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## **The new prevalence of public-private partnerships in the production of Light Rail Transit Systems in Canada**

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# The new prevalence of public-private partnerships in the production of Light Rail Transit Systems in Canada

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## Abstract

To understand why all new light rail transit (LRT) projects under development in Canada are carried out in public-private partnership (P3) rather than through the traditional mode (public administration) that prevailed in the past, this research explores three light rail projects currently underway in Edmonton, Ottawa and Toronto. We study the arguments surrounding each decision leading to the choice of the P3 governance model. We show that in all cases, it is possible to observe the mechanisms of policy transfer, whether voluntary or coercive. Moreover, the argument used by local actors to justify the choice of P3, although similar in several respects, still forms a unique combination of justifications for each case, which leads us to believe that P3s are a versatile policy instrument. These findings demonstrate the importance of taking into account policy transfer at the municipal level and not only transfers that take place between national states.

## Keywords

LRT – light rail – policy transfer – policy instrument – public transit policy – 3P – P3 – PPP – public-private partnership – governance

# 1. Introduction

Several cities in Europe and North America have recently acquired new light-rail transit (LRT) systems. Some also speak of a renaissance of this mode of transport (Layton, 2002). This moving infrastructure, which is sustainable and highly visible, gives an image of dynamism and modernity to the cities that have implemented it. Edmonton, Ottawa and Toronto are planning to build new LRT lines. So far, Canadian light-rail projects have been built and operated under the responsibility and management of the public sector. However, these cities plan to build their new projects in public-private partnerships (P3) yet, according to the literature on the development of public transit in North America, P3s are a rarity for this type of policy (Cohn, 2006; Phang, 2007, p. 214). In fact, a total of 5 LRT projects are currently underway in Canada and they are all developed in P3. We question this new predominance of public-private partnership for the implementation of new LRT lines in Canada as a radical and widespread change. Our research attempts to answer the following question: “How is it that the LRT development projects in Canada that were, until the 2000s, still handled by the public sector are now built in public-private partnership? Why is there such a generalization of a phenomenon, which was rare in North America before that date?” By analysing how three municipal governments (in two provinces) have adopted the P3 model, we can provide some explanation as to the generalization of this mode of governance for these projects. To do this, we formulate two hypotheses: H1: the new dominance of the P3 instrument for realizing LRTs can be explained in part through the mechanism of policy transfer. H2: The P3 model has established itself as a new instrument of public policy in the case of light-rail through its versatile nature. Through three case studies conducted through a literature review, document analysis and comparison between each other, we investigate these hypotheses.

## **2. Theoretical framework**

When looking for a theoretical foundation for this study, we first tried to find a public administration theory to explain and predict the new predominance of P3s for LRT projects and the changeover from an “all public” era before to an “all P3” era afterwards. As no theory has seemed convincing to explain and predict the phenomenon that interests us, we came to build our own theoretical framework using theoretical tools stemming from two approaches to public administration, namely policy transfer and policy instruments.

### **2.1 Policy transfer**

Dolowitz & Marsh (1996, p. 344) define policy transfer as “[...] a process in which knowledge about policies, administrative arrangements, institutions etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place”. They distinguish two types of policy transfer: voluntary and coercive. Voluntary transfers include cases where policies implemented elsewhere were discussed by politicians for their potential use in another political system (ibid., p. 345). Coercive transfers are those where a government forces (explicitly or not) another one to adopt a particular public policy (ibid., p. 347). For example, the federal government ratifying an international treaty that forces the provincial governments to act in a certain way.

### **2.2 Policy instruments**

Several authors have discussed policy instruments from a functionalist perspective. According to proponents of this literature, policy instruments are perceived by policy actors in a functional outlook, they are chosen according to their functions rather from a rational perspective (Lascombes and Le Galès, 2007, p. 3). One of the frequently used definitions is that of Howlett (1991, p. 2) indicating that policy instruments are: “[...] the generic term provided to encompass the myriad techniques at the disposal of governments to implement their public policy objectives”. Howlett (ibid., p. 4) tells us that the choice of instrument for policy makers is circumscribed by the social, economic and political conditions surrounding the adoption of the policy. The choice of policy instruments is constrained to certain instruments or a particular instrument and can be greatly influenced by the specific context (ibid.). In addition to those that classify the types of instruments according to the functional approach, some have looked in particular on the effects of instruments and the power relations they articulate. Proponents of this approach believe that the instruments can reveal changes in public policy and allow to analyse the transformation of the contemporary state (Lascombes and Le Galès, 2004, p. 357). They define policy instruments as “a device considered as both a

social and technical tool that organizes specific social relations between public authorities and the recipients based on representations and meanings it conveys” (ibid., p 13). The choice of the type of instrument, its specific properties and the justification given by actors to explain their choice are important for Lascoumes & Le Galès who consider these facts “more revealing than statements of motivations and subsequent discursive rationalizations” (ibid., p. 28).

### **3. Operational framework**

#### **3.1 Light rail transit**

Light rail transit (LRT), streetcars or trams (known as “tramway” in French) are sometimes considered to refer to different means of transportation. In our case, we consider them to be the same. According to De Leuw, Gather and Company (1976, p. 10), the classical definition of modern LRT is:

Light rail transit is a mode of urban transportation utilizing predominantly reserved but not necessarily grade-separated rights-of-way. Electrically propelled rail vehicles operate singly or in trains. LRT provides a wide range of passenger capabilities and performance characteristics at moderate costs.

This definition reminds us of two important aspects of LRTs compared to subways: they can share their way with other types of vehicles and are less expensive<sup>1</sup>.

#### **3.2 Public-private partnership (P3)**

Collaboration between the public sector and the private sector are not new, but in the past, government projects remained under the control of public actors. With public-private partnerships (P3), this control has become more diffuse, the private sector now sharing a part of it. For this research project, we use a particular definition of P3s typically used in the public administration literature. Just like several authors (Cohn, 2006; Hodge, 2004; Phang, 2007; Rouillard, 2006), we are referring to a complex and long-term contractual agreement for the realization by the private sector of a project providing a public service or public infrastructure.

According Siemiatycki (2005, p. 70), in the Canadian context, budget cuts at the federal and provincial levels and the ensuing offloading of responsibilities to the municipalities are putting cities in a difficult position with respect to their responsibility for providing public transit services. Under these circumstances, it may seem attractive for governments to transfer these projects to the private sector, since generally public transit runs at a loss and require large subsidies (Cohn, 2006, p. 14). In addition, as Hodge mentioned (2004, p. 46): “[t]he private finance of public infrastructure presents government with a mega-credit card facility

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<sup>1</sup> On average, the cost per mile of transit is (in constant 1990 dollars): Bus on it’s own right of way: 10.24 M \$ (9.4 M CHF); LRT: 26.4 M\$ (23,6 M CHF); Subway: 128.2 M\$ (114 M CHF) (Zhang, 2009).

that is clearly attractive in the short term”. Moreover, LRT projects represent a very important type of P3, when measured by the size of the required investments (Phang, 2007, p. 229).

## 4. Methodology

In order to enable our analysis to draw general conclusions on LRT projects in Canada, we decided to treat multiple cases in order to attempt to ensure the generalizability of our results with the intention of obtaining conclusions that are valid across Canada. We have therefore had to consider cases in several provinces. But there are currently only 5 LRT projects currently under development in Canada<sup>2</sup> and they are all using the P3 model. Therefore, we chose to study at least 3 cases from no less than 2 provinces. Following an evaluation of the documentation available for the 5 cases, we selected three LRT projects that are under way: the Southwest LRT in Edmonton, the Confederation line in Ottawa and the Toronto Crosstown line. For each of these new LRT P3 projects, we developed a case study on the project's history, its political context as well as the decision-making process leading to choosing the P3 model for the implementation of a new LRT line. To produce each case study, we analysed the deliberations of local governments, local newspapers as well as official documents. We then compared our three case studies as well as the case of Vancouver, which was already well documented in the academic literature, in order to identify commonalities and differences.

### 4.1 Analytical grid

In order to verify the presence of policy transfer and the versatility of P3s in our case studies, we have developed an analytical grid. This grid is divided in two parts, one for each of our hypotheses. The grid is the result of a hypothetico-inductive approach where, as Chevrier (2009, p. 73) reminds us of “the development of the research problem does not occur from the structuring of general concepts and broad proposals but is achieved in the iterative formulation of questions from the meaning given to a concrete situation”<sup>3</sup>. With this in mind, we first carried out the press review for the case of Edmonton. Throughout the preparation of this press review, as we gathered articles and the history of the light rail project took shape, we put these data in relation to the six questions proposed by Marsh and Dollowitz (2000, p. 8) in order to study policy transfer. Once we completed the press review, we developed a unique grid taking into account the elements identified in the case of Edmonton. We then reviewed the articles documenting the case of Vancouver in light of these questions and developed our analysis grid for hypothesis 1 (see table 1). In the end we have not fully

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<sup>2</sup> Burnaby, Edmonton, Ottawa, Toronto et Waterloo

<sup>3</sup> Our translation.



incorporated the questions of Dollowitz Marsh since the data collected in Edmonton and Vancouver did not allow responding all of them properly.

Table 1 – analytical grid for hypothesis 1 – policy transfer

Variable	Indicator
Refers to other exemplar P3 LRT cases	Local elected officials mention other cases of P3 LRT in the justification for choosing the P3 model, recall the positive experiences of other P3 LRT projects as best practices
Refers to other cities, other types of P3 projects	Local elected officials mention other cities or other types of P3s in justifying the P3 model, remind us of positive P3 experiences in other cities for other types of projects
Mimetic isomorphism	Demonstrated isomorphism by replicating an institution from another case by referring to it directly
Learning mechanisms	The presence of study trips, lesson sharing, visits to other similar projects, participation in conferences
Coercive transfers	Mention of an obligation to proceed with P3, imposition of the P3 model by the federal government, imposition of the P3 model by the provincial government, conditional funding
Reasons why political stakeholders participate in policy transfer?	Justifications presented by the actors explaining why they should be inspired by other cases and effectively transfer policy
If there is policy transfer, what is transferred?	Management mode, mode of governance, process for selecting bidders, etc.
If there is transfer, who is involved, who are the actors of policy transfer?	When indicators of the presence of policy transfer are detected, who is involved? Elected officials, manufacturers, consortia, other levels of government, interest groups, consultants?
Presence of private actors in the policy transfer	Reference to reports by consulting firms, contract with consulting firms, role of firms bidding on P3, presence of unsolicited P3 proposals. Presence of a virtuous circle where private actors involved in the decision to go with a P3 are also players in the implementation of P3s

We followed a similar approach to develop the grid used to analyse the second hypothesis. We first identified the qualities attributed to P3s in the academic literature, which we organized thematically (internal and external qualities of the instrument). We then juxtaposed this long list to the qualities that have emerged from the case of Edmonton and Vancouver. Our analytical grid for hypothesis 2 (see table 2) is the result of the fusion of qualities expressed in the scientific literature and those that emerged from reading the articles in the case of Vancouver and during the creation of the press review for the Edmonton case. For example, we added to the grid an indicator to capture the presence of unsolicited turnkey projects which appeared in the Edmonton press review, but that was not mentioned in the

scientific literature considered. We also added to the grid an indicator to capture all the other elements representing the versatility of P3s which did not appear in the grid, but that would be found in our cases as well a space to take note of the type of P3 agreement reached.

For each of our case studies, we applied and completed the analytical grid, which allowed highlighting the important points to test our two hypotheses. By bringing together and comparing the results obtained for each case, we can test our hypotheses. For the policy transfer, we can conclude on the probable validity of our hypothesis if there were tell-tale signs of policy transfer in each case. For the versatility of P3s, we can conclude that they are indeed versatile if the combinations of arguments leading to the choice of P3 are different for each case studied.

Table 2 – analytical grid for hypothesis 2 – versatility of P3 as a policy instrument

<b>Variable</b>	<b>Indicator</b>
Unsolicited turnkey P3 LRT project proposal by the private sector	The local press or official documents mention the existence of proposals for unsolicited turnkey P3 LRT projects by the private sector.
Axiological motives (ideological choice, value based choice, political choice)	Presence of normative ideological justifications in the discourse of local elected officials to justify the P3 model. E.g. open market, improved governance, political complexion of the project.
Delegitimization of traditional instruments, breaking with the past	Using arguments that delegitimize the traditional model (public) for the construction of LRTs while legitimizing the P3 model. The presence of justifications relating to a rupture with the past
Internal qualities of the P3 model: project completed faster	The presence of justifications relating to timeliness and avoidance of delays by the private sector in the discourse of local elected officials to justify the P3 model
Internal qualities of the P3 model: private financing	The presence of justifications relating to the contribution of private financing and the reduction of public debt to justify the P3 model
Internal qualities of the P3 model: less expensive, more effective	The presence of justifications relating to savings compared with traditional public project in the discourse of local elected officials to justify the P3 model. Appeal to the more favourable cost / benefit ratio associated with the P3 model
Internal qualities of the P3 model: higher quality infrastructure	The presence of justifications relating to better production quality compared with traditional public project in the discourse of local elected officials to justify the P3 model
Internal qualities of the P3 model: risk transfer, fixed costs	The presence of justifications relating to risk sharing, the possibility of fixed costs compared with traditional public project in the discourse of local elected officials to justify the P3 model
Other justifications in favour of the P3 model	Take note of other justifications developed in the discourse of local elected officials and identify those that are common / unique between different cases.
Type of P3 agreement	Take note of the type of P3 agreement reached

## **5. Discussion and results**

### **5.1 Policy transfer**

Through the construction of our case studies, we have taken note of elements specific to each case that demonstrated some aspects of policy transfer previously identified. We note that in our three cases and in the case of Vancouver, we detected several features identified as indicators of policy transfer. As shown in table 3, our results demonstrate that the choice to develop the new LRTs in Canada using the P3 model can be partly explained through the mechanism of policy transfer resting as much on voluntary transfer by local governments as on coercive transfer from higher levels of government. Admittedly, the presence of policy transfer in each case may be variable, probably stronger in Edmonton and Ottawa than in Toronto or Vancouver, but nonetheless, we detect the presence of policy transfer for all LRT P3 projects analysed. In addition, some elements of policy transfer are present in all cases. Indeed, in the three P3 LRT projects that we studied, policymakers refer to other cases of LRT P3 projects to justify their decisions to opt for the P3 model in their own undertakings. These justifications are reflected in our analytical grid by the presence of voluntary transfer in all cases analysed. The analytical grid also reveals that in all cases, local decision-makers justify the choice of the P3 model by referring to conditional funding by senior levels of government (federal or provincial) based on the P3 model. This means that in all cases, if the light rail project was developed through the traditional mode (public sector), the project would not succeed in obtaining funding from senior levels of government or would get inferior funding. This is reflected in our analytical grid by the presence coercive transfer in all cases analysed. It is therefore possible to say that the decision to develop the new LRTs in Canada using the P3 model can be partly explained through the mechanisms of policy transfer and relies on both the voluntary transfer between local governments and the coercive transfer from higher levels of government. As these elements recur in all cases, and that the federal government plays a similar role in all provinces in the funding of public transit we believe it is possible to say that coercive transfer plays a role in the choice of the P3 model for all new LRT projects in the country. This is not very surprising if one takes into account an announcement in 2006 by the Minister of Finance of the Conservative federal government stating that: “[t]he Government will also encourage the development and use of P3 best practices by requiring that P3s be given consideration in larger infrastructure investments that receive federal program funding” (Flaherty, 2006, p. 68).

Table 3 – Results for hypothesis 1 – policy transfer

Variable	Present in Edmonton	Present in Ottawa	Present in Toronto	Present in Vancouver*
Refers to other exemplar P3 LRT cases	✓	✓	✓	
Refers to other cities using other types of P3				
Mimetic isomorphism	✓			✓
Learning mechanisms	✓	✓		
Coercive transfers	✓	✓	✓	✓
Reasons why political stakeholders participate in policy transfer?				
If there is policy transfer, what is transferred?	✓			
If there is transfer, who is involved, who are the actors of policy transfer?	✓	✓	✓	✓
Presence of private actors in the policy transfer	✓	✓		✓
<b>Number of indicators in each case</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>4</b>

\* Based on a literature review of academic articles studying the case of Vancouver

Despite the fact that two key elements of our analytical grid (the voluntary transfer and coercive transfer) have proved useful for the analysis since they were present in all cases, it is important to mention that two elements of our analytical grid were not detected in any of the cases. Indeed, we have not registered any instances where policymakers discuss other cities that have adopted the P3 model in general, they refer specifically to P3 LRT projects carried out in other cities, but do not appeal more broadly to other cities who have had recourse to P3s in other sectors. This is somewhat surprising since we expected that actors participating in the policy transfer of the P3 model for LRTs would refer to examples of municipal governments that have successfully used P3s in other sectors such as recreation or wastewater

treatment, which are common in Canada. The absence of reference to these other types of P3 projects in the rationale leads us to believe that policy transfer of the P3 model is specific to each policy sector, which could explain why the actors have only used cases of public transit P3s in their arguments. The specific nature of the cases used as examples could be explained by the involvement of the actors of P3 policy transfer in a policy network or policy community built around the public transit sector.

Another element of our analytical grid remained empty. Our analytical grid included a section to capture the reasons given by the actors in explaining the transfer of the P3 model, but none of our sources mention an actor relating explicitly that they implement a policy transfer or are inspired by this concept. This is no surprise, but it demonstrates that the policy actors are not explicit on the policy transfer in which they participate. Is it because they do not realize they are implementing policy transfer or because they prefer to conceal the fact or is it simply the result of our methodological choices? As this item was not part of our main inquiry attempting to establish the presence of policy transfer rather than explain the rationale behind it, we are not able to answer this question, but future research could investigate further this aspect by questioning the actors about their participation in policy transfer through interviews.

We also note the singular presence of private sector actors such as consultants, suppliers, engineering firms and banks in the process a policy transfer in the case of Edmonton, Ottawa and Vancouver. This enables us to corroborate the results of Holden (2009) and Stone (2004) who reported the particular presence of private actors in the policy transfer when it comes to public-private partnerships.

## **5.2 Policy instruments**

We also believe that the fact that P3 has established itself as a new instrument of public policy in the case of LRTs in Canada can be attributed to its versatility as a policy instrument. That is to say that P3 can take many forms and adapt to many different situations. By studying each of our cases, we have taken note of the arguments used by the actors to defend their choice of the P3 model for new LRT projects. As shown in table 4, some arguments are used in all the cases studied (delegitimization of traditional instruments, private funding, savings and increased efficiency, risk transfer and fixed cost), but some arguments are used only in some cases, each case involving a unique combination of specific features of the P3 policy instrument. The disparity observed in the various combinations of arguments used to justify each of our case studies as well as Vancouver reveals a certain versatility of P3s.

In addition to the differing arguments in the cases studied, the very form of P3 also differs. Indeed, the Edmonton P3 will see the establishment of an DBFOM<sup>4</sup> type agreement where the private partner will be responsible for design, construction, part of the financing, the daily operations of the LRT as well as its maintenance while the P3 in Ottawa and Toronto are developed using to the BDFM<sup>5</sup> model for which the public partner retains responsibility for daily operations, demonstrating another aspect of the versatility of P3s for the LRT sector. However, our finding of P3 versatility is less sustained than in the case of policy transfer. Obviously, the fact that four of the nine elements are present in all the cases studied and that three of the nine elements are also found in the case of Vancouver demonstrates the existence of some general argumentation on the choice of the P3 model.

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<sup>4</sup> Design Build Operate Finance Maintain

<sup>5</sup> Design Build Finance Maintain

Table 4 – results for hypothesis 2 – versatility of P3 as a policy instrument

Variable	Present in Edmonton	Present in Ottawa	Present in Toronto	Present in Vancouver*
Unsolicited turnkey LRT P3 project proposal by the private sector	✓	✓		
Axiological motives (ideological choice, value based choice, political choice)		✓	✓	✓
Delegitimization of traditional instruments, breaking with the past	✓	✓	✓	
Internal qualities of the P3 model: project completed faster	✓	✓		✓
Internal qualities of the P3 model: private financing	✓	✓	✓	✓
Internal qualities of P3 model: less expensive, more effective	✓	✓	✓	✓
Internal qualities of P3 model: higher quality infrastructure				✓
Internal qualities of P3 model: risk transfer, fixed costs	✓	✓	✓	✓
Other justifications in favour of the P3 model		✓		✓
Type of P3 agreement	DBFOM	DBFM	DBFM	DBFM
<b>Number of indicators in each case</b>	<b>6</b>	<b>8</b>	<b>5</b>	<b>7</b>

\* Based on a literature review of academic articles studying the case of Vancouver



## **6. Conclusion**

According to our analysis, the new prevalence of the P3 model of governance observed in the implementation of new LRT projects in Canada, which we dubbed the “transition to the P3 model for LRTs in Canada”, can partly be attributed to the mechanisms of policy transfer. Since we detected and documented the presence of indicators of policy transfer as presented by Dolowitz and Marsh (2000) in all cases studied, as well as in Vancouver's case, we believe we have demonstrated the contribution of this phenomenon to the new enthusiasm for P3s in this policy sector. In studying the argumentation for the choice of the P3 model, we also revealed that in all cases a unique combination of arguments appeared, which shows the versatility of P3 model. It is not possible to directly link the versatility of P3s to the choice by the actors for this mode of governance, but we can say that the comprehensive list of arguments goes far beyond the mere economic rationale for the provision of private funding which is generally minimal in the end. Nevertheless, we still conclude that the combination of policy transfer and P3 versatility that we have demonstrated are certainly factors that enhance the attractions unique to this mode of governance and thus come to help explain some of the new prevalence of the P3 model for LRTs in Canada since the 2000s.

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