

EXAMINING THE RURAL MUNICIPAL BOND MARKET, by Patrick J. Sullivan. Economic Development Division, Economic Research Service, U.S. Department of Agriculture. RDRR-34.

ABSTRACT

Nonmetro governments have increased their reliance on long-term borrowing faster over the last two decades than metro governments have. However, outstanding per capita debt for nonmetro areas is still lower. Current budget cuts make Federal assistance to local governments scarce. Therefore, the municipal bond market may become a more important method for rural governments to finance the construction of public facilities.

Keywords: Municipal bonds, local government finance, rural government borrowing, tax-exempt securities

ACKNOWLEDGMENTS

The author thanks Eleanor Whitehead for her assistance in preparing the data; William Fox, Thomas Hady, James Mikesell, Daniel Milkove, Richard Reeder, and Thomas Stinson for many useful comments; Linda Hatcher for editorial assistance; and Deborah Acors and, especially, Lucy Marshall for preparation of the manuscript.

SALES INFORMATION

Additional copies of this report--Examining the Rural Municipal Bond Market (RDRR-34)--may be ordered from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

Order this report by using PB83-143602, and indicate whether you want paper copies or microfiche. Cost per paper copy is \$8.50; cost per microfiche is \$4.50 (prices subject to change).

The Economic Research Service has no copies for free distribution.

ALSO AVAILABLE

The Cost of Metro and Nonmetro Government Borrowing (RDRR-35).

Nonmetro governments paid about the same interest rates on municipal bonds sold in 1977 as metro governments, even though rural governments had more limited access to regional and national bond markets. The movement toward State taxing limitations and the tightening of Federal budgets may make the bond market a more important source of local government construction funds. This study indicates that rural governments in general should have as much (or as little) access to the bond market as urban governments.

This report may be ordered from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

Order by using PB83-143610, and indicate whether you want paper copies or microfiche. Cost per paper copy is \$8.50; cost per microfiche is \$4.50 (prices subject to change).

The Economic Research Service has no copies for free distribution.

CONTENTS

	<u>Page</u>
SUMMARY.....	v
INTRODUCTION.....	1
RECENT BORROWING TRENDS.....	2
CHARACTERISTICS OF RURAL GOVERNMENT DEBT.....	8
Type of Debt Issued.....	9
Purpose of Debt Issued.....	11
Maturity Structure of Debt Issued.....	13
Quality of Debt Issued.....	15
MARKETING RURAL GOVERNMENT DEBT.....	20
Bond Issuers.....	21
Method of Sale.....	23
Bond Underwriters.....	26
Bond Investors.....	29
POLICY IMPLICATIONS.....	31
State and Federal Role.....	32
REFERENCES.....	37
APPENDIX--GENERAL CHARACTER OF NONMETRO COUNTY GROUPS.....	39

SUMMARY

Nonmetro governments have increased their reliance on long-term borrowing faster than metro governments in the past 20 years. However, outstanding per capita debt for nonmetro areas is still lower. Current budget cuts make Federal assistance to local governments scarce. Therefore, the municipal bond market may become even more important for rural governments in financing the construction of public facilities.

The enormous growth in Federal and State intergovernmental aid programs during the seventies made coping with the continuing population and economic growth of small towns and rural areas easier for local officials. However, the current movement toward State tax limitations and the tightening of Federal budgets may force rural governments to rely more heavily on bond sales.

Interest rates on municipal bonds are far above the rates local governments paid in the seventies. If the cost of much needed construction projects is to be held down, rural governments are going to have to change their borrowing techniques. Nonmetro governments, at least in 1977, tended to sell small bond issues, to sell them noncompetitively, to rely on revenue bonds (bonds backed by revenues from a specific source such as highway tolls), and to receive either no bond rating or unfavorable bond ratings. Each of these characteristics added to the cost of bond financing.

This reliance on noncompetitive sales possibly came from a lack of technical expertise in marketing bonds or from a lack of underwriter interest in small-sized bond issues. However, State governments are helping to alleviate this problem. The following programs already have been adopted in one or more States in an attempt to lower the cost of borrowing for small towns and rural areas:

- o Technical assistance programs can improve local government understanding and evaluation of the alternatives in issuing bonds. Programs which help develop general managerial skills among local officials can reduce the cost of selling bonds by reducing reliance on negotiated sales. Efforts to encourage the use of circuit riding managers who serve a number of local jurisdictions in an area could be expanded to include bond marketing experts who would help local officials design a bond issue and guide it through the marketing process. These efforts could also raise bond ratings because the competence of local officials, as perceived by the rating analyst, plays a role in determining what the credit quality judgment will be. The cost of small, unrated bonds also could be affected by improving the managerial procedures of rural officials.

- o Offering several small bonds for sale at one convenient location can increase underwriter interest in small bonds. Such a plan would reduce the underwriters' costs of submitting bids on bonds and heighten underwriter competition for rural bonds, making competitive sales a viable marketing method for more rural borrowers.

- o State supervision programs which increase the perceived investment quality of rural bonds by major investors can broaden the market for these bonds. Investors may come to accept the judgment of State officials on the local government's ability to pay back their debts effectively on municipal bonds. However, such programs reduce local government autonomy and, therefore, may meet considerable resistance from local officials. To some extent, the autonomy factor can be avoided by making local participation in the program optional.

Examining the Rural Municipal Bond Market

Patrick J. Sullivan*

INTRODUCTION

The New York City fiscal crisis in 1975 stimulated attention on the condition and operation of the municipal bond market. However, very little attention has been focused on the market for rural municipal bonds. 1/ This study describes recent trends in rural government reliance on municipal bond financing of public and quasipublic construction projects. The unique character of rural municipal bonds is also highlighted.

Local governments often undertake large construction projects to maintain service quality and to meet the demand for more public services that accompanies population and economic growth. Small towns and rural areas often need new schools, expanded water and sewer systems, and improved highways as populations grow. The enormous growth in Federal and State intergovernmental aid programs during the seventies made coping with population changes easier for local officials (20). 2/ Many grant and loan programs were aimed specifically at aiding local government capital projects. However, the current movement toward State tax limitations and the tightening of Federal budgets may force rural governments to increase reliance on bond financing.

Most analyses of the municipal bond market examine aspects of the entire market or put major emphasis on State and large city borrowing. Only rarely is the possibility raised that the national bond market may not describe the market facing rural issuers. Policies often are discussed without reference to the market faced by rural governments, or the discussion is based upon presumed differences and similarities between large

*Economist, Economic Development Division, Economic Research Service, U.S. Department of Agriculture.

1/ The terms "municipal bonds" and "tax-exempt bonds" will be used interchangeably throughout this report. All securities issued or guaranteed by States, their political subdivisions, agencies, or instrumentalities are referred to as municipal bonds if their interest is exempt from Federal income taxation.

2/ Underscored numbers in parentheses refer to items in the References section.

borrowers and small borrowers (14). This report reveals that nonmetro areas have been remarkably successful in marketing long-term municipal bonds. Although their debt burdens remain low, local governments in nonmetro areas have increased outstanding debt at a faster rate over the last two decades than have governments in metro areas. 3/

Despite the success of many nonmetro governments in issuing bonds, differences remain between metro and nonmetro bonds which make the rural bond market unique in many respects. Many of the characteristics of nonmetro bonds and their method of sale add to the cost of bond financing.

Data on local government debt at the close of the 1977 fiscal year and data on bond sales reported in 1977 are the basis for the description and analysis to follow. Recent borrowing trends are based on local government financial information periodically collected by the Census Bureau. The latest year for which these data are available for all local governments is 1977. The Census Bureau does not request information on individual bond sales in their decennial census of governments. However, this information is regularly collected from reports in the financial press (primarily The Bond Buyer) and from bond dealers by the Public Securities Association (PSA). The PSA data on local government bond issues sold during 1977 are used to evaluate the characteristics and marketing of rural government bonds.

RECENT BORROWING TRENDS

The outstanding debt of State and local governments has grown substantially over the past two decades. Outstanding debt increased slightly over 100 percent during the sixties. During the seventies, it increased over 125 percent, despite disruptions caused by the fiscal decline of several large cities and an erratic national economy. However, its growth has not kept pace with the growth of State and local government spending over these two decades. At the outset of the eighties, the long-term debt of State and local governments amounted to \$281 billion, with further growth anticipated as tax-exempt financing is used for a wider range of purposes.

These national trends have also been evident in rural areas. The growth in outstanding debt for governments in metro and

3/ A bond is a written promise to pay a specified sum of money on a specific date in the future, together with periodic interest at a specified rate. A typical bond has a face value of \$5,000; a bond issue is a group of bonds sold at one time as a package. As used in this report, debt is the dollar amount of bonds sold or outstanding.

nonmetro areas over the 1962-77 period is shown in table 1. Per capita figures are reported in order to standardize the figures and correct for population shifts. Per capita State and local government debt increased nearly 165 percent over these 15 years. Much of this growth was due to higher levels of debt financing by State governments and their agencies; however, local governments added to their debt burdens throughout the period as well. Local government per capita debt increased by roughly 135 percent in metro areas and nearly 150 percent in nonmetro areas. Growth was particularly notable in the less urbanized and totally rural areas. (For a description of these county groupings, see the appendix.) Despite this growth, the level of debt in nonmetro areas remained modest by metro standards. Total outstanding per capita debt was 73 percent higher in 1977 for metro governments than for nonmetro governments. Furthermore, this ratio did not change appreciably over the 1972-77 period since per capita debt increased by about 35 percent in both metro and nonmetro areas. Local debt actually declined as a percentage of income for all government categories over this 15-year period. Total debt as a percentage of income for nonmetro areas declined from 15.2 to 8.9 percent.

Changes in the nature of the debt are as important an aspect of local government borrowing trends as changes in the amount of debt. Local government debt is not homogeneous. The U.S. Bureau of the Census classifies local government debt according to the length of its term to maturity, the funds pledged for debt repayment, and the purpose for which the debt was incurred. An examination of these characteristics suggests that the growth of the municipal bond market in nonmetro areas has been accompanied by changes in the character of nonmetro municipal bonds.

Growth in per capita debt is reported by length of maturity and type of security for the 1962-77 period in table 1. Short-term debt refers to all interest-bearing bonds payable within 1 year from the date they were issued. Bank loans and various types of revenue anticipation bonds (or notes) are included in this category. Long-term debt refers to interest-bearing bonds falling due more than 1 year after issuance. The long-term component of the municipal bond market will be emphasized in this report because most debt-financed construction ultimately depends on the sale of long-term bonds.

Table 1 divides long-term debt into two components based on the type of bond--general obligation and revenue. General obligation bonds are unconditionally backed by the issuing government's general revenues or, if these prove insufficient, by the full taxing power of the jurisdiction. Revenue bonds are not backed legally by the issuing government's general revenues but

Table 1--Growth in outstanding per capita debt by type of debt, level of government, and metropolitan status

Category	Total debt		Long-term debt						Short-term debt	
			Total		General obligation		Revenue			
	1977	Change 1962-77	1977	Change 1962-77	1977	Change 1962-77	1977	Change 1962-77	1977	Change 1962-77
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
State and local governments	:1,200.24	164.8	1,140.88	163.8	630.54	134.0	510.34	213.2	59.36	185.0
Local governments	: 782.45	138.7	737.03	138.3	432.18	104.6	304.85	210.9	45.42	145.0
Metropolitan	: 885.05	134.1	828.99	133.7	505.38	105.7	323.61	196.7	56.06	140.3
Nonmetropolitan <u>1/</u>	: 511.77	149.5	494.42	149.3	239.06	88.0	255.36	258.9	17.35	153.7
Urbanized <u>2/</u>	: 519.49	109.4	494.29	105.6	245.00	72.3	249.29	154.0	25.20	227.4
Less urbanized <u>3/</u>	: 510.26	169.5	496.83	171.9	233.09	93.1	263.74	325.2	13.43	104.2
Rural <u>4/</u>	: 493.82	236.2	485.50	243.4	244.06	122.0	241.44	667.0	8.32	51.6

1/ Metropolitan status is determined according to whether or not the issuing government was located in a Standard Metropolitan Statistical Areas (SMSA) as defined in 1974.

2/ Issuers located in nonmetro counties which had 20,000 or more people residing in urban places in 1970.

3/ Issuers located in nonmetro counties which had between 2,500 and 19,999 people residing in urban places in 1970.

4/ Issuers located in nonmetro counties which had no urban places in 1970.

Sources: Calculated from data reported in the U.S. Bureau of the Census, 1962 and 1977 Census' of Governments.

depend on a specific revenue source such as highway tolls or utility charges for the funds needed to repay principal and interest. 4/

The distinction between general obligation bonds and revenue bonds is important because these two broad classes are treated differently in many State and Federal government regulations and by rating agencies and investors. For example, although State regulations often require general obligation bond sales to have prior voter approval, to be conducted at a competitive public auction, and to satisfy existing debt limits, the sale of a revenue bond may not need to meet any of these requirements (11). Furthermore, because revenue bonds are backed by a specific revenue source, they are analyzed differently by the national credit rating agencies and are treated differently than general obligation bonds by investors.

Most of the net change in outstanding long-term debt for both metro and nonmetro areas was due to the growth of revenue bonds, despite the fact that they are costlier to market than general obligation bonds. Revenue bonds made up only 36 percent of the total outstanding long-term debt in nonmetro areas in 1962. By 1972, this ratio increased to 45 percent and, by 1977, revenue bonds accounted for 52 percent of total outstanding long-term debt in nonmetro areas. The use of revenue bonds has been on the rise in metro areas as well, although they have relied much more on general obligation bonds. The relative share of revenue bonds increased between 1972 and 1977 from 32 percent to 39 percent of total outstanding long-term debt in metro areas. 5/

Local governments may prefer issuing revenue bonds to issuing general obligation bonds for several reasons. Revenue bonds are usually subject to fewer State regulations and are less likely to reduce a government's bonding capacity. The growing importance of special districts could also influence the choice of debt instruments. These governmental entities often have restricted taxing powers, making general obligation bonds

4/ As used in this report, the terms general obligation bonds and full faith and credit bonds are synonymous as are the terms revenue bonds and nonguaranteed bonds. The Census counts debt payable in the first instance from particular earmarked taxes or nontax revenues, but ultimately backed by the government's general fund, as general obligations (22).

5/ Reliance on revenue bonds has continued to grow in recent years, spurred in part by the tax limitation movement. For a discussion of recent trends in the use of revenue bond financing, see (5).

impractical. Furthermore, use of revenue bonds reduces the government's risk of revenue loss if the funds the facility is expected to generate do not materialize. The nature of the facility to be built often influences the type of bond used as well. The type of outstanding debt can be expected to change as the purposes for which local governments issue bonds change. For example, governments will issue general obligation bonds backed by general revenues if funds are needed for construction of nonrevenue-producing facilities, such as public secondary schools. On the other hand, if funds are needed to construct revenue-producing facilities, such as civic centers or industrial parks, governments can, and often will, issue bonds backed by facility revenues. Table 2 presents information on the changing purposes for which local governments in metro and nonmetro areas issued debt.

The Census Bureau collects debt information in varying degrees of detail from different types and sizes of governments. When this information is aggregated to county groups, reasonably accurate data are available only for schools and utilities. Therefore, the numerous other purposes for which local governments issue bonds have been grouped together under the title general purpose in table 2. The table indicates the relative importance of each major purpose for which debt was outstanding in 1962 and 1977.

Debt incurred for building schools made up a much smaller proportion of the local government debt for both metro and nonmetro areas in 1977 than it did in 1962. While school construction slowed, local governments were using bonds to finance a wider range of public and private facility construction. The volume of industrial development bonds increased throughout the sixties until restrictions were placed upon their use by the Federal Government. ^{6/} Bonds issued to help the private sector purchase pollution control equipment comprised an ever growing proportion of the municipal bond market during the seventies. Local governments have begun more recently issuing bonds to support the home mortgage market within their jurisdictions.

As a result of these compositional changes, the relative amount of general obligation bonds has declined while the relative number of bonds that could be tied to specific nontax revenue sources has increased. School districts have relied almost exclusively on general obligation bonds for long-term financing. On the other hand, utility bonds and many types of general-

^{6/} Since 1978, the volume of industrial revenue bonds has once again increased rapidly (21).

Table 2--Outstanding long-term debt by level of government and metropolitan status

Category	: Total outstanding:		Utilities								: Education		: General	
	: long-term debt :		: Total :		: Water :		: Electric and :		: gas :		: Transit :		: purpose	
	: 1962	: 1977	: 1962	: 1977	: 1962	: 1977	: 1962	: 1977	: 1962	: 1977	: 1962	: 1977	: 1962	: 1977
	: <u>Million dollars</u>				: <u>Percent</u>									
State and local governments	77,543	246,816	15.8	16.3	8.7	6.8	4.5	7.4	2.6	2.1	28.6	23.2	55.6	60.5
Local governments	55,454	159,448	22.1	23.1	12.1	10.5	6.3	9.5	3.7	3.1	32.7	23.8	45.2	53.1
Metropolitan	45,123	130,047	20.9	22.4	12.2	10.2	4.2	8.4	4.5	3.8	31.1	22.7	48.0	54.9
Nonmetropolitan	10,331	29,401	27.7	26.1	12.1	11.8	15.6	14.3	--	--	39.3	28.8	33.0	45.1
Urbanized	4,560	11,374	29.3	21.7	14.3	12.3	15.0	9.4	--	--	37.2	28.7	33.5	49.6
Less urbanized:	4,801	14,415	28.0	31.9	10.6	12.2	17.4	19.7	0	--	40.2	29.0	31.8	39.1
Rural	970	3,611	18.9	17.0	9.6	8.6	9.3	8.4	0	0	44.7	27.4	36.4	55.6

-- = A quantity more than 0 but less than 0.05.

Sources: Calculated from data reported in the U.S. Bureau of the Census, 1962 and 1977 Census' of Governments.

purpose bonds are issued to finance construction of facilities which generate their own revenue. This makes the sale of revenue bonds possible. Thus, to some extent, the declining importance of using bonds to finance school construction and the increasing importance of local government funding of private and quasipublic facilities helps explain the growing popularity of revenue bonds in both metro and nonmetro areas.

CHARACTERISTICS OF
RURAL GOVERNMENT
DEBT

Unlike the debt transactions of large corporations, the sale of municipal bonds is not closely regulated by the Federal and State governments. While Federal and State regulations apply to local government bonds, enforcement of these regulations is often left to the participants in the marketing process. As a result, the amount of detailed information collected on local government bond sales varies radically from State to State and even from bond to bond. However, the Public Securities Association (PSA) has developed a national data base that records similar information on a wide range of municipal bond sales. The PSA data on bond issues sold during 1977 (to match Census of Governments data) were assigned a geographic location code and used to evaluate the characteristics and marketing of rural government bonds.

The municipal bond market was fairly stable during 1977, having recovered from the turmoil surrounding New York City's financial difficulties in 1975. The sample period, therefore, should reflect fairly typical municipal bond market conditions. The data set includes 5,331 long-term bond issues, amounting to \$46 billion, sold during 1977 by various State and local governments. Of these, 2,951 metro bond issues and 1,862 nonmetro bond issues were identified. The remaining bond issues were either State government bonds or bonds of local governments which could not be classified as belonging unambiguously to either the metro or the nonmetro group.

The PSA data set does not report information on all bonds sold during any given time period, nor do reported sales constitute a representative sample of all bond sales. The PSA is more likely to report information on larger bond issues, on the bond sales of frequent borrowers, and on those bonds sold through major bond underwriting firms. Because many rural bond issues fall outside this set, many of them likely go unreported and are not included in our data set. Nonetheless, information should be recorded on most of the dollar volume of debt issued by both metro and nonmetro governments. The data, therefore, should give a reasonably accurate picture of the rural bond market, although the results should not be interpreted as representing the characteristics of the average bond issue for either metro or nonmetro areas.

Type of Debt Issued

Table 3 shows the distribution of long-term municipal bonds sold by State and local governments by type of security. The average size of each type of bond issue is also reported. Although roughly two-thirds of all bond issues sold by each local government category in 1977 were general obligation bonds, the small average size of the general obligation bond issues meant that the dollar volume of revenue bonds was actually greater for all categories of local government. Nearly 62 percent of the dollar volume of State and local government bonds sold in 1977 was in the form of revenue bonds. Governments in nonmetro areas continued to rely on revenue bonds for a greater percentage of their debt financing than did metro governments (see table 1).

In most respects, 1977 is a representative sample period for the municipal bond market as a whole; however, it is atypical in a couple of respects. First, as will be discussed shortly, the volume of refinancing was unusually high in 1977. Second, during the year, the city of Valdez, Alaska, issued \$1.2 billion worth of industrial revenue bonds to finance the construction of the Alaskan oil pipeline terminals at the Port of Valdez. The five bond issues involved amounted to 18 percent of the year's nonmetro bond sales and 66 percent of the bond sales of totally rural governments. All subsequent tables reporting dollar volume data exclude the Valdez bonds from the nonmetro and totally rural figures in order to give a more representative picture of the nonmetro bond market.

When the Valdez bonds are excluded, the relative importance of revenue bonds in nonmetro and totally rural areas declines dramatically. Nonetheless, nonmetro areas as a whole continued to rely on revenue bonds to a much greater extent than did their metro counterparts. Revenue bonds represented roughly 67 percent of the corrected nonmetro total, although they accounted for 52 percent of the dollar volume of long-term debt issued by metro governments.

Table 3 shows that governments in nonmetro areas tended to sell smaller sized bond issues than did metro governments. The gap between the size of metro and nonmetro bond issues likely is, if anything, too small because of the underreporting of smaller issues. This difference is especially true of revenue bonds because small-sized revenue bond issues are less likely to be included in our data set. Nonmetro bond issues tend to be about half the size of metro bond issues. The relative size of nonmetro bond issues is even smaller for general obligation bonds. This small average size may affect the marketing of nonmetro bond issues as we will see later in this report.

Table 3--The number, average size, and type of long-term bonds sold by level of government and metropolitan status, 1977

Category	All long-term bonds			General obligation bonds 1/			Revenue bonds		
	Issues	Average size	Issues	Average size	Percentage of total	Issues	Average size	Percentage of total	
	Number	Million dollars	Number	Million dollars	Percent	Number	Million dollars	Percent	
State and local governments	5,331	8.66	3,344	5.30	38.4	1,987	14.32	61.6	
Local governments 2/	4,819	5.88	3,232	3.73	42.6	1,587	10.24	57.4	
Metropolitan	2,951	7.29	1,989	5.16	47.7	962	11.70	52.3	
Nonmetropolitan	1,862	3.65	1,243	1.46	26.7	619	8.04	73.3	
Nonmetropolitan 3/	1,857	2.99	1,243	1.46	32.7	614	6.08	67.3	
Urbanized	610	3.98	388	2.00	32.0	222	7.44	68.0	
Less urbanized	979	2.55	654	1.17	30.8	325	5.31	69.2	
Rural	273	6.85	201	1.34	14.4	72	22.22	85.6	
Rural 3/	268	2.34	201	1.34	43.0	67	5.33	57.0	

1/ Includes limited tax bonds not classified as full faith and credit obligations.

2/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

3/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

Sources: Calculated from unpublished data from the Public Securities Association long-term municipal bond file and from the PSA 1977 Annual Report on the Municipal Market.

Purpose of Debt
Issued

Table 4 presents a distribution of the dollar volume of long-term bonds sold in 1977 by the major purpose for which they were issued. The information available on individual bond issues is sufficiently detailed to allow a more refined categorization of purposes than was possible in table 2 using Census data. Nonetheless, a significant portion of State and metro government bonds were too complex to be grouped into any one category and had to be reported as other. On the other hand, nonmetro bonds could be distributed more easily among the use categories because of their relative simplicity.

Besides the other category, refinancing debt was the single most important use for bonds sold by each government category except for the less urbanized and totally rural areas. The relative importance of the various refunding schemes that were becoming more popular during the seventies is exaggerated considerably by the 1977 figures. As mentioned earlier, 1977 represents the first full year of interest rate stability in the wake of the large fluctuations accompanying the fiscal problems of several large cities in the midseventies. Many governments began to refinance their debt as bond yields fell from the relatively high rates of 1975. In 1975, only 3 percent of the dollar volume of State and local government bond sales was used to refinance existing debt. As interest rates began to decline, this proportion increased to nearly 9 percent in 1976 and, by 1977, had mushroomed to nearly 23 percent of the total dollar volume of State and local bonds. Since 1977, refunding has accounted for less than 10 percent of the total volume of bonds.

Even though 1977 was an unusual year for refinancing, the use of proceeds data is still informative. With the exception of the industrial development category, the relative importance of the remaining use categories should represent recent bond market composition for nonmetro areas. Furthermore, the more rural areas tended to refinance less than did their more urban counterparts. This disparity may suggest that the bond market facing governments in the more rural areas is less diverse than the market facing governments in or near urban areas.

Nonmetro areas tended to issue bonds mainly for pollution control, education, electric and gas utilities, and health facilities, and for refinancing existing debt. For the most part, the large amount of metro debt falling into the other category makes straightforward comparisons of the metro and nonmetro figures risky. However, some significance can be attached to the relative importance of pollution control and industrial development bond sales among the government categories. These bonds almost invariably rely on lease payments as security and are, therefore, less likely to be

Table 4--Purpose of long-term debt issued by level of government and metropolitan status, 1977

Category	Total long-term debt issued	Major purpose for which bonds were issued								
		Refinancing	Education	Electric and gas	Health	Water	Pollution control	Trans- portation	Industrial development	Other
	Million dollars	-----Percent-----								
State and local governments	46,707	22.5	10.9	9.3	8.8	7.1	6.4	6.3	4.6	24.1
Local governments <u>1/</u>	28,321	25.5	11.3	8.0	8.4	9.8	7.8	4.6	6.8	17.8
Metropolitan	21,513	27.1	10.8	7.3	8.6	11.2	5.5	5.8	1.8	21.9
Nonmetropolitan <u>2/</u>	5,550	24.9	15.7	12.6	9.4	6.3	18.7	1.0	5.3	6.1
Urbanized	2,430	33.2	12.8	10.5	11.4	7.9	11.7	1.1	4.1	7.3
Less urbanized	2,493	17.6	16.0	16.6	9.1	5.3	22.5	1.1	6.6	5.2
Rural <u>2/</u>	627	21.2	25.5	5.0	3.3	3.8	30.8	1.0	4.5	4.9

1/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

2/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

Sources: Calculated from unpublished data from the Public Securities Association long-term municipal bond file and from the PSA 1977 Annual Report on the Municipal Market.

grouped with other bonds into one multipurpose bond issue. To the extent that the bond issues are reported at all, the proceeds should be correctly categorized. ^{7/} These two business-related uses of public funds amounted to 24 percent of the dollar volume for nonmetro areas, compared with less than 8 percent of the total for metro areas. They are particularly important in the less urban and totally rural areas. These are areas which experienced considerable manufacturing employment growth in the seventies.

Table 4 helps explain why local governments in nonmetro areas continued to issue so many revenue bonds in 1977. The uses for which revenue bonds are a logical means of long-term financing--electric, gas, and water utilities, industrial development, and pollution control facilities--accounted for 43 percent of the debt issued by nonmetro governments during the year. In addition, a large part of the refunding bonds sold during 1977 were revenue bonds. In this context, the fact that over 67 percent of the dollar volume of debt sold by nonmetro governments was in the form of revenue bonds (see table 3) does not seem so extraordinary.

Maturity Structure of Debt Issued

Governments, especially small governments with limited financial resources, need to be able to stretch debt repayment over a long period. The ability to issue bonds with long maturities allows government officials to distribute project expenses evenly over the useful life of projects. Thus, a water system expected to have a useful life of 30 years can be paid for over the 30-year period. Few small communities could afford to undertake such projects if water rates or tax rates had to be set high enough to pay for the system within 5 years of its construction.

Most bond issues sold by local governments are comprised of bonds with various maturity dates. For example, a \$1-million bond issue would generally include blocks of bonds maturing periodically over a 10- to 20-year period. Different types of investors tend to purchase bonds with different maturities. Most commercial banks, for example, prefer bonds with short to medium terms--under 10 years. Very large banks and insurance companies tend to purchase most of the longer term bonds--over

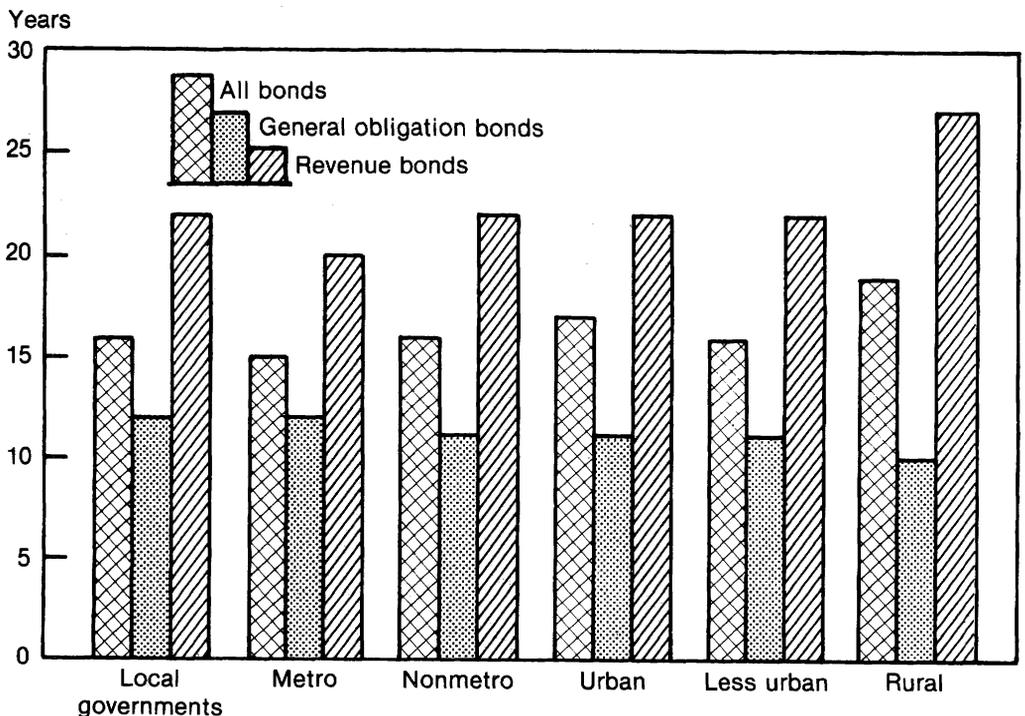
^{7/} The number and dollar volume of pollution control and industrial revenue bonds may be seriously underestimated in national bond market reports based on the financial press. Evidence suggests that the financial press may report as little as one-third of the industrial revenue bond sales and probably reports only two-thirds of the dollar volume of industrial revenue bonds sold (21, 23).

20 years. Therefore, a small rural government might have little trouble selling bond issues comprised of short maturity bonds but have a great deal of trouble selling bond issues with longer term maturities.

Detailed information on the maturity structure of the bond issues in our sample is not available. However, for roughly 66 percent of the bond issues, a measure of the average number of years to maturity is known (10). Based on this subset of bond issues, Figure 1 portrays the average maturity of general obligation and revenue bonds sold by local governments in 1977.

For all categories of local government, the average maturity of general obligation bonds is much shorter than that of revenue bonds. Furthermore, the more rural nonmetro areas apparently issue a slightly higher proportion of shorter termed general obligation bonds. However, the difference is not large and may

Figure 1
Average Maturity of Bonds Issued by Type and Metropolitan Status, 1977



¹Based upon 3,166 local government bond issues for which average maturity information is available. The dollar volume of these bonds amounted to 66 percent of the total dollar volume issued by local governments in 1977. The maturities reported represent an average of all the bond issues in each category weighted by issue size.

Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file.

be due to a bias in the subsample. ^{8/} Countering this is the tendency of the more rural areas to issue longer term revenue bonds. Here too, caution must be used in interpreting this trend because average maturity information is available for only 30 percent of the dollar volume of nonmetro revenue bonds.

Nonmetro governments apparently can market bond issues with maturity structures comparable with those sold by metro governments. Little difference exists in the maturity structure of general obligation bonds. Although less is known about revenue bonds, at least some nonmetro governments, even those in totally rural areas, have issued bonds with very long maturities. This evidence suggests that the market facing nonmetro borrowers is flexible enough to absorb the longer termed bonds needed for many rural development efforts.

Quality of Debt Issued

Few governments have defaulted on bonds since the thirties, making it difficult to measure the risk of default. Therefore, this section deals with credit quality as perceived by the two major agencies currently rating municipal bonds--Moody's Investors Service, Inc., and Standard and Poor's Corp.--rather than actual credit quality.

Many underwriters and investors perform their own credit analyses before purchasing all or part of a bond issue; however, the results of these analyses are seldom made public. Only Moody's and Standard and Poor's (S&P) rate a large number of bonds and publish their credit quality judgments. Furthermore, studies have demonstrated that the investing public uses the published ratings of these two agencies to categorize municipal bonds and that the ratings affect the interest rate local governments have to pay on their bonds (13). The agencies' decisions on the creditworthiness of a bond are, thus, a major component entering into the market's judgment of a bond's credit quality.

Moody's and S&P use similiar rating schemes that range from prime grade investment (which Moody's denotes by an "Aaa" rating and S&P denotes by an "AAA" rating) to an investment in default (denoted by a "C" on Moody's scale and by a "D" on S&P's scale). The decision on whether to have a bond rated by either or both of these agencies usually is made by the

^{8/} Figure 1 represents only 46 percent of the general obligation bonds of totally rural issuers, although the average maturity subsample represents roughly 70 percent of the dollar volume of general obligation bonds of most of the government categories.

issuing government. Because both agencies charge a fee for performing their credit analysis, few investors or underwriters request ratings, and often governments themselves decide against having a bond issue rated. ^{9/} Moody's rated 66 percent of the metro bond issues and 52 percent of the nonmetro bond issues. S&P rated only 17 percent of the metro bond issues and 8 percent of the nonmetro bond issues. Therefore, we have used Moody's rating unless a bond issue was rated only by S&P.

Table 5 presents information on the proportion of bond issues and dollar volume of bonds receiving a published rating from either rating agency. Roughly 43 percent of the bond issues sold by nonmetro governments were unrated compared with 30 percent of the metro bond issues. Furthermore, the percentage of unrated bond issues increases as areas become less urbanized. These figures are undoubtedly low for nonmetro bond issues in general because most of the bond issues not included in our sample are likely to be unrated. As a result, the tendency for the more rural areas to have fewer rated bond issues is probably understated.

Percentages based on the dollar volume of bonds are less susceptible to bias due to unreported bond issues because these issues tend to be small. The percentage of dollar volume sold without a rating is much lower than the percentage of unrated bond issues (table 5). Officials in each government category apparently find it worthwhile to purchase ratings on their larger bond issues. Nonetheless, metro areas still had a larger percentage of rated debt than did nonmetro areas, and the more urbanized areas had a larger percentage of rated debt than did the more rural areas in nonmetro America.

Table 5 also presents information on the distribution of ratings. Nearly 87 percent of the dollar volume of local government debt sold during 1977 was rated by either Moody's or S&P. The published ratings ranged from "Ba," indicating marginally speculative investments (received by less than 1 percent of the bond issues), to "Aaa," indicating prime-grade investments (received by about 5 percent of the bond issues). This range encompasses five major rating classes with most bond issues receiving one of the medium-grade ratings--either "A" or "Baa." Table 5 presents a distribution of bond issues and

^{9/} The rating agencies refuse to evaluate certain types of debt and may withhold publishing a rating on any bond for which insufficient information is available. The fees are based on the complexity of the bond issue being rated and on the frequency of rating requests from the borrower (15).

Table 5--Proportion and volume of bonds sold with a published credit rating by type of debt and metropolitan status, 1977 1/

Category	Bond issues			Dollar volume		
	Unrated	Rated		Unrated	Rated	
		A or lower	Aa or higher		A or lower	Aa or higher
<u>Percent</u>						
All long-term bonds:						
Local governments <u>2/</u>	33.9	51.0	15.1	13.2	57.2	29.6
Metropolitan	30.0	52.3	19.7	12.1	55.6	32.3
Nonmetropolitan <u>3/</u>	43.3	49.0	7.7	20.2	64.4	15.4
Urbanized	30.0	55.3	14.7	12.3	70.5	17.2
Less urbanized	45.4	49.6	5.0	26.5	58.5	15.0
Rural <u>3/</u>	66.0	32.5	1.5	25.2	64.4	10.4
General obligation bonds: <u>4/</u>						
Local governments <u>2/</u>	31.6	53.5	14.9	8.8	57.0	34.2
Metropolitan	25.8	54.1	20.1	6.6	55.3	38.1
Nonmetropolitan	41.0	52.5	6.5	21.3	66.5	12.2
Urbanized	26.3	57.7	16.0	12.4	65.9	21.7
Less urbanized	42.5	54.6	2.9	25.2	68.0	6.8
Rural	64.7	35.3	0	35.9	64.1	0
Revenue bonds:						
Local governments <u>2/</u>	38.5	45.8	15.7	16.4	57.4	26.2
Metropolitan	32.5	48.5	19.0	17.0	55.9	27.1
Nonmetropolitan <u>3/</u>	47.9	42.0	10.1	19.6	63.4	17.0
Urbanized	36.5	50.9	12.6	12.3	72.7	15.0
Less urbanized	51.1	39.7	9.2	27.1	54.2	18.7
Rural <u>3/</u>	70.1	23.9	6.0	17.0	64.6	18.3

1/ Only credit ratings assigned by Moody's Investors Service, Inc., and/or Standard and Poor's Corp., are considered.

2/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

3/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

4/ Includes limited tax bonds not classified as full faith and credit obligations.

Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file.

dollar volume of bonds receiving very favorable ratings and medium to low ratings.

The basis for the rating is different for general obligation bonds and revenue bonds, although the rating categories have the same meaning for both. The credit quality of a general obligation bond depends on the relationship between debt outstanding--present and expected--and the rater's estimate of the amount of debt which the borrower can successfully repay under adverse economic conditions. The rating analyst is concerned with the government's overall revenue structure, the composition of the local economy, the managerial skills of local government officials, and a number of other factors affecting the government's revenue stability. The credit quality of a revenue bond, while taking these general indicators into account, is determined much more by the rater's judgment of the performance of the pledged source of revenue over the life of the bond (2, 15). As a result, a government with a low-quality rating on its general obligation debt can have highly rated revenue bonds and vice versa. For this reason, table 5 distinguishes general obligation bonds from revenue bonds.

Nonmetro governments tended to receive a lower proportion of favorable ratings in each category, particularly for general obligation bonds. Thirty-eight percent of the dollar volume of general obligation bonds issued by governments in metro areas was rated "Aa" or better; the corresponding figure for nonmetro areas was only 12 percent. The disparity was even larger if only rated bonds are considered. Figure 2 presents the distribution of rated bonds among three rating classes: favorable, medium, and low. Forty-one percent of the rated general obligation bonds of metro governments were rated favorably compared with only 16 percent for nonmetro governments. Within nonmetro areas, the proportion of highly rated general obligation bonds was much lower for governments in the less urbanized and totally rural areas. These figures might indicate that the rating agencies feel that the general obligation bonds of most rural governments do not merit high grades for credit quality. On the other hand, the low ratings received on nonmetro bonds simply may reflect metro/nonmetro differences in purchasing ratings. A lower average rating for nonmetro bonds would be expected if rural governments only purchase ratings for hard-to-market bonds while metro governments regularly purchase ratings on most bonds. In the absence of more information, the explanation more relevant in 1977 cannot be determined.

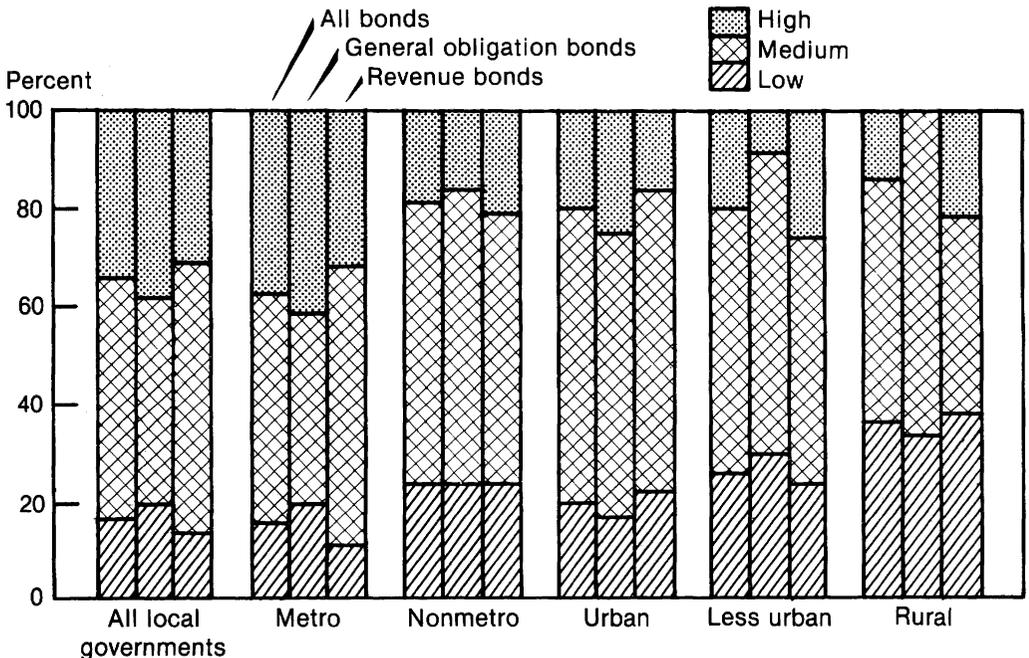
The distribution of ratings on revenue bonds demonstrates a different pattern. Nonmetro bonds continued to receive a smaller proportion of favorable ratings; however, the

disparity was much smaller. In addition, the proportion of highly rated bonds in the less urbanized and totally rural areas was not significantly different from the proportion in urbanized nonmetro areas. A comparison of the rating distributions for general obligation bonds and revenue bonds which were rated highlights the differences between these two categories. Only 16 percent of the dollar volume of rated general obligation bonds in nonmetro areas was in the "Aa" and above category compared with 21 percent of the dollar volume of rated revenue bonds in the same category. The difference was even more pronounced for the less urbanized and totally rural nonmetro areas. The opposite relationship was evident for metro areas: a larger proportion of general obligation bonds was rated "Aa" or above than was true for revenue bonds.

The distributions of credit ratings for general obligation and revenue bonds may help explain two characteristics of the nonmetro bond market: the prominence of revenue bonds and the high percentage of unrated bond issues. Revenue bonds apparently have a better chance of receiving favorable ratings which

Figure 2

Distribution of Rated Bonds Among Major Rating Groups by Type of Bond and Metropolitan Status, 1977



¹Ratings by Moody's Investors Service are used whenever possible. Otherwise ratings by Standards and Poor's Corp., are used. "Aaa" and "Aa" are high; "A-1" and "A," medium; and "Baa-1," "Baa," and "Ba," low.

Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file and *Moody's Municipal and Government Manual*.

broaden the market of potential investors for rural bonds and thus make them easier and cheaper to sell. The proportion of highly rated bonds in each category indicates that metro areas probably should favor general obligation bonds and nonmetro areas should favor revenue bonds. 10/

The tendency for nonmetro areas to have a lower proportion of favorably rated bonds than their metro counterparts also helps explain why nonmetro governments choose to have a smaller proportion of their bonds rated. Purchasing a rating is only worthwhile if the resulting interest savings exceed the rating agency's fee and the other incidental costs associated with having a bond rated. Rural government officials appear to have less incentive to apply for a credit rating because they expect to receive low ratings on their bonds. 11/ Table 5 suggests that such an expectation may be well founded, especially for general obligation bonds and the bonds of rural governments. Also, the tendency for governments in less urban areas to sell unrated bonds is partly a function of the average size of their bond issues. Because the interest cost associated with a small issue tends to be small, any savings attributed to a good credit rating will also be small; in many cases, too small to warrant purchasing a credit rating. Purchasing a credit rating may be uneconomical in many cases because nonmetro areas, particularly the more rural areas, tend to issue a high proportion of small issues (see table 3).

The types of debt, their uses, and credit quality are the principal components of the rural municipal bond market. Individual bond issues have other characteristics which could be used to categorize the bonds of local governments in nonmetro America. Such characteristics as, for example, the timing of a bond sale or the use of call provisions affect the interest rate payable on rural municipal bonds. However, they are less likely to indicate a fundamental difference between the bonds of metro and nonmetro governments.

MARKETING RURAL GOVERNMENT DEBT

Local governments usually do not sell bonds directly to the public. In a typical sale, the issuing government awards its

10/ However, nonmetro revenue bonds as a group may be rated highly because of the low risk of the particular projects being financed. Use of revenue bonds does not guarantee favorable ratings for riskier projects.

11/ Studies have shown that, other things being equal, the interest rate on an unrated bond will be equal to or lower than the interest rate associated with a bond having a "Baa" rating (19).

bonds to an underwriter or to a group of underwriters who then resell the bonds to investors. Investment firms or commercial banks usually perform this marketing function, although insurance companies and various governmental agencies also underwrite municipal bonds. During the marketing process, several other agents, such as bond attorneys, fiscal consultants, rating agencies, and paying agents, often will be directly involved. However, the major participants are the issuing governments, the underwriters, and the investors (10, 12).

Bond Issuers

A number of governmental agencies and quasigovernmental organizations have authority to issue tax-exempt bonds. Not only can general-purpose governments, such as State, county, city and town governments, issue municipal bonds, but a variety of special-purpose districts and statutory authorities also issue a considerable amount of debt.

Table 6 presents a distribution of the dollar volume of tax-exempt bonds issued in 1977 by the type of governmental unit responsible. State governments and their statutory authorities were responsible that year for roughly 28 percent of the total amount of bonds sold. Local governments and local statutory authorities were responsible for the remaining 72 percent. When considering only bonds of local governments, the two largest issuers were municipalities and statutory authorities.

Special districts and statutory authorities, as the terms are used here, include government entities which are entitled to issue tax-exempt debt but which are legally distinct from any general-purpose government. These two categories include such organizations as water districts, park authorities, hospital associations, sanitation districts, industrial development boards, and housing corporations. These units are often little more than arms of the county or city government, even though they are legally distinct entities. 12/

Together, the bonds of special districts and statutory authorities accounted for nearly 36 percent of the dollar volume of debt issued by local governments in 1977. The proportion of debt issued by these special-purpose governments was roughly equal in metro and nonmetro areas. However, special-purpose governments were relatively unimportant in terms of debt issuance in totally rural areas.

12/ The Public Securities Association's classification of bonds by type of issuer is based largely on the name of the issuing jurisdiction. No attempt is made to distinguish units according to the degree of administrative autonomy they demonstrate as is done by the Bureau of the Census (22).

Table 6--Proportion of long-term bonds issued by governmental units by level of government and metropolitan status, 1977

Category	States	Local governments				
		Counties	Municipalities, towns, and townships	School districts	Special districts	Statutory authorities
		<u>Percent</u>				
State and local governments	28.3	9.1	25.0	6.2	5.8	25.6
Local governments <u>1/</u>	na	14.5	39.4	10.1	9.7	26.3
Metropolitan	na	14.0	37.4	9.7	11.1	27.8
Nonmetropolitan <u>2/</u>	na	19.6	33.8	14.1	6.3	26.2
Urbanized	na	13.0	38.9	11.6	3.9	32.6
Less urbanized	na	20.4	30.3	16.0	9.2	24.1
Rural <u>2/</u>	na	42.1	28.4	15.4	4.2	9.9

na = Not applicable.

1/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

2/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

Sources: Calculated from unpublished data from the Public Securities Association long-term municipal bond file and from the PSA 1977 Annual Report on the Municipal Market.

Variation in the relative importance of various types of governments is expected as the urban character of an area changes. In urban areas, the municipal government along with its numerous special-purpose add-ons are the primary deliverers of public services. In rural areas, on the other hand, county governments tend to provide most of the services and, therefore, could be expected to issue most of the debt. Table 6 shows that the county government's responsibility for an area's debt increases as the area becomes less urbanized. At the same time, the importance of city governments and special-purpose governmental units tend to decline.

The importance of general-purpose governments in rural areas and the higher proportion of revenue bonds issued by rural governments point to an interesting phenomenon in the nonmetro bond market. With the exception of school districts, the proportion of general obligation debt issued by each type of government in nonmetro areas is less than half that of similar governments in metro areas. Thus, even though general-purpose governments are more important in rural areas, they rely on revenue bond financing to a much greater extent than do general-purpose governments in the more urban areas.

Method of Sale

Local governments use several methods to sell bonds. The government's decision on how to sell a bond issue may be based on prevailing market conditions, tradition, the level of expertise of local government officials, and the character of the bond itself. Often, however, local government officials have no choice because legal requirements must be satisfied. State law, for example, may require general obligation bonds initially to be offered for sale at a public auction where the issue is sold to the underwriter submitting the best bid.

A local government may choose to rely on the negotiated sale of bonds through a preselected underwriting firm when it is not required to award its bonds through a public, competitive sale. Governments also may bypass the underwriting industry by selling bonds directly to investors. Direct sales are easiest when one investor, say a local bank, is willing to purchase the entire bond issue or when the bond issue is sold to a special fund, such as a public employee pension fund, controlled by the issuing government.

There are advantages and disadvantages associated with each type of marketing technique (12). Competitive sales generally are accepted to be the cheapest and fairest means of marketing municipal bonds. Nonetheless, a negotiated sale may be the only practical marketing technique for complicated or small bond issues (17). And a direct sale may be the cheapest means

of selling a small bond issue when investors and the issuing government can agree on a fair interest rate.

Table 7 presents information on the importance of the various methods of marketing municipal bonds in metro and nonmetro areas for general obligation and revenue bonds. General obligation bonds are generally subject to tighter regulation by the State. The sale of general obligation bond issues over a certain minimal amount usually is restricted to competitive sales. However, the sale of revenue bonds is often left to the discretion of local government officials, explaining why 73 percent of general obligation bonds were sold competitively compared with only 20 percent of revenue bonds.

The disparity between the importance of the competitive sale of general obligation bonds and revenue bonds is even more striking in the nonmetro bond market. Nonmetro governments relied on the competitive sale of general obligation bonds slightly more than did metro governments but used a competitive auction to sell a much smaller percentage of their revenue bonds than did metro governments. Most bonds issued in 1977 by nonmetro governments were not sold competitively but were, instead, sold through a preselected underwriter.

Negotiated sales may be more practical for many nonmetro bonds than competitive sales. Nonmetro bond issues tend to be small (see table 3) and either unrated or unfavorably rated (see table 5). In addition, governments in nonmetro areas may borrow infrequently so they may lack access to the specialized skills needed to market a bond issue. These characteristics make competitive offerings difficult and potentially expensive. An additional problem that reduces the benefits of a competitive sale may be a lack of underwriter interest in many nonmetro bonds. A competitive sale reduces the cost of issuing bonds by increasing competition among underwriters and by increasing the pool of potential investors. The more underwriters involved in the bidding, the greater the potential savings to the issuing community. ^{13/} When only competitive sales are examined, nonmetro governments received roughly the same number of bids as metro governments on bond issues of similar size and credit quality. However, underwriter competition was lower for totally rural government bonds (fig. 3).

The importance of the private sale of bonds directly to investors is difficult to measure with information currently available.

^{13/} The interest cost savings associated with additional bidders have been estimated in several national analyses. The study most often cited is (9).

Table 7--Methods used to market long-term volume by type of debt and metropolitan status, 1977

Category	All long-term bonds <u>1/</u>			General obligation bonds <u>2/</u>			Revenue bonds		
	Public sale	Negotiated sale	Private sale	Public sale	Negotiated sale	Private sale	Public sale	Negotiated sale	Private sale
	<u>Percent</u>								
Local governments <u>3/</u>	42.7	55.5	1.8	72.9	26.8	0.3	20.3	76.8	2.9
Metropolitan	47.7	50.7	1.6	72.0	27.9	0.1	25.4	71.6	3.0
Nonmetropolitan <u>4/</u>	33.4	63.8	2.8	77.9	20.6	1.5	11.7	84.8	3.5
Urbanized	34.3	64.2	1.5	80.4	19.2	.4	12.6	85.4	2.0
Less urbanized	33.5	63.6	2.9	82.4	15.7	1.9	11.8	84.9	3.3
Rural <u>4/</u>	28.8	63.1	8.1	57.6	38.7	3.7	7.0	81.6	11.4

1/ This table is based upon 4806 local government bond issues for which method of sale information is available. The dollar volume of these bonds amounted to 99.8 percent of the volume of all local government bonds sold in 1977.

2/ Includes limited tax bonds not classified as full faith and credit obligations.

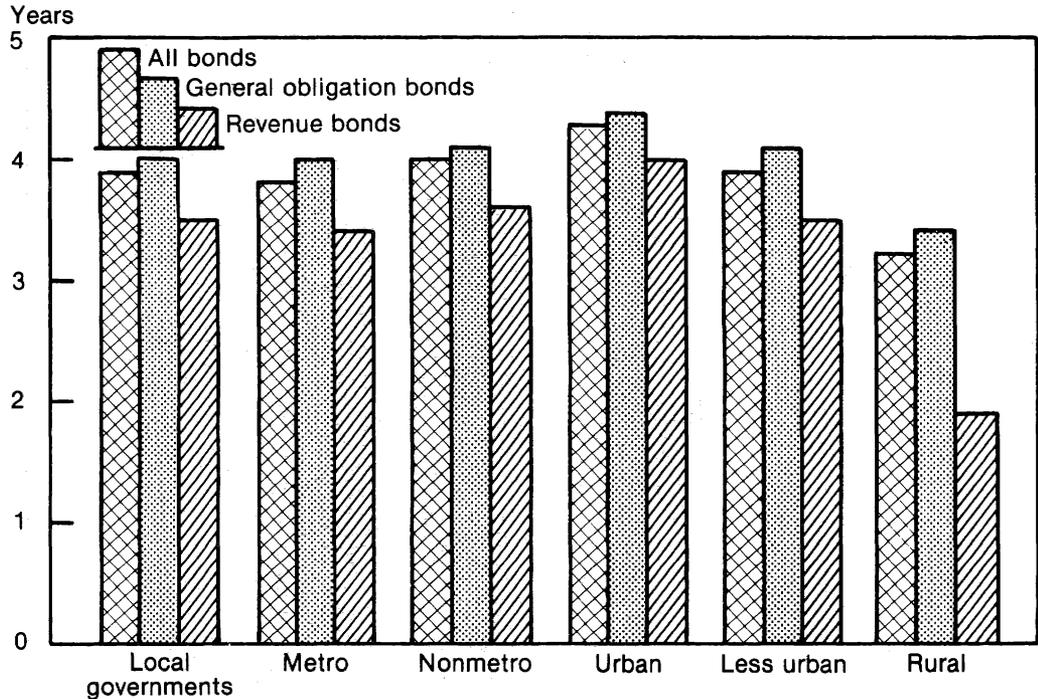
3/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

4/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file.

Figure 3

Average Number of Bids Received on Competitively Sold Bond Issues by Type of Bond and Metropolitan Status, 1977



Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file.

Direct sales probably are much more prevalent than table 7 indicates because these sales are less likely to be reported in the financial press. Also, the disparity between their importance to nonmetro and metro areas is underestimated by the data reported in table 7. Rural governments issue a higher proportion of small, uncomplicated bond issues that can be sold directly to investors. In addition, the debt transactions of governments in rural areas are not watched as closely by the bond market as are the debt transactions of frequent borrowers. As a result, a higher proportion of the direct sales of nonmetro bonds probably go unreported compared with the direct sales of metro bonds. The tendency for governments in the more rural areas to sell a larger proportion of their debt directly to investors is, therefore, understated.

Bond Underwriters

The municipal bond underwriting industry is composed almost entirely of investment firms and commercial banks with municipal bond departments. Only 768 nongovernment underwriters are known to have handled the local government bonds issued during

1977: 399 investment firms, 366 commercial banks, and 3 life insurance companies. Smaller sized bond issues were usually managed by one underwriter while larger bond issues were often managed jointly by several firms. The average local government bond sold during 1977 was managed jointly by two underwriting firms.

Precise information on the amount of the bonds that each was responsible for is unavailable where more than one underwriter purchased a bond issue. Nonetheless, the relative importance of each underwriting group can be estimated if we assume that each underwriter was responsible for an equal share of the bond issue. The data reported in table 8 were obtained in this way.

The estimated distribution of metro and nonmetro municipal bonds underwritten by commercial banks, investment firms, and the other participants in the underwriting industry is shown in table 8. Investment firms managed most of the dollar volume, over 78 percent of local government bonds in 1977. Commercial banks handled roughly 17 percent, and insurance companies and various governmental agencies managed the remaining 5 percent.

Commercial banks were even less important as underwriters of nonmetro municipal bonds, largely due to the type of bonds issued by nonmetro governments; commercial banks are not allowed to underwrite most revenue bonds. ^{14/} While this prohibition is not absolute, commercial banks managed less than 2 percent of the dollar volume of revenue bonds issued by local governments during 1977. By comparison, banks underwrote 36 percent of the general obligation debt sold during the year. Commercial banks were eligible to underwrite a smaller share of the total debt sold by nonmetro governments because rural governments issued proportionately more revenue bonds than did metro governments. An examination of general obligation bonds and revenue bonds shows little difference in the percentage of metro and nonmetro debt underwritten by commercial banks. Nonetheless, the percentage of general obligation debt underwritten by commercial banks drops noticeably as the level of urbanization declines in nonmetro areas.

Investment firms underwrote nearly all revenue bonds in each government category. Investment firms underwrote 98 percent of

^{14/} Commercial bank underwriting of revenue bonds was severely restricted by the Bank Act of 1933 (the Glass-Steagall Act). The banking industry and State and local governments have made numerous efforts to have this prohibition removed in recent years (8).

Table 8--The importance of various groups in underwriting long-term volume sold by type of debt and metropolitan status, 1977

Category	Total long-term bonds			General obligation bonds <u>1/</u>			Revenue bonds		
	Banks	Security firms	Others <u>2/</u>	Banks	Security firms	Others	Banks	Security firms	Others
	<u>Percent</u>								
Local governments <u>3/</u>	16.5	78.2	5.3	36.1	54.9	9.0	1.9	95.5	2.6
Metropolitan	18.5	76.2	5.3	36.1	54.2	9.7	2.3	96.4	1.3
Nonmetropolitan <u>4/</u>	12.6	85.4	2.0	36.2	59.2	4.6	1.0	98.2	.8
Urbanized	14.0	85.4	.6	41.7	56.6	1.7	.9	99.0	.1
Less urbanized	11.0	85.8	3.2	33.0	59.9	7.1	1.2	97.4	1.4
Rural <u>4/</u>	13.2	83.8	3.0	29.4	64.7	5.9	1.0	98.2	.8

1/ Includes limited tax bonds not classified as full faith and credit obligations.

2/ Composed of life insurance companies, public agencies, and unidentified underwriters.

3/ Includes governments that could not be classified as metropolitan or nonmetropolitan.

4/ Excludes five Alaskan (Valdez) oil pipeline industrial development bonds for comparison purposes.

Source: Calculated from unpublished data from the Public Securities Association long-term municipal bond file.

nonmetro revenue debt during 1977. Furthermore, this share of the market remained remarkably stable over the range of nonmetro areas examined.

Little variation appears in the types of groups underwriting metro and nonmetro bonds. An appreciable difference in the relative importance of underwriting groups is apparent only for general obligation bonds issued by governments in totally rural areas. Commercial banks tended to be less important as underwriters of the general obligation bonds of governments in totally rural areas either because of lack of interest, noncompetitive bids, or direct sales.

Bond Investors

Little is known about the institutions and individuals purchasing nonmetro bonds. Estimates of the distribution of municipal bond ownership are available for the Nation, but small area data do not exist. Further, estimates of which investors own the bonds of metro governments and which own the bonds of nonmetro governments are simply unattainable because State and local government bonds are largely outside the regulatory sphere of such agencies as the Securities and Exchange Commission.

A national breakdown of municipal bond ownership for selected years as reported by the Federal Reserve Board is given in table 9. Throughout the sixties, commercial banks were the major purchasers of State and local government bonds, purchasing

Table 9--Ownership of State and local government securities for selected years, 1960-79

Year	Total State and local debt outstanding	Commercial banks	Households	Nonlife insurance companies	All other
	<u>Billion dollars</u>	<u>Percent</u>			
1960	68.3	24.4	43.6	11.3	20.7
1962	79.2	29.6	39.6	12.0	18.8
1965	100.3	38.8	36.3	11.3	13.6
1967	113.7	44.3	33.2	12.4	10.1
1970	144.4	49.6	31.8	11.8	6.8
1972	176.5	51.0	27.4	14.1	7.5
1975	223.8	46.0	30.4	14.9	8.7
1977	263.2	43.8	27.8	18.8	9.6
1979	312.7	43.4	23.8	23.9	8.9

Source: Board of Governors, Federal Reserve System, Flow of Funds Accounts.

over 70 percent of the net increase in municipal bonds outstanding during the decade. The relative importance of banks as owners of municipal bonds peaked in 1971/72 when their holdings amounted to over 51 percent of the total dollar volume of municipal debt outstanding. The commercial banking system remains the largest owner of municipal bonds; however, its relative importance declined throughout the remainder of the seventies. This decline was accompanied by a rise in the relative importance of casualty (nonlife) insurance companies as owners of municipal bonds.

The extent to which these major groups of investors are attracted to rural government bonds is difficult to judge. Commercial banks and wealthy individuals likely are the major purchasers of the bonds of rural governments. Nonmetro debt is largely comprised of small, unrated bond issues of governments with which few people are familiar, so the market for nonmetro bonds is often limited to investors familiar with the area such as local banks and people. However, this description does not accurately portray all nonmetro debt. Many governments in nonmetro America have been selling large, favorably rated bond issues comparable with the bond issues of governments located in metro areas. A significant portion of the nonmetro bond issues sold in 1977 attracted regional and national attention.

It is lucky for those governments issuing small, unrated bond issues that the strength of rural bank support for the municipal bond market in the seventies did not mirror the national trend. Rural banks increased their holdings of municipal bonds relative to other securities between 1972 and 1977, although the commercial banking system as a whole was reducing the relative importance of municipal bonds within its securities portfolio. The increased support given to municipal bonds by rural banks and the growth of these banks resulted in an increase of over 70 percent in municipal bond holdings of nonmetro banks between 1972 and 1977. By comparison, metro banks increased their holdings of municipal bonds only 33 percent over the same 5-year period (18). A significant portion of nonmetro bank holdings likely would be comprised of the tax-exempt issues of governments within the nonmetro areas.

The commercial banking system, particularly nonmetro banks, probably remains the dominant group purchasing nonmetro municipal bonds. Nonetheless, many nonmetro bonds are of sufficient size and credit quality to attract regional and national attention. Casualty insurance companies and other institutional and individual investors throughout the country likely find many nonmetro bonds to be competitive with those of larger, better known governments.

POLICY IMPLICATIONS

This paper has attempted to describe the nonmetro tax-exempt bond market. Differences in the characteristics of both bond issues and bond markets within nonmetro areas are as important as differences between metro and nonmetro areas. Urbanized nonmetro places often behave very much like metro places. Less urbanized places, on the other hand, often display characteristics quite different from their more urbanized counterparts.

During the last two decades, both metro and nonmetro governments have been quite successful in their debt financing efforts, although fluctuations in market conditions did cause problems periodically. From 1962 to 1977, the level of outstanding debt per capita increased nearly 150 percent in nonmetro areas. Totally rural governments increased their debt levels over the same period by a percentage rate that was over twice that of the more urbanized nonmetro governments.

This growth in the amount of debt outstanding was accompanied by changes in the uses for which debt was issued. Reliance on bond financing for school construction declined, particularly during the seventies, while new uses of publicly borrowed funds grew in importance. Borrowing to finance health facilities and industrial development became increasingly important in nonmetro America.

Changes in the purposes for which debt was issued help explain another important shift in the composition of the rural bond market: the growing importance of revenue bonds. The extensive use of tax-exempt financing for revenue-generating facilities increased the appeal of revenue bonds. In addition, revenue bonds are subjected to fewer State regulations, do not count toward State-imposed debt limits, and are often easier to issue than general obligation bonds. These advantages have led to a growing reliance on revenue bonds by all governments but particularly by governments in nonmetro areas.

Other salient features of bond issues sold by nonmetro governments in 1977 included their size, maturity structure, credit rating, and marketing method. When compared with the bond issues of metro governments, nonmetro governments sell smaller bond issues of comparable maturity which tend to be unrated or carry low to medium credit ratings. In addition, nonmetro governments, especially those serving totally rural areas, rely on noncompetitive sales to a greater extent than do metro governments.

The average size of nonmetro revenue bond issues was roughly half that of metro governments while the average size of general obligation bond issues was less than one-third that for metro areas. The small size of these bond issues helps explain

why such a small percentage--57 percent--of nonmetro bond issues have a credit rating; ratings are not needed for small, locally oriented bond sales. The larger bond issues are rated but, of these, a smaller percentage of nonmetro bond issues are rated favorably than is true of metro bond issues, especially general obligation bonds and bonds of less urbanized nonmetro areas. This smaller percentage may reflect a view that the economic bases or the managerial skills of the governments serving these areas are too limited to support prime grade bonds.

Many of the features of the rural municipal bond market have definite cost implications. Reliance on revenue bonds and noncompetitive bond sales tends to add to the cost of bond-financed rural development. Low credit ratings and long maturities can also push borrowing costs up. Rural governments often may find issuing revenue bonds through preselected underwriters advantageous; however, in many instances, such choices are forced upon rural officials because of a lack of technical expertise or underwriter indifference. To the extent that this is true, altering these circumstances could reduce the cost of rural development.

State and
Federal Role

The information above suggests several State and Federal government actions which could improve market acceptance of nonmetro bonds and lower the cost of bond-financed rural development. The scope of this report has been limited to local governments which successfully sold long-term bonds during 1977. For this reason, the discussion will highlight types of programs that could prove most useful to those rural governments which have already attained some success in marketing their bonds. Programs designed to help those governments which are effectively cut off from the tax-exempt bond market will not be examined here. 15/

Technical
Assistance
Programs

Rural governments are hindered not only by the type of debt they sell but by the infrequency of their bond sales. Small governments tend to go several years between bond sales while

15/ Throughout this section, the question of whether these programs are cost effective from the Federal or State government viewpoint is ignored. Based on the borrowing patterns of rural governments, these programs probably could reduce the cost of publicly provided services. Further research would be needed to determine whether any particular program would be worthwhile for an individual State.

large city governments regularly issue long-term debt. Therefore, local officials in small towns cannot easily develop the expertise needed to correctly evaluate the full range of alternatives available when designing and selling a bond issue. One means of acquiring this technical expertise on the marketing process is to purchase it from the underwriting industry, often as part of a negotiated sale. Although helpful in many cases, a negotiated sale can add to the total cost of selling a bond issue that, except for a lack of understanding of the marketing process, could have been sold competitively.

Programs which help develop general managerial skills among local officials can reduce the cost of issuing debt by reducing reliance on negotiated sales. Current Federal efforts to improve the managerial capacity of local officials have been aimed primarily at grant management skills; however, they can improve debt management skills as well. Efforts to encourage the use of circuit riding managers who serve a number of local jurisdictions in an area could be expanded to include bond marketing experts who would help local officials design a bond issue and guide it through the marketing process.

Raising managerial skills of local officials and making technical advisors available to assist with the development of a bond prospectus and disclosure information could also improve the credit rating of many rural bonds. Ratings are not based solely on the diversity of the area's economy or on the stability of the jurisdiction's revenues flows. The honesty and competence of local officials, as perceived by the rating analyst, also play a role in determining what the credit quality judgment will be. The chance of receiving a favorable rating should increase if the locality's yearly budget, capital plans, and revenue forecasts comply with professional standards of accuracy and completeness. These same criteria are being demanded increasingly by underwriters and investors as well. In the wake of New York City's budget problems, more extensive disclosure of information and more reliable accounting procedures have been required. ^{16/} If this trend continues, even the cost of small, unrated bond issues could be affected by improving the managerial procedures of rural officials.

^{16/} Partially in response to this, the Municipal Finance Officers Association developed a set of guidelines on what types of financial and economic base information local officials should include in their bond prospectus; new standardized accounting procedures have also been developed. For a discussion of the need for State oversight of local government accounting, see (1).

Centralized
Marketing
Procedures

State governments can assist small isolated local governments by providing a number of marketing services to local officials. North Carolina's Local Government Commission (NCLGC) is an excellent example of the potential benefits of an expanded State role in the local bond financing process. By providing several bond marketing services, the NCLGC has been able to economize on personnel, increase the demand for North Carolina's small government bond issues, and reduce the public cost of issuing bonds (4).

Centralized marketing can reduce the cost of issuing local government debt by increasing the flow of information to potential investors and underwriters, and by reducing the cost of underwriting these bond issues. Demand for a bond issue can be increased, thus reducing borrowing costs, by disseminating pertinent information in a consistent, easily understood format to all potential underwriters and investors. Furthermore, competition among underwriters can be stimulated, leading to further cost saving, by taking steps to reduce the cost of submitting a bid on a bond issue.

State governments, and to a lesser extent the Federal Government, can improve the ability of local governments to inform prospective investors in a number of ways. Collecting socioeconomic data for general-purpose and school district governments is already done on a regular basis. Financial data are published in several States, providing a central source of consistent information for all local governments within the States. Federally funded efforts to develop meaningful measures of local government fiscal health could eventually improve the usefulness of Statewide data services for bond marketing purposes.

State governments could undertake the task of developing and distributing the financial prospectus for local governments about to sell a bond issue. Even with these marketing services, rural governments might find underwriter competition for their bond issues disappointingly low because of the costs involved in submitting a bid. The geographic isolation of the totally rural areas and the small size of their bond issues put many rural governments at a competitive disadvantage with governments in more urbanized areas.

Selling small bond issues at one central location convenient to the underwriting industry, rather than selling each bond issue at the city hall of the issuing jurisdiction, could result in more underwriting firms bidding for small bond issues. Increased underwriter competition generally results in lower interest costs for bonds. The NCLGC has adopted this technique to help small isolated borrowers in North Carolina. In addition, by

centralizing bond sales, the commission is in a position to schedule sales in such a way that small bond issues are grouped together and sold at a time when they are not competing directly with the sale of large bond issues. As a result, submitting a bid on a small bond issue is easier, less time consuming, and less costly than would otherwise be the case.

State Supervision

State government clearance of local government bond issues may be useful for some governments and for some types of bond issues, although local autonomy and flexibility may be reduced. State supervision can range from sale notification requirements, where the State has little influence over the sale, to bond validation requirements, where the State rules on the legality of the sale. Programs which allow local officials to request a State clearance of a bond issue could significantly improve the market acceptance of rural bonds without reducing local autonomy.

A local government with a pending bond sale could ideally request a presale examination of the bond issue's design, a ruling on the bond issue's legal validity, or a more extensive State role in the sale and redemption of the bond issue. State examination of the bond issue's maturity structure and bidding rules is basically a type of technical assistance. The purpose is to insure that the local government has a real need for debt financing, can afford to repay the debt, and is not needlessly making its bonds harder to sell. The potential benefits of this type of assistance for small rural governments have already been discussed (see p. 32).

State validation of a bond issue is concerned with the legality of issuing the bond as a tax-exempt security. The extent of existing State intervention varies; however, one procedure requires a State court to rule on the local government's authority to issue debt, on the bond issue's compliance with State laws and debt limits, and on the tax-exempt status of the bond (6). Such a ruling reduces the risk of purchasing the bond issue because it reduces the possibility of future questions about the bond's legality. For small governments, having the State fully validate a bond issue could increase demand for it for the same reason that a favorable credit rating does: the validation reduces uncertainty.

Another option that local officials, with help from the State government, can use to increase demand for their bonds is to qualify the bonds. A qualified bond program allows the local government to pledge State administered aid as additional security on a bond. That is, at the local government's request, the State pledges to give debt service a first claim on certain State aid monies going to the issuing government. If the local government defaults on its debt service obligations, State aid

that would have gone to the issuing government is redirected to bond holders. Although the program is not a State guarantee of the bonds, the risk of capital loss in the event of default is reduced, especially if the pledged aid is high compared to the scheduled debt service. Issuing qualified bonds could reduce the cost of borrowing by reducing investor risk on rural bonds receiving low credit ratings because of limited tax bases.

Changing Underwriter Regulations

The policy suggestions discussed thus far require Federal or State government involvement in the marketing process, although unlike such suggestions as the rural development bank, none of these programs alter the operation of the municipal bond market itself. One particular Federal action could affect rural borrowing costs without requiring any Federal involvement in the marketing process. Competition for rural government issues might be heightened simply by repealing the regulation prohibiting commercial banks from underwriting revenue bonds.

Rural governments rely heavily on revenue bond financing. As a result, a large portion of rural debt cannot be underwritten by commercial banks. Repealing the Glass-Steagall Act would give commercial banks the freedom to submit bids on competitively sold revenue bonds. The added competition could lower the cost of rural debt.

The benefits of this change in regulations are still in doubt. The extent to which the cost of revenue bonds could be lowered by a repeal of the bank prohibition remains a hotly debated issue (16). Commercial banks are likely to be selective in which types of revenue bonds to underwrite. Furthermore, faced with competition from the commercial banking system, some nonbank security firms may cease bidding on tax-exempt bond offerings. Then too, many observers fear that heightened competition for revenue bonds will come at the expense of lower competition for general obligation bonds. The net effect of these changes on rural government borrowing costs is yet to be determined. However, a repeal of the bank prohibition likely could benefit some nonmetro borrowers.

REFERENCES

- (1) Advisory Commission on Intergovernmental Relations. "State Regulation of Local Accounting, Auditing and Financial Reporting," Bulletin No 79-7 (1979).
- (2) Bahl, Roy W. "Measuring the Creditworthiness of State and Local Governments: Municipal Bond Ratings," Proceedings of the Sixty-Fourth Annual Conference on Taxation. Columbus, Ohio: National Tax Association, 1971, pp. 600-22.
- (3) The Bond Buyer. Municipal Finance Statistics. various years.
- (4) Boyles, Harlan E. "State Supervision of Municipal Borrowing," Public Management, Vol. 58 (1976), 8-10.
- (5) Fischer, P.P., R.W. Forbes, and J.E. Petersen. "Risk and Return in the Choice of Revenue Bond Financing," Governmental Finance, Vol. 9 (1980), 9-13.
- (6) Haley, John F. "A Study of State-Imposed Municipal Bond Validation Requirements." Washington, D. C. Government Finance Research Center, Municipal Finance Officers Association, 1979.
- (7) Hines, F.K., D.L. Brown and J.M. Zimmer. Social and Economic Characteristics of the Population in Metro and Nonmetro Counties, 1970. AER-275. U.S. Dept. Agr., Econ. Res. Serv., 1975.
- (8) Hopewell, Michael H. and George G. Kaufman. "Commercial Bank Bidding on Municipal Revenue Bonds: New Evidence." Eugene, Oregon: Center for Capital Market Research, University of Oregon, 1975.
- (9) Kessel, Reuben. "A Study of the Effects of Competition in the Tax-Exempt Bond Market," Journal of Political Economy, Vol. 79 (1971), 706-38.
- (10) Lubov, Andrea. Issuing Municipal Bonds: A Primer for Local Officials. AIB-429. U.S. Dept. Agr., Econ. Stat. Coop. Serv., July 1979.
- (11) Mitchell, William E. "The Effectiveness of Debt Limits on State and Local Government Borrowing," Bulletin No. 45. New York: Graduate School of Business Administration, New York University, 1967.
- (12) Moak, Lennox L. Administration of Local Government Debt. Chicago: Municipal Finance Officers Association, 1970.

- (13) Petersen, John. The Rating Game. New York: The Twentieth Century Fund, 1974.
- (14) _____. "Small Borrowers in the Municipal Bond Market: Does Size Matter." National Conference on Nonmetropolitan Community Services Research. Prepared for the Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, July 12, 1977.
- (15) Sherwood, Hugh C. How Corporate and Municipal Debt is Rated. New York: John Wiley and Sons, 1976.
- (16) Silber, William L. "Municipal Revenue Bond Costs and Bank Underwriting: A Survey of the Evidence," Monograph 1979-3. New York: Graduate School and Business Administration, New York University, 1980.
- (17) Sorenson, Eric H. "Negotiated Municipal Bond Underwriting: Implications for Efficiency." Journal of Money, Credit, and Banking, Vol. 11 (1979), 366-70.
- (18) Sullivan, Patrick J. "Bank Support of Municipal Bonds Critical to RD," Rural Development Perspectives, Vol. 3. U.S. Dept. Agr., Econ. Stat. Serv., Oct. 1980, pp. 32-35.
- (19) _____. "Municipal Bond Ratings: Are They Worthwhile for Rural Governments?" Journal of the Northeast Agricultural Economics Council, Vol. 11 (1982), 67-73.
- (20) _____, J.N. Collins, and J.N. Reid. "Local Government: Trends and Prospects," Rural Development Perspectives, Vol. 4. U.S. Dept. Agr., Econ. Res. Serv., Sept. 1981, pp 4-11.
- (21) U.S. Congress, Congressional Budget Office, Small Issue Industrial Revenue Bonds, April 1981.
- (22) U.S. Department of Commerce, Bureau of the Census. Governmental Finances Classification Manual, 1977.
- (23) Winders, John. J. "IDB Proliferation Suggests that Only the Tip of Iceberg Has Been Showing," The Weekly Bond Buyer, May 5, 1980. p.1.

APPENDIX--GENERAL
CHARACTER OF
NONMETRO COUNTY
GROUPS

The nonmetro government categories used in this report--urbanized, less urbanized and rural--are based on a county classification scheme first developed by Hines, Brown, and Zimmer (7). A nonmetro county is one which was not part of a Standard Metropolitan Statistical Area (SMSA) as defined by the Bureau of the Census in 1974. 17/ Urbanized counties include all non-SMSA counties which had 20,000 inhabitants or more residing in urban places in 1970. 18/ Less urbanized counties include all non-SMSA counties which had more than 2,500 inhabitants but less than 20,000 inhabitants residing in urban places in 1970. Non-SMSA counties with no urban places in 1970 were classified as rural counties.

The appendix table presents descriptive information on each of the local government categories used in this report. Number of counties, total population, per capita income, and aggregate government revenues and expenditures per capita are reported for each county category. The nonmetro areas of the country have lower per capita incomes and smaller governmental operations based on revenues and expenditures per capita. 19/ Of the nonmetro areas, the less urbanized and rural areas have lower income, revenue, and expenditure figures than their urbanized counterparts.

The 15-year period encompassed by the local finance figures masks the more recent trends in nonmetro government spending. During the sixties, when the rate of population growth in metro areas more than doubled that in nonmetro areas, expenditures per capita increased at a faster rate in metro areas. Expenditures per capita increased at a faster rate in nonmetro areas as the movement into metro areas slowed in the late sixties, and as people began moving back into nonmetro areas in increasing numbers in the seventies. Consistent with the migration movements into rural areas, the county category registering the highest percentage increase in expenditures per capita during the seventies was the rural group.

17/ An SMSA is a county or group of contiguous counties which contain at least one city of 50,000 inhabitants or more, or twin cities with a combined population of at least 50,000. In addition, contiguous counties are included in an SMSA if, according to certain criteria, they are socially and economically integrated with the central city.

18/ The urban population comprises all persons living in urbanized areas (central cities with a population of 50,000 inhabitants or more and surrounding closely settled territory) and in places of 2,500 inhabitants or more outside urbanized areas.

19/ For a more detailed examination of recent trends in metro and nonmetro government finances, see (20).

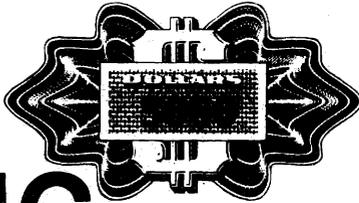
Appendix table 1--Local government finances by county category, 1962 and 1977

Category	Units	Metro areas	Nonmetro areas			
			Total	Urbanized	Less urbanized	Rural
County total 1/	Number	643	2,478	326	1,296	856
Population, 1960	Thousands	127,212	52,104	18,969	26,756	6,560
Population, 1977	do.	156,874	59,465	23,012	29,015	7,438
Income per capita, 1960	Dollars	2,046	1,349	1,565	1,264	1,082
Income per capita, 1977	do.	7,510	5,747	6,148	5,607	5,050
General revenues per capita, 1962:	do.	230	174	183	168	174
Taxes	do.	132	80	87	75	80
Other local revenues	do.	34	26	29	25	20
Intergovernmental aid	do.	64	68	67	68	74
General revenues per capita, 1977:	do.	903	635	678	611	596
Taxes	do.	394	222	245	206	213
Other local revenues	do.	130	113	122	113	89
Intergovernmental aid	do.	379	300	311	292	294
General expenditures per capita, 1962	do.	246	182	194	176	181
Current spending	do.	185	149	155	145	151
Capital outlays	do.	52	29	34	27	26
Interest	do.	9	4	5	4	4
General expenditures per capita, 1977	do.	853	626	666	604	584
Current spending	do.	712	522	551	507	490
Capital outlays	do.	107	87	96	82	79
Interest	do.	34	17	19	15	15

1/ Represents the distribution of county configurations used for the 1977 Census of Governments.

Sources: Calculated from data reported in the U.S. Bureau of the Census, 1962 and 1977 Census of Governments and the Bureau of Economic Analysis, Personal Income data file.

ALSO
AVAILABLE



ISSUING MUNICIPAL BONDS: A Primer for Local Officials

Issuing bonds is often the best and sometimes the only way for a community to raise enough money to finance construction of municipal buildings, industrial parks, recreation areas, and other projects. But the bond offering has to be done right: an overlooked legal requirement could nullify the issue; a poorly designed issue could saddle a community with unnecessarily high interest costs for 20 to 30 years.

Local officials thinking of making a bond offering, but baffled by the bond market, can use this bulletin to help their community get the most value for its money by keeping its interest costs as low as possible. The booklet, in a concise and nontechnical manner, explains some of the intricacies of making a municipal bond issue. It compares the advantages and disadvantages of the chief elements of issuing bonds and the major considerations officials face:

- *The type of bond*—general obligation bonds, revenue bonds, special assessment bonds—will depend largely on State laws and the intended use of the facility to be built.
- *The maturity structure*—straight serial, serial annuity, balloon, irregular—will directly affect interest costs, and so, how much the community will pay in the long run.
- *Official documents*—capital improvement plan, official statement, legal opinion—must be prepared in advance and all must include specific features.
- *The bond rating* can affect interest costs and the salability of the bond issue. Although most small communities do not qualify for the highest ratings, officials can do some things to improve their chances of getting a favorable rating.
- *Underwriting costs*—competitive vs. negotiated—will depend on the complexity and size of the issue and will also figure into the community's total cost.
- *Marketing and servicing* the issue—the final steps—involve responsibilities of the community, the underwriter, and the paying agent.
- *Timing the issue* through advanced planning is necessary so the community will get its money when needed.

After describing those basic steps, the booklet refers the reader to several sources of professional assistance. Professionals should always be consulted before undertaking a bond offering; but by reading this booklet beforehand, local officials will be able to ask the professionals more informed questions.

**Issuing Municipal Bonds: A Primer
for Local Officials. A1B-429.
By Andrea Lubov. 20 pages;
July 1979.**

**For a free copy, write to:
EMS Publications
Rm. 0054-S, USDA
Washington, D.C. 20250**

United States
Department of Agriculture

Washington, D.C.
20250

OFFICIAL BUSINESS
Penalty for Private Use, \$300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE
AGR - 101



THIRD CLASS BULK RATE

Northern Great Plains Coal Mining

What are the likely effects of expanded coal mining in Montana, Wyoming, and North Dakota on the small towns and communities there? Mining activity in the sparsely populated region has grown dramatically over the last decade—from less than 20 million tons of coal in 1970, to 100 million tons in 1978, with projections for 350 million tons per year by the mid-1980's.

The Fort Union coal formation, which straddles those three States contains nearly 40 percent of the Nation's coal reserves. Its coal is highly desirable because:

—It is low in sulfur, meaning that it can be burned by utility companies with less air pollution than other coal.

—It is in thick seams (some seams up to 200 feet thick), and can be recovered by strip mining.

To try to ascertain the effects of development on the region, the authors

of this report used computerized simulations of various levels of coal activity to see if the communities could afford the increased level of government services and upgraded infrastructure required by new energy projects and the larger population attracted by those projects.

In the long run (10 years or more), most communities in the region will be able to pay for the services required by the new coal-related development, provided that they can tax the new developments. Without taxing authority (for instance, if the mine lies outside the taxing district of a locality), they will have problems.

*Northern Great Plains Coal Mining:
Regional Impacts* (by Thomas F.
Stinson, Lloyd D. Bender, and Stanley
W. Voelker; AIB-452; July 1982; 36
pages; color illustrations; \$5; stock no.
001-000-04265-3).

Order from the Superintendent of Documents, U.S. Government Printing Office,



Washington, D.C. 20402. Make your check or money order payable to Superintendent of Documents. For faster service, call GPO's order desk at (202) 783-3238 and charge your purchase to your VISA, MasterCard, or GPO Deposit account. Bulk discounts also available.