Financing Large-Scale Industrial Projects

Masterclass

German-Mongolian Corporate Days 2016

by Gernot Bruch

Agenda

Chapter I.
Financing Challenges in the Current Financial Climate

Status of Western Bank Markets

Need for further adjustment of bank balance sheets

- Structural challenge: Banks' return on equity remains below their cost of equity.
- NPLs remain important obstacle for banks to provide new credit to real economy.
- Clean-up of bank balance sheets needs to be completed.

Difficult operating environment for banks

- Banks forced to introduce tighter lending controls in response to new legislation.
- Low nominal growth and low interest rate environment weigh on banks' profitability and make traditional banking activities less lucrative.

Ongoing operational and regulatory challenges faced by commercial banks ...

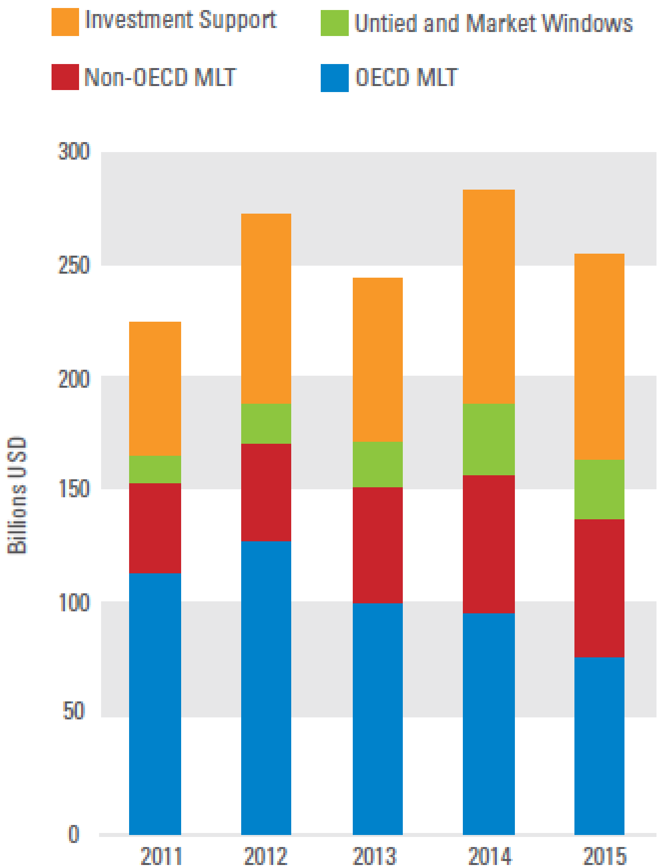
Changing Trends in the Financing Market

... have led banks to tighten lending standards ...

Changing Trends in the Financing Markets (cnt'd)

... which in turn has led to ever increasing importance of ECAs

Total trade-related support of ECAs:



Sources: EXIM, bilateral engagement, Berne Union annual reports

- ECAs stepped up during the 2008/09 financial and economic crisis and have since been playing a critical role in getting projects financed and off the ground. They are here to stay.
- Multi-laterals have also provided significant support.

Key Learnings from Recent Market Practice

- Financing is available - albeit for good credit quality borrowers/projects only and at a price.
- Success factors for financing a project in the current financial climate.
- ECA support has become a key driver due to constraints on bank lending.
- Buyers' treasury teams usually ill-prepared to deal with peculiarities of ECA supported financing and lack experience with actual conditions of use.
- Since ECA involvement is tied to sourcing of equipment and/or services, contractors have traditionally been experienced in the use of ECA support and are ideally suited to help buyers filling the knowledge gap.

Chapter II.
ECA Financing Using the Example of Hermes

ECA Financing

<u>Basics</u>

- Official Export Credit Agencies (ECAs) provide financing services such as guarantees, loans and insurance to domestic companies for their international activities in order to promote exports in the domestic country.
- So-called Tied Financing: Support tied to underlying delivery transaction.
- Primary objective of ECAs is to remove part or all of risk and uncertainty of payment to exporters/banks granting export credits and, thus, enable exporters to offer credit and/or more competitive business terms to their customers.
- If in the form of guarantee and/or insurance ECA support usually covers minimum 85% of commercial and political risks (→ comprehensive cover).
- Prerequisite: Exporters comply with cost eligibility guidelines of ECA concerned.
- ECA support enables lenders to provide longer tenors and supplements bank market capacity following the global financial crisis.

MAJOR OFFICIAL ECAs

Australia:	EFIC	Italy:	SACE
Austria:	OeKB	Japan:	NEXI
Belgium:	DD	Luxembourg:	ODL
Canada:	EDC	Netherlands:	Atradius
Czech Republic:	EGAP	Sweden:	EKN
Denmark:	EKF	Switzerland:	SERV
Finland:	FINNVERA	Spain:	CESCE
France:	COFACE	United Kingdom:	UKEF
Germany:	EULER HERMES	United States:	US-EXIM

Hermes Eligibility Criteria – Rules for Origin of Goods/Services

- Hermes' primary objective is to promote German exports, i.e. exports of goods and/or services originated from Germany (for goods German origin certificate required).
- However, Hermes recognizes that in a global economy based on the division of labour export transactions cannot be carried out without subcontracted supplies from third countries and/or the buyer's country (= local cost).
- To determine permissible foreign content Hermes applies a three-tier approach. Following guidance values have to be taken into account:
  - Local cost: max. 23% of eligible contract value (→ OECD rule).
  - Subcontracted supplies from so-called "agreement countries" (EU, Switzerland, Japan, Norway) and "other countries" can be included w/o any detailed explanation up to 49% of eligible contract value provided that foreign content per country group does not exceed 30%.
  - Supplies from foreign subsidiary of German exporter permissible up to 49% of eligible contract value.
  - Aggregate foreign content of more than 49% of contract value usually not considered eligible by Hermes.
- To determine eligibility for support Hermes may require higher amount of German origin.

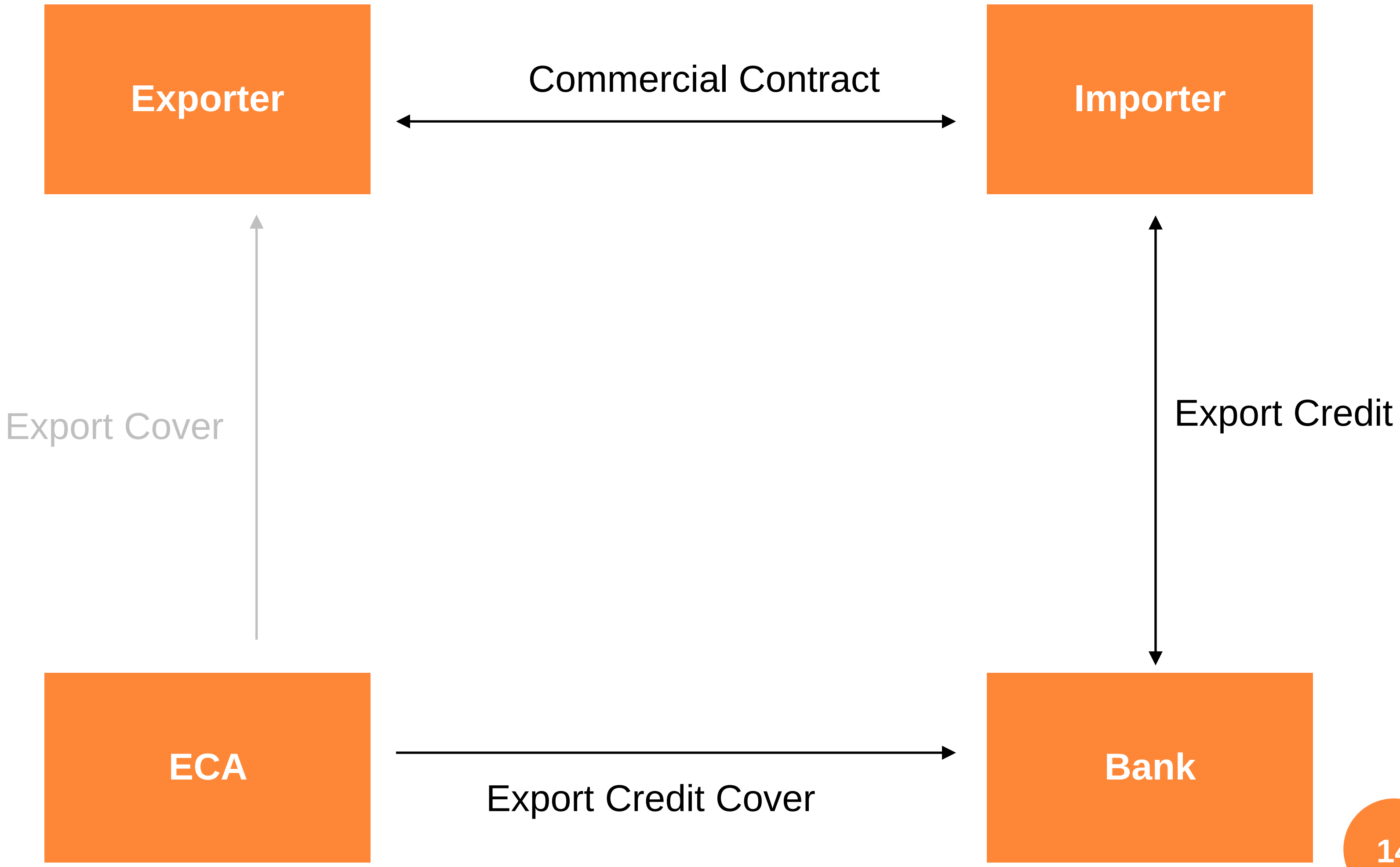
Hermes Eligibility Criteria – Buyer Credits (I/II)

- Down and/or interim payments of at least 15% of eligible contract price to be made at beginning of credit period, i.e. maximum financeable amount is 85% of eligible contract value (→ OECD rule).
  - In addition 100% of insurance premium and IDCs can be included in financing.
  - Premium level determined by buyer country rating, buyer category and credit period.
- Starting point of credit period defined in accordance with scope of delivery (delivery date, weighted mean delivery date, date of last material delivery, commissioning date).
- Eligible credit period determined mainly by contract value and industry sector. Maximum permissible:
  - Category I countries (e.g. OECD and EU countries): 8.5 years;
  - Category II countries: 10 years.
- Repayment profile: In equal and consecutive instalments, intervals not to exceed 6 months.
- For project finance transactions so-called flexible credit period and repayment conditions apply.

Hermes Eligibility Criteria – Buyer Credits (II/II)

- For credit check on private borrowers suitable financial documents and records (financial statements in accordance with IFRS) are required. If not available, payment guarantee from creditworthy guarantor is necessary.
- In case of public borrowers usually payment guarantee from Ministry of Finance or Central Bank is required; exceptions possible if acceptable credit ratings by major rating agency available.
- Disbursement procedure to mirror payment terms of underlying (delivery, EPC, ...) contract.
  - either direct disbursement to exporter against presentation of certain documents; or
  - reimbursement procedure (= importer/borrower first pays exporter and then gets reimbursed out of Hermes-covered loan facility).

Basic Scheme of ECA-covered Export Credit



Chapter III.
Project Financing

What Is Project Financing?

- Debtor is a project company (SPC), which is economically and legally independent from sponsors.
- Lenders have no or limited recourse to sponsors' assets: Financed "off" balance sheet.
- Possibility to pool and reconcile (sometimes diverging) interests of different investors:
  - access to capital, both for weaker sponsors that may be unable to fund their share of project costs on their balance sheet, and
  - for stronger ones that may want to make sure that their creditworthiness is not affected by the sheer size of the project.
- Second and independent opinion of project feasibility and expected economic benefits.
- Project risks are properly mitigated by contractual allocation.
- Enhanced disciplining of project parties through extensive contracting.

What is Project Financing?
Prerequisites

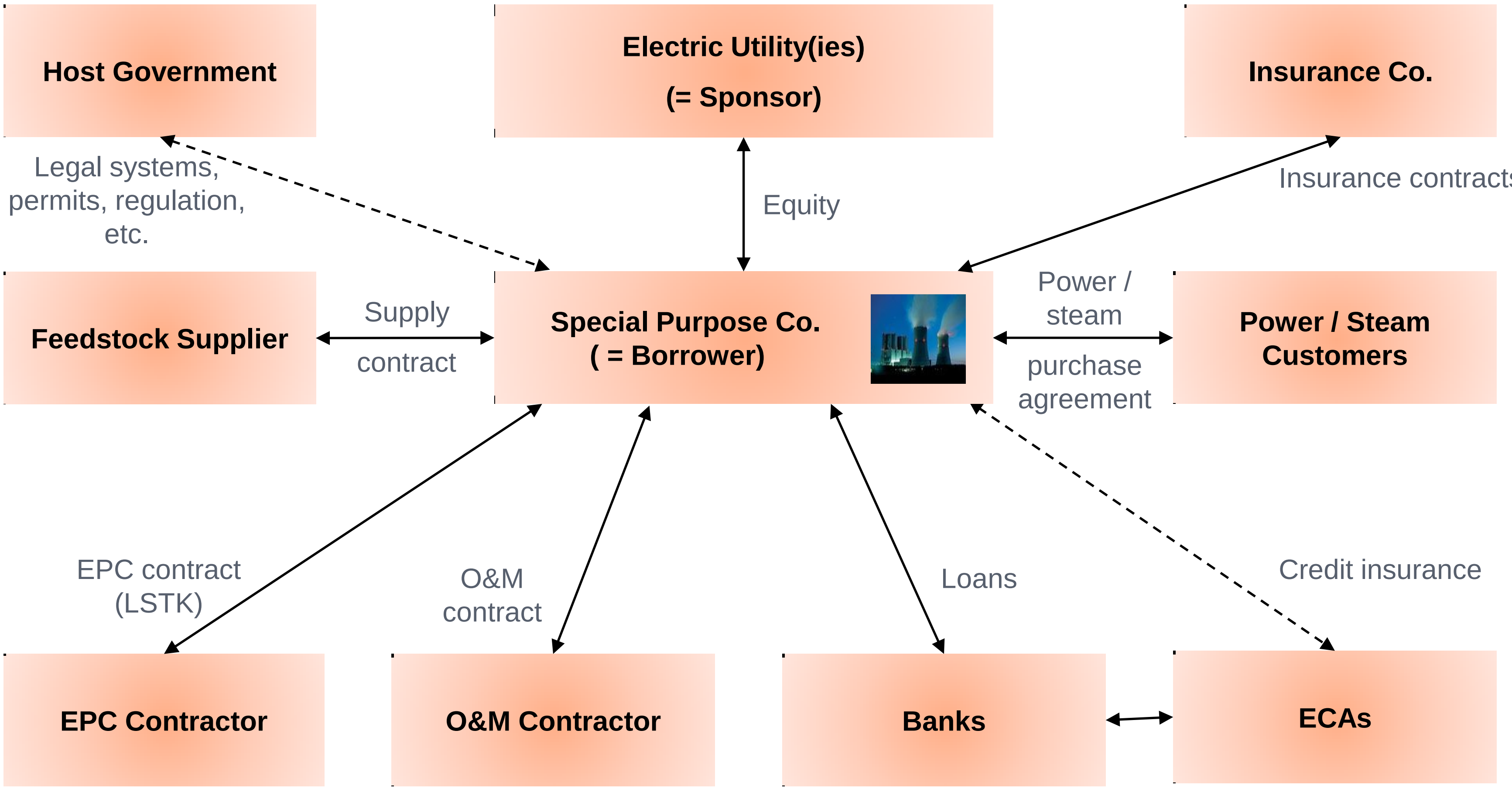
- Economic analysis of project shows stability of projected future cashflows.
- Proven technology, tried and tested for years. Project financing not appropriate for "new" and/or high technology projects.
- Extensive contracting to manage project risk is possible. Main aim is to reduce cashflow volatility.
- Strong and creditworthy project partners with track record.
- Each of the project stakeholders expected to bear the risks which it is best able to manage.
- All assets, rights, and interests of SPC are legal and/or financial collateral for the project debt.

What is Project Financing?
Fields of Application

- Power plants
- Oil and gas developments
- Renewables energy projects
- Petrochemicals sector
- Social welfare and PPP projects
- Infrastructure developments such as toll roads and bridges, air and sea ports

Areas where project cash inflows and outflows can be set by long-term contracts

Simplified Project Structure Example



MAJOR PROJECT RISKS

Operating Risks
- Performance
- Efficiency
- Availability
- Force Majeure

Counterparty Risks
- Creditworthiness
- Know how

Financial Risks
- Availability of funds
- Tenor
- Interest Rate
- Margin
- Exchange Rate

Market Risks
- Volume
- Price

Project Site Risks
- Availability of site
- Infrastructure
- Contamination in past

Cost Risks
- Capex
- Opex
- Take or pay-contracts

Completion Risks
- Technology
- Permits
- Interfaces

Legal Risks
- Contracts
- Change in law
- Environmental legislation

Major Project Risks during Construction and Operation

Construction	Operation
Technology	**Production**
Interfaces Contractor-Vendors	Availability
Cost Overrun	Maintenance
Schedule Delays	Management / Staff
Infrastructure	Environmental impacts
Contamination	**Sales**
Property	Volume; Price
Permits / Licenses	**Procurement**
Insurance	Volume; Price
	Availability

Host Government

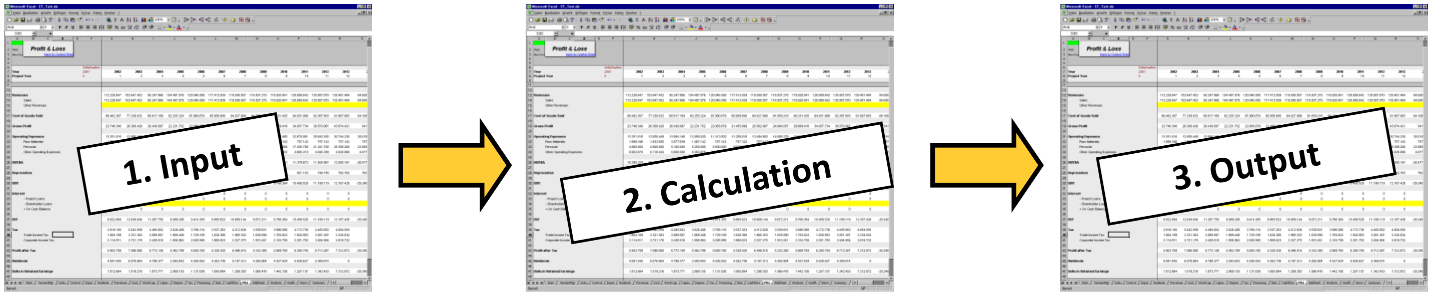
- Sovereign/political risks
- Legal systems; permits; regulation
- Exchange Rate; inflation; interest rate

ASSESSING A PROJECT'S FEASIBILITY BY USING A FINANCIAL MODEL

- In Financial Models mathematical formulas represent the project's contractual arrangements.
- Technically speaking Financial Models are a forecast of the SPV's sales, earnings and cashflow development.
- Identification of any variables to which key results are particularly sensitive, and clarity on measures for mitigating such risks.
- Ability to cover debt service and stability of the project can be tested using simulation (e.g. increased/reduced Capex, loss of production, lower sales prices, change in interst rates, etc.).
- Different assumptions can be compared as to their impacts on sales, profit and cashflow.

Financial Model allows analysing different risk factors in parallel!

Structure of Financial Models



Input
- Contract data
- Prices
- Volumes
- Cost rates
- Capex
- Tenors
- Interest rates
- Tax rates
- Inflation rates

Calculation
- Sales
- Costs
- Investment
- Depreciation
- Book values
- Tax
- Working capital
- Interest payment
- Repayment

Output
- P&L
- Balance sheet
- Cashflow statement
- Key financial ratios
- Cover ratios

Key Output of Financial Models

- Debt Service Coverage Ratio (DSCR)
- Loan Life Coverage Ratio (LLCR)
- Cash Sweep Mechanism
- Dividend Lock-up
- Leverage
- Debt Service Reserve Account (DSRA)
- Maintenance Reserve Account (MRA)

Key financial and cover ratios reflect profitability and robustness of a project!