Public Private Partnership: Risky Proposition?
Session C18
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TOPICS

- What is a Public Private Partnership(PPP)
- Different types and evolution of PPP
- The public & private sectors' interests in PPP
- What is the role of the public sector in PPP
- ERM building blocks of PPP
- Case studies: general information

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What is a PPP and potential definitions

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What is a PPP?

- Traditional definition:
  - Public-Private Partnership: arrangement between a private entity – profit or non-profit – and a public entity – government, state agency,etc – for providing a good or service judged to be in the public interest, where skills are shared as well as risks and rewards. (ex. roads, bridges, schools.)
  - Different from the traditional procurement of public service where the public launches a RFP, chooses the provider and pays. (ex. military)
- Alternative forms:
  - Public-Public Partnership, concessions

Different definitions of PPP

6	Nordic Partnerships	Co-operation between different actors on solving common problems for a common benefit – and common solutions are often seen as more beneficial and longer enduring than individual ones.
7	Proulx, Bourque et Savard (2005)	Rapport égalitaire et équitable entre deux parties différentes, qui ont aussi des contributions différentes, mais sont jugées mutuellement comme également essentielles. Ce type de partenariat est donc fondé sur un respect et une reconnaissance mutuelle des contributions et des parties impliquées dans un rapport d'interdépendance.
8	World Resource Institute (Nelson, Zadek:2000)	Voluntary and collaborative effort among businesses, non profit groups, and government agencies working on a sustained basis to address a challenge that is important to all the parties.
9	Ashridge Centre for Business and Society (ibid.)	Acting together by contributing their diverse resources to pursue a common vision with clearly defined goals and objectives. The objective of a partnership should be to deliver more than the sum of the individual parts
10	Copenhagen Centre (ibid.)	Engage in voluntary, mutually beneficial, innovative relationships to address common societal aims through combining their resources and competencies

Different types and evolution of PPP

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Different types of PPP

- DBFOMT: Design, Build, Finance, Operate, Manage, Transfer: Full Cycle by private entity
- Many other combinations possible:
  - DBOT: Design, Build, Operate, Transfer
  - BOT: Build, Operate, Transfer
  - DBF: Design, Build, Finance
- Other types: joint-ventures, coop arrangements, Leasing
- Risks will vary depending on the type

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Evolution of the PPP field

Total PPP financed since 1985(OCDE)

Billions US$	Roads	Trains	Water	Buildings
World	606	385	153	128
US	62	53	20	11
Canada	18	10	3	13
Latin America	101	51	17	2
Europe	320	157	34	90
Africa&MO	11	12	28	1
Asia&EO	94	102	51	11

The public and private sectors' interests in PPP
Roles of the public sector

Public sector's interests in PPP

- Societies share some common values: life, liberty, security, happiness, « good life », equity, equality, justice.
- States are created by the people – public – to take care of common aspects of living in societies. Some call it the « public interest », the « common good », the « common wealth. »
- States operationalize these ends through different actions: regulation, protection, procurement of common and public services

Public sector's interests in PPP

- PPP have always existed between States and non public entities. However, the relationship has varied over time and in different societies:
  - Ancient Egypt: All public work done by private hands
  - Rome Empire: Combination of private providers with strong public oversight
  - US Federal System: Public-Public Partnerships between States and the Federal Government
  - Ex.: US NASA: PPP in action

Public sector's interests in PPP

- More recently:
  - New Public Management and New Societal Governance orientation encourage the use of the private sector to procure some goods and services(wicked problems).
  - Reduced state personnel capacity
  - Political willigness to seek alternative procurement options to States – inefficient public service, unreliable, poor fiscal management of public work, cost overruns.- innovation, competition

Public sector's interests in PPP

- Aging or inexistent infrastructures
- Aging population with a lower willingness to support long-term much needed services
- Reduce initial public funding requirements
- Explicit initial recognition of costs and benefits
- Bandwagon effect and rent-seeking groups
- High level of sovereign debts limit the capacity of the State to satisfy public needs.

Public sector's interest in PPP

(ASCE 2012 Report Card on California)

INFRASTRUCTU
REPORT CARD 2
www.ascecareportcard.org

	20
Aviation	C
Levees / Flood Control	F
Ports	C
Solid Waste	B
Transportation	D
Urban Runoff	D
Wastewater	C
Water	C
California's Infrastructure GPA	**C**
Annual Investment Needs (Billions)	***$3***

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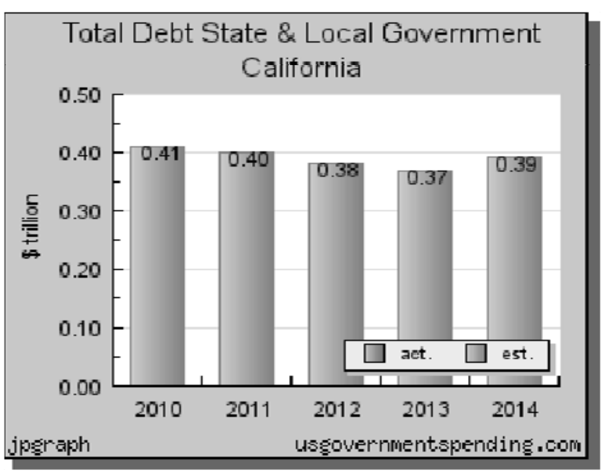
Public sector's interest in PPP



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Public sector's interest in PPP

- Encourage public entities toward « whole-life costing » contrary to other means where costs are shifted to the future to satisfy short-term political interests.
- Controversial from other aspects:
  - Transparency
  - «Selling public goods » to private interests
  - Citizenship vs consumers
  - Accountability
  - Public involvement

Private sector's interests in PPP

- Investors' point of view:
  - Untapped asset class & uncorrelated to others
  - Long-term investment: suitable to investors like insurance companies, pension plans with long-term obligations
- Investors get compensated for assuming certain risks while being able to transfer other risks to the public entity. Overall State « guarantee »
- Leverage management skills on public projects, offer financial management to public entities,etc.

Public sector's roles in PPP

- In traditional procurement:
  - Public entity determines what is desired, issues a RFP, signs a contract, the private entity procures the service, the public entity pays.
  - The Public entity is in full control of what it desires but also retains all risks and rewards.
- PPP environment: role is shared
- Set up institutional framework and limits

Public sector's roles in PPP

- Most countries have a dedicated unit
- Lauch of the project, feasability studies, proposed budget
- RFP, evaluation of offers, negotiation
- Management of the relationship
- Risk evaluation and management
- Ex ante overall risk assessment, both financial and non financial
- Risk management options
- Risk management implementation

ERM BUILDING BLOCKS

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ERM building blocks

- Risk appetite/tolerance: complement between entities
- Risk identification: done <u>ex-ante</u>
- Risk assessment: social cost of risk
- Risk prirotization: allocation
- Risk management approaches
- Risk transparency: crucial
- Risk culture: cooperation & potential clashes

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Risk appetite/tolerance

- Public entities don't have capital to protect – central banks can monetize debt if necessary – but a reputation to protect and the political sanction: limited risk tolerance for certain risks
- Private entities must protect capital, improve value by taking risks: risk appetite for certain risks
- Public sector never explicitely expresses those risk tolerances while the private entity's risk appetite can be expressed in its P/E ratio

Risk identification

- Political risk:
  - Political leaders committed to PPP or a fad?(Appropriation risk in annual budget)
  - Statutory authority, policy statement, regulations
  - Potential political unrest
  - Labor unions or civil society's opposition
- Human and relationship risk:
  - Dedicated PPP within the public entity?
  - Dedicated and trained personnel in both operational, engineering, finance, project management, lawyers, leadership by the public

Risk identification

- Financial/liquidity/currency risks:
  - Long-term financing costs of the project itself: cost of the debt/equity incurred
  - Long-term financial value of the asset in terms of its capacity to generate expected cash flows – ex. toll fees, tax, pay-per-use -
  - Short-term liquidity concerns
  - Long-term financial comittment by public entities
- External economic risks:
  - Competition, demand change, external

Risk identification

- Counterparty risk: (construction and credit) capacity to DBO by the private entities, experience, financial backing, credit enhancers.
- Legal risk: PPP contracts are complex
  - Specific goals, milestones, metrics, dispute resolution, other contractual issues
- Process risks:
  - Parties have the capacity to manage process itself both ex-ante and after for the next 30 years?

Risk identification

- State Fiscal and Guarantee Risk(Contingent risk):
  - In PPP, since projects are done to satisfy a public need, PPP projects cannot go bankrupt – UK-France Tunnel -. States intervene, thus grant an explicit or implicit performance guarantee. Not usually well appreciated upfront.
  - States don't always recognize long-term debt incurred and the impact of PPP on their own financial budgets and appropriations, particularly liquidity risk.

Risk identification

- Corruption and fraud risk:
  - Lots of money involved, lots of temptation to corrupt officials to get into the game.
- External societal risks:
  - Externalities of public projects on society: effets, impacts, consequences
- Compliance risks once project undertaken

Risk assessment
Diversity of approaches

Table 4

Examples of Risk Analysis from Recent World Bank Projects

Project Title and Date	Features of Risk Analysis
Arun III Hydroelectric Project (India, 1994)	Four factors affecting performance, with 2 or 3 states each, were used to generate probability distribution of EIRR; 'sensitivity testing' of basic assumed probabilities was also undertaken for several variables
Waigaoqiao Thermal Power Project (China, 1997)	5 'risk variables' with 5–6 states each used to generate table describing expected EIRR with standard deviation, minimum/maximum values, probability of negative outcomes, etc. (uses 1000 simulations in Risk Master software)
National Drainage Program Project (Pakistan, 1997)	Includes quantitative assessment of political economy risk regarding implementation and impact of various reforms, but not measured probabilistically in terms of EIRR distribution
Third Andhra Pradesh Irrigation Project India, 1997)	Combinations of variables' values used to estimate range of EIRRs; 'risk analysis' is really extended sensitivity testing

Quantitative risk assessment

(financial sustainability risk analysis)

- One approach is the Value for Money quantitative financial calculations vs PSC.
  - Essentially, a cost-benefit analysis. The benefits are usually limited to the direct output of the project, not the outcomes and certainly not the indirect social costs.
  - A prospective modeling exercise of future net cash flows, a capital budgeting exercise
  - This exercise is crucial since, contrary to other public expenditures, approved by the public authority like a Parliament or Congress, there is no initial cash outlays usually..

Quantitative risk assessment

- Financial Cash flows:
  - should be risk dependent explicitly with an explicit assessment of controls to be put in place for each of them and take into account the proposed split of risk between partners. Discounted at risk-free rate
  - Could not include potential fluctuations and be discounted at a risk-adjusted rate and include a charge for the explicit State guarantee offered to these projects
- Traditional discount rate: cost of financing allocated to the project+ margin for previous non managed risk vs social discount rate: Traditional + margins for potential externalities (Green Book by the UK Treasury)

Quantitative risk assessment

(Environmental risk analysis)

"The optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet the user's requirement" (UK's HM Treasury Value for Money Assessment Guide)

Quantitative risk assessment

- Calculation of Public Sector Comparator(PSC)
- Explicit evaluation of risky CFs under a similar project done in traditional procurement discounted at the public entities' rate.
- SEE: http://www.usc.edu/schools/price/keston/documents/morallosamedkudzi.pdf
- Broader economic and social analysis rarely performed

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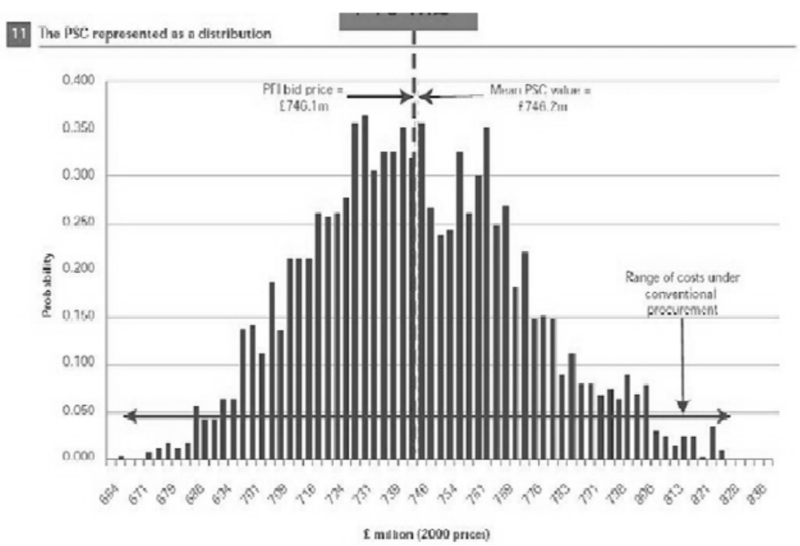
Quantitative risk assessment



Qualitative risk assessment

- Some favor a qualitative assessment
- Start from a stakeholders' approach to determine value from their perspective
- Make sure the project has been structured well
- Make sure that there will be enough competition during the RFP process to get best value.

Qualitative risk assessment

(ADB, 2002)

54 HANDBOOK FOR INTEGRATING RISK ANALYSIS IN THE ECONOMIC ANALYSIS OF PROJECTS

- extent of ability of target population to cope with risk (e.g., based on socioeconomic status indicators)
- general risks (e.g., institutional, civil) which may compromise overall project success, and
- risks of benefit leakage to non-poor groups.

Similarly, in the case of policy-based lending (PBL), the use of a poverty impact assessment (PIA) matrix is advocated to elicit the relationships and mechanisms between particular policy interventions and ultimate poverty impacts. (Policy-based

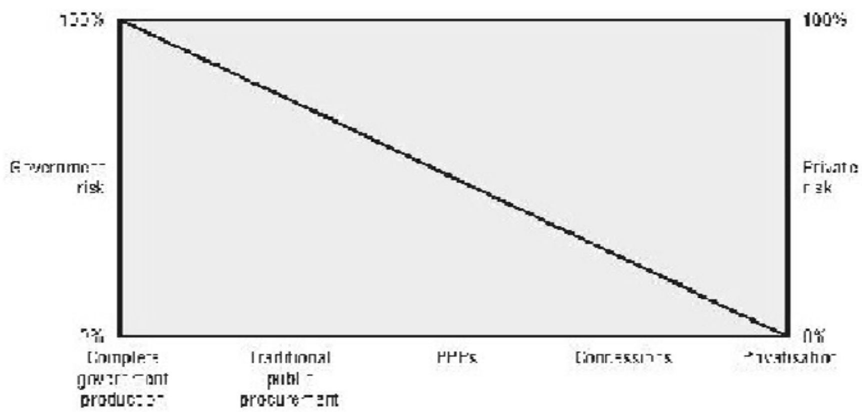
Risk prioritization and allocation

(By type of PPP)

- A potential spit: Ex. DBFOMT
  - Public: political, human, process, counterparty, societal risks, guarantor
  - Private: financial, credit, liquidity, process, corruption
  - In reality, it isn't that easy to assign risks up front.
  - For example, financial risks may be caused by governmental economic policies, which will cause the couterparty to default, which may lead to political risk following some negative societal risks.

Risk allocation by type of PPP

(OCDE, Risk Sharing & VFM, 2008)



Risk management approaches

- By phase: (process and project management)
  - Conception: lack of precise definition of tasks
  - Implementation: lack of risk indicators of performance
- By type and origin of each risk:
  - Project itself, external non controlable risks, technical and legal risks, financial
- Management of organisational and human:
  - Decision processes, hierarchy, roles & responsibilities, communication

Risk management by type of risk

- Fiscal risk and contingent risk to public entities
  - Overall limits set for PPP: total debt levels of a country as a percentage of GDP.
  - Create a contingency line item in the public entity's annual budget for unexpected expenditures.
  - Include a liability amount in the annual appropriation budget of the public entity to account for future payments.
  - Set up a dedicated, externally managed – outside of the control of the public entity – contingency fund with contributions made regularly.

Risk management by type of risk

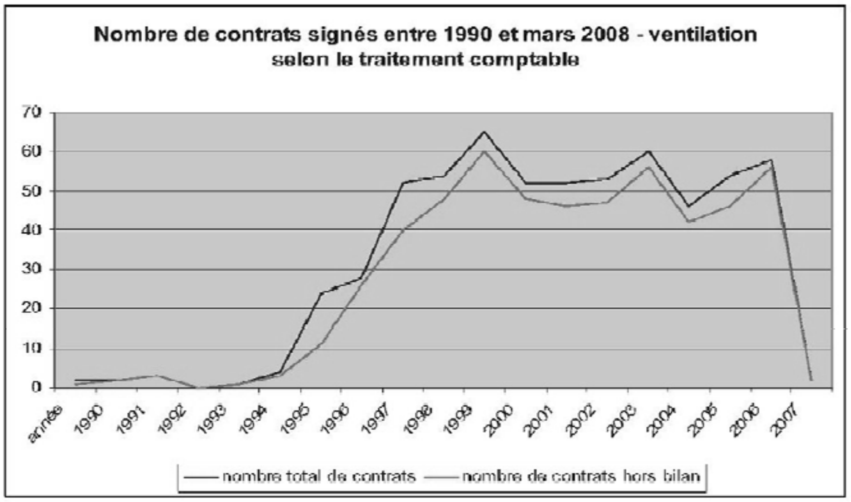
- Even if project technically feasible and VFM and Economic analysis positive, is it fiscally and socially possible for the public entity to undertake it?
- Long-term debt incurred and potential short-term liquidity risk management issues
- Golden Rule & Sustainable Investment Rule: 40% of net total public debt as a percentage of GDP

Risk management by type of risk

- Legal risk:
  - Contract itself must be as comprehensive as possible.
  - Robust legal and enforcable legal framework to account for risks extending over 25-30 years.
  - Not only international laws – WTO – but suitable laws and especially regulations at the national and subnational levels.
  - Public entities retain right to take over PPPs if:
    - Serious risk to public safety, health, environment, national security: all political risks

Risk transparency

(UK Treasury: only 12% of PPP consolidated in public accounts)



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Risk transparency

- Country's statistics, annual budgets documents and public entities's financials produce little forward-looking information on risks related to PPP.
- Anticipated risks opened to public scrutiny
- UK has set an example:
  - Publish record of future PPP payments
  - Capital value of contracts signed
  - Performance evaluations published regularly– indirect risk information

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Risk transparency

- « Good disclosure is to publish detailed information on guarantees. » (IMF, 2004) Very few countries do
- Kind of information on risk guarantees:
  - Public policy purpose of each guarantee
  - Total amount of guarantee by sector and duration
  - Intended beneficiaries
  - Likelihood that the guarantee will be called.
- IPSAS Standard 32: PPP assets and liabilities on public entities' books – risks indirectly reflected in the value assigned

Risk transparency

- PPP commitments not recognized as liabilities but usually disclosed. Public entities justify based on some risk allocation to an external party.
- Makes me think of the issue with SPVs of securitization. Debt was not recognized invoking the same argument.

Risk transparency

- Related to KPIs and how risks affecte actual outputs and outcomes(not done very often)
  - In Australia, KPIS must be developed as part of the Outcomes and Program Framework
  - 58% had only qualitative indicators
  - 45 % had only quantitave indicators
  - Only 30% had targets.
  - (Australia Auditor General report, 2011)

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Risk culture: cooperation & clashes

- Private sector manages risk according to mostly an economic logic, protection of reputation, the value of the firm and preservation of capital. Thus, project abandoned if risks are too high or cannot be compensated adequately.
- Public sector responds to the political will of general interest. Once decided, projects are rarily abandonned and risk is managed with the goal of attaining objectives. Also, states are « eternal », so can absorb more risk than a solo private entity: « sovereign capacity »

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Case studies general information

Case study

When a promising project doesn't deliver, chances are the problem wasn't the idea but how it was carried out." (Matta and Ashkevas, 2003)

Risk sources by sector

(ADB:Handbook for Integrating Risk Analysis, 2002)

OED Sector Synthesis	Factors Affecting Estimates of Economic Outcomes	Comments
Irrigation and rural development	Cost overruns; implementation delays; untested technologies; cropping intensities; poor water management	All conceptually subject to risk analysis
Rural and agricultural credit	Repayment rates; debt amnesties; rates of interest; government commitment	Many (if not most) conceptually subject to risk analysis
Fisheries	Price trends; numbers of vessels; fish stock composition	All conceptually subject to risk analysis
Forestry	Benefit estimations and valuations	Difficulties in estimating non-direct use values; could have been approached using sensitivity analysis, and/or "with or without" inclusion, and perhaps risk analysis
Industrial crops	Yields and prices; cost overruns; mills capacity and throughput	All conceptually subject to risk analysis
Health and education	Institutional performance; health, morbidity and mortality levels; cost of services (participation rates and demand)	Many conceptually subject to risk analysis

Risk sources by sector

Urban development and housing	Land values; benefit valuation methods	Some conceptually subject to risk analysis, and land valuation could have been approached using sensitivity analysis, and/or "with or without" inclusion, and perhaps risk analysis
Water supply and sanitation	Cost overruns; WTP estimation	Some conceptually subject to risk analysis; WTP estimates could have been approached using sensitivity analysis, and/or "with or without" inclusion, and perhaps risk analysis
Power	Cost overruns; capacity and generation/transmission losses; WTP/resource cost savings estimates	All conceptually subject to risk analysis
Roads and transport	Implementation delays; cost overruns; traffic flows; vehicle operating cost (VOC) savings	All conceptually subject to risk analysis
Ports and shipping	Implementation delays; cost overruns; traffic volumes; benefit estimation methodologies	All conceptually subject to risk analysis

PPP failures by risk source (Mott McDonald Report, 2011)

- Stats:
  - Inadequacy of business case (58%): Political, Human, process, product risks
  - Environmental impact:(19%): political, financial, legal, process risks
  - Disputes and claims incurred(16%): legal and process risks
  - Economic influences(13%): financial and economic risks
  - Complexity of contract structure(11%): legal, process risks

PPP failures by risk source (Préfontaine, 2004)

Tableau 2 Fréquences observées pour les risques externes

TYPES DE RISQUES EXTERNES	FRÉQUENCES PAR TYPE DE RISQUES
Risques socio-économiques	4 cas sur 9 - 44,4 %
Risques technologiques	5 cas sur 9 - 55,6 %
Risques politiques	9 cas sur 9 - 100 %

PPP failures by risk source (Préfontaine, 2004)

Tableau 3 Fréquences observées pour les risques internes

TYPES DE RISQUES INTERNES	FRÉQUENCES PAR TYPE DE RISQUES
Risques de projet	8 cas sur 9 - 88,9 %
Risques organisationnels	9 cas sur 9 - 100 %
Risques relationnels	9 cas sur 9 - 100 %

Risk & performance

(OECD Risk Sharing &VFM, 2008)

Table 3.2. Performance indicators used by selected governments to measure the performance of public-private partnerships

	Victoria, Australia	Brazil	France	Hungary	United Kingdom
Efficiency measures defined in terms of inputs and outputs	√	√		√	√
Effectiveness measures in terms of outcomes	√	√	√	√	√
Service quality measures	√	√	√	√	√
Financial performance measures	(1)				√
Process and activity measures	√	√		√	√

Ex. Transportation PPP

(European Commission, 2004)

Distribution of PPP Structures

Cases	*Concession*	*BOT/ Other*
M1 M15, Hungary	X	
M5, Hungary	X	
Beiras Litoral, Portugal	X	
Hamburg, Germany	X	
Warsaw, Poland		X
Kassel Calden, Germany	X	
Wijkertunnel, Holland		X
Perpignan, France		X
CTRL, UK	X	

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Transportation PPP

Key Financial and Contractual Conditions

Cases	*Guaranteed Minimum Revenue*	*Risk of Contract Termination*	*Profit Sharing*	*Sharing of Management Decisions*
M1 M15, Hungary	Initially none	Medium	Yes when profit generated	Board includes public and private parties
M5, Hungary	Yes – standby loan facility	Medium	Yes when profit generated	Board includes public and private parties
Beiras Litoral, Portugal	Government provides shadow toll	Low	None	None
Hamburg, Germany	Yes	Low	Yes	Board includes public and private parties
Warsaw, Poland	Yes	Slight	Yes	Board includes public and private parties
Kassel Calden, Germany	Yes	Low	Yes	Mostly public
Wijkertunnel Holland	Minimum revenue guaranteed	Low	None	Shared
Perpignan, France	None	Low	None	Mostly Private – public oversight
CTRL, UK	Initially none	Slight	None	Shared

Transportation PPP

Case Study/Country	Channel Tunnel Rail Link – UK
Rationale/Objectives of the PPP	Realisation of a high speed rail link between the Channel Tunnel and London to reduce the journey times between London, Brussels and Paris.
PPP Actors	Department for Transport, Treasury, London and Continental Railways, Rail Link Engineering, Network Rail and the funders
Financial Structure	Initially funded through promoter's equity, government grants, revenues from Eurostar train services, development rights over land at Kings Cross Station and loans from banks and other financial institutions. After project restructuring in 1998 a substantial part of the funding was backed by Government guarantees.
E.U. Support?	EIB loans and funding under the TENS (trans-European Networks) Programme.
Contract Agreement between Parties	Act of Parliament to provide planning consents for the project and a concession agreement for the operation of the services.
Risk Allocation	Design, construction and infrastructure maintenance risks allocated to the concessionaire. Revenue risks also allocated to concessionaire but with some safeguards

Transportation PPP

Institutional/Managerial Structure	The private financing bank and the construction enterprise were integrated as one contractor
Tariff Setting	Track access charges agreed with Network Rail. Concessionaire free to set fares for train services and other commercial services.
Strong Points	Effective control over the design and construction of the infrastructure. Section 1 was opened on time and within budget in September 2003.
Weak Points	Little progress in developing the train services that will use the rail link. Passenger numbers and revenues on Eurostar are around half forecasted levels. Certain services have yet to materialise.

Conclusion

This case highlights the importance of understanding the skills and motivations of private sector partners and the impact that they can have on the long term development of transport systems. The CTRL was promoted by engineering and construction companies whose primary interest is in designing and building the infrastructure (a task they are completing successfully) but are less skilled in the operational and commercial aspect of railway systems. The development of passenger and freight services may therefore have been less successful. This case also demonstrates that on a project of national significance it is almost impossible to transfer the overall risk of the project to the private sector and that the Government must remain committed.