

Likewise, other loan characteristics—for example, loan type, maturity, frequency of loan payments and interest rate adjustments—also affect borrowing costs. These characteristics can vary to suit the needs of either the borrower or the lender. To the extent that differences exist between rural and urban loans that are unrelated to financial market performance, the resulting interest rate differences reflect different products being purchased rather than differential pricing.

Lenders’ operating costs are lower for diversified loan portfolios. For small lenders serving undiversified communities, maintaining a diversified portfolio adds to operating costs. Many local economies throughout rural America depend heavily on 1 or 2 industries, potentially adding to the cost of lending, especially if no relevant, active secondary market exists.

Borrowing costs vary with the riskiness of the loan. Within isolated, sparsely populated rural communities, the market value of foreclosed property may be more unpredictable than it is in urban areas, potentially adding to borrowing costs for rural borrowers.

Finally, general market rates of interest fluctuate, sometimes considerably. Since interest rates on individual loans should be responsive to movements in market rates, seasonal variations in borrowing patterns within rural and urban areas can distort interest rate comparisons that do not account for general interest rate conditions at the time loan terms were settled.

analysis of a 1995 survey of the National Federation of Independent Business membership found that rural business firms were more concerned with credit availability than they were about its cost. Rural respondents generally thought their primary financial institution was a reliable source of credit.

When interest rates on home mortgages were compared, most types of home mortgages were slightly more expensive in rural areas in 1995. However, disparities were typically small and consistent with the greater cost of doing business in sparsely populated areas. Nonetheless, a surprising number of rural housing loans had unconventional terms that are associated with higher interest rates. Further research is needed to determine if these patterns indicate market imperfections or merely reflect differences in borrower preferences.

Available data on agricultural loans excluded geographic identifiers, so a rural-urban comparison was not possible, and no recent data were available on community development financing. However, 1980’s research comparing the borrowing costs of rural and urban governments found no appreciable difference in interest rates paid on tax-exempt bonds when cost-related factors, such as bond rating and issue size, were accounted for (Sullivan, 1983; Palumbo and Sacks, 1987). A lack of data precludes much discussion about equity financing for new businesses, but anecdotal evidence suggests that markets serving high-risk ventures may be less developed in rural areas. While equity financing is difficult to arrange for any risky venture, the informal nature of startup capital markets and the premium placed on having a pool of managerial and technical expertise available to support the entrepreneur/project director both suggest that risk capital may be easier to arrange within urban settings.

The most recent data, and existing research on rural-urban borrowing costs, fail to provide clear evidence that widespread rural credit market problems exist. While the evidence is far from conclusive, it appears that, in general, successful borrowers of rural housing, business, and community development credit are reasonably well served by their financial markets. While encouraging, it is important to note that this study barely scratches the surface of rural financial market performance. Little is known about the market for risk capital for startup ventures in rural communities. And no systematic attempt has been made here to examine the economic performance of financial markets in individual communities or for specific classes of borrowers within each economic sector.

Variation in Rural Financial Market Performance

The structure of Federal and State programs, GSE charters, and banking laws has encouraged segmentation in agricultural, housing, and business loan markets. For example, struggling and low-resource farms are served through Federal and State direct and guaranteed loan programs, part-time farmers primarily through commercial banks, and large commercial farms through the FCS and insurance companies. A similar stratification and segmentation occurs in housing and business credit markets. Various barriers and competitive advantages, including subsidies, capitalization rules, location of lending offices, and organizational structures, sustain this segmentation. Segmentation *per se* is not necessarily a problem if each market segment is competitive. However, in sparsely populated rural economies, financial market segmentation can support noncompetitive pricing and lending behavior which can retard the economic development of affected groups and communities. Further study is required to assess uniformity of credit access among rural communities and among different classes of borrowers.

A substantial body of research indicates that financial market imperfections exist throughout the economy. The following characteristics of retail banking markets are conducive to financial market imperfections:

- many relatively uninformed borrowers;
- substantial information and transactions costs for both borrowers and lenders;

- a small number of lenders in many local markets; and
- barriers to entry by other lenders and high costs of entry and exit by lenders and borrowers.

These factors may allow lenders in many markets to earn above-normal profits or to operate less efficiently than they would otherwise in competitive markets (Rhoades, 1995). Numerous empirical studies have found a relationship between measures of bank market concentration and interest rates, profits, and inefficiency, but research on rural financial markets is rare. In a recent study of inefficient bank operations in less competitive markets, Berger and Hannan (1994) estimate that the economywide losses are relatively minor. Furthermore, many of these losses can be attributable to lower than normal interest rates on deposits rather than higher than normal interest rates on loans. Nonetheless, bank market inefficiencies are potentially serious for marginal borrowers relying on noncompetitive financial markets.

In an earlier study of small business loan rates among urban markets, Hannan (1991) found that interest rates on loans below \$100,000 were sensitive to local financial market conditions, while rates on larger loans were not. During periods of stable or falling interest rates, small business loans made in concentrated banking markets carried significantly higher rates. Hannan surmised that no difference in rates was found when general interest rates were rising because highly competitive markets adjusted loan rates faster than less competitive markets, temporarily reducing or eliminating the gap that exists when interest rates are stable. Hannan's results reinforce the claim that financial markets are not fixed; they vary in size and composition depending on loan size and a host of other factors. And while the results of urban studies are not always directly transferable to rural settings, it seems likely that rural market performance also varies from community to community, and from borrower to borrower.

In a case study of rural financial markets in the Midwest, Shaffer and Pulver (1990) found most businesses were well served, but evidence of sporadic problems did exist. For example:

- small businesses in areas served exclusively by large banks experienced more loan denials than

Table 5—Population size and urbanization*Many rural Americans have access to urban financial markets.*

Residence	Average population	Share of population		Share of national--	
		Area	National	Employment	Income
	<i>Thousand</i>		<i>-----Percent-----</i>		
Metropolitan county	250.3	100.0	79.6	80.8	84.1
Large MSA ¹	418.0	62.1	49.5	50.5	55.7
Small MSA ²	151.0	37.9	30.2	130.3	28.4
Nonmetropolitan county	23.2	100.0	20.4	19.2	15.9
Adjacent to an MSA	29.6	55.4	11.3	10.7	8.8
Adjacent to a large MSA ¹	34.6	12.0	2.4	2.4	1.9
Adjacent to a small MSA ²	28.5	43.4	8.8	8.3	6.9
Nonadjacent to an MSA	18.3	44.6	9.1	8.5	7.1
With city of 10,000+	44.4	19.1	3.9	3.8	3.2
With city of 2,500-9,999	18.1	18.2	3.7	3.4	2.8
Totally rural	7.3	7.2	1.5	1.3	1.1

¹ A metropolitan statistical area with a population of 1 million or more.² A metropolitan statistical area with a population of less than 1 million.

Source: Calculated by ERS using 1995 population data from the Bureau of the Census, 1995 employment data from the Bureau of Labor Statistics, and 1994 personal income data from the Bureau of Economic Analysis.

expected, as did larger businesses in areas served exclusively by small banks; and

- businesses in the economy's dominant industry experienced more loan denials than other firms, as did "nontraditional" firms.

Shaffer and Pulver concluded that bankers were not using the existing market mechanisms in place to deal with these lender/borrower mismatches, perhaps because of the lack of competitive pressure.

Even in markets with active GSE's, local financial market impacts persist. In an analysis of interest rates on fixed-rate, conventional home mortgages, Rhoades (1992) found evidence that homebuyers in cities with more concentrated banking markets paid higher interest rates. In one of the few studies with a significant rural sample, Sullivan (1993) found that interest rates on USDA-guaranteed farm loans rose with local bank market concentration. However, in both of these studies, the interest rate differentials were modest.¹⁷

¹⁷ For example, the interest rate saving on guaranteed farm loans would have amounted to only 8 to 17 basis points (in 1988 when rates were in excess of 11 percent) if bank market concentration in the typical rural county were to decline to the urban average (Sullivan, 1993).

Financial market problems are most likely to affect borrowers located in small, isolated communities who are highly dependent upon local lenders for their credit needs. Marginally creditworthy institutions, firms, and households—those whose loans may have trouble qualifying for secondary markets when such markets exist—and small entities needing relatively small loans are likely to rely heavily on local lenders. Nearly 45 percent of the rural population resides in counties that are not adjacent to metropolitan areas (table 5). The more isolated their communities are from competitive banking markets, the more likely local lenders will feel free of competitive pressure to operate efficiently. How many rural borrowers and communities are likely to be affected remains an open question. But there are limits to how inefficient credit market allocations can become, even in the most remote one-bank town. Nontraditional lenders and other financial institutions are always ready to move into market niches, particularly if the potential for above-average profits substantially outweighs the costs of market entry.

Cost of Agricultural Credit

The Congressional mandate for this study also requested information on differences in the cost of credit from commercial banks and various FCS lenders, controlling

for such loan characteristics as risk and maturity. To shed light on this issue, the trend in average interest rates charged by each of these two groups of lenders was first analyzed to determine how stable the relationship was between 1977 and 1995. Then loan-level data on farm loans made in 1995 by commercial banks and FCS lenders were compared for similar types of loans. (For a detailed description of the data and analysis, see “Cost of Agricultural Credit” in appendix B of this report.)

Bank and FCS interest rate trends. While many caveats apply to any comparison of interest rates across lenders, the relative interest rates charged by commercial banks and FCS institutions have changed considerably over time; observations at a particular point in time may no longer apply as market conditions change. In the early 1980’s, a period of high and volatile interest rates, bank rates were high relative to FCS rates.¹⁸ During this period, the FCS used average cost pricing to hold down its interest rates, rapidly increasing its market share of farm debt relative to commercial banks. This pricing advantage eroded when economy-wide interest rates fell, lowering the banking industry’s cost of funds faster than the average yield on FCS securities could fall. As a result, the commercial banking industry’s share of farm debt held by these two groups of lenders began to rise sharply. The System now pursues a marginal cost pricing policy, making its loan pricing more consistent with standard banking practices.

FCS interest rates remained relatively high following the farm financial crisis as the System rebuilt capital and capitalized a new insurance fund. It also had high administrative and servicing costs, in part because of its many delinquent farm loans. The competitiveness of commercial bank interest rates was further aided in the early 1990’s when the Federal Reserve lowered short-term interest rates to combat a recession. This monetary policy greatly lowered the cost of bank deposits, their primary source of loanable funds. From 1991 through 1994, bank non-real-estate interest rates were lower than FCS rates. In 1995, this pattern was

reversed with bank rates on non-real-estate debt once again rising relative to FCS rates.

Bank and FCS interest rates in 1995. Commercial bank and FCS interest rate data on new farm loans made in 1995 were obtained from the Federal Reserve System and from the Farm Credit Administration, respectively. Only loans with similar characteristics that were sufficiently represented in both data sets were compared. To standardize the data as much as possible, three different maturity groups and up to three different size classes for variable- and fixed-rate non-real-estate loans are reported for each quarter of 1995 (see appendix table B-1). Given the lack of information on noninterest fees, other common loan requirements, and borrower creditworthiness, combined with other discrepancies between these two sources of data, no economic importance can be attributed to the relatively small differences that exist in average contractual interest rates charged on bank and FCS loans. While we can neither prove nor disprove that the cost of borrowing systematically differed between the FCS and the banking industry in 1995, the data suggest that, as competitors, these two groups of lenders offered roughly equivalent rates and terms in that year.

Conclusion

From a rural development policy perspective, the key questions facing policymakers concerned with the performance of rural financial markets are:

- whether the equilibrium price for credit (i.e., the risk-adjusted, effective interest rate at which supply equals demand) is significantly different in rural and urban financial markets;
- whether rural lenders can respond in a timely fashion to changes in the level of legitimate loan requests by creditworthy borrowers; and
- whether rural financial markets are sufficiently competitive to allocate credit efficiently.

This study has reviewed research and the most recent data available on lender finances, bank market structure, and the cost of credit in rural areas for agriculture, housing, small business, and community development in an attempt to shed light on these questions.

Based on the limited data available for similar loans in urban and rural areas, the cost of credit appears to be

¹⁸ However, the effective difference between FCS and bank interest rates was more overstated prior to 1985 since FCS institutions typically applied a 5 to 10 percent stock purchase requirement then, as opposed to a 2 to 5 percent requirement in the 1990’s.

comparable; that is, no evidence was found that rural borrowers pay appreciably higher interest rates than urban borrowers, on average. The differences that were found were small and, in the case of conventional home mortgages, consistent with the presumed higher costs of servicing sparsely populated settings.

Further, the commercial banking system, the Farm Credit System, and other lenders active in rural America generally have sufficient deposits and access to money markets and other sources of funds to respond quickly to changes in demand for credit from creditworthy borrowers. Credit demanded by those who fail to qualify for commercial credit because of legitimate creditworthiness concerns is irrelevant for these and other commercial lenders.¹⁹ While data on unfunded (denied) loan applications is not generally available, responses to surveys of small businesses indicate general satisfaction with rural financial institutions as reliable sources of credit.

Finally, more research is needed concerning the competitiveness of rural financial markets, for there is concern that some financial markets serving specific communities, borrowers, and classes of credit are inefficient. Concern exists because few lenders serve most rural areas and rural units are segmented by geography, collateral, purpose, term to maturity, risk class, and other factors. Thus, borrowers most dependent on local lenders may face highly concentrated markets. Such market conditions may result in higher prevailing interest rates or, more troubling, fewer creditworthy loans being made. However, market forces limit the size of such impacts, since new or nontraditional lenders invariably respond to attractive market opportunities.

In sum, no evidence of widespread or economically important market failures or imperfections has been found. Concerns remain that the structure of many rural financial markets may enable inefficient or non-competitive practices that could slow growth in rural areas. In addition, researchers have documented

sporadic problems in conventional credit markets, including those arising when the size of lenders and borrowers is mismatched.

The conclusion that financial markets are serving the credit needs of rural America reasonably well is supported by trends in rural population growth. After suffering widespread population declines throughout the 1980's, rural America has been experiencing a population turnaround thus far in the 1990's. Rural counties adjacent to large metropolitan areas averaged faster population growth during 1990-95 than did urban areas. Even nonadjacent, totally rural counties have grown, on average, instead of declining as they did in the 1980's. Thus, an assessment of rural financial markets should not be based on the premise that insurmountable barriers to economic growth exist—such as the cost or availability of credit. While rural areas may have disadvantages because of their remoteness, small size, and dispersed populations, these characteristics also have their advantages.

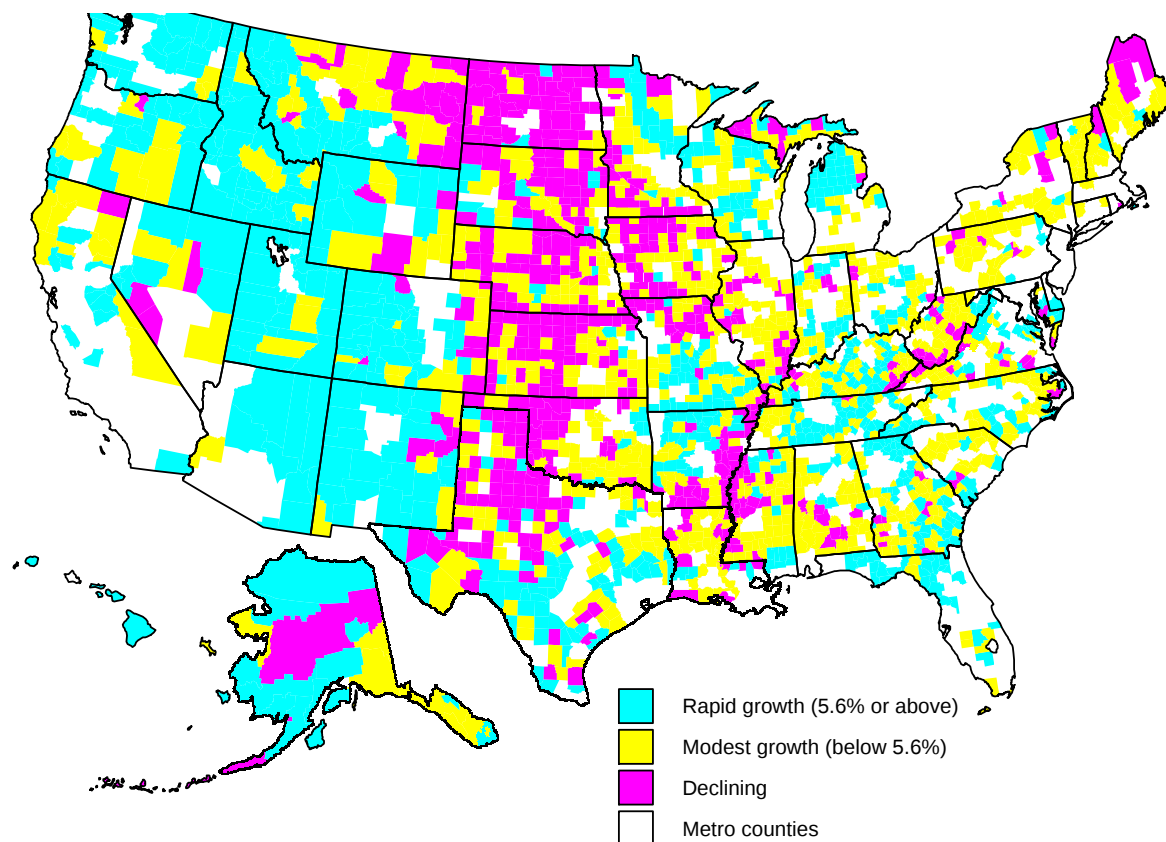
Rural communities (and segments of the economy within rural communities) face differing circumstances, however. For example, although population and economic activity are increasing in most rural counties, many counties in the Upper Great Plains continue to lose population and may pose special problems for financial institutions as property values stagnate and collateral loses its value (fig. 6). Rural economies grow or decline based on their ability to compete regionally, nationally, and increasingly, globally. Financial markets can affect rural competitiveness, but so can a host of other factors, such as the educational and skill levels of the rural workforce, the cost of getting to markets, the availability of nonfinancial business and personal services, and government regulations affecting such things as land use and worker-management relations. Federal policies aimed at increasing the flow of credit to stagnating rural economies will not spur development if other barriers to growth are not addressed as well.

¹⁹ Subsidized government credit programs administered by USDA and other Federal agencies provide credit assistance to those unable to qualify for commercial credit. But since demand for subsidized credit will always exceed its supply (resulting in nonmarket mechanisms being used to allocate available loan funds), satisfaction of demand is not relevant for these programs either. Their success depends on their ability to cost-effectively meet program goals and objectives.

Figure 6

Rural population change, 1990-95

Rural growth is common in recreational areas and retirement destinations.



Source: Calculated by ERS using data from the Bureau of the Census.

FCS and Commercial Bank Rural Credit Proposals

This section addresses, in general terms, the advantages and disadvantages of proposals to expand FCS lending authorities or change the rules governing commercial bank access to wholesale FCS funds.

Each proposal can be viewed from many perspectives as indicated in the Congressional mandate: the perspectives of commercial banks, FCS institutions, rural borrowers and communities, and the Federal Government are specifically addressed in appendix C of this report. Here, the focus is on the costs and benefits from the perspective of the Federal Government. As one might expect, proposals championed by either lender type favor that lender type, generally to the disadvantage of competing lenders. Rural (and other eligible) borrow-

ers and rural communities would generally gain as a group both from subsidies related to FCS activity and from increased competition, but by less than the amount of implicit and explicit subsidies incurred by local, State, and Federal governments to expand FCS activity. Some subsidies accrue to lenders and some will be a loss to society from diverting funds from more productive, unsubsidized uses to less productive subsidized uses.

The discussion proceeds as follows: first, economic costs and benefits of expanding FCS activity are discussed, including an enumeration of their sources. In examining costs and benefits, heavy reliance is placed on published research about government lending activity, the activity of other GSE's, and the performance of the U.S. commercial banking system. The performance and structure of the FCS, differences in FCS and com-

mercial bank taxation, and conclusions from earlier in this report are also brought to bear. Next, the issue of potential social benefits of expanded FCS activity is discussed in the context of FCS performance in providing such benefits relative to the performance of other GSE's along with the economic costs of providing social benefits through credit programs. Finally, overall conclusions are summarized.

Economic Costs of Expanding FCS Activity

Government-sponsored enterprises, including the FCS, receive a variety of benefits in exchange for enhancing credit flows to housing, education, agriculture and rural areas—economic sectors that were historically likely to suffer from credit market failures (see box). These benefits derive from three principal characteristics:

- agency status for GSE debt securities;
- special tax preferences for GSE income and for interest paid on GSE debt securities; and
- Federal rather than State charters that preempt State limitations on corporate activities.

Both commercial banks and FCS institutions receive tax benefits. Here, the focus is on those tax benefits FCS institutions receive beyond what is available to commercial banks. In addition, some FCS institutions receive benefits because they are organized as cooperatives, which provides them with favorable tax treatment stemming from the deductibility for income tax purposes of certain distributions to owner-members. Of these benefits, the costs associated with agency status for GSE debt securities and tax preferences for GSE

Farm Credit System Benefits from Status as a Government-Sponsored Enterprise

The implicit Federal guarantee of securities issued by GSE's is based on numerous explicit provisions of law that cause the financial markets to treat GSE debt securities as if they were issued by a Federal agency.

GSE securities (and U.S. Treasury securities but not issues of fully private entities):

- use the Federal Reserve as the fiscal agent;
- are eligible for Federal Reserve open-market purchases;
- are eligible to collateralize public deposits;
- are government securities for purposes of the Securities Exchange Act of 1934;
- serve as eligible collateral for Federal Reserve Bank discount loans;
- are eligible to collateralize Treasury tax and loan accounts;
- are exempt from registering under the Securities Act of 1933;
- are eligible for unlimited investment by national banks, state bank members of the Federal Reserve, federally insured thrifts and credit unions, and Federal public, fiduciary, and trust funds;
- are issuable and payable through the book-entry system of the Federal Reserve Banks; and
- earn interest payments for investors that are exempt from State and local income tax.

Farm Credit System institutions enjoy other benefits of GSE status:

- some Farm Credit System institutions are exempt from all taxation except for taxes on real property; and
- the Federal charters of the Farm Credit System lenders preempt State laws and permit them to serve markets without regard to limitations on geographic expansion or usury laws that affect some competitors.

Finally, Farm Credit System institutions enjoy favorable treatment because they are organized as cooperatives:

- distributions to owner-borrowers based on patronage are tax deductible.

income have been estimated in the literature and are discussed below. Other benefits associated with FCS status as a GSE have not been quantified.

The value of agency status for FCS's debt securities has been estimated at 50 to 75 basis points per year on each dollar borrowed (Lins and Barry, 1984). This is consistent with more recent estimates of the value of agency status on debt securities of the housing GSE's, the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (Congressional Budget Office, 1996).

Differences in taxation of the various types of FCS institutions complicate discussion of these benefits. All interest and principal paid on FCS debt securities is exempt from taxation except for Federal income taxes. In addition, some FCS institutions (Farm Credit Banks and FCS associations that lend only for long-term real estate mortgages) are exempt from all taxation except for that on real estate. Other FCS institutions (Banks for Cooperatives, Agricultural Credit Banks, and all other FCS associations) are fully taxable, but, as cooperatives, are entitled to deduct certain distributions to owner/borrowers, a substantial tax benefit.

Complicating matters further, taxation is determined by the tax status of the institution earning income and not the nature of the loan. Thus, interest income from real estate loans backed by a first mortgage may or may not be taxable depending on whether the association making the loan has authority to make non-real-estate loans as well. At the wholesale level, Farm Credit Banks are tax exempt while Agricultural Credit Banks are not, despite the fact that both types of institutions provide funding for retail lending associations. Thus, income from a real estate mortgage to eligible farmers, ranchers, or rural homeowners may be taxable or tax exempt at both the retail and wholesale levels. Income from a non-real-estate loan is taxable at the retail level, but may or may not be tax exempt at the wholesale level. Finally, income from loans to entities eligible to borrow from Banks for Cooperatives is taxable. In any event, taxable income to FCS institutions is reduced to the extent they make qualified distributions to their owners/borrowers.

The value of reduced taxation on exempt FCS institutions has been estimated at 50 to 80 basis points per year on each dollar loaned by these institutions (Lins

and Barry, 1984). Although Federal income tax rates on corporations have decreased since 1984, this estimate is consistent with Federal income tax preferences reported for the FCS as a whole in 1995 (Federal Farm Credit Banks Funding Corporation, 1995). In that year, Federal income tax benefits, including exemptions and deductions related to cooperative status, were about 50 basis points per dollar loaned. This does not include benefits from State and local tax exemptions.

Thus, on average, the value of benefits to FCS lenders is in the neighborhood of 100 basis points per year, with variation depending on the specific tax status of FCS institutions involved in a particular loan. These figures are appropriate for evaluating the cost of additional FCS lending that would otherwise be undertaken by lenders paying higher marginal tax rates, since differences in taxation between FCS and competing lenders means that shifting lending activity from lenders that pay higher taxes on net income to FCS lenders creates a budget loss to Federal, State, and local governments. However, if new FCS lending would not have otherwise been undertaken, the costs associated with differences in taxation should not be counted as a loss to the Federal Government.

Expanding direct FCS retail lending would entail greater costs than would expanding commercial bank access to FCS wholesale funds. Both options would entail subsidies related to the agency status of FCS debt securities. However, expanding direct FCS retail lending could include more favorable income taxation at both the retail and wholesale levels, while providing wholesale FCS funding to commercial banks would only entail more favorable income taxation at the wholesale level. The maximum difference in costs would be the amount of FCS benefits not directly associated with the agency status of FCS debt securities.

The existence of these subsidies means that additional FCS activity creates a loss to the economy compared with a competitive, unsubsidized market. This loss arises because the revenues provided through the subsidy, added to the amount additional borrowers pay directly, is greater than their investment opportunities would economically warrant.

The preceding discussion strictly applies to a simple world where both borrowers and lenders know the rate of return of investment opportunities and whether loans will be repaid. More realistically, neither borrowers

nor lenders know with certainty the outcomes of financed investments while borrowers know more than lenders about the likelihood of loan repayment. If borrowers have better information than lenders, GSE lending may aggravate problems associated with too many or too risky loans being made because of Federal subsidies (Carey, 1990). The costs associated with this type of inefficient lending are in addition to the costs discussed above, but are much harder to quantify.

Economic Benefits of Expanding FCS Activity

The existence of these costs does not mean that additional FCS lending can never produce net economic benefits, however. If market imperfections exist, the economy is already operating at less than full efficiency. It is possible under these circumstances that the gains from improving economic efficiency will more than pay the cost of providing the FCS with subsidies for its additional activity. It is less clear that additional FCS lending will ever be the most efficient approach to improving rural credit market performance for reasons discussed below.

The following conditions have been cited as potential evidence of market failures in rural financial markets: (1) lack of rural equity capital markets, (2) a shortage of long-term debt capital, (3) reluctance or inability of local financial institutions to provide start-up loans or microenterprise loans, (4) difficulties in finding financing when size mismatches exist between the lending institutions and borrowers, (5) credit rationing in areas where one or two industries dominate a local economy and limit lenders' ability to diversify credit risks, (6) excessive variability of interest rates on similar loans across geographic markets, and (7) higher prices or restricted loan volume in rural areas compared with metropolitan areas, presumably because of less vigorous local competition or discrimination (Markley, no date; Johnson, 1963). GSE's have been particularly successful at mitigating such market shortcomings as (2), (5), and (6). GSE's have not focused on such market failures as (1) or (3). Finally, GSE's have had mixed results in addressing (4) and (7).

Although GSE's were designed to address market imperfections, recent proposals to expand FCS authorities have not been directed at specific market failures. With the exception of a proposal to allow FCS institu-

tions to fund and control businesses similar to Small Business Investment Corporations or Community Development Corporations, proposals to expand FCS authorities appear to address market opportunities rather than imperfections or failures. However, while evidence is strong that market failures are not pervasive in rural financial markets, a substantial body of economic research indicates that some imperfections exist. These imperfections include:

- losses of economic activity due to lenders' exercising market power (charging more and lending less than would occur in competitive markets);
- lenders operating less efficiently than they would need to in more competitive markets; and
- rationing or redlining financial services to some creditworthy groups or activities.²⁰

Each of these imperfections presents the possibility of improving economic performance. Economic benefits from reducing these imperfections arise from increases in financial/credit market activity, reductions in prevailing market prices, and expanding market services to groups that have been subjected to redlining or credit rationing for economically irrelevant reasons.

Berger and Hannan (1994) estimate the magnitude of losses from bankers charging higher prices and providing fewer financial services (including lending and deposit accounts) in concentrated markets and from operating less efficiently due to lack of competitive pressure. Their results indicate that direct losses from the exercise of market power range between 1 and 11 basis points per year per dollar of total bank assets in highly concentrated markets, and that losses from inefficient operations range between 15 and 64 basis points. These losses are measured relative to the performance of unconcentrated markets.²¹ Median estimates of total annual losses amount to \$186 million from price and quantity distortions and \$3.7 billion from inefficiencies. These loss estimates include both urban and rural markets as well as losses from lending and

²⁰ Credit rationing refers to a situation where some borrowers receive loans and indistinguishable borrowers do not. Redlining refers to a situation where a set of borrowers defined by geographic location, type of business, race, or other characteristics are totally denied access to credit.

²¹ Berger and Hannan (1994) use the Department of Justice characterization of markets with Herfindahl indices above .18 as highly concentrated and less than .10 as unconcentrated.

deposit-taking activities. Losses associated with rural lending activities would be a relatively small fraction of total losses because, although more rural than urban markets are highly concentrated, the dollar amounts in urban markets are greater. Similarly, deposit markets involve greater dollar amounts than loan markets, especially in rural markets where loan-to-deposit ratios are lower. Although Gale (1991) develops a framework for simulating the net effects of credit rationing or redlining, he does not develop separate estimates of costs and benefits comparable to others cited here.

Economic Costs Outweigh Benefits

Imperfections continue to exist in rural and urban credit markets. Expansion of FCS powers could benefit rural and national economic growth and would be consistent with historical precedent. Such benefits can be weighed against their costs. On a national scale, the characteristics of the FCS make it unlikely that expanding its activity at either the retail or wholesale level would substantially improve market structure or performance. The cost of expanding FCS activity is about 100 basis points per year per dollar loaned.²²

However, for benefits to accrue, Berger and Hannan (1994) indicate that market concentration must be reduced to a level equivalent to 10 equally sized competitors. While the economic costs of increasing FCS wholesale lending to commercial banks would be less than expanding its retail lending, doing so would have less potential impact on market concentration and performance since no new competitors need be associated with such activity.

In evaluating the relative magnitudes of the costs and benefits of additional FCS lending activity, important factors include:

- the economic losses from imperfections in markets that additional FCS activity is likely to address;
- the extent to which lending currently provided by less subsidized lenders would shift to the FCS and the extent to which additional FCS lending or

funding would finance economic activity that would not otherwise occur; and

- the extent to which additional activity would otherwise be undertaken by commercial banks or other lenders without receiving GSE-related or cooperative-related benefits.

Magnitude of economic losses from imperfections in markets that additional FCS activity is likely to address. Although the vast majority of rural banking markets are highly concentrated, it is less clear that additional FCS activity would significantly improve market performance. This uncertainty stems from several characteristics of the FCS and the specific proposals under consideration:

- specific proposals are not targeted toward reducing market imperfections;
- FCS lenders serve niche markets and proposals for expanded powers are generally targeted at narrow niches consistent with existing authority;
- FCS lenders are generally granted exclusive territories; and
- FCS capitalization practices and regulations tend to limit the rate of growth of new activity.

These characteristics reduce the likelihood that expanding FCS direct lending authority would have a substantial impact on market concentration or performance. Under current law and regulation that allocates exclusive territories to most FCS lenders, expansion of FCS authority usually introduces at most one additional competitor in each submarket. That competitor may, at times, be limited in its shortrun ability to respond to increases in economically viable demand for loans. In addition, proposals to expand authority are generally limited to small parts of most local economies. Similarly, expanded FCS wholesale activity limited to existing retail competitors would do little to change the performance of rural banking markets.

For changes in FCS authority to provide greater public benefits, exclusive FCS territories would have to be eliminated and operating procedures reviewed to enhance incentives for FCS lenders to compete both with each other and with other providers of rural credit. For local economies to benefit to the fullest extent possible from FCS lending, capitalization regulations and

²² As of September 30, 1996, the FCS had more debt securities outstanding than loans. Therefore, the cost of expanding FCS activity includes 50 basis points from GSE-funding related advantages and 50 basis points from tax advantages.

policies need to be flexible enough to allow FCS institutions to respond to changes in market demand.

Magnitudes of shifting (crowding out) from other sources or addition of new activity funded directly or indirectly through the FCS. For economic benefits to accrue from expanded FCS activity, some competitors—though not necessarily FCS lenders—must finance activity that is currently not financed. If lending shifts from existing competitors to FCS lenders, even if at a lower price, no net gains accrue to the economy—FCS lenders and borrowers gain at the expense of taxpayers and competitors. This kind of shift in financial activity is called crowding out and provides no economic benefits on its own. If FCS lenders or others provide financial services to previously unserved or underserved borrowers or operate more efficiently, then economic benefits accrue to the economy. This is true even if the additional lending by the FCS is to customers that were already being served as long as other lenders serve new clientele.

The degree to which subsidized activity serves new borrowers or existing borrowers is important in determining its economic impacts. Gale (1991) in a study of the efficiency effects of Federal credit programs found that target groups often experience large gains, but because programs affect both target groups and groups that would otherwise be served (and because no societal benefits accrue from subsidizing the latter group), such programs are seldom cost effective. Given the conservative operating practices documented for FCS lenders in recent years (see appendix A), it is likely that most additional FCS direct lending would go to borrowers that are already served. It is uncertain to what extent competing lenders would then expand their market penetration or improve their efficiency to compensate. Again, however, FCS competition would be limited to particular authorized niches that tend to be relatively small parts of most local economies.

Alternatives to improve market performance without providing GSE-related or cooperative-related benefits. Whether or not expanded FCS lending could improve market outcome sufficiently to justify the direct and indirect costs, the possibility also exists that less costly changes could improve rural financial market performance. Such changes might focus on reducing the cost of servicing or entering small isolated markets.

Many such changes have occurred in recent years including:

- technological and regulatory changes in telecommunications;
- increasing Internet use and improvements to Internet security;
- reductions in geographic restrictions on bank activity;
- reductions in restrictions of nonbanking activity by banks and bank holding companies;
- development of credit scoring and other low-cost techniques for analyzing small loan requests; and
- the proportionate shift of savings from insured institutions to mutual funds.

Federal and State laws and regulations have long been an important source of obstacles to competition in local financial markets. For example, the structure of direct Federal and State programs, GSE charters, and banking laws have encouraged the segmentation of agricultural, housing, and business loan markets. Various barriers and competitive advantages—including subsidies, capitalization rules, local physical presence, and organizational structures—sustain this segmentation. Policies to reduce these artificial barriers to market competition are less costly, and likely more effective in enhancing competition, than would be changes in FCS authorities.

Social Benefits of Expanding FCS Activity

Congress often charges GSE's with pursuing social goals beyond those of enhancing market efficiency in return for the benefits of their Federal charters. For example, GSE's are often required to provide benefits to specific groups, not just the most profitable market segments within their granted authority. Social objectives are encouraged by targeting a portion of a GSE's business activity to segments of the population that are thought to be underserved by private sector credit markets. Underserved markets are typically defined by income class or geography (see box on targeting requirements of housing GSE's).

Like the housing GSE's, the FCS serves to enhance rural credit market efficiency and to help meet social goals. The Farm Credit Act of 1971 directs the FCS to improve the income and well-being of American farm-

Targeting Requirements of Housing GSE's

Fannie Mae and Freddie Mac. These two housing GSE's face targeting requirements to ensure that the corporations serve households in the middle-income brackets and those traditionally underserved by the home mortgage market. The GSE's lending is directed to middle-income brackets by the eligibility limit, which restricts loan purchases to those with a principal balance under \$207,000 (\$214,600 in 1997).

The Housing and Community Development Act of 1992 (PL. 102-550) directed the Secretary of Housing and Urban Development to establish new loan purchasing goals and regulations for Fannie Mae and Freddie Mac. The legislation requires purchasing goals for: (1) low- and moderate-income families; (2) housing in central cities, rural areas, and other underserved areas (Geographically Targeted Goal); and (3) special affordable housing to meet the unaddressed needs of low-income families in low-income areas and very-low-income families (Special Affordable Housing Goal). For 1996, 40 percent of the total number of dwellings financed by each GSE's mortgage purchases must be affordable to low- and moderate-income families, 21 percent must come from targeted areas, and 12 percent of the total number of dwellings financed must meet the Special Affordable Housing Goal.

Fannie Mae and Freddie Mac responded to the new goals with a host of new initiatives and policies. The list of initiatives includes special loan underwriting standards, new products, and consumer outreach initiatives, such as anti-housing discrimination programs. Alliances with various nonprofit housing organizations and public housing agencies have been established to improve access to underserved and low-income borrowers. Fannie Mae committed \$350 million in stock to the Fannie Mae Foundation, which funds public service outreach advertising and other homeownership educational programs.

Federal Home Loan Banks (FHLB's). To ensure that FHLB's contribute to the objective of adequate and affordable housing, 1989 legislation directed FHLB's to operate an Affordable Housing Program (AHP) and a Community Investment Program (CIP). Under AHP, FHLB's provide subsidized advances to lenders (mortgages are used as collateral to get the FHLB advances) and grants to promote home ownership for very low-, low-, and moderate-income families, and to assist affordable rental housing. Law requires the FHLB System to provide annual subsidies to the AHP equal to the greater of 10 percent of the previous year's income or \$100 million. CIP supports community-oriented lending, including home purchase and rehabilitation for households with incomes at or below 115 percent of the area median income, and commercial and economic development activities benefiting either households with incomes up to 80 percent of the area median, or low- and moderate-income neighborhoods. Subsidized rates on advances under the CIP are financed by the FHLB's forgoing their normal profit margin.

ers and ranchers by furnishing sound, adequate, and constructive credit, and closely related services to them, their cooperatives, and to selected farm-related businesses.

Compared with the housing GSE's, the FCS has only the general and unenforceable targeting requirement that it serve all creditworthy farmers and rural residents, and not just the most profitable segments of the credit market. For farm lending, both full- and part-time farm operators as well as landlords are eligible FCS borrowers. No restrictions are placed on the loan amounts to borrowers beyond those related to safety and soundness, nor are there tests for income or wealth. Borrowed loan funds can be used for farm and for non-farm purposes.²³ FCS lending for rural housing purposes is more clearly defined (see appendix C).

Proposals to expand FCS lending authority or commercial bank access to FCS funds make no mention of targeting underserved areas or populations.

²³ The 1971 Act directs each FCS association to develop and operate credit programs to serve young, beginning, and small farmers. But, the statute does not establish goals for lending to these groups nor does it provide the FCA with the explicit authority to establish such goals. Available data on beginning farmers suggests that the FCS is a relatively minor provider of credit to them despite its mandate (Koenig and Dodson, 1995). Each FCS district bank is required to provide FCA with an annual report summarizing the operation and achievement of programs serving these young, beginning, and small farmers within its district. FCA provides an overview of the programs in its annual report. Examination of FCB annual reports submitted to the FCA revealed that most of these reports lack sufficient detail to properly assess FCS's efforts in lending to these farm borrowers (Farm Credit Banks). Some districts take both the reporting and targeting more seriously with formal programs and the monitoring of progress evident. For other districts, both the reporting and the program objectives appear to be low priorities.

No data are kept on FCS loan applicants who are denied credit, including young, beginning, or small farmers targeted for special assistance. The minimal public-purpose-related reporting requirements for agriculture and rural loans in general, are in contrast to the housing mortgage market and to urban lending. The Home Mortgage Disclosure Act of 1975 (HMDA), as amended, requires most for-profit housing lenders to report extensively on all home loan applications to Federal authorities. Housing GSE's are required to report separately to the Department of Housing and Urban Development (HUD). FCS rural home lending is exempt from HMDA reporting. In urban credit markets, banks and thrifts must comply with the Community Reinvestment Act of 1977 which mandates reporting intended to document that creditworthy borrowers in all communities, especially low- and moderate-income areas, have access to credit and banking services. Targeting underserved markets, such as low-income rural credit markets, does not come without economic costs.

Costs Likely To Outweigh Social Benefits As Well

Measuring the social benefits of increased credit activity is difficult. Social benefits accrue when targeted groups gain access to financing that would otherwise be unavailable to them, and when they are able to use this access constructively. Often nonfinancial factors such as knowledge, skills, abilities, and access to markets for other inputs and for production determine if benefits accrue. If other factors are important in determining the income and wealth of targeted groups, merely expanding access to financing is unlikely to alleviate social concerns.

Targeted credit can increase economic costs if the targeting carries a substantial degree of subsidy and does not counter market imperfections. Subsidies distort the financial incentives of the targeted population, reduce the efficient allocation of credit by lenders, and threaten the viability of financial institutions. Nevertheless, targeting can bestow economic benefits to groups not served competitively by private credit markets because of noneconomic factors, such as location or discrimination. To be cost effective, social benefits need to be targeted toward those who need and can benefit from additional credit. Broadly targeted assistance is unlike-

Table 6—Income and poverty in urban and rural counties

To be cost effective, programs concerned with credit affordability should be targeted.

Economic indicators	County		
	Urban	Rural	Poverty
-----Dollars-----			
Earnings per job	29,793	21,520	20,313
Per capita income	22,898	16,982	14,266
-----Percent-----			
Poverty rate for:			
Residents	12.1	17.1	28.7
Families	9.1	13.3	23.4
Homeownership rate	62.1	72.5	72.5
Homeowners in mobile homes	6.9	15.6	20.9

Source: Calculated by ERS using 1994 earnings and income data from the Bureau of Economic Analysis, 1990 poverty data from the 1990 Census of Population, and 1990 homeownership data from the 1990 Census of Housing.

ly to be cost effective unless credit problems are widespread.

Based on per capita income and earnings per job, rural areas could generally benefit from additional economic opportunities (table 6). Some rural communities lag substantially in economic growth and development. For example, incomes are relatively low and poverty is widespread in the 535 counties which ERS categorizes as being "persistent poverty" areas. However, no evidence exists that lack of credit availability in these areas is the primary barrier to improved economic performance.

Both the FCS and the housing GSE's have a mixed record of achieving social goals. Groups targeted for direct Federal lending often experience large gains, but because programs affect both target groups and groups that would otherwise be served, such programs are not cost effective (Gale, 1991). Direct Federal lending programs are more successful at targeting designated groups than are GSE's (U.S. Department of the Treasury, 1996; Dodson, 1996). Combined, these observations indicate that GSE lending is unlikely to cost effectively provide social benefits.

Conclusion

This study has failed to uncover any evidence that serious market failures are either endemic to or epidemic in rural areas. Nonetheless, based on the structure of rural credit markets and anecdotal evidence, it is likely that market imperfections persist in many rural areas. This leaves open the possibility that Federal action could improve market outcomes and foster greater economic growth in rural America. In this section, the costs and benefits of policy changes that expand retail or wholesale FCS lending activities have been examined. The policy options examined here, with one exception, are not targeted toward remediating market shortcomings; rather, they focus on perceived market opportunities (in the case of most proposals to expand FCS retail lending authority) or on perceived funding disadvantages (in the case of the proposal for expanded wholesale access to FCS funds) of current commercial competitors. The one policy option that is directly related to a credible market shortcoming is the proposal to allow FCS lenders to fund “rural development authorities” similar to small business investment corporations.

In general, proposals to expand FCS retail lending are advantageous to FCS lenders and disadvantageous to commercial banks and other commercial competitors. Similarly, proposals to expand wholesale access to FCS funds for commercial banks are advantageous to them, but costly to FCS retail lenders. Effects on rural communities are likely to be mixed. Some may enjoy small benefits from slightly improved competition in local lending markets and better integration with national money markets. Others may find that increased lending exacerbates boom/bust cycles and raises operating costs for some businesses sensitive to higher asset values associated with lower borrowing costs.

Implementing any of these proposals, however, would be costly from the perspective of the Federal Government while both social and economic benefits are likely to be small. Proposals to expand FCS retail lending authorities affect only small segments of rural economies. Neither increased retail lending nor increased wholesale lending through the FCS is likely to benefit many potential borrowers not currently being served by commercial banks; nor would such policy

changes sufficiently encourage new retail-level competition to improve overall market performance.

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