INFRASTRUCTURE BANKS:
INNOVATIVE FINANCING FOR TAPPED-OUT TRANSPORT BUDGETS

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Introduction

With limited public funding for programs of all types, maximum value must be realized for each dollar of government spending. This is especially true for transportation infrastructure, which is extremely expensive to fund. Traditionally, Canadian governments have paid for transportation infrastructure through direct payments of unallocated general funds. This has provided governments with flexibility to pursue its policies, but in the case of transport, the federal government must now return to transport more of what it takes. The National Highway System alone requires $17 billion in investment (Infrastructure Council of Manitoba, 1999), while municipal infrastructure requires $44 billion in investment to reach an “acceptable condition” (Strategic Infrastructure Reinvestment Policy, 1998, p. 15).

Some Canadian transportation projects have been funded through innovative financing means. Toronto’s suburban Electronic Toll Route 407 is an example of a public/private partnership that works in a congested urban area. Similarly, there are toll sections of the Trans-Canada Highway in Nova Scotia and New Brunswick and on the Coquihalla Highway in British Columbia. However, toll highways only work in areas of high demand. Many of Canada’s infrastructure needs have insufficient utilization to support tolls (Apogee/Hagler Bailly, 1998).

1 Transportation infrastructure is also lumpy, meaning that it must be built in large portions. A road that goes halfway to its destination is no better than having no road at all.
2 The infrastructure deficit is widening. In 1985, the Federation of Canadian Municipalities estimated Canada’s infrastructure gap to be $12 million (Strategic Infrastructure Reinvestment Policy, 1998).
3 In Nova Scotia, truck traffic is mandated to use the toll highway rather than secondary routes where tolls could be avoided.
Canadians must search for more innovative financing strategies to lever public financing.

The U.S. appears to have appreciated the need to reinvest in transportation much earlier than Canada. In 1993 for example, total public spending on US highways and bridges was $40 billion. The United States Department of Transportation (USDOT) estimated that an additional $16 billion was required annually to maintain – not improve – the condition of American highways at that level (Chafee et al, 1996). The Texas Department of Transportation (TxDOT) estimated that it could only meet 40% of its annual needs with traditional financing methods. Non-traditional methods of financing transportation infrastructure became necessary by 1993.

Canadian infrastructure needs have not been less than in the United States, but federal initiatives in Canada have focused mainly on transportation deregulation and privatization. As pressure is growing in Canada to fund infrastructure renewal, we should examine innovative financing models.

*Innovative Finance* is a method of transportation infrastructure financing that does not rely on the single strategy of grant reimbursement. Innovative finance promotes a diversified approach providing options for financing from the private and public sectors. Under the umbrella of innovative finance, USDOT has found a potential solution to some of the problems associated with traditional transportation infrastructure financing. Many of these approaches could be applied in Canada.

In 1995, the Federal Highway Administration (FHWA) – a branch of USDOT – created a pilot program through which ten states would be allowed to establish State Infrastructure Banks (SIBs). Since that time, the SIB program has experienced three different stages. The original SIB pilot program consisted of ten states and is referred to as SIB 95. More states joined the program in 1996. This expansion phase is referred to as SIB 96. Federal funding for SIB 95 and SIB 96 was discontinued in 1998, and a new pilot program – SIB 98 – was established.

**Antecedents to Infrastructure Banks**

Infrastructure banks grew out of two other financing experiments: State Revolving Funds and Bond Banks. In 1987, the Environmental Protection Agency’s (EPA) Construction Grants Program (CGP) was replaced by the *Clean Water State Revolving Fund* program (SRF) The SRF program provides federal grants to local governments to construct wastewater treatment facilities. In
1987, the Clean Water Act completely phased out the CGP in favour of state revolving funds. The main difference between the two programs was that the CGP provided direct grants to local governments while SRFs made grants to the state to capitalize SRFs, which in turn loaned the money to local governments.

Wastewater treatment facilities must meet federal Clean Water Act requirements for SRF construction loans. States also use a small portion of SRF funds for estuary, stream, or wetland protection and non-point sources of pollution control (such as agricultural run-off). Wastewater treatment projects account for approximately 95% of SRF assistance dollars (Czerwinski, 1996; D’Amato et al, 1997). Through fiscal year 1996, the United States Congress provided more than $11 billion US to SRFs located in all 50 states plus Puerto Rico.

The SRFs are state-administered. State governments match the federal grants at a rate of at least 20%. As the loans are repaid and the fund is replenished, more loans are extended. SRFs are the most prominent model for the establishment of SIBs.

In 1996, the EPA authorized states to establish Drinking Water State Revolving Funds that operate in much the same manner as wastewater SRFs: providing below-market rate loans to borrowers for upgrading and constructing public drinking water systems. Drinking water SRFs received $1.25 billion in FY 1997 (Chafee, 1999).^4

Bond banks are state-level agencies that assist local governments in borrowing money. Several small bond issues are pooled into one large issue by the bond bank. This provides lower issuance costs for the participants and lower interest rates as the default risk is spread among several issuers. This is especially valuable for small communities with low or poor credit ratings (fhinter.fhwa.dot.gov, August 22, 1997).

Before the SIB program, several states already operated transportation revolving funds (TRF) without federal capitalization grants. TRFs provided loans for transportation projects. Once loans were repaid, more loans could be made to other projects.

^4 Other revolving funds authorized by the United States government appear to be designed to supply services and “perks” to legislators. These include: the Senate Restaurant revolving fund (serving meals to U.S. Senators); the Office Supply Service revolving fund; the House Recording Studio revolving fund; the Senate Photographic Studio revolving fund; and the House Beauty Shop revolving fund.
The State Infrastructure Bank Program

State revolving funds and bond bank models were the precedents for State Infrastructure Banks. Like private banks, SIBs required initial capital to get started. Each state was permitted to place into its SIB up to 10 percent of its federal-aid highway appropriations and up to 10 percent of its federal transit funds for two years (fiscal years 1996 and 1997). These federal grants provided the “seed money” for the initial capitalization of the SIBs.

The FHWA defines a SIB in two ways:5

- “an infrastructure investment fund established to facilitate and encourage investment in eligible transportation infrastructure projects sponsored by the public and/or private entities”
- “an investment fund at the State or regional (multi-state) level with the ability to make loans and provide other forms of credit assistance to public and private entities to carry out highway construction and transit capital projects”.

State Infrastructure Bank funds can be used to provide low-interest loans or credit enhancements.

Loans can further be broken down into four sub-categories.

- **Subordinate loans** are made to finance other project debt, thereby allowing that project to obtain less expensive financing on its other debt.
- **Short term construction loans** help with cash flow during construction phases.
- **Interest only loans** can be provided during construction and in the initial years after construction while the project begins to earn money.
- **Low interest loans** can be made to help finance projects that could not otherwise obtain funding.

Credit enhancement, through which SIBs provide third party guarantees for external project loans, can be divided into five categories.

- **Letter of credit or loan guarantees** for project loans commit the SIB to make debt service payments if a project defaults on payments to investors. Financing costs are lower because bonds covered by a SIB receive the SIB’s rating instead of the project’s.

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5 These definitions are from the FHWA web site: www.fhwa.dot.gov.
6 Although the SIB program authorized the creation of regional or multi-state SIBs, only single-state SIBs have been formed to date.
• **Lines of credit** can be extended to cover construction cost overruns or revenue shortfalls.

• SIBs can fund a debt service **reserve fund** for a project. The SIB must replenish the fund if it is drawn upon.

• **State-aid intercept** can reduce project financing risk. In some states the SIB can intercept state transportation aid to a specific project and redirect it to pay bondholders. Each state may decide whether to give its SIB this ability.

• SIBs can be given the authority to **pool debt issues**. Aggregating small debt issues into one large debt issue through the SIB enhances credit quality and lowers interest rates.

By leveraging their capital the SIBs can extend the total capital available to infrastructure projects. A SIB is leveraged when its total potential liabilities exceed its liquid assets. The amount of assistance can be levered through two methods:

• by issuing debt on its own behalf (as in the precedent set by state bond banks); and

• by guaranteeing or otherwise assuming liability for others’ debts in an amount greater than the SIB’s own cash.

Leveraging has been found (through experience with the EPA’s SRFs) to substantially increase the funds available for lending (Chafee et al, 1996). At the outset of SIB 95, each dollar of SIB assistance was expected to generate nearly five dollars in project investment from non-federal sources. The traditional ratio of federal-aid projects was 1¼:1.

A SIB can issue debt on its existing assets in combination with anticipated project revenues. This is most logical when demand for SIB assistance is greater than the available amount of cash. In this case, a SIB would pay interest on the bonds it issues but would lend out bond proceeds to individual projects (Chafee et al, 1996). Under the second leveraging method, a SIB could assume liability for others’ debts in excess of its own cash by providing credit enhancement rather than loans. Not all SIBs exercise the option to leverage funds.

The innovative financing benefit of SIBs is that the funds are recycled for new loans. As first-round projects pay back loans, these receipts can finance other projects. SIBs allow states to provide more funding to more projects. Some of the money is used only as credit enhancement and not as direct funding. Often, projects that would have been put off for years can be moved forward with the assistance of a SIB. The FHWA states that SIBs were designed to fund projects that fill a particular niche:
• “locally and regionally significant projects that have access to dedicated revenue streams, but need flexible financial assistance to clear hurdles that would otherwise obstruct or delay their construction”.

Federal funding is more effectively employed through the SIB program. Each state has scope to encourage investment in transportation infrastructure where its resources can be used most effectively.

Each project must be able to repay the loan received from the SIB through a dedicated revenue source associated with the project. This revenue source can be direct tolls for the use of the infrastructure, shadow tolls, fees from commercial rest stops, or taxation revenue resulting from improved economic circumstances due to the new infrastructure.

Some problems arose in terms of the creation of SIBs. No new federal funding was devoted to SIB 95. Money placed in a state’s SIB still would have been allocated to that state for transportation projects. New York declined to participate in the SIB pilot program because all available federal and state funds had been fully committed to planned projects leaving none available to capitalize a SIB. Other states had concerns that they would not be able to fund enough projects with dedicated revenue streams for repayment to make the SIB program worthwhile. Chafee et al (1996) provides the following list of factors that diminished states’ interest in the SIB program:

• no new funds to capitalize a SIB;
• not enough projects with potential revenue;
• legal/constitutional problems;
• state legislative approval doubtful;
• public and/or legislative opposition to debt financing;
• insufficient state of knowledge of SIBs; and
• lack of state expertise to start a SIB.

These problems are important to note because similar barriers may exist when establishing SIBs in Canada.

By November 30, 1998, SIBs across the United States had received $456 million in federal funding and had signed loan agreements for 54 projects (www.fhwa.dot.gov, January 26, 1999). Overall, SIBs offer and fulfill the

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7 Some states decided not to pursue the idea of SIBs because all federal and state transportation funding for FY 1996 and 1997 had already been allocated to projects. This is discussed in a later section of this paper.
8 Some states circumvented this problem by bringing projects that already had financing planned under the SIB program for funding.
promise of helping to close the gap between transportation needs and available resources.

**The Current State of Canadian Transport Infrastructure**

Canadian transportation infrastructure may not be in crisis condition, but important parts of Canada’s transportation infrastructure network require drastic improvement. Some examples are the network of rural roads serving Western Canada, sections of the Trans-Canada Highway (e.g. Northern Ontario), and most urban centres. A modified version of the SIB program could help improve the status of Canadian transportation infrastructure.

The Canadian federal government does not invest as much in transportation infrastructure – especially highway and transit infrastructure – as its American counterpart. However, the Canadian federal government’s relationship with the provinces is similar to the USDOT’s relationship with the states. According to Canada’s Constitution, the responsibility for highways is assigned to the provinces under the class of “Local Works and Undertakings” (Hicks, 1996). The federal government is involved in highway infrastructure through four major activities:

- financial contributions to the provinces and territories for highway construction;
- ownership of federal highway and bridge facilities (on native reserves, on federal properties, and in the National Capital area);
- regulation of international crossings; and
- other related highway services such as research and development, and safety.

The main form of interaction between the federal government and the provinces – as it is between the USDOT and the states – is federal grants to the provinces for highway construction and upgrading. There are, however, three main differences between the US system and the Canadian system.

First, in Canada, federal highway contributions follow the National Highway Policy (NHP) of 1974. This program focuses resources toward highway projects with regional economic development implications.\(^9\) Transportation funding in

\(^9\) For example, for FY 1995/96 to FY 2002/03, the Atlantic provinces of Newfoundland, Nova Scotia and New Brunswick – despite their smaller sizes and populations – will each receive more federal funding for highways than either Quebec or Ontario. Prince Edward Island, Canada’s smallest province, will receive more funding than any province west of Ontario (Hicks, 1996).
the United States is based on a multitude of factors including land area, postal route mileage, rural population and urban population (Apogee/ Hagler Bailly, 1998).

Second, when Canadian highway infrastructure projects are cost-shared between the federal and provincial governments, the split in funding is approximately equal. For example, under the Canada-Manitoba Infrastructure Works Program, projects are cost-shared equally by the federal government, provincial government and local partners. In the United States, the states’ portion of funding is only required to be 20 per cent compared with an 80 per cent share for the federal government.

Canadian transportation infrastructure has some examples of innovative financing, such as Confederation Bridge linking Prince Edward Island with New Brunswick. Few transportation projects in Canada have dedicated revenue streams. The SIB concept may enhance innovative financing efforts in Canada.

Third, the Government of Canada does not force its provinces to follow federal labour and environmental laws. The Davis-Bacon Act, originally enacted in 1931, requires that every labourer working on a federally funded project has to be paid no less than the locally prevailing wage for similar projects (www2.dol.gov, December 1, 1998). Any first-round projects funded by SIB 95 and SIB 96 had to follow federal Davis-Bacon Act regulations. The second-round projects, funded with repayments from local sources, were no longer subject to the Davis-Bacon Act, but only to the more lenient state guidelines. Many considered second-round projects – and any subsequent funding under SIBs – still to be using federal money. Therefore, each project funded by a SIB – no matter which “round” funds it – should be subject to the federal Davis-Bacon Act rules.

The National Environmental Policy Act (NEPA), established in 1969, also affects all projects funded by federal money. NEPA ensures that the federal government considers “environmental factors through systemic interdisciplinary approach before committing to a course of action” (www.fhwa.gov). Generally, the NEPA environmental guidelines for federally funded projects in the United States are stricter than state regulations. If a project has met federal

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10. The actual wording of the Act reads that “every contract over $2000 to which the United States or the District of Columbia is a party of the construction, alteration, and/or repair of public buildings or public works … shall contain a provision stating the minimum wages to be paid to various classes of laborers and mechanics” employed under the contract (www2.dol.gov, December 1, 1998).
environmental standards, it has also met state guidelines in most cases. In fact, NEPA (ceq.eh.doe.gov/nepa/regs/40/20-29.HTM, December 1, 1998) refers to state environmental regulations “little NEPA” laws that can be included in a NEPA Environmental Impact Study. Like the Davis-Bacon Act, second-round projects of SIBs (under the SIB 95 and SIB 96 programs) were no longer subject to the NEPA guidelines, but only the state regulations. The argument was made that all projects funded by SIBs should be subject to NEPA rules because the majority of the money originally came from the federal government.

Table III shows the funding transportation by the federal government of Canada. The most notable figures are the grand total and the percentage of total federal expenditures: both have decreased considerably between 1991 and 1998. Table IV shows that provincial government expenditures on transportation have also been decreasing.

Table III – FEDERAL GOVERNMENT GROSS EXPENDITURES ON TRANSPORTATION IN CANADA ($ Millions)

<table>
<thead>
<tr>
<th></th>
<th>92/93</th>
<th>93/94</th>
<th>94/95</th>
<th>95/96</th>
<th>96/97</th>
<th>97/98</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Canada</td>
<td>2,894</td>
<td>3,096</td>
<td>2,977</td>
<td>3,448</td>
<td>2,501</td>
<td>2,422</td>
</tr>
<tr>
<td>Other</td>
<td>1,108</td>
<td>1,033</td>
<td>1,050</td>
<td>1,046</td>
<td>791</td>
<td>679</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,092</strong></td>
<td><strong>4,129</strong></td>
<td><strong>4,027</strong></td>
<td><strong>4,494</strong></td>
<td><strong>3,292</strong></td>
<td><strong>3,101</strong></td>
</tr>
<tr>
<td>Total transport expenditures as a percent of total federal expenditures</td>
<td>2.5</td>
<td>2.4</td>
<td>2.4</td>
<td>2.8</td>
<td>2.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*Source: Transport Canada, 1997.*

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11 John Overman, an environmental specialist with the Texas Transportation Institute, points out that some states have specific regulations that federal rules do not cover. For instance, the state of Texas has its own endangered species list that differs from the federal endangered species list. Therefore, a project may meet all the federal regulations, but it may affect the habitat of one of Texas’ endangered species that does not appear on the federal list.

12 Includes Canadian Transportation Agency, Transportation Safety Board, Aviation Safety Board, Civil Aviation Tribunal, and transportation expenditures by other federal departments.
Table IV – PROVINCIAL GOVERNMENT EXPENDITURES ON TRANSPORTATION ($ Millions)

<table>
<thead>
<tr>
<th></th>
<th>92/93</th>
<th>93/94</th>
<th>94/95</th>
<th>95/96</th>
<th>96/97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>99.3</td>
<td>90.0</td>
<td>89.3</td>
<td>105.0</td>
<td>102.7</td>
</tr>
<tr>
<td>Water</td>
<td>142.5</td>
<td>126.0</td>
<td>131.4</td>
<td>100.5</td>
<td>92.5</td>
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<tr>
<td>Rail</td>
<td>15.5</td>
<td>21.8</td>
<td>19.3</td>
<td>26.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Highways</td>
<td>5885.0</td>
<td>5801.8</td>
<td>6079.1</td>
<td>6214.2</td>
<td>5787.8</td>
</tr>
<tr>
<td>Transit</td>
<td>1212.8</td>
<td>1214.7</td>
<td>1308.0</td>
<td>1286.9</td>
<td>1275.3</td>
</tr>
<tr>
<td>Multimodal</td>
<td>207.6</td>
<td>208.0</td>
<td>196.3</td>
<td>198.9</td>
<td>164.6</td>
</tr>
<tr>
<td><strong>Gross Trans. Expenditures</strong></td>
<td><strong>7562.7</strong></td>
<td><strong>7462.4</strong></td>
<td><strong>7823.4</strong></td>
<td><strong>7932.1</strong></td>
<td><strong>7433.7</strong></td>
</tr>
<tr>
<td>Less federal transfers</td>
<td>126.1</td>
<td>232.6</td>
<td>265.3</td>
<td>329.1</td>
<td>264.8</td>
</tr>
<tr>
<td><strong>Net Trans. Expenditures</strong></td>
<td><strong>7436.6</strong></td>
<td><strong>7229.8</strong></td>
<td><strong>7558.1</strong></td>
<td><strong>7603.0</strong></td>
<td><strong>7168.8</strong></td>
</tr>
<tr>
<td>% of Prov. Expenditures</td>
<td>4.9</td>
<td>4.8</td>
<td>4.9</td>
<td>4.8</td>
<td>4.7</td>
</tr>
</tbody>
</table>


**Canadian Infrastructure Banks**

If adapted for implementation in Canada, SIBs have four functions that could help define potential projects. SIBs can:

- serve as an alternative to pay-as-you-go financing;
- replace higher interest debt;
- improve sponsors’ access to external debt financing; and
- reduce interest rate for external debt financing (fhinter.fhwa.dot.gov, August 22, 1997).

A recent Transport Canada report indicated that funding for highways in Manitoba should be directed toward bridge and pavement rehabilitation (Blanchard 1996). While the infrastructure bank concept may be applicable for some rehabilitation projects, the focus is generally on construction projects.

An infrastructure bank program for Canada has the potential to be a tremendous economic engine. A Canadian version of SIBs could produce benefits by attracting additional investment, reducing project cost, and accelerating projects (fhinter.fhwa.dot.gov, August 22, 1997). Funding from the federal government’s infrastructure program could be redirected toward a Provincial Infrastructure Bank (PIB)\(^\text{13}\) to be used for infrastructure investment in the

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\(^{13}\) The term Provincial Infrastructure Bank will be assumed to include possible Territorial Infrastructure Banks as well. However, the likelihood of the territories establishing infrastructure banks is smaller than it is for the provinces. It is very unlikely...
provinces and territories. A PIB program would also fit the NHP by enhancing regional economic development through improved transportation infrastructure in problem regions.

Case I: Highways and Agricultural Truck Routes

An infrastructure bank could immediately target segments of extra-provincial and intraprovincial highways. Grade separations would improve traffic flows and increase average speeds – thus improving efficiency along these routes. Where cross traffic would be eliminated, farm-oriented and other resource vehicles would be redirected from a controlled-access highway to frontage roads or other routes in order to ensure safety. Converting the key links of the Trans Canada Highway to freeway status would help strengthen the traditional east-west Canadian trade corridor. Similarly, maintaining the quality of intraprovincial feeder routes will support regional growth.

The discontinuation of railway branch lines in Western Canada is creating an acute infrastructure problem in rural areas. Most rural roads are not engineered to withstand the loads posed by large tractor trailers. In addition to larger grain trucks, the increase of value-added processing and livestock feeding is leading to further truck traffic. The cost of improving all gravel roads to the required standard is neither supportable nor necessary. The PIB could be used to upgrade “federal” grain routes where new facilities could be zoned to locate.

The provision of federal funds to support rural roads is recommended by the Honourable Willard Estey (1998).

It is recommended that the federal and provincial governments collaborate to apply some part of the considerable fuel tax collections to the construction, maintenance and repair of the municipal grid roads and secondary provincial highways (being those highways in the grain-producing lands which are not built to Trans-Canada Highway standards) in the three prairie provinces where those roads and highways are an integral part of the roads from farm to market.

Recommendation 11

that the territories could identify projects with sufficient revenue streams to repay loans received from such a bank.
If the federal and provincial governments matched funds in a PIB, rural municipalities could borrow to build federal grain truck routes, and pay back, say 20% of these funds.

**Case II: Airport Development**

Airport infrastructure is another good candidate for infrastructure bank investment. Assume that an air cargo operator wishes to expand its service by bringing in larger aircraft. Its current facility at the airport can not handle the increased amount of freight and apron space is insufficient for the larger aircraft. Expanding this service provides more jobs, or at least more hours for existing jobs. It also increases agglomeration advantages for other air cargo operators, which increases their profitability and efficiency. With assistance from a PIB, the local airport authority could provide these facilities to avoid the risk of losing this carrier’s business. PIB funding could be justified because the entire regional economy benefits from this investment. The airport could take advantage of lower interest rates and possibly deferred repayment until the project begins to earn money. Ultimately, the airport would receive rents from the carrier to liquidate the capital investment debt.

Staying with airport infrastructure, business parks adjacent to airports have become economic growth poles. In order to attract major firms to undeveloped areas, modern infrastructure is necessary. The PIB could provide a loan to the municipal government to extend water, sewer and electrical services and adequate roadways to the area of the proposed business park. The provision of infrastructure, combined with abatements or incentives, and proper marketing, the Airport Business Park could reach the critical mass necessary to achieve agglomeration advantages and become a real magnet for firms to relocate to community.

**Case III: Multi-User Intermodal Facilities**

Consolidated intermodal container facilities are another transportation venture that could be an ideal project for PIB assistance. If funding were made available to a third-party containerport operator, the railways may be more open to the idea of sharing operations at a common facility. A combined container terminal would provide numerous advantages and efficiencies for the railways and local shippers.

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14 Again, infrastructure is a prerequisite for economic development. It will not directly result in development, but without infrastructure, no economic development will occur.
Case IV: Marine Infrastructure

Marine infrastructure in Canada also needs a new credit facility to finance their growth. A port may be adequate for dealing with large volumes of freight but lacks the infrastructure to compete on costs. Alternatively, some ports (Prince Rupert, Churchill, Thunder Bay) have no intermodal container facilities, while others like Halifax need major investments to accommodate the Post-Panamax container ships. As the Canadian government is devolving its responsibility for port investments, more must be done to assist port authorities to finance opportunities. This does not mean that careful benefit–cost analysis is ignored. Only projects that can demonstrate long-term viability deserve to be financed.

Conclusion

As long as there is a way to repay the money borrowed from the PIB, many projects could be good candidates for investment. Highways may need to collect tolls, or if the government wishes to keep highways free, shadow tolls may be used. An airport authority can use its increased revenue from improved and expanded service to repay the loan it would receive from the PIB. Similarly, the operator of a common container facility could use its revenues to repay its loan and the port authority could use its revenue from improved service to pay the PIB.

Infrastructure banks are one of many potential innovative financing methods for use in Canada. All possible programs for improving transport infrastructure should be considered with the costs and benefits of each weighed carefully. One thing is certain: doing nothing is not an option. The state of transport infrastructure funding must be addressed in Canada and a solution must be sought.

The level of federal funding would have to be substantial for an infrastructure bank program to be implemented in Canada. Some changes to Canadian law are likely necessary to facilitate the creation of SIBs in Canada. This is an area that requires further study. The authors have not investigated what changes are necessary, and leave this to the experts in the civil service where this new possibility lies.

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15 One report states that the amount of federal funding should be comparable to the current level of support for the national infrastructure program – at least $2 billion (Apogee/Hagler Bailly, 1998).
Although the American SIB program financed mostly local government projects as opposed to larger projects, Canada may be better served by investing in projects that could improve overall provincial or regional economies. While many small and medium-sized communities in Canada could benefit from infrastructure bank programs, it is questionable as to whether or not some projects would be able to repay the funds borrowed from the PIB.

References


Council on Environmental Quality, United States Department of Energy. ceq.eh.doe.gov


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16 However, TEA-21 did not ignore projects of larger significance. The *Transportation Infrastructure Finance and Innovation Act* (TIFIA) provides Federal credit assistance to major transportation investments of critical national importance, such as intermodal facilities, border crossing infrastructure, expansion of multi-State highway trade corridors, and other investments with regional and national benefits. For more information, see the TIFIA Fact Sheet at [www.fhwa.dot.gov/tea21/factsheets/tifia.htm](http://www.fhwa.dot.gov/tea21/factsheets/tifia.htm).


Federal Highway Administration, United States Department of Transportation. www fhwa.gov, www fhwa.dot.gov, fhinter fhwa.dot.gov


United States Department of Transportation. www dot.gov