Governance and Funding of Land Transport Infrastructure

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1. Overview

This paper summarizes work undertaken by Virtuosity Consulting for Transport Canada. The views expressed are solely those of the author. The goal of the work is to improve the financing and governance of Canada's transportation infrastructure, by identifying features which are innovative, effective, and result in performance improvements in the management of transportation infrastructure.

The paper reviews a wide body of Canadian and international case studies of:

- ***financing of infrastructure***, including: stability of funding; multi-year plans; range and composition of funding; degree of "user-pay"; borrowing power (e.g. issuance of bonds); analytical basis for capital/program expenditures; range and scope of activities supported etc; and

- ***governance of funding mechanism,*** including: selection and role of Board of Directors; oversight by government departments; oversight by Parliament/Legislature; transparency of reporting/evaluation; amount of information available from official web-site; guidelines for ethics/conflict of interest etc

2. Policy Context

The importance of transportation infrastructure in the Canadian economy is well recognized. The Government of Canada policy orientation on transportation infrastructure ownership, management and investment is one of private (or quasi-private) sector investment based on competitive market principles.

Transport policy and institutional changes during the 1990s resulted in the transformation and commercialization of federal transportation infrastructure through the creation of many new entities managed by local/regional interests under not-for-profit corporations. This resulted in considerable additional investment (most notably at airports) and rising user fees paid directly by passengers and freight operators. While this move involves deregulation and decentralization of control, the Government of Canada "***retains overall responsibility for articulating a policy framework to guide the development of the (transportation infrastructure) system***"[1].

[1] Transport Canada *Straight Ahead* (2004) p.16

There are two aspects to federal policy relating to transportation infrastructure provision and user-pay:

- ***providing adequate transportation infrastructure in a market-based competitive framework, with proper governance models and better pricing signals to users, will often demand inventive partnerships and joint ventures between the public and private sectors to allocate and manage project risks, tap needed skills and innovation, and access funds to meet public policy objectives[2];*** and

- ***the appropriate level of investment being directed to transportation infrastructure (requires) the right pricing signals, proper governance structures and private capital, and through selective partnerships and government intervention to address failure of market forces and to achieve public policy objectives[3].***

A consensus appears to be developing around the need for a policy regime with more financially self-sustaining provision of transportation infrastructure.

The federal policy shift towards commercialization of federal transportation infrastructure and service provision has occurred against a broader public administration movement towards "alternate service delivery" mechanisms to achieve greater efficiencies and more focus on "customer needs". However, the "new public administration" agenda has run up against criticism regarding traditional accountability mechanisms.

The Auditor General first sounded significant concern over new service delivery arrangements in *Involving Others in Governing: Accountability at Risk* (1999), which noted that:

> ***Parliament has limited means under these [new governance] arrangements - sometimes no means - of holding the government to account for the federal functions performed or the federal objectives to be achieved.***[4]

In 2002, the Auditor General noted a number of gaps in governance and accountability frameworks that considerably dilute federal accountability for monies allocated and spent, as well for results expected and achieved. *Placing the Public's Money Beyond Parliament's Reach*[5] found:

- significant gaps and weaknesses in the design of delegated arrangements;
- limits preventing Parliament from an independence voice to assure proper use of federal funds and authorities;
- the "parking" of billions of dollars of the public's money in foundations, years before it is to flow to the intended recipients;
- little recourse for the government when things go wrong; and

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[2] Ibid p.21
[3] Ibid p.22
[4] AG (1999)
[5] AG (2002) Report.

- limited opportunity for Parliament to scrutinize these delegated arrangements[6].

In short, in the view of the AG, the organizational design of these arrangements ***"frustrates the ability of Parliament to scrutinize effectively the use of substantial amounts of public money and authority"***.

So, in light of accountability criticisms of recent federal innovations in service delivery and program administration, what principles should guide the governance of land transport infrastructure funding?

3. Methodology

Some 30 case studies, across a range of: a) Federal Transport; b) Provincial-Territorial-Local Transport; c) International Transport; and d) Non-Transport infrastructure, were undertaken.

The various infrastructure governance/funding mechanisms were found to contain:

- ***Traditional Grant Programs*** are the mainstay the public sector, are usually of medium-term duration (up to 5-years) and are subject to annual Parliamentary appropriations control and review.

- ***Special-Purpose Funds*** involve dedicated user-pay revenue sources that provide multi-year funding stability, and usually involve an indefinite, ongoing commitment.

- ***Commercial Funding Agencies*** involve privatization/commercialization of the infrastructure or the establishment of a quasi-public agency to provide infrastructure funding on a commercial, self-financing basis (e.g. through repayable loans, revolving fund, user-pay).

- ***Innovative Financing Mechanisms*** by definition do not fit the above three molds, and cannot be characterized in terms of features.

Of the 30 case studies, we judged that:

- 13 mechanisms are Traditional Grant Programs
- 8 mechanisms are Commercial Funding Agencies
- 6 mechanisms are Special-Purpose Funds, and
- 3 mechanisms are Innovative Financial Mechanisms.

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[6] AG (2002) Press Release

A complete list of the case studies follows:

1 – Federal – Transportation
- 1-1 Strategic Highways Infrastructure Program (SHIP)
- 1-2 Canada Strategic Infrastructure Fund (CSIF)
- 1-3 Border Infrastructure Fund (BIF)
- 1-4 Intelligent Transportation Systems Program (ITSP)
- 1-5 Infrastructure Canada Program (ICP)
- 1-6 Prairie Grain Roads Program (PGRP)
- 1-7 Airports Capital Assistance Program (ACAP)
- 1-8 Air Navigation System (NavCan)
- 1-9 St. Lawrence Seaway Management Corporation (SLSMC)

2 – Provincial-Territorial-Local – Transportation
- 2-1 Quebec – Agence métropolitaine de transport (AMT)
- 2-2 Ontario – Ontario Strategic Infrastructure Financing Authority (OSIFA)
- 2-3 Ontario – Toronto Waterfront Revitalization Corporation (TWRC)
- 2-4 Saskatchewan - Transportation Partnership Fund (STPF)
- 2-5 Alberta – Infrastructure and Transportation (AB-INFR)
- 2-6 Alberta – Edmonton – City Transportation Fund (EDM)
- 2-7 Alberta – Calgary – City Transportation Fund (CAL)
- 2-8 BC – British Columbia Transportation Financing Authority (BC-TFA)
- 2-9 BC – Greater Vancouver Transportation Authority (*TransLink*) (GVTA)

3 – International – Transportation
- 3-1 United States Highway Trust Fund (US-HTF)
- 3-2 United States Metropolitan Planning Organizations (US-MPO)
- 3-3 United Kingdom Highways Agency (UK-HA)
- 3-4 New Zealand Land Transport Fund (NZ-LTF)
- 3-5 Australia Auslink Program (AU-Auslink)
- 3-6 Germany Heavy Goods Vehicle Toll (DE-HGVT)
- 3-7 Switzerland Heavy Vehicle Toll (CH-HVT)
- 3-8 European Union Trans-European Network for Transport (EU-TENT)

4 – Federal – Non-Transport
- 4-1 Canada Health Infoway Inc. (CHI)
- 4-2 Green Municipal Enabling/Investment Funds (GMEF/GMIF)
- 4-3 Municipal Rural Infrastructure Fund (MRIF)
- 4-4 CMHC – Affordable Housing Program (AHP)

An impressionistic performance assessment was made, relying on published websites and available material, and prior knowledge. The study used the following performance criteria: a) economic; b) financial; c) other policies; d) practical/political; and e) governance.

4. Key Findings

Traditional Grant Programs are usually characterized by:

- Relatively short (up to 5-years) duration of program
- Lack of strategic capital planning
- Reactive project-driven processes to select eligible projects for funding
- Little stakeholder involvement on project review and program policy
- Lack of transparency around funding decision-making
- Departmental governance through traditional program administration and financial control mechanisms
- A focus on spending the approved budget according to terms and conditions of program
- Lack of outcome-based performance measures
- Little communications of program results
- Little active ongoing performance monitoring with post-audits focusing on compliance to authorities and process; and weak post-evaluation efforts of results.

Special-Purpose Funds are usually characterized by:

- An indefinite commitment to the fund
- Autonomy of structure (e.g. incorporation, legislation)
- More proactive project-driven processes to select eligible projects for funding
- Independent governance of program administration and financial control
- Clearer (possibly) outcome-based performance measures
- Some active ongoing performance monitoring with post-audits focusing on compliance to authorities and process.

Commercial Funding Agencies are usually characterized by:

- Ongoing replenishment of funds from user-fees, revenues or dedicated taxes
- A long-term commitment to the agency's existence
- Autonomy of structure (e.g. incorporation, legislation)
- Strategic function for capital planning
- More active commercial basis for project approval for funding
- Independent governance of program administration and financial control
- A focus on spending available funds to maximize/optimize outcomes
- Clear outcome-based performance measures
- Significant owner/customer/stakeholder involvement on project review and program policy
- Some active ongoing performance monitoring with post-audits focusing on compliance to authorities and process, and financial statements.

Innovation aspects of transportation infrastructure mechanism governance/funding included:

- Accrual public accounting for infrastructure cost, depreciation expense and financing (including appropriate return to the shareholder) costs (e.g. UK-HA, EDM-partially);
- Use of commercial borrowing as a funding source to encourage fiscal sustainability and demand fiduciary accountability for fund uses (e.g. NAVC, OSIFA, EDM, CAL, AMT);
- Use of repayable loans (instead of grants) to better link accountability to performance, encourage fiscal sustainability and better distribute benefits and costs (e.g. GMIF, OSIFA, AMT);
- Use of user-pay pricing for heavy gross vehicles (HGV) as a major aspect of revenue generation for infrastructure (e.g. NZ-LTF, CH-HVT, DE-HVGT) – and "efficiency gain-sharing" for allowance of over-weight/dimension vehicles (e.g. STPF);
- Network-wide asset planning and project identification (e.g. AB-INFR, EU-TENT), and comprehensive asset management and performance measures (e.g. EDM);
- Substantial funding reliance on user-pay pricing that is tied to deliberate policy to effect modal shift (from road to rail) and/or full-cost user pricing to achieve efficiency and environmental sustainability objectives (e.g. DE-HGVT, CH-HVT);
- Involvement of local stakeholders in mechanism management, strategic planning and project selection (e.g. NAVC, SLSMC, ITSP, PGRP, BIF, EDM, CAL, AMT, STPF) – with high degrees of public transparency – especially the use of public referenda on key policy/pricing issues (e.g. CH-HVT); and
- Explicit criteria to promote inter-jurisdictional standardization/interoperability of equipment-technologies-processes in infrastructure management (e.g. EU-TENT, CHI, Auslink).

Other ***findings of note*** were that:

- project selection processes/plans were of varying degrees of rigour, transparency and (apparent) effectiveness. Those married to external stakeholder consultation/planning process and approval (e.g. BIF, ITSP, NavCan, SLSMC) are judged to be more rigorous, transparent and effective;
- public transparency is generally poor, with modest degrees of transparency only where stakeholders have significant planning and project selection involvement (e.g. BIF, ITSP);

- Reliance on audits (e.g. by Auditor General) and evaluation (e.g. by Department) creates an accountability regime that is much weaker in practice than an accountability regime based on performance, as experienced by some Commercial Funding Agencies and Special-Purpose Funds – in part due to their commercial nature and commercial reporting requirements – but more importantly because of stakeholder accountability through the Board of Directors and commitment to public transparency; and

- Several of the Commercial Funding Agencies and Innovative Funding Mechanisms (e.g. NAVC, SLSMC, AMT, OSIFA, EDM, CAL, AB-INFR, STPF, NZ-LTF, UK-HA, TWRC) have clear accountability and pressures to achieve efficiency results from life-cycle asset management and capital planning – and most of these mechanisms have the greatest level of stakeholder involvement, public transparency and strong asset management/planning/performance functions.

5. Lessons Learned

- ***Federal transportation infrastructure*** mechanisms primarily rely on Traditional Grant Program administration – with little use of user-pay revenues or commercial/public debt; relatively low utilization of legislation or independence from government, or local stakeholder involvement, andwith little innovation. Federal transportation infrastructure mechanisms are subject to considerable political oversight and direction, with only modest expectations for achievement of efficiency and environmental sustainability, and fiscal sustainability only accomplished through a private commercial funding agency.

- ***Provincial-Territorial-Local transportation infrastructure*** mechanisms exhibit greater diversity and innovation, especially the public infrastructure management funding envelope approaches and some of the commercial/special purpose mechanisms, which show a strong balance between the following: a) clear objectives, stable multi-year operation, strategic/capital plans and project selection processes; b) major user-fee revenue contributions; c) strong local stakeholder involvement, government oversight, public transparency and evaluation/audit oversight; and d) reasonable balance across the three objectives of: efficiency, fiscal sustainability and environmental sustainability; high degrees of public/political support, and strong accountability for performance results.

- ***International transportation infrastructure*** mechanisms have considerable diversity of mechanisms internationally – reflecting different policy, cultural and institutional regimes and contexts. Among international transportation infrastructure mechanisms, there are significant differences between: a) mechanisms without a clear transport policy basis for funding sources; and b) mechanisms where there is a conscious goal of user fees to raise revenues *and* to impact on modal choice and/or achieve a greater degree of full-cost pricing for road use.

  These differences appear to impact on the degree of public transparency, stakeholder involvement, degree of public support, and accountability for performance. A requirement for developing, approving and communicating publicly a strategic/capital plan improves the project selection and political oversight/transparency of mechanisms.

- Among ***federal non-transport infrastructure*** mechanisms, the involvement of a credible, arms-length stakeholder institution significantly increases public transparency and the likelihood of more effective accountability. The test of an effective accountability regime is published results/reports, public transparency and periodic debate/criticism of program/fund direction and results.

6. Recommendations

The following seven strategies are recommended to underpin future land transportation infrastructure mechanisms and their governance and funding:

1. ***Strengthened Oversight:*** Contribution agreements should include the Minister's right to audit the program and should provide for appropriate reviews, program evaluations and audits.

2. ***Public Accountability:*** Greater scrutiny of mechanisms and their funding recipients by the accountable Minister, the Auditor General and Parliament. This should include provisions for intervention where the stated goals are not being met or where there is evidence of poor stewardship of public funds, including the potential for the winding down of the mechanism.

3. ***Transparenc****y:* Where public monies are received, corporate decisions should be made in the public interest. Mechanisms should stress transparency of operation and provide a clearly defined process that can be accessed by stakeholders or members of the public with a minimum of effort.

4. ***Values and Ethics****:* The expenditure of public funds requires a standard of ethics and values consistent with the expectations of the public, including stewardship, avoiding real or perceived bias or conflict of interest, propriety, providing value-for-money, and compliance with the laws. Internal policies should allow stakeholders to assess whether actions have been consistent with its public purpose.

5. ***Funding Sources:*** Primary reliance should be placed on user-pay pricing for revenue generation to share efficiency gains for heavier vehicle limits, and to impact on modal choice and/or achieve a greater degree of full-cost pricing for road use. There should be movement toward accrual public accounting for infrastructure cost, depreciation expense and financing costs, with consideration of commercial borrowing and/or repayable loans (if made to 3rd parties) to better link accountability to performance, encourage fiscal sustainability and better distribute benefits and costs.

6. ***Governance Approach:*** Mechanisms should have clear objectives, stable multi-year operation, strategic/capital plans and project selection processes – which are linked to network-wide asset planning and project identification processes, and a

comprehensive asset management and performance measurement system. Strong local stakeholder involvement, government oversight, public transparency and evaluation/audit oversight, including involvement of local stakeholders in management, strategic planning and project selection processes.

7. ***Performance & Accountability Regime****:* There should be a reasonable balance across the three objectives of: efficiency, fiscal sustainability and environmental sustainability. Strong accountability for performance results is improved with public transparency, stakeholder involvement, public/political support, and development-approval-communication of a strategic/capital plan that governs the project selection and political oversight. The test of an effective accountability regime is published results/reports, public transparency and periodic debate/criticism of program/fund direction and results.

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