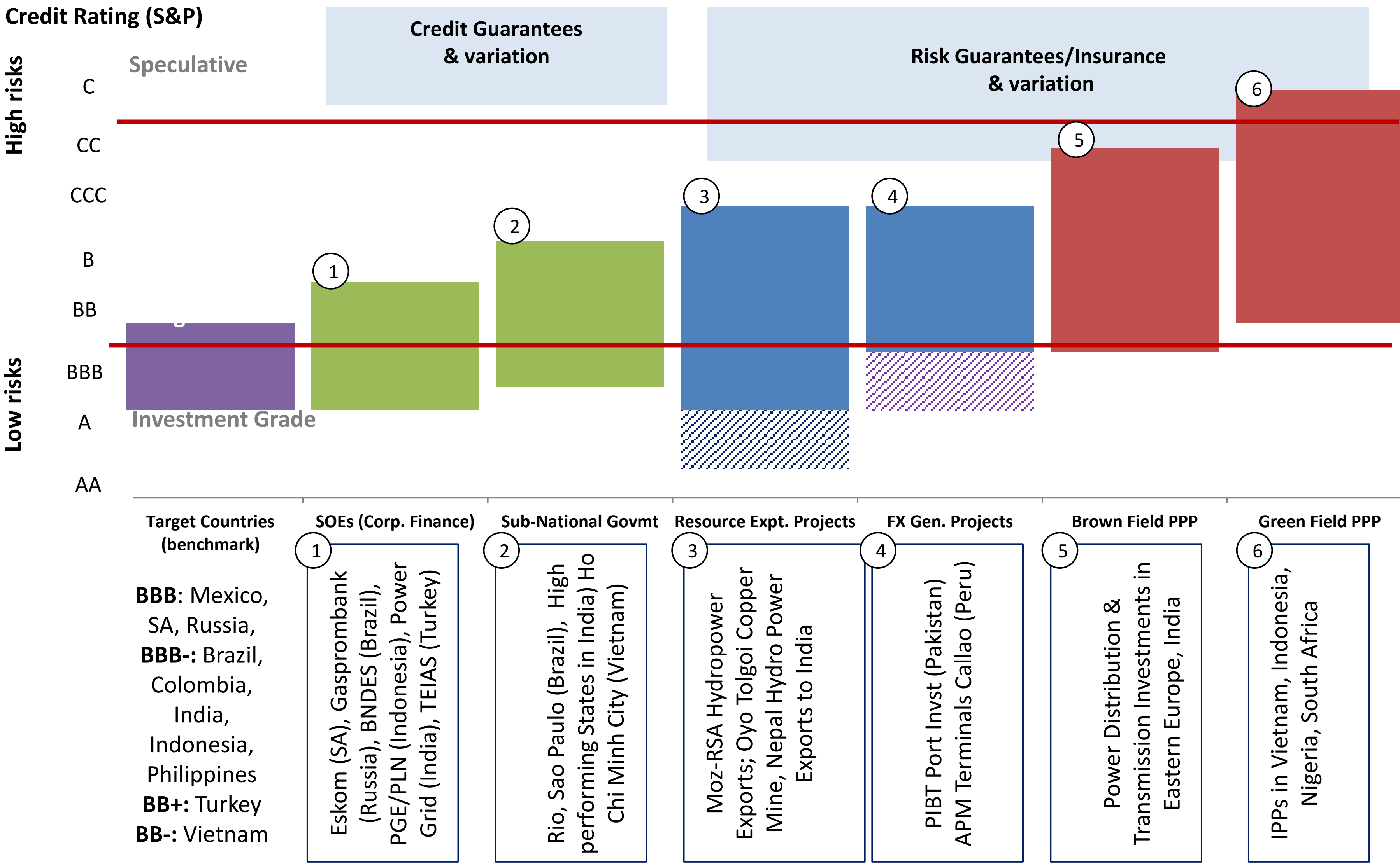
Public-Private Partnership (PPP)
&
Project Finance Transactions

Major Types of Infrastructure Financing

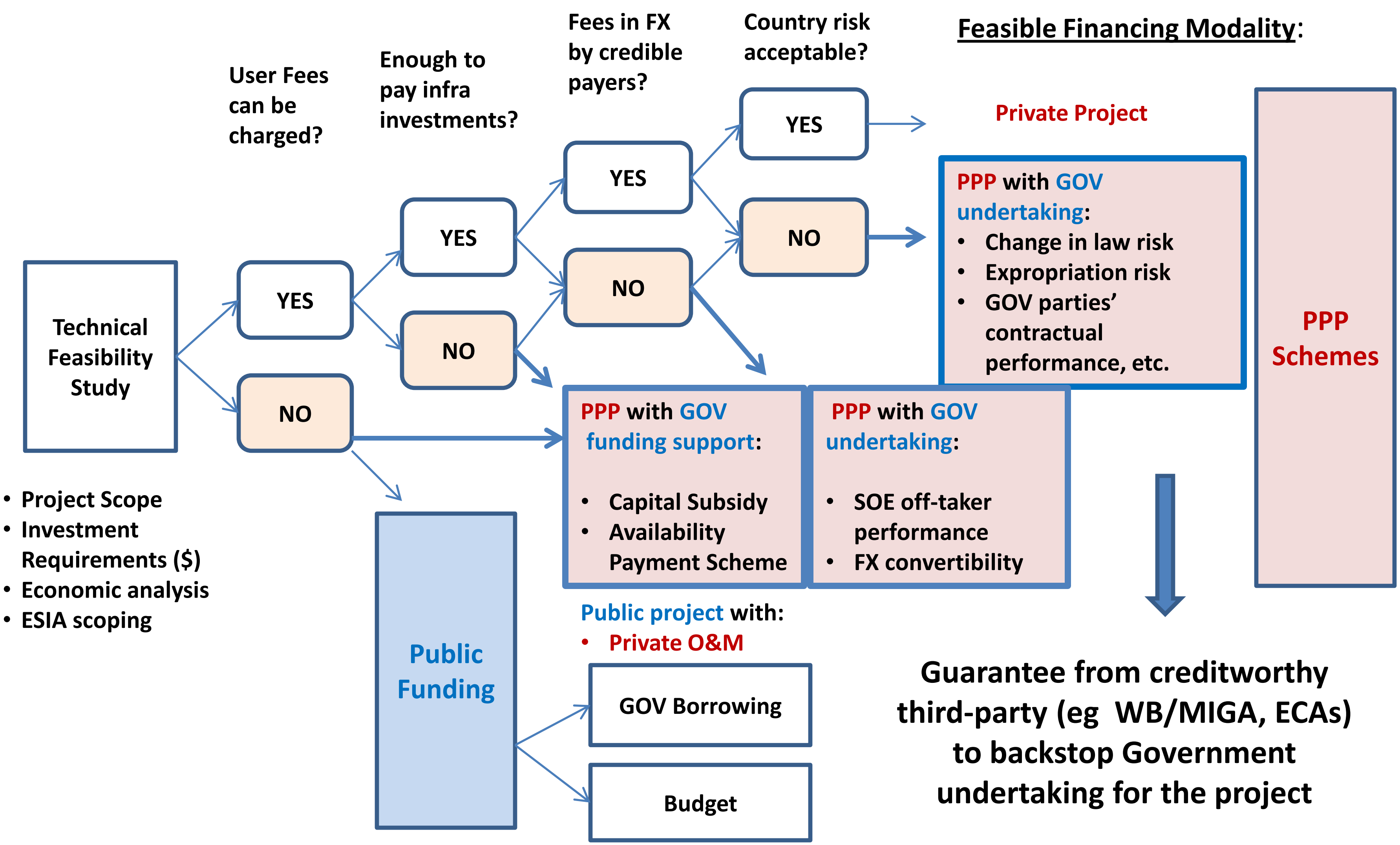
- **Sovereign Borrowing**
  - Government borrows to on-lend
  - Its Agency/SOE (or subnational) borrows with full credit guarantees of the Government
  - Lenders look at sovereign credit rating
- **Corporate Finance**
  - SOE (or subnational) borrows on its own credit standing
  - Debt paid back by corporate balance sheet, i.e. cash flow from multiple revenue sources
  - Lenders look at corporate credit standing
- **Limited-recourse Project Finance**
  - Project Debt & Equity paid back by specific project's (would-be) cash flow:
    - Project's revenues: wholesale off-take agreement; user fees
    - Pre-determined government's contractual payments: subsidy; availability payments
  - Financing secured by project assets and revenue-producing contracts, not sponsor's balance sheet; security package often requires government undertaking (risk guarantee) covering risks which are not under private financiers' control
  - Equity Investors & Lenders look at the contractual framework of the project to assess the reliability, stability & adequacy of cash flow to pay debt services and earn equity return

Creditworthiness of Transactions and Risk Mitigation Solution (Example for Better-Rated Developing Countries)

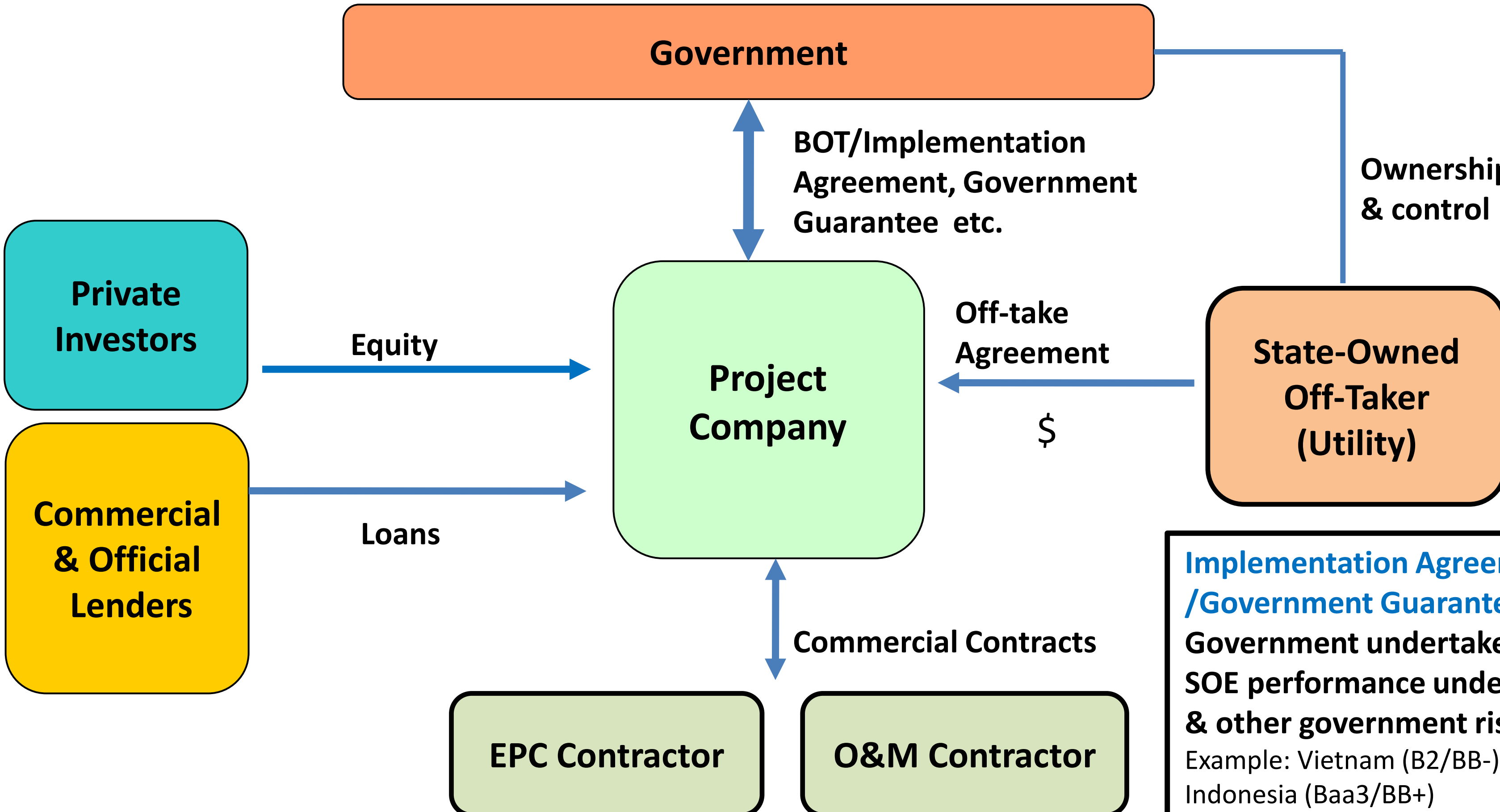


Decision Tree for Infrastructure Development

Feasibility of PPP Development

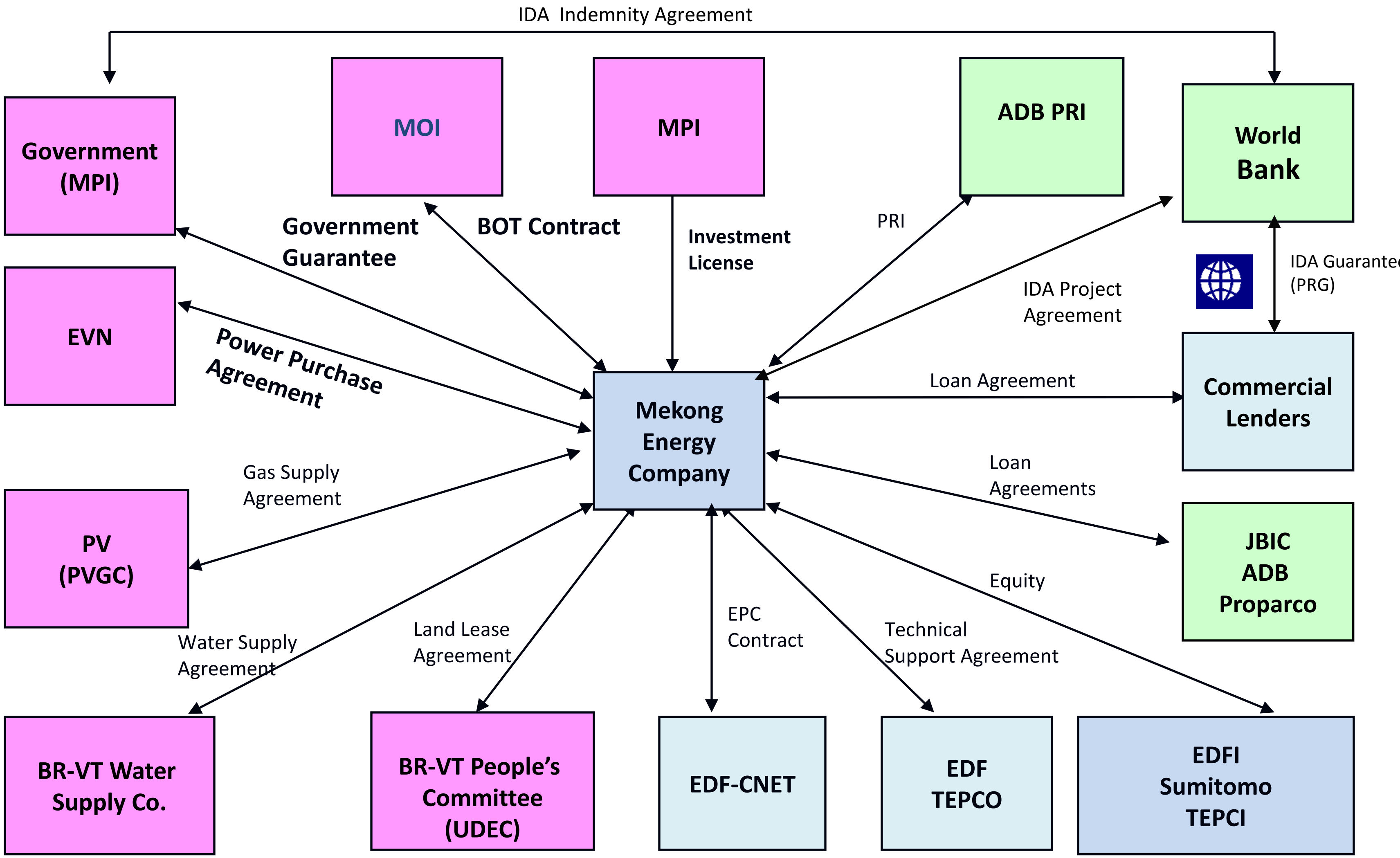


Typical PPP Contractual Structure
With Off-take Agreement
(power generation projects, bulk water supply projects)

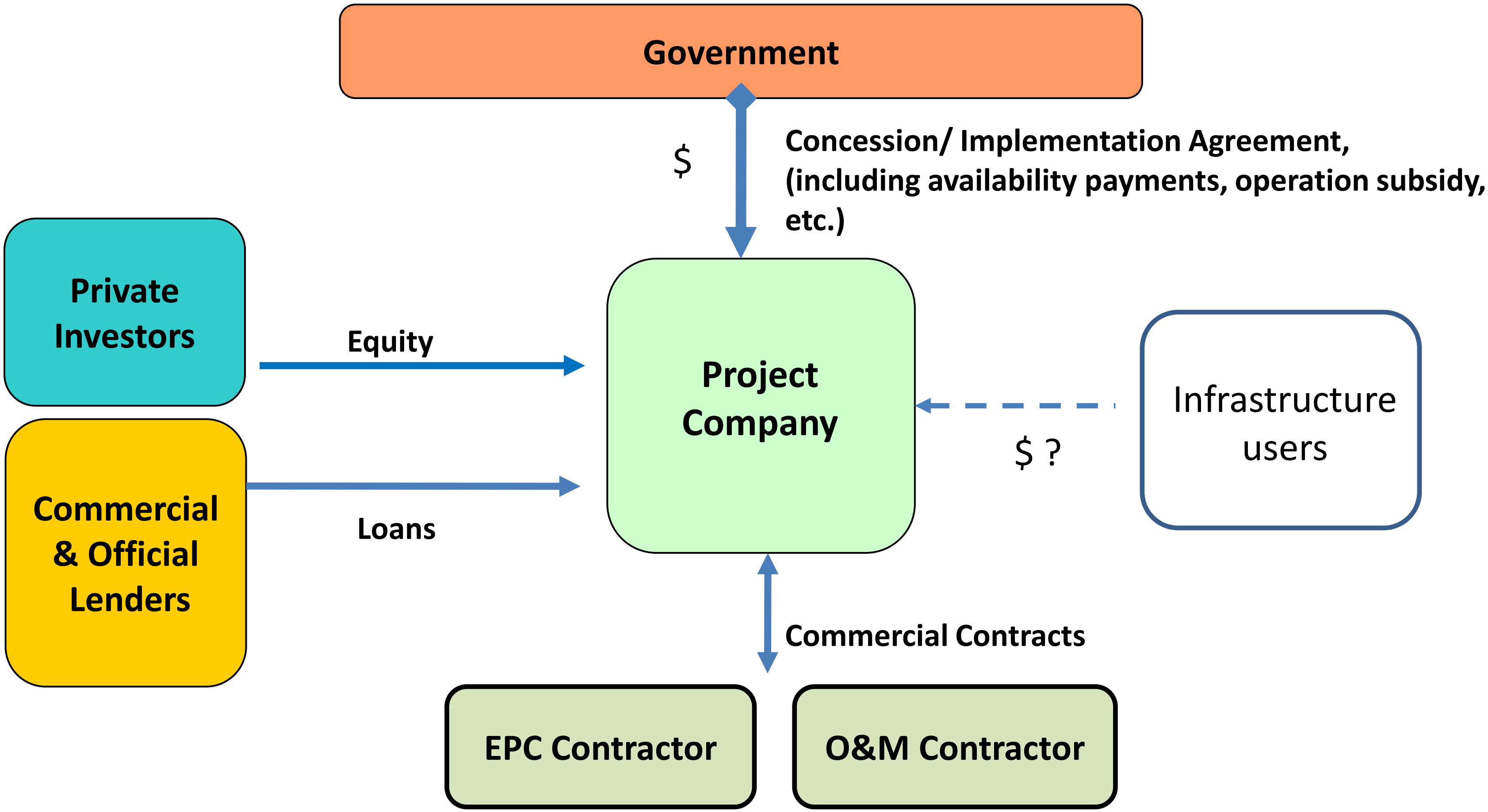


Implementation Agreement /Government Guarantee:
Government undertakes SOE performance under PPA & other government risks
Example: Vietnam (B2/BB-); Laos; Indonesia (Baa3/BB+)

Limited-Recourse Project Finance with Off-take Agreement
Vietnam: Phu My 2-2 BOT Power Project (IPP)



PPP Contractual Structure
With ongoing Subsidy Payments from Government
(road projects, urban transport projects)

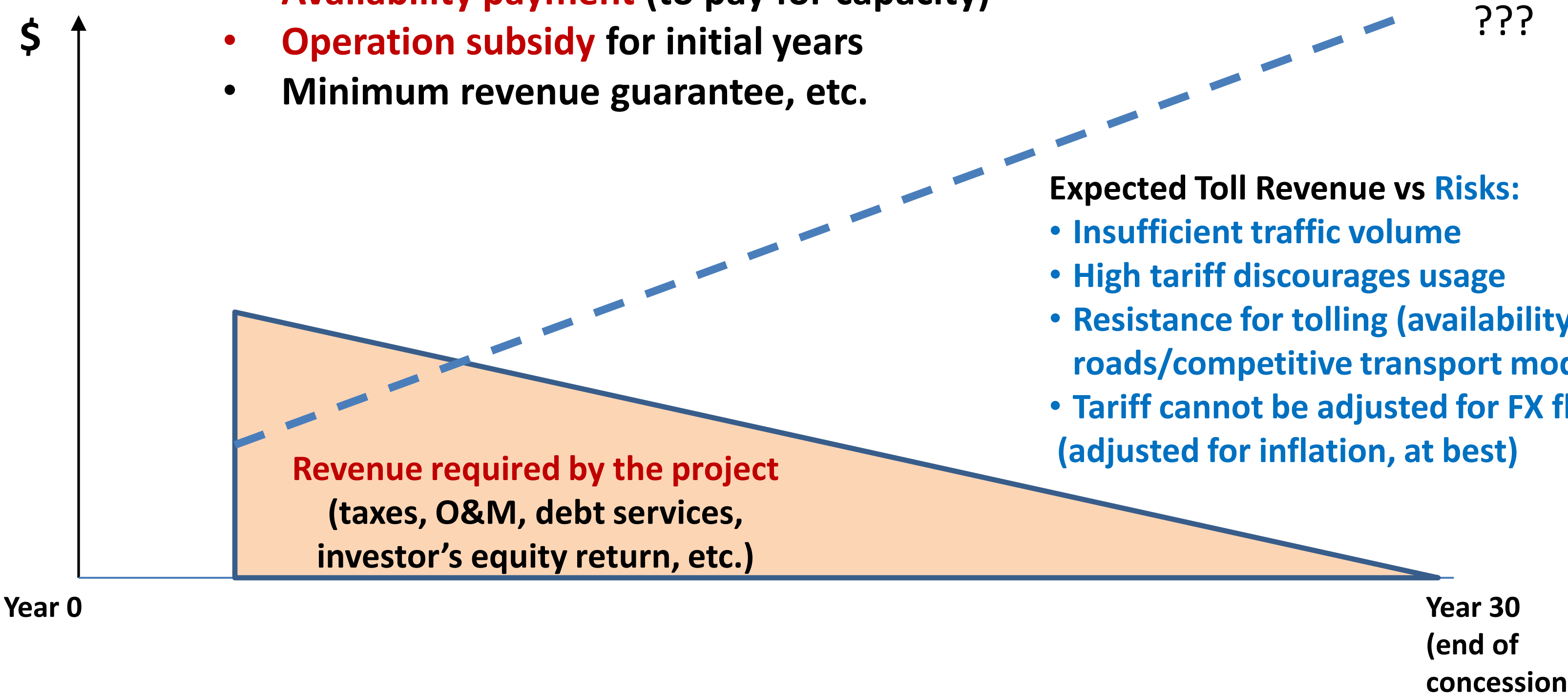


World Bank

PPP Contractual Structure
with ongoing Government Financing Support
(road/urban transport projects)

Government may consider:

- **Availability payment** (to pay for capacity)
- **Operation subsidy** for initial years
- **Minimum revenue guarantee, etc.**

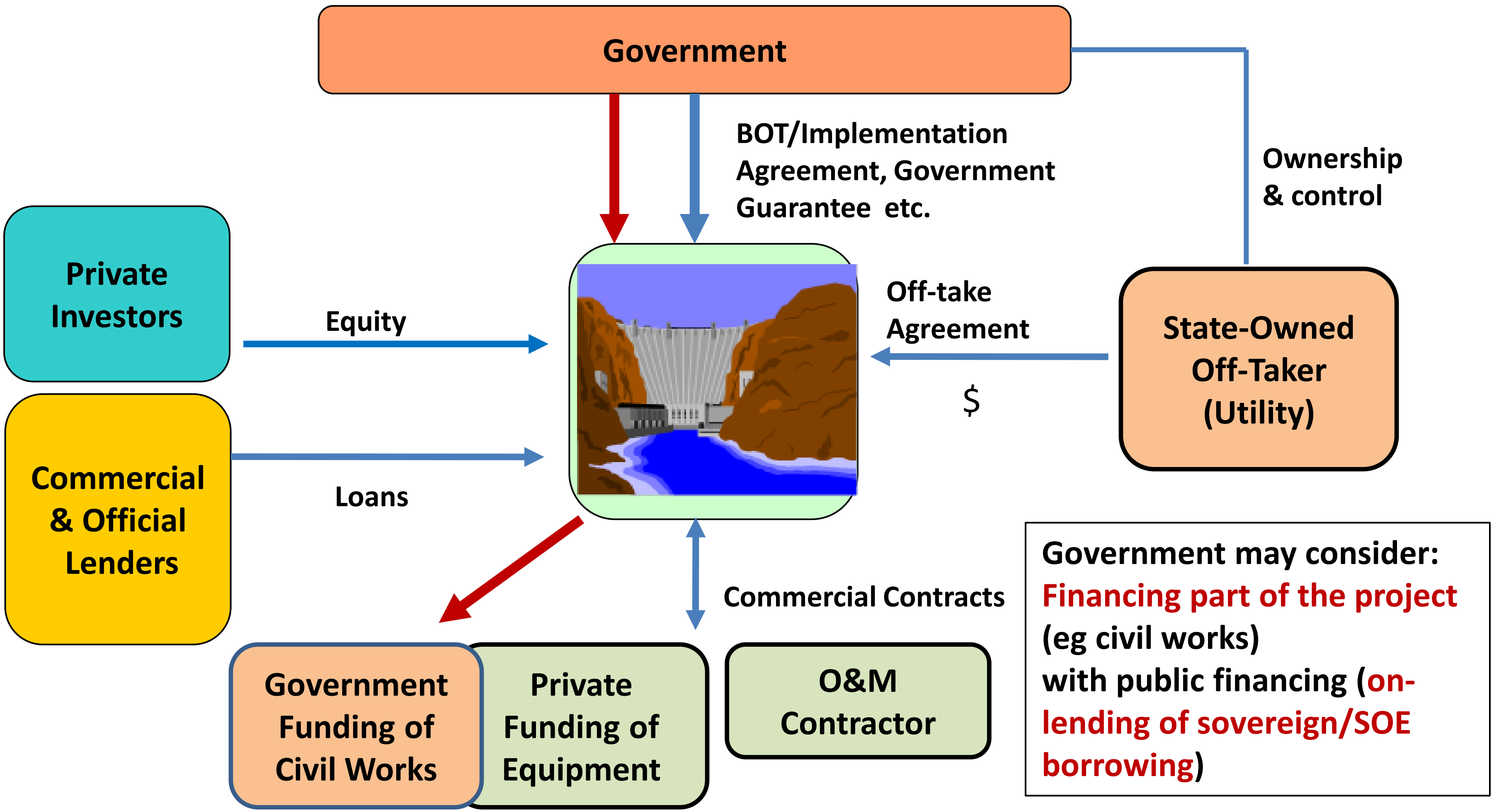


Expected Toll Revenue vs Risks:

- Insufficient traffic volume
- High tariff discourages usage
- Resistance for tolling (availability of free roads/competitive transport modality)
- Tariff cannot be adjusted for FX fluctuation (adjusted for inflation, at best)

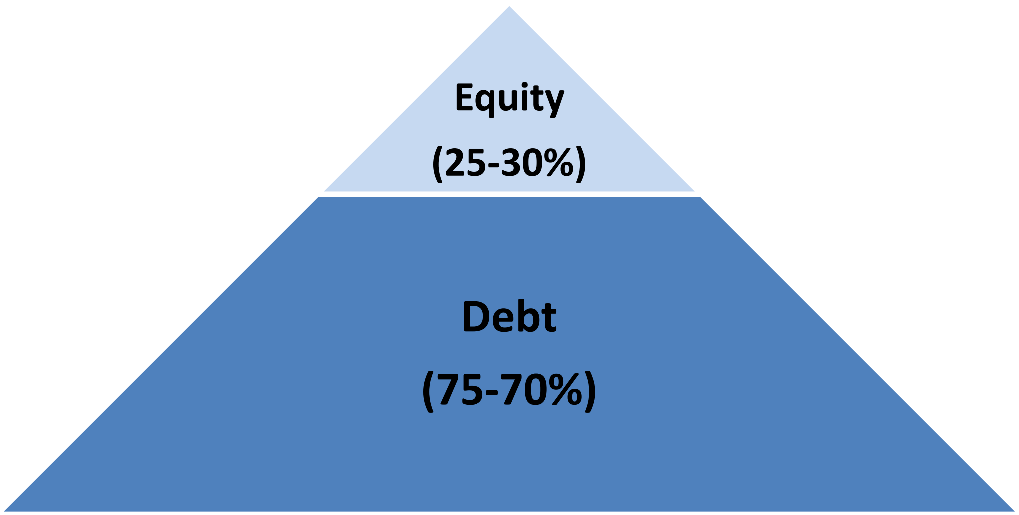
Construction Period (no revenue) → **Tariff revenue is expected to be built up over the life of concession (in case of non-tolled infrastructure, no revenue)**

Projects with substantial capital costs
With up-front Government Financing Support
(sizable hydropower projects, urban transport projects)



How a Private Project is typically Financed?

Mobilizing Debt is a Key to lower financing costs and lower required power tariff levels



- High Risk & High Return
- Investors' Return Expectation 15-20%+ depending on risk level of the projects

- Low Return (interest spread only)
- Lenders are typically very risk-averse & will not lend if any risk is not adequately mitigated
- Libor + [2-5]% depending on risk level

- By lowering the project risk, debt can be mobilized, lowering financing costs
- High risk projects are more expensive, requiring more equity to attract lenders to come in. (Example: 100% equity financing if lenders will not lend due to excessive risks)
- The longer the maturity of debt, the lower the annual debt services (principal repayment and interest payment) → the lower the tariff required in initial years

Typical Risk Allocation in PPP Contracts

Private investors will not take risks which are not under their control

Risk	IPP Project Company	Government /SOE off-taker	WB PRG
Financing (raising equity & debt)	**X**		
Construction (completing on time & within budget)	**X**		
Operation & Maintenance (plant availability)	**X**		
Demand (Demand volume, tariff adequacy & off-taker payment risk)		**X**	X
Foreign exchange fluctuation, inflation		**X** (tariff indexation to pass on to consumers)	X
Foreign exchange convertibility/transferability		**X**	X
Change in law/regulations		**X** (reciprocal; tariff adjustment)	X
Political: expropriation, war & civil disturbance		**X**	X
Natural force majeure affecting IPP	**X**		
Natural force majeure affecting the SOE off-taker		**X**	X
Fuel (supply and price)	(X)	**X** (if supplier is SOE; tariff to reflect fuel charge)	X

Risk Allocation: PPA & Government Guarantee

Example Government Guarantee & World Bank Guarantee

Country: Project	Payment Types	SOE Off-taker Payer	Government Guarantee To the Project	WB PRG (Government Indemnity to WB)
Vietnam: Phu My 2-2 IPP	Ongoing PPA	X	X	X
	Termination Compensation	X	X	X
Jordan: Aman East IPP	Ongoing PPA	X	X	
	Termination Compensation	X	X	X
Nigeria: Azura IPP	Ongoing PPA	X		X
	Termination Compensation	X	X	X
Kenya: Triumph Power IPP	Ongoing PPA	X	X*	X
	Termination Compensation	X	X*	X

* Limited to political FM & FM affecting SOE