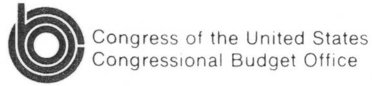
Small Issue Industrial Revenue Bonds

A CBO Study
Revised
September 1981



SMALL ISSUE INDUSTRIAL REVENUE BONDS

The Congress of the United States
Congressional Budget Office

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NOTE

ALL DATES ARE EXPRESSED IN CALENDAR YEARS UNLESS OTHERWISE STATED

ERRATA

Small Issue Industrial Revenue Bonds

Appendix B should contain the following additional and revised entries:

State	Source of Information
Kansas	The Kansas Legislative Research Department provided the results of a statewide survey conducted at the direction of the Special Committee on Assessment and Taxation. The survey obtained data on the sale of IRBs in Kansas from 1961 through mid-1980.
Missouri	The data were obtained from the Missouri Division of Commerce and Industrial Development. In 1978, the Missouri statutes were revised to authorize local industrial development authorities to issue bonds without state approval. No information is available on these types of issues; therefore, there is no basis on which to estimate sales volume for 1979 and 1980. The Missouri law was again amended in 1980 to allow IRB financing of commercial projects.

Appendix C should be revised as follows:

State	Industrial Facilities	Storage and Wholesale Distribution Facilities	Commercial Facilities	Comments
Nevada	x	x	---	
New Mexico	x	x	x	No retail.
Oregon	x	x	x	Although retail use is discouraged, the state's 23 port districts may issue bonds for any purpose permitted under federal law.

The last two sentences on page 28 should read as follows: "Among the western states New Mexico, Nevada, California, and Alaska impose restrictions on IRB use: New Mexico prohibits IRB financing for retail stores. California and Nevada restrict use of the bonds to [industrial and related facilities]."

PREFACE

In recent months, the growing use of tax-exempt small issue industrial revenue bonds (IRBs) to fund a variety of private enterprises has drawn increasing attention. Since the use of the bonds is generally not reported beyond the state or local level, little was known about them. This paper examines the origins, current volume, and extent of small issue IRB use; the potential growth of the market; and the effects of small issues on investment and on federal revenues.

The study was prepared in response to a February 15, 1980, request from Chairman Sam Gibbons of the Oversight Subcommittee of the House Committee on Ways and Means. In accordance with the Congressional Budget Office's mandate to provide nonpartisan analysis, the paper offers no recommendations.

Pearl Richardson of the Tax Analysis Division prepared the study under the direction of James M. Verdier and with the assistance of Kathleen O'Connell and Frederick Ribe. A number of people within CBO provided valuable comments and suggestions, including Cynthia Gensheimer, Sophie Korczyk, Robert Reischauer, and the Tax Analysis Division staff. Johanna Zacharias edited the paper and Linda Brockman typed it for publication.

Many people outside CBO also assisted during preparation of the study. Without the cooperation of numerous state and local officials and other experts on tax-exempt revenue bonds, this study would not have been possible. The author wishes to express particular thanks to Michael Barker, Owen Carney, Nelson Civello, Bruce Davie, Carolyn Duncan, Deborah Ferolito, Harvey Galper, Patric Hendershott, Richard Higgins, Thomas Krebs, Larry C. Ledebur, Louis Levene, Robert Patterson, John E. Petersen, Robert Powell, Warren Richmond, Mark Rollinson, Harold Ross, Bruce Strickland, Emil M. Sunley, Jr., and Thomas Walker.

Alice M. Rivlin
Director

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SUMMARY

Between 1975 and 1980, sales of small issue industrial revenue bonds (IRBs) increased from approximately $1.3 billion to a record high of more than $8 billion. According to new findings of the Congressional Budget Office, the use of the bonds to fund a wide variety of projects has grown rapidly in the past five years, and their cost to the federal government has increased. In light of the growing use of small issue IRBs and the revenue losses associated with them, the Congress may want to reconsider current policy on the bonds.

Small issue IRBs are tax-exempt bonds that state and local governments may issue to provide financing for private firms. In general, the only backing for the bonds is the credit of the borrowing firm, the revenue from the projects financed, or the funded facility itself. If the borrower defaults, the bondholder bears the loss, so that regardless of how many IRBs a state or local government issues, its credit rating is unaffected.

Since interest income from the bonds is exempt from federal taxation, private businesses can borrow at below-market interest rates. In effect, the federal government gives up revenues in order to subsidize the borrowing costs of private industry. CBO estimates that the federal revenue loss will amount to approximately $1 billion in fiscal year 1981, rising to between $2.9 billion and $4.4 billion in fiscal year 1986. The net revenue gain from eliminating small issue IRBs would be less, since reflow or feedback effects (lower tax collections from reduced economic activity) would offset part of the gain.

THE EVOLUTION AND PURPOSE OF IRBS

The use of tax-exempt IRBs began in Mississippi in the 1930s and spread slowly, mostly to other southern states. Initially, the bonds' primary purpose was to promote industry in predominantly rural areas. For many years, the volume of IRBs issued remained low; but beginning in the 1960s, the situation changed. Partly to compete with the sun belt, northern and midwestern states began

offering IRBs, and the concept of their purpose shifted from promoting economic diversification to creating and preserving jobs.

By 1968, some 40 states had authorized IRB use. Large corporations began using IRBs to finance major capital expansion, with the result that between 1960 and 1968, the annual volume of reported IRB issues had risen from $100 million to $1.8 billion. The Congress responded to the surge in IRBs by passing legislation limiting their use.

Current Law

The Revenue Expenditure and Control Act of 1968--the statute that still governs IRB use--reflected Congressional concern about federal revenue losses and opposition to the federal government's offering subsidies to large corporations. The new law withdrew the tax exemption for IRBs, with the exception of those that finance quasi-public services or facilities (pollution control, airports, convention centers, parking garages, sports stadiums, and the like), and those that, by virtue of their size, were designated "small issues."

Limits. Under current law, small issues may be used for any private business purpose, but they are subject to maximum dollar limits. No state or locality may float a small issue IRB for more than $10 million. Moreover, if the bond amount exceeds $1 million, total capital expenditures on all of the borrowing firm's facilities within the same county or city may not exceed $10 million for the three years before and the three years after the issuance of the bond. For a project that also has financing under the Urban Development Action Grant (UDAG) program, the capital expenditure limit is $20 million, but the tax-exempt IRB itself still cannot exceed $10 million. The law puts no other restrictions on the use of small issues, nor does it set up any framework for reporting IRB sales.

Uses. Today, 47 states issue IRBs, and more than half of these states put no restrictions on the use of the proceeds. As the number of states using the bonds has grown, so has the variety of projects benefiting from tax-exempt financing. As of 1970, most states used small issues only for manufacturing and closely related facilities. But by the mid-1970s, state and local officials, brokers, bankers, and businessmen realized that federal law made virtually any enterprise eligible for small issue IRB financing.

One state legislature after another began to pass laws relaxing or entirely removing the restrictions that earlier had confined the use of the bonds.

Although small issues still finance industrial plants, their use for less traditional purposes is growing rapidly. Today, small issues finance all manner of ventures, from shopping centers to grocery stores to private sports clubs.

Measuring IRB Sales

The revenue loss associated with IRBs is difficult to estimate because of problems in assessing the volume of small issue sales. Most small issues are private placements with banks or other lenders and are rarely reported beyond the state or local level. In the 1960s, unreported issues were less common because the principal beneficiaries of IRBs were large corporations, and their bonds tended to be sold publicly. Today, the situation is reversed. Since the early 1970s, the bonds have primarily (but by no means exclusively) provided financing for small and medium-sized firms. These issues substitute for conventional commercial loans, and they tend not to come into public view.

CBO's Survey. In an effort to determine the volume of small issue IRB sales, CBO requested data from all of the states that permit use of the bonds and from certain local agencies. Most states had good records, but some had incomplete information or none at all. In most cases, however, CBO was able to obtain enough information to make possible reasonable estimates. Although the volume of issues was impossible to determine precisely, CBO is confident that its estimates reflect total sales much more closely than do the data that federal agencies have used in the past (which were based primarily on public sales).

POLICY OBJECTIVES AND THE EFFECTIVENESS OF SMALL ISSUES

A few years ago, when the volume of small issues was much lower and the likelihood of expansion appeared slight, IRBs drew little attention. In light of new information on the mushrooming use of small issues, the Congress may want to reevaluate current law governing IRBs. If so, the Congress will have to address basic policy issues that in the last 10 years have received virtually no attention. IRBs can serve many purposes, but they raise a funda-

mental question: Under what circumstances do federal subsidies to lower the borrowing costs of private industry serve a public purpose?

Stimulating Investment and Employment. If the goal of federal interest subsidies is to increase investment and employment, a general business tax cut might be equally effective if not more so. Thus, the Congress may want to weigh the costs of small issue IRBs against the costs of alternative tax measures. If, on the other hand, the purpose of small issues is to stimulate development in economically distressed areas, the Congress may want to consider ways to target IRBs toward specific locations or regions and to coordinate use of the bonds not only with Urban Development Action Grants (UDAG), but also with other federal credit programs.

Modifying the Market's Allocation of Credit. If the purpose of interest subsidies is to modify the market's allocation of credit, the Congress may continue to find small issue IRBs useful. To some extent, they are effective in increasing investment among smaller firms; however, many large corporations also benefit from the subsidy.

Firms that have difficulty qualifying for conventional financing, by and large, have no better success with IRBs. At present, less creditworthy firms can benefit from small issue IRBs only if the bonds are guaranteed by state or local agencies. Small issues themselves do not offer last-resort financing.

POLICY ALTERNATIVES

Depending on how the Congress defines the purpose of small issue IRBs, the alternatives for legislative action range from removing all limits on small issues to completely eliminating tax exemption for the bonds. Between these extremes are several other options. These include maintaining current law or modifying it either by relaxing current limits or by restricting the volume of small issues, the uses of the bonds, or both.

Remove or Raise the Dollar Limits

If the Congress were to remove all dollar limits on small issues, the effect would certainly be to stimulate investment and employment. In view of the passage of new tax legislation in

1981, the Congress may want to evaluate the costs to the federal government of increasing or removing the limits on small issue IRBs against the benefits of recently enacted business tax cuts. A general business tax cut can have as stimulating an effect on investment as lifting the ceilings on IRBs, without raising municipal borrowing rates.

Raise the Limits. Some proponents of IRB financing have argued, with justification, that the bond ceilings and capital expenditure limits have not kept pace with inflation. The Congress raised the capital expenditure limits from $5 to $10 million in 1978. If, however, the $1 and $5 million limits that the Congress imposed in 1968 had kept up with inflation, by mid-1981 they would have risen to $2.1 and $10.5 million, respectively. On the other hand, the Congress has never expressly decided that the limits on small issues should be indexed for inflation. Before making a decision, the Congress may want to evaluate the bonds' current uses.

The main beneficiaries of either lifting or raising the limits would be larger firms. Most small issues now aid smaller firms; the average project financing in 1980 was $1.3 million. This suggests that the current $10 million capital expenditure limit poses no problem for most small issue beneficiaries. Only 6 percent of all 1980 small issue financings was for more than $5 million; however, these projects accounted for more than a third of total sales. If the limits were raised, a relatively small number of larger projects would probably begin to account for most of the dollar volume of small issues. Unless demand for tax-exempt holdings were high, these firms could begin to crowd many small companies that now benefit from IRBs out of the market. Such an effect would run counter to the intent of the 1968 legislation.

Raising the limits would increase the number of projects eligible for small issues, which in turn would increase both the volume of small issues and the costs of municipal borrowing for traditional public purposes. CBO estimates that if the capital expenditure limit were increased to $15 million, small issues would amount to $16 billion in 1982, and federal revenue losses would rise from $1.5 billion in fiscal year 1982 to $3.8 billion by 1986.

Maintain Current Law

If the Congress decides to take no action, the states will continue to determine the public purpose of small issue IRBs. The

Congress may decide that state and local governments, despite differences, are still in the best position to determine what public interest small issues serve. The objection to this position most often cited is that the federal government bears the largest share of the cost of IRBs, and it therefore has the greatest stake in regulating the bonds' use.

Require Reporting. Even if it makes no changes in current law, the Congress may want to be kept apprised of the annual volume of small issue sales to make possible more accurate estimates of the cost of continuing tax exemption. If so, it could make tax exemption conditional on the reporting of sales to a designated federal agency.

Restrict the Use of Small Issues

Depending on its objectives, the Congress could modify current law by requiring that IRBs be targeted to distressed areas, smaller businesses, or both. These objectives do not necessarily depend on requiring states to adhere to federal guidelines on targeting criteria. By setting overall limits on small issue activity, or by requiring state backing of the bonds, the Congress could make it necessary for the states to be more selective in their uses of IRBs; however, the criteria for choosing projects would still be up to the states.

Target IRBs to Smaller Businesses. Although current capital expenditure limits make small and medium-sized companies the most likely users of IRBs, nothing prevents large corporations from using many times $10 million a year in IRB financing to build branch facilities across the country, so long as the investment in each facility falls within the specified capital expenditure limits. Current law works to the particular advantage of large corporations with geographically dispersed facilities. While these firms may avail themselves of unlimited amounts of tax-exempt financing, equally large firms with more concentrated facilities derive little benefit from small issues. The bonds have therefore been a boon to national retail and other firms, which require relatively low capital expenditures for each facility.

In keeping with the intent of the 1968 legislation, the Congress might want to target IRBs toward smaller businesses to ease their access to credit or to encourage new competition. If so, the Congress could establish criteria for small issue financing

that conform to the guidelines set forth by the Small Business Administration, or it could limit the usefulness of IRBs to larger firms by setting limits on the amount of small issue financing that a firm could use. If its goal is to make credit available to riskier firms, the Congress might want to consider coordinating the use of small issues with other federal, state, and local programs that offer loans, grants, or guarantees.

Target IRBs Toward Distressed Areas. Because small issues are almost universally available, they have little effect on businesses' location decisions. If the bonds were available for use in distresed areas only, they might stimulate some additional investment where it is most needed, particularly if used in combination with other local, state, or federal programs. The criteria for determining whether or not an area qualifies as distressed could be based on state or local guidelines, or since UDAG funds are often used with IRBs, the criteria could be the same for both.

Eliminate IRBs for Commercial Projects. Although commercial projects per se may serve no less of a public purpose than industrial projects do, they have aroused more controversy at the state and local level. The Congress may therefore wish to follow the lead of those states and localities that limit the use of small issues to manufacturing and related facilities. If the Congress were to eliminate tax exemption on IRBs for commercial projects, the overall volume of bonds would decrease. At the same time, investment in commercial projects would decrease wherever the market for them is not sufficiently strong to make them profitable at prevailing interest rates.

The major federal programs that provide assistance to business do not distinguish between commercial and industrial projects, but many seek to target assistance to distressed areas. Eliminating tax exemption on small issues for commercial projects would prevent the use of these interest subsidies in combination with some UDAG projects. It could also have adverse effects on state and local programs that target small issues to distressed areas. For these reasons, the Congress may wish to target small issues for commercial projects toward distressed areas, or require that the states do so.

Set a Limit on State IRB Sales. In order to permit the states to target the use of small issues as they see fit, rather than requiring use of federal criteria, the Congress might simply impose

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a state-by-state per capita limit on small issue sales. At present, small issue sales per capita range from $4 in Illinois to $139 in Pennsylvania. If the Congress imposed a limit of, say, $50 per capita in each state, several states would immediately have to begin using IRBs more selectively. In addition, state agencies would have to keep tabs on IRB financing activities.

Limit Tax Exempt Status to General Obligation Bonds. Another way that the Congress could leave the criteria for using small issue IRBs to the states would be to remove all current restrictions, and replace them with legislation that grants tax exemption to all bonds that are backed by the full faith and credit of state or local government. In some states, constitutional provisions that prohibit making gifts or loans to private entities would prevent full faith and credit backing of IRBs. An alternative requirement, which would cause fewer legal problems, would be for the state to provide full insurance or guarantees to protect the bondholders against loss. The effect would be the same. Issuing governments would assume greater responsibility for the bonds. They and state and local voters might then consider more carefully what public purpose the bonds are serving.

Require Federal, State, or Local Matching Funds. The Congress might consider eliminating all small issue IRBs, with the exception of those that also have commitments of other federal, state, or local resources. While in so doing, it might be eliminating many tax-exempt financings, at the same time the Congress would be encouraging states to commit their resources to the projects that they consider most beneficial. The result might be better planning and less random use of scarce resources.

Eliminate Tax Exemption for Small Issue IRBs

If the Congress eliminated tax exemption on all small issue IRBs, some investments might not go forward. Others might move ahead, but changes in the amount and timing of investment would result. Smaller firms would be the ones most affected. Moreover, investment in distressed urban areas might decline because of the large number of UDAG projects that also receive IRB financing.

The arguments for eliminating small issue IRBs are that to a large extent they reallocate capital without generating much net new investment; that targeting criteria and volume limits are too hard to agree on and to administer; and that the public purpose of IRBs is unclear.

CHAPTER I. INTRODUCTION AND PLAN OF THE PAPER

In the past five years, the use of tax-exempt industrial revenue bonds (IRBs) to subsidize the borrowing costs of private business has increased dramatically.[1] State and local governments issue IRBs to provide financing for private investment in plant and equipment. Because interest income from the bonds is exempt from federal taxation, they enable businesses to borrow funds at below-market interest rates.[2] In effect, with IRBs, a government issuer can transfer its tax-exempt status to a private borrower.

Typically, a local government agency issues an IRB and uses the proceeds to buy or build a facility or to purchase equipment that a private enterprise will then buy on installment or lease for a period that may range from five to 30 years. The borrowing company pays a rent that is equal to the amount necessary to meet the interest and principal payments on the bonds. Once the bonds are retired, the company will either renew the lease or buy the facility for a nominal sum.

In general, the only security for the bonds is the revenue from the lease payments or the facility itself. If the tenant defaults, the bondholders bear the loss. Occasionally, the issuing body guarantees the bond or pledges its credit as security, but

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1. In common parlance, industrial development bonds (IDBs) and industrial revenue bonds (IRBs) are interchangeable terms. Both refer to bonds that are issued by public agencies to finance facilities for private enterprises. Technically, the difference between them is that IRBs are backed solely by the revenues from the project or the facility itself, while IDBs are backed by the full faith and credit of the public issuing authority. Although IDBs were the precursors of IRBs, their use has been relatively infrequent. For further background, see Mark Rollinson, Small Issue Industrial Development Bonds (Chicago: Capital Publishing Corporation, 1976).

2. The interest on state and local bonds has been exempt from federal taxation since the adoption of the income tax in 1913.

these general obligation industrial development bonds are the exception.

ORIGINS AND LIMITS OF SMALL ISSUE IRBS

The use of state and local financing to assist private industry had many precedents. During the nineteenth century, state and local governments had financed privately owned businesses, primarily canals and railroads. After the depression of the early 1840s, a number of states defaulted on bond issues. As a result, many states imposed constitutional and statutory restrictions on the freedom of local government to incur debt. Revenue bonds came into use to circumvent these restrictions. Unlike general obligation bonds, revenue bonds are backed by project facilities or the income from them, and they do not involve the extension of state credit. Revenue bonds finance publicly owned facilities such as bridges, ports, and turnpikes. Industrial revenue bonds finance construction of facilities for lease or sale to private concerns.

The use of IRBs began in the 1930s and spread slowly, mostly in southern states. In the 1960s, use of IRBs became more widespread. In 1968, when reported issues reached a total of $1.8 billion, the Congress became concerned about the federal revenue losses associated with the bonds; it therefore passed legislation limiting the use of IRBs. The Revenue Expenditure and Control Act of 1968, discussed in greater detail in Chapter II, rescinded the tax-exempt status of IRBs but made certain important exceptions. Notable among these exceptions are so-called "small issues," the central focus of this study.

Depending on the project being financed, an IRB can fill any of a variety of purposes. With the exception of small issues, the purposes specified in the 1968 legislation suggest that, even though private firms were to be the primary beneficiaries of the subsidies, tax-exempt IRBs were intended mainly for quasi-public facilities, such as airports or wharves, or for quasi-public services, such as pollution control or solid waste disposal.[3] IRBs for these special purposes may be issued in any amount. In contrast, small issues, though they may be used for any purpose, are subject to maximum dollar limits.

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3. The 1968 act preceded federal pollution control legislation; thus, the subsidy was to offer an incentive for firms to invest voluntarily in pollution control equipment.

Under current law, no state or locality may float a small issue IRB for more than $10 million. Moreover, if in a given instance the bond amount exceeds $1 million, total capital expenditures on all of the borrowing firm's facilities within the same county or city may not exceed $10 million for the three years before and the three years following the issuance of the bond. For a project that also has financing under the Urban Development Action Grant (UDAG) program, the capital expenditure limit is $20 million, but the tax-exempt IRB itself still cannot exceed $10 million. If an IRB amounts to $1 million or less, though, the capital expenditure limit does not apply.

QUESTIONS RAISED BY THE GROWTH OF SMALL ISSUE IRBS

Sales of small issue IRBs have been growing more rapidly than IRB sales for any other purpose, with the exception of residential housing.[4] Between 1975 and 1979, annual small issue sales grew from approximately $1.3 billion to about $7.1 billion, and they reached an estimated $8.4 billion in 1980. In 1975, small issues accounted for approximately 4 percent of all long-term tax-exempt bond issues; in 1980, they represented 15 percent of the market. According to Congressional Budget Office estimates, if current law remains in effect, small issues could amount to between $15 billion and $49 billion by 1986, resulting in revenue losses increasing from approximately $1 billion in fiscal year 1981 to between $2.9 billion and $4.4 billion in fiscal year 1986.

The use of tax-exempt bonds to provide financing for private purposes has often been controversial and raises several fundamental issues. Under what circumstances should the federal government subsidize the borrowing costs of private industry? What public purposes or policy objectives do these interest subsidies serve? Are they intended to stimulate aggregate investment, to preserve or promote employment, to assist firms that otherwise could not profitably invest at conventional interest rates, or to correct imperfections in the market's allocation of capital? If interest subsidies serve any of these public policy objectives, are

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4. For further discussion of the use of IRBs for residential purposes, see CBO, Tax-Exempt Bonds for Single-Family Housing (April 1979).

tax-exempt bonds--which result in revenue losses that the federal government can neither supervise nor control--the best means of achieving these aims? Although these questions apply to most tax-exempt IRBs, in recent months, controversy has centered mainly on small issues.

Small issue IRBs in particular have drawn attention for several reasons. Sales are booming. All but three states (Hawaii, Idaho, and Washington) actively use tax-free financing. And, in recent years, small issues have financed a much wider variety of projects than has been the case in the past. Traditionally, IRBs were used to encourage investment in industrial facilities. Today, small issues are providing interest subsidies for every kind of enterprise from manufacturing plants to country clubs.

Although tax-exempt financing for industrial facilities continues, the less traditional uses of small issues have attracted increasing attention. In the summer of 1980, a development authority in Virginia Beach approved a $1.5 million bond issue for a private golf course.[5] A few months later, one of the largest retail furniture chains in the Washington, D.C. metropolitan area, benefited from a $5.8 million tax-free bond.[6] In a still more controversial case in Elmore County, Alabama, a national hamburger chain paid for the establishment of a local industrial development board to issue tax-exempt bonds for a fast food restaurant.[7] Across the country, local merchants and citizens groups in several towns have charged that the use of tax-free bonds to finance shopping centers and retail stores threatens downtown businesses and leads to unfair competition.[8]

While in some places the use of IRBs is drawing criticism, elsewhere it is proceeding with little controversy. Many state and

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5. Washington Post (September 17, 1980).

6. Washington Post (October 31, 1980).

7. Montgomery Advertiser (August 20, 1980); Wall Street Journal (October 8, 1980).

8. See, for example, Ravalli (Montana) Republic (June 27, 1980), The Dalles (Oregon) Chronicle (July 15, 1980), and the Alabama Journal (August 19, 1980), and the Washington Post (September 17, 1980).

local officials consider the bonds essential to stimulate new investment. In some cities, for example, tax-exempt bonds, together with federal UDAG funds, are helping to rebuild deteriorated commercial centers.

These trends have cast into sharp relief the questions concerning the public purpose of small issue IRBs. So far, federal legislation has left the definition of "public purpose" to state and local governments. Moreover, the law now covering the use of IRBs does not require state or local issuers to report IRB sales to any federal agency. Thus, both the purposes and the total annual volume of IRB financings have been extremely difficult to determine. The Congress may feel that this situation is satisfactory. On the other hand, since the subsidies that IRBs provide come primarily from federal revenues, the Congress may wish to examine more carefully the present trends in the uses and volume of small issues.

PURPOSE AND PLAN OF THE PAPER

The aim of this study is to provide the Congress with the information it needs to determine whether or not legislation governing small issue IRBs should remain the same or be changed and, if so, how. The chapters that follow cover the history, current volume, and extent of small issue IRB use; the growth potential of the small issues market; and the effects of small issue IRBs on investment, employment, and federal revenues.

Chapter II surveys the history and uses of IRBs from the 1930s to the present. It presents data, gathered primarily from state and local agencies, on small issue IRBs and it raises some of the questions that have been controversial in the past and that remain so today.

Chapter III describes the use of small issues in closer detail. It attempts to answer the following questions: What forces have led to the growth of small issue financing? How do states and localities define "public purpose"? What kinds of firms use the bonds and for what purposes? Does the use of small issues differ significantly among states or regions? Are the bonds an integral part of state and local economic planning? Do states and localities target small issues toward specific places or types of businesses? And how do small issues relate to other federal programs designed to stimulate economic development?

Chapter IV discusses the projected growth of small issues over the next five years; the effects of the bonds on federal, state, and local revenues and on the distribution of the federal tax burden; and the effects of small issues on investment, employment, firm location, and the behavior of financial institutions.

Chapter V presents a variety of alternatives for Congressional consideration. These range from removing all limits on small issue IRBs, on the one hand, to eliminating tax-exempt status on them, on the other. The options between these extremes vary from taking no action to changing current law in various ways, including imposing reporting requirements on the states that use IRBs, limiting tax exemption to small issues that carry the full faith and credit of the state or locality, imposing state-by-state limits on the volume of the bonds, and requiring that the bonds be targeted toward specific areas and types of businesses.

CHAPTER II. THE GROWTH OF SMALL ISSUE IRBS

In 1980, small issue IRB sales reached an estimated high of $8.4 billion. Small issues first appeared in the tax-exempt bond market following passage of the Revenue Expenditure and Control Act of 1968. Until then, IRBs could be used for any purpose and in any amount. Nevertheless, in 1968, the total sales of IRBs for all purposes combined were lower (in real terms) than are small issue sales alone today.

BEFORE 1960

The use of tax-exempt bonds to finance plant and equipment for private industry began in 1936, when the state of Mississippi passed legislation authorizing cities and towns to issue bonds to finance the construction of manufacturing facilities for lease to private companies. The purpose of the act was to aid a depressed agricultural economy by promoting industrial development. The first such bond, for $85,000, was issued to Realsilk Hosiery Mills in Durant. The issue floated for Realsilk had the backing of the state, and technically it was an IDB rather than an IRB. Two years later, when the law was challenged, the Mississippi Supreme Court upheld it.

Although the Mississippi legislation set a precedent, IRBs attracted little national attention for several decades. By 1950, only two other states, Alabama and Kentucky, had authorized their use. Gradually, however, IRBs began to spread, mostly to other southern states.

1960 TO 1968

By 1960, 17 states permitted the use of IRBs. For years, however, the annual volume of reported sales--which reached $100 million for the first time in 1960--had been low, and it remained so through the first half of the 1960s. But IRBs had already begun to cause concern. In 1963, the Advisory Commission on Intergovernmental Relations (ACIR) issued a report on IRBs, noting that they were "receiving nationwide attention bordering on

notoriety," even though their annual sales volume was "quantitatively unimportant." The reasons the ACIR cited for its concern included "the pervasive fear that as the practice spreads, self-defense will drive local governments everywhere into participation." This, in turn, would "sap the fiscal strength of local governments . . . without contributing appreciably to the total volume of business activity" or "necessarily producing compensating public benefits."[1]

Again and again, IRBs have raised questions of whether, and if so, under what circumstances, financing private development serves a "public purpose." A uniform definition of public purpose has always been lacking. In its 1950 decision upholding IRBs, the Kentucky Court of Appeals avoided the issue altogether by declaring that, since revenue bonds had no effect on the debt of the issuing body, their public purpose was irrelevant.

The Kentucky decision, in turn, raised the question of whether IRBs were tax exempt under the provisions of the Internal Revenue Code.[2] If they had no effect on the credit of the issuing authority, did they qualify under the Tax Code as obligations of a state or local government? In 1954, and again in 1957, the U.S. Treasury Department decided that IRBs did qualify, and that interest on them was tax exempt.[3] These favorable rulings led to the passage of enabling legislation in several states, but reported sales remained low. Since IRBs were a little-known security, investment bankers were hesitant at first to underwrite them, and investors were reluctant to buy them. As more states began to authorize use of IRBs, they became better known and more attractive to large corporations, and by the mid-1960s, sales had taken off.

Between 1960 and 1968, the annual volume of reported IRB sales rose from \$100 million to \$1.8 billion, and the IRB share of the market for long-term tax-exempt municipal bonds rose from less

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1. Advisory Commission on Intergovernmental Relations, <u>Industrial Development Bond Financing: A Commission Report</u> (Washington, D.C., June 1963), p. 6-9.

2. Internal Revenue Code, Section 103.

3. Revenue Rulings 54-106, 1954-1 CB 28 and 57-187, 1957-1 CB 65.

than 1 percent to 9 percent.[4] This increase was attributable primarily to the rise in issue size, which grew from an average of $366,000 in 1957 to $7.8 million in 1967.[5] Within a short span, large corporations had come to recognize the usefulness of IRBs in financing expansion programs involving major capital expenditures. Between 1962 and 1967, for instance, nearly all the nation's newly built tire plants were financed with IRBs, as were several new paper and pulp mills, a shipbuilding complex, and an aluminum rolling mill slated to cost $250 million.[6] By 1968, the combined forces of competition and self-protection had led some 40 states to authorize the use of IRBs.

Critics of IRBs levied a number of charges against them: they used public funds to subsidize projects that could have gone forward with conventional financing; their proliferation undermined their original purpose of attracting industry to depressed areas; they resulted in revenue losses; and by raising the overall volume of tax-exempt bonds, they increased the costs of state and local borrowing for traditional purposes.

In March 1968, the U.S. Treasury responded to the surge in IRB issues by proposing new regulations to put an end to the tax-exempt treatment of IRBs. Most members of Congress agreed with the criticism of IRBs, and within a few months, the Congress passed the Revenue Expenditure and Control Act limiting IRB use.

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4. The reporting of sales is discussed in some detail later in this chapter.

5. Susan R. Robertson, "Industrial Development Bonds: They're Not What They Used To Be," Business Review, Federal Reserve Bank of Philadelphia (March 1969), p. 4. For a history of IRB use, see also Institute for International Law and Economic Development, The Industrial Revenue Bond as a Financial Attraction Device (September 1978).

6. According to the Wall Street Journal of December 4, 1967, virtually all of the major tire manufacturers used IRB financing between 1962 and 1967--Armstrong, Cooper, Dunlop, Firestone, Goodrich, Goodyear, Mansfield, Mohawk, and Uniroyal. See Arthur A. Thompson, Industrial Development Bond Financing: A Study by the Alabama Business Research Council (University of Alabama Press, 1970), p. 23.

THE REVENUE EXPENDITURE AND CONTROL ACT OF 1968 AND SUBSEQUENT IRB LEGISLATION

The 1968 act set forth the legislative structure that still governs IRBs.[7] It withdrew the tax exemption of IRBs for all but a few explicit purposes. The projects that retained the exemption include bonds to finance air and water pollution-control equipment; airports, docks, wharves, and related storage and training facilities; facilities for the local furnishing of electric energy, gas, and water; land acquisition and infrastructure development for industrial parks; mass transportation and parking facilities; residential housing; sewage and solid waste disposal facilities; sports facilities; and trade show and convention centers. The legislation also retained the tax exemption for bonds with a face value not exceeding $1 million to finance plant and equipment for other industrial facilities. The stated purpose of the small issue exemption was "to assist small businesses in locating in a community."[8]

A few months after the legislation passed, the Congress added another small issue exemption. This permitted state and local agencies to issue IRBs up to $5 million, with the stipulation that the total capital expenditures on the borrowing firm's facilities within a given city or county not exceed that amount for three years before the date of the issue or three years after. The capital expenditure limit, which was included in the Renegotiation Act of 1968, applied only to small issues of more than $1 million.

All of these changes in IRB legislation originated either as amendments offered on the Senate floor or in conference committee. The House versions of both the Revenue Expenditure and Control Act and the Renegotiation Act had contained no reference to IRBs. In the case of the capital expenditure limit, the Senate passed an amendment calling for a simple increase in the small issue ceiling from $1 million to $5 million. Supporters of the new measure argued that the $1 million limit was unrealistic and that providing an alternative to it would in no way undermine the

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7. Internal Revenue Code, Section 103(b).

8. Statement by Representative Wilbur D. Mills reviewing the history of the IRB legislation, Congressional Record--House (October 10, 1968), p. 30603.

goal of "stemming the flow of subsidies to very large companies."[9] In accepting an increase in the ceiling, the House conferees insisted on adding a capital expenditure limit to assure that the primary beneficiaries would be smaller companies.[10]

AFTER 1968

Aside from minor technical changes, the legislation governing IRBs was unaltered for 10 years. Then, in 1978, the Carter Administration proposed that the bond amount and capital expenditure limits for small issue IRBs be raised from $5 million to $10 million and that the bonds be restricted for use in financing projects in distressed areas only. The Congress responded by raising the issue and expenditure limits to $10 million for all projects, with the exception of those in distressed areas that receive UDAG funding. These were made subject to a capital expenditure limit of $20 million; however, the maximum issue amount for all projects was and still is set at $10 million, regardless of location. (The provision allowing $1 million in bonds to be issued without reference to capital expenditure limits was unchanged.) Advocates of the across-the-board increase in the limits from $5 to $10 million argued that, in 10 years, inflation had eroded the value of the original ceilings. The higher limits went into effect on January 1, 1979.

Although the volume of reported issues decreased sharply after 1968, the effects of the newly restrictive legislation were limited. The main impact was on large corporations that had used IRBs to finance major facilities, some costing more than $100 million. The $5 million capital expenditure limit put an end to

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9. Statement by Senator Carl Curtis, sponsor of the amendment to increase the IRB ceiling, Congressional Record--Senate (September 11, 1968), p. 26412.

10. For a history of the changes in IRB legislation, see Howard A. Zaritsky, "The Legislative History of the Income Tax Treatment of Industrial Development Bond Interest," unpublished paper, The Library of Congress, Congressional Research Service (August 12, 1977). See also debates and conference reports published in the Congressional Record for the following dates: Senate (March 26, 1968), pp. 7678-7702, and (September 11, 1968), pp. 26412-26419; House (June 20, 1968), p. 17987-17990, and (October 10, 1968), pp. 30600-30604.

such practices. But the legislation in no way curtailed IRB issues for small-scale projects. Nor did it curb the increase in the number of states authorizing the use of IRBs.

During the early 1970s, the volume of small issue sales appears to have been fairly low. The growth in IRB sales for other purposes resulted largely from the attractiveness of tax-exempt financing for pollution control. The Clean Air Act of 1970 and the Water Pollution Control Act of 1972 put pressure on firms to make capital expenditures to avoid contaminating the environment. Inevitably, investment bankers began promoting enabling legislation in each state to take advantage of the provisions of federal tax law. By the summer of 1972, the first vice-president of a major investment banking firm claimed, "We've been responsible for changing laws in fifteen to twenty states."[11] In many cases, the enabling legislation for pollution-control bonds also provided for the new or expanded use of small issue IRBs.

THE PRESENT IRB SITUATION (AND PROBLEMS IN ASSESSING IT)

Today, the annual volume of IRB issues in real terms far exceeds the levels reached in the 1960s. Furthermore, since most small issues are not reported, the growth in IRB use since 1968 has been significantly underestimated. Most IRB issues are privately placed with local banks, and records of them rarely exist beyond the state or local government level.

Although private placements were not uncommon before 1968, they might have increased as a result of a Securities and Exchange Commission (SEC) ruling that effectively discouraged the public sale of small issues. Before 1968, no obligations of state and local governments had to be registered with the SEC. The new ruling required that all IRBs of more than $300,000 be registered with the SEC unless they were general obligation bonds, they were privately placed with a limited number of investors who attested in writing that the bond purchase was for their own portfolios and not intended for resale, or the project was located in the state where the lessee was incorporated, and a public offering was limited to state residents who purchased only for investment and

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11. Quoted in Annmarie Hauck Walsh, The Public's Business: The Politics and Practices of Government Corporations (Cambridge, Massachusetts: The MIT Press, 1978), p. 151.

not for resale.[12] Since full SEC registration adds to paperwork and issuance costs, the net effect of the ruling was to encourage firms to seek private placements. In 1970, amendments to SEC regulations exempted virtually all IRBs from registration requirements. The practice of privately placing IRBs continued, however.

In general, the IRBs offered for public sale are used to finance the projects of large corporations, which have established relationships with securities underwriters. These sales are usually reported to the <u>Daily Bond Buyer</u>, the Public Securities Association (PSA), or both.[13] The bonds of smaller firms, on the other hand, tend to be privately placed, often without the involvement of investment banking or brokerage houses.[14] In most cases, the only public records of such transactions appears in the minutes of the meetings of local issuing agencies or in the records of county clerks.

Measuring the volume of IRBs has always been difficult because of the large number of issues placed privately. The smaller the bond issue, the more likely it is to be a direct placement. In all probability, most of the bonds issued before 1969 that exceeded $5 million were sold publicly and accounted for 80 to 90 percent of total sales. Once IRBs became subject to limits on the amount of the issue, not to mention on capital expenditures, direct placements grew. Today, measuring the volume of small issue sales with any precision is virtually impossible.

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12. SEC Rule 131 (17 CFR 230.131) under the Securities Act of 1933, and SEC Rule 36-5 (17 CFR 240.36.5) under the Securities Act of 1934. See also, Thompson, <u>Industrial Development Bond Financing</u>, p. 25.

13. The <u>Daily Bond Buyer</u> is a trade publication that concentrates on tax-exempt issues. The PSA is a professional association that represents securities dealers and publishes a monthly newsletter, <u>Municipal Market Developments</u>.

14. Privately placed bonds may or may not involve the services of investment banking or brokerage houses acting as agents for the borrower. Direct placements are also private, but the sole parties to them are the borrower, the lending institution, and the bond issuing authority.

CBO's Methods and Findings

To determine the extent of private (and particularly, direct) placements, CBO requested data from all of the states permitting small issues, and from selected local agencies. Although some

TABLE 1. COMPARISON OF DATA ON SMALL ISSUE INDUSTRIAL REVENUE BONDS, 1975-1979 (in Billions of Dollars)

	Congressional Budget Office[a]	Public Securities Association[b]	Daily Bond Buyer[b]
1975	1.3	0.5	0.5
1976	1.5	0.4	0.3
1977	2.3	0.8	0.5
1978	3.5	0.9	0.6
1979	7.1	1.7	1.3
1980	8.4	1.6	1.4

NOTE: For a few states, data include industrial parks, which occasionally have been financed with IRBs. The costs of these projects have generally been within the capital expenditure limits for small issues, and the number of projects has been small.

a. CBO's estimates are based primarily on information collected from state and local agencies. Where local data were incomplete or unavailable, data from the Public Securities Association were used. For a detailed state-by-state breakdown with notes on the sources of information, see Appendices A and B.

b. The Public Securities Association and the *Daily Bond Buyer* are the two main sources of data on tax-exempt issues of state and local governments. The data that federal agencies have traditionally used to estimate the volume of IRB issues have come from one or the other of these sources.

agencies had imperfect data and others could offer none at all, many had good records of both public and private bond sales during the last five years. These records indicated that between 1975 and 1979, the volume of small issue IRBs was four to five times larger than had previously been estimated.[15] The differences between CBO's and two other sources' estimates are contrasted in Table 1.

The CBO data represent an effort to include the market for direct placements in estimates of small issue IRB sales. Collecting accurate data, however, was a problem. The information from state and local agencies suggests that private placements account for 70 to 80 percent of small issue sales. For some states (such as Georgia), the only way to get accurate information would have been to correspond with each of more than a hundred local authorities. Some other states (such as Minnesota) publish annual reports listing IRB issues. Upon investigation, however, these turned out not to be actual closings but merely bond issues that the state had approved. For such cases, CBO checked with local and state authorities in an attempt to estimate actual sales. On balance, the likelihood is that CBO estimates understate the volume of issues because several states had incomplete reports. Although constraints on resources made it impossible to determine the precise volume of issues, CBO is confident that its estimates more closely reflect the realities of the market than do other estimates that primarily reflect public sales.

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15. For a breakdown of the data and notes on sources of information on the specific states, see Appendixes A and B.

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CHAPTER III. THE USES OF SMALL ISSUE IRBS

In 1980, the dollar volume of small issue IRB sales was more than six times greater than it had been in 1975, reflecting the rapidly growing tendency to use the bonds for increasing numbers and types of projects. Four developments in particular account for the burgeoning popularity of small issues:

- The raised limits on permissible capital expenditures and on the size of bonds from $5 to $10 million initiated in 1979 had a dual effect. It made larger bond issues possible, and perhaps even more important, it loosened constraints on future investments, allowing many more firms to take advantage of the small issue exemption. Although only 6 percent of the total number of small issue financings in 1979 actually exceeded $5 million, they accounted for 23 percent of the total sales volume.

- The greatest increase in the use of small issues occurred in 1978 and 1979, when the savings in interest costs resulting from tax-exempt financing were relatively higher than at any other time in the 1970s. In general, IRB interest rates have conformed to the dominant trends in the bond market. Historically, tax-exempt interest rates have been roughly 30 percent below taxable rates. In late 1979 and early 1980, the difference widened to nearly 40 percent, but by mid-1981, it had narrowed considerably.[1]

- Even if small issues had not actually become increasingly attractive, soaring interest rates on conventional loans

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1. In 1975, the yields on new long-term municipal bonds with Moody's Aaa ratings were 72.7 percent of yields on similarly rated corporate bonds. In 1978, the percentage was 63.1, and in 1979 it dipped to 61. See John E. Petersen, "The Municipal Bond Market: Recent Changes and Future Prospects," unpublished paper delivered at the Conference on Financing State and Local Governments in the 1980s, Chicago (January 16-17, 1981), sponsored by the University of Illinois Cooperative Extension Division and others.

might have made them seem so. In 1975, the difference in interest rates was some 2 percentage points. During 1980, however, the difference ranged between 4 and 7 points.

- o Although past use of IRBs was largely for manufacturing, more and more states have issued bonds for commercial ventures, including office buildings, retail stores, and shopping centers. The current sales volume reflects this trend toward less traditional uses.

Small issue IRBs now finance a wide variety of ventures. Depending on the state, the issuing authority may be a state agency, a municipality or county, a local industrial development board, or some combination of these. Certain states circumscribe the use of IRBs, while others impose no restrictions beyond those stipulated in the Tax Code. Some states have programs for using IRBs to encourage smaller or riskier business ventures or to promote development in specific areas; others make no attempt to target them. In some areas, small issue IRBs are part of a package of economic development incentives; elsewhere, they are merely a source of cheaper credit.

USES

As the number of states using small issue IRBs has grown, so has the variety of activities benefiting from tax-exempt financing. Federal law in no way proscribes any particular uses. On their own initiative, some states have restricted the use of small issues to manufacturing and related storage facilities, but most have chosen to take maximum advantage of the latitude allowed under federal law. As of late 1980, nearly three dozen states permitted use of small issues for projects ranging from manufacturing to retailing. Among these 30-odd states, however, practices vary widely. In Massachusetts and New York, for example, the overwhelming number of projects are for manufacturing and related storage and distribution facilities. In Minnesota and Pennsylvania, commercial projects predominate.

Of the less conventional uses of small issue IRBs, five are becoming increasingly common:

- Commercial real estate development--including bank branches, corporation headquarters, general office buildings, office buildings and equipment for accountants, dentists, doctors and lawyers, and shopping centers.

- Retail stores--including automobile dealerships, department stores, fast food franchises, grocery stores, ice cream parlors, restaurants, and supermarkets.

- Recreational facilities--including bowling alleys, country clubs, golf courses, health clubs, private tennis and racquetball clubs, and skating rinks.

- Tourist facilities--including beach resorts, hotels and motels, and ski lodges.

- Health facilities--including proprietary (that is, for-profit) hospitals and nursing homes.[2]

PUBLIC PURPOSE

The diversity of small issue IRB uses reflects the extremely vague criteria in most states for determining whether or not a project confers a "public benefit." In general, IRBs meet state public purpose requirements if they finance projects that create or save jobs, or if they promote economic diversification. Before the mid-1960s, states in the South tended mostly to emphasize development of new industry. In the older industrialized states of the North and Midwest, where the use of IRBs had been uncommon, preserving jobs was stressed.

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2. The following states (or localities within them) supplied CBO with reports or lists of bond issues that included some (or all) of these uses: Alabama, Alaska, Colorado, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, North Dakota, Ohio, Pennsylvania, South Dakota, Tennessee, Utah, Wisconsin, and Wyoming. Several other states permit some or all of these uses, but the information they submitted on small issues included only the name of the beneficiary firms, making the purpose of the project impossible to identify in most instances. Consequently, the data necessary to provide a national breakdown by purpose of the number and dollar volume of small issues are unavailable.

To cite a typical example, the Pennsylvania statute stipulates that local industrial development authorities shall operate for the purposes "of alleviating unemployment, maintaining employment at a high level . . . and developing business opportunities by the construction, improvement, rehabilitation, revitalization and financing of industrial, commercial, manufacturing, research and development enterprises."[3] These activities fulfill the public purpose of promoting the "health, safety, morals, and general welfare of the people." In Pennsylvania--as in many other states--any legitimate enterprise can benefit from IRB financing regardless of its location, the number of people it employs, or the firm's access to other sources of capital.

To assure that IRBs yield a net benefit to the state, some states prohibit their use for projects that require relocation within the state. A very few states have established more rigorous criteria. North Carolina is one. There, only industrial projects qualify, and only if each $7.5 million invested creates at least 100 jobs. North Carolina also requires that the average wage of the project financed with a small issue be above the average for the county or 10 percent above the average manufacturing wage in the state, and that the project have no adverse environmental impact.

Most states have at least some financial incentive to define "public purpose" rigorously, since the interest on IRBs is usually exempt from state income taxes. In a few states, IRB-financed projects are also exempt from property and sales taxes. These considerations appear to have had little effect on state laws, although property-tax exemptions, where they exist, have encouraged some cities and counties to be selective in their use of the bonds.

PATTERNS OF CORPORATE AND OTHER BUSINESS USE

The National Market

The beneficiaries of small issue IRBs range from multinational corporations to mom and pop grocery stores. In the 1960s, large corporations were the major users of IRBs. Since the early 1970s, most small issue IRB financing has consisted of direct placements,

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3. Commonwealth of Pennsylvania, Industrial and Commercial Development Authority Law, Report No. 11, pp. xi and 2.

and it has primarily benefited small and medium-sized companies. For example, of the projects approved by the New York City Industrial Development Agency between January and November 1979, more than three-fourths were for companies with net annual sales of less than $20 million, and more than half of these projects were for firms with net annual sales of between $1 and $5 million.[4] Similarly, more than three-fourths of the IRB-financed manufacturing facilities approved by the Massachusetts Industrial Finance Agency (MIFA) in 1978 and 1979 were undertaken by companies with annual sales of less than $20 million. These smaller firms had an average net worth of $1 million, average annual sales of $4.7 million and an average of 87 employees. The average issue size for these firms was $1.1 million.[5] These figures seem to reflect national practices.

To determine national patterns of small issue use, CBO examined a random sample of nearly 800 IRBs issued in 1978 and 1979.[6] The results indicated that IRB users tend to be closely held firms; less than 10 percent of the firms using small issues were listed on any of the national or regional stock exchanges.

More than three-fifths (61 percent) of the total number of issues in the sample were for less than $1 million, while only 12 percent of the issues were for more than $2.5 million. In terms of dollar volume, issues of less than $1 million accounted for 24 percent of all sales, while issues of more than $2.5 million

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4. Memorandum from the New York City Industrial Development Agency (December 27, 1979).

5. Letter from Robert Patterson, Executive Director, Massachusetts Industrial Finance Agency (November 27, 1979).

6. The sample consisted of 778 firms, which represented approximately 10 percent of the issues in each of 35 states that provided listings of the companies using IRB financing in 1978 and 1979. The states represented in the sample were Alabama, Arkansas, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, and Wisconsin.

accounted for 44 percent. Similar findings emerged from examining a sample of firms using small issues in 1980.[7]

Issue Size (in Millions of Dollars)	Percent of Projects		Percent of Dollar Volume	
	1978/79	1980	1978/79	1980
Less than 1.0	61	64	24	20
1.0	10	5	9	4
1.01 - 2.49	17	19	23	24
2.5 - 5.0	9	7	26	19
More than 5.0	3	6	18	34

In 1979, although the capital expenditure limit was raised from $5 million to $10 million, only 6 percent of the 1979 issues was for more than $5 million. In terms of dollar volume, however, these bonds accounted for 23 percent of small issue sales. In 1980, bonds exceeding $5 million again accounted for only 6 percent of all issues, but they represented 34 percent of all sales. Nationwide, the average issue size was $1.1 million in 1978, $1.4 million in 1979 and $1.3 million in 1980. (The reduction in the average size of bond issues in 1980 might reflect the smaller number of states represented in the sample.)

Large Corporations and the Small Issues Market

Although no hard and fast rules apply, the IRBs floated to assist large corporations tend to involve brokerage houses or investment banks, which may either negotiate a private placement or

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7. CBO's 1980 sample was based on a random selection of issues from lists and reports submitted by 23 states. As of March 1981, similar data on 1980 sales were unavailable from the remaining states. The sample consisted of 425 firms, representing 10 percent of the issues in each of the following states: Arkansas, Connecticut, Delaware, Iowa, Illinois, Indiana, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, and Vermont.

offer the bonds for public sale. Occasionally, commercial banks privately place bonds for corporate customers. In effect, these issues are tax-exempt corporate bonds, and, if publicly sold, their ratings are generally the same as the senior secured debt of the corporation. Their benefits to the corporations derive primarily from the lower interest rates that IRBs offer.

In terms of both the number and volume of issues, these bonds constitute a small proportion of small issue sales. Of some 8,000 small issues in 1978 and 1979, only 7 percent went to the top "Fortune 50" nonindustrial companies or the top Fortune 1,000 industrial firms. (The smallest firm on the Fortune 1,000 list had sales in 1978 of more than $110 million.) CBO found that, in terms of the dollar volume of sales in 1978 and 1979, only 16 percent was for Fortune 1,000 or Fortune 50 companies.[8]

The $10 million capital expenditure limit effectively keeps most large corporations from making much use of small issues; however, the limit applies only to the cost of facilities within an incorporated county or municipality. Corporations that have operations consisting of a large number of relatively low-cost and geographically dispersed facilities can use small issues to good advantage.

Manufacturing firms with many small plants and national retail and fast food chains have used small issues to finance major expansion programs. For example, according to Moody's Bond Record, K-Mart, the second largest retailer in the country, financed 35 stores with IRBs in 1980 alone; between 1975 and 1980, K-Mart (known as S.S. Kresge until mid-1977) used $220.5 million of IRBs to open some 96 stores in 19 states. Similarly, McDonalds financed the opening of 32 new restaurants in Pennsylvania and Ohio alone in 1979.[9] Eckerd Drugstores, Federated Department Stores, and Kroger are among the other retailing giants that have used IRBs. Among manufacturers of foodstuffs, household products, and textiles,

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8. Refers to corporation listings compiled annually by Fortune magazine.

9. Moody's Bond Record, January 1981, pp. 109-122. These data may well be an underestimate, since they exclude privately placed, unrated issues.

leading IRB users have been Beatrice Foods, Burlington Industries, General Mills, Nabisco, Pepsico, and Proctor and Gamble.[10]

A common practice, particularly among major chemical, paper and pulp corporations, is the use of $1 million small issues together with other and usually much larger pollution control bonds. The capital expenditure requirements for the facilities of these corporations are too large to permit them to use more than $1 million of small issue IRB financing. With relatively little additional paperwork, however, they can simultaneously float pollution control bonds and small issue IRBs to obtain lower-cost financing for up to $1 million of equipment purchases. Roughly one-half of all of the IRBs issued for companies rated by Fortune are for exactly $1 million. (These bonds constitute 4 percent of all issues and 3.4 percent of total sales volume.) A number of major firms make frequent use of the $1 million issue, including Allied Chemical, Container Corporation of America, Crown Zellerbach, International Paper, Hammermill Paper, Kimberly Clark, Stauffer Chemical, and Weyerhauser, to name a few.[11]

The Direct Placement Market for Medium-Sized and Smaller Firms

For smaller firms, IRBs are essentially a means of obtaining tax-exempt loans. The beneficiaries of most small issues are privately held firms with annual sales or total assets below those of the companies appearing on any of the Fortune listings. These middle-market and smaller firms are generally creditworthy enough to secure conventional financing without government guarantees. Their long-term debt capital, however, comes primarily from commercial banks, rather than from the stock or bond markets.[12]

Typically, a firm will approach its local bank for a loan to cover the costs of plant acquisition, construction, or equipment. Instead of a conventional mortgage or a loan, the firm may request that the local industrial development authority (IDA) issue IRBs

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10. Moody's Bond Record.

11. Moody's Bond Record.

12. The beneficiaries of small issues are generally no less creditworthy than recipients of conventional loans, and their default rates are no higher.

for the desired amount. The bank and the firm work out the terms of the bond issue--the amount, the maturity, and the interest rate. The bank agrees to purchase the entire issue for its own loan (and occasionally, investment) portfolio, and the government issuing authority (usually the most passive of the partners in these arrangements) serves as a conduit of the tax-exempt status of the bonds. These direct placements require bond counsel opinions to assure that the bonds are tax-exempt, but they rarely involve underwriters; thus, the fees are relatively low. On the other hand, the bond issues for small firms are unrated, and interest rates are higher than they would be on rated issues of large firms.[13]

From the standpoint of both the banks and their customers, these transactions are much like conventional loans, but they have some advantages. The lender gets a higher interest rate than on other tax-exempt bonds, primarily to compensate for higher risks. The borrower profits from a lower interest rate and is occasionally able to negotiate financing for a longer term or for a larger amount. Some state laws prohibit banks from making commercial mortgage loans for more than a fixed percentage of the appraised value of the property. In these cases, substituting small issues for conventional mortgages may provide a means of obtaining full (that is, 100 percent) financing. In general, however, the amount of the loan depends on the credit of the firm, rather than on the value of the property being financed.

During 1979, small issue IRBs were usually floated at a fixed interest rate that ranged between 6.5 percent and 10 percent, depending on the type of project and the creditworthiness of the borrower. By year's end, the interest rates on most unrated small issues were between 8.75 and 9.5 percent. As interest rates soared, however, the trend for both conventional and small issue financing shifted from fixed to floating rates, and loan terms became shorter. Depending on the borrower, interest rates floated

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13. The publicly sold bonds of major corporations, state and local governments are generally rated for creditworthiness by nationally recognized rating agencies, such as Moody's or Standard & Poor's. Privately placed bonds are generally unrated. Banks and other institutional lenders evaluate the creditworthiness of small and medium-sized firms and set interest rates accordingly.

anywhere between 55 and 75 percent of the prime lending rate. For both borrowers and lenders, these developments have reduced the degree of certainty usually associated with long-term debt financing. At present, a 10-year term is common for most small issues; in 1978, terms ranged up to 25 years. Some banks are now buying small issue IRBs to provide firms with "bridge financing"--short-term loans, usually for three years or less, that subsequently will be refinanced.

A few states have set up programs that are specifically geared toward simplifying tax-exempt financing procedures for small firms. The largest of these is Pennsylvania's industrial revenue mortgage program.[14] Tax-exempt mortgages adhere to the requirements for small issue IRBs, and they are tax-exempt under the same section of the Tax Code. In fact, they are tax-exempt bonds by another name. The advantage of using revenue mortgages is that they circumvent the need both for underwriters and for private, nationally recognized bond counsel; they thereby avoid some of the administrative expenses of issuing bonds. The legal opinions necessary to assure the tax-exempt status of revenue mortgages generally come from attorneys on the staffs of local Pennsylvania IDAs. Although local agencies usually charge for these services, the net effect of revenue mortgages is to provide a relatively inexpensive and simple means for making small loans to locally based companies.

A few other states, notably Arkansas, Iowa, and Maryland, have similar programs. The states describe their small issue programs as tax-exempt loan or mortgage programs, which, according to the Maryland Industrial Development Financing Authority (MIDFA), enables "borrowers to obtain loans at a higher percentage of

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14. In a typical arrangement, a company will assign the land for $1 and the promise of project financing to a local IDA. The IDA, instead of floating a bond issue, gets a mortgage loan from a local bank. In turn, the IDA leases the property and equipment to the company, which makes rental payments equal to the amount necessary to cover the principal and interest on the mortgage. Alternatively, a company could buy the property under an installment sales agreement, with payments equal to the principal plus interest on the loan. Title passes to the company. The security for the loan is a first mortgage on the land and building, which is assigned to the bank.

project cost, at a lower interest rate, and for a longer term than is normally available from conventional sources."[15] The MIDFA approves firms for tax-exempt financing and often insures a portion of the so-called "loan." These transactions go forward without the advice of private bond counsel; instead, a representative of the state Attorney General's office advises on the tax-exempt status of the "loans." Although the MIDFA program is designed for companies of all sizes, it appeals primarily to smaller firms. About half of MIDFA's clients had a net worth of less than $1 million at the time of project approval.

REGIONAL PATTERNS OF SMALL ISSUE IRB USE

Although industrial development bonds originated in the South, the Northeast and North Central regions now use them more heavily.[16] Of a total of $7.1 billion of small issues authorized in 1979, the Northeast accounted for $2.8 billion, or 39.5 percent; the North Central region for $2.1 billion, or 29.2 percent; the South for $2.0 billion, or 27.8 percent; and the West for less than $0.3 billion, or 3.7 percent. The three states that still refrain from using IRBs are all western.

In 1979, the four largest issuers accounted for roughly 45 percent of the small issue financing in the country. These were Pennsylvania--by far the leading issuer--Minnesota, New Jersey, and Ohio. Pennsylvania alone accounted for nearly one-fourth of all small issue IRB financing. All four of these states have statutes permitting IRB financing for a wide variety of projects; however, New Jersey requires targeting at the state level. In these four

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15. Brochure of the Maryland Industrial Development Financing Authority (Baltimore, Maryland), p. 1.

16. The data in this section are based on statutes, reports and lists of issues that state and local agencies submitted to CBO. For details, see Appendixes A and B.

    The Census Bureau divides the country into four regions, which include the following states:

    Northeast -- Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania. These states may be further subdivided into two areas: Middle Atlantic --

states combined, 32 percent of the projects authorized for small issue IRB financing in 1979 were for manufacturing, 14 percent for warehouses and other distribution facilities, and 54 percent for commercial projects.

The use of small issues is most widespread and least restricted in the Middle Atlantic and North Central states (which account for roughly three-fifths of all sales). In general, southern states have been the most reluctant to depart from traditional practices of using small issues primarily for investment in manufacturing, but patterns are now changing rapidly. As of the end of 1979, only six southern states had laws imposing few or no restrictions on IRB use. Within a year, another five--Delaware, Florida, Kentucky, Louisiana, and South Carolina--had passed legislation permitting tax-exempt financing for a wide variety of commercial projects. In Alabama, the use of small issue IRBs had for years been largely confined to manufacturing and medical facilities. During 1980, the Alabama State Securities Commission, which approves IRB issues, began receiving large numbers of applications for retail ventures and held hearings to clarify the intent of the state's legislation.[17] Litigation on the issue is now pending. In New England, use of tax-exempt bonds for retail ventures remains

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New York, New Jersey and Pennsylvania -- and New England -- Maine, Vermont, New Hampshire, Massachusetts, Rhode Island and Connecticut.

South -- Maryland, Delaware, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Texas, Oklahoma, Arkansas and Louisiana.

North Central -- North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Michigan, Illinois, Indiana, Ohio.

West -- Washington, Oregon, California, Montana, Idaho, Wyoming, Utah, Colorado, Arizona, New Mexico, Hawaii, Alaska, Nevada.

17. Alabama Securities Commission, Public Hearings on the Matter of Expanded Use of Tax Free Industrial Development Bonds, Montgomery (September 3 and 4, 1980).

relatively uncommon. Among the western states New Mexico, Nevada, California, and Alaska impose restrictions on IRB use: New Mexico prohibits IRB financing for retail stores. California and Nevada restrict use of the bonds to industrial and related facilities. Alaska restricts use of the bonds for nonindustrial purposes primarily to tourism, mining and commercial fishing enterprises (see Appendix C for more details on specific state practices).

IRBs AND LOCAL PLANNING PROCESSES

Under current federal law, states and localities have a great deal of latitude concerning their use of IRBs. They may or may not choose to combine the bonds with other efforts to promote economic development. IRBs may be entirely under the control of the state, or the state may relinquish all authority to local government. The process for issuing bonds may include public participation, or it may be a routine administrative action that takes place without public knowledge.

Although few localities may issue IRBs without enabling state legislation, practices vary widely with local custom and the use of the proceeds. Some localities exercise strong control over all development decisions, including how IRBs are used. Elsewhere, the only decision a local development authority makes is whether or not to issue bonds at all.

The authority to issue IRBs rests with various state and local agencies. In New Jersey, for example, the State Economic Development Authority is the only agency empowered to issue IRBs. In Massachusetts, both local authorities and the Massachusetts Industrial Finance Agency issue bonds. In Georgia, local agencies--cities, counties, incorporated towns, and local development authorities--may issue IRBs, while state agencies have no role in the process. In Kansas, only counties and cities may issue IRBs. In Wisconsin the authority is limited to cities. And in New York, it is restricted to local authorities. (Appendix D indicates the multiplicity of issuing authorities on a state-by-state basis.)

Local industrial development authorities, which are not-for-profit public corporations, issue IRBs in some 23 states.[18]

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18. These are also known as industrial development boards or economic development commissions.

Although these authorities are created by state and local governments, many have a degree of autonomy that offers significant advantages. First, even though special revenue bonds, by definition, are not general obligation bonds, the authority is a useful way for a local government to detach itself and its credit from a bond issue. Second, many state constitutions prohibit donating or lending public funds to private entities. In most of the states where such constitutional provisions prevent the state or its cities or counties from issuing IRBs, the courts have permitted local authorities to perform the same function. Finally, some states and localities require that their bond issues be considered at public hearings or submitted to public referenda. The use of authorities is usually sufficient to circumvent these requirements. In general, the local government appoints the members of the authority, who may come from the private sector, from public agencies, or both. Nongovernment members usually include representatives from industry (including banks, insurance companies, and real estate) and, occasionally, labor.

In most cases, localities determine the kind of development that will take place with tax-exempt financing. The local issuing authority may or may not be acting in accordance with a plan for development of the area. Similarly, the amount of public participation in decisions concerning bond issues varies greatly from one locale to another. Some localities require public hearings; most do not.

With the growing use of IRBs for retail businesses, public participation has become an issue. Established merchants and restaurateurs, who have never benefited from tax-exempt financing, have begun to complain about the use of subsidies to set up competitive establishments and about the failure of local authorities to notify the public of proposed bond issuances. In July 1980, more than 2,200 voters in Ravalli County, Montana, signed petitions calling for a referendum on the use of $4 million in IRBs to construct a shopping center, with K-Mart as a principal tenant. Local merchants called the county's approval of the bonds unfair, succeeded in having the issue put on the November general election ballot, and won. Similar problems have arisen in places as far apart as Wetumpka, Alabama, and The Dalles, Oregon. A few localities have refrained from taking advantage of legislation expanding the uses of IRBs, because the availability of tax-exempt financing to enterprises that will compete with conventionally financed ones seems to be particularly troublesome to retail firms.

In some cases, state agencies must approve the proposed issues of cities, counties, or local development authorities. In others, no approval is required. The approval is usually more formal than substantive. In some states, for example, the approval of the state agency responsible for commerce, economic development, or industrial finance may imply review and approval of a project based on its potential effect on the local economy. In most cases, however, approval means compliance with state law, rather than analysis of the economic effects of the project. In some instances, especially (but not only) when the reviewing agency is the state treasury or securities commission, project approval focuses on whether the borrowing firm is financially sound, and on whether the bond issue complies with federal and state tax and securities laws. In such instances, the aim is to guard against fraud.

Some states have no review procedures but require that a designated agency be informed of IRB transactions. Other states impose no requirements on local issuing authorities and make no attempt to keep track of IRB sales. These include Georgia, Missouri, Nevada, and West Virginia.

In many states, the use of small issue IRBs has no relationship to local planning processes. In three states--Illinois, Pennsylvania, and Virginia--local authorities can issue bonds for projects in other communities. A few years ago, in a much publicized case, a local industrial development authority in outlying Chester County, Pennsylvania, issued a $400,000 tax-free IRB to purchase a seven-story building that housed an "adult" bookstore and a topless go-go bar in downtown Philadelphia.[19] The Philadelphia Industrial Development Commission had refused to issue the bonds. In this instance, the Pennsylvania Commerce Department approved the transaction on grounds that it conformed to state law, and the local IDA collected a fee for its services.

In the summer of 1980, the village of South Barrington, Illinois, appealed to the courts for a ruling on its authority to issue $18 million in IRBs to finance the opening of two Marshall Field department stores in nearby communities. The village also had an agreement on the back burner to issue $9.3 million in IRBs for another department store--Carson, Pirie, Scott--in Carpenters-

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19. Dun's Review (September 1980); Philadelphia Inquirer (December 9, 1976).

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ville. For its services, the village would collect fees of $100,000 from Marshall Field and $67,000 from Carson, Pirie, Scott.[20]

Geographic Targeting. A few states target small issues toward designated areas. These efforts generally apply only to commercial projects. Massachusetts, for example, permits the location of IRB-financed industrial projects anywhere in the state, but other projects--retail stores and office buildings, for example--are eligible for tax-exempt financing only if they are located in "commercial area revitalization districts."[21] These districts are designated in local revitalization plans and approved by the State Secretary of Communities and Development. Iowa also limits commercial use to urban redevelopment areas. New Jersey restricts IRB-financed commercial projects to areas that include roughly one-third of the state's population. In order to qualify, a New Jersey area must either meet the eligibility requirements for federal UDAG funding or satisfy other measures of "distress" that take into account unemployment, per capita income, real property tax assessments, and income-assistance expenditures. Rhode Island prohibits the use of IRBs for retail establishments but permits it for office buildings that contribute to downtown redevelopment in older cities. Texas has a broad statute, but in practice, the state's Industrial Commission has limited nearly all of its approvals to industrial projects.

In the absence of federal guidelines, targeting is best accomplished when it is articulated as state policy. Without such state requirements, a locality that chooses to direct investment to distressed areas is likely to face competition from other cities or towns that have no such restrictions. Consequently, the likelihood that IRB-financed development will be channeled to areas with greater needs is slight, unless the state imposes such requirements. Some localities require targeting nevertheless. In New York City and in Erie County (which includes the city of Buffalo), criteria for the use of IRBs for commercial projects are extremely stringent, despite a broad New York State statute. These criteria

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20. Chicago Tribune (May 11, 1980); Barrington Courier-Review (August 21, and September 11, 1980).

21. Massachusetts Industrial Finance Agency, Annual Report (1979 and 1980).

not only restrict IRB-financed commercial and recreational projects to specifically designated redevelopment areas; they also require evidence that the project could not go forward without IRBs, and that it will provide "substantial employment and capital investment."[22] New York City has similar guidelines. For a commercial project to be considered, the applicant firm must demonstrate community support, prepare a market study, and submit a cost analysis comparing tax-exempt with conventional project financing. Retail ventures qualify for small issue financing only if they are constructed on city-owned property or if they are associated with a UDAG project. These constraints assure that the city's Board of Estimate will review the project. As of January 1981, not one of the 139 projects funded in New York City was for a commercial purpose.[23]

The targeting of IRBs to areas in need of redevelopment encourages their use in conjunction with federal or other renewal efforts. In Massachusetts, a state mortgage insurance program for building rehabilitation in designated "revitalization districts," and tax credits and deductions to promote employment in central business districts, also complement the use of IRBs. In New Jersey, the state Economic Development Authority may guarantee up to 30 percent of a bond issue. It also may guarantee bank loans and make direct loans. Roughly two-thirds of the authority's loan guarantees and direct loans are for projects in distressed urban areas.

Helping Riskier Businesses. While some 7 states impose geographical restrictions on small issues, a few others have instituted programs that make the bonds available to smaller and riskier enterprises. These include guarantees and the use of general obligation bonds. Some states use a combination of these programs. For example, to reduce costs and help small firms, the Maine Guaranty Authority will package a bond issue for several companies at once and use the proceeds to make low-interest loans that conform to the requirements for small issues. The Maine authority can also guarantee as much as 20 percent of each loan.

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22. Erie County IDA memorandum, "Policy and Procedures for Commercial and Recreational Project Revenue Bonds" (March 3, 1980).

23. New York City IDA, "Commercial Project Policy" statement. Letter from New York City IDA (March 6, 1981).

The Connecticut Development Authority (CDA) has an umbrella revenue bond program tailored to small industrial or research and development companies with sales and assets below $5 million. (In fact, most of the companies served have sales and assets below $1 million.) Generally, banks and insurance companies refer the firms to the CDA, which will float a single bond to finance loans to several companies for a maximum term of 25 years. The CDA will also provide mortgage insurance for up to the maximum loan amount of $850,000. The New York State Job Development Authority floats general obligation bonds to finance small issue loans for industrial plants and research and development facilities. These loans can cover up to 40 percent of project costs. Alaska instituted an umbrella bond program in mid-1980; Delaware and Louisiana use general obligation bonds for companies that are unable to get financing with revenue bonds.[24]

IRBs and State and Local Tax Incentives. In many states, IRBs are part of a package of tax benefits that have developed over the years to attract new industry and encourage expansion of existing businesses. These include exemptions from state and local income taxes, sales taxes, and property taxes. Again, practices vary widely. In Wisconsin, for example, IRBs are exempt from federal taxes only.[25] In Alabama and New York, on the other hand, they are not only exempt from state and local income taxes, but the projects they finance are eligible for local property tax exemptions or abatements and for exemptions from state and local sales taxes on

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24. A proposed Internal Revenue Service regulation, with an effective date of on August 24, 1981, would make the continuation of umbrella bond programs, as currently structured, impossible. The proposed regulation holds that multiple lots of bonds of $1,000,000 each, or less, will be treated as a single large issue not qualifying for tax exemption under Section 103(b)(6)(A) if (1) the obligations are sold at substantially the same time, under a common marketing plan, and at substantially the same rate of interest, and (2) a common or pooled security will either be used or available to pay debt service on the obligations. The regulation would apply only to projects initiated after August 24, 1981.

25. In Minnesota, IRBs held by banks and other corporations are subject to state income tax; bonds held by individuals are exempt.

materials and equipment. At times, these benefits are so attractive that if a project exceeds the capital expenditure limits for small issues, it may be financed with taxable IRBs. (Typically, a $25 million project would be financed with $1 million of tax-exempt small issues and $24 million of taxable IRBs.)

Under most lease arrangements, IRB-financed facilities are the property of the issuing authorities. Since these are public entities, they pay no property or sales taxes. Many states, however, require that the corporations leasing IRB-financed facilities make payments in lieu of taxes.

IRBS AND FEDERAL PROGRAMS

In addition to UDAG, several other federal programs can ease access to credit or provide interest subsidies to businesses. These include assistance offered by the Small Business Administration (SBA), the Economic Development Administration (EDA), the Farmers' Home Administration (FmHA, U.S. Department of Agriculture). The UDAG program, however, most clearly complements IRBs, and the few states and cities that actually target IRBs do so partly to encourage IRB use with UDAG funds. UDAG funds are offered in part to leverage private investment in industrial and commercial projects in distressed areas. The aim of UDAG funding is to stimulate economic development and neighborhood reclamation by promoting partnerships between the public and private sectors. HUD officials connected with the UDAG program estimate that, in 1979, roughly 40 percent of UDAG projects were coupled with IRBs. The Congress encouraged the combination of these programs when it raised the capital expenditure limit on IRBs associated with UDAG projects to $20 million.

The other agencies that provide assistance to businesses--EDA, FmHA, and SBA--each operate guarantee and direct loan programs. The EDA Business Development Loan Program provides loans and guarantees to firms to generate and save jobs in distressed areas (according to the EDA definition).[26] Direct loans are for fixed assets up to a maximum of 25 years, and they cannot exceed 65

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26. The UDAG and EDA programs define "distressed" areas quite differently. Approximately one-third of the population lives in cities and towns eligible for UDAG assistance; more than four-fifths of the population lives in areas eligible for the EDA Business Development Loan Program.

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percent of total project costs. Guaranteed loans may cover as much as 90 percent of the full amount and may have terms as long as 25 years at prevailing interest rates.

FmHA has similar programs targeted to rural communities and small towns (less than 50,000 population, with primary emphasis on small towns with populations below 25,000). The programs have no set loan limits, but 97 percent of all loans are below $5 million, and 31 percent are below $1 million. Most of this assistance is in the form of guarantees.

SBA provides loans and guarantees to small businesses.[27] Under Section 7(a) of the Small Business Act, the SBA provides direct loans, or participates with other institutions in providing loans, for periods up to 20 years and amounts not exceeding $150,000. Loan guarantees cover 90 percent of the amount up to a maximum of $300,000. In exceptional cases, these limits can go up to $350,000 and $500,000, respectively. Where small issues provide cost of capital subsidies primarily to creditworthy firms, Section 7(a) loans and guarantees provide last-resort financing.

Under the Sections 501, 502, and 503 programs, the SBA provides direct and guaranteed loans through state and local development corporations. These programs are development tools, and they have broader limits, with terms ranging up to 25 years and loan limits up to $500,000. Most loans are made through the Section 502 Local Development Company Program.

At present, federal guarantees cannot be used to back tax-exempt small issues. Moreover, until the passage of the SBA Section 503 program late in 1980, federal administrative procedures hindered the use of federal guarantees to back conventional loans for projects that also had tax-exempt financing. With the passage of the 503 program, a firm may now use small issues for partial project financing, combined with a second position SBA guaranteed conventional loan at market interest rates. This permits firms that are too risky to qualify for full small issue IRB financing to benefit from loans that are partially tax exempt.

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27. These include manufacturing firms with 250 to 1,000 employees; retail firms with $2 to $7.5 million in annual sales; wholesale firms with $9.5 to $22 million in sales; construction firms with average annual receipts over three years not exceeding $9.5 million; and service firms with receipts of $2 to $8 million, depending on the industry.

CHAPTER IV. THE EFFECTS OF SMALL ISSUE IRBS

Access to tax-exempt financing for industry can affect private investment decisions, tax revenues at all levels of government, municipal borrowing costs, the allocation of capital, and in special circumstances, the amount of commercial credit available. The extent of these effects depends on the overall volume of small issue IRB sales.

FUTURE VOLUME

Future growth of small issue financing will hinge on a number of developments:

- The overall level of business investment in plant and equipment,
- The demand for loans and the supply available from the banking community and the bond market,
- Interest rate levels and the differences between tax-exempt and conventional rates, and
- The profits of banks and casualty insurance companies (the main purchasers of IRBs) and the consequent need of such institutions to offset income tax liabilities with tax-exempt holdings.

Between 1975 and 1979, small issue IRB financing grew at an estimated average annual rate of 56 percent, according to CBO estimates.[1] This rate reflects a doubling of sales between 1978

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1. The actual rate of growth may have been greater or less than CBO data indicate, since private sales not picked up in CBO's survey may have grown at a faster or a slower rate than those that were included. In addition, some of the increase in more recent years may partly reflect improved data gathering and reporting at the state level.

and 1979 alone, which was exceptional. Without the rise in capital expenditure limits for small issues and the wide spread between tax-exempt and conventional interest rates, the growth in small issue sales in 1979 would have been much less dramatic. Between 1975 and 1978, sales had grown at an estimated average annual rate of 39 percent. For 1980, however, indications are that small issue IRB sales grew at a much slower rate.

As of mid-1980, banking and development officials voiced expectations that the growth rate of IRB sales would slacken beginning in the latter half of the year and that the trend would continue into 1981.[2] These expectations derived from observations that business investment in plant and equipment would decline, that loan demand would weaken, that banks and insurance companies would show lower profits, and that with less income to offset tax liabilities, these institutions's need for tax-exempt securities would diminish. At the end of 1980, these predictions seemed to be borne out: Between 1979 and 1980, IRB sales increased by less than 20 percent. Although sales in some states showed much greater increases, sales elsewhere had, at least temporarily, leveled off. As of mid-1981, many banks and insurance firms were showing increasing reluctance to take on new commitments for IRB financing, indicating either that they had begun to experience or were expecting shrinking profits, or that they were offsetting tax liabilities in other ways.

The long-term outlook for small issue IRB sales is less clear than it is for next year. The possibilities range from a modest growth rate (roughly 10 percent a year through 1986) to a much steeper rate after the end of 1981. In view of recent trends, the former assumption is quite conservative. The latter more closely parallels past experience. Nothing in the current economic situation indicates that sales will decline from present levels. A large increase in bond issues for more than $5 million, an increase in the use of small issues in combination with UDAG funding, or cutbacks in other federal programs could further spur growth. Current indications, however, are that without a legislative change permitting higher capital expenditure limits, the likelihood of sales' growing more rapidly than they did between 1975 and 1978 is small.

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2. Comments on future trends in small issue sales are based both on available data and on discussions with IDA and bank officials.

Continued growth of the small issues market depends in large part on the purchasing capacity of banks and other financial institutions. At present, most small issues are relatively illiquid. A secondary small issues market exists primarily for the rated bonds of larger firms. If money center banks and other financial institutions are successful in creating a secondary (or resale) market for unrated small issues, IRB sales could increase by much larger amounts than current evidence indicates.[3] A secondary market might develop if private insurance for small issues were to become available, if large regional and money center banks were to sell small issues backed by letters of credit, or if financial institutions could develop new retailing mechanisms, such as small issue mutual funds. A number of financial institutions and development officials are trying to devise ways to develop a secondary market for small issues.

EFFECTS ON FEDERAL REVENUES

The cost to the federal government of providing tax exemption for small issues in any year depends on the volume of bonds issued, prevailing interest rates, and the marginal tax bracket of investors in tax-exempt securities. As of the end of 1979, the value of outstanding small issue IRBs amounted to $24.7 billion. In fiscal year 1980, federal revenue losses amounted to more than $700 million. Assuming current law remains in effect and growth in sales is modest, the volume of IRBs outstanding would increase from $32.9 billion in calendar year 1980 to $101.5 billion in calendar year 1986, resulting in fiscal year revenue losses that rise from approximately $1 billion in 1981 to $2.9 billion in 1986. The

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3. The potential for growth is significant, since the current annual volume of long-term bank loans and bond issues that might qualify for IRB financing under present law is about $50 to $100 billion. Small issues now account for a relatively small share of that market (between 8 and 16 percent). If small issue IRBs captured a sizable share of the market, future IRB volume would substantially exceed CBO's upper bound projections. New techniques for marketing the bonds, coupled with cutbacks in other federal programs, could lead to a boom in new issues. The evidence now available, however, is insufficient to support such a projection, particularly since proposed IRS regulations (see footnote, page 24) could hinder efforts to develop a secondary market for unrated IRBs.

TABLE 2. SMALL ISSUE IRB SALES AND ASSOCIATED FISCAL YEAR REVENUE LOSSES, CALENDAR YEARS 1979-1986 (In millions of dollars)

	New Issues	IRB Retirements	Cumulative Amount: Net Outstanding at Year End	Cumulative Amount: Average Amount Outstanding in Calendar Year	Fiscal Year Revenue Loss
1979	7,100	100	24,700	21,250	488
1980	8,400	200	32,900	28,850	715
1981	9,200	250	41,850	37,425	1,033
1982	10,100	250	51,700	46,825	1,388
1983	11,100	250	62,500	57,175	1,759
1984	12,200	500	74,250	68,450	2,139
1985	13,400	350	87,300	80,825	2,514
1986	14,700	500	101,500	94,450	2,875

SOURCE: Congressional Budget Office.

NOTE: Revenue loss estimates were determined by multiplying the average amount of outstanding new issues of tax-exempt bonds during each calendar year by the interest rate on alternative taxable loans in that same calendar year and the marginal tax bracket of investors in new issues of tax-exempt bonds. The aggregate losses in any year are the sum of losses for the current and previous years. These estimates may differ from those published in previous CBO reports. The revised figures are based on more recent estimates of future interest rates and IRB sales. For a breakdown of revenue loss calculations by year from 1975 to 1986, see Appendix E.

projected volume of small issues between 1980 and 1986 and its revenue consequences are shown in Table 2.

CBO's revenue loss estimates rest on the following assumptions:

- If IRBs were made taxable, interest rates on comparable new issues would range from 13.6 percent in 1981 to 8.7 percent in 1986;[4]

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4. These interest rates reflect CBO's projections for corporate bonds with Baa ratings. Some small issues have high ratings, while most substitute for commercial bank loans and are unrated. Since bank interest rates fluctuate widely, the rates on Baa bonds seemed to be the best single indicator of alternative taxable financing.

- o The marginal tax bracket of investors in new issues of tax-exempt securities is 30 percent;[5] and

- o By 1986, IRB sales will have grown by an average rate of 10 percent a year. IRB sales could rise more sharply after 1981, however. An average annual growth rate after 1981 of

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5. This assumption rests on the view that tax-exempt financing ultimately displaces taxable financing. New issues of tax-exempt securities have a domino effect that causes some investors to move from partially taxable to tax-exempt investments and others from fully taxable to partially taxable holdings. In determining revenue losses, the significant measure is the net change in all portfolio holdings resulting from tax-exempt bond issues. Accordingly, the relevant marginal tax bracket is a combination of the tax rates of the last investor who switches from partially taxable to tax-exempt holdings and the investor who moves from fully taxed to partially taxed holdings. This combined tax rate roughly corresponds to the spread between tax-exempt and taxable interest rates, which historically has averaged 30 percent. (In contrast, the average marginal tax bracket of all holders of tax-exempt securities is closer to 40 percent. The lower rate serves to isolate the effects on revenues of a fairly small increment of the stock of tax-exempt debt outstanding. Conversely, for measuring the revenue loss from the entire stock of outstanding tax-exempt bonds, the higher rate is more appropriate.)

   Methods of measuring revenue losses vary and are controversial. See CBO, Tax-Exempt Bonds for Single-Family Housing (April 1979); Roger Kormendi and Thomas Nagle, "The Interest Rate and Tax Revenue Effects of Mortgage Revenue Bonds" (unpublished paper, University of Chicago Graduate School of Business, July 26, 1979); George E. Peterson and Harvey Galper, "Tax-Exempt Financing of Private Industry's Pollution Control Investment," Public Policy (Winter 1975); Harvey Galper and Eric Toder, "Modelling Revenue and Allocation Effects of the Use of Tax-Exempt Bonds for Private Purposes," U.S. Treasury, Office of Tax Analysis Paper 44 (December 1980); Patric Hendershott, "Mortgage Revenue Bonds: Tax-Exemption with a Vengeance" (National Bureau of Economic Research, Working Paper no. 447, February 1980).

40 percent--which would be roughly equivalent to the performance of IRB sales between 1975 and 1978--would result in new issues in calendar year 1986 of $49 billion and revenue losses in fiscal year 1986 of $4.4 billion.

Revenue Gains from Eliminating Small Issue IRBs

These revenue loss estimates measure the cost to the federal government of continuing the exemption for small issue IRBs. If the exemption for small issue IRBs were ended, the net revenue gain to the federal government would be less than the budgetary cost, since reflow or feedback effects would offset part of the revenue gain.[6] The same is true with any tax increase or any spending reduction. These reflow or feedback effects are normally not calculated separately for each tax and spending change, but instead are taken into account in considering the budget as a whole. This is so for two reasons. First, the precise reflow effects from any particular tax or spending change are very difficult to calculate, since the underlying changes in investment and other economic behavior are hard to forecast. Second, available evidence suggests that variations in the reflow effects from different kinds of tax and spending changes are small. If most tax and spending changes have similar reflows, it would make sense to wait until the full budget is put together before taking them into account.[7]

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6. Federal tax increases or spending reductions reduce economic activity, which in turn reduces tax collections and increases spending for unemployment compensation, food stamps, public assistance and other programs. These reflow or feedback effects partially offset the direct budgetary effects of tax and spending changes.

7. On occasion, the CBO has made a special effort to calculate reflow or feedback effects from changes in spending programs; the CETA public service employment program is one example. CBO's preliminary estimates indicate that eliminating public service employment (PSE) would increase federal spending for public assistance and food stamps by 3 to 5 percent of the PSE cost, and that federal taxes would decrease by about 6 to 10 percent of the total PSE cost. Unemployment insurance outlays would also increase, but no precise estimate of that is available yet. CBO, An Analysis of President Reagan's Budget Revisions for Fiscal Year 1982 (March 1981), pp. A-49-50.

In light of the controversy that has surrounded estimates of the revenue losses from tax-exempt bonds, CBO has prepared a special estimate of the reflow effects that would result from eliminating small issue IRBs. It is discussed in the next section on investment and reflow effects.

There is one possible offset to the CBO revenue loss estimates that is partly separate from the reflows issue. The firms that are paying lower interest rates as a result of IRB financing may end up with higher taxable incomes, since their costs of doing business would be less. If so, they would pay higher federal taxes, and the federal revenue losses from IRBs would be offset to that extent. If the firms pass their interest savings on to their customers in the form of lower prices, however, the firms would not have higher taxable incomes and there would be no basis for an offset. The extent to which firms pass on their interest savings in the form of lower prices depends on the degree of competition in the relevant markets, which is almost impossible to estimate.

A further difficulty is that this particular offset only applies to the portion of IRB financing that substitutes for taxable financing that would otherwise occur. The effects on taxable incomes from net increases in investment would show up in the reflow estimates discussed below. Thus, the higher the reflows, the lower this offset would be. Because of the uncertainties involved in estimating this offset, it is not included in the CBO revenue loss estimate.

Aggregate Investment and Revenue Reflow Effects

Small issue IRB sales may stimulate increases in the overall level of investment, which in turn may increase taxable incomes. Although this effect is not relevant when measuring the revenue loss to the federal government from IRBs, it is important when estimating the potential net revenue gain from their elimination. The revenue gain from elimination is partially offset by the lower tax collections that result when the investment stimulus effects of IRBs are withdrawn.

These offsetting reflow effects would occur in the case of any increase in business taxes. The special features of small issue IRBs may make them more or less effective in stimulating investment than other kinds of reductions in business taxes, but no strong evidence exists to support either possibility. The aggregate

economic effects of eliminating small issue IRBs could thus be offset by a general business tax cut of the same size.

In the case of all tax measures aimed at stimulating investment, some of the resulting investment merely substitutes for investment that would have taken place in any event, while some may represent a net addition to overall investment. Overall increases in investment depend on overall increases in savings. Savings increases may result from the investment itself or from the tax subsidy that stimulate the investment. Increases in total savings and increases in investment may be simultaneous because of the increases in incomes that result from new investment. Firms that obtain financing for the construction of new plants, for example, hire architects and construction contractors and place orders for new equipment. The additional wages and profits that spring from these projects result in some increased savings.[8] Moreover, there are multiplier effects: the portion of increased wages and profits that is spent on goods and services represents new income for other workers and firms. The resulting increase in total income gives rise to more saving. In addition, the subsidy to investment represented by IRB financing implies an increased rate of return to savings, which may stimulate increases in households' rate of savings from current incomes.

If small issues were eliminated as of January 1, 1982, the reflow effects would be small in fiscal year 1982, but they would rise to $0.9 billion by fiscal year 1986, offsetting about 50 percent of the gross revenue gain (see Table 3).[9] The offset would gradually drop off after 1986 to about 40 percent. These estimates reflect the maximum reflows that could be expected. As set out in more detail in Appendix F, the assumptions used in making the estimates err in the direction of higher reflows.

In particular, the reflow estimates assume that a firm's desire to invest is highly responsive to changes in the cost of funds. Although investment is sensitive to the cost of capital,

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8. This assumes some initial unemployment of labor and capital.

9. The figures do not include the small reflows in the form of higher spending that might occur on the outlay side of the budget.

TABLE 3. ESTIMATED REAVENUE GAINS FROM ELIMINATING SMALL ISSUE IRBS, FISCAL YEARS 1982-1986 (In billions of dollars)

	Gross Revenue Gain from Eliminating Small Issue IRBs[a]	Feedback	Net Revenue Gain from Eliminating IRBs
1982	0.1	0.1	0.0
1983	0.5	0.1	0.4
1984	0.9	0.3	0.6
1985	1.3	0.6	0.7
1986	1.6	0.8	0.8

SOURCE: Congressional Budget Office.

NOTE: A detailed explanation of the method used to calculate revenue feedback appears in Appendix F.

a. Effective January 1, 1982. Applies only to new issues after that date.

estimates of the degree of responsiveness vary. Second, and much more important, the procedure for estimating revenue feedback disregards the fact that the greater the supply of IRBs, the more the financing costs of other firms rise. To induce investors to buy additional IRBs, interest rates on IRBs (and other tax-exempt issues) must rise relative to the interest rates on alternative, taxable securities. As investors are attracted away from taxable securities to IRBs, the yield on the former must rise to restore

their appeal.[10] These increases in the yield on other securities will raise the cost of funds to other firms, which in turn will reduce their investment spending. This offsets the net investment stimulus from IRBs, and thus reduces the revenue feedback associated with their elimination. CBO has not attempted to quantify these offsetting increases in the cost of capital because they are extremely hard to estimate.

EFFECTS ON STATE AND LOCAL TAX REVENUES

Since most small issue IRBs are exempt from state and local income taxes, they result in losses of state and local revenues. In some states, firms benefiting from IRBs are also exempt from local property taxes and from sales taxes on construction materials (see Chapter III). These are costs that state and local governments have voluntarily incurred, and they are usually considered necessary to attracting new businesses to a community, to persuading existing firms to remain, or to demonstrating favorable attitudes toward business. Most state and local government officials feel that IRBs are an important part of the package of investment incentives they have to offer.

To some extent, the emphasis that state and local officials place on incentives is of greater political than economic significance. Many private companies have lobbied for such incentives, and state legislatures have granted them. Their proliferation may well have less to do with demonstrable effectiveness than with the desire of local governments to create and preserve jobs. Regardless of IRBs' economic effectiveness, their availability is one manifestation of a desire to create a favorable environment for investment.

Small issue IRBs may appear to be less expensive than other state and local incentives to business, since the federal government bears the burden of the subsidy. The greater the sale of small issues, however, the greater the risk that the supply of tax-exempt bonds will grow in relation to the demand for them and

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10. For detailed discussions of these effects, see Galper and Toder, "Modelling the Effects of the Use of Tax-Exempt Bonds for Private Purposes," and Hendershott, "Mortgage Revenue Bonds: Tax Exemption With a Vengeance."

that the costs of local borrowing for traditional public purposes will rise. As a share of the market in long-term tax-exempt bonds, small issue IRB sales rose from 4 to 15 percent between 1975 and 1980.[11] (In 1975, the total volume of long-term tax-exempt bonds issued was $31.5 billion; in 1980, it was $53.3 billion.) Most students of tax-exempt bonds agree that an increased supply of them raises interest rates; but assessments of the effect of new revenue bond issues on tax-exempt interest rates vary widely.[12]

EFFECT ON THE DISTRIBUTION OF THE FEDERAL TAX BURDEN

Any increase in tax-exempt borrowing makes the federal tax structure less progressive. Purchasers of tax-exempt bonds are in relatively high marginal tax brackets. As the supply of tax-exempt issues increases, so do sales to higher-income purchasers. The result is an overall reduction in the tax liabilities of high-income purchasers.[13] The tax payments of lower-income persons, who get no benefit from holding tax-exempt securities, remain unchanged.

Tax-exempt bonds are attractive to potential purchasers if they offer a rate of return greater than the after-tax rate of return on taxable investments. Since tax-exempt interest rates usually are about 70 percent of taxable rates, investors with marginal tax rates below 30 percent realize higher after-tax returns with taxable investments. As an example, if investors could choose between a taxable bond with an interest rate of 10 percent and a comparable tax-exempt security at 7 percent, their responses would vary with their tax brackets. For an investor in

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11. These figures are based on data from the Daily Bond Buyer, adjusted to reflect unreported sales of small issue IRBs.

12. See Ronald Forbes, Phillip Fischer, and John Petersen, "The Remarkable Rise of the Municipal Revenue Bond" (unpublished paper, January 1980); John Petersen, "The Tax Exempt Pollution Control Bond" (unpublished paper); Peterson and Galper, "Tax Exempt Financing of Pollution Control;" Hendershott, "Mortgage Revenue Bonds."

13. High-income people do, however, pay an implicit tax equal to the interest differential.

the 20 percent bracket, the after-tax return on the taxable bond would be 8 percent, making it preferable to a tax-exempt security. Conversely, the after-tax return on the taxable bond is 6 percent for an investor in the 40 percent bracket; and it dips to a low point of 3 percent for an investor in the maximum bracket of 70 percent.

Thus, as the volume of tax-exempt issues grows, high income taxpayers are able to shield greater amounts of their income from taxation, increasingly undermining the progressive features of the system. If a less progressive tax structure is desired, the Congress could, of course, achieve it by lowering tax rates directly.

EFFECTS ON BUSINESS DECISIONS

The effects of small issue IRBs on investment decisions have been extensively surveyed. Most studies to date have concentrated on firm location, and their results have been inconclusive. The question breaks down into two parts. First, do small issues influence firm location? And second, how do they affect other investment decisions?

Firm Location. Some states have undertaken IRB programs in response either to actual or to perceived competition from other states. With virtually all states offering small issues, however, most such effects cancel each other out. Moreover, how much IRBs affected location decisions before the bonds became so widespread is an open question.

In general, manufacturing firms have significant latitude in selecting locations. Other kinds of enterprises--retail stores, restaurants, hotels--are more likely to locate wherever the markets for their products or services are best. Most of the literature on location concentrates on large manufacturing firms, and it suggests that proximity to markets, access to raw materials, labor and energy costs, and the availability of land are--altogether and sometimes one-by-one--the more important determinants of location.

Subsidized credit or state or local tax incentives usually play a lesser part.[14]

Most studies of the effects of IRBs on firms' location and investment decisions have been based on surveys of the behavior of relatively large national firms, and these have yielded conflicting results. A recent examination of these works indicated that the form of the question influenced the answers. Specifically, in responding to open-ended and nonspecific questions about the considerations influencing investment decisions, employers rarely mention IRBs or tax incentives. The few surveys that found these incentives important asked about them explicitly.[15]

To the extent that small issue IRBs may in fact affect location, they would influence the choice between two sites with nearly identical characteristics. These sites would most likely be within the same state or in bordering states. Competition between two localities can result if one of them cannot or will not issue IRBs, or if financial institutions in one area are offering clearly more favorable terms. IRBs seem to have little if any bearing on a firm's choice of general region, however.

These findings apply to relatively large industrial firms, which are a minority among the beneficiaries of IRB financing. Few studies have concentrated on the location decisions of small manufacturing firms. The little evidence available, though,

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14. See especially Roger Vaughn, State Taxation and Economic Development (Washington, D.C.: Council of State Planning Agencies, 1979); Gary C. Cornia, William A. Testa, Frederick D. Stocker, State-Local Fiscal Incentives and Economic Development (Columbus, Ohio: Academy for Contemporary Problems, June 1978); Ralph Widner and Gary Cornia, "Interstate Tax Competition" (Unpublished paper, Academy for Contemporary Problems, November 1978); and Leonard Lund, "Factors in Corporate Locational Decisions," the Conference Board Information Bulletin, No. 66.

15. Margaret D. Dewar, "The Usefulness of Industrial Revenue Bond Programs for State Economic Development: Some Evidence from Massachusetts," Joint Center for Urban Studies of Harvard University and the Massachusetts Institute of Technology, Working Paper No. 63, March 1980.

suggests that such companies locate wherever their founding owners happen to live. One study, which concentrated on New England and part of Ohio, found that most new firms were spinoffs from existing firms in these areas and not establishments created by entrepreneurs from other places.[16]

Investment Decisions. Unlike location choices, investment decisions can be influenced by the now widespread availability of small issue IRBs.[17]

If the expected rate of return is the main determinant of a firm's investment decisions, then sales levels, availability of capital, and operating costs are likely to be primary considerations. Although operating costs may influence location, the decision to construct or expand facilities depends largely on demand, level of current output relative to productive capacity, and anticipated profits. As demand grows and facilities are used more intensively, firms are encouraged to expand, renovate, or replace plant and equipment.[18] Small issues have no direct effect on product demand or sales levels; they do, however, affect the availability and cost of long-term debt capital for projects that are eligible for the exemption.

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16. Roger Schmenner, "The Manufacturing Location Decision: Evidence from Cincinnati and New England" (U.S. Department of Commerce, Economic Development Research Report, 1978). Cited in Michael Kieschnick, Venture Capital and Urban Development (Washington, D.C., Council on State Planning Agencies, 1979), p. 28.

17. As discussed in more detail above, the effect of small issues on aggregate investment depends on how much they add to total savings; the effects discussed in this section represent mainly shifts of capital from one type of investment to another.

18. These issues are discussed in CBO, "An Evaluation of the President's Proposed Economic Development Administration Development Financing Programs," (July 1979). See also Dale W. Jorgenson, "Econometric Studies of Investment Behavior: A Survey," Journal of Economic Literature, vol. IX, no. 4 (December 1971).

Cost of Capital. From the standpoint of the individual firm, some projects might be impossible without small issue subsidies, while other efforts could go forward with conventional financing. The availability of small issue IRBs affects the cost of capital and therefore the amount and timing of investment. Some types of investment, such as real estate development, tend to be more responsive than others to interest rate subsidies.

Interest rate sensitivity may also vary with interest rate levels. Throughout 1979 and during the first several months of 1980, when interest rates were rising at record rates, the effect of IRB subsidies on investments may have been greater than had been the case before. The ratio between tax-exempt and taxable rates is as important as the rates themselves. In the past, the ratio of long-term tax-exempt rates to taxable interest rates has tended to be highest when interest rates were highest. The opposite was true in 1979 and early 1980, probably because inflation pushed taxpayers into higher brackets, and banks' demand for tax-exempt bonds to offset income tax liabilities was high. The effect was to make tax-exempt holdings relatively more attractive than taxable securities.

In general, small issue IRB financing is available only to creditworthy firms. Some states, however, make it possible for firms that have difficulty obtaining credit to benefit from IRBs by providing full or partial backing with state loan guarantees, mortgage insurance, or low-interest direct loans from state agencies. Although states could give similar support to conventional loans, lower interest rates might make more of a difference to these more marginal investments. A few states issue general obligation IRBs, which may either provide funds for individual projects or for umbrella loan pools. In these instances, small issues assist riskier businesses and, with other forms of financial aid, help bring about investment that would otherwise not take place. SBA loan guarantees have the same effect.

The influence of IRBs on investment decisions is more apparent for small firms than for large corporations. Although many large corporations are using IRBs, unless the users are investing in relatively low-cost facilities, they have to be concerned with the small issue capital expenditure limits. Smaller enterprises are in a better position to use IRBs and since such firms tend to operate with high debt-to-equity ratios, interest subsidies might be relatively more important in their investment decisions.

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EFFECTS ON FINANCIAL INSTITUTIONS

For commercial banks, the main purchasers of IRBs, the bonds have both benefits and drawbacks.

IRBs are hybrid obligations, with characteristics similar both to municipal securities and corporate loans. In most cases, either the mortgage or the commercial loan department of a bank will handle IRB transactions; investment and securities departments are less commonly involved in decisions on IRB loans. Nevertheless, since IRBs can sometimes qualify as investments, rather than loans, they enable banks to increase the amount of loan funds available when credit controls are in force. Moreover, small issues, unlike conventional loans, can often be used to meet requirements for public fund deposits. For a bank to hold deposits of public entities, it must hold some amount of public securities. For these purposes, IRBs can qualify as public securities.

Most banks view IRB transactions as loans. Although the banks are holding most bonds in their loan (and, occasionally, investment) portfolios and are receiving tax-free interest income, these investments are by and large no more liquid than mortgages or other loans. Unlike many other tax-exempt bonds, however, small issues are now usually written at a variable rate. If a bank wants tax-exempt income that is protected from interest rate fluctuations, small issue IRBs are one of the few sources for it. As variable rates become more common in the tax-exempt bond market in general, however, the demand for small issues might diminish. Similarly, any changes in federal banking or securities regulations concerning the treatment of small issues could have substantial effects on the demand for them.

CHAPTER V. POLICY ALTERNATIVES

The mushrooming use of tax-exempt IRBs to subsidize private development raises a number of policy issues. First, should the federal government intervene at all in the use of small issues? Before 1968, the federal government had left the use of IRBs up to the states. Since then, the federal government has defined permissible and impermissible uses.[1] Whether these definitions should remain or be changed depends on Congressional perceptions of the public policy objectives involved. To some extent, the decision may also turn on estimates of the likely future volume of IRBs if current law is maintained.

A few years ago, the reported volume of small issues was considerably less than $1 billion a year and the possibility that the market might be much larger drew little attention. In 1980, sales exceeded $8 billion. During the first half of the 1980s, sales could grow at a fairly slow but steady pace, or, if financial institutions develop means to broaden the market for these bonds, sales could boom as they did in the late 1970s (see Chapter IV).

In light of new information on the growth of the small issue market, the Congress may wish to consider several questions: What purposes are served by providing federal subsidies to lower the borrowing costs of private industry? How effective are small issue IRBs in meeting these objectives? Should the availability of IRBs be increased? If so, why? How could the availability of small issue IRBs best be increased? What would be the effect? What would be the consequences of maintaining current law? Should the federal government require that better data be kept on the uses and volume of small issues? Should the availability of small issues be restricted? If so, how and for what purposes?

1. The Revenue Expenditure and Control Act of 1968 (discussed in Chapter II).

POLICY GOALS AND THE EFFECTIVENESS OF SMALL ISSUES

Subsidized credit can achieve a number of goals. Depending on the extent of its availability, it can stimulate investment and capital formation, increase employment, modify the market's allocation of credit, and serve as a development tool in selected areas. Small issues could serve all these objectives to some extent, but in many cases their effectiveness is limited. For example:

- If the aim of federal interest subsidies is to stimulate investment, a general business tax cut might be equally if not more effective. Since the Economic Recovery Act of 1981 lowered business taxes, the Congress may want to weigh the costs of small issues against the benefits of recent cuts.

- If the purpose of subsidies is to alter the market's allocation of capital so that smaller firms have access to credit on more favorable terms, the Congress might want to consider modifying current law to make small issue IRBs a more effective tool. To date, small issues have to some extent stimulated additional investment among smaller firms. They do not, however, make low-cost credit available to firms that have difficulty qualifying for conventional financing. Nor are they restricted to smaller firms. Under the right conditions, large corporations can realize significant benefits from small issues.

- Finally, if the objective is to use subsidies to stimulate development in economically distressed areas, the Congress may want to consider ways to target IRBs to specific locations and to coordinate use of the bonds not only with UDAG, but with other federal credit programs, such as EDA, SBA and FmHA loans, grants and guarantees (see Chapter III).

POLICY ALTERNATIVES

Depending on the Congress' objectives, the range of possible legislative action is wide. The Congress could remove all restrictions on small issues, or it could do away with the bonds entirely. Between these extremes are several other options. These include maintaining current law or modifying it either by making it

more lenient or by restricting the volume of small issues, their purposes, or both. The choice among these alternatives depends upon the Congress' perception of the public interest and the proper reaches of federal authority.

EASE RESTRICTIONS

Remove All Limits on IRBs

The Congress may maintain the position that the states are in the best position to determine the public interest with respect to the bonds they issue and that the federal government should place no limits on small issues. The bond issues of state and local governments have been exempt from federal taxation ever since the passage of the income tax amendment in 1913; IRBs are an exception. Under the Revenue Expenditure and Control Act of 1968, IRBs are subject to federal taxation unless they are for specified purposes, such as pollution control facilities, or are for amounts that fall within specified capital expenditure limits.

The theory behind subjecting IRBs to federal taxation is that their proceeds flow to non-public enterprises and finance non-public activities. Although this theory has never been challenged in the courts, the decisions of local government to provide assistance to certain industries might be considered integral functions of government that the Congress cannot regulate without infringing on state sovereignty.[2]

The counterargument is that, since IRBs provide financing for private enterprises rather than for public facilities, and since the income from IRBs is exempt from federal taxation, the federal government has every right to determine their public purpose. At present, federal legislation specifies exempt activities for some IRBs and sets capital expenditure limits for others. Within these limits, the states can define public purpose, since federal law contains no other guidelines. The states, in turn, have evolved a wide variety of practices. At one extreme are laws permitting IRB financing for any legal business regardless of where it is located

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2. See, for example, John J. Keohane, "The Mortgage Subsidy Bond Tax Act of 1979: An Unwarranted Attack on State Sovereignty," The Fordham Urban Law Journal, pp. 483-505.

or how many jobs it creates. At the other are the few laws prohibiting use of IRBs. The only way the Congress could bring about greater uniformity among the states would be to modify current law by more clearly specifying its policy objectives.

A second argument against removing all limits on IRBs is that the bonds would then be able to finance any facility regardless of cost. This would reverse the policy set forth in 1968, which was intended to restrict large corporations from using the bonds. Tax-exempt financing would skyrocket, sharply increasing the costs of both municipal and other borrowing. The effects on business investment might be beneficial, but the flow of resources to other forms of investment would decrease, with possible adverse consequences to the economy as a whole. Moreover, as more and more tax-exempt issues came to the market, the difference between taxable and tax-exempt interest rates would narrow, eventually wiping out most of the benefits of the subsidy. This could have a serious adverse effect on state and local governments, which would have to pay much higher interest rates on their borrowing.

If the aim of the Congress is simply to increase business investment and capital formation, it could do so with a general business tax cut without having the same adverse impact on state and local borrowing. As discussed in Chapter IV, the overall economic effects of increased IRB financing are not significantly different from those of a general business tax cut with the same revenue loss.

Raise the Capital Expenditure Limits on IRBs

The current capital expenditure limits on IRBs have not kept up with inflation. In 1968, the Congress passed legislation permitting up to $1 million of small issue financing for any facility and up to $5 million if expenditures on a facility did not exceed that amount over a six-year period. The $1 million limit is still in effect. Legislation passed in 1978 raised the $5 million limit to $10 million. If, however, both limits had kept pace with inflation, they would have risen to $2.1 million and $10.5 million, respectively, by mid-1981.

Although inflation has eroded the value of the current limits, whether or not the Congress decides to raise them depends on its policy objectives. If the purpose of current law is to assist smaller firms, no increase is necessary. In 1980, the overwhelming number of financings--94 percent--was for less than $5 million. These projects represented 34 percent of the dollar volume of IRB

sales. More than 64 percent of the number of projects was for less than $1 million. The average project financing in 1980 was $1.3 million, down from $1.4 million in 1979. These data suggest that, for most projects, the current capital expenditure limits pose no problems.

The present limits operate to the disadvantage of larger firms. Even so, some large firms have benefited from tax-exempt financing. If the $10 million capital expenditure limit were raised, a much larger number of projects would be eligible for tax-exempt financing. As a result, small issue sales and revenue losses would increase. Since small issues would then also represent a larger share of both tax-exempt financing and long-term corporate borrowing, their effects on tax-exempt and conventional interest rates would be greater. At present, most small issues are unrated obligations, with little if any liquidity. Since the market for them is limited, the banks usually hold on to these securities until they mature. If the limits are raised, many more of the small issues that come to market will be rated issues of large corporations. These could have a marked effect on capital markets and on the cost of municipal borrowing. They might also squeeze out some of the unrated issues of smaller firms.

An increase in the $1 million limit would raise the number of projects that large corporations could finance with tax-exempt funds without regard to the total capital expenditures on the facility. In practice, it would mean that the financings--generally for equipment purchases--that currently are exactly $1 million would increase to the new level. At present, large companies often float $1 million bond issues at the same time that they float bonds for pollution control. If the limit were higher, the incentive to float bonds independent of any other financing would probably increase.

Based on past experience, CBO estimates that an increase in the so-called "clean" $1 million limit to $3 million, and in the capital expenditure limit from $10 million to $15 million, would result in sales of $20 billion in 1982 and would cost the federal government $1.6 billion in foregone tax revenues in fiscal year 1982. If only the capital expenditure limit were raised, sales in 1982 would increase to $16 billion, rising to between $23 billion and $58 billion by 1986. The resulting costs would amount to $1.5 billion in fiscal year 1982, rising to between $3.8 billion and $5.0 billion by fiscal year 1986.

MAINTAIN CURRENT LAW

If the Congress decides to take no action, the states will continue to determine the public purpose of small issue IRBs with widely differing results. Some states will continue to take maximum advantage of federal law, while others will define public purpose more narrowly. A minority of states and localities will try to integrate the use of small issues with other development efforts; but in most cases, IRB sales will continue to have no relationship to state or local planning processes.

The Congress may decide that, regardless of (or maybe because of) their differences, state and local governments are in the best position to determine the public interest. The problem with this position is that the federal government bears the largest share of the cost of small issues and therefore has the greatest stake in regulating their use. Moreover, while some state officials might resent regulation, others might find it helpful in resisting the mounting pressure to expand the uses of small issue IRBs without regard to public purpose.

Even where the motivation exists, the pressures in many states work against restricting the use of small issues. Many if not most local officials believe that the states compete for new investment. A competitive climate among the states makes it less likely that states will voluntarily curb investment incentives for private industry, particularly if the benefits are financed primarily with federal funds. Moreover, in issuing tax-exempt bonds for private business, many local agencies are acting as financial intermediaries and are receiving fees for their services. Where these fees support state and local agencies, the impulse to curb activity may be weak.

Maintain Current Law, but Require Reporting of IRB Sales. Even if it makes no changes in current law, the Congress may want to be apprised of the annual volume of small issue sales so that it may more accurately estimate the costs of continuing tax exemption. At present, no mechanism exists for reporting IRB sales to

any federal agency. The Congress could rectify the situation by making tax exemption conditional on the reporting of sales.[3]

To prevent any single federal agency from being inundated with reports from myriad localities, the Congress may want to require that by a specified date each state submit an annual report on small issues. The states would have to impose similar requirements on the bond issuing agencies within their jurisdictions.

TIGHTEN RESTRICTIONS

The federal government could take action to reduce the volume of small issues, to restrict the uses of the bonds' proceeds, or both. The means of accomplishing these objectives could be through the establishment of more stringent federal guidelines or through legislation that places the burden of setting limits on the states.

The federal government could directly limit the purposes of the bonds by restricting tax exemption to certain eligible businesses or activities. For example, the Congress could restrict tax exemption to small issues that are targeted toward small businesses, firms in distressed areas, industrial firms, or all of these. Federal limits on the purposes of the bonds would presumably reduce current volume and future growth.

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3. In order to have a basis for future evaluations of small issues, it would be necessary for reports to provide the following information for each bond issue: Issuing jurisdiction and agency; name and address of the beneficiary firm; the type of business; the amount, term and interest rate of the bond or loan; the underwriter (if any); the purchaser of the bonds; the size of firm (by assets and previous year's sales); the number of employees in the firm; the estimated number of new jobs generated by the project; the age of the firm; and whether the purpose of the funds was to open a new business, to build a new branch plant, to expand an existing facility, or simply to acquire an existing business. In addition, it would be useful to know the number and dollar volume of IRBs that are backed by the credit of the state through general obligation funding or state guarantees and the number and volume of sales associated with UDAG projects. While virtually no state agencies currently have such detailed information on their bond issues, a few, such as New York and Wisconsin, come close.

An alternative approach, which would leave the decision on the purposes of the bonds to states and localities, would be to impose state-by-state caps on the annual volume of small issue IRBs or to require some commitment by state and local governments that would assure more careful review of the uses of the bonds. State and local governments might be required to back IRBs with their own full faith and credit, for example, or with matching state or local funds or other incentives. Such an approach would leave the decision of public purpose in state and local hands and at the same time preserve the federal interest in limiting the overall volume of the bonds.

Target IRBs to Smaller Businesses

The expenditure limits on small issues prevent firms from using more than $1 million of tax-exempt financing on facilities that will require investments of more than $10 million over a six-year period. As a result, small and medium-sized firms are apt to make wider use of IRBs. Nothing in the legislation, however, prevents large corporations from using many times $10 million a year in IRB financing to build branch facilities across the country, as long as the cost of each facility falls within the capital expenditure limits. Consequently, small issues have been a boon to national retail firms, which require relatively little expenditure for capital equipment.

The Congress may determine that small issues should be targeted to smaller businesses. If so, it may establish criteria for small businesses that conform to those set forth by the SBA, or it could establish more stringent criteria on the grounds that SBA definitions include 95 percent of all of the firms in the country. It could, for example, limit assistance based on a firm's capital assets. Banks and other investors, bond counsel and issuing agencies would have to assure themselves that a firm met the criteria, just as they now have to assure that firm expenditures on a facility are within the capital expenditure limits.

Alternatively, the Congress could sharply limit the usefulness of small issues to larger firms by setting a limit of, say, $10 million on the amount of tax-exempt financing that any firm could use in a year, or for a lifetime. In tandem with the present capital expenditure limits, this would prevent most large corporations from using IRBs and from financing national expansion programs with them. Of the many possible changes in current law,

measures to target IRBs to smaller firms would probably be the most consistent with the intent of the Congress in 1968.[4]

The main argument for limiting IRBs to smaller firms is that they may have greater difficulty in raising capital on favorable terms. Unless the bonds are guaranteed by a state agency, however, no bank will purchase small issues for non-creditworthy firms. The effect of targeting small issues, then, would not be to make credit available to firms that would otherwise not qualify for it, but to reallocate capital from larger to smaller firms. The justification for doing so might be to encourage more competition. Recent evidence suggests that small firms might generate more new jobs. Large firms, however, tend to generate higher-paying and longer-term jobs. If employment were the criterion, it would be hard to justify policies that assist either small or large firms.

Target IRBs to Distressed Areas

The Congress could restrict the use of industrial development bonds to physically blighted or economically distressed areas. The criteria for determining whether or not an area is distressed could be based on state or local guidelines, or, since UDAG funds are often used in conjunction with IRBs, the criteria could be the same for both programs.

At present, small issues have little if any effect on investment location decisions because the bonds are almost universally available (see Chapter IV). If they were available only in distressed areas, they might stimulate some additional investment in areas that most need it, but probably only if used in combination with other local, state and federal programs. The significance of tax-exempt financing alone in influencing firm location decisions would probably be minimal. If, however, the Congress felt that providing jobs was a necessary but insufficient test of public purpose, it might want to restrict IRBs to areas where unemployment was higher, per capita income lower and physical deterioration more prevalent than average.

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4. Limits of this sort would be ineffective unless current laws prohibiting large corporations from splitting up into several smaller related firms so that they can benefit from the tax advantages available to small businesses applied to the use of IRBs. (Sections 1561-1564 of the Tax Code.)

Approximately 51 percent of large cities and urban counties and 48 percent of small cities qualify for UDAG funds. These areas account for roughly one-third of the country's population. At present, the criteria for physical need are based on growth in per capita income from 1969 to 1974, the unemployment rate in 1977, employment growth from 1967 to 1972, the percentage of the housing stock constructed before 1940, the percentage of the population at or below the proverty level, and population growth from 1960 to 1975.

In the first quarter of 1980, when interest rates skyrocketed, between 80 and 85 percent of the applications for UDAG funds also called for IRB financing. According to HUD officials, many of these projects could not have gone forward without the benefit of tax-exempt financing.

The argument against targeting IRBs to blighted or distressed areas is that at the federal level the criteria for defining them are difficult to specify and often generate time-consuming and unproductive debate.

Eliminate IRBs for Commercial Projects

The Congress may wish to follow the lead of the states and localities that prohibit the use of small issue IRBs for commercial projects. Although their views are not unanimous, most state development officials share the belief that small issues stimulate manufacturing investment, particularly by small and medium-sized firms. The usefulness of small issues for commercial services or retail stores is more controversial. Some officials feel that such establishments follow the market and need not be subsidized; others argue that small issues are often determining factors in these investments, and any project that provides jobs serves a public purpose. In the few states that actually do target the bonds, officials believe that IRBs are important in stimulating development in distressed areas.

If the Congress were to prohibit the use of small issues for commercial projects, the overall volume of bonds would probably diminish. At the same time, investment in commercial projects would decrease wherever the market for them is not sufficiently strong to make them profitable at prevailing interest rates. This could mean that some investment in shopping centers, office buildings, and retail stores would be postponed until interest rates declined or markets improved. In some cases, it would mean that

the jobs created by these investments would come later rather than sooner. In other instances, such as the use of small issues for doctors' and dentists' offices, the effects on employment would probably be negligible.

Eliminating small issues for commercial projects would limit the use of these interest subsidies in combination with some UDAG projects. It would also have adverse effects on state and local programs that target small issues to distressed areas. To the extent that targeting is meaningful, it generally results in the use of small issues for a small number of strategically located commercial enterprises. For example, in Massachusetts, where small issues are restricted to designated revitalization districts, only about 10 percent of all small issues are for commercial projects. This contrasts with Pennsylvania, where, with no targeting, approximately 60 percent of all issues go to commercial projects.

The major federal programs that provide assistance to business do not distinguish between commercial and industrial projects. These programs include UDAG, EDA, SBA and FmHA loans, grants and guarantees. All of these programs, however, target assistance either to smaller businesses or to distressed areas. It is difficult to argue that commercial projects per se serve less of a public purpose than industrial projects; however, they have aroused more controversy at the state and local level.

Rather than prohibit tax-exempt financing for commercial projects entirely, the Congress might wish to impose limits on them. One alternative would be to target them to distressed areas. Because national criteria for distressed areas are difficult to define, however, the job might best be left to the states. In that case, the Congress might simply limit the use of small issues for real estate development, office buildings, shopping centers, retail stores, private recreational facilities, and other commercial projects to no more than, say, 10 percent of the total issues of any state. The states could then decide upon the criteria for targeting the subsidies. This option would, of course, require state governments to report fully on their IRB issues.

Set a Limit on State IRB Sales

An alternative to establishing federal eligibility criteria would be to permit the states to impose their own eligibility requirements. In order to permit the states to target the use of

IRBs as they see fit, the Congress might simply impose a per capita limit on IRB sales. At present, small issue IRB sales per capita range from $4 in Illinois to $139 in Pennsylvania. (These data exclude the states from which information on IRB sales is lacking or incomplete.) If the Congress were to impose a limit of, say, $50 per capita in each state, IRB financing would have to be used more selectively. In addition, state agencies would have to keep tabs on IRB financing activity. The limit could be adjusted periodically to reflect changes in the cost of living.

Several states currently exceed a per capita limit of $50 (see Appendix G). These states might be required to cut back activities sharply, or they might be allowed to continue financing at current nominal levels but without any adjustments for inflation. In time, adjustments in the per capita limits to reflect inflation would bring these states into line with the others. The states that do not have reliable information on previous sales would simply be subject to a $50 limit. Full reporting requirements would obviously have to accompany such a limit.

Limit Tax Exemption to General Obligation Bonds

Another way that the Congress could leave the definition of public purpose and the criteria for using IRBs to the states would be to remove all current restrictions and replace them with legislation that grants tax exemption to all bonds that are backed by the full faith and credit of state or local government. Local agencies could still issue revenue bonds, which, by definition, are backed either by the general revenues of all of their facilities or by specific project revenues. In the case of default, however, the state or locality would stand behind the bonds.

In many states, constitutional provisions prohibit the state or its political subdivisions from making gifts or loans to private entities. As a result, these states are unable to float general obligation bonds to finance the activities of individuals or corporations. An alternative, which would be acceptable in some states, would be for the state to provide full insurance or guarantees to protect bondholders against loss. In either case, the effect would be the same. Bonds that carried the liability of state or local government would be tax-exempt; the remainder would be subject to taxation, and the federal government would in no way interfere with local decisions on the public purpose of the bonds. Moreover, it would normally be unnecessary to use general tax revenues to finance facilities that could be funded with revenue

bonds; it would merely be necessary for the state to pledge that, if revenues were inadequate, general funds or state insurance would pay for the bonds.

Many states, if not most, would object to this proposal for a variety of reasons. First, in some instances constitutional amendments would be necessary to put it into effect. In other cases, bond issues would be subject to referenda, because some states cannot issue general obligation bonds without specific voter approval. In some states, the legislatures would have to appropriate funds for insurance or guarantee programs, which would subject revenue bond programs to budgetary review. All of these possibilities would make the use of IRBs less routine and more difficult than is currently the case. These objections, however, might also put the use of industrial revenue bonds into proper perspective. If the public purpose of a bond is unclear, or insufficient to merit the use of state resources, then perhaps the project warrants no commitment of federal resources.

Require Federal, State or Local Matching Funds

The Congress might wish to consider eliminating all small issues except those that also have commitments of federal, state, or local resources. When states must pledge their funds to assist industry, project eligibility criteria are often more exacting. For example, the Ohio Development Financing Commission will issue revenue bonds "for up to 100 percent of the cost of industrial, commercial, distribution and research projects." The commission also provides direct loans and guarantees, which can be combined with small issues. The guaranty and direct loan programs, however, are limited to firms involved in manufacturing, distribution, research, or development. Commercial projects are excluded, and the direct loan program is particularly targeted to firms considered to be "on the edge of technological or product development."[5]

If the Congress were to limit tax exemption to projects that also had commitments of federal or state funds, or were exempt from state or local sales and property taxes, it would be eliminating many tax-exempt financings. At the same time, though, it would be encouraging states to commit their resources to the projects that

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5. Ohio Development Financing Commission, Annual Report, 1979, pp. 7-8.

they considered most beneficial. It would also be promoting the targeting of scarce federal resources to the projects and areas that most need aid. The result would be better planning and less random use of limited federal, state, and local resources.

ELIMINATE SMALL ISSUES

The Congress could simply prohibit the use of all small issue IRBs. The justifications for doing so are that small issues primarily reallocate capital without generating much new investment; target and volume limits are too hard to agree upon and to administer; and the public purpose of small issues is too remote. Although small issues help some businesses that have difficulty raising funds in private capital markets, it is difficult to draft legislation that would limit assistance to the firms that most need it. Moreover, attempts to do so might result in administratively cumbersome programs.

If small issues were banned and no other program funds were substituted for them, some investments would not go forward. Some others might move ahead, but the amount and timing of investment would be different. The primary effect of a ban would probably be on the allocation of capital, rather than on the overall level of investment. Since small issues make more capital available to small and medium-sized firms and to companies that are extremely sensitive to interest rates, it follows that these would be most affected by the elimination of tax exemption.

State programs to help smaller and riskier businesses would also suffer from a ban on IRBs. Specifically, if a state floats general obligation IRBs, provides funding under umbrella loan programs, or guarantees, or insures IRBs, it would have to discontinue or modify its activities.

When interest costs are a large component of the total fixed costs of a project, investment decisions are more likely to be affected by the cost of capital. Although much depends on overall interest rate levels and the spread between tax-exempt and taxable rates, eliminating IRBs would probably affect some investments in real estate, particularly in shopping center development and office building construction. These have been among the more controversial IRB uses.

Investment in distressed urban areas might also take a downturn with the elimination of tax exemption for IRBs. The higher capital expenditure limits that apply to projects with UDAG funding could now be diverting some investment into distressed areas that would otherwise take place elsewhere. State programs that limit tax-exempt financing for commercial development to designated distressed areas might be having similar effects. The use of lower-interest IRBs in distressed areas may help overcome other disadvantages, such as higher site clearance costs. Unless other programs were substituted, some UDAG projects might not go forward, and investments in blighted areas could decrease.

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APPENDIXES

APPENDIX A: SMALL ISSUE IRB SALES, 1975 to 1980 (In Millions of Dollars)[a]

State[b]	1975	1976	1977	1978	1979	1980
Alabama	94.9	85.3	108.8	98.6	223.8	247.6
Alaska	0.0	0.0	0.0	0.0	0.0	0.0
Arizona	5.1	18.4	14.9	28.9	61.6	105.4
Arkansas	51.1	41.1	61.8	66.2	153.2	98.3
California	0.0	0.0	0.0	0.0	0.0	0.0
Colorado	17.6	9.7	13.0	12.3	26.0	40.3
Connecticut	20.5	16.3	16.2	11.9	113.5	96.5
Delaware	13.6	6.7	4.9	11.3	24.4	37.4
Florida	NA	NA	8.7	7.1	132.3	124.8
Georgia	19.2	22.4[e]	94.5[e]	69.2[e]	138.4[e]	156.9[e]
Illinois	21.2	42.5	27.0	33.3	73.8	65.7[c]
Indiana	53.5	41.6	51.5	183.4	286.6	386.1
Iowa	32.7	31.1	38.2	57.7	79.0	131.3
Kansas	61.6	80.3	104.7	83.7	142.9	106.8[c]
Kentucky	21.5	14.7	27.1	38.8	91.4	77.0[c]
Louisiana	12.6	15.3	12.4	18.6	26.4	30.9[d]
Maine	7.8	0.0	4.3	7.0	9.1	36.8
Maryland	3.3	6.7	4.1	26.3	117.2	137.2[d]
Massachusetts	7.8	13.6	17.5	51.0	193.3	369.2
Michigan	25.9[e]	8.0[e]	20.0[e]	29.0[e]	167.4	159.2[e]
Minnesota	69.1	45.1	123.3	167.1	399.9	415.0
Mississippi	NA	23.8	74.8	141.9	210.3	246.1[d]
Missouri	8.5	19.3	29.9	33.9	NA	NA
Montana	10.5	7.1	3.3	9.5	18.4	21.6[d]
Nebraska	13.8	19.5	18.3	21.0	52.8	29.7
Nevada	NA	NA	NA	NA	NA	NA
New Hampshire	5.9	7.8	11.6	16.5	24.9	54.4
New Jersey	43.9	84.6	154.0	264.2	569.5	578.0
New Mexico	2.7[e]	3.2	3.4	13.4	6.3	7.4[d]
New York	25.5	38.3	44.9	96.7	221.3	382.8
North Carolina	0.0	2.5	10.0	50.7	151.9	200.0
North Dakota	7.3	12.8	5.9	22.5	29.8	38.8

(Continued)

APPENDIX A. (Continued)

State[b]	1975	1976	1977	1978	1979	1980
Ohio	94.2	101.0	137.2	272.7	705.7	805.4
Oklahoma	16.7	24.0	21.3	20.5	68.5	48.9
Oregon	0.0	3.0	5.0	9.5	37.0	31.0
Pennsylvania	304.0	386.7	574.1	1,019.0	1,597.6	1,639.1
Rhode Island	7.8	6.9	6.0	10.8	44.3	63.1
South Carolina	18.1	30.2	47.1	55.8	185.3	199.2
South Dakota	6.7	7.6	22.9	23.3	14.6	17.1[d]
Tennessee	48.5	55.1	56.1	61.8	155.0	244.5
Texas	0.0	0.0	0.0	0.0	0.0	281.8
Utah	17.0	24.8	24.9	12.0	95.7	55.2
Vermont	4.3	7.3	7.4	5.9	14.2	23.9
Virginia	30.9	55.0	61.5	88.3	256.5	380.7
West Virginia	25.4	18.4	14.6	22.0	29.5	34.6[d]
Wisconsin	49.6	37.1	74.0	67.0	106.1	195.2
Wyoming	1.0	0.0	8.2	10.4	14.7	37.2
Total Estimated Issues	1,281.3	1,474.8	2,169.3	3,350.7	7,070.1	8,438.1

a. Unless otherwise indicated, data are for closings.
b. Notes on the sources of information for each state follow in Appendix B. Hawaii, Idaho, Washington, and the District of Columbia do not use small issues.
c. CBO projection, based on data for the first six months of 1980.
d. As of September 1, 1981, CBO had complete data on small issue sales in 1979 and 1980 for the following states: Alabama, Arizona, Arkansas, Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Massachusetts, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Wisconsin, and Wyoming. Based on the comparison on these states' sales in 1979 and 1980, CBO has projected 1980 sales in the states for which no other data were available.
e. CBO estimate. See notes in Appendix B.

APPENDIX B. SOURCES OF INFORMATION ON SMALL ISSUE IRBS

CBO's data on IRB issues come primarily from lists, documents, and published reports submitted by state and local agencies. These are indicated on the following pages on a state-by-state basis. Some reports and lists included not only small issues, but also bonds for pollution control, housing, hospitals, mass transportation, and public recreational facilities. These were excluded from the CBO data; however, small issue IRBs used for proprietary hospitals and for private medical and dental offices were included in CBO's estimates of total sales. For the years 1976 to 1978, CBO compared state lists with PSA data. In some instances, where state officials had indicated their data might be incomplete, the PSA lists contained some few issues not included in state or local submissions. These issues are reflected in the CBO data for some states. Where little or no state data were available, CBO used PSA data, as indicated.

In reporting on small issue IRBs, CBO's objective was to obtain data on completed transactions. Several states provided information on actual sales. Others could only supply lists of bonds that the state had approved for issuance. In these cases, the proportion of actual closings depended on the nature of the state's approval process. A few states, such as Connecticut, publish reports listing only preliminary approvals of proposed bond issuances. These initial eligibility determinations are often made before the applicant firms have obtained financing commitments. Consequently, only about half, and sometimes less, of the proposed issuances close. In these cases, CBO ascertained actual closings by checking further with state and local officials. Fortunately, most states either keep track of closings or approve issues only after assuring that financing is likely. In these cases, 90 percent or more of the issues approved actually close. Whenever CBO ascertained that the discrepancy between approvals and closings might be greater than 10 percent, it has so noted.

APPENDIX B. SOURCES OF INFORMATION, BY STATE

State	Source of Information
Alabama	Data for 1975 to 1977 come from the Alabama Industrial Securities Advisory Council. Data for 1978 to 1980 come from the Alabama Securities Commission, Montgomery. They are based on notifications filed with the commission, and in the case of private placements (approximately 80 percent of all issues), they are usually accompanied by financial institutions' letters of intent to purchase the bonds. Commission staff estimate that nearly all of the issues filed eventually close. IRBs issued under eight "authorizing acts" are covered by the notification procedure. There is no way to determine how many small issue IRBs have been issued under an additional 20 or so statutues and another 25 or so constitutional amendments.
Alaska	The statute permitting local authorities to issue bonds was passed in 1980. CBO has no records of small issues before 1981.
Arizona	The Arizona Office of Economic Planning and Development provided a draft copy of a report on industrial development financing within the state. The report contained a list of IDA bond issues submitted to the Attorney General's Office. Because the list contained some issues for which the dollar amounts could not be ascertained, the figures in Appendix A underestimate the total volume for Arizona.
Arkansas	Data come from the Arkansas Department of Economic Development.
California	California legislation permitting local issuance of small issue IRBs became effective on October 1, 1980. Records of sales, if any, are not available for the period before January 1, 1981.

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State	Source of Information
Colorado	Data come from the Colorado Division of Commerce and Development and from PSA (for 1976 to 1979 only). Issues are underestimated, since the state has no reporting requirement.
Connecticut	Data come from the lists of bond issue closings provided by the Connecticut Development Authority. The lists of bond issues published in the CDA annual reports represent preliminary approvals. Since many of these have no financing commitments, they do not close and therefore are not reflected in the CBO data.
Delaware	Data come from the Delaware Division of Economic Development, the New Castle County Department of Finance and the City of Wilmington Department of Commerce. They include both small issue IRBs and IDBs (which carry the full faith and credit of the state).
Florida	The only available data for years prior to 1979 come from PSA computer tapes. While sales were undoubtedly greater, evidence suggests that small issue IRBs were used relatively infrequently prior to 1979. Data for 1979 are CBO estimates based on information submitted by industrial development boards in Broward, Dade, Hillsborough, Manatee, and Pinellas counties. These are only a few of the counties with the authority to issue bonds, but they are among the most active. Florida instituted a reporting requirement in 1980.
Georgia	Data are CBO estimates based on PSA reports and lists submitted from Fulton, Cobb, and Clarke counties and the City of Columbus. CBO's estimates are more than likely understated. For the years 1976 to 1978, they are about double the PSA listings of small issues for the state. Georgia has

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APPENDIX B. (Continued)

State	Source of Information
Georgia (continued)	had an active IRB program since the 1950s. Some 126 local IDAs issue IRBs, not to mention cities and counties. The PSA lists exclude some of the more important issuers, such as the Fulton County IDA, which includes Atlanta.
Illinois	Data are from both the Chicago Economic Development Commission and the Illinois Department of Commerce and Community Affairs, which collects its information primarily from bond counselors. The state has no official reporting requirement and small issue sales are therefore underestimated. Data for Chicago are complete for all years. For other localities, sales for 1980 are projected, based on the first six months of the year.
Indiana	Data are from the Indiana Department of Commerce.
Iowa	Data are from the Iowa Development Commission.
Kansas	The Kansas Legislative Research Department provided the results of a statewide survey conducted at the direction of the Special Committee on Assessment and Taxation. The survey obtained data on the sale of IRBs in Kansas from 1961 through mid-1980.
Kentucky	Data are from the Commonwealth of Kentucky, Department for Local Government, "Kentucky Local Debt Report." Sales for 1980 are projected from closings during the first six months.
Louisiana	Data are from the Louisiana Office of Commerce and Industry, Baton Rouge.
Maine	Data are from the Maine Guaranty Authority, Augusta.

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State	Source of Information
Maryland	Data for 1979 are based on reports submitted by the Maryland Industrial Financing Authority, the Baltimore (City) Economic Development Corporation, and the following counties: Baltimore, Washington, Frederick, and Kent. The estimate understates total small issue financing. Data for earlier years are based solely on MIDFA reports, which are for fiscal years. Thus, information for 1979 is not comparable with that for earlier years.
Massachusetts	Data for 1979 and 1980 are based on reports submitted by the Massachusetts Industrial Finance Agency. For earlier years, they are based on reports prepared by Associated Industries of Massachusetts, Boston.
Michigan	According to the Governor's office, IRB financing in 1979 amounted to $167.4 million. For other years, data are based partly on reports of the Michigan Municipal Finance Commission and the Michigan Job Development Authority. In addition, some 200 local economic development commissions (EDCs) issue bonds. A survey conducted by the Michigan Department of Commerce indicated that between December 1974 and September 1980, local EDCs issued $309.8 million in IRBs. Since complete annual data on sales were available only for 1979, CBO estimated EDC bond issues for all other years.
Minnesota	The Minnesota Department of Economic Development provided lists of bonds approved within the state. The Minnesota Office of the State Auditor provided a study of industrial revenue bonds which found that historically in Minnesota approximately 67 percent of all approved issues actually close. The figures that appear in Appendix A are 67 percent of

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APPENDIX B. (Continued)

State	Source of Information
Minnesota (continued)	the total of approvals, coupled with issues of the St. Paul Port Authority that do not appear on the state's list. (IRBs issued under the Port Authority Law do not require state approval.)
Mississippi	The data were provided by the Mississippi Agricultural and Industrial Board.
Missouri	The data were obtained from the Missouri Division of Commerce and Industrial Development. In 1978, the Missouri statutes were revised to authorize local industrial development authorities to issue bonds without state approval. No information is available on these types of issues; therefore, there is no basis on which to estimate sales volume for 1979 and 1980. The Missouri law was again amended in 1980 to allow IRB financing of commercial projects.
Montana	The Montana Office of Commerce provided a list compiled by the Montana Department of Community Affairs. Officials in both of these departments believe the list to be neither complete nor up-to-date. Therefore, it most probably underestimates total bond sales in Montana.
Nebraska	The data were provided by the Nebraska Department of Economic Development. They represent all bonds issued within the state as registered with the State Auditors. Due to the time lag between the closing of a bond issue and the registration of that issue, the data for 1980 include all issues registered through June 1980 but none since then. Therefore, the 1980 volume is a CBO projection based on actual data for the first six months of the year.

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APPENDIX B. (Continued)

State	Source of Information
Nevada	No information at all on IRB sales in Nevada is available. CBO has no basis on which to make an estimate.
New Hampshire	The New Hampshire Industrial Development Authority provided data on industrial revenue bonds sold within the state.
New Jersey	The data were obtained from the annual reports of the New Jersey Economic Development Authority.
New Mexico	The New Mexico State Board of Finance provided a list of IRBs issued within the state. The data may be incomplete; therefore the figures in Appendix A may underestimate total sales. Because data were lacking for 1975, CBO estimated sales for that year based on activity in other states.
New York	The data on New York were obtained from the State Department of Commerce. In addition to supplying data on local activity within their jurisdictions, the New York City Industrial Development Agency and the Erie County Industrial Development Agency provided extremely useful supplementary information.
North Carolina	Data were obtained from the State and Local Government Finance Division of the Department of the State Treasurer.
North Dakota	The data were obtained from the North Dakota Business and Industrial Development Department.
Ohio	The Ohio Development Financing Commission provided its Annual Reports for the years 1979 and 1980 and listings of bond issues for all years up to and including 1979. For the years 1975 to 1979, the

(Continued)

APPENDIX B. (Continued)

State	Source of Information
Ohio (continued)	CBO totals exclude projects, such as railroad and dock facilities, that were not financed under the small issues exemption. Since CBO did not have a complete list of projects undertaken in 1980, the total for the year may include some IRBs that were not small issues.
Oklahoma	Data for 1975 to 1978 were taken from lists submitted by the Department of Industrial Development. The lists may or may not be complete. Information for 1979 and 1980 came from the same source; however, since it is based on statements of final offerings filed with the Secretary of State, it is more likely to be complete.
Oregon	The Oregon Department of Economic Development and officials at the Port of Portland supplied data for the years 1975-1979. Activity of other port authorities are not represented in the numbers in Appendix A. Data on 1980 were available on the Port of Portland only. While the Port of Portland is probably the largest issuing body within the state, other local authorities can and do issue bonds. Their activity is not reflected in the 1980 numbers; therefore the figures shown in Appendix A underestimate total activity.
Pennsylvania	Data were taken from annual and semi-annual volumes of Summary of Loans as published and provided by the Pennsylvania Department of Commerce.
Rhode Island	The Rhode Island Port Authority and Economic Development Corporation furnished all data.

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APPENDIX B. (Continued)

State	Source of Information
South Carolina	Data were supplied by the Economic Development Division of the State Development Board.
South Dakota	The State Planning Bureau and the Industrial Development Division of the Department of Economic and Tourism Development provided data on IRB issues in South Dakota.
Tennessee	Data were received from the Industrial Development Division of the Department of Economic and Community Development. Reports included lists of bonds issued by both industrial development boards and municipalities and/or counties.
Texas	The Texas Industrial Commission furnished data on bond sales in 1980. The Commission was authorized by the Development Corporation Act of 1979 and began its activities in December of 1979; therefore, few, if any, small issue IRBs were sold prior to that time.
Utah	The Utah Economic and Industrial Development Division provided lists of bond issues within the state. The figures that appear in Appendix A were taken directly from those lists. State officials estimate that 80-90 percent of all issues are reported and listed. Therefore, the figures in Appendix A slightly underestimate total activity.
Vermont	The Vermont Industrial Development Authority provided lists of bond issues within the state for the years 1975-1980.
Virginia	The Division of Industrial Development supplied lists of bonds issued for all years up to and including 1979.

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APPENDIX B. (Continued)

State	Source of Information
West Virginia	The Industrial Development Division of the Governor's Office of Economic and Community Development furnished lists of industrial development bonds. State officials believe the lists may be incomplete and/or inaccurate. No other statewide data were available.
Wisconsin	The Wisconsin Department of Business Development provided all data.
Wyoming	Data were provided by the Industrial Development Division of the Department of Economic Planning and Development.

APPENDIX C. SMALL ISSUE IRB USES

State	Industrial Facilities	Storage and Wholesale Distribution Facilities	Commercial Facilities	Comments
Alabama	x	x	x	Retail facilities permitted only under conditions specified by the Securities Commission. Litigation pending.
Alaska	x	---	x	Restricted to "small business, tourism, mining and commercial fishery enterprises." Retail facilities subject to $1 million limit.
Arizona	x	x	x	
Arkansas	x	x	x	Office buildings permitted. No retail.
California	x	---	---	
Colorado	x	x	x	
Connecticut	x	x	x	Office buildings permitted. No retail.
Delaware	x	x	x	
Florida	x	x	x	Commercial uses targeted to slums and blighted areas.

(Continued)

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APPENDIX C. (Continued)

State	Industrial Facilities	Storage and Wholesale Distribution Facilities	Commercial Facilities	Comments
Georgia	x	x	---	Corporate headquarters permitted. No retail.
Illinois	x	x	x	
Indiana	x	x	x	
Iowa	x	x	x	Commercial facilities permitted only in designated urban renewal or revitalization districts.
Kansas	x	x	x	
Kentucky	x	x	x	
Louisiana	x	x	x	
Maine	x	x	x	IRBs for retail stores and health care facilities eliminated as of October 1981.
Maryland	x	x	x	
Massachusetts	x	x	x	Commercial projects limited to specifically designated revitalization districts.
Michigan	x	x	x	
Minnesota	x	x	x	
Mississippi	x	x	---	
Missouri	x	x	x	

(Continued)

APPENDIX C. (Continued)

State	Industrial Facilities	Storage and Wholesale Distribution Facilities	Commercial Facilities	Comments
Montana	x	x	x	
Nebraska	x	x	---	
Nevada	x	x	---	
New Hampshire	x	x	---	Corporate headquarters permitted.
New Jersey	x	x	x	Commercial uses targeted to designated distressed areas.
New Mexico	x	x	x	No retail.
New York	x	x	x	
North Carolina	x	---	---	
North Dakota	x	x	x	
Ohio	x	x	x	
Oklahoma	x	x	---	
Oregon	x	x	x	Although retail use is discouraged, the state's 23 port districts may issue bonds for any purpose permitted under federal law.
Pennsylvania	x	x	x	
Rhode Island	x	x	---	Office buildings permitted in downtown areas of older cities.

(Continued)

APPENDIX C. (Continued)

State	Industrial Facilities	Storage and Wholesale Distribution Facilities	Commercial Facilities	Comments
South Carolina	x	x	x	Amendments to state legislation to permit shopping centers and other facilities are now being tested in the courts.
South Dakota	x	x	x	
Tennessee	x	x	x	
Texas	x	x	x	Commercial projects are targeted to distressed areas. Administratively, emphasis is almost entirely on industrial projects.
Utah	x	x	x	
Vermont	x	x	---	
Virginia	x	x	x	
West Virginia	x	x	x	
Wisconsin	x	x	x	Retail facilities loosely targeted to blighted areas.
Wyoming	x	x	x	

APPENDIX D. SMALL ISSUE IRB ISSUING AUTHORITIES

State	Local IDA	County/City[a]	State Agency
Alabama	x	x	---
Alaska	x	---	x
Arizona	x	---	---
Arkansas	x	x	---
California	x	---	---
Colorado	---	x	---
Connecticut	x[d]	x[d]	x
Delaware	---	x	x
Florida	x	x	---
Georgia	x	x	---
Illinois	---	x	---
Indiana	x	---	---
Iowa	---	x	---
Kansas	---	x	---
Kentucky	x	x	x
Louisiana	x	x	---
Maine	---	x	x
Maryland	---	x	---
Massachusetts	x	---	x
Michigan	x	x	x[c]
Minnesota	---	x[b]	---
Mississippi	---	x	---
Missouri	x	x	---
Montana	---	x	x
Nebraska	---	x	---
Nevada	---	x	---
New Hampshire	x	x	x
New Jersey	---	---	x
New Mexico	---	x	---
New York	x	---	---
North Carolina	x	---	---
North Dakota	---	x	---

(Continued)

APPENDIX D. (Continued)

State	Local IDA	County/City[a]	State Agency
Ohio	x	x	x
Oklahoma	x	x	x
Oregon	---	---	x
Pennsylvania	x	---	---
Rhode Island	---	---	x
South Carolina	---	x	---
South Dakota	---	x	---
Tennessee	x	x	---
Texas	x	x	---
Utah	---	x	---
Vermont	---	x[d]	x
Virginia	x	---	---
West Virginia	---	x	---
Wisconsin	---	x	---
Wyoming	---	x	---

a. While in many states, cities and/or counties and local IDAs have by law the authority to issue IRBs, the local IDAs are by far more active because city/county approval often requires a local referendum.

b. Port authorities and redevelopment agencies also issue IRBs.

c. Refers only to the Michigan Job Development Authority.

d. In practice, the state agency issues virtually all IRBs.

APPENDIX E. CALCULATION OF REVENUE LOSSES FROM SMALL ISSUE IRBS, CALENDAR YEARS 1975-1986 (In millions of dollars)

	New Issues	Retirement	Net New Issues, End of Calendar Year	Average New Issues for Calendar Year	BAA Interest Rate (in percent)	Marginal Tax Rate	Calendar Year Loss	Fiscal[a] Year Loss
Pre-1975[b]	9,300	---	9,300	8,750	7.25	.3	190.4	174.9
1975	1,300	---	1,300	1,250	9.97	.3	37.4	34.7
1976	1,500	---	1,500	1,400	9.53	.3	40.0	38.7
1977	2,200	---	2,200	1,850	9.07	.3	50.3	45.3
1978	3,400	---	3,400	2,800	9.86	.3	82.9	67.0
1979	7,100	100	7,000	5,200	10.88	.3	169.7	127.3
1980	8,400	200	8,200	7,600	12.37	.3	282.0	227.1
1981	9,200	250	8,950	8,575	13.60	.3	347.9	317.9
1982	10,100	250	9,850	9,400	12.80	.3	361.0	355.0
1983	11,100	250	10,850	10,350	12.20	.3	378.8	370.7
1984	12,200	500	11,700	11,275	11.30	.3	382.2	380.7
1985	13,400	350	13,050	12,375	9.90	.3	367.5	374.2
1986	14,700	500	14,200	13,625	8.70	.3	355.6	361.0

a. Fiscal year revenue losses are based on the assumption that 34 percent of tax-exempt bonds are held by individuals and 66 percent by corporations. The fiscal year/calendar year split beginning in 1980 is 0.63/0.37 for individuals and 0.50/0.50 for corporations. Before 1980, it was the same for individuals and 0.45/0.55 for corporations.

b. Pre-1975 data reflect cumulative issues, a weighted average interest rate, and cumulative revenue losses.

APPENDIX F. CALCULATION OF REVENUE REFLOW EFFECTS

Estimating the revenue reflows from projected supplies of IRBs is a complicated three-stage procedure. First, the increase in the desired stock of physical capital that results from the increase in the supply of IRBs in each year must be estimated. Then the stream of increases in investment to which this higher desired capital stock gives rise is estimated, together with the consequent increases in GNP and taxable incomes. Finally, the reflows can be estimated by applying tax rates and timing factors to these increases in taxable incomes. The three stages of the process are described here in turn.

The reduction in effective interest rates that is allowed to eligible firms by tax-exempt financing is computed by applying an effective marginal tax rate of 30 percent to the projected interest rate on alternative means of finance, assumed here to be corporate bonds rated Baa.[1] This interest rate reduction can then be translated into an implied reduction in the overall cost of capital. This translation takes into account the fact that, when financing their total capital stock, firms use equity and alternative debt instruments like mortgages and bank loans as well as bonds, and that they take into account the investment tax credit and the structure of tax-allowable depreciation allowances.

A standard formula for the cost of capital is

$$CC = \frac{P(d + CF)(1 - tZ - k)}{1 - t}$$

Here, CC is the after-tax cost of capital; P is the price of capital goods; d is the depreciation rate of physical capital; CF is the cost of financial capital, representing a weighted average of the cost of equity and the after-tax costs of the various types of debt finance used by firms; t is the effective marginal corpo-

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1. The derivation of the effective marginal tax rate and the choice of alternative financing instruments are discussed more fully in Chapter IV.

rate tax rate; Z is the present discounted value of tax allowable depreciation deductions per dollar of investment; and k is the rate of investment tax credit per dollar of investment.[2] CBO has used values of the various parameters in this cost-of-capital equation from the equipment investment sector of the Data Resources, Inc., econometric model. During 1980, the last year for which actual data are available, these figures implied that each 30 percent reduction in the cost of bond finance implied a 0.5 percent reduction in the cost of capital. This rule was used throughout the projection period to approximate the cost-of-capital effects of IRB financing.[3]

The percentage increase in the desired stock of capital of firms using IRB financing that results from this reduction in the cost of capital can be estimated using a standard formula.[4] There

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2. For detailed discussion of this formula, see R. E. Hall and Dale W. Jorgenson, "Tax Policy and Investment Behavior," American Economic Review 57 (June 1967), pp. 391-414; and T. Nicolaus Tideman, "Measuring the Cost of Capital Services," U.S. Treasury Department Office of Tax Analysis Paper #4 (April 1975).

3. Even this apparently low ratio is overstated because it assumes that all of the bond financing of eligible firms is made up of IRBs. In practice, of course, only a fraction of these firms' outstanding bonds is tax exempt.

4. This formula is

$$E_k = -(LS \times E_{k\,1} + KS \times E_o)$$

where E_k is the elasticity of demand for capital with respect to the cost of capital, LS is labor's share in output, $E_{k\,1}$ is the elasticity of substitution between capital and labor, KS is capital's share in output, and E_o is the elasticity of demand for output. For a derivation of this formula, see R.G.D. Allen, Mathematical Analysis for Economists (London: MacMillan and Co., Ltd, 1964) pp. 369-374. Values of unity were used for both E_o and $E_{k\,1}$. The former choice was made in conformity with other studies (see for example, Harvey Galper and Eric Toder, op. cit.), and the latter with reference to a large body of empirical work; see Dale W. Jorgenson, "Investment and Production: A Review," in M.D. Intriligator and D.A. Kendrick

is no entirely satisfactory way, however, to estimate the percentage increase that this implies for the total stock of capital. CBO has approximated this proportion by the ratio of the net increase in outstanding IRBs in each year to projected nonresidential fixed investment in that year.[5] This procedure produces a crude approximation of the percentage increase in the total desired stock of nonfinancial corporate capital that results from each projected increase in outstanding IRBs. This percentage can be translated into an increase in the dollar value of desired nonfinancial corporate capital using a baseline projection of the capital stock. The results are shown in Table F-1.

The increased investment to which each increase in the desired capital stock gives rise does not happen instantaneously. Instead, the new investment is spread over a period of years. Exactly how many years must pass before the entire increase in desired capital is translated into an increase in actual capital is highly uncertain; CBO has used a relatively low estimate of five years.[6]

The time pattern of the increase in investment was estimated by simulating an investment-expanding tax policy on the Data Resources, Inc., econometric model and observing the fraction of the total five-year increase in nonresidential fixed investment that occurred in each year. Applying this timing pattern to the increases in desired capital shown in Table F-1 produced yearly

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(eds.), Frontiers of Quantitative Economics, vol. 2 (Amsterdam: North-Holland, 1974); and Ernst R. Berndt, "Reconciling Alternative Estimates of the Elasticity of Substitution," Review of Economics and Statistics, LVIII, 1 (1976). These choices for E_o and $E_{k\ 1}$ make estimation of LS and KS unnecessary.

5. This approximation is accurate if, on average, investment of firms using IRB financing represents the same proportion of their total capital stock as does that of all firms, on average.

6. This estimate is based on the estimated timing of the long-run response to changes in the cost of capital in the "modified neoclassical" investment equation reported in Peter K. Clark, "Investment in the 1970's: Theory, Performance, and Prediction," Brookings Papers on Economic Activity, 1979:I, p. 86.

estimates of increased investment. These were translated into increases in GNP by applying CBO estimates of GNP-investment multipliers, rates of return to new investment, and rates of depreciation.

The revenue reflows, finally, were computed from the estimated increases in GNP by dividing the GNP changes into taxable incomes and applying CBO's revenue-estimating model to the results. Rather than using any sophisticated approach to the determination of the changes in taxable incomes, the fractions of actual GNP in 1980 that were accounted for by each component of taxable income were applied to each projected increase in GNP. The projected increases in investment, GNP, and taxable incomes are shown in Table F-2.

As discussed in Chapter IV, the reflow estimates that have been derived here may well be overstated because the magnitude of the underlying investment response may be overstated. There are four principal reasons:

- The value assumed for the coefficient showing the sensitivity of investment to the cost of capital is near the top of the range of estimated values. Some analysts have argued strongly that the value is substantially lower, and many point estimates are at least somewhat lower.[7]

- The analysis ignores the offsetting effects of increases in interest rates on financial assets other than IRBs. These rates increase when the supply of IRBs expands in order to maintain the appeal of these assets for wealthholders.

- The impact of the IRB tax subsidy on the overall cost of capital is overstated by assuming that all outstanding bonds issued by affected firms are tax exempt. In practice, only a fraction of these bonds is exempt.

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7. For a careful review of this evidence, as well as a rationale for the value used in this study, see Ernst R. Berndt, "Reconciling Alternative Estimates."

- The five-year period assumed for the investment response to new issues of IRBs is too short. In practice, taking account of cash-flow considerations, variations in depreciation rates, disappointments in expectations, and other factors implies that this period may be substantially longer.[8]

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8. Otto Eckstein and Allen Sinai, "Tax Policy and Investment Behavior Revisited," Data Resources, Inc., unpublished paper, 1981.

TABLE F-1. PROJECTED INCREASES IN IRB SUPPLY AND CHANGES IN LEVELS OF INTEREST RATES ON TAXABLE BONDS, WITH CONSEQUENT CHANGES IN DESIRED STOCK OF CORPORATE CAPITAL, CALENDAR YEARS 1982-1986 (In billions of dollars)

	Increase in IRB Supply	Interest Rate on Alternative Financing (in percent)	Increase in Desired Capital Stock
1982	9.9	12.8	1.7
1983	10.9	12.2	1.8
1984	11.7	11.3	1.8
1985	13.1	9.9	1.8
1986	14.2	8.7	1.7

SOURCE: CBO estimates.

TABLE F-2. PROJECTED INCREASES IN INVESTMENT, GNP, TAXABLE INCOMES, AND FEDERAL REVENUES DUE TO INCREASES IN IRB SUPPLY, CALENDAR YEARS 1982-1986 (In billions of dollars)

			Taxable Incomes			Federal Revenues (Fiscal Years)
	Investment	GNP	Wages and Salaries	Nonwage Income	Corporate Profits	
1982	0.02	0.40	0.20	0.07	0.04	0.06
1983	0.24	0.65	0.34	0.12	0.06	0.13
1984	0.72	1.63	0.86	0.30	0.16	0.29
1985	1.30	2.95	1.55	0.55	0.28	0.56
1986	1.80	4.20	2.21	0.78	0.40	0.88

APPENDIX G. SMALL ISSUE IRB SALES PER CAPITA

State	Small Issue IRBs, 1980 (in millions of dollars)	Population, 1978 (in thousands)	Per Capita Issues (in dollars)
Alabama	247.6	3,742	66
Alaska	---	403	--
Arizona	105.4	2,354	45
Arkansas	98.3	2,186	45
California	---	22,294	--
Colorado	40.3	2,670	15
Connecticut	96.5	3,099	31
Delaware	37.4	583	64
Florida	124.8	8,594	15
Georgia	156.9[b]	5,084	31
Illinois	65.7	11,243	6
Indiana	386.1	5,374	72
Iowa	131.3	2,896	45
Kansas	106.8[c]	2,348	45
Kentucky	77.0[c]	3,498	22
Louisiana	30.9[c]	3,966	8
Maine	36.8	1,091	34
Maryland	137.2[a]	4,143	33
Massachusetts	369.2	5,774	64
Michigan	159.2[b]	9,189	17
Minnesota	415.0	4,008	104
Mississippi	246.1[a]	2,404	102
Missouri	NA	4,860	NA
Montana	21.6[a]	785	28
Nebraska	29.7	1,565	19
Nevada	NA	660	NA
New Hampshire	54.4	871	62
New Jersey	578.0	7,327	79
New Mexico	7.4[a]	1,212	6
New York	382.8	17,748	22
North Carolina	200.0	5,577	36
North Dakota	38.8	652	60
Ohio	805.4	10,749	75
Oklahoma	48.9	2,880	17
Oregon	31.0	2,444	13

(Continued)

APPENDIX G. (Continued)

State	Small Issue IRBs, 1980 (in millions of dollars)	Population, 1978 (in thousands)	Per Capita Issues (in dollars)
Pennsylvania	1,639.1	11,750	139
Rhode Island	63.1	935	67
South Carolina	199.2	2,918	68
South Dakota	17.1[a]	690	25
Tennessee	244.5	4,357	56
Texas	281.8	13,014	22
Utah	55.2	1,307	42
Vermont	23.9	487	49
Virginia	380.7	5,148	74
West Virginia	34.6[a]	1,860	19
Wisconsin	195.2	4,679	42
Wyoming	37.2	424	88

NOTE: NA - Data not available.

a. CBO projection

b. CBO estimate

c. CBO projection based on data for first 6 months.