



Paying for Transportation Infrastructure

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Two key principles of infrastructure finance

1. Financing and Funding



2. Fund Capital and Operations



1. Paying for Transportation: Financing

- Debt
 - Bonds
 - Private equity
 - Hedge Funds
 - Pension funds/institutional investors
 - Development bank loans
-
- Each financing sources comes with different risk/return profiles, time horizons, level of active investment, and investment terms and conditions

1. Paying for Urban Transportation: Funding

User Fees: Impact on Demand

- Transit fares
- Road tolls
- Congestion charge
- Parking levies
- Fuel taxes

- Are user fees fixed or variable?

Alternate Revenue sources: No Impact on Demand

- Property tax
- Sales tax
- Personal Income tax
- Payroll Tax
- Hotel/Recreation Tax
- Vehicle Registration fee
- Land Transfer tax
- Land value capture
- Utility bill levy
- Billboard tax
- **International aid (non repayable)**
- **Grants/ financial support from senior government**

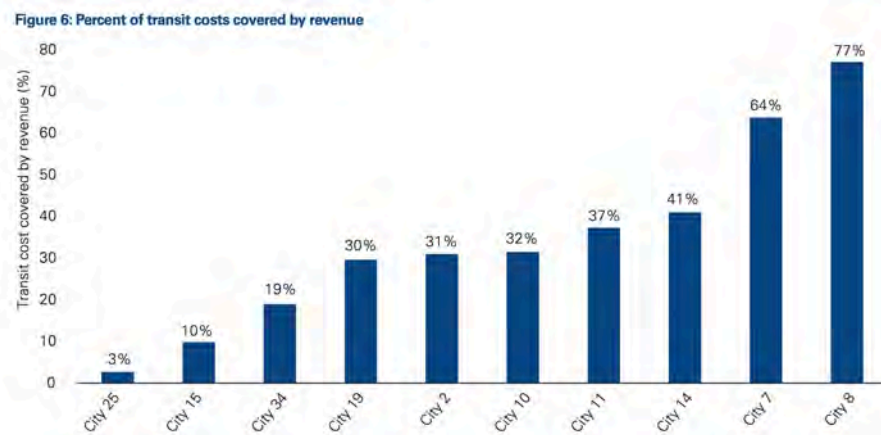
Types of Development

Bank/Government Financing Support

- **Direct loans:** An infrastructure bank would provide low interest loans directly to governments and/or private project sponsors to finance infrastructure in selected priority areas. The loan would be repaid to the infrastructure bank by the borrower, either from user fees on the facility, or from other general tax revenues collected.
- **Credit Enhancement:** This refers to a variety of measures that improve the chances that loans will be repaid by the borrower. They can be used to encourage lenders to lower interest rates, increase the length of the loan term, or support lending to governments or firms with lower than typical credit profiles. A CIB could offer a variety of credit enhancement services to public and private sector infrastructure project sponsors:
 - Loan Guarantees
 - Loan loss reserve
 - Loan loss insurance
 - Subordinated debt

Transportation Cost Recovery from Revenues: BRT will likely require government subsidy

Transit: Does not recover costs



“Rea Vaya’s fare recovery ratio—currently 32 percent—is also far below Latin America’s, where ratios typically range above 80 percent.”

Roads: Mixed record



Transport Mega-Projects and Risk: Optimism Biases

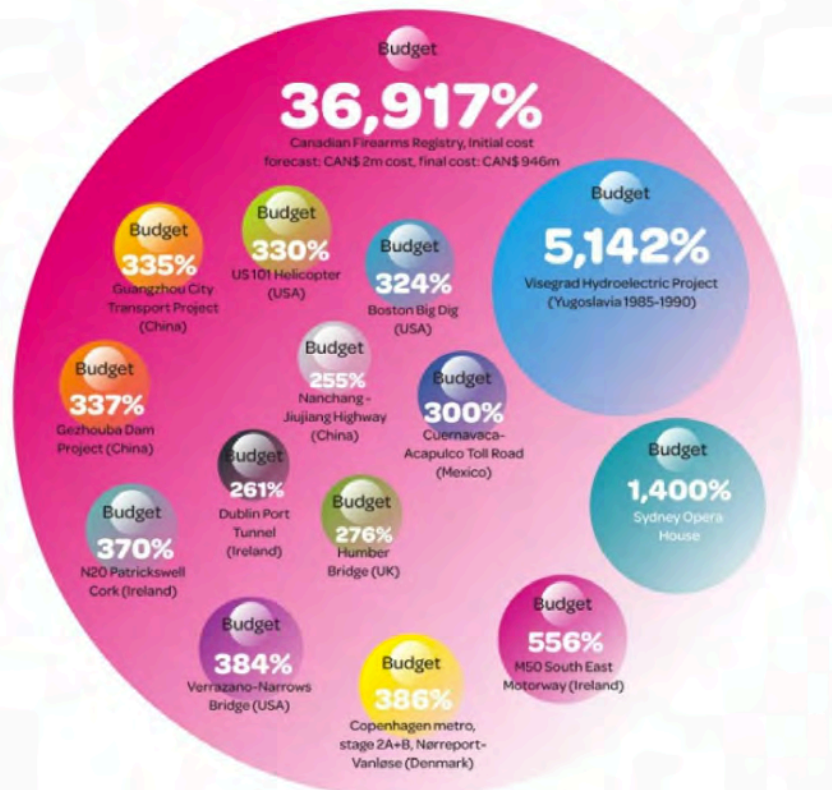
- Mega project risk: By the numbers

Costs

- 9/10 projects experience a cost overrun
- Average size of cost overrun for all project types is 28%
- Average overrun for transit projects is 45%
- Average overruns of roads is 20%

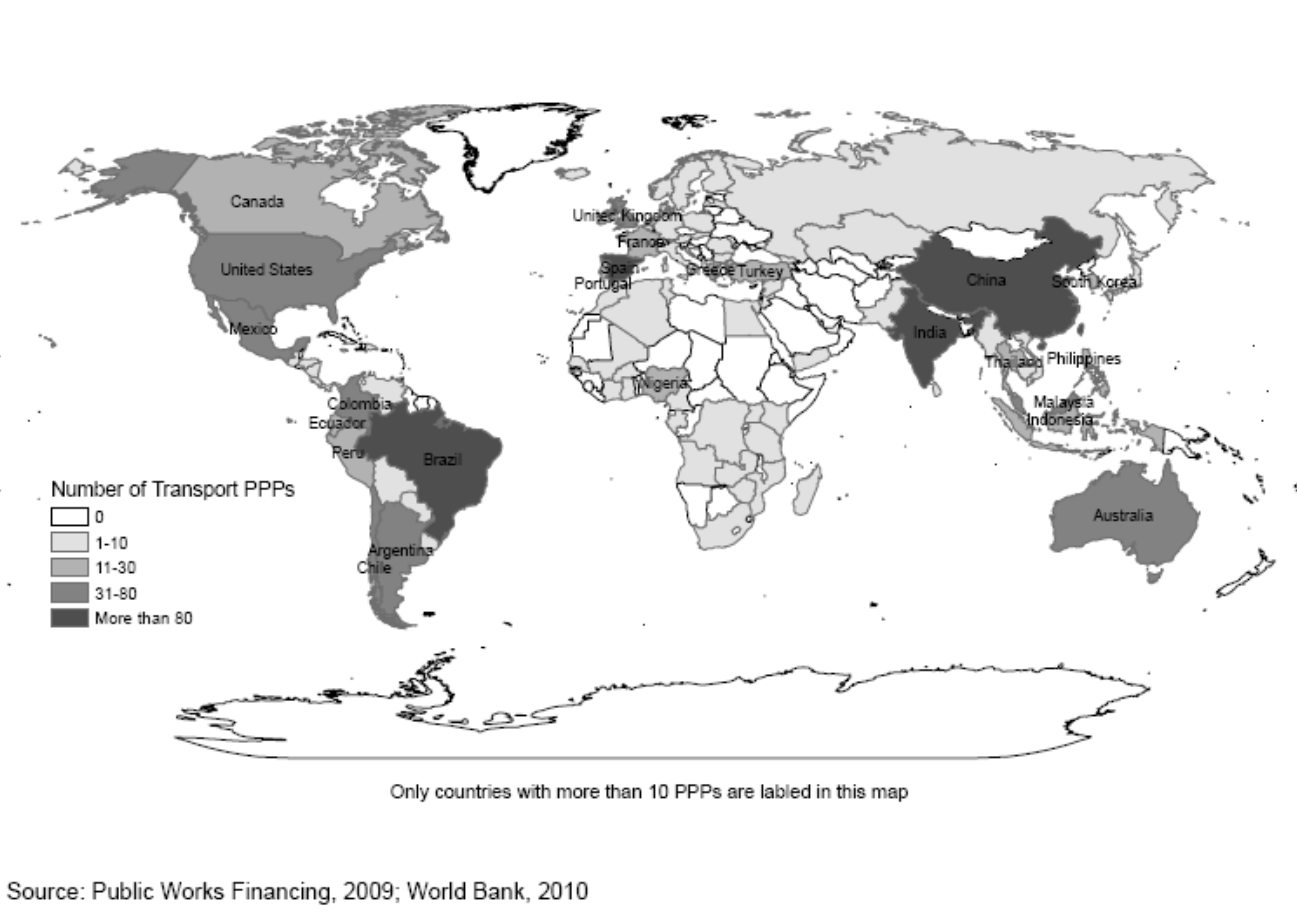
Demand

- For 9 out of 10 rail projects, passenger forecasts were overestimated;
- the average overestimation is 106%.
- Example Rea Valley BRT:
 - Ridership Estimate – 162,000
 - Actual Ridership – 60,000
- Pattern unchanged for 70 years that data is available



Transportation PPPs: Overview of International Experience

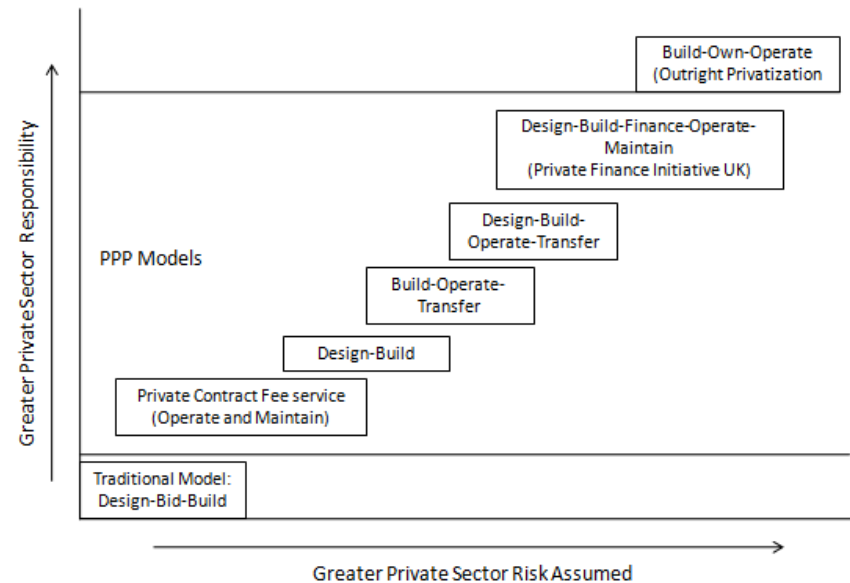
Figure 1. Number of Transportation PPPs by Country, 1984-2009



Models of Public-Private Partnerships to Deliver Large Infrastructure Projects

Three Key dimensions define PPP

1. **Bundle:** Which aspects of project delivery are included in the PPP bundle
2. **Risk:** Which risks are transferred to the private sector (construction; availability; demand)
3. **Payment mechanism:** How is initial financing repaid (user fees, shadow tolls; availability payments)

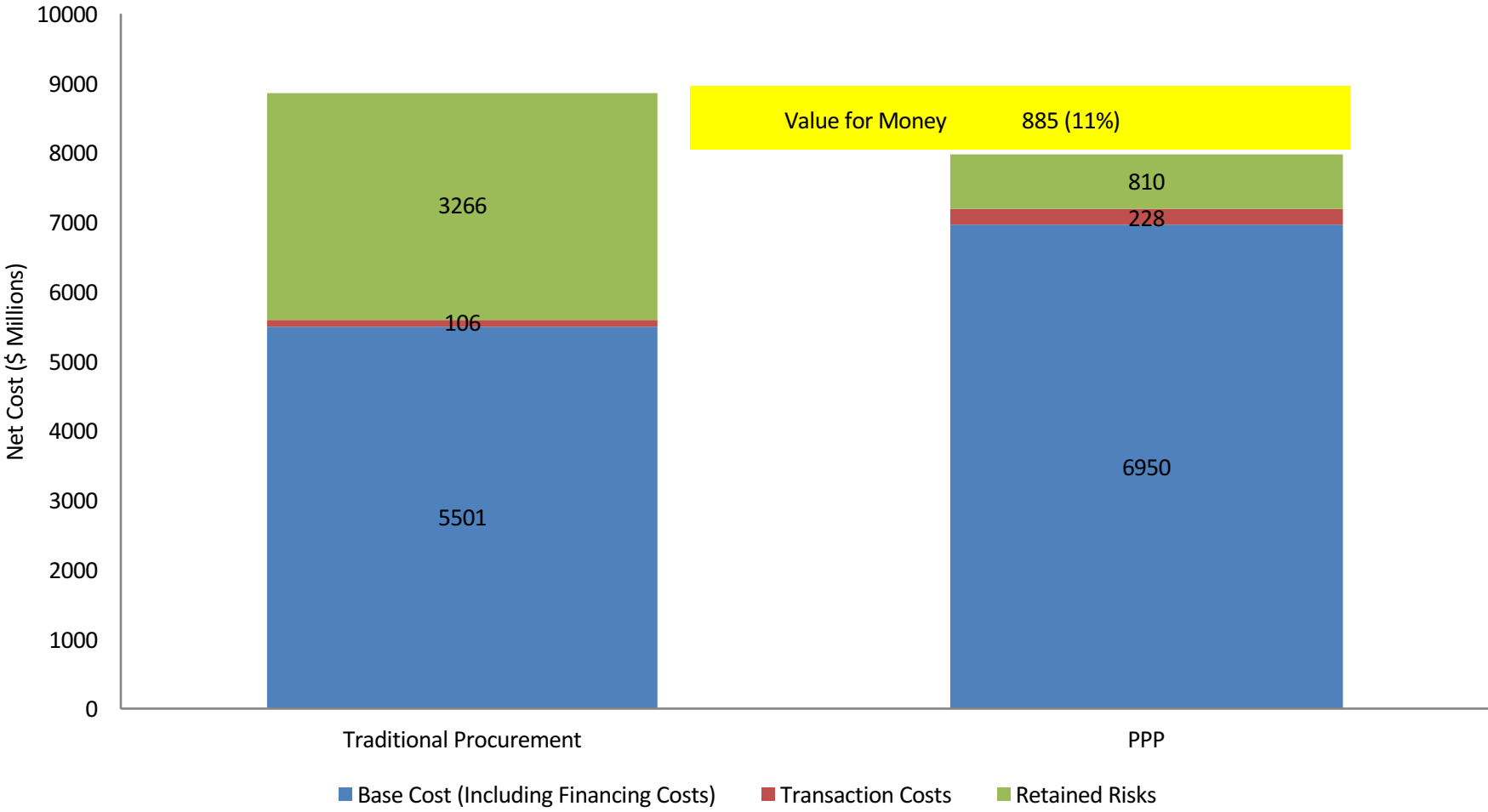


(Source: CCPPP, 2009)

PPP Motivations and Concerns

Motivation for PPP	Concern with PPP
Raise private money to pay for capital costs of infrastructure	More costly than when delivered using traditional methods; windfall profits
Stimulate innovative project designs	Non-competition clauses limit system wide planning and service integration
Bring expertise to sectors without local experience in project delivery or operations	Contractual obligations reduce long-term policy flexibility – introduces political risk
Deliver value for money by transferring project risks from the public to the private sector	High need for data confidentiality can limit meaningful public consultation
Encourage competition to bring down project costs and improve efficiency	High frequency of contract renegotiations, often benefiting contractor

Are PPPs Value for Money?



Demand Risk Transfer: Long-Term Experience with Early Transit PPPs Unsuccessful

LAS VEGAS SUN

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Las Vegas Monorail files for bankruptcy protection



TIFFANY BROWN

The Las Vegas Monorail is shown Monday, June 22, 2009. The Las Vegas Monorail Company filed for Chapter 11 bankruptcy protection Wednesday, Jan. 13, 2010 but will continue to operate, company officials said.

London Evening Standard KPMG cutting through complexity KPMG's Advisory Services in Management Consulting [Learn More](#)

Mayor 'forced' £98m buyout of Croydon tram service

Dick Murray, Transport Correspondent

Transport Editor

18 March 2008

Mayor Ken Livingstone has bought out Croydon Tramlink in a deal costing £98 million.

But the move has triggered accusations that he forced the deal through by deliberately undermining the company.

Tramtrack Croydon Ltd has been engaged in a bitter battle with London's transport chief Peter Hendy over the future of the Tramlink, which carries 25 million passengers a year.

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‘allocating all demand risk to private operators has a poor track record’

World Bank, 2010

New Risk Allocations Making Transit PPPs More Viable



Integrating Transportation and Land Use into PPP?



Conclusions: Setting the conditions for Successful Sustainable Transit PPPs



P3s aren't always the ticket for transit

December 11, 2011

Matti Siemiatycki

Public-private partnerships are quickly gaining interest as the model of choice to deliver Toronto's next generation of public transit infrastructure. P3 options are currently being explored for the TTC's Sheppard subway extension and the province-led Eglinton crosstown light rail line.

With a combined development cost estimated at nearly \$13 billion, these will be two of the biggest and most important infrastructure projects in the region, aimed at combatting congestion, stimulating economic growth and shaping future development patterns for decades to come.

Needless to say, it is imperative that these transit projects are done right. But there is vigorous debate about whether P3s can deliver satisfactory benefits for transit users, workers and taxpayers.

Some costly P3 failures, including the government buyout of the underperforming Croydon Tramlink light rail line in London and the bankruptcy of the Las Vegas Monorail P3, have raised questions about the merits of P3s in

1. PPP works best when government maintains control over long term planning, with flexibility to make changes over time
 - Conflicts between partners arise when contracts are inflexible to change
 - **Demand risk likely shared rather than transferred**
2. Contract must be structured to ensure seamless integration between public and private system: user should not be able to tell the difference
3. Governments on same page at outset to limit jurisdictional disputes
 - Costs of competing visions can be magnified due to contracts with private sector partner
 - Conflicting public policy can limit viability of the concessionaire or cause legal disputes
1. Ensure complementary land use development is part of the upfront planning process, and is consistent with the PPP structure

Communicating transport plans and building local support



WHAT WOULD YOU DO FOR
3?

FOLLOW SHARE

THERE'S A REASON WHY
WE NEED A BETTER TRANSPORTATION SYSTEM.

PLEDGE YOUR SUPPORT

WHO HAS PLEDGED | : Linda W, Hamilton : Kevin C, Milton : Allanlee C, Toronto

Actually, there are 32.

There's a plan to dramatically improve transportation in the Greater Toronto and Hamilton Area (GTHA) – one that will deliver more jobs, time with family, and healthier communities. But we need our politicians' bold leadership to make it happen.

So make your voice heard. Tell your elected officials it's time to invest in a better transportation system for everyone.

PLEDGE YOUR SUPPORT NOW

SHARE

REASON OF THE DAY

REASON #32
THIS IS OUR CHANCE TO CONTRIBUTE TO A BETTER FUTURE FOR OUR CHILDREN AND FAMILIES

SEE MORE REASONS

WHO HAS PLEDGED

187 | **7108**
ELECTED OFFICIALS | GENERAL PUBLIC

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