an economic review by the Federal Reserve Bank of Chicago

# Business Conditions

Paying for government spending

Banking developments

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# Paying for government spending

The combined spending of all levels of government in the United States totaled $382 billion in 1972. This spending level equaled one-third of our gross national product, and was larger than the GNP of Japan, the second largest economy in the free world. All but $16 billion of the total spent was raised by taxes and other charges levied on individuals and businesses.

Government spending and comparable revenue collections on this large scale are modern phenomena. Total government spending in the late nineteenth century was about 8 percent of gross national product. This general level of spending persisted through the early part of the twentieth century, except during World War I. In 1929, total government spending was just over $10 billion, 10 percent of gross national product, and was supported by $11 billion in revenue. But beginning with the Depression, the scope of government activities has broadened continuously.

Both spending and revenue were about 30 times larger in 1972 than they were in 1929. Had the growth of government spending merely kept pace with the growth of the economy, revenue requirements would have increased only one-third as much as they actually have. But the lion's share of the growth has gone for activities once considered outside the sphere of governments and for dramatic increases in the scope of activities traditionally assigned to governments.

In 1972, the revenues collected for the social security program alone were nearly as large as the total revenues of all levels of government in 1946. The cost of operating state-supported colleges and universities last year was twice as large as the total revenues of all state governments in 1946. State transfers of funds to local governments—over half for education—were four times the amount local governments collected from all sources in 1946.

Prior to the changes which began with the Depression, government spending meant largely local government spending, and taxes meant payments to local government. In 1929, local governments accounted for almost 60 percent of all government spending, the federal government for just over one-quarter of the total, and state governments for less than 15 percent. In 1972, state governments were still the smallest spenders, although their share had climbed slightly, to 17 percent. The big change was in the relative position of the federal and local governments. Federal spending was well over half the total, while the local share had dropped to about one-quarter.

The changes in the size of total spending were also accompanied by a drastic revision in ways that revenues were raised. In 1929, when state and local revenues dominated the scene, property taxes were the largest single source of all government revenue by far, raising almost 42 percent of the total. Corporate income taxes were in second place, closely followed by personal income taxes, each contributing about 12 percent of the total. In 1972, reflecting both the dominant position of the federal government and the changes that had occurred in the scope of government activities, the personal income tax was the number one source of revenues, contributing nearly one-third of the total. Contributions for social insurance, which had been number ten on the list in 1929, held second place, contributing about 20 percent of the total. Property taxes had

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dropped to third place, contributing about 12 percent, and corporate income taxes had dropped to number four.

In the February 1973 issue of *Business Conditions*, the article "Growth of government spending" traced the major patterns of government spending using the data in the National Income and Product Accounts. This article looks at the other side of the coin—the sources of the revenues collected by governments to pay for their spending.

## The grand totals

Revenues have been hard-pressed to keep pace with the growth in government spending that has occurred since 1929. When spending is growing, the nature of the legislative process virtually guarantees that enactment of new taxes will lag spending, keeping constant pressures on revenues. Nevertheless, revenues have grown rapidly enough to pay for over 90 percent of total expenditures in the 44-year period. Only during World War II was there a massive shortfall. Although tax increases were very large compared to any previous experience, the expenditures needed for that war were so large that revenues only covered about half the total spending.

The rapid and continuous growth of government revenues has meant that the most recent years have been the biggest contributors to the overall total. From 1929 to 1972, governments collected over $4.5 trillion in revenues. Starting in 1929, it took 26 years to raise the first trillion dollars, but only eight years to collect the next trillion. The most recent trillion dollars was collected in just three years.

While inflation, increased population, and growth of the economy, both in complexity and output, have contributed to increasing government expenditures, hence to growing revenues, it is the increase in demands on government that has been the dominant factor in expenditure growth. By comparing the level of revenues with the size of the gross national product, which also includes the effects of inflation and population and output growth, it is possible to see the extent to which the increased needs for government action has influenced the size of revenues.

Government revenues grew from about 11 percent the size of GNP in 1929 to about 32 percent in 1972, with only minor deviations punctuating a steady upward trend. Even during the early 1930s, when the dollar level of total revenues was declining, the level relative to GNP grew every year as output fell much more rapidly than tax collections. In fact, the year-to-year rise of revenues relative to GNP in 1932 over 1931 was the second largest in the 1929-72 period. The largest year-to-year increase occurred in 1943, when the impact of wartime tax rates was fully effective for the first time. Despite what were considered massive increases at the time—collections jumped from the prewar level of about 18 percent the size of GNP to just under 25 percent—the levels of

**Personal income taxes are entrenched as the number one revenue source**

| Year | Total revenues collected | Personal income tax | | Contributions for social insurance | | Property taxes | | Corporate income tax | | General sales tax | | Miscellaneous taxes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *(billion dollars)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* |
| 1929 | 11 | 11.7 | 3 | 2.2 | 10 | 41.2 | 1 | 11.9 | 2 | 0.0 | 13 | 5.7 | 5 |
| 1950 | 69 | 26.5 | 1 | 10.0 | 4 | 10.7 | 3 | 25.8 | 2 | 2.7 | 9 | 8.8 | 5 |
| 1960 | 140 | 31.8 | 1 | 14.8 | 4 | 11.7 | 3 | 16.3 | 2 | 3.2 | 7 | 7.0 | 5 |
| 1972 | 366 | 32.4 | 1 | 20.2 | 2 | 12.2 | 3 | 11.3 | 4 | 5.3 | 5 | 4.5 | 6 |

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the 1942-46 period were low by today's standards. Since 1949, revenues have taken a progressively larger share of GNP, and are now approaching one-third of the total.

## Sharing the pie

The developments in government activity that have occurred since 1929 completely transformed the historical American relationships between the federal government and state and local governments. Before the Depression, education, health, welfare, highways, and a vast array of other services were provided by state and local governments, particularly local governments. These governments were the dominant factor not only in providing these services but in collecting the revenues to pay for them. The primary function of the federal government was national defense, and the only federal function which touched the daily lives of all citizens was the postal service.

In 1929, the U. S. armed services employed 255,000 men, a small number not only by today's standards but also in comparison with the major powers of the time. The federal government's share of total revenues was less than one-third of the total collected that year. Moreover, federal revenues were much more affected by the decline in business activity during the early years of the Depression than were state and local government collections; by 1932 the federal share had dropped to 20 percent of the total.

The advent of the New Deal inaugurated a major change in governmental responsibility. This change was the assumption of the responsibility for public welfare by the federal government. At first, this was accomplished through emergency measures aimed at the specific problems of the Depression. But with the enactment of the social security program, income maintenance became a permanent responsibility of the federal government. Agricultural programs and federal funding of public works programs also date from this period. As a result of these new and shifted responsibilities, federal revenue requirements were nearly 50 percent of the total on the eve of World War II. The increased responsibilities assumed by the federal government in the area of human resources during the 1930s laid the groundwork for the early 1970s, when these expenditures exceeded defense expenditures for the first time.

Another change which significantly increased the revenue needs of the federal government was the nation's altered defense posture. With the outbreak of war in Europe in 1939, military expenditures increased sharply, and taxes jumped. Actual U. S. involvement brought still sharper federal tax increases, so that the federal share of total revenue collections reached a peak of 80 percent in 1944. The federal share has been declining slowly but erratically from this abnormally high wartime level. By 1972, the federal share had been lowered to 62 percent of the total.

This gradual swing back toward a

**f all governments**

| Nontax revenue | | Gasoline taxes | | Liquor taxes | | Estate and gift taxes | | Tobacco taxes | | Motor vehicle licenses | | Customs duties | | Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *ercent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | *(percent)* | *(rank)* | |
| 8.7 | 4 | 3.7 | 8 | 0.1 | 12 | 2.0 | 11 | 4.0 | 7 | 3.0 | 9 | 5.3 | 6 | 1929 |
| 2.3 | 10 | 3.3 | 7 | 4.2 | 6 | 1.2 | 11 | 2.6 | 8 | 1.1 | 12 | 0.8 | 13 | 1950 |
| 2.7 | 9 | 4.1 | 6 | 2.8 | 8 | 1.6 | 11 | 2.1 | 10 | 1.1 | 12 | 0.8 | 13 | 1960 |
| 4.0 | 7 | 3.1 | 8 | 1.9 | 9 | 1.8 | 10 | 1.4 | 11 | 1.0 | 12 | 0.9 | 13 | 1972 |

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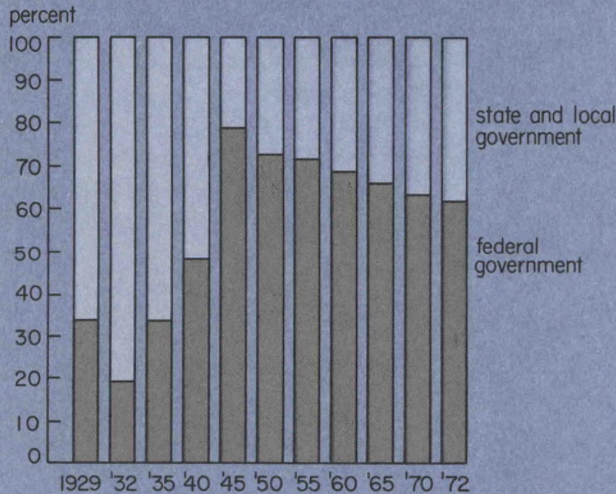


larger share of revenues for state and local governments has resulted despite the fact that the defense establishment has been maintained at levels far above the pre-World War II norm. The postwar period has seen explosive growth in the needs for schools, highways, health facilities, and other government services supplied by state and local governments. Throughout the postwar period, and particularly in the past 15 years, spending by state and local governments has risen much more rapidly than have the revenues they collected directly.

The cost of this added spending has been met by funds collected by the federal government, but transferred to state and local treasuries through numerous special grants ranging from specific programs like the Interstate Highway System to the unrestricted funds of the revenue sharing program. These transfers of funds, known collectively as grants-in-aid, have existed for a long time. They were relatively unimportant prior to the Depression. During the New Deal, grants were used extensively to finance public works projects and direct assistance. From 1939 through 1957, grants-in-aid funded about 10 percent of state and local spending. Since then, they have contributed an ever-growing share, reaching 24 percent in 1972. If state and local governments had collected these taxes directly in 1972, and federal tax collections were reduced by an equivalent amount, the state and local share of total revenue would have been 48 percent, rather than the actual level of 38 percent, very close to the 50-50 situation that existed immediately prior to World War II.

## The federal tax base

Today, the federal government relies on three tax sources for almost 90 percent of its total revenue. These are, in order of importance, the personal income tax, contributions for social insurance (mainly social security), and the corporate income tax. These three tax sources, combined, have formed the backbone of federal revenues ever since the major World War II tax increases became fully effective in 1943. The distribution of 1972 receipts by source was:

| Source | Percent of total | Percent of total adjusted for overwithholding* |
|---|---|---|
| Personal income tax | 45.3 | 43.5 |
| Social insurance | 27.7 | 28.6 |
| Corporate income tax | 15.8 | 16.3 |
| All other receipts | 11.2 | 11.6 |

The personal income tax has been an important source of federal revenue during

*1972 personal income tax receipts were about $7 billion higher than they would have been if taxpayers had taken full advantage of the right to adjust their withholding closer to their actual tax liabilities. These overpayments will be refunded in 1973, thereby reducing receipts. The adjusted percentages are derived by assuming that the extra withholding in 1972 had not been collected. The adjusted shares show what can be expected from current tax laws in the future.

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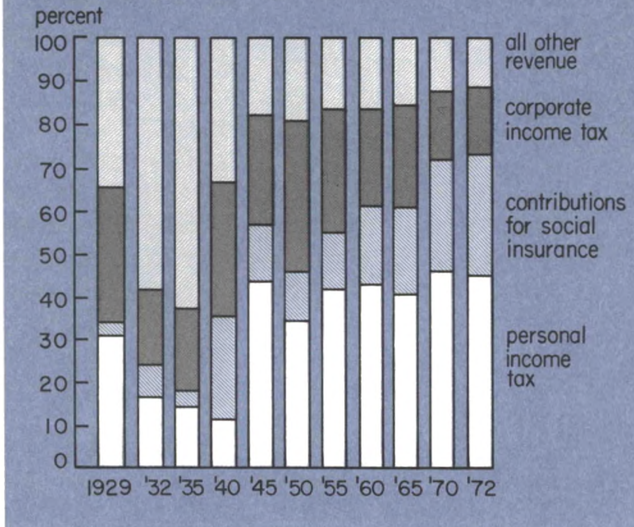


the entire 1929-72 period. The importance of the personal income tax fell sharply during the Depression, not only because of the sharp drop in income, but also because the federal government turned to a host of new taxes during the New Deal period. World War II caused a dramatic turnaround. The personal income tax has been the largest single source of revenue for the federal government since 1943.

Contributions to social insurance first became important in 1937 with the introduction of social security and related payroll taxes. The impact of these new taxes on federal finances was dramatic. For four years, 1937-40, they contributed about one-fourth of total revenues, and were the largest single contributors in the first three of those years. The imposition of wartime tax changes relegated contributions to third place. Beginning in 1957, changes in the social security program progressively increased the importance of revenue from this source. By 1966, it had grown to be the second largest source, and in 1972 supplied nearly 28 percent of total federal revenue.

The corporate income tax, like the personal income tax, was a well-established major source of federal revenue in 1929. In that year, it was the largest single source, supplying just over 31 percent of the total. Its yield and importance dropped during the 1930s, and then increased sharply with the advent of World War II. It was the second largest federal revenue source from 1943 until 1966. However, its relative importance has been declining steadily since the end of World War II, not only because of the yields of the social security system, but also because the long-term growth in corporate profits has lagged the growth in the economy.

## The personal income tax

Students of tax policy generally approve the personal income tax as a revenue measure because of its inherent tendency to relate the tax to the ability to pay and because it has less effect on resource allocation than other taxes. From the standpoint of the federal government, however, it has two advantages which have contributed to making it the most important revenue source. First, it rests on a very large taxable base. Second, the revenue which it can furnish can be changed by very large amounts through minor changes in the rate structure.

The modern income tax was introduced in 1913. Prior to World War II, the revenue-raising potential of the personal income tax went largely untapped. Most people were not touched by it because of the large personal exemptions relative to the income structure. The changes in the tax law necessitated by World War II converted the personal income tax into the

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broad-based levy it has remained ever since. As a result of this broad application, personal income tax revenues went from $1 billion in 1940 to about $16 billion in 1943. Once the revenue-raising capabilities of this tax were fully revealed, the federal government continued to use it not only as its primary source of revenue, but, through frequent adjustments of rates, as a tool for setting total revenue levels.

## Contributions for social insurance

Unlike the personal income tax, which was a major revenue source before 1929, contributions for social insurance first became important in 1937, and in 1960 began a trend toward sharply increased importance. Prior to 1937, the only specific elements in this category were payments for the federal employees retirement system and veterans life insurance. Unemployment insurance revenues began in 1936, and social security and railroad retirement programs began supplying revenues in 1937. Since that time, in addition to the gradual expansion of coverage of social security to more classes of wage earners and increases in the wage levels subject to tax, there have been major additions to the total program: railroad unemployment insurance in 1939, coverage of self-employed persons in 1952, and hospital and medical insurance in 1966. In 1972, contributions to social insurance made up nearly 28 percent of total federal revenue.

Recent changes in the social security program which provide for increases in the taxable base income this year and again in 1974, and for further increases in the base in subsequent years, depending on the change in the consumer price index, will raise the share of federal revenue supplied by these contributions above the 30 percent level in the next few years. It should be noted that benefits paid by the various programs in this category have been nearly as large as the revenue collected yearly, but that the difference has contributed toward paying for other programs.

## The corporate income tax

The corporate income tax has had much the same history as the personal income tax. Both were imposed during the Civil War and then removed for many years. Tax theorists are far less unanimous about the desirability and economic impact of the corporate tax than they are about the consequences of the personal income tax. It is not at all clear whether this tax falls on the buyers of corporate goods and services through higher prices, on workers through lowered wages, or on owners through lower rates of return.

Regardless of the actual economic impact of this tax, it has been a substantial contributor to federal revenues throughout the 1929-72 period. In 1929 and again in 1940 through 1942, it was the single largest source of federal revenue, and throughout most of the other years between 1929 and 1966 it was the second largest source of revenue. Nevertheless, its importance has declined steadily since 1965. The corporate tax rate structure is currently at the lowest level since the period immediately after World War II, but the failure of corporate profits to grow as rapidly as the general economy has been a major factor in the decline. When the temporary surcharge was decreased from the 1969 rate of 10 percent to the 1970 effective rate of 2½ percent, the share of total revenue contributed by the personal income tax actually rose slightly, while the share from corporate income taxes fell.

## Other tax sources

Tax sources other than the three major ones have contributed a small but steady share to federal revenue throughout the 1929-72 period. In some instances, these sources made major contributions

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during part of the period, particularly prior to World War II.

*Estate and gift taxes* have contributed about 2 percent of total federal revenues since 1929. Rates were raised sharply during the New Deal period, and for a few years they contributed a much larger share, reaching nearly 8 percent of the total in 1936.

*Customs duties* have been a mainstay of federal revenues. Customs duties contributed 15 to 18 percent of total revenues in the 1929-32 period, but their importance declined steadily thereafter—to less than 1 percent of the total in most years between 1943 and 1964.

*Liquor taxes* became an important revenue source with the repeal of prohibition. In 1935, they furnished nearly 12 percent of total revenues. However, neither consumption nor rates have increased significantly and they contributed just over 2 percent of the total in 1972.

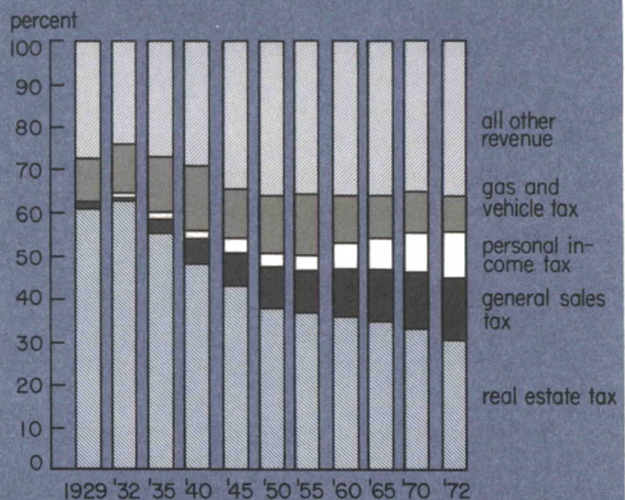
*Excise taxes* on a wide variety of other products and services have been used from time to time throughout this 44-year period. During the New Deal, a whole spectrum of excise taxes was introduced and later dropped. These miscellaneous taxes, which made up less than 3 percent of federal revenues in 1929, swelled to nearly 30 percent of the total in 1934 and then faded away. In 1972, the sum of all these other taxes still on the books amounted to less than 4 percent of total federal revenues.

## State and local taxes—a broad-based approach

The tax structure of state and local governments has developed on lines almost opposite those followed by the federal tax structure during the 1929-72 period. In the early years of the period, the federal government relied on a wide spectrum of tax sources. By 1972, all but three had faded into relative unimportance, and a single source, the personal income tax, provided nearly half of total federal revenues.

In contrast, over 60 percent of all state and local government revenues in 1929 came from one source, the real estate tax. In 1972, the importance of the real estate tax had shrunk to half its 1929 size, and over two-thirds of state and local revenues came from a wide array of sources. Federal receipts from the personal income tax in 1972 were 100 times as large as they had been in 1929, but state and local receipts from real estate taxes rose only ten times in the same period.

The growth of state and local revenues that occurred between 1929 and 1972 was much slower in gathering momentum than was the growth in federal revenues. During the Depression, it was virtually impossible for state and local governments to increase their revenues, and yields from existing sources declined appreciably. To economize, many state and local ser-



vices were cut back. The federal government picked up the responsibility for providing relief to individuals and for public works projects that would have been paid for with local revenues in earlier times.

World War II, following on the heels of the Depression, further deterred expansion of state and local government activities. Military needs absorbed both the fiscal and manpower resources which might otherwise have been devoted to expansion of services by state and local governments. But in the postwar period, the need for state and local government services ballooned. Not only was there a need to make up for the unfilled needs accumulated since 1929, but a host of new demands arose. To meet these needs, state and local governments have continuously raised tax rates and introduced new taxes to supply the necessary revenues. As a result, 1972 receipts were 12 times as large as those of 1945—a growth rate twice that of federal government receipts. Despite this rapid growth, revenues would have fallen far short of requirements had not federal grants-in-aid provided a major supplement to funds raised by state and local governments from their own resources.

It must be borne in mind that aggregate state and local revenues result from the independent taxing actions of thousands of individual jurisdictions. The five states served by the Seventh Federal Reserve District contain over 15,000 taxing units. Thus, when a particular tax grows in importance, more taxing units may be using it, the tax rate may be increasing, or both may be occurring at once.

## Property taxes

Property taxes were the basic source of state and local financing throughout the nation's early history, and still remain the principal, frequently the only, source of revenue for smaller units of government. While most property tax laws cover a wide scope of property types, difficulties in assessment and collection have resulted in real estate being the only property effectively taxed in most jurisdictions, typically accounting for over 95 percent of property tax revenue. When the nation's economy was primarily rural, the property tax was a rough substitute for an income tax. As the society was transformed into an urban industrial economy, the property tax has become a use tax, particularly on the use of real estate.

No lasting form of taxation has been criticized as severely as the property tax by students of taxation and taxpayers alike. Criticisms range from its inequity due to the problems of obtaining fair and uniform assessment to the fact that there is often no reasonable relationship between the tax paid and the government services received. Nevertheless, this tax has persisted. It is the only tax source available to many small jurisdictions—other sources have been preempted by the larger units of government, or banned by state constitutional provisions which are difficult to change. Also, local voters appear reluctant to abandon their direct control over the maximum allowable rates of this major tax.

The property tax has largely been abandoned by state governments. State governments received 20 percent of their revenues from property taxes in 1929. By 1971, the most recent year that comparable data are available, property taxes supplied only 2 percent of state collections. Local governments, which were deriving over 75 percent of their revenues from property taxes in 1929, still obtained over 55 percent from that source in 1971. Despite this decline in the importance of property taxes, real estate taxes remain the largest single revenue source for the aggregate of all state and local governments. While the property tax as a share of total revenues collected has declined steadily from 61 percent in 1929 to 31 percent in 1972, the total dollar amount collected

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under this tax has increased yearly since 1942.

## Growing revenue sources

The second largest source of state and local revenues in 1972 was the general sales tax, providing 14.2 percent of the total, almost $20 billion. The general sales tax is relatively modern in origin, and has been used primarily by states, although local use is growing. It was first introduced in 1931, as other revenue sources shrank and state governments actively developed new ones. By 1936, its use was widespread, and by the end of World War II it supplied 7.5 percent of state and local revenues. Sales tax rate increases raised its importance to 10 percent of the total in 1948, a level which remained relatively constant until the early 1960s. Since 1963, as a result of the introduction of local sales taxes as well as some increases in state rates, the sales tax yield has steadily increased.

Another growing revenue source for state and local governments is the personal income tax. Like the sales tax, this tax has been primarily a state tax, but use by local government has been increasing. Only two or three states used the income tax in 1929, and in the aggregate its importance was small. By 1972, 44 states and hundreds of municipalities were using some form of personal income tax, and it contributed 11 percent of total revenues—the third most important tax source to state and local governments.

Contributions for social insurance are another revenue source that has grown steadily over the 1929-72 period. For state and local governments, these contributions do not have the broad base of the federal programs. They are the payments government employees make to retirement and related insurance plans. However, receipts for these programs, which provided less than 2 percent of 1929 revenues, supplied nearly 8 percent in 1972.

## The old reliables

The variety of special use, license, excise, and related taxes used by state and local governments to raise revenues is almost endless. Most of these taxes have grown steadily in dollar amounts from 1929 to 1972, but have either just held their own or lost importance as a share of total revenue over the period.

The automobile has created irresistible demands for expenditures for streets and highways, but, at the same time, has provided substantial revenue from licenses and gasoline taxes. In 1929, vehicle license fees supplied 4.5 percent and gasoline taxes 5.5 percent of total revenue. Their combined contribution peaked at about 14 percent in 1949-50. In 1972, the two taxes together supplied about 8 percent of state and local revenues.

Corporate income taxes generally were used by state and local governments before personal income taxes. Corporate taxes made their largest contribution to total revenues, 4.7 percent of the total, right after World War II, then slowly declined in importance until the early 1960s. Since then, state after state has either raised rates or introduced this tax for the first time. In 1972, it contributed just under 4 percent of total revenue.

Liquor, tobacco, death, and gift taxes are all widely used by state and local governments. Small but steady revenue sources, each has accounted for 1 to 2 percent of revenues since 1929. Of the four, only the tobacco tax has not declined in importance over the last ten years.

Miscellaneous license fees, entertainment taxes, resource severance taxes, and pari-mutuel taxes are a few examples of other taxes which are widely employed. Individually, none of these taxes has contributed more than a pittance toward aggregate state and local government revenues, but taken together they supplied nearly 9 percent of the total, about $12 billion, in 1972.

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State and local governments also rely on nontax charges for a wide variety of services they provide directly to the public. These range from tuition at public colleges and universities to net income from publicly-owned utilities and liquor stores. The sum of these revenues has been a major contributor to total revenue throughout the 1929-72 period. Their total was second only to real property taxes in 1929, when they provided over 12 percent of the total revenue. They remained stagnant in absolute dollar levels and declined as a share of the total through 1947. Then the flood of veterans into colleges and universities set in motion an expansion of state-supported higher education that is still in progress. Not only did enrollment boom, but tuition and other fees have been steadily raised. This increase in revenue from education has been paralleled by increases in charges for a multitude of other services. As a result, nontax revenues supplied nearly 10 percent of the total in 1972.

## The contrasting trends

The difference between the modern revenue patterns of the federal government and of state and local governments is striking. The federal government appears to be moving in the direction of reliance on three tax sources for the lion's share of its revenue. The personal income tax seems locked in at about 45 percent, and contributions for social insurance seem headed for the 30 percent level. These, together with the corporate income tax, have accounted for nearly 90 percent of federal receipts for the last decade.

State and local governments seem headed in the opposite direction. Once completely tied to the real property tax, they have consistently increased the importance of old revenue sources, and expanded their tax base to new sources. Today, the three largest sources combined, property taxes, personal income taxes, and general sales taxes, provide only 57 percent of state and local revenues, less than the property tax alone supplied in 1929.

Grants-in-aid, particularly revenue sharing, and tax increases of the last few years produced a large aggregate surplus for state and local governments in 1972. Furthermore, projections by such groups as the Tax Foundation Inc. suggest that these surpluses will continue for several years. Nevertheless, many individual units of government are facing severe problems in trying to raise adequate revenues. Receipts from their old standby, the real estate tax, are not growing rapidly enough. These governments will have to move toward heavier reliance on more flexible tax sources, such as income taxes, or else exercise ingenuity in devising new revenue sources if they are to meet their growing expenditures.

Much of the 1929-72 period can be viewed as an abnormality in the nation's tax and spending history. Both the Depression and World War II were events that hopefully will not be repeated. The postwar period has witnessed a slow, steady trend toward renewed importance for state and local government expenditures. Today, most taxpayers view the federal government as the primary collector of taxes. However, if current trends continue, and if grants-in-aid are viewed as revenues of state and local governments, the smaller units of government will have first claim on the taxpayer's attention in the years to come.

*Morton B. Millenson*

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# Banking developments

## Interest rates on loans

Except for the "prime" rate charged by major commercial banks on loans to their most creditworthy customers, information about the level and structure of loan interest rates is very limited. This is in contrast to the large volume of interest rate statistics for marketable debt instruments such as U. S. Government securities or high-grade corporate bonds. Such evidence as is available on lending rates indicates that there is a rather wide variation in rates charged on different types of loans and in rates charged on the same type of loans by different lenders.

All interest rates are influenced by the same basic factors. The most important variable at any given time is the degree of risk—whether the borrower will be able to meet interest and principal payments in accord with the loan contract. Other factors are loan (or borrower) size, maturity, type of collateral, if any, location (partly reflecting competitive conditions), and the relationship between borrower and lender. Most of these factors are related to risk. The major reason why so little information is available on lending rates to local businesses and individuals is the difficulty in classifying loans into groups with the same degree of risk and related characteristics and thus in arriving at a meaningful measure of either the rate level at a particular time or trends over time applicable to a standardized type of loan.

Most loans to smaller businesses are made at rates higher than the prime because of the risk premium. The spread tends to widen when the general trend of interest rates is downward and to narrow when it is upward. Rates on loans to individuals generally are scaled upward from home mortgages, on which collateral normally is the critical variable, to credit card debt, on which both risk and administrative costs are relatively high.

Evidence on the structure of lending rates is currently available from two surveys. The Federal Reserve's survey of contract rates on business loans made at major U. S. banks during several days out of each quarter provides data on interest rates by size of loan. In early May, this survey showed that, at district respondents, contract rates on new short-term loans over $1 million averaged 7.48 percent, compared with 8.13 percent on loans under $10,000. (The prime rate at the majority of the nation's major banks was changed from 6 3/4 percent to 7 percent during the survey period.) The inverse relationship between loan size and contract rate reflects mainly the creditworthiness of the borrower and, to a lesser extent, the lower per dollar administrative costs for big loans. Moreover, the ability of large borrowers to substitute sales of commercial paper for bank loans tends to maintain a close link between bank interest charges on big loans and money market rates. From February to May, the rise in the average was 113 basis points on the largest loans and only 34 points on the smallest loans.

Past surveys have shown geographic differentials in these rate averages—especially between banks in New York City and those elsewhere. But these differences probably reflect the greater proportion of loans made to large top-credit-rated firms at the New York banks. Moreover, the contract rates do not accurately measure effective rates paid because contract rates are not adjusted to reflect non-rate require-

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ments, such as compensating balances, which also differ among banks and among loans.

A second and relatively new source of information on lending rates is data obtained for the use of the Committee on Interest and Dividends on small business loans, farm loans, and various types of consumer instalment credit at a sample of commercial banks and finance companies. The accompanying tables illustrate: (1) the general structure of rates on consumer loans at banks and finance companies, based on recent national summaries, and (2) differences in the "most common" rates charged and in the proportion of loans made at the most common rate, as evidenced from the district bank sample in April.

Relatively low rates on new car loans and mobile home loans at both banks and finance companies reflect greater homogeneity of collateral and less risk associated with the collateral compared with other types of consumer financing. Finance company rates are higher for all types of loans. Bank loans tend to be lower-risk loans—with borrowers often deposit customers. Data for the two types of lenders are not strictly comparable, however.

Variability of "most common" rates within loan categories was greatest for noninstalment business loans of $10,000 to $25,000 maturing in one year or less, where the "most common rate" ranged from 6.50 percent to 10.50 percent and only 40 percent of the loans were closed at rates within that range.

At most of the survey banks, the contract interest rate applies to outstanding business loan balances, but about one-fifth of the banks use the discount method of charging interest. About one-fourth of the respondents required compensating balances in conjunction with business and farm loans—the typical balance requirement being 10 to 20 percent of the loan.

## Interest rates on loans of Seventh District banks[1]

| Loans closed during the week ended April 7, 1973 | Range of: Reported rates | Range of: "Most common" rates | Number of loans: At most common rate | Number of loans: Total |
|---|---|---|---|---|
| | *(percent)* | | *(percent of total)* | *(actual number)* |
| Small, short-term, noninstalment business | 6.00-12.00 | 6.50-10.50 | 40.4 | 879 |
| Feeder cattle operations | 6.75-8.50 | 6.75-8.50 | 78.0 | 50 |
| Other farm production | 7.00-9.31 | 7.50-9.31 | 68.1 | 47 |
| Consumer instalment: | | | | |
| New automobiles (36 mos.) | 6.59-14.54 | 8.40-12.83 | 63.8 | 2,435 |
| Mobile homes (84 mos.) | 9.37-14.68 | 9.37-14.68 | 84.6 | 78 |
| Other consumer goods (24 mos.) | 8.41-18.16 | 8.41-16.40 | 75.5 | 485 |
| Other personal expenditures (12 mos.) | 9.10-36.00 | 10.86-17.90 | 72.4 | 1,448 |
| Credit card plans | 12.00-18.00 | 12.00-18.00 | not applicable | |

[1]Based on a sample of 46 banks ranging in deposit size from less than $50 million to more than $5 billion. Consumer credit rates are annual percentage rates reported on a truth-in-lending basis.

## Consumer instalment credit rates March 1973

| | Banks: Average of "most common" rate | Banks: Specified maturity | Finance companies: Average rate | Finance companies: Average maturity |
|---|---|---|---|---|
| | *(percent)* | *(months)* | *(percent)* | *(months)* |
| Consumer credit for: | | | | |
| New autos | 10.04 | 36 | 11.85 | 35.1 |
| Mobile homes | 10.67 | 84 | 12.54 | 113.9 |
| Other consumer goods | 12.48 | 24 | 18.95 | 21.1 |
| Other personal expenditures | 12.71 | 12 | 20.75 | 33.2 |
| Credit card plans | 17.19 | | | |

Note: Rates are Annual Percentage Rates (APRs) as specified in the Truth-in-Lending Regulation, but are not comparable between institutions due to differences in maturities and calculation of the average rate. Bank loan rates are simple unweighted averages of the APRs on the largest volume of loans of the specified maturity in the particular category at each bank in the sample. Finance company rates are weighted average APRs on contracts purchased by finance companies in the sample, except that rates on loans for "other personal expenditures" apply to loans made directly. Finance company loans for "other consumer goods" exclude recreational vehicles, boats, and aircraft.

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## Real estate loans at Seventh District insured commercial banks—volume and percent change in 1972, by SMSA

| SMSA[1] | Real estate loans outstanding December 31, 1972 | Percent change, December 31, 1971 to December 31, 1972 | | | |
|---|---|---|---|---|---|
| | | Total | Farm | Residential | All other |
| | *(million dollars)* | | | | |
| **Illinois** | | | | | |
| Bloomington | 35.9 | 22.5 | 10.6 | 24.5 | 23.4 |
| Champaign | 57.2 | 22.0 | –46.5 | 49.0 | 11.5 |
| Chicago | 3,707.6 | 15.6 | –63.2 | 16.3 | 18.4 |
| Decatur | 67.2 | 22.6 | 23.5 | 26.6 | 17.8 |
| Peoria | 145.0 | 18.7 | 15.3 | 18.9 | 18.8 |
| Quad Cities | 193.1 | 12.0 | 5.3 | 13.0 | 11.4 |
| Rockford | 100.5 | 20.4 | 31.1 | 26.7 | 12.1 |
| Springfield | 129.6 | 21.1 | 20.7 | 14.2 | 43.1 |
| **Indiana** | | | | | |
| Anderson | 39.9 | 19.5 | 10.0 | 18.3 | 24.9 |
| Fort Wayne | 188.1 | 21.4 | 14.6 | 16.6 | 30.0 |
| Gary-Hammond | 264.9 | 19.2 | 38.2 | 18.2 | 19.8 |
| Indianapolis | 632.0 | 22.8 | 27.3 | 24.0 | 20.5 |
| Lafayette | 76.4 | 19.9 | 48.7 | 19.4 | 16.4 |
| Muncie | 45.8 | 14.2 | –23.5 | 17.6 | 19.3 |
| South Bend | 188.2 | 20.3 | 12.4 | 17.4 | 25.6 |
| Terre Haute | 62.2 | 15.6 | 24.9 | 12.6 | 18.7 |
| **Iowa** | | | | | |
| Cedar Rapids | 54.3 | 6.9 | 11.3 | 2.7 | 11.2 |
| Des Moines | 149.9 | 16.1 | 16.4 | 18.4 | 11.7 |
| Dubuque | 58.5 | 12.9 | 18.8 | 7.6 | 25.0 |
| Sioux City | 42.8 | 19.2 | 10.4 | 25.4 | 14.6 |
| Waterloo | 31.6 | 14.1 | 17.4 | 24.1 | 5.0 |
| **Michigan** | | | | | |
| Ann Arbor | 153.1 | 19.7 | 6.4 | 24.7 | 3.2 |
| Battle Creek | 22.2 | 27.2 | 211.2 | 3.9 | 65.4 |
| Bay City | 62.3 | 12.9 | 20.9 | 10.0 | 17.0 |
| Detroit | 3,843.7 | 13.6 | –52.2 | 15.1 | 9.4 |
| Flint | 388.2 | 14.2 | – 0.5 | 7.3 | 126.0 |
| Grand Rapids | 373.6 | 16.1 | 17.7 | 17.2 | 12.6 |
| Jackson | 77.7 | 16.7 | 13.1 | 20.4 | 1.6 |
| Kalamazoo | 205.3 | 12.4 | 7.0 | 21.9 | – 2.2 |
| Lansing | 583.1 | 2.3 | 14.8 | 1.6 | 2.9 |
| Muskegon | 86.7 | 12.2 | 12.1 | 13.7 | 9.1 |
| Saginaw | 127.4 | 15.9 | – 9.4 | 11.6 | 28.3 |
| **Wisconsin** | | | | | |
| Appleton | 230.3 | 14.4 | 26.4 | 14.4 | 11.1 |
| Green Bay | 154.9 | 24.1 | 32.9 | 16.2 | 36.6 |
| Kenosha | 60.1 | 13.8 | 63.3 | 16.5 | 5.6 |
| Madison | 197.1 | 24.0 | 4.5 | 21.5 | 32.3 |
| Milwaukee | 889.2 | 24.2 | 53.5 | 21.3 | 28.6 |
| Racine | 102.9 | 19.7 | 36.2 | 16.8 | 29.6 |

[1]District SMSAs as of December 31, 1972.

## Real estate loans

All except three of 38 district SMSAs reported 1972 gains in real estate loans that exceeded the relatively high growth rates of 1971. At all U.S. commercial banks, outstandings rose about 20 percent, compared to 13 percent in 1971.

Total mortgage debt held by all lenders increased about $65 billion, or 14 percent, in 1972. Commercial banks accounted for one-fourth of the dollar gain, increasing the share held by banks to 17.5 percent. Loans secured by residential properties account for more than 60 percent of banks' real estate loan portfolios. In 1972, both residential and nonfarm, nonresidential loans increased at the same rate—21 percent—while loans secured by farmland rose 13 percent. In 13 district SMSAs, residential loans were the fastest growing category, and in 11 SMSAs gains exceeded the national average. ■

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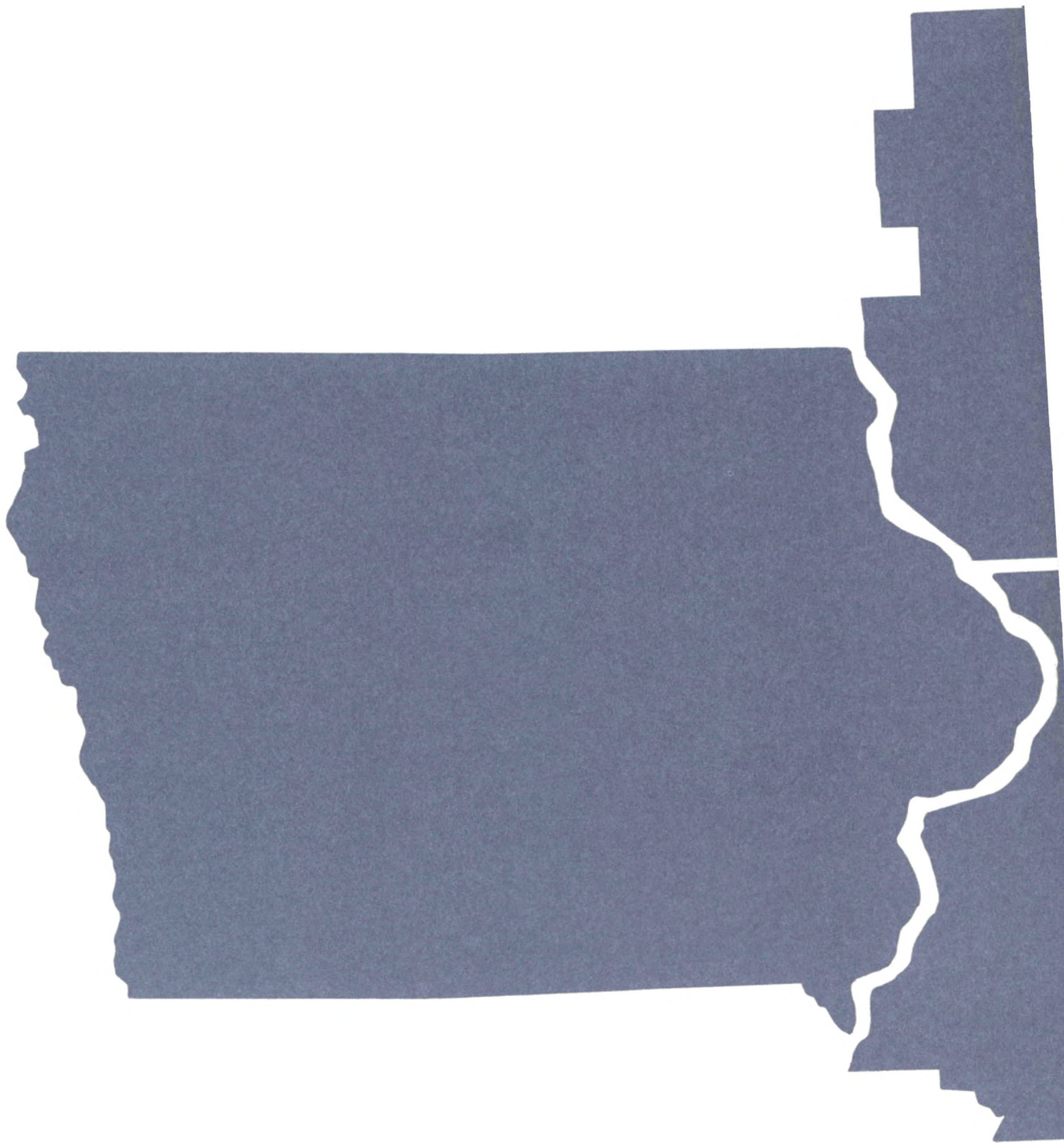

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