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Infrastructure and PPP in Canada and Developing Countries

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What are P3s?

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Four key attributes:

1. A public good or service delivered in partnership with the private sector
2. Risk allocation consistent with party best able to manage it
3. Whole of lifecycle costing (design and maintenance obligations are bound together)
4. Private finance

Revenue risk vs. Availability

- Government backstopping the payments
- User pay models
 - All or part
- Project finance and bankability
 - No stranded risk
- Traffic risk
- Greenfield vs. brownfield

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Canadian Infrastructure Experience

History of PPP in Canada

- First introduced in Canada in mid to late 90s, however, really
 - gained momentum in 2004/2005
 - Currently we are seeing 10-15 deals procured each year
 - Entities actively procuring PPP solutions include:
 - British Columbia
 - Alberta
 - Manitoba
 - Ontario
 - Québec
 - New Brunswick
 - Federal
 - Various municipalities
- Broad cross-country support

Dedicated Canadian PPP Agencies



Alberta Infrastructure and Transportation



INFRASTRUCTURE
ONTARIO
An agency of the Government of Ontario

Infrastructure Ontario



Québec

Infrastructure Québec



partnerships
British Columbia

Partnerships British Columbia



New Brunswick
Nouveau Brunswick

Partnerships New Brunswick



Infrastructure
Canada

PPP Canada Inc.

Notable Recent Canadian Transactions

A total of ~ \$50bn Canadian PPP Projects have been awarded to 2012

| Ontario (~\$23bn) | British Columbia (~\$10bn) | Quebec (~\$7bn) | Alberta (~\$5bn) |
|--|---|--|--|
| <ul style="list-style-type: none"> • Air Rail Spur Link • Billy Bishop TCA Tunnel • Highway 407 East - Phase 2 • Ottawa LRT • Pan-Am Games Projects • Humber River Regional Hospital • Halton Healthcare Services • Windsor Essex Parkway • St. Joseph's Healthcare Hamilton • Centre for Addiction and Mental Health (CAMH) • Toronto South Detention Centre • Bridgepoint Hospital • Niagara Health System • North Bay Health Centre • Durham Courthouse • New Data Centre | <ul style="list-style-type: none"> • Interior Health and Surgical Centre Project • KGH Clinical Support Building • Evergreen Line • Singe Room Occupancy Renewal Initiative • South Fraser Perimeter Road • Golden Ears Bridge • Kelowna Vernon Hospital • Sea to Sky Highway • Royal Jubilee Hospital • Fort St. John Hospital • Surrey Memorial Hospital | <ul style="list-style-type: none"> • CHU Ste-Justine • Lachine Rail Maintenance Facility • Centre Hospitalier de l'Universite de Montreal (CHUM) • McGill University Health Centre (MUHC) • CHUM Research Centre • Autoroute 30 • Montreal Concert Hall | <ul style="list-style-type: none"> • Alberta Schools I • Alberta Schools II • Alberta Schools III • SE Stoney Trail • NE Stoney Trail • NW Anthony Henday Drive • SE Anthony Henday Drive • NE Anthony Henday Drive • Evan-Thomas Water Treatment and Wastewater Treatment Facility |
| | <p>Manitoba (~\$0.3bn)</p> <ul style="list-style-type: none"> • Disareli Bridge • Chief Peguis Trail | <p>Atlantic Canada (~\$2.1bn)</p> <ul style="list-style-type: none"> • NB Route 1 Gateway • NB Trans-Canada Highway • FM Highway • Highway 104 • Confederation Bridge | <p>Canada (Federal \$1.1bn)</p> <ul style="list-style-type: none"> • CSEC – LTAP (DND) • RCMP Headquarters (Surrey) |

Current Canadian Pipeline

| Ontario | British Columbia | Quebec | Municipalities |
|---|---|--|--|
| <ul style="list-style-type: none"> • East Rail Maintenance Facility • McMaster Children's Health Centre • Providence Care Hospital • Public Health Laboratory at MaRS Centre • Sheppard East Maintenance and Storage Facility • Peel Memorial Centre for Integrated Health and Wellness • The Region of Waterloo's Rapid Transit System • ErinoakKids Centre • Highway 407 East - Phase 2 • Joseph Brant Hospital • Sheridan College • St. Michael's Hospital • Eglinton Crosstown LRT and Scarborough LRT Lines | <ul style="list-style-type: none"> • BC Children's and BC Women's Redevelopment Project • McLoughlin Wastewater Treatment Plant Project • Emily Carr University Project • John Hart Generating Station • Kitsilano Secondary School • North Island Hospitals Project • Oak Bay High School Replacement Project • Okanagan Correctional Centre • Queen Charlotte/ Haida Gwaii Hospital Replacement Project • Vernon Jubilee Hospital <p>Other</p> <ul style="list-style-type: none"> • Iqaluit Airport | <ul style="list-style-type: none"> • Aerotrain • Hotel Dieu Hospital • CHU Ste-Justine • Quebec Detention Centres • Turcot Interchange <p>Saskatchewan</p> <ul style="list-style-type: none"> • Snow Storage and Decontamination Facility • Regina Stadium • Saskatchewan Data Centre • Regina Water Treatment <p>Alberta</p> <ul style="list-style-type: none"> • Edmonton LRT <ul style="list-style-type: none"> • Lac La Biche Water and Wastewater Treatment | <ul style="list-style-type: none"> • Barrie Transit Project • Calgary Recreation Centres • Sudbury Waste Management • Calgary Waste to Energy • St. John Water <p>Canada (Federal)</p> <ul style="list-style-type: none"> • Pont Champlain • Ottawa Heating & Cooling • La Mason de Radio Canada Development Project • Detroit River International Crossing • Energy Services Acquisition Program |

Process Integrity in Canada

- Published project schedule
- Market consultation
- Clear RFQ and RFP process
- Project Agreement commentary
- Design and Specifications commentary
- Publicly available materials

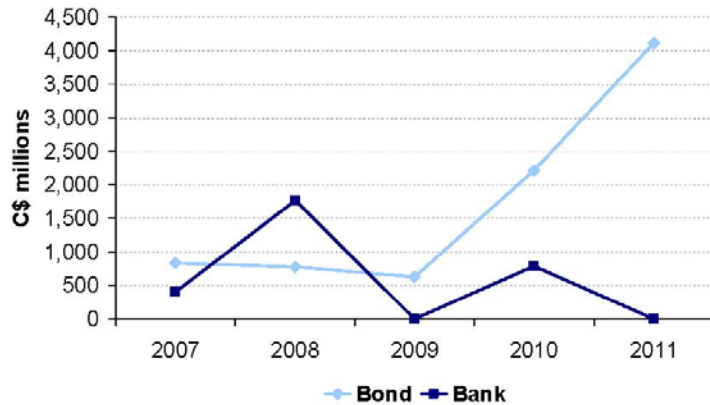
Private Debt Funding Sources for Projects

- 2 competitive sources of long term and short term senior debt for Canadian projects
 - Bonds
 - Broadly marketed bonds to the Canadian bond market via private placement (short term and long term)
 - Narrowly distributed bonds to the life insurance companies via private placement (primarily long term and <\$150-200 MM)
 - Bank debt
 - Canadian banks (primarily short term construction period financing)
 - Non-Canadian global PPP project finance banks (short term and mini perm financing)

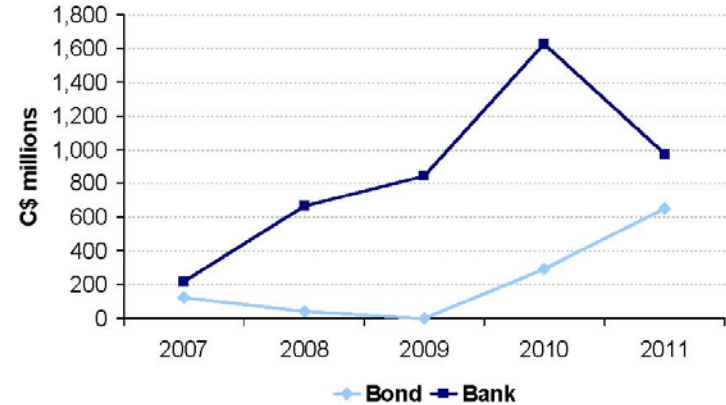
Debt Funding Sources for Canadian Projects

- There is the possibility for various hybrid transactions between the sources, often being tranching based on the optimal mix of long term vs. short term senior debt requirements

Long Term Canadian PPP Debt Financing



Short Term Canadian PPP Debt Financing



Canadian Public Infrastructure Bonds

- Canada's PPP bond market is robust, in contrast to other jurisdictions such as Europe
- Original bid date underwriting commitment typically provided by one or more of the capital markets subsidiaries of the large Canadian Schedule I.
- Number of Buyers for PPP Bonds
 - Early issues averaged ~15 buyers
 - Most recent issues averaging ~35+ buyers
- Ratings have ranged from the BBB+ to A range, with the majority of transactions falling around A-

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Key Infrastructure Requirements

Value for Money: The Key Variable

- Equation differs between an availability model and a full concession model
- Are transferred risks worth the extra cost
- Conducted at 2 points:
 - Before selecting the model and after bids received
- Public Sector Comparator vs. Adjusted Shadow Bid or actual bids

When Infrastructure Programs Fail

- One-off forms can be risky for the public sector
- Insufficient long term capital
- Counterparty risk – government or agency rating and reliability
- Inefficient and lengthy process
 - Unclear or changing criteria
- Inadequate risk transfer

When Infrastructure Programs Fail

- Asset class challenges
- Overly ambitious programs
- Legal process issues
- Prior public failures

What Canada Has to Offer

- Significant deal experience and a well-honed risk allocation
- Model documentation
- Experienced investors, lenders, lawyers, advisors, developers and contractors
- Experience in a “policy start-up”
- The US is 10 years behind
- The UK has run out of steam
- Examples:
 - Israel, Sierra Leone and Peru

Infrastructure Program Requirements

I. Governmental Requirements

- A. Legislative framework
- B. Central agency leadership
- C. Single procurement agency
- D. Access to external expertise - technical, legal, financial
- E. Transparent, credible process
- F. Planning requirements
- G. Stakeholder engagement
- H. Smart Planning
- I. Creditworthy Support
- J. Value for Money

Assessing Enabling Legislation

- Criteria:
 - Market credibility
 - Clear lines of authority
 - Transparent decision-making
 - Adequate investment in institutions
 - Clear planning direction
 - Controls on spending authorizations
 - Procurement process rules
 - Clear regulatory powers

Infrastructure Program Requirements

II. Marketplace Requirements

- A. Competitive marketplace
- B. Lender knowledge and experience
- C. Equity Players
- D. Local Talent
- E. Regulatory Certainty

Infrastructure Program Requirements

III. Process Requirements

- A. Unsolicited Proposals
- B. Procurement Process and Competition
- C. Project or Concession Agreement Requirements
- D. Design and specification review process
- E. Financial commitment
- F. Ensuring Operational Oversight

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Infrastructure in Developing Countries

Lessons Learned for Developing Countries

- 1) A thorough needs analysis of infrastructure and basic services including all options.
- 2) A thorough feasibility study:
 1. Public vs. private sector provision on affordability, value for money and risk transfer
 2. Considers the rate of return on equity acceptable to both parties
 3. Accurate information
 4. Avoids unnecessarily high design specifications
 5. Considers all the financing options
 6. Involves all the necessary stakeholders
 7. Identifies the risks, allocates and devises risk mitigation strategies
 8. Requires treasury approvals at key stages

Lessons Learned for Developing Countries

- 3) Work out a multi-year budget framework to assess the affordability of projects for specific government institutions.
- 4) Address the issue of cost recovery and how infrastructure is to be financed.

Lessons Learned for Developing Countries

- 5) Encourage competition to drive innovation and bring down prices.
- 6) Build effective regulation
- 7) Provide political guarantees to investors where appropriate.
- 8) Develop capacity at the national, state/provincial and local levels.

Lessons Learned from Developing Countries

- 9) Ensure process integrity and legitimacy
- 10) Pre-empt public complaint and suspicion
- 11) Create flexible options for renegotiation and other challenges in a cost-effective way.
- 12) Tailor project to the individual communities to meet their specific needs and challenges.
- 13) Establish a process to channel unsolicited proposals into public competitive processes.



Challenges in Myanmar

Managing risk in Myanmar

- Getting in fast vs. 2015
- How patient is your capital?
- Picking the right dance partner
- Why non-US companies may have an edge
- Rule of Law:
 - Can it be financed?
 - The risks of accelerated change
 - Predictable, reliable dispute resolution?
- Political stability:
 - Will the current investment priorities remain?
 - Ethnic and local unrest

Putting the Good News in Context

- **Political Uncertainty:**

- Transparency and corruption – a work in progress
- Military control – holding the business reins
- Military control – what happens in 2015?
- Ethnic unrest

Putting the Good News in Context

- **Legal Uncertainty:**
 - Enhancing the rule of law
 - Land ownership rights, registration, zoning, etc.
 - Local law requirements
 - Government approvals required for legal rights

Putting the Good News in Context

- **Process Uncertainty:**
 - Untested approvals process
 - Testing the ease of doing business
 - Local content requirements
 - Next steps on the reform agenda

Putting the Good News in Context

- **Critical Infrastructure Instability:**
 - The challenge of logistics
 - An unreliable and small electrical system
 - Weak communications networks
 - Poor transportation corridors
 - Skilled Labour shortage

Putting the Good News in Context

- **Getting to Financial Stability:**
 - The ramp up of the IFI's
 - Weak local credit
 - Foreign currency challenges
 - A reliable project finance regime

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Sector Challenges in Developing Countries

Energy

- Difficult to attract investors for rural areas due to the low purchasing capacity of the local population
- Poor infrastructure leads to higher upfront capital costs for private investors
- Many private investors are wary of these high-cost investments in countries with unstable economies and politics

Water and Waste Water

- Difference between existing tariff levels and cost recovery levels can create political and implementation challenges
- Early clarity on expected scope of services is required: have delivery vs. neighborhood stand pipe
- 65 developing countries have tried water PPPs and 84% of awarded contracts are still active (2010)
- Concession, lease-affermages, management contracts or hybrid models have been successful depending upon:
 - Pre-existing tariff levels
 - Population concentration
 - Local expectations
 - Government support of capital investment

Natural Resources

- Volatility in the commodity market creates investor risk
- The history of excessive taxes and expropriation from governments is a concern for private investors
- High capital expenditure for a high risk business can create difficulty in attracting the right investor
- Poor infrastructure imposes high cost for accessing natural resource sites

Transportation

- Many transport projects, such as ports and toll roads, involve interaction with local communities. Public dissatisfaction with construction, labour opportunities from the project, fees for use of the service and disruption of their way of life can cause difficulties for PPP projects.
- Inherent exposure to the risk of market demand for the project upon completion creates uncertainty
- Concession periods following infrastructure completion often cause disputes between the public, the government and private investors

Agriculture

- Widespread mistrust between farmers and the public towards private investors in the biotechnology industry, particularly private sector seed companies, is a major challenge to agriculture PPP projects
- Low productivity, poor farming infrastructure, high harvest losses and lack of market access can make it difficult to attract private investors.

Telecom

- Significant opportunity through “leapfrogging” technology.
- The importance of competition. Among the low-income African countries, those with more competitive markets have rates of mobile penetration that are 31 percent higher than those with uncompetitive markets.
- Legislative frameworks and a strong regulatory process are crucial but difficult for developing countries.
- Sharing the opportunity in a predominantly rural country: are incentives available to provide services in rural areas that are not otherwise commercially viable.

Infrastructure

- Myanmar will need \$320 billion in infrastructure from now to 2030 – most in residential but also power, water treatment, road and rail – what are the funding sources?
- Massive residential infrastructure required for the coming urbanization.
- Ensuring local employment from foreign interest and investment



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