

RELYING ON THE PRIVATE SECTOR TO ENSURE STABILITY IN HIGHWAY MAINTENANCE

Quebec's road network is in dismal condition. During a visit to Montreal in 2006, Simon Anholt, a specialist in the marketing of political entities, said jokingly that he thought he was in the wrong country and had landed in Kazakhstan, since the road from the airport to downtown Montreal was so bad.¹ The collapse of the de la Concorde overpass and information uncovered by the Johnson Commission have shown, concretely and sadly, that this was more than just an impression.



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In issuing the 2007-2008 Quebec budget, the Minister of Finance announced more funds for highway infrastructure. Since an efficient road network is a major determinant of economic growth, it is crucial not to stint on its maintenance or improvement. Nonetheless, the Minister's announcement must be placed in context for its true scope to be assessed.

Beginning in 2007-2008, the government is committed to investing \$1.7 billion in the Quebec road network, "of which \$1.2 billion will be reserved for preservation and improvement of the road network and its structures." Altogether, the Department of Finance is planning to spend \$7.9 billion on maintaining and developing the Quebec road network between now and 2010-2011.²



The road network's deterioration

Starting in the late 1970s, Quebec saw decreasing investment in transportation infrastructure, especially in the period from 1976 to 1985. Per capita investment dropped by nearly half during these years. Part of the decline was due to the highway construction boom of the 1960s and 1970s drawing to a close. However, the trend to under-invest in infrastructure remained firmly established from 1985 to 2005.

As shown in Figure 1, low levels of investment in Quebec's transportation

infrastructure caused a continuous decline in the value of net capital stock from 1980 to 2000. In 2005, real per capita value amounted to only 55% of its 1975 level. Higher investment in transportation infrastructure in 1997 coincided with a reform in government accounting methods and the government's creation of the Road Network Preservation and Improvement Fund (Fonds de conservation et d'amélioration du réseau routier or FCARR). As explained in greater detail in another Economic Note,³ there is reason to believe that only part of this increase should be viewed as reinvestment.

Declining investment in Quebec's road network could be due to political compromises in the allocation of government budgets. Since governments seek

the favour of voters first and foremost, they often tend to respond to the most highly publicized needs, whether in other fields (health care or education, for example) or through more visible projects (such as lengthening expressways). This occurs at the expense of investments whose effects are less apparent and are felt over the longer term, such as maintaining the quality of the road network. This situation causes instability in financing in Quebec, which in turn has led to a deficit in the maintenance of highway infrastructure. This deficit must be erased over time and will require enormous sums of money.

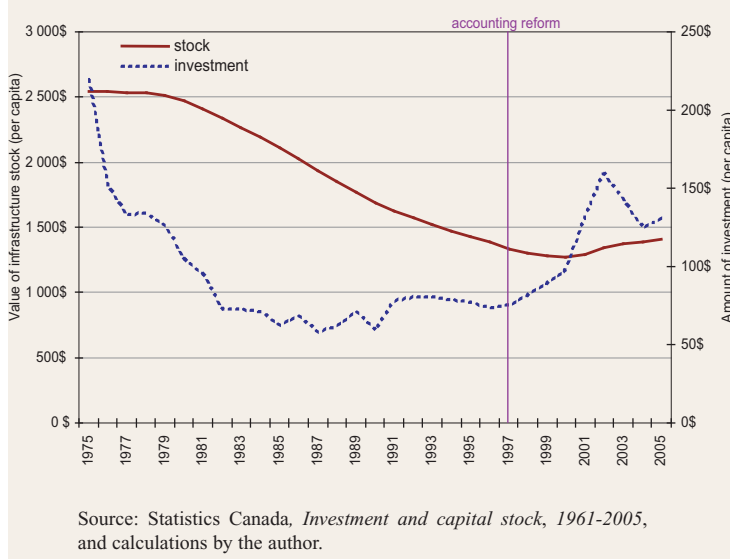
1. Nicolas Bérubé, "Entrevue avec Simon Anholt consultant en branding des villes", *La Presse*, March 17, 2006.

2. Quebec Department of Finance, *2007-2008 Budget Plan*, 2007, p. C32.

3. Mathieu Laberge, *Tolls as a solution for financing the road network*, Montreal Economic Institute, October 2007.

FIGURE 1

Per capita stock and investment in transportation infrastructure (1975-2005)



At the Canada-wide level, Infrastructure Canada reports that the accumulated highway infrastructure debt stood at \$17.4 billion in 1997.⁴ The same year, Quebec's Department of Transport noted that it had only 69% of the "average [annual] sum set out in the action plan to ensure overall maintenance of network quality."⁵

Alongside the decline in investment, road use has continued rising. Quebec's highway infrastructure was built based on road use estimates dating back to the 1960s. In 1978, 2.95 million vehicles were using Quebec's roads. By 2005, this number had risen to 5.31 million. The number of vehicles in use grew in the 1990s at annual rates varying between 1.1% and 1.5%. Since early 2000, the number of vehicles in use on Quebec's roads has risen more quickly, at a 2.2% annual rate.⁶

Instability in investment and the growing use of transportation infrastructure are having substantial effects. The annual management report of Quebec's Department of Transport shows that more than one-third of road surfaces it is responsible for were found to be in poor condition in 2005-2006. Even if the target the department set for itself for 2008 is met, 37% of road surfaces will remain in poor condition. The situation looks even

worse when considering structures (overpasses, bridges and others). Although the goal of restoring 55% of structures to good condition seems within reach, it means that barely over half the structures will be in good condition in 2008. Data from the department also show that the proportion of structures in poor condition rose between 2004 and 2006.⁷

To guarantee continuous and adequate maintenance of this infrastructure, new ways of financing and conducting major highway renewal projects must be developed to depoliticize the process. The use of public-private partnerships (PPP) could help meet the challenges the Quebec government will face in rebuilding its highways over the coming years. The PPP model, by helping reduce costs and raising substantial amounts to finance appropriate projects, could help in maintaining the quality of Quebec's roads.

Examples of Quebec projects that fit the PPP model

The Quebec government has drawn up a number of specific conditions that need to be met for a project to be considered for a public-private partnership. For a project to be submitted to the Agence des partenariats public-privé and advance to a comparative analysis of the means of fulfilment, its estimated capital cost would have to be at least \$40 million (among other criteria).

The framework policy on public-private partnerships also specifies that any projects selected must involve a high level of risk and substantial technical complexity to gain maximum benefit from the private sector's potential for innovation. The presence of a competitive construction market for the type of infrastructure in question is another essential characteristic for the success of projects conducted under the PPP model.⁸

Taking account of these selection criteria, it seems that at least three road rebuilding or improvement projects currently under way or about to be started could have been submitted for

Low levels of investment in Quebec's transportation infrastructure caused a continuous decline in its value from 1980 to 2000.

4. Infrastructure Canada, *Municipal Infrastructure in Canada: Issues of Terminology and Methodology*, November 2003, p. 9.

5. Quebec Department of Transport, *Rapport Annuel 1996-1997*, 1997, p. 27.

6. Société de l'assurance automobile du Québec (SAAQ), *Données statistiques 2005*, 2005, p. 6, and calculations by the author.

7. Quebec department of transport, *Rapport annuel de gestion 2005-2006*, 2006, pp. 47-48.

8. Secretariat of the Quebec treasury board, *Public-Private Partnerships Framework Policy*, 2004, p. 1.

TABLEAU 1

Rehabilitation and improvement projects that meet the analytic criteria of the Agence des partenariats public-privé (2007)

Project name	Regional directorate	Total estimated cost	Stage of fulfilment / Length
Laviolette bridge The project aims to replace beams in the bridge as well as guardrails and dilatation joints. As well, the bridge's metallic frame will be strengthened.	Mauricie	\$110 million	2004-2008
Main highway 73/175 The project is intended to redevelop a 6.7-km stretch of route 73 and a 167-km stretch of route 175 by doubling its width.	Quebec City area and Saguenay-Lac-Saint-Jean	More than \$525 million	2002-2010
Modernization of Notre-Dame street The project aims to redevelop a 9-km stretch of Notre-Dame street to improve user safety, promote public transit use and integrate the road with its urban surroundings.	East-end Montreal	\$600 million (June 2005 project)	Agreement between the City of Montreal and the Government of Quebec, signed July 6, 2005

Source: Quebec Department of Transport.

assessment to determine which means of fulfilment, either conventional or PPP, was most appropriate. The modernization of Notre-Dame street in east-end Montreal, improvements to routes 73 and 175 between the Saguenay-Lac-Saint-Jean and Quebec City areas and restoration of the Laviolette bridge in the Mauricie area (Table 1) appear to qualify for analyses of viability by the PPP agency.

Other road renewal projects of lesser scope might also have been brought into larger rebuilding or construction projects, in particular by twinning nearby projects. In isolation, these projects would not have provided sufficient commercial feasibility for their upkeep to be handled by a private partner, but brought together as a group they could have been conducted on a PPP basis.

Many future road rebuilding or improvement projects could be submitted for analysis by the agency with an eye to having PPPs do the job. This applies notably to reconstruction of the 40-year-old Turcot complex, announced by the Minister of Transport in June 2007. This structure handles more than 280,000 vehicles a day, making it a strategic part of Montreal's infrastructure. Plans include the reconstruction of three interchanges and the relocation of a 4.5-

km portion of highway 20. The work, affecting 28 structures in all, is planned for 2009 to 2015. The rebuilding costs are estimated at \$1.2 billion to \$1.5 billion.⁹ The traffic volume and age of the Metropolitan expressway (174,000 daily trips, \$468 million for 2005-2010) and of the Louis-Hippolyte-Lafontaine tunnel and bridge (129,000 daily trips)¹⁰ suggest that these major components of the highway system will need to be renewed in the near future.

It seems that at least three current road rebuilding or improvement projects could have been submitted for assessment to determine if PPPs were appropriate.

By taking the Department of Transport's annual averages for daily flows, indicating daily use of each of the highways mentioned above, and supposing that tolls could be set at \$2 a trip,¹¹ it is possible to evaluate the payback period for the investments required as part of the planned rebuilding work. Slightly over seven years of tolls would be needed to fully finance the rebuilding of the Turcot interchange and nearly four years to finance the 2005-2010 portion of the rebuilding of the Metropolitan expressway.¹²

A framework for success

Some of the conditions required for the success of PPPs are institutional in nature. In particular, the contractual framework

9. Office the Quebec minister of transport, *M-159 – Reconstruction du complexe Turcot : Un investissement de près de 1,5 milliard de dollars – Essentiel à la vitalité de la grande région de Montréal*, June 30, 2007.

10. Quebec Department of Transport, *Débits journaliers moyens annuels sur les ponts et autoroutes de l'île de Montréal*, 2004.

11. Based on the announcement of tolls on the route 25 bridge. See Office of the Minister of Transport, *Parachèvement de l'autoroute 25 en mode PPP : Entente historique qui représente une économie de 226 millions \$*, September 24, 2007.

12. Estimates in undiscounted current dollars. Intended for information only.

must be clear. This means public bodies need well-defined goals and expectations. A contract should set out incentives for the private partner to meet these goals, whether in the form of fines or of bonuses. This also implies equitable sharing of a project's gains, in particular through adequate compensation for the risk assumed by the private partner.¹³

It is also vital that the process leading up to the signing of a public-private partnership agreement be transparent. Two factors promote clarity: rigorous assessment of the means of fulfilling a project (conventional or PPP) and development of expertise in drawing up partnership agreements.¹⁴ Local firms can attain expertise through projects of reasonable size early in the learning process and through contributions from international experts in private consortiums involved in PPPs. Establishing an independent agency responsible for assessing the means of conducting projects and granting contracts to private partners also favours the process's credibility and transparency.

In creating a public-private partnership agency, the Quebec government has equipped itself with the tools needed to implement an objective and transparent process for deciding where to proceed with a PPP project. This agency is also in charge of assessing how to conduct a project and helping the government decide if it should use public-private partnerships or the traditional public form.¹⁵

This assessment is aimed at maximizing the return on public funds, in other words choosing the means for fulfilling a project that meets its goals most effectively. It is intended to compare the cost of a project conducted as a PPP with the traditional practices of public bodies. Public-

private partnerships will be used to conduct projects only if they "clearly offer greater added value for the public funds invested."¹⁶ This assessment process is similar to public comparison systems used in other countries, particularly the United Kingdom and Australia.¹⁷

Because infrastructure requiring maintenance work in the coming years is likely to have been built by companies other than those in charge of handling the maintenance, public-private partnerships in the area of highway renewal must receive particular attention. The private partner responsible for the rebuilding and subsequent management of a highway should not have to assume the risk of the original construction being faulty. Accordingly, a renewal project using a PPP may thus require adjustments to the contract, by both the government and private partners.

Conclusion

Public-private partnerships represent an alternative that is worth considering for highway renewal and improvement projects in the current context. Not only do they offer the required stability and quantity as regards long-term financing, but Quebec also has the institutional conditions at its disposal for dealing with this type of project. Furthermore, some recent or current highway renewal projects could have qualified for analysis by the public-private partnership agency based on the government criteria. PPPs should be viewed from now on as a viable means of handling all highway rebuilding projects and not just new construction. Quebec could thereby provide itself with enviable – and exportable – expertise in the management of highway infrastructure.

Under a PPP, public bodies must have well-defined goals and expectations and contracts must set out incentives for the private partner to meet these goals.



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13. Secretariat of the Quebec Treasury Board, *Le dossier d'affaires : guide d'élaboration*, September 2002, p. 55. See also Benoît Aubert and Michel Patry, "Dix conditions de succès pour des partenariats public-privé", *La Presse*, December 7, 2003.
14. Robert Poole and Peter Samuel, "The Return of Private Toll Road. Department of Transportation", *Public Roads*, March-April 2006, U.S. Department of Transportation, p. 14.
15. Secretariat of the Quebec Treasury Board, *Public-Private Partnerships Framework Policy*, 2004, p. 7.
16. *Idem*, p. 1.
17. See Her Majesty's Treasury, *Value for Money Assessment Guidance*, 2004; Partnerships Victoria, *Public Sector Comparator*, 2001.