the bank agrees to stand by to make the scheduled debt payments on the bonds in the event that principal payments on the mortgages occur more slowly than expected, thus making it impossible to make the scheduled payments on the bonds. In return, the bank usually receives a fee when the issue is first sold and is paid interest at a prespecified rate for whatever advances it ultimately makes to the issue.

Bank letters of credit are used in another way to shorten expected bond maturities. In several issues, a major portion of the bonds are "option bonds" (sometimes called "put bonds"), which are 25- or 30-year bonds that give the holder the option to redeem them at par (full face amount) at the end of the fifth year (and sometimes once a year thereafter). These bonds carry the lower interest rates now prevailing on bonds with a five-year rather than a 25- or 30-year maturity. In order to have a means to pay off these bonds should they be redeemed early, the issuer purchases a letter of credit from a bank, under which the bank agrees to purchase, at par, any option bonds that are redeemed early. In exchange, the bank generally is allowed to keep the redeemed bonds and receives a large initial fee and sometimes annual fees as well.[6] The bank that issues the letter of credit is often the bank at which the bond reserves and other bond funds are invested, usually pursuant to a long-term investment contract.

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6. The fees compensate the bank for the risk it takes. Bondholders will redeem the bonds early only if interest rates have subsequently risen, making newly issued bonds a more attractive investment. Since the bank has to purchase the bonds at par, on resale it will receive less than it had to pay for them.

CHAPTER III. ARBITRAGE RULES FOR BONDS FOR OWNER-OCCUPIED HOUSING

The arbitrage rules in the 1980 act generally have hampered the efforts of issuers to structure self-supporting mortgage revenue bond issues that do not require additional subsidization in order to receive bond ratings. Nearly all of the bonds that have been issued thus far under the permanent rules have been sold only because of some kind of state or local subsidization. The magnitude of these subsidies and their different forms are discussed below in this chapter. A few bond issues have been self-supporting, and it is possible, but not probable, that after more experience working with these rules issuers will devise ways to make most issues self-supporting. Even if self-supporting issues are not universally feasible, however, state and local subsidization might be desirable. President Reagan has proposed, for example, that all tax-exempt bonds issued for private purposes after December 31, 1985 be required to receive some state or local subsidy.[1]

This chapter focuses on four issues:

- o Description of the new arbitrage rules;
- o Methods of subsidization used by issuers;
- o Techniques to structure self-supporting issues; and
- o Net effects of the rules, including their success in channeling most of the subsidy to homebuyers.

DESCRIPTION OF NEW ARBITRAGE RULES

Federal arbitrage rules are imposed on all tax-exempt bonds and limit the difference between the yield on the bonds and the

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1. The state or local contribution could take a variety of forms, but would have to equal at least one percent of the face amount of the bonds, unless the bonds were issued as general obligations of the state or local government. See Department of the Treasury, "General and Technical Explanation of Tax Revisions and Improved Collection and Enforcement Proposals" (February 26, 1982).

yield on investments made with bond proceeds.[2] These rules ensure that issuers do not profit by issuing bonds at low, tax-exempt interest rates and investing the proceeds at significantly higher taxable rates. The Mortgage Subsidy Bond Tax Act subjects bonds for owner-occupied housing to tighter arbitrage rules than previously applied to such issues.

Under the former arbitrage rules for mortgage revenue bonds, issuers could earn and keep an unrestricted yield on "reasonably required reserves" of up to 15 percent of bond proceeds (and on all bond proceeds during the "temporary period" until mortgages were purchased with bond proceeds). The former rules also permitted the yield on mortgages to exceed the yield on bonds by 150 basis points.[3]

The new arbitrage rules are extremely complicated and technical, but they boil down to three requirements. First, the effective yield on the mortgages cannot exceed the interest rate on the bonds by more than 1 percentage point (100 basis points). Second, the issuer is not allowed to earn a yield on nonmortgage investments that is any higher than the interest rate on the bonds. Third, to the extent that the issuer does accumulate "excess arbitrage earnings" from the nonmortgage investments, it must rebate them to the mortgagors or to the federal government.

At the same time that the spread permitted between mortgage and bond yields was cut from 150 to 100 basis points, the definition of bond yield was changed, so that the reduction in "spread" was actually greater than 50 basis points. Previously, an issuer could charge mortgagors 150 basis points more than the interest

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2. Mortgage bond proceeds are invested as mortgages and reserve funds maintained in bank accounts.

3. The Administration has proposed changing the arbitrage rules for bonds financing all private activities. Issuers would no longer be allowed to earn an unrestricted yield on bond proceeds during the temporary construction period or on reserves, and bond issuance costs would no longer be allowed to be taken into account in the yield calculation. See Department of the Treasury, "General and Technical Explanation of Tax Revisions and Improved Collection and Enforcement Proposals" (February 26, 1982).

rate on the bonds, plus an amount sufficient to cover the costs of issuing the bonds and the underwriters' discount.[4] Although issuance costs and underwriters' discount vary from issue to issue and depend on market conditions, they usually amount to at least 35 basis points amortized over the mortgage lives. Thus, the "spread" was actually reduced by at least 85 basis points (from around 185 basis points (150 plus 35) to 100 basis points).[5]

In addition to underwriters' discount and costs of issuance, expenses that must be recouped within the new 100 basis point spread include mortgage loan origination and servicing fees; premiums for mortgage pool insurance; and fees for the trustee, paying agent, and accountants.

The new arbitrage rules so restrict the yields on investments made with bond proceeds that the yields are insufficient to cover the costs of the bond program (fees to financial intermediaries and debt payments on the bonds), according to the worst-case scenarios assumed by the rating agencies.[6] Cash contributions by state or

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4. Costs of issuance generally include rating agency fees, printing expenses, costs of market analysis studies, and some lawyer and accountant fees. Underwriters' discount is paid to the syndicate of investment banking firms that buys the bonds. It covers sales commissions for the bond traders, compensation to the managing firm to cover its expenses (legal, travel, accounting) and an amount to compensate the syndicate for the risk of interest rate fluctuations that might occur between sale and delivery of the bonds.

5. Most bond lawyers feel that the only redefinition was in the treatment of underwriters' discount and costs of issuance. Some lawyers, however, believe that, under prior law, points paid by the seller could be disregarded in yield calculations. Since the new rules clearly require that these points be calculated into the mortgage yield, some lawyers consider that the spread reduction was actually that much greater.

6. Rating agencies test the creditworthiness of an issue against a myriad of scenarios--for instance, scenarios in which all mortgages prepay extremely quickly, no mortgages prepay, no mortgages are ever originated, or short-term funds earn only 5.5 percent interest.

local governments can raise the ratio of assets to bonds, thus enabling the issue to pass the test of creditworthiness. If the contribution is used to pay some of the fees to financial intermediaries, for example, there are lower costs to be met with the yield on invested bond proceeds. If the contribution is invested in reserves or mortgages, there is increased revenue available to cover costs and an added cushion of assets backing the bonds.

METHODS OF SUBSIDIZATION

Nearly all of the mortgage revenue bonds issued in 1981 under the permanent rules received some form of state or local subsidy. Most common were cash contributions to the issue from the accumulated surpluses of state housing agencies or appropriations by states or counties. In other cases, surpluses of previously issued single-family bonds or of newly issued bonds for rental housing were pledged to new issues for owner-occupied housing.

Cash Contributions

Many state housing agencies have accumulated fund balances (the excess of assets over debts) of over $10 million, which have been, in some cases, a source of accessible funds for cash contributions to bond issues (see tables in Appendixes A and B). The amount of fund balances varies widely from housing agency to housing agency. As a general rule, the older housing agencies have much larger balances than the newer ones, with some of the newest having no surplus balance.[7] A few of the agencies have used some of their surpluses to finance other housing or energy conservation programs, and most of them have at least a portion of their fund balances committed as reserves for individual issues of bonds outstanding or as general reserves for additional security on all outstanding bonds. Not every housing agency, therefore, is able to contribute funds for new bond issues, even if the agency has a large net worth. Some of those that do have uncommitted fund balances may exhaust them with contributions to just one or two bond issues, although in many cases the agency can expect surpluses to continue to be generated from previously issued bonds.

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7. In some cases, part of the surplus balance is from earlier state contributions.

Cash contributions (often called equity contributions) varied in amount from issue to issue in late 1981, but totaled 8.7 percent of the total amount of bonds issued for home mortgages.[8] Alaska contributed $53 million for two bond issues totaling $200 million (26 percent), while the Oklahoma Housing Finance Agency contributed $450,000 for a bond issue of $100 million (0.45 percent). Louisiana contributed $6 million to its new housing finance agency, $3 million of which it pledged to its first bond issue (December 1981) of $150 million (2 percent). Fresno County, California, contributed $1.8 million to its $40 million bond issue (4.5 percent). Table 1 provides the cash contributions for each issue.

Cash contributions to bond issues have been used mostly to fund reserves, because those reserves can earn an unrestricted yield that need not be rebated.[9] The reserve earnings are used to pay costs that exceed costs covered by the allowed 100 basis points allowed, and to provide a cushion against improbable or unforseeable events that would jeopardize the timely payment of debt service on the bonds. Alaska used most of its cash contribution to finance additional mortgages. Sometimes cash contributions are used to pay costs of issuance and underwriters' discount, which then often leaves the issue able to stand alone, because each dollar of bonds is backed by a dollar of assets.

As a general rule, cash contributions beyond a certain minimum simply provide greater security for the issue and secure a higher

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8. Excluded from this computation were contributions of an unspecified amount (for instance, an official statement sometimes states that the agency will pay for costs of issuance but does not specify the amount of such costs). Also excluded were the issues of Kentucky; Virginia; Montgomery County, Maryland; and Connecticut, which have indirectly subsidized their bonds by issuing them on a parity with other bonds or as general obligations of the agency. The other issues that had no cash contributions were averaged in as having made contributions of zero.

9. Reserves funded by equity contributions are subject to the arbitrage rules dealing with invested sinking funds, in the opinion of most bond lawyers. The amount of total reserves that can be invested at unlimited yield, therefore, is restricted to no more than 15 percent of the sum of bond proceeds and reserves funded with nonbond proceeds.

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TABLE 1. CASH CONTRIBUTIONS TO BONDS ISSUED FOR OWNER-OCCUPIED HOUSING UNDER THE ACT'S PERMANENT RULES

Issuer	Total Amount of Bond Issue (In millions of dollars)	Cash Contribution from Agency General Fund or State or Local Government (In millions of dollars)	Cash Contribution as Percentage of Total Bond Issue Amount
Bonds for Mortgages			
States			
Alabama HFA	100.00	3.75	3.7
Alaska HFC	100.00	29.50[a]	29.5[a]
Alaska HFC	100.00	23.30[a]	23.3[a]
Connecticut HFA	200.00	b	b
Hawaii HA	20.00	0.84	4.2
Idaho HA	30.07	2.52	8.4
Kentucky HC	36.00	e	e
Louisiana HFA	150.00	3.10	2.1
Michigan SHDA	25.00	0.95	3.8
New York SMA	104.75	c	c
North Carolina HFA	30.00	2.00	6.7
Oklahoma HFA	100.00	0.45	0.4
Rhode Island HMFC	40.00	0.94[d]	2.3[d]
Rhode Island HMFC	25.00	0.65[d]	2.6[d]
Tennessee HDA	50.00	8.66	17.3
Virginia HDA	100.00	e	e
Wisconsin	10.05	0.35	3.5
Wyoming CDA	75.00	4.00	5.3
Cities and Counties			
Fairfield RA, CA	22.62	0.83	3.7
Fresno County, CA	40.00	1.80	4.5
Newark RA, CA	21.40	0.0	0.0
Riverside County, CA	21.57	0.0	0.0
Larimer County, CO	8.00	0.0	0.0
Broward County HFA, FL*	25.00	0.30	1.2

(Continued)

TABLE 1. (Continued)

Issuer	Total Amount of Bond Issue (In millions of dollars)	Cash Contribution from Agency General Fund or State or Local Government (In millions of dollars)	Cash Contribution as Percentage of Total Bond Issue Amount
Bonds for Mortgages (continued)			
Cities and Counties (continued)			
Dade County HFA, FL	40.90	0.00[f]	0.0[f]
Duval County HFA, FL	18.61	0.00[f]	0.0[f]
Montgomery County HOC, MD	75.00	e	e
Washington County, MD	9.00	0.50	5.6
Central Texas HFC	6.11	0.00	0.0
East Texas HFC	10.71	0.00	0.0
Southeast Texas HFC	12.75	0.00	0.0
Bonds for Home-Improvement Loans			
States			
Arkansas HDA	16.00	0.85	5.3
Minnesota HFA	52.62	6.20	11.8
New Jersey MFA	15.07	1.00	6.6
Wisconsin HFA	9.99	3.90[e]	39.0[e]
Cities and Counties			
Chicago, IL	20.00	5.00[g]	25.0[g]
Allegheny County RA, PA	7.50	1.60[e/g]	21.3[e/g]
Philadelphia RA, PA	33.00	5.00[g]	15.2[g]

* Preliminary official statement analyzed.

(Continued)

TABLE 1. (Continued)

a. In addition, an Alaska state legislative appropriation will pay the underwriters' discount, but the amount of the discount is not specified.

b. The bonds are general obligations of the authority, ratably secured with $1.2 billion in outstanding bonds.

c. New York State contributes indirectly to the program by granting a credit against New York State franchise tax to the servicing banks comparable to a three-eighths percent service fee.

d. Does not include the amount for costs of issuance, which will also be paid by the corporation.

e. These bonds were issued under the same indenture and on a parity with previous series of bonds.

f. Surpluses from bonds issued in 1980 may be made available to make payments on junior bonds.

g. Community Development Block Grant funds.

bond rating (which lowers the interest rate on the bonds, enabling a lower rate to be charged on the mortgages, thus indirectly subsidizing the mortgage interest rate).[10] Since funds remaining after all of the bonds are paid off and all expenses are paid usually revert to the general fund of the issuer, issuers can reasonably expect to be paid back a portion of their contributions, but usually only many years later.[11]

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10. Cash contributions used to finance additional mortgages or to buy down mortgage interest rates also confer added benefits on homeowners.

11. For example, the $500,000 contribution that Washington County, Maryland, made to its bond issue is to be repaid to the county after all bonds have been paid off, and the county will earn interest on the contribution at 10 percent annually if funds permit.

Using Surplus From Other Housing Bonds

Virginia; Kentucky; Montgomery County, Maryland; and Connecticut, among others, issued new mortgage bonds on a parity with and under the same resolution as bonds that were outstanding.[12] This means that earnings from assets backing the outstanding bonds as well as those from assets purchased with the proceeds of the newly issued bonds are pledged to make debt payments on all the bonds. Shortfalls of earnings from the assets bought with the new bonds can, therefore, be made up with excess earnings from the outstanding bonds. This arrangement is only possible when the outstanding bonds were issued under an arrangement that explicitly permitted it.[13]

A slightly different approach uses a portion of the excess revenues generated from outstanding housing bonds to subsidize a new issue.[14] In fact, some new bond issues for rental housing were structured explicitly to generate excess revenues for new owner-occupied issues. One way of doing this is to charge developers nonrefundable fees to participate in a multifamily program and to use those fees to pay the issuance costs of bonds for owner-occupied housing.[15]

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12. The Connecticut bonds were general obligations of the housing authority.

13. By the legal terms of general bond resolutions, this arrangement cannot be used if the new issue of bonds would jeopardize the creditworthiness of the outstanding bonds, however.

14. Debt service on the Dade County and Duval County, Florida subordinate bonds may be paid partly from surpluses generated from earlier issues of bonds for owner-occupied housing.

15. The subsidization of a bond issue for owner-occupied housing with surplus from a new rental housing issue may be done by issuing bonds simultaneously for owner-occupied and rental housing. The Act allows an issue to be used for both kinds of housing, but stipulates that such an issue must meet requirements of regulations, and these regulations are yet to be prescribed.

SELF-SUPPORTING ISSUES

Although nearly all of the bonds issued under the permanent rules were made possible through sizable contributions, some self-supporting issues were marketed in 1981. They were issued using four approaches: a senior bond/junior bond structure, private placement, mortgage forgiveness, and fee reimbursement.

Senior Bond/Junior Bond

Newark, California; Dade County, Florida; and Duval County, Florida issued bonds using variants of the same approach.[16] In all three cases, the assets--reserves and mortgages--purchased with proceeds of both the senior and junior bonds are pledged to repayment of both sets of bonds, but payment of the senior bonds takes priority. Earnings from the assets are used to make payments on the senior bonds until all of the senior bonds are paid off, and then used to make payments on the junior bonds.[17] (In Dade and Duval Counties, payments on the junior bonds may be made from surpluses generated from previous bond issues, so those issues are not truly self-supporting.) Because these junior bonds are so risky, they were not rated by the rating agencies and carried very high interest rates.[18] They were privately placed; the developer of houses to be financed with bond proceeds purchased the junior

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16. Details of the structure of the three issues differ. This discussion summarizes the concept behind all three but does not describe any one of the three precisely.

17. In Newark, each year earnings from the assets are used to make payments first on the senior bonds and second, if earnings remain, on the junior bonds.

18. The interest rate on the junior bonds issued by Dade County is 18 percent.

bonds in Newark, and the underwriters purchased the junior bonds in Dade and Duval Counties.[19]

The junior bonds make up only about 5 or 6 percent of the total bond issue (about 2 percent in Dade County). For most issues, this represents approximately the amount of "non-asset" bonds whose proceeds are unavailable for investment in mortgages or reserves because they are used to pay initial out-of-pocket expenses, such as underwriters' discount; printing expenses; and the fees for lawyers, accountants, rating agencies and the trustee.

Since some bond proceeds have always been used to pay initial expenses, there have always been more bonds outstanding initially than assets backing the bonds. Under prior law, however, the yield on the assets (mortgages and reserves) was allowed to be high enough above the yield on the bonds so that a dollar of assets easily paid off more than a dollar of bonds. Under the new rules limiting the yield on mortgages and reserves, the rating agencies do not consider the bonds to be creditworthy unless there is a subsidization or if the senior and junior bonds are separated. The rating agencies are satisfied if all of the assets are pledged to only 94 or 95 percent of the bonds, which are issued as senior bonds. The junior bonds are not rated; their purchasers are willing to buy them because of their high interest rates and

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19. The junior bond/senior bond approach may not be widely used in the future. The market for the junior bonds is very limited, because they are unrated and must be privately placed. In addition, many bond lawyers hesitate to approve these issues, because it is so difficult to prove that the purchasers of the junior bonds paid a fair market price for them. If a developer pays more than the market price for the bonds, for instance, the extra amount paid is assumed to be borne by the mortgagors and might bring the mortgage yield above the allowed maximum.

because they are willing to assume a level of risk unacceptable to the rating agencies.[20]

Private Placement

Four counties in Colorado (Aurora, El Paso, Larimer, and Summit) and three municipal governments in North Carolina (Shelby, Charlotte, and Greensboro) issued bonds under the permanent rules that were unrated and privately placed with investors. Weld County, Colorado, issued bonds that were unrated but publicly marketed. By privately placing the bonds rather than marketing them publicly, the issuers were able to reduce the costs (particularly underwriters' discount) that had to be covered within the 100 basis point spread. More important, however, by not having the bonds rated, the issuers did not have to prove the creditworthiness of the issues under all of the scenarios required by the rating agencies. In effect, the rating agencies might consider these bonds not to be a secure investment.

Mortgage Forgiveness and Fee Reimbursement

Riverside County, California, and central, east, and southeast Texas issued bonds without any kind of contribution from the issuer. They all charged homebuyers interest rates that would exceed the rates allowed under the arbitrage rules except for the assumption that some fees will be rebated or some homebuyers will receive mortgage forgiveness that will effectively lower the interest rates on their loans. In Riverside County, California, bonds will be paid off immediately as principal payments on the mortgages are received; all mortgage principal outstanding when the

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20. The rating agencies test the creditworthiness of an issue under a variety of scenarios, some of which the purchasers of the junior bonds may consider unduly pessimistic. In addition, the purchasers of the junior bonds may feel that they understand the issue so well that they are confident that they will be paid back, although the rating agencies would have no reason to be so confident.

last bonds are paid off will be forgiven.[21] In the Texas issues, sellers/developers were charged participation fees of 5.6 percent of mortgage principal, a portion of which will be rebated to them should sufficient funds become available after all bonds are paid off.[22] Since compliance with the arbitrage provisions dealing with mortgage interest rates is determined at the time the bonds are issued and is based on many assumptions, such as how long the mortgage debt will be outstanding, the issuers need only show that under reasonable assumptions the effective mortgage interest rate is expected to be within 100 basis points of the yield on the bonds. If these assumptions turn out to be incorrect, no violation of the arbitrage rules will occur, but mortgage interest rates may have exceeded bond interest rates by more than 100 basis points.[23]

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21. Forgiving indebtedness has the effect of lowering the effective interest rate on the loan. For example, if A lends B one dollar at a nominal interest rate of 10 percent for one year, B must repay A $1.10 at the end of the year. If, at that time, A forgives B ten cents of B's indebtedness, B need only repay $1, for an effective interest rate of zero. Forgiving indebtedness only for homeowners who still have debt unpaid when the last bonds are redeemed may reduce the average effective mortgage interest rate by 30 or 40 basis points, but it creates a large variation in the effective mortgage rates of individual homeowners. All who prepaid their mortgages prior to the magic date get no reduction, while the others may be forgiven as much as half of their mortgage principal. Some issuers may reject the mortgage forgiveness approach because of this unequal treatment.

22. Fees paid by sellers are treated for arbitrage purposes as borne by the mortgagors and thus add to the mortgage yield. The Texas issuers are only including in mortgage yield the portion of seller fees that they assume will not be rebated.

23. The average mortgage interest rate might actually turn out to be less than 100 basis points above bond yield under the mortgage forgiveness approach, because under certain conditions, large amounts of mortgage principal would be forgiven.

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NET EFFECT OF THE ARBITRAGE RULES

The net effect of the new arbitrage rules in channeling the subsidy to homebuyers and in producing the lowest possible mortgage interest rates is unclear. The yield on mortgages (coupled with the yield on reserves and assets purchased with contributed funds) must be high enough to cover program costs. Therefore, if the act has pushed all costs up or down, it probably has affected mortgage rates in a similar fashion. As described below, however, some costs have decreased and some have increased. Issuers have generally contributed cash to issues (some of which was used to buy down mortgage rates) and no longer expect the issues to generate surpluses or to cover the administrative costs of housing agencies. Most investment bankers and lawyers active in structuring bond issues conclude, however, that the net effect of the legislation has not been to lower mortgage interest rates.

Effects on Fees

Fees to many of the financial intermediaries--lending institutions, underwriters, and lawyers--have come down somewhat, but not for every participant in every issue. The willingness of lending institutions and others to accept lower fees may not persist once the housing market improves and demands for their services resume historical levels, however. In many cases, participants are being paid the same fees as before, but have assumed more duties and are exposed to greater risk.

At the same time that funds available to pay fees have decreased, the act has increased the burdens placed on participants. In many cases, participants claim that they are not recouping fully their start-up costs, such as resolving new legal issues, educating program administrators and potential borrowers, preparing new forms and documents, and creating ways to structure bond issues to comply with the new law.

In addition, the act imposes new administrative costs on issuers. They have to collect information from homebuyers and sellers to verify compliance with provisions such as the first-time homebuyer and purchase-price rules, and they have to set up new accounting procedures to comply with the arbitrage provisions. Some of the participants are subject to greater risk than before. Lenders, for instance, are often required to repurchase mortgage loans found not to comply with the act's provisions, even though the discovery of noncompliance might not be made until years after the loans were sold to the issue.[24]

Loan Origination and Servicing Fees. Fees for loan servicing and origination have come down in many instances. Loan origination fees of 1 or 1.5 percent and servicing fees of three-eighths of a percent used to be standard, and are still being paid in most cases. In other cases, however, loan origination fees have lowered to three-fourths of a percent or 1 percent, and servicing is frequently only one-fourth of a percent.[25]

Mortgage Insurance Premiums. As a direct result of the act, fees paid for mortgage insurance have increased in many cases. Many issuers are substituting greater levels of primary mortgage insurance for mortgage pool insurance, since the act requires premiums for pool insurance to be recovered within the 100 basis point spread, but allows premiums for primary mortgage insurance to be recovered outside the spread.[26] Homeowners pay premiums for primary mortgage insurance in addition to their monthly mortgage

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24. In many cases, housing agencies have always required lenders to verify homeowner income and to repurchase unqualified loans, but the repurchase requirement generally was in force for only a short time.

25. The local lending institutions that originated the mortgages almost always used to service them as well. Many local lenders are still servicing the loans, and some are now accepting servicing fees of 25 basis points compared to the 37.5 basis points previously charged. In Oklahoma, the local lenders are receiving servicing fees of only 21 basis points. Some issuers are hiring local lenders to originate the loans and a national servicer that charges only 25 basis points to service them.

26. The act allows insurance charges to be recoverd outside the spread only "to the extent such amount does not exceed amounts charged in such area in cases where owner-financing is not provided through the use of qualified mortgage bonds." (I.R.C. §103A(i)(2)(B)). Since primary mortgage insurance is often required on mortgages that are not financed with bonds, but pool insurance is not, premiums for the former are recoverable outside of the spread, but premiums for the latter are not.

payments. Since these premiums are sometimes 20 or 25 basis points higher than they used to be, this translates directly into higher total monthly payments for the homeowners.[27]

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27. Primary mortgage insurance policies cover losses on individual mortgages up to a certain amount of loss per mortgage. Homeowners are usually required to purchase primary mortgage insurance only if their downpayment is under 20 percent. This insurance usually covers the difference between the mortgage loan amount and 72 percent of the value of the house. If a homeowner defaults, the bondholders are left with 72 percent of the value of the house uninsured. Mortgage pool insurance provides an additional level of coverage for the bondholders. It usually covers 100 percent of the losses resulting from defaults, but only up to a total policy limit of 10, 15, or 20 percent of the aggregate principal amount of the mortgages.

    The combined cost of primary and pool insurance used to be about 30 basis points for most issues (25 basis points for primary plus 5 basis points for pool), while costs for mortgage insurance now sometimes total 50 or 60 basis points. The issues that now use no pool insurance typically require that the mortgages be insured 100 percent by primary mortgage insurance. When this is FHA insurance, it costs the mortgagors 50 basis points each year (in addition to the nominal interest rate that they are charged). When it is private mortgage insurance, the charge varies from about 40 to 60 basis points, depending on the loan-to-value ratio of the mortgage. (See the footnotes to Dade County, Florida in Appendix A.)

    In addition to primary mortgage insurance, homeowners are required to maintain standard homeowners' insurance policies, and the trustee maintains a special hazard insurance policy covering losses not normally covered by the standard homeowner policy, such as those caused by earthquakes or mudslides. Most of the mortgage revenue bond issues now are covered by a cash flow insurance policy (also called advanced claims coverage), under which the pool insurer agrees to advance to the trustee payments on mortgages that are delinquent 30, 60, or 90 days, depending on the type of coverage. Mortgage insurance premiums are regulated by the states.

Bond Insurance Premiums. Several bond issues are now covered by bond insurance, under which an insurer agrees to make the scheduled payments on the bonds in the event that other funds are not available to do so.[28] This coverage is extremely expensive. In Fresno County, California, for example, coverage on a $40 million bond issue cost $1.16 million. Many lawyers believe that premiums for bond insurance can be recovered outside of the 100 basis point spread on the theory that the bond insurance makes the bonds more secure and hence reduces the interest rate on the bonds and produces more than enough interest savings to compensate for the cost of the premium.

Effects on Bond Interest Rates

Several provisions of the act may be increasing interest rates on the bonds. These higher rates can be passed along as higher interest rates on the mortgages. Many analysts claim that the registration requirement will initially push up interest rates on the bonds by at least 25 basis points (see Chapter IV). In addition, to the extent that the act restricts the yields on investments made with bond proceeds, the security for the bonds has been reduced (unless there are large equity contributions or other subsidization).[29] It is now much more difficult to achieve a double-A rating on bond issues for owner-occupied housing, for instance, and the lower ratings translate into higher interest rates on the bonds.[30]

Some analysts feel that including underwriters' discount within the 100 basis point spread can serve sometimes to push up the interest rate on the bonds. Underwriters' discount can be reduced in two ways that might have this effect. First, the discount is much lower when bonds are privately placed with an

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28. The following issues are insured by the American Municipal Bond Assurance Corporation (AMBAC): Riverside County, California; Duval County, Florida; central, east, and southeast Texas; and Fairfield, California.

29. In addition, it is no longer possible to use profit made on reserves to subsidize mortgage interest rates.

30. Higher interest rates on the bonds compensate bondholders for the added risk.

investor than when they are offered to the public. But the market for private placements is currently rather limited, and the large bond funds that appear to be the most likely potential purchasers of these bonds might demand a higher interest rate for a private placement than for a public offering. Second, underwriters' discount can be reduced by cutting the commissions that bond traders receive for selling the bonds. The bonds, however, cannot be sold if their commissions are below those on other bonds, unless they are easier to sell. This can be accomplished by giving them a higher interest rate.

Most lawyers feel that fees paid to banks for letters of credit must be paid out of the 100 basis point spread. The Louisiana Housing Finance Agency, however, issued bonds with two sets of coupons. Both sets of coupons will be paid to bondholders, who will forward one set to a bank in exchange for the bank's agreeing to purchase the bonds at par at the end of five years. The issuer considered these supplemental coupons to be interest on the bonds rather than fees to the bank. The coupons have the effect, therefore, of increasing the interest rate on the bonds, which may increase the rates on the mortgages.

Summary of Net Effects

The success of the arbitrage rules in reducing mortgage interest rates and hence directing the subsidy to homeowners is uncertain. On the one hand, fees for some services--loan origination and servicing in particular--have come down. In addition, points paid by developers and other house sellers may have come down, since they are now explicitly taken into account in mortgage yield. Large cash subsidies can also be used to reduce mortgage interest rates, and housing agencies now rarely expect to receive any funds from an issue to cover administrative expenses.

On the other hand, premiums for insurance have risen in many cases, and several provisions of the act may have raised bond interest rates, which then can cause higher mortgage interest rates. As discussed in Chapter II, however, market conditions generally are forcing issuers to offer the lowest mortgage interest rates possible. It should also be noted that most issuers are not trying to take advantage of homebuyers by charging them the highest possible interest rate that they can; in fact, many did not charge mortgagors the entire 150 basis points above bond yield allowed under prior law.

REBATES OF EXCESS ARBITRAGE EARNINGS

When the bonds are issued, the issuers must elect whether to pay excess arbitrage earnings on the nonmortgage investments to the federal government or to the mortgagors. The designated recipients are listed in the table in Appendix A for each issue, and are about equally divided between the federal government and mortgagors. In many cases, however, issuers actually expect to rebate very little, if any, money, because the issues are structured to generate no excess arbitrage earnings. Either the reserves are fully funded by outside cash contributions, the earnings on which are exempted from the rebate requirement, or the reserves are invested pursuant to a long-term contract with a financial institution at rates equal to or below the interest rates on the bonds.[31]

SLIDING SCALE ARBITRAGE SPREAD PASSED BY THE SENATE

In the Miscellaneous Tax Bill, the Senate passed a provision that would increase the spread allowed between mortgage and bond yields, from the currently allowed 100 basis points to between 106.25 and 112.50 basis points, depending on the amount of the issue. If the aggregate face amount of an issue is $100 million or more, the maximum spread would be 106.25 basis points, with the maximum spread increasing by 1 basis point for each $10 million reduction in bond amount, to a maximum spread of 112.5 basis points for issues of $30 million or less.

Lawyers, investment bankers, and housing agency officials unanimously feel that the larger spread would make it easier to issue bonds, although most feel that some outside contribution would still be necessary. (Of course, the Congress may not view this as a negative factor, since it may want to encourage state or local subsidization.)

Some feel that it is logical to allow a sliding scale spread dependent on issue amount, while others disagree. The sliding

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31. Another result of the act has been much smaller reserves in general (see the table in Appendix A). The smaller reserves have been compensated for in part by letters of credit and cash flow advance riders on mortgage pool insurance.

scale makes sense in that some of the costs that now must be recovered within the spread are costs that are fixed (and thus make up a larger pecentage of bond amount for small than for large issues). On the other hand, issuers planning to issue more than $100 million of bonds in a year could simply calculate whether it is to their advantage to issue one large bond issue or to break it up over the course of the year into several smaller issues. The large issuers would thus receive the advantage of the highest spread either way, but might spend more on transactions costs with a sliding scale. In addition, the very smallest issues are private placements that generally have the lowest costs of issuance.

CHAPTER IV. EFFECTS OF OTHER PROVISIONS ON BONDS FOR OWNER-OCCUPIED HOUSING

This chapter describes briefly the experience with the following provisions of the 1980 act that apply to bonds for owner-occupied housing:

- Limits on the volume of bonds that can be issued;
- Targeted area restrictions;
- First-time homebuyer restrictions;
- Limits on house purchase prices;
- Registration requirement;
- Limits on bonds for veterans' housing; and
- Limits on bonds for home-improvement loans.

VOLUME LIMITS

The act limits the volume of bonds that can be issued annually in any state for owner-occupied housing (other than housing for veterans) to the greater of $200 million or 9 percent of the annual volume of state mortgage originations averaged over the previous three years. These limits generally did not constrain bond issuances in 1981, since only Alaska and Connecticut issued their fully allowed allotment.

According to "safe-harbor" limits published by the Treasury Department, 32 states and the District of Columbia were bound in 1981 by the $200 million limit, 16 states by limits between $200 million and $650 million, one state (Texas) by a limit of $775 million, and one state (California) by a limit of $2.2 billion.[1] Table 2 shows the 1981 volume limits for each state, and also the dollar amount of bonding authority per capita for each state. The formula favors sparsely populated states. Alaska may issue $500 in

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1. Issuers have the choice of using limits established by the IRS (called "safe-harbor" limits) or totals based on their own data. See Internal Revenue Service News Release #IR-81-91 (August 6, 1981) pp. 1-2.

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TABLE 2. 1981 LIMITS ON BOND VOLUME BY STATE

State	1980 Population[a] (In thousands)	Average Annual Mortgage Originations 1978-1980[b] (In millions of dollars)	1981 State Ceiling Limitation Safe Harbor[b] (In millions of dollars)	Per Capita Bonding Authority (In dollars)
Alabama	3,890	1,364	200.0	51
Alaska	400	182	200.0	500
Arizona	2,718	2,261	203.5	75
Arkansas	2,286	909	200.0	87
California	23,669	24,640	2,217.6	94
Colorado	2,889	3,431	308.8	107
Connecticut	3,108	1,967	200.0	64
Delaware	595	299	200.0	336
District of Columbia	638	475	200.0	313
Florida	9,740	6,832	614.9	63
Georgia	5,464	2,239	201.5	37
Hawaii	965	733	200.0	207
Idaho	944	519	200.0	212
Illinois	11,418	7,024	632.2	55
Indiana	5,490	2,458	221.2	40
Iowa	2,913	1,331	200.0	69
Kansas	2,363	1,311	200.0	85
Kentucky	3,661	1,347	200.0	55
Louisiana	4,204	1,640	200.0	48
Maine	1,125	387	200.0	178
Maryland	4,216	2,671	240.4	57
Massachusetts	5,737	1,555	200.0	35
Michigan	9,258	4,030	362.7	39
Minnesota	4,077	2,664	239.8	59
Mississippi	2,521	898	200.0	79
Missouri	4,917	2,454	220.9	45
Montana	787	469	200.0	254
Nebraska	1,570	1,020	200.0	127
Nevada	799	1,084	200.0	250
New Hampshire	921	425	200.0	217
New Jersey	7,364	3,552	319.7	43
New Mexico	1,300	722	200.0	154
New York	17,557	4,588	412.9	24
North Carolina	5,874	1,848	200.0	34
North Dakota	653	375	200.0	306
Ohio	10,797	6,004	540.4	50

(Continued)

TABLE 2. (Continued)

State	1980 Population[a] (In thousands)	Average Annual Mortgage Originations 1978-1980[b] (In millions of dollars)	1981 State Ceiling Limitation Safe Harbor[b] (In millions of dollars)	Per Capita Bonding Authority (In dollars)
Oklahoma	3,025	1,824	200.0	66
Oregon	2,633	1,440	200.0	76
Pennsylvania	11,867	4,782	430.4	36
Rhode Island	947	214	200.0	211
South Carolina	3,119	1,100	200.0	64
South Dakota	690	321	200.0	290
Tennessee	4,591	1,964	200.0	44
Texas	14,228	8,616	775.4	54
Utah	1,461	1,349	200.0	137
Vermont	511	225	200.0	391
Virginia	5,346	3,433	309.0	58
Washington	4,130	2,666	239.9	58
West Virginia	1,950	460	200.0	103
Wisconsin	4,705	2,200	200.0	43
Wyoming	471	453	200.0	425

a. Bureau of the Census, 1980 Census of Population and Housing Advance Reports (April 1981), p. 4.

b. Internal Revenue Service News Release, #IR-81-91 (August 6, 1981), pp. 1-2.

bonds for each resident, while New York may issue only $24 for each resident.

Although the act specifies a formula for allocating a state's total bonding authority among political jurisdictions within the state, it also gives governors and state legislatures authority to prescribe a different intrastate allocation. Many governors and legislatures have used this authority, most typically to allocate all of the state's authority to a state housing agency. The California legislature enacted a complicated formula allocating bonds within California: one-third to be divided among four state agencies, one-third to local agencies with programs restricted to low- and moderate-income families, and one-third to local agencies for a broader range of housing programs.[2]

TARGETED AREA PROVISIONS

The act designates certain census tracts as targeted areas and allows states to nominate other areas for designation. It also requires that at least 20 percent of the lendable proceeds of each bond issue be reserved for mortgages in these targeted areas, with certain exceptions. If there are no designated census tracts within an issuer's jurisdiction, for instance, it need not reserve any mortgage funds for this use.

To a certain extent, jurisdictions that contain many qualified census tracts are put at a disadvantage by the targeted area provisions, simply because they have to comply with more restrictions than other jurisdictions. In addition, these jurisdictions may have fewer secure loans in their portfolios, take longer to make all of the loans, encounter difficulties in persuading private lenders to originate loans for sale to the program, and so forth. The targeted area provisions thus may have the effect of favoring affluent areas that do not contain targeted areas and small jurisdictions (the smaller the jurisdiction the less likely it is to contain qualified census tracts). The limits on the purchase prices of houses in targeted areas exceed the limits on houses in other areas, and buyers of houses in targeted areas are not required to be first-time homebuyers, but these advantages are small compared to the disadvantages of having to set aside funds for mortgages in targeted areas.

Of the 31 official statements analyzed in Appendix A, only seven stated that the full 20 percent of lendable funds was going

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2. Although the Internal Revenue Service safe harbor total for California was $2.2 billion for 1981, the California Office of Planning and Research estimates that California's limit for 1982 is $3.2 billion.

to be reserved for targeted areas. Ten explicitly stated that no funds would be reserved for targeted areas, 12 were going to reserve between zero and 20 percent, and the others were ambiguous. In practice, many jurisdictions often reserve less than 20 percent of lendable funds because many jurisdictions contain no census tracts that automatically meet the definition of targeted areas, and most do not apply to have areas of chronic economic distress designated as targeted areas.

In other jurisdictions that do contain at least one qualified census tract, the issuer may set aside less than 20 percent for targeted areas, because the act only requires the lesser of 20 percent of lendable funds or 40 percent of the market share of targeted areas. Some qualified census tracts happen to contain cemeteries, army bases, or areas in which nearly all housing is rental rather than owner-occupied, so the 40 percent rule may require that only a small share of mortgages be made in these areas.[3] The regulations provide a safe-harbor formula for calculating the amount of required funds under the 40 percent rule. The safe-harbor required portion is 20 percent of the average annual amount of mortgages originated statewide, multiplied by the percentage of state population residing in targeted areas. Thus, if the qualified census tracts within an issuer's jurisdiction are either sparsely populated or ones in which few mortgages have been made recently, the issuer need not set aside 20 percent of funds for mortgages in targeted areas.

A somewhat different problem with the qualified census tracts is that they are defined on the basis of census data that, in 1981, was ten years old. In the course of that ten-year period, many neighborhoods changed significantly, so that some qualified census tracts have become affluent areas since 1970, while during the same period other neighborhoods have deteriorated.

Only eight of the issuers listed in Appendix A have applied to have additional areas designated as targeted areas. Three of these

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3. Some issuers are reluctant to use the 40 percent rule because of the costliness of assembling the data necessary to use it and because of the possibility that the data and the resulting figure could be challenged by the IRS.

issuers have set aside 20 percent of lendable funds for mortgages in targeted areas. Wyoming has applied for some targeted area designations, even though there are no qualified census tracts in the state.

FIRST-TIME HOMEBUYER RESTRICTION

Many state and local governments have always imposed low-income limits on homebuyers whose mortgages are financed by tax-exempt bonds, and a large portion of these homebuyers had never owned houses before.[4] For many issuers, therefore, the first-time homebuyer rule did not affect their programs much other than to impose additional administrative requirements.[5] One person commenting on the first-time homebuyer and purchase price requirements said that some local issuers feel that the requirements define a public purpose for the bonds and thereby relieve local governments from that responsibility.

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4. Statistics compiled by the Fairfield, California Redevelopment Agency, for instance, show that 90 percent of home purchasers who received mortgages from a 1980 Fairfield bond issue were first-time homebuyers. Similarly, the Council of State Housing Agencies conducted a study in 1979 of ten state agencies and found that 86 percent of mortgage recipients were first-time homebuyers. (Council of State Housng Agencies, The History of Tax-Exempt Financing for Housing Development, p. 6).

5. In November 1981, the Treasury Department issued amendments to the proposed regulations outlining procedures that an issuer can use to verify that homeowners are first-time homeowners. Before issuance of those amendments, there was a great deal of uncertainty and uneasiness with the first-time homebuyer restriction from an administrative perspective. Most issuers now require mortgage applicants to submit copies of their federal income tax returns for the previous three years, since no deductions for mortgage interest or property tax is partial proof that they did not own houses. This poses a problem for some applicants who do not keep copies of their returns and who often need the copies more quickly than they can be obtained from the IRS.