The Impact of Lending Velocity on Revolving Fund Performance

The use of revolving funds as a mechanism to finance municipal construction projects has increased significantly over recent years. This increase is largely attributable to the establishment of federally sponsored state revolving funds (SRFs) for clean water projects. Each SRF receives seed money from the federal government and partial matching funds from the state. In order to participate in the SRF program, each state must form an entity responsible for managing the SRF and contribute its share of required matching funds to the SRF. In this article, it is assumed that such matching funds are provided from state equity contributions.

Determining the type of lending program that best meets the state's borrowing needs is the most critical aspect of SRF management. To date, the three types of lending programs that have been most consistently applied are the direct loan program, the matching loan program, and the leveraged loan program. The short-and long-term lending capacity of the SRF is profoundly affected by the type of lending program used. The type of lending program used also impacts the level of equity maintained in the SRF.

This article analyzes the capacity and equity performance of the direct loan program, the matching loan program, and the leveraged loan program within a context that defines the primary purpose of the SRF program as the satisfaction of demand for wastewater pollution control financing. The objective of this comparison is to establish an analytical framework for determining the appropriate type of lending program to use given a state's projected wastewater pollution control financing requirements. As will be established, those responsible for SRF management must understand the costs and benefits associated with each type of lending program and have the flexibility to apply these programs in creative ways in order to maximize the performance of the SRF.

The Direct Loan Program
Under a direct loan program, SRSF money is lent directly to localities in the state to finance or refinance qualified clean water construction projects. The federal regulations governing the SRF program specify that the principal amount of SRF loans must be repaid to the SRF. As the local borrower repays loan principal to the SRF, it becomes available for use by another borrower. This "revolving" loan mechanism is designed to provide the state with a way to continually fund clean water projects.

The state can, however, charge the local borrower interest on loans made from the SRF. In this way, the state can control the amount of interest rate subsidy it provides to a local borrower. For instance, because under current law SRF loan principal must be paid back into the SRF, the maximum subsidy that the SRF can provide to a locality is a zero percent loan. If the state charges interest on the SRF loan, the amount of subsidy provided to the local borrower decreases.

The maximum rate that a state can charge a local borrower is governed by market forces that compel a locality to seek other ways to fund the cost of a project should it feel that the borrowing rate offered under the SRF program is too high. Therefore, the size of the SRF subsidy is governed both by market forces, which determine where rates need to be in order to induce localities to participate in the program , and by policy objectives, which determine how much below market rates the state will charge local borrowers for SRF loans.

The Matching Loan Program
Under a matching loan program, SRF dollars are "matched" with proceeds of a revenue bond issue and then lent to localities. As loan payments are received by the SRF, one portion is allocated to pay revenue bond debt service, and another portion is allocated to repay SRF portion of the matched loan, where it then becomes available to make new loans. In some cases, the revenue bond issue can be secured by only the revenue bond portion of the matching loan or – for increased security and a potentially higher credit rating – the revenue bond issue can be secured by both the revenue bond portion of the loan and the SRF portion of the loan.

The primary advantage of the matching loan program is that it increases the amount of lending capacity available from the SRF during the initial capitalization period relative to the direct loan program. The marginal increase in short-term capacity results from the ability of the SRF to make below market-rate loans to localities by blending revenue bond proceeds with subsidized SRF proceeds to achieve a loan rate that provides the desired subsidy level. Furthermore, the SRF manager has the flexibility to adjust either the size of the SRF contribution to the matched loan or the interest rate of the SRF contribution in order to achieve the desired subsidy level. This added flexibility allows the SRF manager to strategically apply available subsidy in accordance with the needs and financial strengths of local borrowers within the state.

The Leveraged Loan Program
Under a leveraged loan program, SRF moneys are not lent to localities. Instead, SRF moneys are used to fund debt service reserve funds that secure the issuance of revenue bonds. The proceeds generated by the sale of revenue bonds are lent to localities. The SRF moneys are invested at the yield on the bond issue, and the interest income generated by the SRF moneys is used to subsidize the loans made to the localities. The reserve fund also improves the credit structure of the leveraged bond issue, especially in the case of a high subsidy rate. This improved credit structure can usually lower the borrowing cost of the leveraged bond issue.

All loan payments and interest subsidies under a leveraged program are used to pay the debt service on the revenue bonds. As revenue bond principal is amortized, a portion of the SRF proceeds invested in the reserve fund is freed up to be used to secure another revenue bond issue, the proceeds of which are used to make new loans.

The leveraged program maximizes the amount of capacity available from the SRF during the initial capitalization period relative to the two lending programs discussed above. This is because under the leveraged program, all interest earned by the SRF is used to provide subsidy to local borrowers. This allows the SRF to leverage the maximum amount of loans made from revenue bond proceeds and still achieve a specified subsidy objective.

Performance
The following sections describe in detail the relative performance of the three lending programs discussed above. The two measures of SRF performance that will be analyzed are lending capacity and equity. These performance measures are evaluated assuming the availability in year zero of $80 million of SRF moneys. The annual lending capacity generated by the original $80 million is then determined for each of the three lending programs The performance models use a 30-year time frame and, as discussed below, assume a constant subsidy objective of 50 percent of the available revenue bond rate. Furthermore, all loans are assumed to amortize on a 20-year level debt basis.

Capacity Performance
The capacity of the SRF is measured in terms of the total amount of loans made available over time to fund projects. For instance, Tables 1A through 1C set forth the 30-year lending capacity created by $80 million of SRF moneys for the direct loan program, the matching loan program, and the leveraged loan program assuming revenue bond borrowing rates of 5 percent, 10 percent, and 15 percent.

The capacity projections set forth in Tables 1A, 1B, and 1C and graphed in Charts 1A, 1B, and 1C assume a constant revenue bond rate. That is, moneys returned to the SRF or released from reserve funds are assumed to be re-lent or releveraged at the same rate. For instance, under the 5 percent scenario, the projections assume that the average rate over the 30-year projection period will be 5 percent. Therefore, for purposes of this article, the constant rate used to project SRF performance under the three lending programs can be interpreted to mean the assumed average revenue bond borrowing rate for the 30-year projection period. While it is clear that the actual revenue bond rates will vary with time, the use of a constant rate facilitates a fair, direct comparison of the relative performance of each lending.

Furthermore, these projections assume that each loan receives a 50 percent subsidy. For purposes of the following analysis, this means that under the direct loan program, each loan is assumed to be made at one half of the revenue bond rate. Under the matching loan program, the 50 percent subsidy means that the blended rate to local borrowers will equal one half of the revenue bond rate. Under the leveraged program, the 50 percent subsidy means that each revenue bond issue will have a reserve fund comprised of SRF money equal to one half the size of the bond issue. Interest earned on this reserve fund is used to offset repayments by local borrowers. To the local borrowers, this results in a subsidized loan equal to approximately one half of the revenue bond borrowing rate.[1]

Implicit in the leveraged program subsidy model is the assumption that SRF moneys used as reserve funds can earn a rate equal to the borrowing cost of the leveraged bonds. A thorough review of leveraged programs undertaken in several states indicate that every leveraged transaction was able to achieve the bond borrowing cost in their reserve fund investments while still maintaining the liquidity necessary in case of borrower defaults. The primary investment vehicles used by SRF managers of leveraged programs to achieve the highest yield allowable by the IRS on reserve fund investments are specially tailored guaranteed investment contracts (GICs). These GICs are readily available from several aggressive providers and they can be expected to continue to provide the SRF manager with a safe, liquid investment vehicle that provides the maximum investment yield allowable.

A review of Tables 1A through 1C and Charts 1A through 1C indicates that revolving dun capacity is extremely sensitive to both the type of lending program used and the level of interest rates. In the 5 percent environment, the leveraged program provides the highest level of total lending capacity. In the 15 percent environment, the direct loan program provides the highest level of total lending capacity. As also indicated on these tables, lending capacity varies directly with interest rate movements under the direct loan program, but varies inversely with interest rate movements under the leveraged loan program. This is because under a leveraged program (assuming a level loan repayment structure) the average life of the loan increases as interest rate increase. This decelerates the rate at which leveraged SRF moneys become released for purposes of securing new loans and reduces lending capacity under the leveraged program.