World Bank

RENEWABLE ENERGY TRAINING PROGRAM
FINANCING RENEWABLE ENERGY PROJECTS

Private Project Financing

Kate Baragona
Senior Infrastructure Finance Specialist
TWI-Financial Solutions

Washington DC
10 October 2012

Private Project Financing

Project Finance

- Long-term infrastructure financing based on non-recourse or limited recourse structure
- Project **DEBT** and **EQUITY** paid back from **Project CASH Flows**
- Financing secured by project assets and revenue-producing contracts, not sponsor’s balance sheet
- Lenders receive lien on all project assets and can assume control of project if project company has difficulties complying with loan terms
- Special purpose entity created for each project

Private Project Financing

Project Finance

- Projects evolve through two clearly differentiated stages: construction and operation
- Financing “made to measure” – structuring tends to be costly, therefore, only justifiable for large-scale projects
- Bulk of investment aimed at tangible assets
- Totality of project’s assets pledged to financial creditors
- High leverage usually employed(70:30 / 80:20)
- Investments usually long-term (20 + years)
- Only purpose of financing is to complete projects, thus it has a limited life-span

Key Participants to a Project Finance

- **Project Sponsors** - provide equity to project; have experience in particular area of project focus
- Lenders and government take comfort if there is a high correlation between lead sponsors' core area of expertise and project focus, attributing a higher chance of success
- In emerging markets, lenders and government want to see EPC contractor with 'skin in the game', in addition to fees earned on the project EPC works; gives parties comfort that the contractor will work more diligently to secure its own equity returns from the project

Key Participants to a Project Finance

- **Third Party Contractors**
- EPC contractor who accepts responsibility for delivering a fully operational facility on a date-certain, fixed-price basis
- Operation and Maintenance (O&M) operator, who will operate and maintain the project assets upon completion of construction and the entering into commercial operation.
  - O&M operator may or may not also be a member of project sponsor group, but is always a party with particular expertise operating and maintaining assets similar to the project

Private Project Financing

Key Participants to a Project Finance

- **Lenders** – provide debt capital to the project
- Want to ensure risks allocated to the project company, to which they are lending, are in turn passed on as much as possible to the various subcontractors who will build and operate the project facility
- Interested in the financial strength and technical capability of the subcontractors, in addition to the terms of the project contracts
- Bankability – goes to the availability of banks willing and able to provide project financing
- Will require "step in rights" – allowing lenders to step into the shoes of the project company in the event that the contractors do not perform and alternative contractor arrangements are required

Private Project Financing

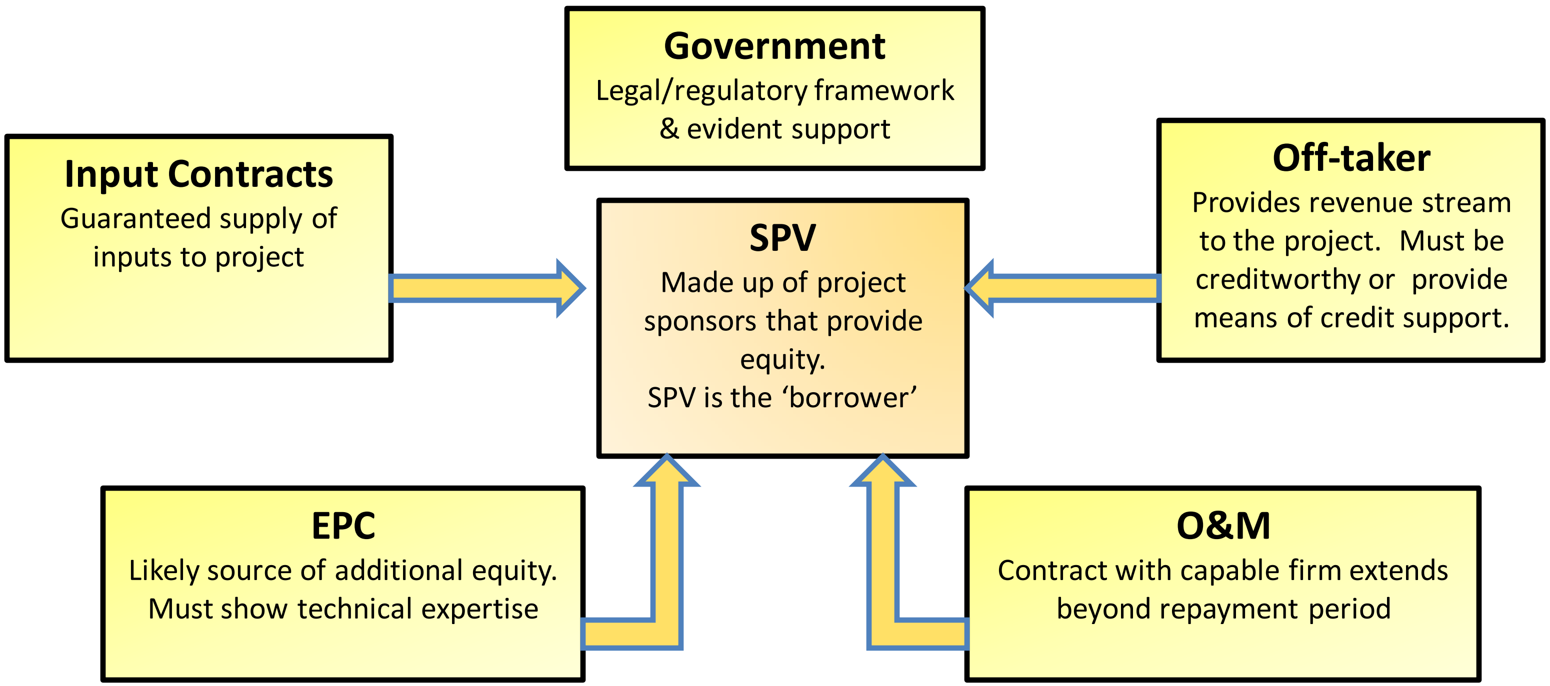
Key Participants to a Project Finance

- **The off-taker**, usually a governmental entity such as an utility, that will provide the cash revenues upon which the project financing is based
- Primary issue is creditworthiness. Lenders want assurances that the cash-flow for repayment of loans will be readily available in full and on time.
- Where market structures are new or in transition, external credit support is often required to underpin creditworthiness of off-taker and mitigate risk of non-payment
- **The end-users** - often thought to be government, but in actuality the ultimate beneficiaries of the project are the tax payers or, as in the case of tolls roads, the actual users of the completed asset

Key Participants to a Project Finance

- The relevant **Market Regulator** or governmental entity providing market oversight
- Regulation can occur by contract, by law or by appointment of an industry regulator. Typically the more developed a market, the more likely it will have an experience system of regulatory oversight.
- In emerging markets, the regulatory process is usually in its infancy. Even if a regulatory system has been designed, its body of experience will be limited and there will be greater emphasis on the contractual arrangements between the parties.

Basic Project Finance Transaction Structure



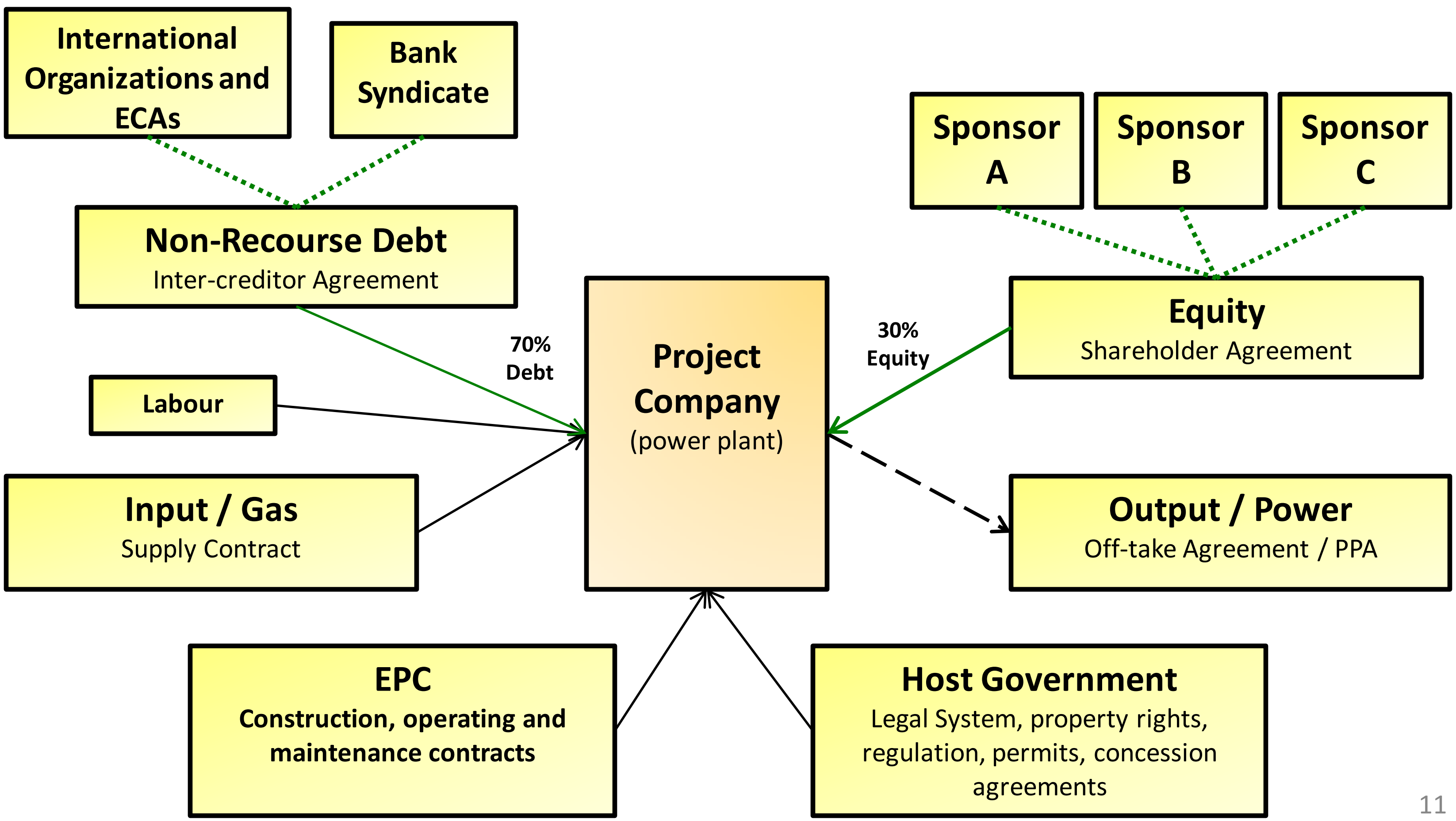
Private Project Financing

Basic Project Finance Transaction Structure

- Typical project company financed with limited or non-recourse debt (70%) and sponsors’ equity (30%)
- Project secures labour, equipment and other inputs in order to produce a tangible output (energy, infrastructure)
- Government provides legal framework necessary for project to operate

Private Project Financing

Basic Transaction Structure

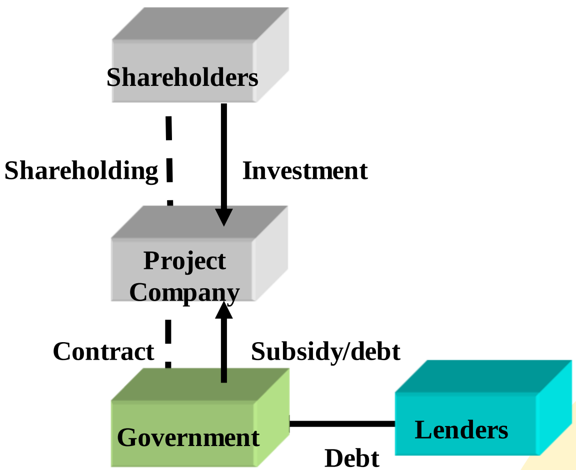


Corporate Finance vs. Project Finance

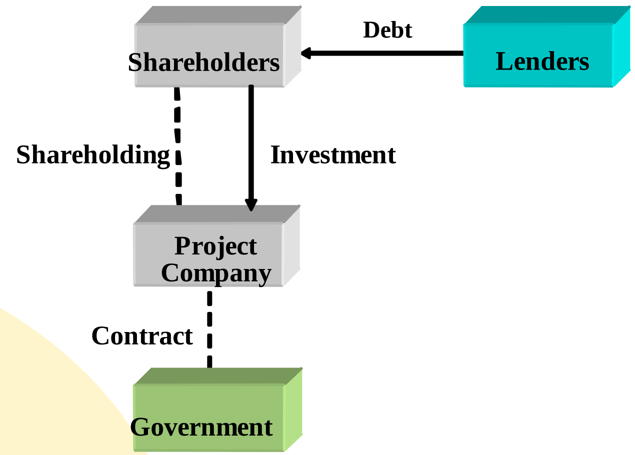
Item	Corporate Finance	Project Finance
Usage	Multipurpose	Single purpose
Duration	Variable	Long-term and limited by the lifetime of the project
Financial Structure	Debt-holders not related	Debt-holders tied by general agreement
Risk analysis	Highly dependent on financial statements and cash flow	Highly dependent on financial statements and cash flow In addition, technical considerations, contractual agreement and the debt structure are very important
Liquidity of financial instruments	Can be high if negotiated on capital markets	Generally low, as the financial agreement is private, made to measure and filled with contractual relationships
Financial costs	Relatively low	Relatively high, owing to both the structuring costs and the low liquidity of the instruments
Room for management to make decisions	Plenty if company has open capital	Little, owing to the rigid contractual structure
Agency costs	High if company has open capital	Low, as the contractual structure leaves little margin for independent action by the partners

Private Project Financing

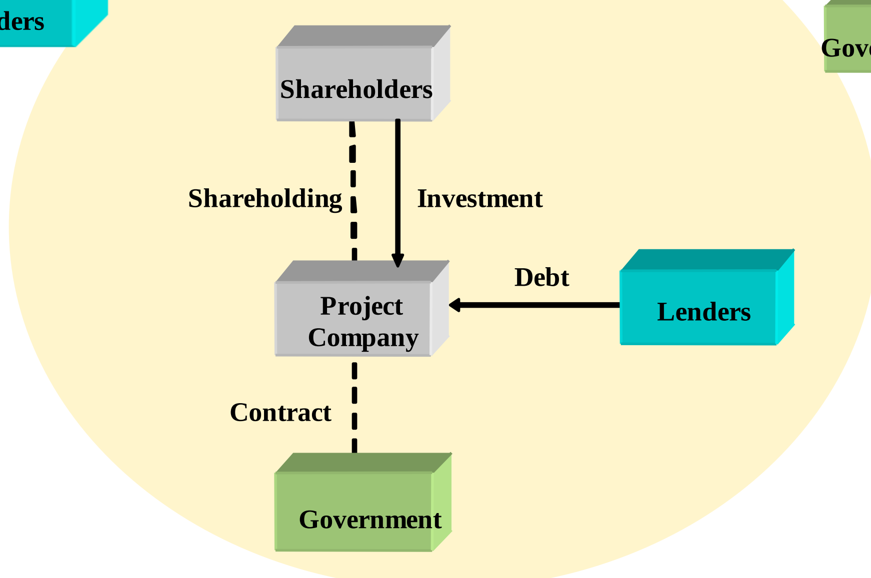
Government Finance



Corporate Finance



Project Finance



Private Project Financing

Contractual Matrix

Project's contractual framework allocates risks between the various parties and determines project lenders' risk profile

- Pre-development Agreement
- Shareholder's Agreement

Project Agreements

- Concession Agreement / License
- Construction Contract
- Development Management Agreement
- Supply Agreement
- Sales Agreement / PPA
- Operating Agreement

Private Project Financing

Interface Risks

- **Offtake Agreements** – for projects relying on purchase of output by a utility, terms of any purchase agreement as well as reliability and creditworthiness of interface party (a state-owned entity) is key
- **Connecting Infrastructure** – does it exist or is it yet to be built; how it will be addressed; who is responsible; where will funding come from; will it be completed prior to project operations, and what conditions attach if not
- **External Interface Risks** – risks of immediate project and those of other projects on which primary project is dependent for sales. Thus, project sponsors in emerging markets will often design project as an integrated whole. Private sector is often better than government at managing the risks of integrating such different components of a project.
- **Supply Agreements** – are necessary inputs secured in sufficient quantities

Risk Mitigation Instruments During Construction Phase

- Contractual arrangements and associated guarantees
- Lines of credit and contingency funds to cover unexpected cost increases or specific contingencies
- Insurance
- Contingent and callable equity

Private Project Financing

Risk Mitigation Instruments During Operating Phase

- Contractual arrangements, such as take-or-pay, put-or-pay, and pass-through structures
- Contingency reserves to cover debt service or extraordinary maintenance
- Cash traps - where the cash-flow margins or debt service cash reserve account (DSCR - typically defined on a pretax basis as gross revenues minus operating expenses divided by interest and principal payments) is insufficient to cover the margins lenders require
- Insurance for property damage, loss of revenue from machinery breakdown and business interruption from property damage, and
- Third-party guarantees

Impact of Basel III and Solvency II

Basel III and Solvency II regulatory frameworks likely to enhance stability of global financial markets, but may also cause shifts in the financial landscape:

- lenders may be less likely to lend to risky market segments
- banks may increase lending costs
- banks and insurers more likely to lend at shorter tenors
- committed bank facilities may become pricier
- equity and private equity will face highest capital charges
- foreign currency debt will carry exchange risk and country risk premium

Result: a capital constrained bank market, with available international commercial bank funds likely restricted to short-term, high-cost corporate financing and would most likely require credit enhancement and mitigation instruments to reduce political and commercial risk.

Thank You