Petrochemical Projects: Innovative Financing



SBI CAPITAL MARKETS LTD.

SBI Capital Markets Limited

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SBICAP – India's Premier Investment Bank

A 100% subsidiary

- Incorporated in 1986 as a wholly owned subsidiary of SBI
- Investment Banking subsidiary of SBI with 300+ people strong Advisory team
- Global Leadership position in Project Finance Advisory
- Project Appraisal/Advisory Experience across Oil & Gas, Power, Ports & Shipping, Transportation, Metals & Mining, Telecom, etc.
- Advisor of first call on policy and regulatory related advisory to Government of India
- Strong relationship with the Corporates, Governments & Institutions across industries & geographies
- Advised on and financed landmark projects in India

SBICAP – Global Presence, Local Reach

SBICAP's Network of Offices

Recent League Table Positions

Global	Year	Rank	League Table
Mandated Lead Arranger for Global PF Loans	2017 Q1	1	Dealogic
Financial Advisor of Global Project Finance Loans	2017 Q1	1	Dealogic

Asia Pacific Region	Year	Rank	League Table
Mandated Lead Arranger Asia Pacific Project Finance	2017 Q1	1	Dealogic
EMEA Project Finance All Financial Advisor	2017 Q1	1	Dealogic
APAC Ex Japan Loans Bookrunner	2017 Q1	1	Bloomberg
Asia Ex Japan Loans Bookrunner	2017 Q1	1	Bloomberg

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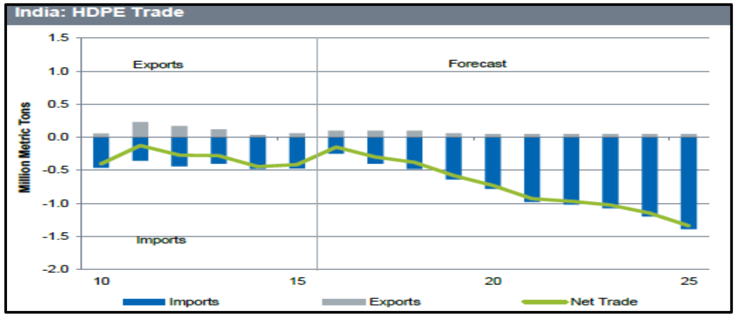
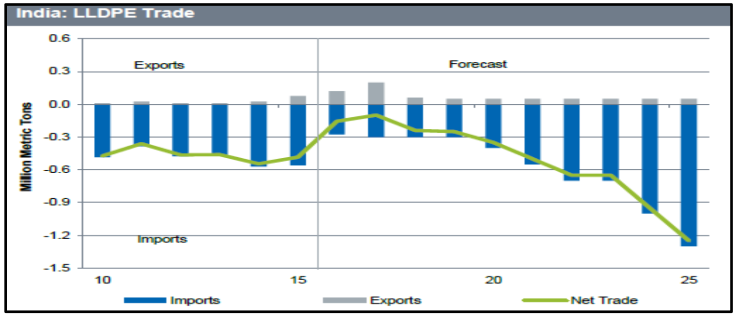
Petrochemical Industry

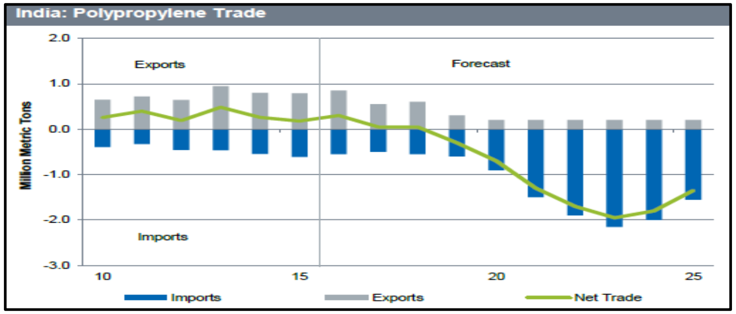
- Indian polymers industry is one of fastest growing markets in the world.
- Global per capita consumption of polyolefins was around 19.4 Kgs in 2014. India lags behind averaging only around 7.9 Kgs in 2014-15.
- Polyolefins registered double digit growth in India

Polyolefins Demand Growth in India (%)			
PRODUCT	2014-15	2015-16	2016-17 (E)
Total PE	7%	13%	11%
Total PP	8%	18%	12%
Total (Polyolefins)	**7%**	**16%**	**12%**

- **HDPE & LLDPE** : India was net importer in 2015 and is expected to be net importer in future.
- **PP** : India was net exporter in 2015 & is expected to become net importer from 2019.
- **Key existing players**: Reliance Industries, Indian Oil Corporation, GAIL, Haldia Petrochemicals.
- **New entrants**: ONGC Mangalore Petrochemical Ltd. (OMPL), Brahmaputra Cracker Ltd. (BCPL), and ONGC Petro Additions Ltd.(OPAL)







Source: IHS

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Petrochemical Projects - Key Features

- Classified under “Non-infrastructure” as per RBI guidelines
- **Capital Intensive** projects with **long gestation period**
- **Commodity-based** industry; **Margins paramount for project viability**
- Critical factors affecting the petrochemical project’s viability:
  - **Operating Rate-** need to be operated at high rate to reduce fixed cost per unit of production and improve margin per unit
  - **Cyclicality of the industry-** typical to commodity based industry
  - **Firm, long-term Feedstock Agreement-** ensure competitive and continuous feed supply considering volatility in feedstock price
  - **Marketing/Off-take Arrangement-** ensure sale of products and protect margins
  - **Optimal Product Mix-** production of **premium grade products** to **maximize value**
  - **Freight Economics-** strategic location to exploit freight economics to improve margins

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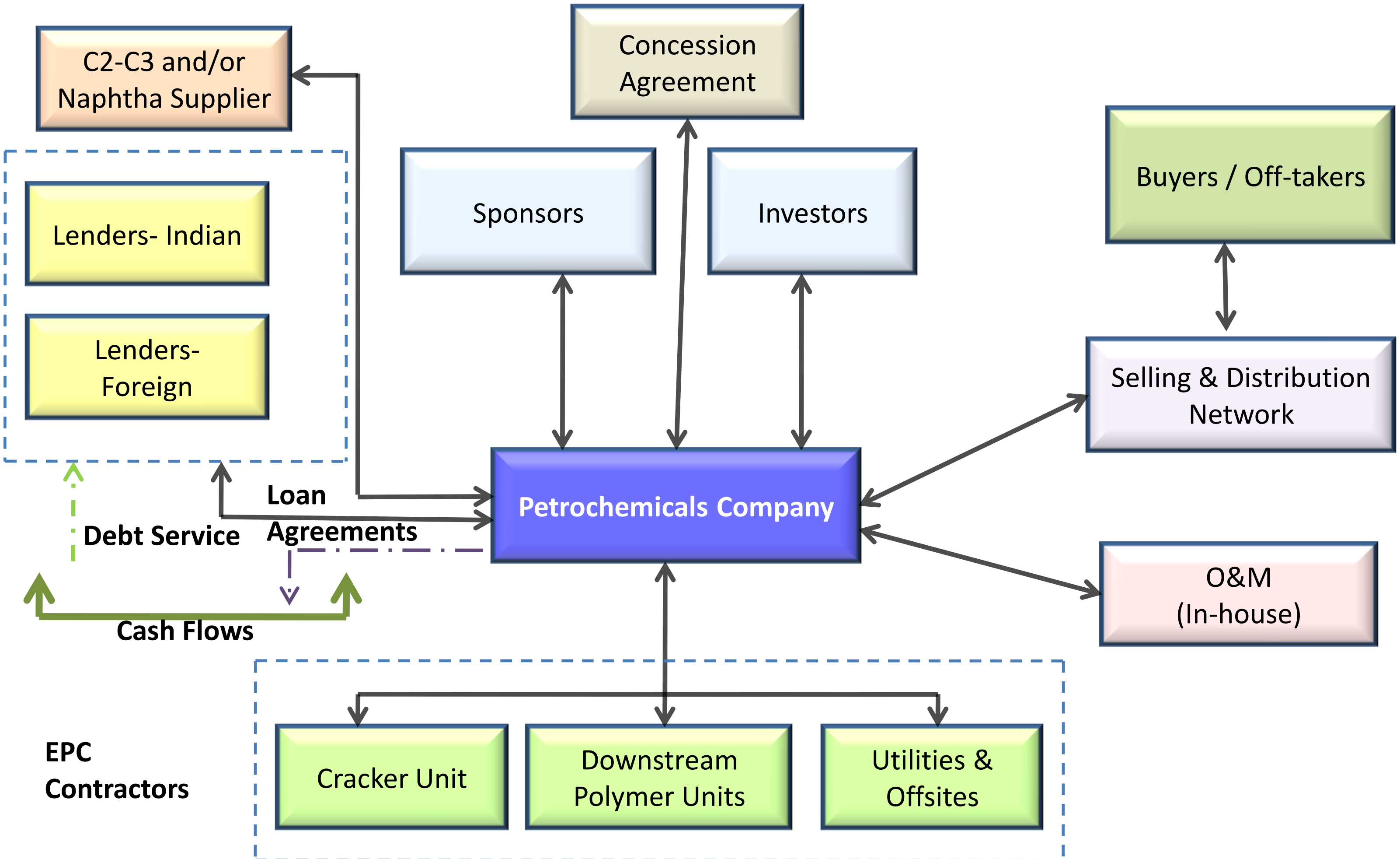
Petrochemicals - Project Finance Structure



Petrochemical Projects – Key Financing Considerations

Sponsor Strength

- Creditworthiness , prior experience, availability of sponsor support for the project
- Undertakings to fund equity, cost overrun and retain management control

Technical Feasibility

- Review of the Detailed Feasibility Report

Commercial Analysis

- Review of feedstock sourcing and off-take arrangement for products
- Target markets for product, demand and supply, pricing, marketing arrangement

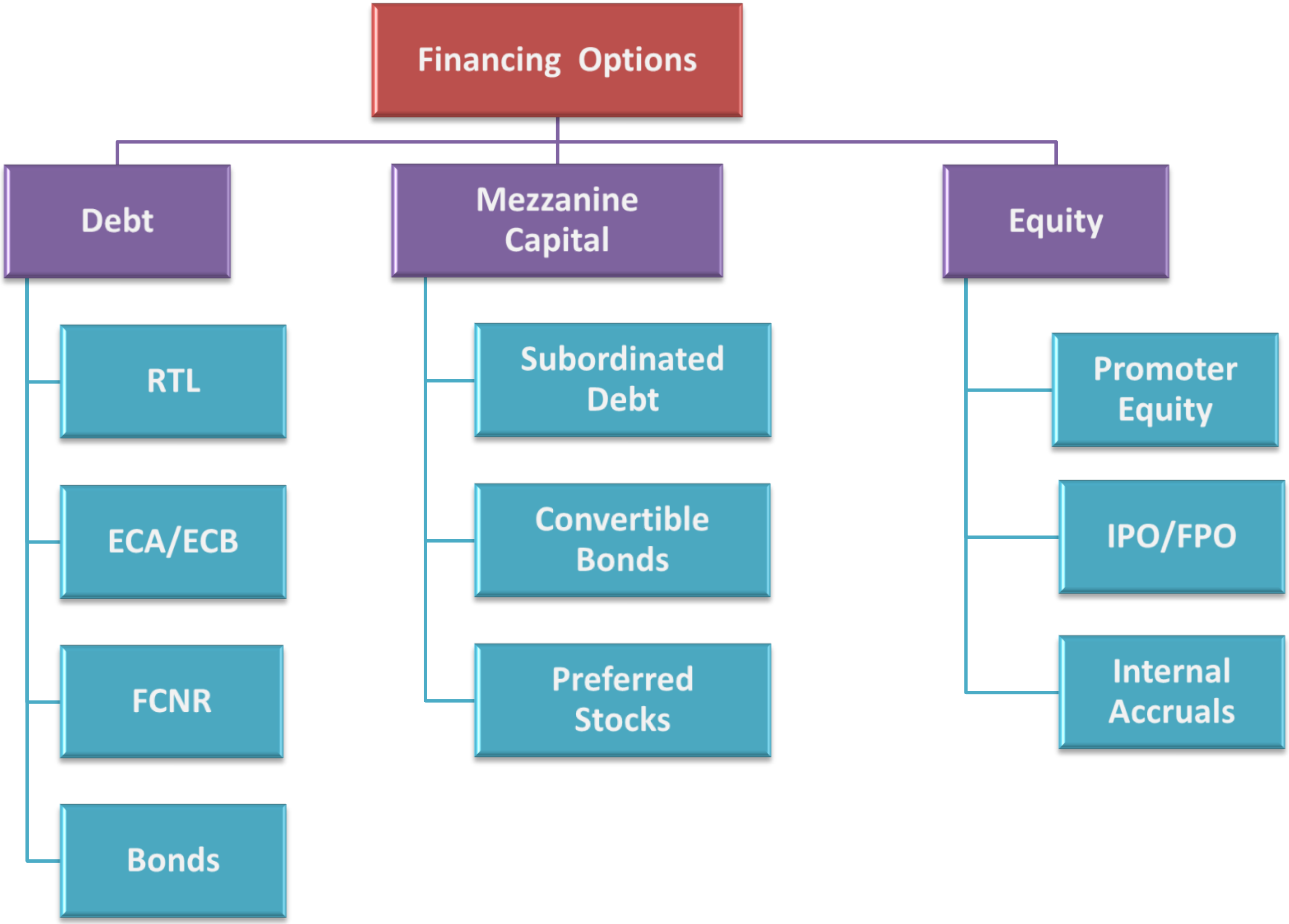
Infrastructure & Clearances

- Land, power /water supply, EIA, environmental clearances

Financial Parameters for Assessment:

- Certainty of Cash flows
- Comfortable Debt Service Coverage Ratio
  - For Infrastructure projects, min DSCR ~1.1, Avg. DSCR ~ 1.35-1.40
  - For commodity based projects, min DSCR ~1.5, Avg. DSCR ~ 1.75 -2.00
- TOL: TNW not exceeding 3:1;
- FACR not below 1.30 times ;
- Post tax IRR of 13- 15%

Financing Options



Rupee Term Loans

- **Sources**
  - Domestic Commercial Banks and Financial Institutions
- **Key Features**
  - Available for tenor ranging from 3 to 15 years (further up to 80% of economic life of the project with periodic refinancing)*
  - Flexibility in Availability Period & Drawdown Schedule
  - Interchange-ability of undrawn RTL portion with ECB/ECA
  - Swing In, Swing out FCNR (B) facility to align with Dollar revenues
  - Floating rate linked to the Bank's 1 Year MCLR
  - Relatively liberal Financial Covenants; facility secured by assets being financed
- **Suggested Approach**
  - Tie-up full Project debt in RTL to quickly achieve financial closure; drawdown facility as required; undrawn amount can be replaced at appropriate time later with ECB/ECA/ bonds to reduce overall cost of funding

under RBI guidelines on* *"Flexible Structuring of Long Term Project Loans (5/25 Structure)***

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External Commercial Borrowings

- **Sources**
  - Foreign Branches of Domestic Banks, Foreign Banks, IIFCL (UK), etc.
- **Key Features**
  - Relatively cheaper source of fund compared to RTL; interest rate linked to LIBOR
  - Limited appetite for greenfield projects executed on limited/non recourse basis
  - Relatively higher upfront fee and commitment charges; limited flexibility in drawdown schedule
  - Tenor ranging from 7~10 years; limited appetite for tenor exceeding 7 years
  - Stringent due-diligence and financial covenants as compared to RTL
  - Pre-payment permitted within permitted Average Maturity Period
  - Refinancing is permitted at a lower all-in-cost for residual maturity
- **Suggested Approach**
  - ECBs from banks/FI's may be tied-up near to Project completion when the Project implementation risk reduces considerably, by replacing undrawn portion of the RTL facility

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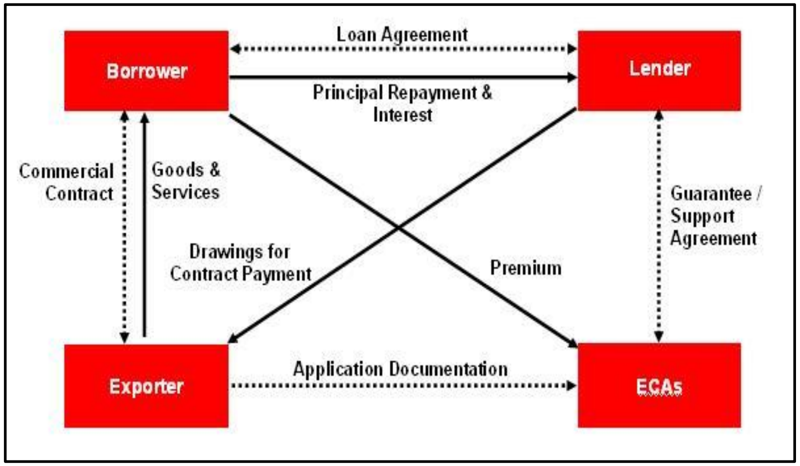
ECB - IIFC (UK)

- IIFC (UK) is a Govt. of India fund which provides long term ECB facility at competitive prices for the Indian infrastructure projects
- **Key features** of IIFC (UK) facility are as follows:
  - Funds can be utilized only for capital imports; no restriction on the origin country/region
  - The maximum exposure can be lower of (i) 20% of the total Project cost or (ii) 80% of the Lead bank's share in term loan or (iii) cost of imports of capital goods
  - Total tenor can be 15 to 16 years (min avg. maturity > 10 years); with this ECB can be availed under Track – II of ECB Master Direction, requiring no hedging
  - Covenants are in line with RTL facility and easy to fulfill and commitment fee can be avoided by timely notification of change in drawdown schedule
- **Suggested Approach:**
  - IIFC (UK) facility can be tied-up along with the RTL facility for achieving financial closure

Export Credit Agency

- ECAs are private/quasi-governmental institution that act as an intermediary between national governments and exporters to provide export financing



- **Key Features**
  - ECA funding is mostly Supplier's country/region specific funding
  - Typically quantum of funding is limited to 85% of the import bill amount, Local Costs (if any) up-to 30% of contract value
  - Pricing – CIRR or LIBOR/EURIBOR linked; ECA pricing is usually cheaper than ECB
  - ECAs typically have a detailed appraisal process taking 9 to 12 months; includes assessment of environment and social impact, etc.
  - Financial covenants stipulated by ECA are stringent as compared to RTL
- **Suggested Approach**
  - Once the region / country of supply is firmed up, ECA funding can be availed by replacing the undrawn RTL facility

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Bonds/Debentures

- **Sources**
  - Capital Market; through private (<50 investors) or public placement mode
- **Key Features**
  - Tenor- up to 10 years with Put & Call options which can be negotiated
  - Interest rates are generally fixed; low appetite for floating rate bond
  - Relatively small market limited to AAA / AA rated issues; credit Rating is mandatory & Greenfield Projects may not command the required credit rating without promoter guarantee/ credit enhancement
  - Lack of Flexibility in drawdown resulting in high carry cost unless funds are deployed immediately
  - Pre-defined dates for bullet repayment may result in accumulation of funds
- **Suggested Approach**
  - Bonds may be raised post Project COD for refinancing the RTL facilities to reduce the overall cost of funding

Summary of Funding Options

Parameters	RTL	ECB	ECA	Bonds
Tenor (in years)	12-15	7-10	10 - 15	7-10
Interest Rate Linkage	MCLR	LIBOR	LIBOR	Credit Rating
Risk				
FX risk (for petrochemical project)	Medium	Low	Low	Medium
Interest rate	Yes	Yes	Yes	No
Drawdown Flexibility	Yes	Limited	Limited	Nil
Syndication Time	2-3 months	2-3 months	6 -12 months	1-2 months
Covenants	Standard	Stringent	Stringent	Credit Rating Light Covenant

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Optimal Financing Strategy

Pre-Construction Phase

- **HIGH RISK**
- Financial Closure through RTL
- RTL provides longer maturity essential for petrochemical project
- RTL should have option to replace with ECA/ECB
- Ring-fencing of ancillary infrastructure, CPP, etc. for competitive ECA funding from IIFCL (UK)

Construction Phase

- **HIGH RISK**
- Closer to commissioning replace undrawn RTL with ECA/ECB
- Replace drawn RTL with FCNR(B)
- Dollarization of liability important as assets are dollar denominated

Operations Phase

- **RELATIVELY LOWER RISK**
- Refinance RTL facility for tenor extension and improved pricing
- Bonds issuance to replace outstanding RTL facility

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Mezzanine Capital

- Mezzanine Capital or Quasi-Equity instruments are availed in lieu of Equity requirement
- Quasi Equity reduces quantum of promoter equity infusion and keeps capital base in check for better IPO/Premium prospects

SUBORDINATED DEBT

- **Key Features**
  - Unsecured Debt backed by Promoter Guarantee/Undertaking
  - Ranking of security is below senior debt, thus higher rate of interest
  - Typically, interest is required to be funded through Equity/Quasi-Equity

CONVERTIBLE BONDS

- **Key Features**
  - **Hybrid Instrument** - originally issued as bonds with option to convert to fixed number of common shares
  - Coupon payments to be funded through Equity/Quasi-Equity
  - Upside potential for capital appreciation in rising equity markets.
  - Potential dilution of shareholder's equity in case conversion feature is exercised

Reduction overall cost of capital to improve promoters' Return on Equity

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Petrochemical Projects Financing Structure: INNOVATIONS

- Petrochemical Projects are **capital intensive projects** with long gestation periods, high fixed costs and a volatile commodity cycle affecting the demand supply dynamics.
- Key concern areas are availability of long tenor funding, optimal borrowing costs, mitigating currency risk, flexibility for refinancing.
- Objective is to mitigate the above concerns and maximize shareholder value

KEY INNOVATIONS

- **Non – Recourse Financing** exclusively on the strength of the Project with no recourse or limited recourse to Project Sponsors.
  - Financing may be secured only by Project assets, Project cash flows and charge on designated accounts without any recourse to the Sponsors.
  - Credit enhancement may be achieved through Sponsor Support in the form of undertaking to arrange equity, fund cost overrun and retain management control
- **Longer doo-to-door tenor** (upto 80% of economic life of the Project) of RTL Facility aligned with cashflow projections of Company, with period refinancing

Petrochemical Projects Financing Structure: INNOVATIONS

KEY INNOVATIONS (Contd.)

- **Flexibility to replace RTL** with alternate debt instruments viz, ECB/ECA/Bonds or FCNR(B) facility as a sub-limit of the RTL Facility.
  - **Optimization of debt cost by realignment of the debt structure in future**
  - **Dollarization of liabilities to reduce currency risk**
- **Ring-fencing of ancillary infrastructure**, CPP, etc. for ECA funding at competitive pricing from IIFCL (UK)
- **Flexibility to alter drawdown schedule** may be included in the Facility Documentation (RTL only) to alter the disbursement schedule for the project by providing a notice to the lenders
- **Trust & Retention Account:** Waterfall Mechanism to addresses the lender's concerns on operating and other risks with appropriate buffers and controls on fund flow
- **Quasi-Equity Instruments** viz. Sub-Debt, Convertible Bonds (CCD), etc. **to reduce overall cost of capital and improve Promoters' Return on Equity**

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Thank You