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# Establishing A State Infrastructure Bank Options For Arizona

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*A Report for  
Arizona Department of Transportation*

**Apogee Research, Inc.  
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16. Abstract  Arizona, like many other states, faces continuous pressure to invest in transportation despite the chronic threat of spending shortfalls. One new option being explored is the State Infrastructure Bank, or revolving loan fund. SIBs could be created at the state or multi-state level and would be designed to help states <i>supplement and complement</i> existing financing innovations as well as providing a base for other financial tools. SIBs are expected to be able to: <ul style="list-style-type: none"> <li>• Make more projects viable;</li> <li>• Increase the speed with which projects may be completed; and</li> <li>• Increase a state's financing capacity permanently.</li> <li>• Be capitalized with either federal or state seed money;</li> <li>• Offer a menu of loan and credit enhancement assistance (such as lines of credit) to toll and non-toll projects;</li> <li>• Give states maximum flexibility regarding project selection and financial management;</li> <li>• Be encouraged through direct financial incentives to leverage state and federal funds via the commercial capital markets; and</li> <li>• Provide a mechanism to <i>significantly and permanently</i> leverage state financing capacity.</li> </ul>					
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## EXECUTIVE SUMMARY

This paper reviews and outlines options for Arizona to develop and establish a State Infrastructure Bank (SIB) and demonstrates how its creation could speed completion of the MAG system as well as key projects outside the Phoenix area.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 provided states with new tools and greater flexibility to meet their investment needs. These opportunities were expanded under the Federal Highway Administration's (FHWA) Test and Evaluation innovative financing initiative (TE-45). Further changes are likely as the 104th Congress completes consideration of the National Highway System (this year) and considers reauthorization of ISTEA (possible in 1996).

While the new Congress recognizes the importance of a sound infrastructure base to support the economy, the "Contract With America" does not mention infrastructure explicitly and efforts to balance the federal budget will likely mean deep cuts in traditional areas of federal investment, including surface transportation. It is critical, therefore, that states visibly support innovative ideas to promote investment in infrastructure, as they will find parallel support in response by members of Congress, especially where the ideas empower state and local governments.

Arizona, like many other states, faces continuous pressure to invest in transportation despite the chronic threat of spending shortfalls. These pressures will only increase if federal apportionments or obligation ceilings are lowered. Arizona is not alone in taking a new look at the innovative financial tools available under ISTEA as shown by the unexpectedly strong response to FHWA's TE-45 initiative.

One important new option being explored at both the state and federal levels is the State Infrastructure Bank, or revolving loan fund. SIBs could be created at the state or multi-state level and would be designed to help states *supplement and complement* existing financing innovations as well as providing a base for other financial tools. SIBs are expected to be able to:

- Make more projects viable;
- Increase the speed with which projects may be completed; and
- Increase a state's financing capacity permanently.

SIBs are anticipated to:

- Be capitalized with either federal or state seed money;
- Offer a menu of loan and credit enhancement assistance (such as lines of credit) to toll and non-toll projects;
- Give states maximum flexibility regarding project selection and financial management;

- Be encouraged through direct financial incentives to leverage state and federal funds via the commercial capital markets; and
- Provide, for the first time, a mechanism to *significantly and permanently* leverage state financing capacity.

## **INTRODUCTION**

Other states have proposed establishing a revolving loan fund under ISTEA and TE-45, but the full potential of this concept has only begun to be explored.

This paper explores what a SIB may mean to Arizona and provides a framework for further discussion. It first reviews the SIB concept as currently envisioned by the Federal Highway Administration (FHWA). (As part of this it compares the SIB idea to the Clean Water Act Title VI State Revolving Loan Fund program). The paper then walks through a SIB's potential benefits to Arizona and outlines options for its structure.

The paper closes by using current Arizona Department of Transportation (ADOT) planned capital investments to show how a SIB can help speed completion of the MAG system and other key projects outside the Phoenix area.

## **WHAT IS A STATE INFRASTRUCTURE BANK?**

### **SIBS BUILD ON ISTEA AND PROPOSED LEGISLATION**

Section 1012 of ISTEA allows states to loan certain categories of federal-aid Highway Funds, including STP, NHS, and Bridge funds, for construction of surface transportation projects. Using the flexibility provided by TE-45, eligible projects include facilities with revenue-generating potential such as toll highways, tunnels, bridges, intermodal facilities, dedicated fees from other sources, and highway-related commercial ventures such as rest areas. If Senate bill S. 440, *The National Highway System Designation Act of 1995*, passes, this opportunity under TE-45 will become law. Under S. 440 section 129 of Title 23 of the US Code would be amended to allow states to:

*...loan an amount equal to all or part of the federal share of a toll project or a non-toll project that has a dedicated revenue source, specifically dedicated to such project or projects under this section, to a public entity construction or proposing to construct a toll facility or non-toll facility with a dedicated revenue source. Dedicated revenue sources for non-toll facilities include: excise taxes, sales taxes, motor vehicle use fees, tax on real property, tax increment financing, or such other dedicated revenue source as the Secretary deems appropriate. (Section 204)*

Once the loan has been repaid, the repayments become state funds that may be used for any eligible Title 23 transportation purpose without federal restrictions. This allows states to create revolving loan funds, with repayments from initial projects available to finance future projects. According to FHWA, a state may use those categories of funds that are eligible to finance the project in question under ordinary methods of financing. Hence, bridge projects can be financed with a Section 1012 loan from bridge apportionments, highway projects can be financed with a Section 1012 loan from NHS and STP apportionments, and so forth. (There is flexibility here -- the Laredo bridge will be partially financed with a Section 1012 loan using interstate maintenance funds.)

Under FHWA's TE-45 Initiative, several states requested an expansion of the revolving loan fund concept. (In particular, states proposed that FHWA accept a broader definition of tolls to include any dedicated payment stream.) While no state directly proposed setting up a SIB, FHWA has indicated that it would support and approve such an application.

### **DEVELOPMENT OF THE SIB CONCEPT**

The concept itself is not new, states have been using loan funds for infrastructure for 20 years. FHWA and USDOT revisited the concept and developed a framework to respond to

President Clinton's budget, which set aside \$2 billion dollars annually to capitalize state infrastructure banks.

Approval of a SIB application under TE-45 would likely require that the SIB adopt the major elements envisioned by FHWA and USDOT in their development of a SIB proposal to Congress. (A preliminary proposal was introduced by request in an Administration bill, under the auspices of amending Title 23 of the US Code to provide for the designation of the National Highway System (NHS). The bill, S.775, introduced by Senator Max Baucus (D-MT), did not make it out of committee. Instead, S. 440 was passed and the SIB section from S.775 was not amended into it.)

SIBs are envisioned as infrastructure investment funds which may be created at the state or multi-state level. They are designed to provide states with a new financing capability to *supplement and complement* other financing innovations currently being developed by USDOT. SIBs are anticipated to be able to:

- Be capitalized with federal seed money;
- Offer a menu of loan and credit enhancement assistance (such as lines of credit) to toll and non-toll projects;
- Give states maximum flexibility regarding project selection and financial management;
- Be encouraged through direct financial incentives to leverage the capitalization grant in the commercial capital markets; and
- Provide, for the first time, a mechanism to *significantly and permanently* leverage state financing capacity.

## **COMPARING SIBS TO EXISTING REVOLVING LOAN FUND PROGRAMS**

While loosely based on the concept of the Clean Water Act Title VI State Revolving Loan Fund (SRF) program, the SIB idea differs from the SRF program in four critical ways. SIBs:

1. Are voluntary;
2. Comprise one source, not the only source, of federal funds;
3. May assist private as well as public project sponsors; and
4. Can assist a myriad of projects, they are not limited or biased towards one type of project.

The SRF program is effectively a mandatory program that substitutes for the now defunct Construction Grants Program. States have the option to establish a SIB or not. Second, the SRF program is effectively, the "only game in town" for funding (not least because its structure acts as a barrier to private funding of wastewater treatment projects). The SIB would complement and supplement traditional federal and state funding strategies as needed or desired, providing ADOT

more flexibility in making funding decisions and in setting priorities. Third, SRFs may only provide assistance to publicly owned facilities or publicly sponsored projects. SIBs may provide assistance to public or private project sponsors.

This difference is critical in fostering public-private partnerships. A SIB loan to a private sponsor, for example, may be subordinate to other forms of debt raised in the private capital markets. This may transform a project that is only marginally viable, or simply not viable, into one that is commercially attractive. The South Mountain Toll Road may fall into this category. If expected ridership risk is too high for the private capital markets, financing will be costly or unavailable. A short term subordinate loan through a SIB may facilitate better ratings for the senior debt and lower costs.

Fourth, while SRFs are technically allowed to finance nonpoint source programs, estuary projects, and other projects related to water quality (including some landfill projects), the SRFs tend to be biased towards wastewater treatment facilities. While this bias may be reasonable in state efforts to tackle water quality issues, such a narrow focus would not be appropriate for a SIB. SIBs are not limited to highway projects, rather, they are designed to provide assistance to all eligible Title 23 projects, including transit, intermodal facilities, and rail. This broad scope will enable ADOT to take a more holistic approach to transportation planning and financing, improving the efficiency and effectiveness of its long range financing strategy.

Finally, USDOT and FHWA have looked carefully at the SRF program to determine what lessons may be learned. This critical review should ensure that the eventual legislation creates a program that is more flexible and less encumbered than the Title VI SRF program.

## SHOULD ARIZONA ESTABLISH A SIB?

Like most other states, Arizona faces hard choices in its transportation program. In particular, it faces two problems that could be addressed by a SIB. First, ADOT will incur high costs to finish the Maricopa Association of Governments (MAG) freeway system in the greater Phoenix area. Second, and at the same time, ADOT must ensure it strikes a balance between spending within the MAG area and spending elsewhere.

Because ADOT has elected not to rely on federal-aid highway (FAH) funds for MAG projects, investment can only be (and is) piecemeal. While this strategy will probably eventually complete the MAG system, the state would receive significant economic and social benefits by being able to complete the system as early as possible. Finally, completing the MAG system is only one of many large projects that have been delayed due to lack of funds. Projects outside the Phoenix area that are eligible for FAH funds must be spread over many years in order to be financed.

Under current conditions, ADOT could speed completion of the MAG system if it were to:

1. Raise taxes, specifically those that feed into the Regional Area Road Fund (RARF);
2. Issue more bonds (and eventually raising RARF to repay those bonds); or
3. Re-allocate FAH funds away from projects outside the MAG system towards those MAG projects that FHWA has indicated it would support.

ADOT recognizes that none of these options are politically feasible at this time. A SIB could provide a different tool to stretch federal dollars for all surface transportation investments in the state (with a short term focus of speeding completion of the MAG system). More generally, a SIB could:

- *Make More Projects Viable*
- *Increase The Speed With Which Projects May Be Completed; and*
- *Permanently Increase A State's Financing Capacity*

### A SIB CAN HELP MAKE PROJECTS VIABLE

SIB loans can supplement public or private. While such projects are often ineligible for direct federal assistance, private partners may be eligible for low-cost SIB loans that may be subordinate to other debt issued, for example. As a result, projects that could not otherwise become a reality are now possible.

ADOT has expressed an interest in using a SIB to finance the Pima Freeway, Price Road, and the Red Mountain Freeway within the MAG system, and Interstate 10 in Tucson (outside the MAG system).

In addition to this group, the South Mountain Freeway is one that ADOT is contemplating financing, building, and operating, under a public-private partnership. If this public-private partnership relies on private financing only, the costs may be very high. This could result in few qualified bidders, or require a level of tolls that is not sustainable. It is even possible that without some form of assistance (such as subordinate low cost debt to accompany commercial financing), the project may not even be financially feasible. By offering assistance from a SIB, ADOT increases the probability that the project can be viable and improves that chance of attracting qualified bidders.

Whether FHWA would permit SIB financing for this road without standard environmental clearance is not clear, however, it may not require the same environmental clearance for SIB sponsored projects as it does currently for FAH grant funded projects. This waiver, or increased flexibility, would need to be requested under TE-45. Also ADOT could consider a non-federal or defederalized SIB as discussed below.

## **A SIB COULD INCREASE THE SPEED WITH WHICH PROJECTS MAY BE COMPLETED**

By using SIB assistance to pay for part of a large project's costs, ADOT can complete construction earlier. For non-MAG projects that rely on FAH funds, if some of the initial financing is in the form of a SIB loan, fewer funds must be "saved up" before beginning construction. Loan funds may be used to begin the project now, concurrent with "saving up" obligational authority for any remaining construction costs. This also helps ADOT overcome the bias against large construction projects, inherent in traditional financing methods. In terms of the MAG system, SIB assistance could greatly speed its completion.

## **A SIB CAN PERMANENTLY INCREASE A STATE'S FINANCING CAPACITY**

A revolving loan fund or state infrastructure bank, by definition, recycles funds. In addition, a SIB can borrow against its capitalization funds by issuing bonds, directly multiplying funds immediately available to assist projects. This strengthens a state's long-term financing capacity, creating a sustainable long-term institutional framework that allows the state to finance projects well into the next century. SIBs can also indirectly leverage federal funds by attracting private capital "to the table." Finally, a SIB provides a financial mechanism that is largely independent of political pressures. Using a SIB to stretch federal dollars would enable ADOT to finance non-MAG projects, yet finish the MAG system far more quickly than is currently envisioned.

# STRUCTURING A SIB

## OVERVIEW

To date, most discussions of SIBs (including this report) have assumed that even though they are state institutions, since federal dollars will be involved, most federal regulations regarding the use of federal funds will apply as well. This need not be the case under two scenarios: if state funds provide the original capital or if federal funds are used as seed capital only, it may be possible to secure some release from federal regulations regarding use of funds. Future legislation will remove the need to request that release but until legislation formally establishes SIBs, states may apply to FHWA through the TE-45 program to secure necessary flexibility regarding their federal-aid highway funds should they desire to use those funds to capitalize the SIB. While FHWA does not require that states use these funds as a reserve against which bonds are issued, they would encourage such use, as it would further stretch federal dollars.

At the federal level, the process is currently administrative rather than statutory, therefore DOT has been able to determine the conditions for approval of SIB applications. DOT has indicated that SIBs may assist public or private project sponsors for tolled or non-tolled highway projects, transit, rail and intermodal facilities. Assistance may include (but is not limited to):

- Low interest loans for all or part of a project
- Loans with interest-only periods in early years (Section 1012 allows five years after construction is completed)
- Construction period financing
- Refinancing
- Extended-term credit
- Lines of credit
- Subordinated debt instruments for revenue bonds
- Pooled credit for small issuers of debt
- Equipment leasing pools

Loans may be repaid from any dedicated revenue source and while ISTEA fixes the interest rate to short term interest rates (equal the average rate of the state's pooled investment fund earned in the last 52 weeks preceding the start of repayment), FHWA knows that this clause:

- Requires that the loan terms be set after the loan has been agreed to by both parties;
- Greatly limits a state's ability to tailor the financial assistance on an as needed basis;
- and

- May be obsolete if S.440 passes -- broad interpretation of Section 144 would suggest that the language in the bill fully replaces current language in Section 129 of title 23 of the US Code (wherein the restrictions on interest rates currently lie).

Given these three factors, FHWA may be persuaded to soften interest rate conditions on a SIB application. One option may be to have several loans at different interest rates; some at deep discounts and some higher than that required by ISTEA.

## **SHOULD THE SIB BE LEVERAGED OR UNLEVERAGED?**

The decision whether to leverage is likely to be driven by economic factors (how many projects are ready for financing immediately, what is the potential to market loans and other assistance one year from now, what sort of financial assistance is in demand, etc.) as well as political factors (is there a desire to reduce debt financing in general, irrespective of who is issuing?) For demonstration purposes, a leveraged model has been developed. Leveraging is most attractive when capital demand is large in the short term and when projects can afford loans (clearly there is a tradeoff between financing that is not free but which is available now rather than extensive delays to secure less costly funds).

## **CAPITALIZATION**

ADOT faces several options to capitalize a SIB, including:

- Using FAH apportionment funds;
- Using state funds with possible federal support; and
- Applying for federal discretionary funds.

### **Using FAH Apportionment Funds**

As currently envisioned by FHWA, states would capitalize SIBs using FAH funds from within the obligation ceiling of their annual apportionment. FHWA officials have stated that they would be willing to release these funds up-front under the TE-45 initiative, rather than require cost reimbursement (the traditional procedure).

Under current law, states may make a loan from the appropriate category of funds to finance a project, but no mechanism exists to secure the funds up-front. What this means in the case of a straight Section 1012 loan is unclear. In the signature case involving Laredo, Texas, FHWA agreed to provide funds up-front. Specifically, ADOT must request that FHWA:

- Invoke Section 124 of Title 23 of the US Code, *Advances to States*, under which the Secretary may advance funds to States under certain conditions. By invoking Section 124, FHWA will be able to advance funds to Arizona up-front for capitalization of a

revolving loan fund now, prior to any enabling legislation on SIBs. (Thus, the state will not need to fund the capitalization itself and seek reimbursement.)

- Waive Section 307 of the code, so that Arizona may obligate federal-aid highway funds for a revolving loan fund directly.

Together, these changes will allow Arizona to establish a SIB today, without having to wait for legislation.

### **Using State Funds With Possible Federal Support**

A second option would be to use state funds or even local funds to help capitalize the SIB and to request federal support. This could occur several ways. While the state has several key transportation projects outside the Phoenix area, finishing the MAG system is the priority in the short term. It would not be unreasonable, therefore, to divert some RARF funds for this purpose, at least for the first year or two, as most of the projects envisioned to benefit from the SIB immediately are MAG projects. State funds could include a one year (or two year) temporary penny surcharge on the motor fuel tax statutorily dedicated to the SIB. Finally, the state could impose or divert other state funds on a temporary basis to capitalize the SIB.

FHWA has indicated that it will try to assist states that attempt to stretch their transportation dollars by embracing innovative finance. ADOT can capitalize on this current way of thinking by requesting that FHWA give Arizona (under TE-45) access to its accumulated (federally imposed) unobligated balances across all categories in the form of credit enhancement to support a leveraged SIB. It could request, for example, that FHWA grant it a limited line of credit to support a SIB bond issue. The risk of draw-down could be calculated and the schedule predetermined to allow the US Office of Management and Budget to control and calculate the impact on the federal budget deficit. By stressing that the funds will be used to support debt issued by a SIB, the state can make the case that it is leveraging federal funds and not simply asking for another hand-out.

### **Applying For Federal Discretionary Funds**

Finally, ADOT could develop and submit a proposal to its FHWA division office for a portion of the \$100 million in USDOT discretionary funds that remain available, proposing to borrow the funds to deposit into a SIB and then use bond proceeds from the SIB to build a highway project(s). Timing is critical, since these are FY 1995 funds and SIBs are not the only potential use.

Traditionally, USDOT's discretionary funds have been allocated for projects based on criteria that overwhelmingly favored engineering factors or public safety/crisis factors. Applied for via a proposal to FHWA division offices, last year's funds were provided primarily to assist Los Angeles after the earthquake.

The Office of Policy at FHWA is changing the project criteria. Beginning this year, states that can show: (i) an innovative use of federal funds, and (ii) leveraging of federal funds, will be selected. If Arizona were to propose to borrow from the discretionary pool of funds, moneys that it would deposit as a reserve fund in a SIB, which it would then leverage against, it would stand an excellent chance of being selected for some projects funds.

## A SIB EXAMPLE

While there are numerous ways to structure a revolving loan fund, for demonstration purposes Apogee has used a relatively simple model. The attached tables show:

1. The project inputs in cash flow requirements for design, right-of-way acquisition, and construction. Each project's components within these categories have been aggregated so that each project can be represented by three types of costs for each year. The cash flow requirements for the four projects are then aggregated by type of cost;
2. The consolidated spreadsheets for a leveraged SIB which finances the four projects. The financing of each project is shown separately, and then combined across all four projects;

## ASSUMPTIONS

In an effort to keep the analysis simple, only these four projects are shown to be financed by the SIB. In reality, as funds are repaid into the SIB and become available, they would likely be loaned out again and not accumulate in the fund. (Surplus funds could also be used to repay the state for its original seed capital or to provide grant funds. In both cases, however, this would reduce the size of the SIB.) For demonstration purposes, the consolidated spreadsheet shows funds available for additional projects.

The analysis assumes full financing of all three aspects of each of the four projects: all design, right-of-way, and construction costs (for the Pima Freeway, the Price Road, the Red Mountain Freeway, and Interstate 10 in Tucson). Again, in reality, the SIB would probably only partially fund some of these elements, or possibly not be used at all for particular elements, such as design costs.

The initial capitalization for the SIB is drawn from two sources: ADOT's 1996-1998 federal obligational authority (but with a 100 percent *up-front* outlay of federal funds) and state funds over the same period. While capitalization from state funds can come from several sources, it could be drawn, in this example, from RARF funds (that would otherwise be expended on three of the four projects) and from a temporary surcharge on the state motor fuel charge.

For simplicity, all financial assistance from the SIB is assumed to be in the form of direct project loans, with 20 year maturities, requiring level debt service payments and debt service coverage ratios equal to 120 percent of debt service costs or better. Interest on bonds issued by the SIB is assumed to be 6 percent. Interest on loans provided by the SIB is assumed to equal 4.5 percent and debt service payments begin one year after the loan is issued.

The interest earned on the capitalization reserve, as well as on all cash balances, is assumed to be arbitrage restricted and, therefore, is shown to earn interest just equal to that due on bonds issued by the SIB.

Finally, financing operations and maintenance costs are not included in this example.

## **SPEEDING UP COMPLETION OF THE MAG SYSTEM AND HIGHWAY 10**

Two options have been modeled to demonstrate a key benefit that could accrue to Arizona from establishing a SIB. The model demonstrates the capitalization and leveraging required to successfully and fully finance all aspects of these four projects under a significantly accelerated schedule. The increased completion rate is demonstrated below:

<b>PROJECT ACCELERATION POSSIBLE UNDER SIB FINANCING</b>		
<b>Project</b>	<b>Scheduled Completion</b>	<b>Accelerated Completion</b>
All projects	2006	2001 (99% by 2000)
Pima Highway	2006	1998
Red Mountain Highway	2006	2001
Price Road	2006	1997
Interstate 10	2000	1997

Clearly, the model does not dictate which projects are finished first, it simply shows that some portion of overall costs can be met earlier. This analysis applied the acceleration arbitrarily across individual projects. In reality, policy and economics will determine which projects are financed first given this increased capacity to complete projects earlier.

## **FINANCING UNDER A LEVERAGED SIB**

The model assumes that the SIB leverages against its capitalization at a 2.5:1 ratio in 1996, 1997 and 1998. Thereafter there is no further capitalization nor bond issuance. Projects are cash-flow financed (rather than financed in larger amounts where the project would place funds not used that year into an interest earning construction account). Excess fund balances in any one year are used to finance the following year's costs, (or even costs not expected for later years) accelerating the overall schedule. By using a leveraged SIB to assist in the financing, Arizona can:

- Complete the four projects by 2001;
- Incur a positive net cash balance in the fund that can be used to build other projects by 2001;
- “Skim off” uncommitted capital reserves to maintain leveraging ratios if it selects not to leverage in the future or wishes to reduce the size of its program; and

- Build sufficient excess leveraging capacity in the fund to finance new projects by as early as the end of 1996. These excess funds could support an additional \$10 million in bonds for new projects by the end of 1996 rising to over \$120 million by 2000.

The table below summarizes the results if Arizona uses a leveraged SIB to finance these four projects:

<b>Potential Financing Under A Leveraged SIB</b>					
<b>(‘000s)</b>					
	1996	1998	2000	2001	2010
Volume of Projects Financed	\$335,767	\$231,845	\$13,837	\$1,973	\$0
Net Debt Outstanding	\$364,806	\$916,150	\$854,275	\$820,527	\$409,444
Additional Leveraging Capacity	\$10,194	\$58,850	\$120,725	\$154,473	\$565,556
Uncommitted Capital Reserve Balance Available	\$4,078	\$23,540	\$48,290	\$61,789	\$226,222
Loan Fund Balance Used to Accelerate or Available	\$42,592	\$114,044	\$116,966	\$130,532	\$317,702

Should the state not wish to incur additional debt at any point along the way, the unobligated capital reserve funds and accumulated cash balances can be used to finance projects directly on into the future.

## WHAT ARE THE NEXT STEPS?

ADOT can establish a SIB now under ISTEA and TE-45. In order to maximize its flexibility, ADOT should submit a proposal to FHWA to develop a revolving loan fund based on USDOT's proposed SIB model. In particular, ADOT must request that FHWA:

- ◆ *Invoke §124 Of Title 23 Of The US Code -- Under §124, Advances to States, the Secretary may advance funds to states under certain conditions and with several restrictions. By invoking this clause, FHWA would be able to provide federal aid moneys up-front, as long as the funds were deposited in a SIB;*
- ◆ *Waive §307 of Title 23 of the US Code -- So that Arizona may obligate federal-aid highway funds for a revolving loan fund directly;*
- ◆ *Provide additional funds directly (as through the discretionary fund) or indirectly (through a line of credit to Arizona's unobligated balances) -- To help the state capitalize or leverage its funds;*
- ◆ *Allow the SIB to offer subsidized interest rates, or at least flexibility over rate setting;*
- ◆ *Allow the SIB to offer other types of financial assistance beyond loans, such as various forms of credit enhancement assistance; and*
- ◆ *Loosen or lift standard FAH eligibility rules on environmental compliance for projects that are SIB financed.*

## **APPENDICES**

## APPENDIX A: NOTES TO THE SIB MODEL

This model shows:

- **The acceleration of a select group of projects, and**
  - **The new financing capacity beyond those projects, that is made possible under a SIB, given a particular level of a capitalization and conservative operating assumptions.**
- 

**Realistic Assumptions:** All assumptions are conservative, and were checked by an investment bank.

**Capitalization:** In general, the state will match the federal contribution. The contribution is higher in the first year by that amount necessary to be able to meet original project schedule with available funds, and within leveraging constraints. The federal share is based on capitalization set forth in HR 2002.

**Debt:** Debt is issued to take advantage of excess leveraging capacity as it arises. As loans are repaid and bond payments are made, the leveraging ratio will fall. New debt may be issued against this “extra” reserve to keep the leveraging ratio constant and  $\leq 3$  (e.g. with an extra reserve of \$10m, you can issue \$30m in new bonds).

**Reading Down a Column:** Debt issues and loans are made in the beginning of a year, interest is earned over the course of the year. Thus each year (each column) represents both beginning of year activities and end of year activities. You have to be careful, therefore, in moving down a column.

**What Is Financed First?** Projects that must be funded in a particular year given the original cash flow schedule must be financed first out of available moneys. Remaining moneys may then be applied toward financing project components scheduled for later years, accelerating the schedule.

**What Are The Internal Calculations?** In order to accelerate projects, funds available for loans in any one year must first be discounted to 1995 dollars and then compared to the constant dollar (1995 dollar) cash flow schedule in order to determine the degree of acceleration possible. You cannot do this exercise in nominal dollars as you would be comparing nominal dollars across years. Once you have determined the real value of accelerated loans possible in any one year, you then re-escalate that number to the appropriate year and insert it back into the model.

## **APPENDIX B: SLIDE PRESENTATION**

### **Establishing a State Infrastructure Bank: Options for Arizona**



# Establishing A State Infrastructure Bank

## Options For Arizona

*A Presentation for  
Arizona Department of  
Transportation*



Apogee Research, Inc.

July 1995



# SHOULD ARIZONA ESTABLISH A STATE INFRASTRUCTURE BANK (SIB)?

## ■ A SIB could:

- *Make More Projects Viable* -- e.g. public-private partnership projects
- *Speed Project Completion*
  - » For non-MAG projects relying on FAH funds, fewer funds must be “saved up” before beginning construction
  - » For MAG system SIB assistance could greatly speed completion
- *Permanently Increase The State’s Financing Capacity*
  - » Directly -- by recycling funds and borrowing against its capitalization
  - » Indirectly -- by attracting private capital “to the table”

# WHAT IS A STATE INFRASTRUCTURE BANK?

- SIBs are designed to be self-sustaining revolving loan and credit enhancement funds that can:
  - Be capitalized with state or federal seed money
  - Offer a menu of loan and credit enhancement assistance (such as lines of credit) to toll and non-toll projects
  - Give states maximum flexibility regarding project selection and financial management
  - Be encouraged (through financial incentives) to leverage the capitalization funds in the commercial capital markets
  - Provide, for the first time, a mechanism to significantly and permanently increase state financing capacity

# SIBS ARE NOT “SON OF SRF”

## ■ SIBs:

- Are voluntary
- Comprise one source, not the only source, of federal funds
- May assist private as well as public project sponsors
- Can assist a myriad of projects, they are not limited or biased towards one type of project



# STRUCTURING A SIB

# OVERVIEW

- Current process is administrative (via TE-45) not statutory
- SIBs may assist public or private project sponsors for tolled or non-tolled highway projects, transit, rail and intermodal facilities
- Assistance may include:
  - Low interest loans for all or part of a project
  - Loans with interest-only periods in early years
  - Construction period financing
  - Refinancing
  - Extended-term credit
  - Lines of credit
  - Subordinated debt instruments for revenue bonds
  - Pooled credit for small issuers of debt
  - Equipment leasing pools
- Loans may be repaid from any dedicated revenue source
- Interest rate required may be flexible under TE-45

# LEVERAGING

- The decision to leverage is as much political as economic
- Leveraging will greatly enhance the key benefit ADOT seeks -- The ability to speed project completion
- Leveraging is flexible -- The SIB may leverage now to achieve short term goals and not leverage thereafter to meet long term political goals

# CAPITALIZATION

- **Options to capitalize a SIB:**
  - Use FAH apportionment funds from within the obligation ceiling
  - Use state funds with possible federal support -- e.g. a temporary surcharge on the state motor fuel tax or temporary diversion of RARF funds, possibly accompanied by a line of credit from the federal unobligated balances
  - Apply for remaining FY1995 federal discretionary funds from the current \$100 million balance in USDOT's discretionary fund

# A SIB EXAMPLE

- For demonstration purposes a relatively simple model is used
- Inputs are based on ADOT data for:
  - The PIMA Freeway (MAG)
  - The Price Road (MAG)
  - The Red Mountain Freeway (MAG)
  - Interstate 10 (Tuscon)

# ASSUMPTIONS (I)

1. Full financing of all aspects of each project

2. Initial capitalization:

Source	1996	1997	1998
State	75,000	70,000	50,000
Federal	75,000	70,000	50,000

3. Leveraging takes place in first three years at 2.5:1 ratio

4. Assistance is limited to 20 year direct project loans requiring level debt service payments and debt service coverage ratios equal to 120 percent

5. Interest on bonds issued by SIB is 6 percent

# ASSUMPTIONS (II)

6. Interest on loans provided by SIB is 4.5 percent
7. Debt service payments begin one year after loan is issued
8. Interest earned on capitalization reserve and on all cash balances is arbitrage restricted
9. Financing operations and maintenance costs are not included

# A SIB CAN SPEED COMPLETION OF THE MAG SYSTEM AND INTERSTATE 10

10

## Project Acceleration Possible Under SIB Financing

Project	Scheduled Completion	Accelerated Completion
All Projects	2006	2001*
Pima Highway	2006	1998
Red Mountain Highway	2006	2001
Price Road	2006	1997
Interstate 10	2000	1997

\*99% by 2000

# FINANCING UNDER A LEVERAGED SIB

- **By using a leveraged SIB Arizona can:**
  - **Complete the four projects by 2001**
  - **Incur a positive net cash balance in the fund that can be used to build other projects by 2001**
  - **Build sufficient excess leveraging capacity in the fund to finance new projects by as early as the end of 1996. These excess funds could support an additional \$10 million in bonds for new projects by the end of 1996 rising to over \$120 million by 2000**

# Potential Financing Under A Leveraged SIB

	1996	1998	2000	2001	2010
Volume of projects financed	\$335,767	\$231,845	\$13,837	\$1,973	\$0
Net debt outstanding	\$364,806	\$916,150	\$854,275	\$820,527	\$409,444
Additional leveraging capacity	\$10,194	\$58,850	\$120,725	\$154,473	\$565,556
Uncommitted capital reserve balance available	\$4,078	\$23,540	\$48,290	\$61,789	\$226,222
Loan fund balance used to accerlerate or available	\$42,592	\$114,044	\$116,966	\$130,532	\$317,702

# WHAT ARE THE NEXT STEPS?

- **Submit a proposal to FHWA to develop a revolving loan fund based on USDOT's proposed SIB model**
- **Request that FHWA:**
  - **Invoke Section 124 of Title 23 of the US Code -- Under which, FHWA could provide FAH moneys up-front, as long as funds were deposited in a SIB**
  - **Waive Section 307 of Title 23 of the US Code -- So Arizona may obligate FAH funds for a revolving loan fund directly**
  - **Provide additional funds directly (through the discretionary fund) or indirectly (through a line of credit to Arizona's unobligated balances)**
  - **Allow the SIB to offer other types of financial assistance beyond loans, such as various forms of credit enhancement**
  - **Loosen or lift standard FAH eligibility rules on environmental compliance for projects that are SIB financed**