



# Financing EG Energy Projects

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March 16, 2005

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# Taylor-DeJongh's Knowledge of the LNG Financing Market

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# LNG Team Experience

## Atlantic Basin

**Qatargas II  
LNG Qatar**



FA to Lenders  
US\$5 bn

**Equatorial  
Guinea LNG**



FA to Sponsors  
US\$1.7 bn

**Sonatrach,  
Skika Trains 4,5,6  
Algeria**



FA and Debt  
Arranger  
US\$250 mm

**Atlantic LNG  
Train 1  
Trinidad**



FA to Sponsor  
US\$1 bn

## Pacific Basin

**Alaska LNG  
and Pipeline  
USA**



FA to State  
US\$12 bn

**RasGas  
LNG Train 3 Qatar**



FA to Sponsors  
US\$1.4 bn

**Jamaica LNG  
Jamaica**



FA to Sponsor  
US\$600 mm

**Nigeria LNG  
Train 1&2  
Nigeria**



FA to Sponsor  
US\$4.5 bn

**Angola LNG  
Angola**



Acting for Project  
Company  
US\$1.5 bn

**Qatargas  
Upstream  
LNG Qatar**



FA to Lenders  
US\$600 mm

**Oman LNG  
Oman**



FA to Lending  
Group

# Competitive Position Mid Year - 2004

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## Global By Value

Rank	Firm
1	Taylor-DeJongh
2	PWC
3	KPMG
4	Macquarie Bank
5	UBS Investment Bank

## Oil and Gas By Value

Rank	Firm
1	SG
2	Taylor-DeJongh
3	ABN AMRO
4	Macquarie Bank
5	Investec

## Power by Value

Rank	Firm
1	Taylor-DeJongh
2	Macquarie Bank
3	Citigroup
4	BNP Paribas
5	ABN AMRO

Source: *Infrastructure Journal* League Tables, Mid Year 2004



# General Project Financing

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# Features of Project Finance

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- Cashflow based
  - Debt repayment is dependent on and tailored to match projected cashflows.
  - Detailed cash flow projections are critical in lieu of an operating history.
- Contract based
  - Key risks and financial relationships are interrelated through a firm contractual structure.
- Highly “structured”
  - Revenues are directed through specific offshore accounts.
  - Lenders seek perfection of security.
  - Insurance is required to cover major perils.

# Features of Project Finance (2)

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- Credit Intensive
  - Extensive legal and technical due diligence; high transaction costs.
- Long Term
  - Debt tenors and repayment profiles must match project cash flows.
- Construction Contractor

# Project Finance Participants

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- Sponsors
  - Provide initial equity and continuity of ownership.
  - Provide capital for adverse contingencies.
  - Negotiate commercial agreements.
  
- Feedstock Supplier
  - Guaranteed availability or pays damages for failure to deliver.
  
- Government
  
- Lenders/ MLAs/ECAs
  - As capital providers and guarantors.

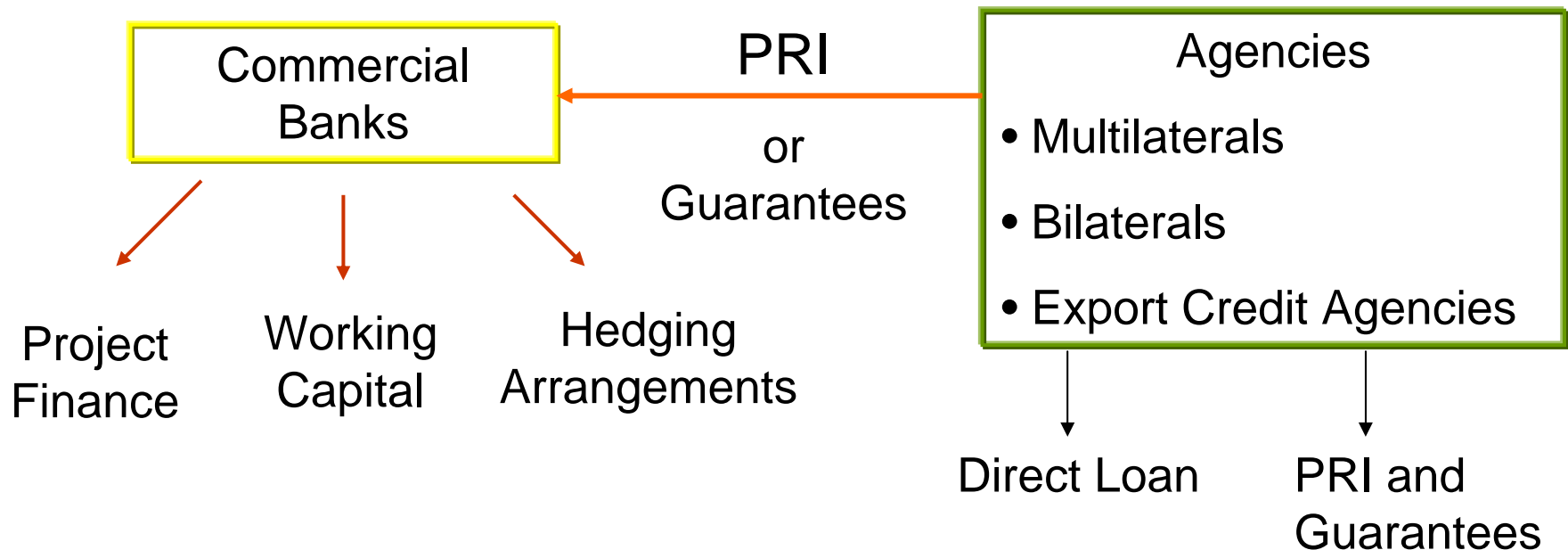
# Project Finance Participants

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- Offtaker
  - Purchases entire output of project under a long-term take-or-pay agreement.
  - Credit and experience are crucial.
  - FOB sales at plant.
  - Shipping arrangements must be firm; set by Offtaker under FOB sales.
- Operations and Maintenance (O&M) Management

# Sources of Financing

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- Most EG commercial banks will require PRI or ECA cover for this transactions.

# Sources of Financing (2)

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- Export Credit Agencies (ECAs)
  - Finance provided based on export value of home country goods and services.
  - OECD ECA terms are governed by common conditions providing the proposed 13-year tenor.
  - Exposure fee payable upfront, risk-adjusts the interest rate.
  - U.S. Ex-Im Bank, ECGD, SACE, COFACE, JBIC.
- Bilateral Agencies
  - Provide limited recourse financing and guarantee programs;
  - OPIC (USA), Kfw (Germany).
- Multilateral Agencies
  - IFC, or World Bank PRG, MIGA (PRI only).
  - Tenors can exceed commercial bank and ECAs.
  - Policy and development criteria apply as well as commercial issues.
  - Long process to arrange financing.



# Financing Plan

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# Benefits of the Financing Plan

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- Sponsors' full-recourse exposure to the Project and EG in the amounts of their pro-rata shares of total project costs could impact their credit ratings – significantly.
- The all-in cost of proposed financing is less than the un-levered Project IRR, therefore equity returns are optimized by maximizing leverage.
- The 13-year loan tenor meets lenders' requirements of minimum DSCRs and Reserve tails to provide maximum leverage.

# Market Capacity

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- Bank financing with PRI-only may possibly be available. However, it is not certain, especially for a 13 year tenor.
- Commercial Bank syndication would be very challenging due to the large amount of the debt.
- ECAs have availability to finance or provide comprehensive guarantee or PRI cover
- Current PRI capacity:
  - ECA – \$900M or more
  - OPIC – up to \$300M;
  - Private markets - \$250-\$300M (short to medium term)

# ECA Participation is Required

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- ECAs are needed due to a lack of bank loan and capital market capacity.
- PRI capacity from the private market (Lloyds, AIG, Swiss Re etc.) is insufficient to provide for bank needs.
- ECA capacity for large loans and guarantees minimizes the number of negotiating parties simplifies and expedites financial close.
- ECAs provide relatively low all-in cost loans in complicated markets.

# Risks of Delay in Financing

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- ECAs will finance goods and services invoiced only as far back as one-year prior to application.
- ECAs will not re-finance IDC on Sponsor loans. They will finance IDC capitalized on their own construction loans.
- Interest Rate Risk (ECAs will commit in 2004 at fixed rate for life of the deal, at 2004's low interest rate).
  - Costs of LIBOR increases before rates are locked cannot be regained.
  - If rates decline after rates are locked the Sponsors can swap the loans with comprehensive coverage, at reduced rates.
- Lender capacity may not be available at project completion.

# Availability and Interest Risk

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- The current low interest rate environment allows the Project to lock in LIBOR at 4.5% to 5.5% for 13 years.
- The current environment of global monetary stimulus and economic recovery increases the likelihood of higher rates in the future.

# Capital Structure and Risk Factors

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- Lenders agree to maximum leverage and amortization profiles that provide required credit statistics:
  - Base Case Debt Service Coverage Ratios (DSCRs)
  - Leverage
- Minimum and average DSCRs, and life of loan coverage ratio requirements are determined based on the perceived riskiness of projected cashflows.
  - Creditworthiness of the offtaker
  - Alternative markets and volatility of end market gas prices
  - Sponsor financial strength and track record
  - Terms of the PSC and quality of the gas reserves
  - Dedicated shipping arrangements
  - Legal, currency, technical (EPC creditability, level of LDs)

# Conservative Base Case Assumptions

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- Lenders make calculations on conservative base case assumptions commensurate with their capped rate of return.
- Reserves will be calculated based on P90 estimates.
- Lenders require 20-30% Reserve tails through loan maturity.
- Revenues will be projected based on conservative forward price curves.
- Capital and operating costs will be based on conservative estimates.
- Equity investors will need to provide assurances that their capital will be disbursed when called.

# Completion Undertakings

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- EPC Contractor Completion Guarantees.
  - Fixed price
  - Time for COD
  - Performance (output quantity and quality)
  - LDs
- Sponsor Completion Undertakings mitigate the risk that debt will not be serviced on schedule due to a delay from:
  - Disagreements regarding cost overruns
  - Construction delays
  - Technology failures
- Sponsor Completion Undertakings are triggered when project completion is not achieved by a fixed date.

# Sponsor Completion Undertakings

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- It is common in LNG financings for Sponsors to have completion support or guarantees in place over and above the Contractor LDs.
  - Qatargas
  - Ras Laffan
  - Oman LNG
  - Nigeria LNG
  - Sakhalin
- Sponsor Completion Undertakings may be limited to guarantees that debt will be serviced on schedule (Debt Service Undertaking).
- Completion undertakings terminate when the Project Completion occurs according to commercial and technical performance measures agreed.



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