PPP Projects: Screening, Feasibility, Risk, and Structuring

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Five Phases of Any Project

- Including Public – Private Partnerships
- Phases

1. Feasibility
2. Procurement
3. Development/Construction
4. Delivery
5. Exit

Project screening

- The Concept Note
- Projects will be hard to evaluate unless the PPP unit develops a standard application, so it has the same information on each project

Project screening

I. POLICY ISSUES
II. PROJECT DETAILS
III. PPP DETAILS
IV. FINANCIAL DETAILS
V. PROJECT RISKS

Goal: Develop a standard "application form" that the contracting authorities can use to prepare the information needed by the PPP unit

Two components: instructions to contracting authority, asking for specific information AND evaluation tool to review that information when you get it from the contracting authority, so it can be compared with other potential projects

Project screening

I. POLICY ISSUES

- Policy goals & legal environment –
- Describe how the project relates to the national development priorities and specific development plan of your organization. (Include any preliminary planning document that may have been prepared in connection with the project.)
- Describe the institutional need of your organization to be addressed by the project.
- Describe any similar services/facilities being provided now, absent the project.
- Describe the evolution and any history of the project.
- Indicate whether your organization has undertaken any similar project in the past.
- State the legal basis for your organization's authority to undertake the project. Indicate whether any change to law or regulation is required to undertake the project.

Project screening

I. POLICY ISSUES

- Policy goals & legal environment –
- Is project consistent with plan?
- Is project consistent with institutional need?
- Is there any precedent for project?
- Is legal basis clear?
- Are no changes in law/regulation required?
- Are services/facilities unlikely to be delivered without PPP?

Value Assessment

- Three tests:

1. Affordability
2. Provide Risk Transfer opportunities
3. Value for Money

Project screening

- Value for Money

Value Assessment

- First, 2 basic cash flow models developed for the project:
- Public Sector Comparator (PSC) Model
- P3 model
- Finally, risk-adjusted

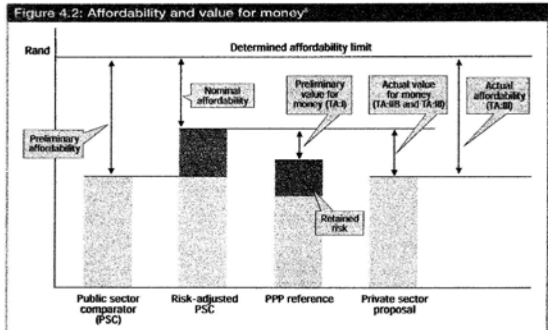

Figure 4.2: Affordability and value for money[8]

Take note

A proposed PPP project may provide value for money, but be unaffordable if the specifications are too high. Value for money is a necessary condition for PPP procurement, but not a sufficient one. If a project is unaffordable it undermines the institution's ability to deliver other services and it should not be pursued. Affordability is the driving constraint in all PPP projects.

Value assessment

Part 1: Construct the base PSC model
Part 2: Construct the risk-adjusted PSC model
Part 3: Construct the PPP reference model
Part 4: Construct the risk-adjusted PPP reference model
Part 5: Sensitivity analysis
Part 6: Demonstrate affordability
Part 7: Initial value-for-money test
Part 8: Make the procurement choice
Part 9: Verify information and sign off

8. This figure does not demonstrate the 'time value of money', which must be calculated in the financial models and shown as net present value (NPV), using appropriate discount rates.

Value Assessment

- Revenue identification
  - Possible sources?
  - Note—need to do market testing if no history (again, here is need for outside professionals)
  - Market testing is key to feasibility study

Value Assessment

- What's wrong with VfM?
  - Market distortions in most emerging market countries
  - Capacity/experience to develop PSC
  - If can't do PSC, what about P3 model?
- Competitive bidding as a proxy for VfM
  - If ICB standards AND
  - Have several bidders

P3 and the Feasibility Study

- What does feasibility study do?
  - Financial model
  - Market demand study

P3 and the Feasibility Study

- Only feasibility study can show
  1. affordability
  2. risk transfer to private party
  3. value for money

Due Diligence & Risk

- These relate to key financial, legal and regulatory issues that may affect the successful implementation of the project
- Must be comprehensive (incl. obtaining legal opinions)

Due Diligence & Risk

- Words to live by:
  - All risks must be either insured or controlled
- If you don't know about a risk, you can't do either!
- Hence the critical nature of due diligence

Due Diligence & Risk

- Why now?
- Project costing by institution
- Pricing by bidders
- Delays during negotiation

Due Diligence & Risk

- Legal & Regulatory issues:
  - Procurement laws
  - Labor
  - Tax
  - Environmental/historic
  - Foreign exchange
  - Use of certain financial instruments
  - Competition legislation

Due Diligence & Risk

- Physical site (land) issues:
  - Clean title
  - Ownership by private persons permitted
  - Conflicting claims (minerals, leases, development, etc.)
  - Environmental/historic/geotechnical
  - Zoning
  - Local/national master land use plans

Due Diligence & Risk

Risk and public sector procurement

In conventional public sector procurement, risk is the potential for additional costs above the base PSC model. Historically, conventional public sector procurement has tended not to take risk into account adequately. Budgets for major procurement projects have been prone to optimism bias – a tendency to budget for the best possible (often lowest cost) outcome rather than the most likely. This has led to frequent cost overruns. Optimism bias has also meant that inaccurate prices have been used to assess options. Using biased price information early in the budget process can result in real economic costs resulting from an inefficient allocation of resources.

Much of the public sector does not use commercial insurers, nor does it self-insure (through a captive insurance company). Commercial insurance would not provide value for money for government, because the size and range of its business is so large that it does not need to spread its risk, and the value of claims is unlikely to exceed its premium payments. However, government still bears the costs arising from uninsured risks and there are many examples of projects where the public sector has been poor at managing insurable (but uninsured) risk.

Due Diligence & Risk

- Assessing risk—cont.
  Result=Risk Matrix
- Should become part of PPP contract

Risk Matrix

STANDARDISED PPP RISK MATRIX

Risk matrix

No.	Categories	Description	Mitigation	Allocation
1.	Availability risk	The possibility that the Services to be provided by the Private Party do not meet the output specifications of the Institution.	Clear output specifications. Performance monitoring. Penalty Deductions against Unitary Payments.	Private Party.
2.	Completion risks	The possibility that the completion of the Works required for a project may be (i) delayed so that the delivery of the Services cannot commence at the Scheduled Service Commencement Date, or (ii) delayed, unless greater expenditure is incurred to keep to the Scheduled Service Commencement Date, or (iii) delayed because of variations.	Special insurance (project delay insurance). Appointment of an Independent Certifier to certify the completion of the Works. Liquidated damages, construction bonds and other appropriate security from the Private Party to achieve completion, unless caused by the Institution. Relief Event.	Private Party, unless delay caused by Institution (including, Institution Variations).
3.	Cost overrun risk	The possibility that during the design and construction phase, the actual Project costs will exceed projected Project costs.	Fixed price construction contracts. Contingency provisions. Standby debt facilities/additional equity commitments; provided that these commitments are made upfront and anticipated in the base case Financial Model.	Private Party.
4.	Design risk	The possibility that the Private Party's design may not achieve the required output specifications.	Clear output specifications. Design warranty. Patent and latent defect liability Consultation with and review by Institution (but review must not lead to input specifications by Institution). Independent Expert appointment to resolve disputes on expedited basis.	Private Party.
5.	Environmental risk	The possibility of liability for losses caused by environmental damage arising (i) from construction or operating activities (see operating risk) during the Project Term, or (ii) from pre-transfer activities whether undertaken by the Institution or a third party and not attributable to the activities of the Private Party or the Subcontractors.	Thorough due diligence by the bidders of the Project Site conditions. Independent surveys of the Project Site commissioned by the Institution at its cost. Institution indemnity for latent pre-transfer environmental contamination, limited by a cap (subject to value for money ("VFM") considerations), for a specified period. Remediation works to remedy identified pre-transfer environmental contamination as a specific project deliverable. Independent monitoring of remediation works.	In relation to (i), the Private Party. In relation to (ii), the Institution, but Institution's liability to be capped (subject to VFM considerations).
6.	Exchange rate risk	The possibility that exchange rate fluctustions will impact on the envisaged costs of imported inputs required for the construction or operations phase of the Project.	Hedging instruments (e.g. swaps).	Private Party.
7.	Force Majeure risks	The possibility of the occurrence of certain unexpected events that are beyond the control of the Parties (whether natural or "man-made"), which may affect the construction or operation of the Project.	Define "Force Majeure" narrowly to exclude risks that can be insured against and that are dealt with more adequately by other mechanisms such as Relief Events. Relief Events. Termination for Force Majeure.	If risks are insurable, then they are not Force Majeure risks and are allocated to Private Party. If risks are not insurable, then risk is shared insofar as Institution may pay limited compensation on termination.

Risk Matrix

ANNEXURE 4: STANDARDISED PPP RISK MATRIX

No.	Categories	Description	Mitigation	Allocation
8.	Inflation risk	The possibility that the actual inflation rate will exceed the projected inflation rate. This risk is more apparent during the operations phase of the Project.	Index-linked adjustment to Unitary Payments or user charges.	Institution bears risk of inflationary increases up to the limit of the agreed index. Increases in excess of this are for the Private Party.
9.	Insolvency risk	The possibility of the insolvency of the Private Party.	SPV structure to ring-fence the Project cash flows. Security over necessary Project Assets. Limitations on debt and funding commitments of the Private Party. Reporting obligations in respect of financial information and any litigation or disputes with creditors. Institution has right to terminate the PPP Agreement. Substitution of Private Party in terms of the Direct Agreement. Substitution of the Private Party with a New Private Party if there is a Liquid Market and the Retendering procedure is followed.	Private Party.
10.	Insurance risk	The possibility (i) that any risks that are insurable as at the Signature Date pursuant to the agreed Project Insurances later become Uninsurable or (ii) of substantial increases in the rates at which insurance premiums are calculated.	In the case of (i), at the option of the Institution, self-insurance by the Institution or, if the uninsurable event occurs, then termination of the PPP Agreement as if for Force Majeure with compensation to the Private Party. Reserves.	In relation to (i), if the Private Party caused the Uninsurability or, even if it did not, but the Private Party cannot show that similar businesses would stop operating without the insurance in question, then the Private Party bears the risk. Otherwise, the risk is shared between the Private Party and the Institution. In relation to (ii), the Private Party (unless caused by Institution variations).
11.	Interest rate risk	These are factors affecting the availability and cost of funds.	Hedging instruments (e.g. swaps). Fixed rate loans.	Private Party.
12.	Latent defect risk	The possibility of loss or damage arising from latent defects in the Facilities included in the Project Assets (compare, the treatment of latent pre-transfer environmental contamination, see environmental risk).	Wherever possible, the design and construction of the Facilities must be performed or procured by the Private Party. If, however, a project involves the take-over by the Private Party of existing Facilities, then the bidders must undertake a thorough due diligence of these Facilities to uncover defects. The procedure for and cost of the remediation of such discovered defects can then be pre-agreed with the Private Party. Reporting obligation on Private Party to promptly disclose discovered defects.	If the Private Party (or any of the Subcontractors) designs and constructs the Facilities, the Private Party. If not, then the Institution, but only if there is no or insufficient insurances available to mitigate this risk and if the Institution's liability is capped (subject to VFM considerations).
13.	Maintenance risk	The possibility that (i) the cost of maintaining assets in the required condition may vary from the projected maintenance costs, or (ii) maintenance is not carried out.	Clear output specifications. Penalty regime and performance monitoring. Adequate O&M contract. Substitution rights. Special insurance and special security in the form of final maintenance bonds.	Private Party.

Risk Matrix

ANNEXURE 4: STANDARDISED PPP RISK MATRIX

No.	Categories	Description	Mitigation	Allocation
14.	Market, demand or volume risk	The possibility that the demand for the Services generated by a project may be less than projected (whether for example because the need for the Services ceases or decreases, or because of competitors entering into the relevant market, or because of consumer opposition to the outsourcing of the Services).	In a Unitary Payment type PPP, the Unitary Payment must be paid based on availability (not actual usage by the Institution).	In relation to a Unitary Payment funded project, the Institution. In relation to a user-charge funded project, the Private Party.
15.	Operating risk	Any factors (other than Force Majeure) impacting on the operating requirements of the Project, including projected operating expenditure and skills requirements, for example, labour disputes, employee competence, employee fraud, technology failure, environmental incidents and any failure to obtain, maintain and comply with necessary operating Consent.	Clear output specifications. Penalty regime and performance monitoring. Adequate O&M contract. Substitution rights. Special insurance.	Private Party.
16.	Planning risk	The possibility that the proposed use of the Project Site in terms of the PPP Agreement and, in particular, the construction of the Facilities on the Project Site will fail to comply with any applicable laws relating to planning, land-use or building (for example, any town-planning or land-zoning scheme) or any Consent required pursuant thereto, or that any such Consent will be delayed or cannot be obtained or, if obtained, can only be implemented at a greater cost than originally projected.	The Institution must identify at the feasibility phase any macro-level planning Consents not required for the detailed design and construction proposal for the Project, such as, any land-use and zoning Consents. These Consents must be obtained before the Project is put to tender. The Private Party must identify all planning Consents that are required for the Project having regard to its design and construction proposal. It must make adequate provision in its Works programme for such Consents to be obtained. Relief Event for delays in Private Party obtaining Consents but only if the delay is not attributable to the Private Party.	In relation to any land-use and zoning Consent, the Institution, unless Project Site selection is the Private Party's responsibility. In relation to any building Consent or other design or construction specific planning Consent, the Private Party.
17.	Political risk	The possibility of (i) Unforeseeable Conduct by the Institution or by any other government authority that materially and adversely affects the expected return on Equity, debt service or otherwise results in increased costs to the Private Party, or (ii) expropriation, nationalisation or privatisation (collectively, "expropriating actions") of the assets of the Private Party. This risk overlaps with some financial risks (e.g. tax rate change risk).	Limit risk to Unforeseeable Conduct for which there is no other relief in the PPP Agreement and to expropriating actions. Distinguish between general and discriminatory Unforeseeable Conduct. In relation to discriminatory Unforeseeable Conduct, special compensation. In relation to expropriating actions, termination and compensation.	In relation to discriminatory Unforeseeable Conduct and expropriating actions, the Institution. In relation to general Unforeseeable Conduct, the Private Party.
18.	Regulatory risk	The possibility that Consents required from other government authorities will not be obtained or, if obtained, can only be implemented at a greater cost than originally projected (compare, the treatment of planning and environmental Consents, see planning risk and environmental risk).	During the feasibility phase of the Project, a legal scan is undertaken by the Institution to identify all such Consents. Implementation by the Institution of an inter-governmental liaison process with the responsible government authorities before the procurement phase. Due Diligence by Private Party to identify the Consents required for its operating requirements. If permitted under applicable law and if this is practical, obtain all such Consents before the Signature Date.	If any such Consents (other than those relating to Private Party's operating requirements) can be obtained before the Signature Date and they are capable of transfer to the Private Party, the Institution. In relation to the Private Party's operating requirements, the Private Party.

Risk Matrix

ANNEXURE 4: STANDARDISED PPP RISK MATRIX

No.	Categories	Description	Mitigation	Allocation
19.	Residual value risk	The risk that the Project Assets at termination or expiry of the PPP Agreement will not be in the prescribed condition for hand back to the Institution.	Obligations on Private Party to maintain and repair. Audit of Project Assets towards the end of Project Term. Security by the Private Party in favour of the Institution, e.g. final maintenance bond or deduction from Unitary Payment. Reinstatement obligations on Private Party.	Private Party.
20.	Resource or input risk	The possibility of a failure or shortage in the supply of the inputs or resources (for example, coal or other fuels) required for the operation of a project including deficiencies in the quality of available supplies.	Supply contracts for supply of total project requirements, such as take and pay contracts. Relief Events but only if failure or shortage not attributable to the Private Party.	Private Party, unless the inputs are supplied by the Institution.
21.	Subcontractor risk	The risk of subcontractor (first-tier and below) defaults or insolvency. This risk may arise at the construction and/or operations phases of the Project.	Subcontractors must have expertise, experience and contractual responsibility for their performance obligations. Replacement Subcontractors to be pre-approved by the Institution. Due diligence by the Institution must include review of first-tier Subcontracts to confirm the pass through of risks down to the first-tier Subcontractors.	Private Party.
22.	Tax rate change risk	The possibility that changes in applicable tax rates (income tax rate, VAT) or new taxes may decrease the anticipated return on equity.	If change arises from discriminatory Unforeseeable Conduct, then special compensation.	In relation to tax increases or new taxes arising from discriminatory Unforeseeable Conduct, the Institution. Otherwise, the risk is the Private Party's.
23.	Technology risk	The possibility that (i) the technology inputs for the outsourced institutional function may fail to deliver the required output specifications, or (ii) technological improvements may render these technology inputs out-of-date ("technology refresh or obsolescence risk").	Obligation on Private Party to refresh technology as required from time to time to meet the output specifications. Penalty Deductions for failure to meet output specifications.	Private Party.
24.	Utilities risk	The possibility that (i) the utilities (e.g. water, electricity or gas) required for the construction and/or operation of a project may not be available, or (ii) the project will be delayed because of delays in relation to the removal or relocation of utilities located at the Project Site.	Emergency back-up facilities, e.g. generators. Emergency supply contracts. Special insurance (project delay or other business interruption insurance). Provision by the Institution of off-site connections. In the case of (i), Relief Event for off-site interruptions in the supply of utilities (unless attributable to the Private Party). In the case of (ii), Relief Event for delays in the removal or relocation of utilities (unless attributable to the Private Party).	Private Party unless the Institution is the responsible Utility. In the case of (i), even if the Institution is not the responsible Utility, the Institution may share in this risk in circumstances where insurance is not available or unaffordable, but only if this will ensure better VFM.

Structuring: Project Finance

Structuring the Financing: 3 Key issues

- Revenue sources
- Off-taker risk
- The 800 pound gorilla– sovereign guaranties

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Structuring the Financing

- Government contributions are currently sought in typical project finance structure, but….
- Contribution can be asset up front (equity contribution), or payments over time that are revenue to the project

"Financeability"

- What are the revenues of the project or system?

Air Cargo

Developer
Partner 1
Partner 2

Tenants
Lease
$
Borrower LLC
Indenture $
DT_2
Tee
$
BHs

$
Construction Loan Agreement
DT_1

MWAA Lease
- Term
- Construction
- Operation

Airport Authority

Bank

Federal Lease
- Term

Federal Government