

# INFRASTRUCTURE PROJECT FINANCE (‘IPF’) GUIDELINES – **THEORY & PRACTICE**

| PROJECT & STRUCTURED FINANCE | INVESTMENT BANKING GROUP |

| **UNITED BANK LIMITED** |

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# **Part I – Introduction to Project Finance**

# Definition

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A method of funding whereby a company obtains separate financing for specific assets by giving creditors claim on the revenues generated by those assets. The created entity's only asset is the 'Project.'

# Typical Characteristics

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A typical project finance transaction is marked by the following:

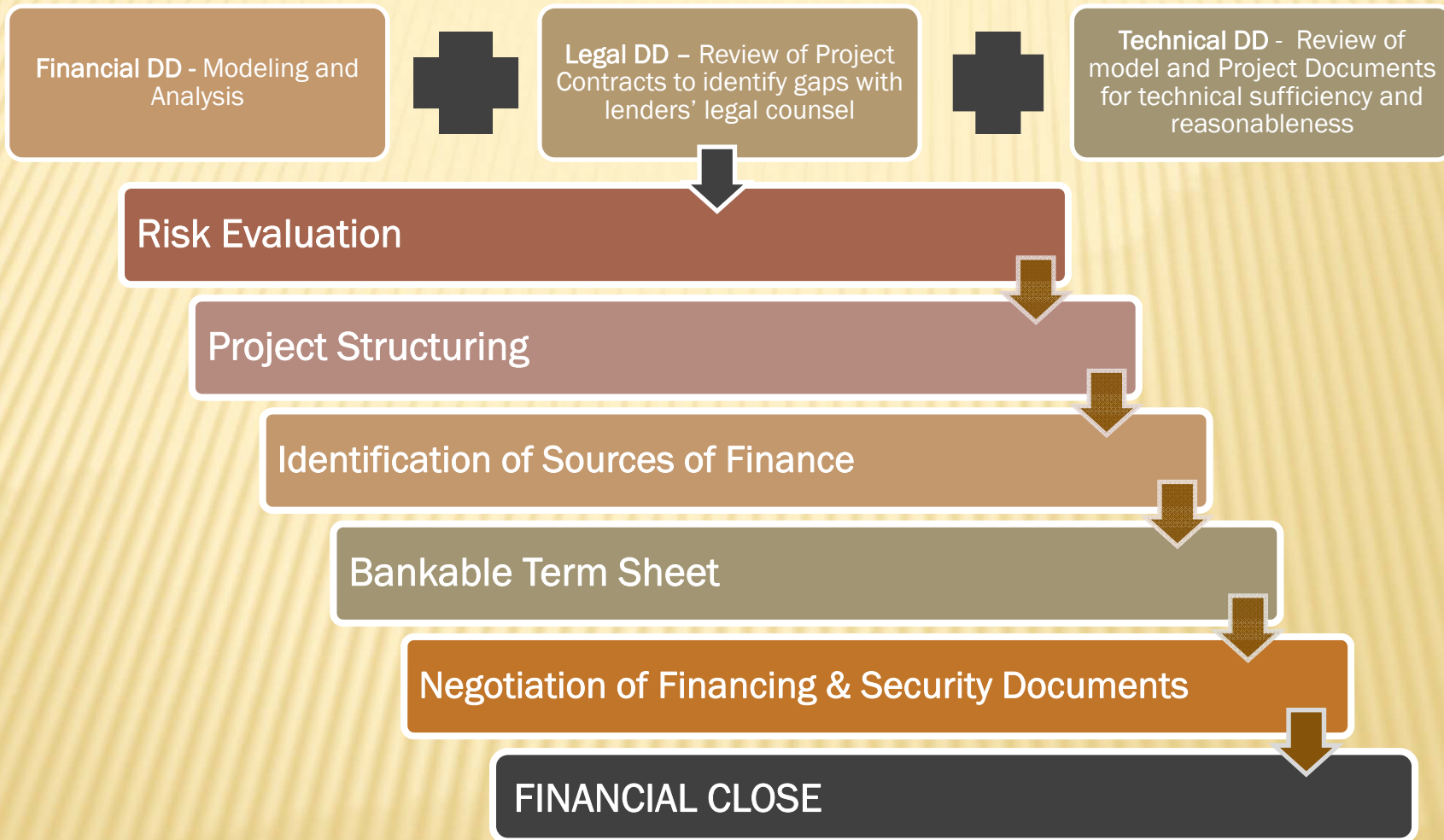
- ❑ Usually raised for a new project rather than an established business;
- ❑ Generally high debt to equity ratio;
- ❑ No guarantees from the investors ('non-recourse'), or limited guarantees ('limited-recourse') for the project finance debt;

## Typical Characteristics (contd. . .)

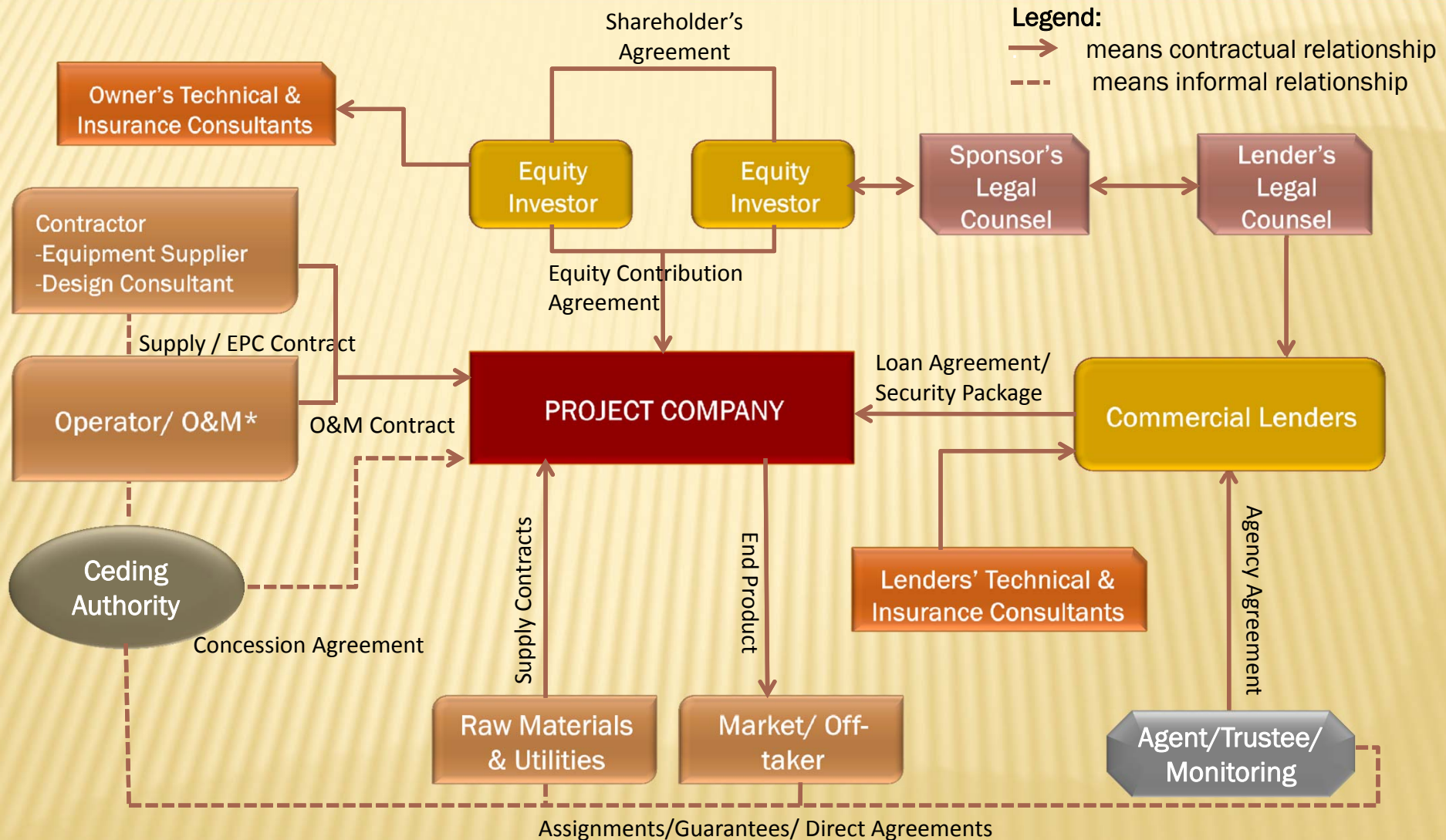
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- ❑ Reliance on future cash flows of the Project for debt servicing rather than value of its assets and/or operational history;
- ❑ Main security for lenders is the Project's contracts, licenses or ownership of rights to natural resources; physical assets likely to be worth much less than the debt if they are sold off after a default on financing;
- ❑ Finite life, based on such factors as the length of the contracts, concessions, licenses or the reserves of natural resources.

# Project Finance Methodology



# Typical Project Finance Stakeholders





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# **Part II – IPF**

## **Guidelines: *Theory***

# SBP Guidelines on IPF

## G1 – CREDIT APPRAISAL

### □ Minimum Information Requirements

more .....

- i. Project Description
- ii. Capital Investment
- iii. Project Schedules
- iv. Environmental Impact
- v. Financing
- vi. Legal Documentation

more .....

# SBP Guidelines on IPF (contd . . .)

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## □ Assessment of Infrastructure Projects

- *Development Phase* – should be preferably funded through equity
- *Construction & Start-up Phase* – Assessment of physical and financial completion of infrastructure projects. Some important tools used for completion risk mitigation are:
  - i. Project Funds Agreement
  - ii. Financial Completion Agreement
  - iii. Insurance

*[Ongoing construction period monitoring through:*

- i. *Technical advisor*, via milestone certifications and site visits

# SBP Guidelines on IPF (contd . . .)

- ii. Keeping the financial model live during the construction period;  
and
- iii. Monitoring of project accounts for disbursements and payments of project expenses]
- **Operation Phase** – Entails monitoring of:
  - i. Assignment of project receivables and damages
  - ii. Continuous presence of valid security arrangement
  - iii. Debt repayment and project's escrow accounts 
  - iv. Financial covenants for debt repayment
  - v. Technical monitoring during operations and construction phases

# SBP Guidelines on IPF (contd . . .)

## G2 – COLLATERAL ARRANGEMENT, SECURITY PACKAGE & INSURANCE

- ❑ **Acceptance of Concession/license as collateral** – encumbrance free, assignable, transferable in the event of default
- ❑ **Security Package** –
  - Primary Security – first charge over project receivables and accounts
  - Secondary Security – standard security package of the lenders including hypothecation, mortgage, insurance assignment, share pledge, assignment over rights under all project documents etc
- ❑ **Project Insurances** - construction all risks, third party liability, marine, accidental, loss of profit, terrorism insurance etc.

# SBP Guidelines on IPF (contd . . .)

## G3 – REGULATORY COMPLIANCE

- ❑ **Exposure Limit** – per party exposure (as per regulation R-1 of Corporate Banking PRs), total bank exposure to project finance assets (not to exceed the bank's equity) 
- ❑ **Debt to Equity Ratio** – fund and non-fund based exposures
- ❑ **Funding of Infrastructure Projects** –
  - Loan duration – up to 20 years (excluding grace period)
  - Asset Liability Management – interest rate and liquidity risk management
  - *Arrangement of Long-term Funding* – churning more IPF assets using securitization
- ❑ **Classification and Provisioning Requirements** – Annex IV of R8 

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# **Part III – IPF**

## **Guidelines: *In Practice***

# Scenario 1 – Capital Structure

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- ❑ **Project Description – Excess Leverage Ltd** - Limited Recourse Financing for dual fuel (gas & HSD) cogeneration (power and water desalination) plant, having net Contract Capacity of 80.3MW and water desalination capacity of 3.0 million gallons per day. The estimated total project cost was US\$ 114 million.
- ❑ **Issue at Hand** – The project was financed at a debt to equity ratio of 75:25. However, 3 months post achieving commercial operations, the project had breached initially approved debt to equity ratio, however, it was still within the limit defined under prudential regulations. The approved tariff only catered to debt servicing for initially approved debt.

Is this an acceptable situation?

Does the Company need to do anything?



# Scenario 1 – Capital Structure (contd ...)

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## □ Mitigation Measures –

- 1) Prior to providing their NOCs, banks should have checked the adequacy of cashflows to service the additional debt being taken on by the company. So long as the ROE component of tariff can cater to additional debt, such approval can be given.

## Scenario 2 – Completion Risk & Security Significance

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- ❑ **Project Description – Runaway Contractor Ltd** - Limited Recourse Project-Financing of gas-fired IPP with a net generation capacity of 212MW at a capital cost of US\$ 196 million.
- ❑ **Issue at Hand** – The project’s EPC contractor went bankrupt 4 months prior to COD. This not only left the project without an EPC contractor and very limited alternatives, but also put the project completion in jeopardy, both vis-a-vis financial and technical completion.

What should the Company do now?

What are the tools available to the Company and Lenders in remedying this situation?

## Scenario 2 – Completion Risk & Security Significance (contd..)

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- **Mitigation Measures –**

- 1) Lenders took stock of the security available to them, in this case EPC contractor's performance bonds. These were called by the lenders after seeking advice from lenders' legal counsel on appropriateness of timing for the same. This provided funding to help complete the rest of the project.
- 2) Next, the company got in touch with all the sub-contractors for the project and entered into independent contracts with each of the sub-contractors and appointed a reputable engineering firm as project coordinator.

## Scenario 3 – Project Insurances

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- ❑ **Project Description** – **Uninsurable Ltd** - Limited Recourse Financing for the construction of a 1,200 km Dense Wave Length Division Multiplexing (“DWDM”) 20 Gigabit/second undersea fiber optic cable system starting from Karachi, Pakistan and landing at Fujairah, United Arab Emirates, at an estimated cost of US\$ 36 million.
- ❑ **Issue at Hand** – The undersea cable could not be insured after COD due to the cable’s location in international waters. This meant that the project was susceptible to revenue losses as a result of cable cuts.

How can the Project mitigate this risk?

## Scenario 3 – Project Insurances (contd ....)

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### □ Mitigation Measures –

- 1) A sinking fund was established by lenders, wherein some revenues from the cash waterfall were set aside to cater to such contingencies.
- 2) Also, the redundancies available via satellite also partially took care of the risk.

## Scenario 4 – Completion Risk & Security Significance

- ❑ **Project Description – Faulty Machines Ltd** - Limited Recourse Project-Financing of RFO-fired IPP with a net generation capacity of 195.2 MW at a capital cost of US\$ 235 million.
- ❑ **Issue at Hand** – The project’s generators were malfunctioning and breaking down due to a manufacturing default of the supplier, who was also the EPC contractor. Despite several attempts, the technical flaw could not be corrected in good time to achieve timely COD. In the meanwhile project’s financial costs kept piling up due to this delay leaving the Project with inadequate funds to achieve COD.

What should the Company have done?

What remedies are available to the Company?

## Scenario 4 – Completion Risk & Security Significance (cont'd...)

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- **Mitigation Measures** – The company used two security tools available to it:
  - 1) liquidated damages (delay and performance) committed by EPC contractor, which took care of the funding gap till such time the project achieved commissioning, and
  - 2) negotiated unprecedented warranty coverage to ensure that the EPC contractor remains on the hook for faulty alternators.

## Scenario 5 – Regulatory/Concession Risk

- ❑ **Project Description – Bitten by Competition Ltd** - Limited Recourse Project-Financing of Pakistan’s first liquid petroleum gas (‘LPG’) container terminal for import of LPG and allied marketing and distribution services across Pakistan, at a total capital cost of US\$ 32.6 million.
- ❑ **Issue at Hand** – Shortly after ‘Bitten by Competition’ achieved COD, the project’s major competitor, Aggressive Limited, flooded the market with locally manufactured LPG, thus driving down the price of the product. Further, ‘Bitten by Competition’ also suffered a second blow on account of mismatch of regulations *vis-a-vis* product cost versus price. While Bitten was importing LPG on Saudi Aramco plus freight charges basis, the product’s local market prices were far lower on account of specific regulation governing product prices domestically. This virtually drove Bitten out of business.

**What could the Company have done?**



## Scenario 5 – Regulatory/Concession Risk (contd. . . )

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- ❑ **Mitigation Measures** – Bitten lobbied, albeit belatedly, with the government authorities and regulators to change the pricing regime. Eventually, OGRA introduced new LPG policy in 2011 through which the domestic prices of LPG were pegged to Saudi Aramco, the international pricing standard and made it mandatory for local manufacturers to import part of LPG they were marketing to rationalize their cost mix.

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# Back-up Slides

# Backup Slides – IPF Annex A

## ANNEX A

### IPF: CHECKLIST FOR MINIMUM INFORMATION REQUIREMENTS

1. **PROJECT DESCRIPTION**
  - I. Description of Product/ Service
  - II. Capacity of Project
  - III. Proposed ownership structure and sponsor information
  - IV. Legal status of project and status of government approvals (including government's and/or local authorities' attitude toward the Project, exemptions/privileges to be enjoyed by the Project, licenses and permissions required, and proposed measures/actions that could affect the Project).
  - V. Project's anticipated economic contributions (e.g. in the generation of foreign exchange, employment, technology transfer etc.)
2. **CAPITAL INVESTMENT**
  - i. Project site
    - a. Legal agreements for land use rights
  - ii. Civil works and buildings
  - iii. Major and auxiliary equipment
  - iv. Project Management
  - v. Pre-operating requirements and costs
  - vi. Contingencies (physical) and escalations (financial)
  - vii. Initial working capital requirements
  - viii. Contracting and purchasing procedures to be used
  - ix. Local/foreign manpower and technical expertise required at the planning stage
3. **PROJECT SCHEDULES**
  - i. Construction, startup, operations
  - ii. Expenditures
  - iii. Funding (including timing of funds needed during project implementation)
  - iv. Regulatory compliance
4. **ENVIRONMENT IMPACT**
  - i. Description of environment impact
  - ii. Health and safety issues
5. **FINANCING**
  - i. Total cost of project (including details on major items of fixed assets and working capital)
  - ii. Background statement on all sponsors and participants, showing their financial or other interest in the project construction, operations, and marketing
  - iii. Capital structure
    - a. Proposed debt/equity structure

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# Backup Slides – IPF Annex A (contd . . .)

- b. Equity
  - o Shareholders' structure
  - o Long term plans (stay private/go public)
  - o Quasi-equity (subordinated debt)
- c. Debt
  - o Long-term debt/working capital loan
  - o Domestic/foreign
  - o Desired terms and conditions
  - o Funding sources already identified
- d. Overrun/standby arrangements
- iv. Financial Projections
  - a. Projected financial statements including cash flows
  - b. Clear statement of all assumptions
  - c. Sensitivity analyses under different scenarios like interest rate risk etc.
  - d. Net Present Value (NPV), Internal Rate of Return (IRR) and payback period of the project.

## 6. PROJECT DOCUMENTATION

- i. Joint venture agreements (if applicable)
- ii. Articles of Association
- iii. Government approval documents/concession/business license
- iv. Land certificate/red line map
- v. Mortgages, if any
- vi. Loan agreements
- vii. Major contracts including
  - a. EPC Contract
  - b. Off-take agreements
  - c. Supply agreements
  - d. Technical Assistance agreements
  - e. Operation and Maintenance agreement
  - f. Insurance Policies

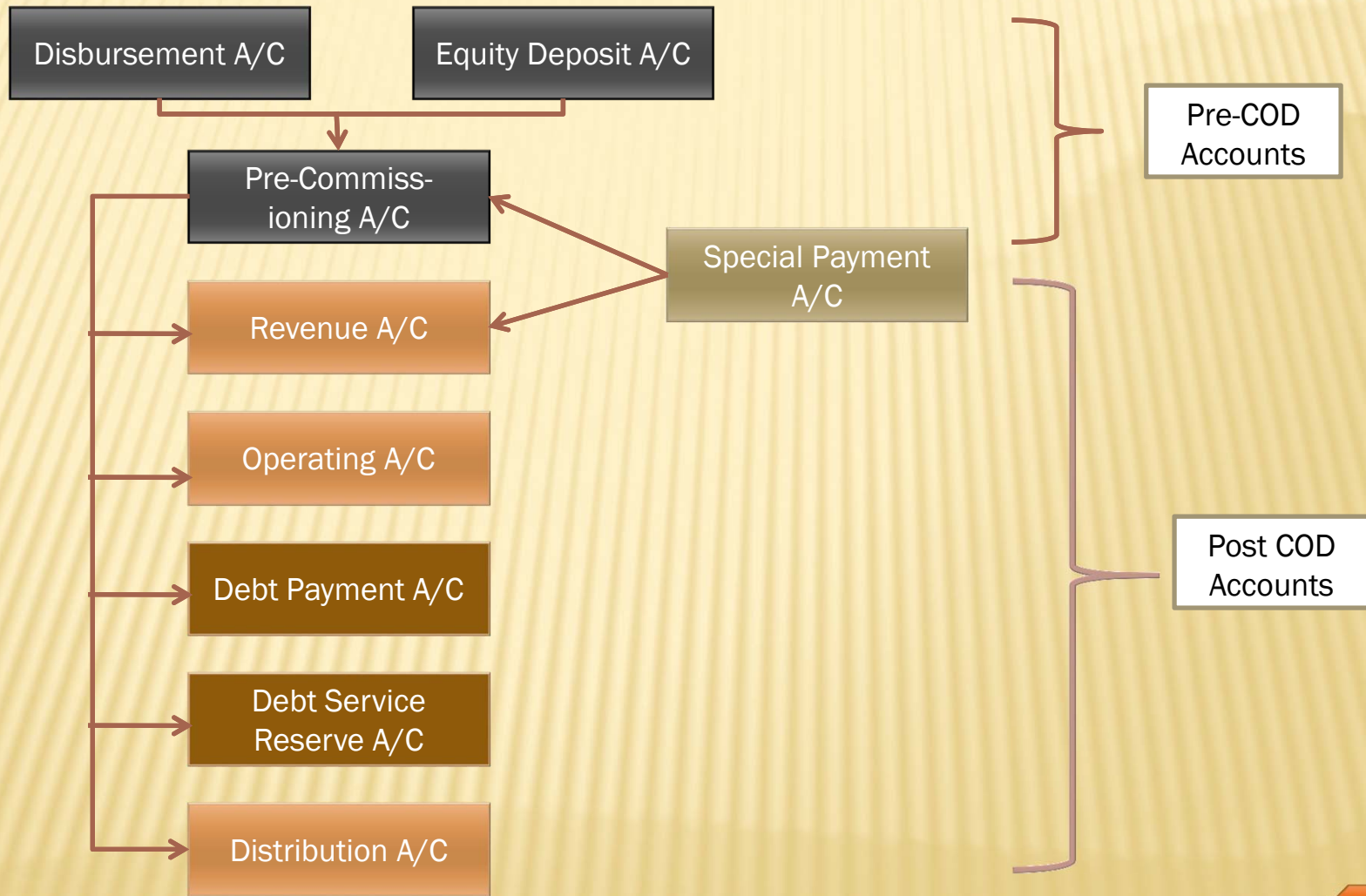
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# Project Documents



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# Waterfall of Accounts



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# PR: R-1

## **REGULATION R-1 LIMIT ON EXPOSURE TO A SINGLE PERSON/GROUP**

The total outstanding exposure (fund based and non-fund based) by a bank / DFI to any single person shall not at any point in time exceed 30% of the bank's / DFI's equity as disclosed in the latest audited financial statements, subject to the condition that the maximum outstanding against fund based exposure does not exceed 20% of the bank's / DFI's equity.

2. The total outstanding exposure (fund based and non-fund based) by a bank / DFI to any group shall not exceed 50% of the bank's / DFI's equity as disclosed in the latest audited financial statements, subject to the condition that the maximum outstanding against fund based exposure does not exceed 35% of the bank's / DFI's equity.

3. Limit on exposure to a single person/Group effective from 31-12-2009 and onward would be as under:

Effective date	Exposure limit as a % of bank's/DFI's equity (as disclosed in the latest audited financial statements)			
	For single person		For group	
	Total outstanding (fund and non-fund based) exposure limit	Fund based outstanding limit	Total outstanding (fund and non-fund based) exposure limit	Fund based outstanding limit
31-12-2009	30	20	45	35
31-12-2010	30	20	40	35
31-12-2011	30	20	35	30
31-12-2012	30	20	30	25
31-12-2013	25	25	25	25

4. The group will cover both corporate entities as well as SMEs, in cases where such entities are owned by the same group.

5. For the purpose of this regulation banks / DFIs are required to follow the guidelines given at Annexure-I.

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# PR: R-8 Annex IV

## GUIDELINES IN THE MATTER OF CLASSIFICATION AND PROVISIONING FOR ASSETS (REGULATION R-8)

### All Financing Facilities (including Short, Medium and Long Term)

CLASSIFICATION (1)	DETERMINANT (2)	TREATMENT OF INCOME (3)	PROVISIONS TO BE MADE (4)
1. Substandard	Where mark-up/ interest or principal is overdue by 90 days or more from the due date.	Unrealized mark-up/interest to be kept in Memorandum Account and not to be credited to Income Account except when realized in cash. Unrealized mark up/interest already taken to income account to be reversed and kept in Memorandum Account.	Provision of 25% of the difference resulting from the outstanding balance of principal less the amount of liquid assets realizable without recourse to a Court of Law and 30% of the Forced Sale Value (FSV) of pledged stocks and mortgaged residential and commercial properties (see Note 2 below).
2. Doubtful.	Where mark-up/ interest or principal is overdue by 180 days or more from the due date.	As above.	Provision of 50% of the difference resulting from the outstanding balance of principal less the amount of liquid assets realizable without recourse to a Court of Law and 30% of the Forced Sale Value (FSV) of pledged stocks and mortgaged residential and commercial properties(see Note 2 below).
3. Loss.	(a) Where mark-up/ interest or principal is overdue by one year or more from the due date	As above.	Provision of 100% of the difference resulting from the outstanding balance of principal less the amount of liquid assets realizable without recourse to a Court of Law and 30% of the Forced Sale Value (FSV) of pledged stocks and mortgaged residential and commercial properties (see Note 2 below). Benefit of FSV against NPLs shall not be available after 3 years from the date of classification of the Loan/Advance.
	(b) Where Trade Bills (Import/Export or Inland Bills) are not paid/adjusted within 180 days of the due date.	As above	As above.

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