Airport PPPs:
Challenges & Opportunities

May 2010

Airport Investments

Why PPP?

Case Studies / Key Issues

Q&A

Airport Investments & Private Sector

- Private Investment in Airports is increasing
- Driven by strong growth of air travel (Asia/Pacific 5%/yr since 1996)
- Pressure on airport infrastructure to adapt to growing demand and changing technology
- Governments facing dilemma of:
  1. How to finance airport facilities to meet growing demand, on limited public funds?
  2. How to improve service levels at airports?
  3. How to operate airports to maximize commercial potential?

➢ **Governments turning to private sector to meet investments / operational requirements for airports' expansion**

Major PPP Airport Expansions in Developing Asia / MENA

Country	Major Airports	Number of Passengers (million annual passengers, MAP)	Planned Expansion (MAP)
India	Delhi Indira Gandhi International Airport	23	33 in 2010, 100 in 2030
India	Mumbai International Airport	25	40
India	Bangalore International Airport (greenfield)	0	12 in 2010, 17 in 2015
India	Hyderabad International Airport (greenfield)	0	12 in Phase 1
Egypt	Cairo International Airport, Cairo Sharm el-Sheikh International Airport, Sharm el-Sheikh Hurghada Airport, Hurghada	12.6 6.5 5.9	22 8 7.5
Jordan	Queen Alia International Airport, Amman	5.0	9/12
Lebanon	Beirut Rafik Hariri International Airport	3.5	16

Major PPP Airport Expansions in Developing Asia / MENA

Country	Major Airports	Number of Passengers (MAP)	Planned Expansion (MAP)
Algeria	Houari Bouemeddine International Airport	5.5	11
Syria	Damascus International Airport	3.0	10
Yemen	Sanaa International Airport	1.5	5
Morocco	Mohammed V International Airport, Casablanca	5.8	8

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Airports: Activities

- Aeronautical Revenue
- Non-Aeronautical Revenue
  - Retail
  - Car Park
  - Real Estate
- Operating Expenses
- Capital Expenditure

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Airport Revenue Sources & Drivers

Aeronautical Revenues

- **Traffic Growth - increases in passenger movements or in the number and size of aircraft movements**
- **Fees charged to Airlines- the level of aeronautical charges is driven by airport costs, the charges at alternative or comparable airports and commercial considerations such as attracting high-value traffic**

Non-Aeronautical Revenues

- **Retail**
  - **Traffic Growth; Traffic Mix; Quality of Offering**
- **Car Parking**
  - **Traffic Growth; Propensity to Park**
- **Real Estate**
  - **Traffic Growth; Location**

Airports with PSP (eg. BAA) ~ 55 – 45 mix
Publicly managed airports in emerging markets (eg India AAI) ~ 99 – 1 mix

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Attractions of Airport PPPs

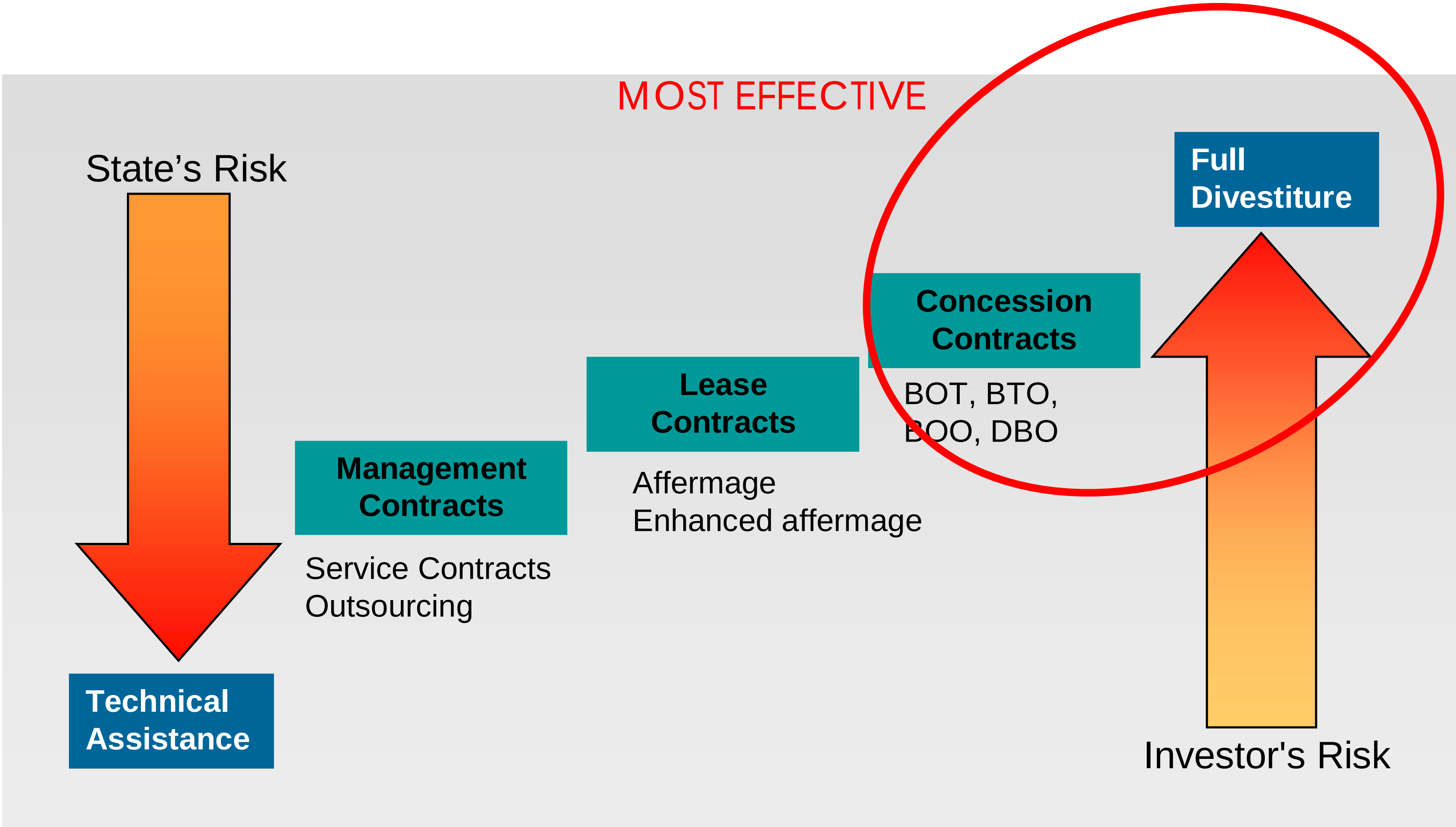
Private Sector

- Growth in passenger traffic leading to improved profit margins resulting from economies of scale
- Limited foreign exchange risk since airports generate substantial revenues in hard currencies
- Potential for improved airport amenities and increased airport revenues
- Introduces operating efficiencies and thereby improves financial performance
- Potential for real estate development and other non- aeronautical services

Public Sector

- Perceived reduction in risks to airport-related project development
- Transfer risk and/or responsibility in an operation
- Access to private sector financing freeing Government budgets for social sectors
- Introduces operating efficiencies
- Potential for new revenue streams for governments

PPP Variants in Airports



Risk Allocation

"Risks should be allocated to the party best able to manage them"

Public	Shared	Private
Permissions & Authorizations Regulatory Risk Political Risk Change in Law [Financial support]	Volume Risk Inflation Risk Force majeure	Design Construction Commissioning Operating performance Project Finance Technology obsolescence

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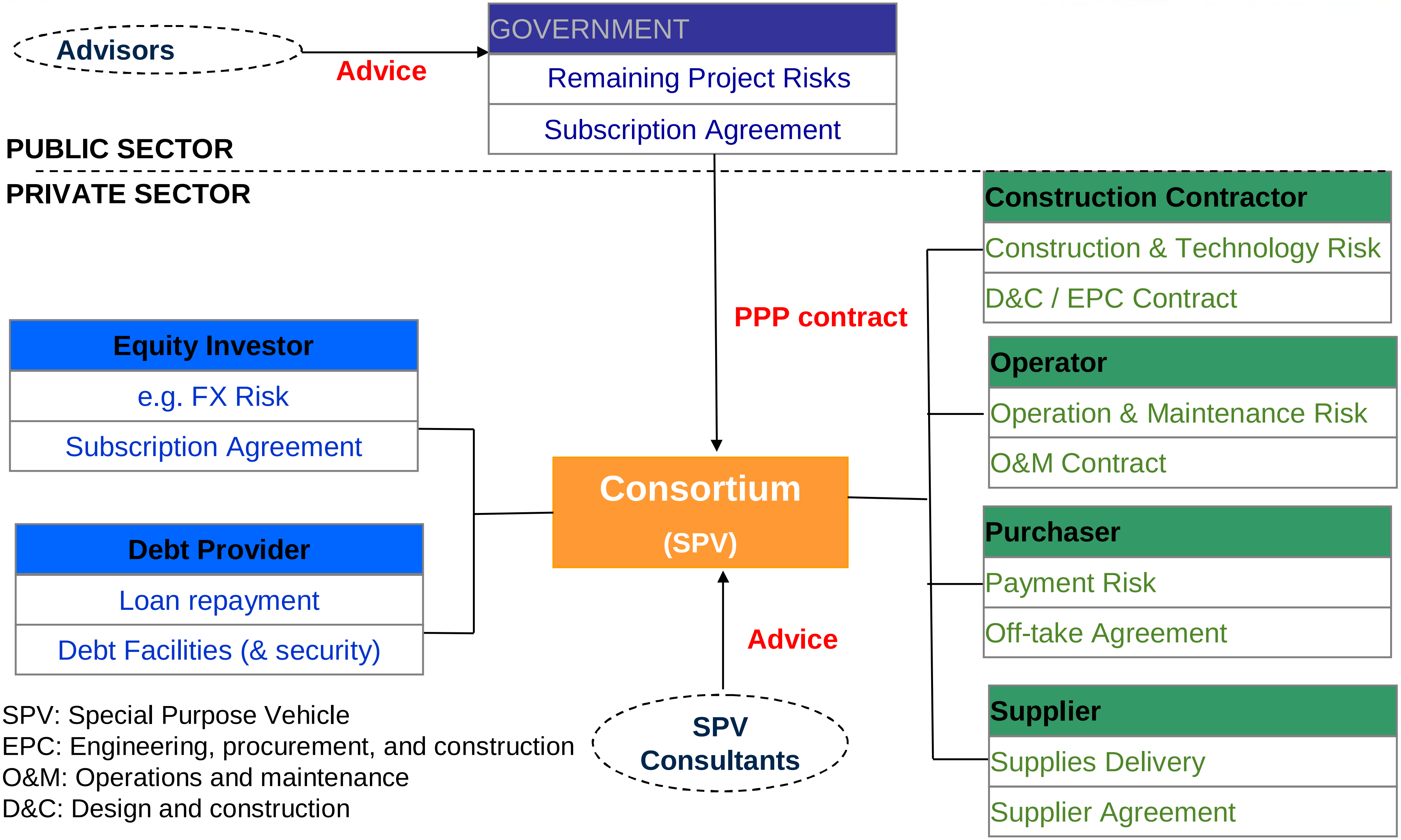
Typical Project Structure



SPV: Special Purpose Vehicle
EPC: Engineering, procurement, and construction
O&M: Operations and maintenance
D&C: Design and construction

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Typical Issues in Airport Concessions

Other than force majeure, default and termination provisions found in all concession agreements, the following issues are typical of airport PPP concession discussions:

- **Exclusivity (protection from competing airports)**
- **Architectural design, optimal size of expansion and staging (capex)**
- **Level of user charges**
- **FX risk if user charges are denominated in local currency and debt / equity are not**
- **Should traffic risk be shared between public and private sectors and if so, how much?**
- **Protection for existing employees**
- **Construction contractor’s role in consortium**

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Treatment of key issues in airport concessions is based on the following (4) cases

- Queen Alia International Airport – Amman, Jordan
- Delhi & Mumbai airports – India
- Manila airport – Philippines

Exclusivity

- Balance between competition and need to ensure revenue stream for concessionaire and lenders
- Concession agreements typically include restriction on competing airports within a certain radius (“catchment area” of airport)
- For QAIA, no competing airport to be built within 150 km radius until a certain traffic trigger is reached
- For Manila, this became a key issue for negotiation post award
- Delhi & Mumbai Solution
  - Restriction of new airports within150 km
  - If any such new airport proposed, concessionaire has right of first refusal if he participates in bid and has a financial bid within 10% of the highest bid
  - New airport already being proposed in the Delhi area

Architecture, size and capex

- Many countries see airports as flagship buildings with showcase design
- Often airports are subject of design competitions
- QAIA's FP original design was too big and too expensive to service the investment requirement based on even high case traffic projections
- QAIA Solution
  - Shrink design while maintaining architectural expression
  - Build initially to 9 MAP; expand to 12 MAP only if traffic trigger is reached
  - Led to bankable solution
- For Delhi and Mumbai, GoI specified only basic architectural standards and no special design; modular construction was required to facilitate expansion as and when needed
- Manila same as India

Regulation and User Charges

- Single till, dual till or hybrid till regulation, i.e., aeronautical and commercial revenues separated or combined
- In majority of cases, commercial revenue remains unregulated
- In QAIA, airport user charges were raised pre-PSP to regional levels (need to test elasticity of demand) and indexed to inflation
- Mumbai & Delhi Solution
  - Hybrid till with 30% of commercial revenue deducted from aeronautical revenue requirement
  - Initially no passenger fee as real estate revenue stream was expected to be huge and to encourage air transport
  - With downturn in real estate market, contract was re-negotiated to include a passenger fee
- In Manila delivery of pre-existing duty free contract became an issue

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FX Indexation for user charges

- Requirement depends on availability of local currency debt and equity and percentage of FX-denominated revenue
- Airports are a healthy source of FX revenue – eg., aeronautical charges, duty free, etc.
- In Delhi and Mumbai, no provision for FX indexation as robust domestic debt market exists and equity was majority Indian
- QAIA Solution
  - Immature domestic debt market and foreign sponsors
  - FX adjustments to airport charges triggered if FX rate moved beyond an agreed band
  - Tricky to determine the band pre-bid as it's a function of concession fees bid (on gross revenue) and retail / duty free strategy of bidders

Traffic Risk

- Unlike toll roads, traditionally airport concessions place traffic risk primarily on private sector
- May vary if greenfield airport with no traffic data
- Lenders evaluate on low case traffic projections
- Delhi & Mumbai – sponsors assumed full traffic risk
- Manila same as India
- QAIA – sponsors assumed traffic risk but relief provided for lenders if catastrophic events led to sharp downfall in traffic (eg. 9/11)

Protection for Existing Employees

- Typically, over-employment in airports managed by public sector, with strong unions which can derail PSP
- QAIA Solution
  - Existing employees given option to revert to CAA or transport ministry
  - Restrictions on lay-offs for first 2 years
- Delhi & Mumbai Solution
  - Existing employees given choice to revert to ministry / aviation authority
  - Minimum of 40% of existing employees must be retained
  - Additional percentage subject of technical bid with points awarded
- In Manila, existing employees given choice to stay with government; no minimum obligations on hire for investor
- In all cases, pension liabilities assumed by government

Investor Considerations

- Bidder consortia composition & managing conflicting objectives
  - short-term construction profits vs. long-term concession sustainability
- Need for higher equity stake by EPC contractor & Operator
- QAIA
  - Construction contractor had 10% stake
  - Nonetheless, extensive negotiations on EPC contract
  - Concession agreement required arms length EPC contract
- Delhi & Mumbai
  - No restrictions on ownership requirement
  - Bid encouraged operator to have a 10% stake and performance-linked compensation
- In Manila no restrictions, but 60% nationality (constitutional req.)

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