

Key Issues in Project and Infrastructure Financing

ICAI, BANGALORE
STUDY CIRCLE

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PROGRAMME RELEVANCE

- *Context is about large projects including infrastructure sector.*
- *Practising Chartered Accountants who have Management Consultancy or Financial Advisory as a practice line. (Traditional practitioners in audit, tax and accounting may not find the discussion relevant).*
- *CFOs and Finance Controllers of Companies setting up, implementing or operating large project based ventures.*
- *Chartered Accountants engaged as –*
 - *Bankers appraising projects.*
 - *Project Consultants engaged in preparation of DPRs and Syndication of loans.*
 - *Investment Bankers*
 - *Domain experts in software development*
 - *Academics*

RECENT TRENDS AND DEVELOPMENTS

- *Public Private Participation (PPP) Model for Infrastructure Financing*
- *Special Purpose Vehicle (SPV) based Project Structure*
- *Non-recourse to Limited Recourse Lending Models*
- *Transition from Asset-based Lending to Cash Flow Based Lending Models*
- *Project Finance has moved from mere 'viability' to 'bankability' of projects.*
- *Stiff Term Sheets with new age financial covenants on cash sweeps, TRA, Assignment, Novation and Resets.*
- *Contractual Structures with new features such as Concessions, Competitive Bidding, Negative Grants, Viability Gap Financing, Take Outs etc.*

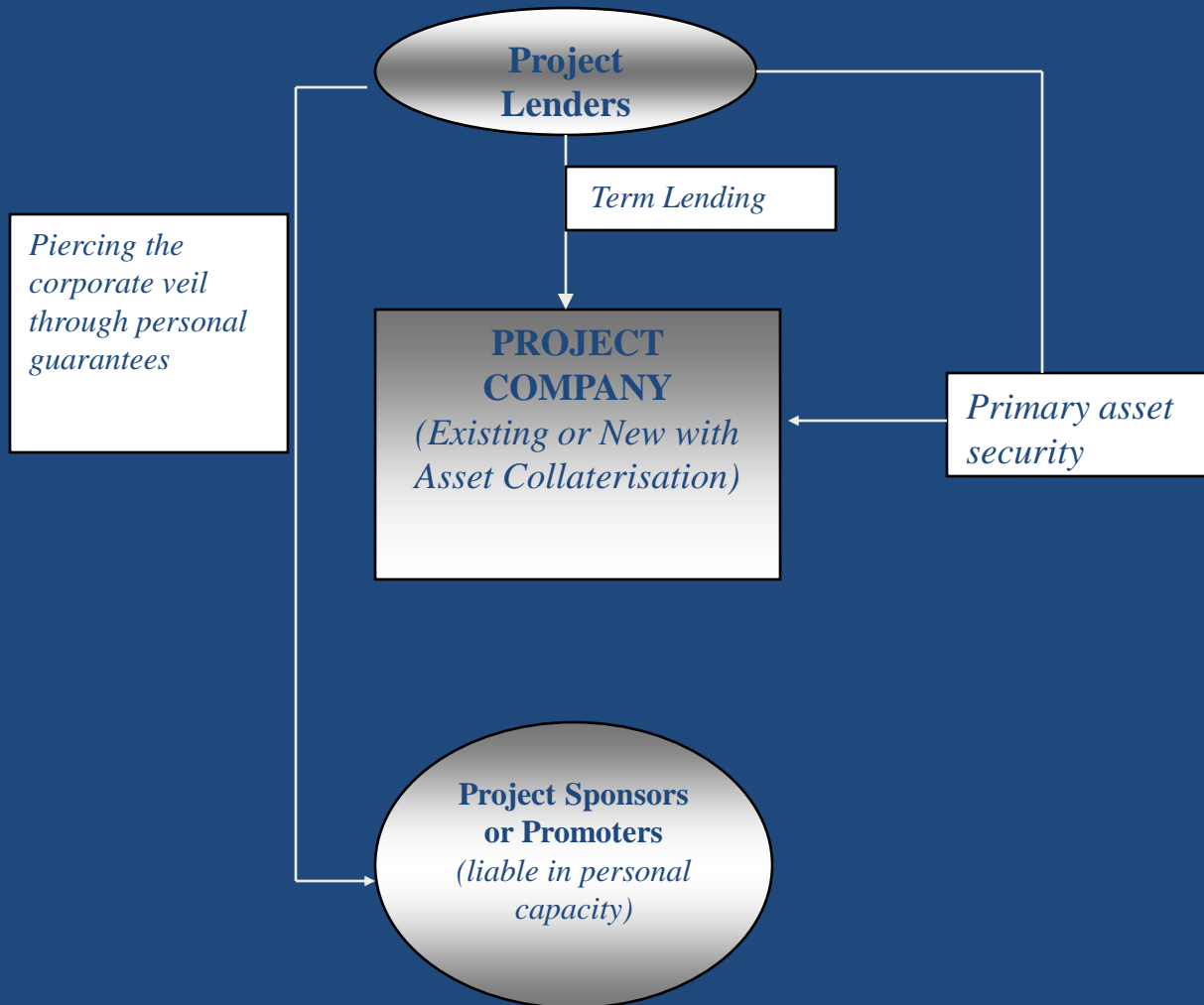
PROJECT FINANCING STRUCTURES

- *Full Recourse Financing* – The Project is assessed firstly on a stand-alone basis and then on a full recourse basis.
- *Limited Recourse Financing* – The Project is assessed only on a stand-alone basis and the credit risk is taken based on identification of risks, mitigation of risks and allocation thereof.

PROJECT FINANCING STRUCTURES

- *Full Recourse Financing* – (also known as Direct Financing) wherein the project sponsors are fully liable for the liabilities of the Project.
- *Limited Recourse / Non-Recourse Financing* – (also known as Structured Project Financing) wherein the project sponsors are not liable for the project liabilities beyond their equity stake in the project and the level of contractual liabilities (recourse) undertaken for the project.

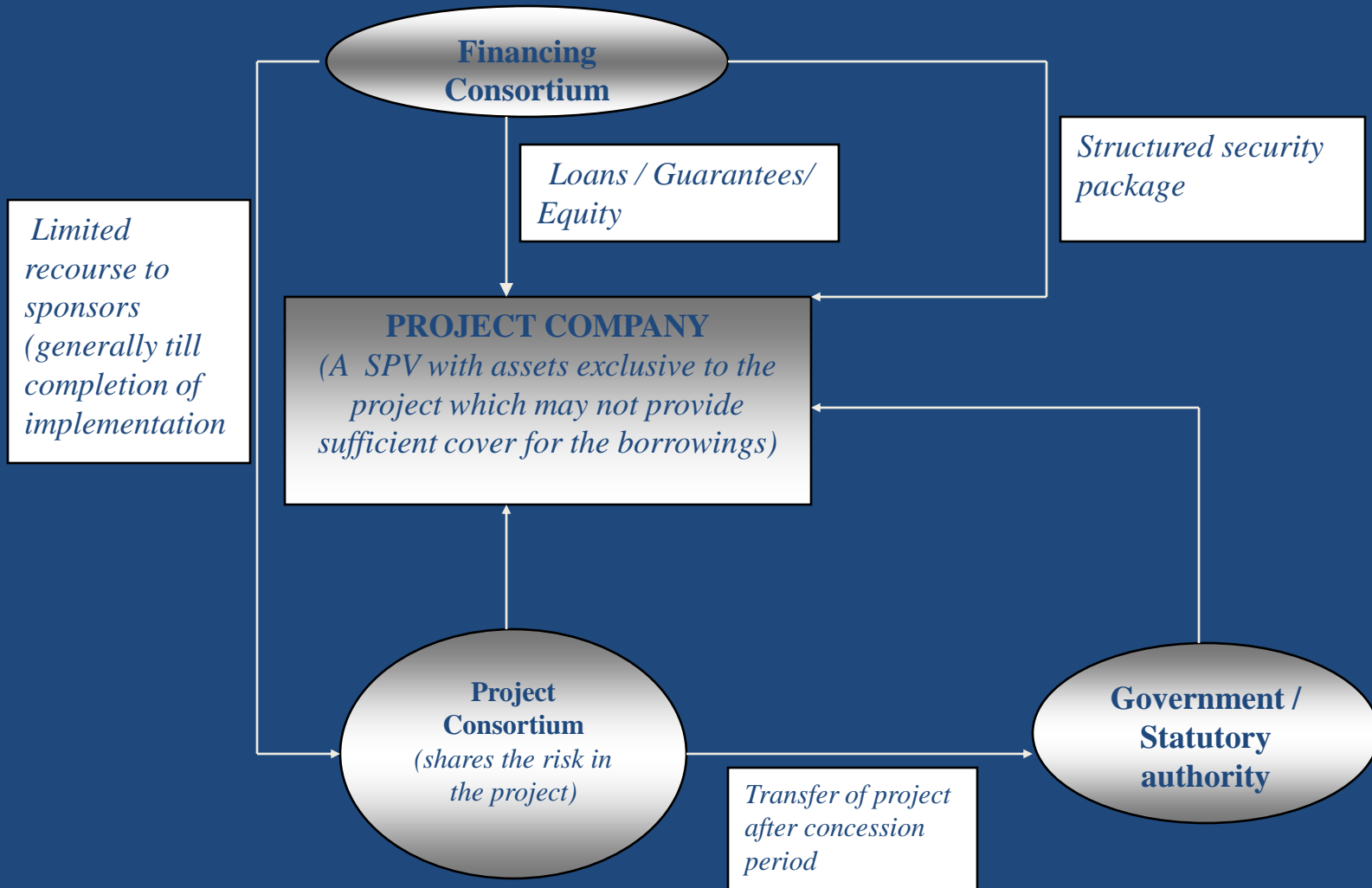
FULL RECOURSE FINANCING



PROJECT FINANCING STRUCTURES

- *Limited Recourse Financing* – Lenders stipulate stringent conditions under this structure since a SPV is created. The security package generally includes a registered mortgage / hypothecation of all assets, besides pledge of sponsor holdings in the SPV and an assignment in favour of institutions of all project contracts and documents as also a charge on future receivables.

LIMITED RECOURSE FINANCING



WHAT IS THE OBJECTIVE OF
PROJECT STRUCTURING?

TO CREATE A
BANKABLE PROJECT

PROJECT REPORTS AND
APPRAISALS SHOULD
ESTABLISH BANKABILITY

BANKABILITY = FINANCIAL
VIABILITY + RISK MITIGATION

BANKABILITY OF PROJECT

- Well-conceived Business Model and Project Logistics
- Acceptable Project Developers
- Well-structured Project Consortium and Key Project Contracts with suitability for risk mitigation and allocation.
- Acceptable Financing Mix and Core Promoters' Contribution in line with financing norms, Equity Consortium and inter-se shareholders' agreements.
- Financial Viability based on detailed financial modelling.

PROJECT DUE DILIGENCE AND STRUCTURING

- Project Conceptualisation and Business Model
- Full Recourse / Limited Recourse
- Project Consortium
- Key Project Contracts
- Project Financing Structure
- Equity Consortium
- Lenders' Consortium
- Regulatory Perspective –
 - Basic approvals
 - Foreign Investment
 - Leveraging
 - Technology transfer
 - Tax Issues
- Risk Analysis, Mitigation and Allocation

PROJECT DUE DILIGENCE AND STRUCTURING

- Business Sector, Nature of Business, Industry Structure, Core Competitiveness if any, current state of business and future prospects.
- Operating environment, Industry Structure, Geographical advantages, industry dynamics, market perspective and positioning.
- Scale of the Project, installed capacities envisaged, expected operating efficiencies, project logistics.
- Technology perspective, availability of technology, know-how and equipment sourcing, technology transfer if any.

PROJECT DUE DILIGENCE AND STRUCTURING

- Marketing survey and validation
- Pre-Feasibility study if required to provide economic justification for the project
- Identification of technology
- Preliminary assessment of investment plan
- Identify Key Statutory Clearances and processes for project implementation
- Project Information Memorandum / DPR

FULL RECOURSE VS LIMITED RECOURSE

1. Category of the proposed project – Expansion, Modernisation, Related Diversification (Forward or Backward Integration) or Unrelated Diversification?
2. Greenfield Project / Grass-root Project?
3. Is the proposed investment commensurate with the present size of business or does it involve significant scale up?
4. Does the project involve risks that are significantly different from existing risks?
5. Does the project require strategic / financial / implementation partners?
6. Does the proposed investment provide an immediate revenue model or does it involve gestation and market risk?
7. Is the proposed investment heavily dependent upon the existing servicing capacity for the initial period before it becomes self-sustaining?
8. Does the proposed financing plan dilute existing lending position?

PROJECT CONSORTIUM

- Project Sponsors (Promoters or Developers)
 - Need to validate previous industry track record, experience in project implementation, financial track record, previous and existing banking relationships
- Strategic Partners
 - With project related business experience, global market access and technology
- Government Agency / Authority
 - PPP Model
- Implementation Partners
 - With project implementation experience
- Technology Partners
 - For technology transfer, equipment sourcing with or without financial participation

SETTING UP A PROJECT CONSORTIUM

- If the developers are not familiar with the business, the services of an investment bank or project consultancy firm are hired.
- The PIM is prepared and circulated among potential consortium members.
- Negotiations are made with regard to terms for participation including equity investment if any.
- Regulatory provisions / Government Policy Guidelines / Pre-bid Qualification norms need to be verified before structuring consortium.
- Bid Advisers may be used in projects involving competitive bidding model for awarding of project to eligible consortia.

SETTING UP OF PROJECT SPV

- Drafting of Memorandum and Articles
 - Private vs Public Company (section 4(7) of Companies Act).
 - Objects Clause
 - Initial Authorised Capital
 - Subscribers and Directors
- Transfer of pre-incorporation contracts to the SPV
- Initial Equity Contribution and Project expenditure
- SPV enters into MOUs with Project Consortium

PRE-FUND RAISING PHASE

- In projects under competitive bidding, the project is awarded to the consortium that qualifies in the technical and financial bid before it comes for fund raising.
- Institutional financing is not taken up until project obtains key government and environmental clearances and Coastal Zone Regulation Clearance and the main project agreements (PPA /Concession /Shareholders /Procurement/ Off-take agreements) are executed.
- In other non-PPP projects, land allotment, key Central and State Government approvals and key contracts (as applicable) need to be in place before fund raising commences.
- The Detailed Project Report, Technical Feasibility Report and Market Survey Report, Environmental Assessment Report (if any) and other reports as may be applicable need to be ready before approaching Institutions.

IMPLEMENTATION PROCESS FLOW

- In the case of projects to be awarded through the Competitive Bidding Route and PPP –
 - MOUs for forming Project Consortium.
 - Submission of Request for Qualification (RFQ)
 - Selection in short-list
 - Submission of Request for Proposal (RFP) - the main bid document.
 - Negotiation and award of project by the Government and signing of PPA / Concession Agreement / Implementation Agreement
- In the case of projects to be awarded under the MOU route –
 - MOUs for forming Project Consortium
 - Expression of Interest to the Government and getting selected after screening committee clearance.
 - MOU with Government for award of project. Signing of Concession Agreement to follow.
- Prepare the project literature (DPR) for fund raising.

KEY PROJECT CONTRACTS

Can Chartered Accountants / Company Secretaries provide drafting services?

No says Bombay High Court ruling in *Lawyers Collective vs Bar Council of India and others*, ruling dated 16th Dec 2009 since it amounts to ‘**practice of law**’ under the Advocates Act 1961 under which **only lawyers** are eligible being members of the Bar Council of India.

KEY PROJECT CONTRACTS

- **Shareholders' Agreement** – Governs the inter-se relationship in the Equity Consortium. The main clauses to be structured are –
 - Capital Structure
 - Representation on the Board and terms of appointment
 - Affirmative and veto rights
 - Divestment / Exit clauses
 - Other rights and obligations
 - Conditions Precedent
 - Closing event

KEY PROJECT CONTRACTS

- Licence Agreement / Concession Agreement / PPA –
 - Definitions – not to be defined too widely – *e.g.* ‘change in law’. To be unqualified and unambiguous.
 - Conditions Precedent – see that these are not too stringent or the time given is too short. Termination window in this clause to be scrutinised.
 - Development stage / Construction Phase –
 - Clearly define rights and obligations and project milestones.
 - Necessary assistance from the State Agency should be incorporated.
 - The stipulated date of commencement should be carefully negotiated.
 - Technical parameters defining completion.
 - Penalties for delays and technical deficiencies.
 - Ceiling on Capital Cost / overruns

KEY PROJECT CONTRACTS

- Maintenance – Parameters, right of inspection.
- Capacity Utilisation – Measurement thereof
- Revenue Clause – Method of computation, technical parameters.
- Payment Clause – The minimum obligation to pay through ‘Take or Pay’, annuity payment or other mechanism.
- Product off-take – Right of first refusal
- Takeover Clause - residual value
- Termination Clause – stages defined and mechanisms
- Force Majeure clause – not to be too wide, remedy to be spelt out, liabilities not to be open ended.
- Jurisdiction, ADR mechanism – Governing law should be Indian law. Arbitration to be cost efficient should be in India. Agreement should provide for other means of dispute resolution such as discussions, experts for conciliation etc.
- Assignment – as collateral in favour of lenders
- A standard PPA has been developed by Financial Institutions in the case of power projects.

KEY PROJECT CONTRACTS

- Other Key Contracts –
 - EPC / Implementation Agreement / Turnkey Contract – Defines the role of the implementing agency / role of the project developer during implementation. Key clauses relate to project cost, payment structure and milestones, completion tests, minimum functional specifications, support services, provisions for cost escalations, copyrights, training manuals, spare parts, warranties, penalty provisions and LDs, force majeure, arbitration / liquidated damages, jurisdiction.
 - FSA / Procurement / Transportation Contracts – Define the long term feedstock / key raw material supply / transportation arrangements. In the case of power projects, a model FSA has been developed by Financial Institutions. Important clauses relate to making available supplies, 'Take or Pay' clause, transportation and handling, pricing and price adjustment mechanism, exchange risk, product liability, payment terms and mechanism, force majeure, liquidated damages, jurisdiction.

KEY PROJECT CONTRACTS

- **Water Supply Agreement** – Usually entered into with the Government or other water authority (mostly for water dependent projects such as hydel power). The important clauses are similar to that of a procurement contract.
- **O&M Contract** – Usually for facility management in infrastructure and power projects. Important to identify service provider's obligations, penalties and damages fee structure (mobilisation fee and recurring fee), termination and assignment.
- **Product Off take or Usage Agreement** – Similar to any purchase agreement (except in a power project wherein the PPA is the product agreement). Critical clauses relate to product pricing, 'take or pay', payment terms and mechanisms, product liability, exchange risk, force majeure, arbitration, termination, jurisdiction.

KEY PROJECT CONTRACTS

- **Foreign Collaboration Agreement** – Very critical for technology intensive projects. Key clauses relate to definitions, domain for transfer of know-how and intellectual property rights, obligations of the collaborator, representations and warranties, consideration (lumpsum and royalty), equity investment if any, exchange risk, arbitration, jurisdiction, termination. The lumpsum and royalty payments should be as per Indian law –
 - The lumpsum fee shall be paid in three instalments unless otherwise approved – (a) first instalment of one-third after the agreement is filed with the RBI and the authorised dealer, (b) second instalment on delivery of the technical documentation and (c) the third and final payment on commencement of commercial production or four years from the date of filing with the RBI, whichever is earlier. The lumpsum can also be structured in more than three instalments subject to the above milestones being achieved.
 - Royalty not exceeding 5% for domestic sales and 8% of export sales.
 - Royalty may also be paid upto 2% on exports and 1% on domestic sales under automatic route in respect of use of trademark and brand name of the foreign collaborator in cases where there is no technology transfer.

KEY PROJECT CONTRACTS

- **JV Agreement** – JV agreement depends on the structure of the formation of the JV. In the case of a SPV, the critical clauses in the JV agreement are about shareholding and voting rights, Board representation and veto powers, management rights, rights and obligations of each partner, exit mechanisms, non-compete clause, intellectual property usage, remuneration for special services, confidentiality, termination, arbitration and jurisdiction.

RISK ANALYSIS IN PROJECTS

RISK IN PROJECTS

- How risk arises –
 - High capital costs – due to capital intensive nature of projects
 - Long gestation leading to market – several stages during development and construction
 - Management needs to be able to manage successful completion and operations.
 - Financing – Upfront financing risk in the form of sunk cost.
 - Market risk – Due to long gestation, market parameters could change.
 - Product risk – the product may not be accepted / fully priced.
 - Viability risk – returns are slow and back-ended
 - Credit risk – cash flow as envisaged should arise and provide debt servicing.

OBJECTIVES OF PROJECT RISK ANALYSIS

- Why risk analysis –
 - To identify and allocate a particular risk to that party in the project who is most appropriately placed to bear that risk.
 - To provide efficient returns based on risk-reward relationship.
 - To mitigate the residual risk in the project.
 - To provide limited recourse in a non-recourse (SPV) structure.
 - To provide for better project monitoring mechanisms.

RISK MITIGATION

- Development Phase risks –
 - Competitive bidding to prevent cost plus contracts, litigation, reversal of Govt. decisions.
 - Financing is not taken up until key clearances (Regulatory and Environmental) are achieved.
 - Syndication route is adopted to reduce time taken to reach financial close.
- Construction Phase Risks –
 - Contingency provision in project cost, built-in stand by capacity.
 - Turnkey Contract is awarded after due diligence (or competitive bidding).
 - If equipment is also provided (EPC), the cost of equipments is to be quoted separately.
 - Warranties for Minimum Functional Specifications
 - Liquidated damages for time overruns (normally capped at 20% of consideration)

RISK MITIGATION

- Liquidated damages for performance guarantee (normally around 10% of consideration)
- Specific warranties for equipments and other high cost items.
- Project Insurance for force majeure
- Stand by credit facilities
- Sponsor Support Agreement
- Operational Phase risks –
 - O&M contracts provide for quality assurance and warranties on minimum guaranteed performance standards.
 - In power projects, FSAs provide for inflation based cost adjustment factors which are given 'pass through' status in PPAs.
 - Supply risk in procurement contracts linked to off-take risk in Off-Take agreements.
 - Take or Pay arrangements for large off-take agreements.
 - Credit risk and Sponsor abandonment risk are covered through financial contracts and cash flow mechanisms.
 - Business Interruption and Project Insurance for force majeure

RISK MITIGATION

- General Risks –
 - Country risks are often taken based on country rating by stake holders in the project.
 - In large projects, country risks are covered through the following agencies –
 - MIGA (World Bank Group based in Washington D.C.)
 - OPIC (US Govt. Entity for Private Investment)
 - AIG (American Insurance Group)
 - Lloyds Insurance (UK)
 - Barge mounted projects
 - Foreign Exchange and repatriation risks are mitigated through off-shore escrow accounts, contractual covers, hedging through forex derivatives
 - Force Majeure risks are covered through insurance.

RISK ALLOCATION MATRIX

Type of Risk	Allocation
Development Phase Risk	Project Sponsors / Developer (SPV)
Construction risk	Turnkey contractor
Technology /Equipment	Collaborator / Equipment supplier
Project Completion	Turnkey contractor / Sponsors
Performance Standards	O & M contractor
Procurement / Fuel Supply	Procurement / FSA Contractor
Market Risk	Users / Offtakers
Financing / Credit Risk	Limited recourse contractual arrangements, cash flow lock boxes.
Force Majeure	Insurance
General Risks	Contractual Arrangements
Residual risks	Developer, Equity Consortium, Lender Consortium

KEY FINANCIAL ASPECTS

KEY FINANCIAL ISSUES

- Equity Structure
- Promoters' Contribution
- Debt-Equity ratio
- Unsecured Loans and Preference Shares
- Existing Operations and banking relationships
- Extent of recourse – key aspect is 'ring fencing'.
- SPV Accounting Impact – off balance sheet? – Since sponsor bears residual risk, integration under IFRS is a must.
- SPVs under PPP are ineligible for listing

FINANCING THE PROJECT

- Domestic Rupee Project loans from banks –variable with resets - presently the most viable option.
- FC Project loans from domestic sources – presently unavailable.
- ECBs – currently not in vogue due to adverse sovereign rating, market volatility, ECA loans are possible but take a long time.
- Viability Gap Funding – up to 40% of capital cost in approved projects.
- Infra Bonds – Minimum 7 years.
- Financial Guarantees from Indian banks –with RBI approval.

FINANCIAL MODELLING

- Identification of Revenue Streams –
 - Main revenue
 - Auxiliary revenue
 - Other Income
- Value Addition and Product Mix
- Break-down of Operating Costs –
 - Direct Production Costs
 - Indirect Production Costs
 - Administrative Costs
 - Selling and Distribution Costs

FINANCIAL MODELLING

- Fixation of Assumptions underlying Financial Model –
 - Capacity Utilisation and assessment of ramp up phase
 - Selling Prices
 - Key raw material / contracted costs
 - Direct Conversion / other input costs
 - Indirect Production / operating costs
 - Administrative Costs
 - Selling and distribution costs
- Depreciation rates –
 - Under Straight Line method as per the rates prescribed under Schedule XIV of the Companies Act.
 - Under WDV method as per the IT Act.

FINANCIAL MODELLING

- Assessment of Working capital Requirements –
 - Inventory and Receivable holding period
 - Credit period for key raw materials
- Interest rates –
 - For term borrowings
 - For working capital borrowings
- Corporate Tax estimations for the Project –
 - Stand-alone in the case of SPV projects
 - For the company as a whole in full recourse projects
 - Tax incentives / holiday
 - MAT computations
- Other assumptions /estimations such as –
 - Exchange rates
 - Implementation period
 - Draw down of term loans
 - Raising of Equity Finance

FINANCIAL MODELLING

- Main Computation Schedules –
 - Project Cost Statement
 - Means of Finance Statement
 - Term Loans Draw Down Schedule and computation of Interest during Construction
 - Capitalisation Schedule
 - Term loans amortisation Schedule
 - Interest and Financial Cost Schedule for Operating Phase.
 - Working Capital Schedule
 - Depreciation schedule
 - Amortisation of deferred expenditure.
 - Tax Computation Statement

FINANCIAL MODELLING

- Statements of Financial Forecast –
 - Projected Operating Statement (P&L)
 - Projected cash Flow Statement
 - Projected Balance Sheet
- Additional Statements for Full Recourse Projects –
 - Divisional GP Statements for Project and Existing Operations separately
 - Combined Profitability Statement for the company
 - Combined Cash Flow Statement
 - Combined Balance Sheet

KEY VIABILITY RATIOS

- Debt Service Coverage Ratio (DSCR)
- Internal Rate of Return (IRR)
- Weighted Average Cost of Capital (WACC)
- Break Even Point / Cash Break-even
(Computed in terms of Capacity Utilisation)
- Overall Debt Equity Ratio (TOL / TNW)
(For the computation of this ratio, interest overdue and instalments falling due in the next 12 months are not included. Preference Capital repayable within 3 years is included as debt.)
- Project Life Ratio
- Loan Life Ratio
- Residual Life ratio
- Fixed Asset Coverage Ratio (FACR)

VIABILITY MATRIX

- Average DSCR to be a minimum of 1.50 to 1.75
- Minimum DSCR in any year to be atleast 1.33
- Minimum IRR to be 15%
- IRR-WACC to be atleast 5%
- BEP not more than 65 to 70%
- RLR to be atleast 0.50
- FACR to be 1.25 (not in limited recourse projects with cash flow based appraisal)

CASH FLOW BASED LENDING AND CASH SWEEP

CASH FLOW BASED LENDING MECHANISMS

- Project is financed on cash flow assessment as the primary security for debt servicing and viability is determined on the basis of cash flow parameters.
- Future Cash flow gap is generally financed through equity. In larger projects it may be financed in the same project. For e.g initial cash losses are included in project cost for financing.
- Risk analysis is done to identify cash flow risks in the project that could impair the generation of expected cash flow.
- Suitable cash lock boxes are provided by way of Debt Service Reserve, Escrow of cash flow through Trust and Retention Account, Lien on cash flow through creation of charge on designated receivables, assignment of escrow to ensure that control on escrowed cash flow is available.

PAYMENT MECHANISMS

- Revolving Letter of Credit mechanism –
 - for the Off-take of finished product / service.
 - The revolving L/C has to be replenished every time it is invoked.
 - Usually used in power projects where the SEB is the buyer.
 - Can be used in cases where the Off-taker's credit-worthiness is not satisfactory.
- The Escrow Account mechanism –
 - A special purpose account
 - Used for tracking and control of project revenues / cash flow
 - Has to be in place before attaining financial closure (where escrow is through a State agency such as SEB).
 - In other cases, creation of escrow is part of financing documentation.
- State Government Guarantee –
 - Used very selectively especially where a Government undertaking is the project developer.
- Government support –
 - Revenue Shortfall loans

ESCROW MECHANISM

- Escrow accounts are used to capture cash flows during project implementation and / or in the operative stage.
- The escrow account is used under a Trust and Retention (TRA) mechanism with a 'Waterfall' approach.
- The amount that goes into escrow could be the receivable itself or the free cash flow.
- If receivables are to be escrowed, these are identified and pooled.
- The working capital bankers issue 'Letter of Ceding' first charge on the designated receivables.
- The off-taker bears the servicing cost of the escrow banker.
- The number of escrow accounts would depend on the size and complexity of the project.

Trust and Retention Account Agreement ... The Waterfall



SECURITY PACKAGE AND FINANCIAL CONTRACTS

SECURITY PACKAGE

- For large sized Limited Recourse SPV Projects –
 - First charge on project assets - (Fixed and Movable, both present and future). Not available in road projects.
 - Assignment of project contracts /licences / documents / insurance policies – to provide ‘Step-in’ rights to lenders.
 - Project Completion Support from Sponsors.
 - Pledge/ non disposal of shares – For shares held by sponsors / sponsoring companies
 - The Trust and Retention Account mechanism - For Escrow of Receivables, Cash Flow.
 - Charge on Designated Receivables
 - Creation of Debt Service Reserve
 - Revolving Letter of Credit
 - Other Credit enhancements as may be found necessary such as limited corporate guarantee, letters of comfort, Government Guarantee etc.

SECURITY PACKAGE

- For Full Recourse Projects –
 - Pari Passu Charge on all assets including project assets - (Fixed and Movable, both present and future).
 - Pledge/ non disposal of shares – For shares held by sponsors.
 - The Trust and Retention Account mechanism - Optional
 - Creation of Debt Service Reserve – Optional
 - Personal Guarantees of all Core Promoters
 - Asset Collaterals of Promoters
 - Other Credit enhancements as may be found necessary.

FINANCIAL CONTRACTS

- Loan Agreement – Could be a common loan documentation (Club Loan).
- Deposit of title deeds - for creation of equitable mortgage on fixed assets.
- Deed of Hypothecation – For creation of charge on movable assets.
- Substitution Agreement / Contract of Novation - Sometimes there are tripartite agreements involving the Licensor, Licencee and the lenders.
- Sponsor Support Agreement – For project completion support
- Deed of Pledge/ Non-disposal undertaking – For shares held by sponsors / sponsoring companies
- Escrow and Disbursement Agreement – for creation of TRA.
- Security and Hypothecation Agreement - for creating charge on the designated receivables
- Revolving Letter of Credit.

SERVICES OF CHARTERED ACCOUNTANTS

- As project advisors / investment bankers – forming the consortium, structuring and advising on key project contracts, bid advisory.
- As financial consultants – structuring, financial advisory, DPR, representation to banks and funding agencies and negotiating term sheets.
- Certifications relating to financial statements, project expenditure, equity funding, share valuation etc.
- Due Diligence Reports for banks.

THANK YOU

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