International Finance Course

LUISS Guido Carli, Academic Year 2018-2019

How to Analyse, Structure and Finance direct investments abroad, related to real assets (infrastructure, industrial plants, etc) with a project finance approach:

A greenfield project and operating assets (M&A) evaluation process

by

Federico Merola ("**FM**")

(10th September 2018)

1. International Finance Course: content

What do we intend for International Finance?

- ✓ A direct Investments;
- ✓ In real assets (mainly industrial plants and infrastructure);
- ✓ Usually greenfield (to be built up) and sometimes already operating;
- ✓ Abroad (mainly in “third” countries with ECAs coverage);
- ✓ Promoted by one or several partners (**Sponsors**);

.....follows

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……

- ✓ By means of *project finance techniques ("**PF**") (= with a special purpose vehicle – "**SPV**" – set up in order to "ring fence" promoters' commitments and risks),*
- ✓ With the support of export credit facilities (export financing provided by **Banks** and insured by Export Credit Agencies - **ECAs**);

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What we are <u>not</u> going to study:

✓ Cross borders purely financial investments (investments in international financial markets including currencies, listed shares, bonds, etc.)

As well as

✓ International investments carried out on a corporate basis by multinational corporations (as development of a typical “corporate” approach).

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Key tools:

- ✓ Project Finance skills;
- ✓ Export Finance skills;
- ✓ Risk Analysis skills;
- ✓ Financial Modelling skills (practice will be managed by Marco Pignoloni – "**MP**");
- ✓ Legal skills;

OECD: Organization for the Economic Cooperation and Development

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In particular:

- ✓ A **project finance transaction** needs a very sound financial and risk analysis (by sponsors, banks, ECAs, etc), given that there is a limited scope for guarantees (realised by sponsors, governments,…);
- ✓ The **Export Finance** allows to use tools originally designed by all the **OECD** countries to support their export of capital goods&services (i.e. political and commercial risk insurance available for banks financing "the importer" with a long term prospective) and more recently also adopted by other main countries in the world (China, Russia, etc.);
- ✓ Export Credit support is also available for projects with a complex "multi-sourced" export of capital goods and services (coming from more companies/countries) dedicated to build up industrial plants, infrastructures as well as big real estate assets;

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Notwithstanding we are going to study all these topics within the contest of international project finance deals,

Major topics teached in this course are also fundamental knowledge in the analysis of corporate investments /financing as well as in M&A transactions

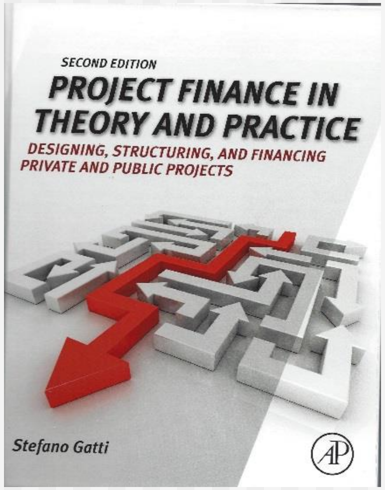
Furthermore, the above mentioned methodologies may also be used:

- ✓ in local/country projects, which may be specially regulated/stimulated by public authorities (Project Finance Initiatives – **PFI**, Public-Private Partnerships – **PPP**)
- ✓ In **Asset Based investments/financing**, concerning mobile assets of huge dimension (ships; airplanes; others)

2. Materials

- ✓ **Slides given by FM & MP** (download from the following web site: http://docenti.luiss.it/merola/);
- ✓ Slides given by testimonials, if any (download will also be possible from the same web site)
- ✓ **Selected parts of the adopted book** (see next page)

2. Materials (2)

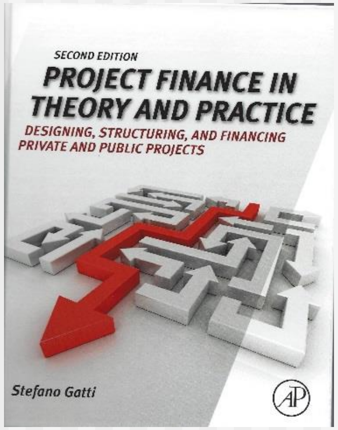


Project Finance in Theory and Practice

(by Stefano Gatti)

- ✓ **Chapter 1**: Introduction to the Theory and Practice of Project Finance (Page 1 - 14);
- ✓ **Chapter 2**: The Market for Project Financing: applications and sectors;
- ✓ **Chapter 3**: Project Characteristics, risk analysis and risk management (Page 43 – 49; 52 - 75);
- ✓ **Chapter 4**: The Role of Advisors in a Project Finance Deal (just to be red by students interested in the subject);

2. Materials (2)



- ✓ **Chapter 5**: Valuing the project and Project Cash Flows (**NO** ! Replaced by slides and lessons);
- ✓ **Chapter 6**: Financing the Deal (page 167 – 186; 188 – 197; 204 – 215; 217 - 231; 246 – 249;)
- ✓ **Chapter 7**: Legal Aspects of Project Finance (to be decided on the basis of material provided)

Export Credit and ECAs: slide will be provided;

Financial Modelling: Chapter 5 of the book will be replaced by slides and other material given by MP

2. Agenda

A precise agenda with all information regarding:

- ✓ testimonials' speeches (if any);
- ✓ Financial Modelling Practice;
- ✓ Pre-test and Exams (to be done in writing form);

Are given today and constantly updated

2. Agenda **(it may change and will be constantly updated)**

LESSONS SEPTEMBER	TIME	PLACE - Viale Romania 32	TEACHER
lunedì 10/09	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 14/09	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 17/09	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 21/09	11:30 - 13:00	Aula T03 – piano zero	Prof. Federico Merola
lunedì 24/09	12:15 - 13:45	Aula 202 – 2 piano	Dr. Marco Pignoloni
venerdì 28/09	11:30 - 13:00	Aula T03 – piano zero	Prof. Federico Merola
LESSONS OCTOBER	**TIME**	**PLACE - Viale Romania 32**	**TEACHER**
lunedì 01/10	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 05/10	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 08/10	12:15 - 13:45	Aula 202 – 2 piano	Dr. Marco Pignoloni
venerdì 12/10	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 15/10	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 19/10	11:30 - 13:00	Aula T03 – piano zero	Prof. Federico Merola
lunedì 22/10	12:15 - 13:45	Aula 202 – 2 piano	Dr. Marco Pignoloni
venerdì 26/10	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 29/10	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola

2. Agenda (it may change and will be updated constantly)

LESSONS NOVEMBER	TIME	PLACE - Viale Romania 32	TEACHER
venerdì 02/11	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 05/11	12:15 - 13:45	Aula 202 – 2 piano	NO LESSON/NO TEST
venerdì 09/11	11:30 - 13:00	Aula T03 – piano zero	NO LESSON/NO TEST
lunedì 12/11	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 16/11	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 19/11	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 23/11	11:30 - 13:00	Aula T03 – piano zero	Dr. Marco Pignoloni
lunedì 26/11	12:15 - 13:45	Aula 202 – 2 piano	Prof. Federico Merola
venerdì 30/11	11:30 - 13:00	Aula T03 – piano zero	Prof. Federico Merola/Dr. Marco Pignoloni
EXAMINATIONS	**TIME**	**PLACE - Viale Romania 32**	**TEACHER**
10 December 2018	10:00 – 13:00	Aula INFO 301	Prof. Federico Merola/Dr. Marco Pignoloni
25 January 2019	10:00 – 13:00	Aula INFO 301	Prof. Federico Merola/Dr. Marco Pignoloni

2. Useful Information

For any question/clarification you may use the following email addresses:

- ✓ fmerola@luiss.it (for general questions and meetings)
- ✓ marco.pignoloni@arpinge.it (for questions regarding Financial Modelling Practice);

http://docenti.luiss.it/merola/ (for general information regarding the Agenda and Examination)

Our availability for meetings will be on Mondays (from 2.00 to 3.00 pm) and on Fridays (1:00 – 2:00 pm), upon request. If necessary, other days may be agreed upon request.

3. Definition of Project Finance

Let’s start with:

- Salient features of a PF Deal as well as
- The essential terminology

3. Definition of Project Finance

Project finance may be defined as:

- the investment in (with equity) /financing of (with Debt),
- <u>long-term</u> infrastructure and/or industrial projects (<u>assets</u>),
- based upon a <u>**non-recourse**</u> or <u>**limited recourse**</u> financial structure,
- in which project debt (and equity) used to finance (and to invest in) the project,
- may primarily account on the <u>**cash flows** generated by the project</u> itself (or another project specifically dedicated – <u>**cash collateral**</u>),
- with the <u>project's assets</u>, rights and <u>covenants</u> being simply <u>secondary securities</u> for banks and debt providers/guarantors (**real and legal collateral**),
- Relevant guarantees released by the Sponsors/Governments are mainly contractual, as defined within the <u>**Security Package**</u> of the PF transaction.

3. Other Definitions of project finance

The International Project Finance Association (IPFA) defines project finance as:

"the financing of long-term infrastructure, industrial projects and **public services** based upon a **non-recourse** or **limited recourse** financial structure where project debt and equity used to finance the project are **paid back from the cash flow generated by the project**."

3. Other Definitions of project finance

The definition of project finance given by the Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards ("Basel II"), November 2005, is the following:

“Project finance may take the form of financing of the construction of a new capital installation, **or refinancing of an existing installation** (with or without improvements).

In such transactions, the lender is usually paid **solely or almost exclusively out of the money generated by the contracts for the facility’s output**, such as the electricity sold by a power plant……

3. Other Definitions of project finance

The borrower is usually a SPE (Special Purpose Entity) **that is not permitted to perform any function other than developing, owning, and operating the installation**.

The consequence is that repayment depends primarily on the project’s cash flows and on the collateral value of the project’s assets.”

3. Definition of Project Finance

In few words, a PF is:

- the **structured financing** of a SPV (**project company**)
- Set up by the **sponsors** (=parties proposing, developing and managing the business idea, taking the highest risk) using equity and/or mezzanine debt,
- and for which the **lenders** does not rely only on the soundness and creditworthiness of the Sponsors,
- but primarily refers on:
  1. the **project's cash flows** and their ability to service the Debt (*repay principal plus interests*), and to remunerate the equity/mezzanine capital invested by the Sponsors at a rate consistent with the degree of risk inherent the deal;
  2. the value of the assets made available as collateral (if available and dismissible);

3. Key features in a project finance transaction

1. The Borrower is a project Company (SPV) set up on an “ad hoc” basis that is not permitted to perform any function other than developing, owning, and operating the installation and is financially and legally independent by the sponsors (**ring fence**);

2. Lenders have typically only **limited recourse** (or **no recourse** at all) to the sponsors and their assets. *This means that risks associated with the PF deal have to be assessed in a different way than risks concerning corporate loans;*

3. Project risks have to be allocated equitably between all parties involved in the transaction, with the objectives of assigning risks to the contractual player best able to control and manage them (**fair risk sharing and mitigation (or absence) of any conflict of interests**);

3. Key features in a project finance transaction

4. Cash flows generated by the project (or another project specifically dedicated – cash collateral) must be sufficient to cover debt service (capital repayments + interests) and operating costs (only residual funds may be used to pay dividends to the sponsors)(**acceptable debt Cover Ratios**),

5. The project's assets, rights and covenants are simply secondary securities for banks and debt providers/guarantors (**collateral**).

3. Key features in a project finance transaction

- **SPV** (= *Special Purpose Vehicle*)**– Project Company:** Project finance involves the creation of a legally and economically independent project company ("***ring fence"***) financed by a non-recourse debt (and equity from one or more corporate sponsors) for the purpose of building, operate and own/transfer (B.O.O., B.O.T.) a single purpose capital asset usually with a limited (although long term) period of life;

3. Key features in a project finance transaction

Main PF typical structures in public services (motorways, utilities, etc)

B.O.O.

Build, Operate and Own

B.O.T.

Build, Operate and Transfer

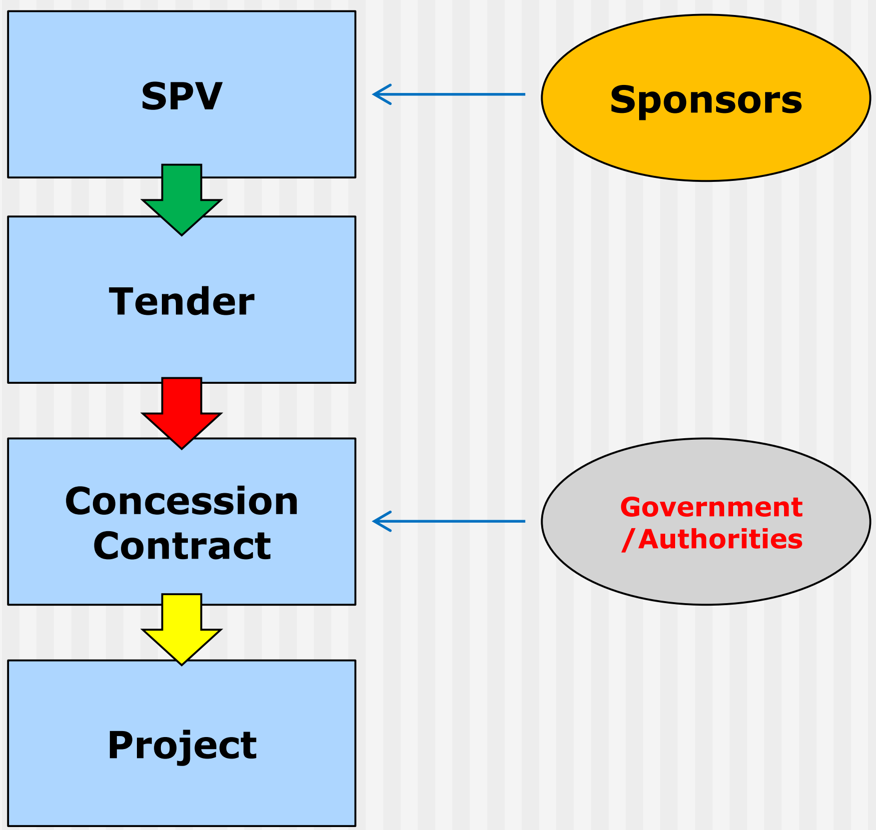
MAINLY BASED on A **Concession** Contract

B.O.O.T

Build, Operate, Own and Transfer

3. Key features in a project finance transaction

B.O.T. Scheme



3. Key features in a project finance transaction

- ✓ **Non-Recourse Debt**: debt repayment comes from the project company rather than from any other entity and in principal there are no corporate guarantees released by the sponsors,

- ✓ ***Limited* recourse debt**: the Debt carries a repayment guarantee, often only for a <u>defined period of time</u>, for a <u>fraction of the total principal</u>, or until a <u>certain milestone is achieved</u> (e.g., until construction is completed or the project achieves a minimum level of output).

<u>**The distinguishing feature in a (real) PF transaction is that at least some portion of the debt becomes non-recourse at some point in time**</u>.

3. Key features in a project finance transaction

WITHOUT RECOURSE

(Senza rivalsa)

It achieves an absolute separation of the initiative with respect to its sponsors or third parties, being the ability to generate profits (together with the activities launched and the assets developed) the only relevant factor for lenders to evaluate the project's capability to meet the obligations related to debt service

LIMITED RECOURSE

(Con rivalsa limitata)

There are additional guarantees given by the sponsors (such as corporate guarantees and/or real estate guarantees) as well as third parties support (Government, other public entities), at least for a certain period of time of the Project

3. Key features in a project finance transaction

Does the PF without recourse really exist?

Yes, but in limited circumstances/specific conditions, as:

- ✓ In certain phases of the project (for example, after the construction completion, when the financial risk is reduced, or even later, upon the occurrence of certain events);
- ✓ When and where the legal system, the hosting market and the main actors of the deal are very reliable and sophisticated;
- ✓ When the feasibility of a possible "action" would be difficult in concrete terms (eg. the project sponsors come from countries with a domestic legal system inefficient in view of possible executions; It would be hardly to enforce the project’s assets)

4. When PF may be used ? Key factors facilitating the use of a PF technique

1. Reasonable **size** (that justifies the high cost incurred and the qualified skills requested);

2. **Reliable sponsors** with proven experience and sound track record;

3. **Mature industry** with a clear regulatory framework and **low technological risks**;

4. **Efficient Risk-sharing** among various parties (please see page 21 above);

4. When PF may be used ? Key factors facilitating the use of a PF technique

5. **Absence of conflict of interests** or appropriate **mitigation** of such conflicts;

6. *Standardized and widespread product*/service with rigid demand, and /or…

7. …*a monopoly position* acquired through award of a tender regarding a concession contract (B.O.T structure), and /or….

8. …*Pre-agreed sales and purchase agreements*.

4. When a PF approach may be used ? Sectors

Sectors of Activity

ENERGY

Power

- IPPs / MPPs
- Transmission
- Waste-to-Energy / Renewables

Oil &Gas

- **Upstream:** Oil & Gas Field Development
- **Downstream:** Plants, Terminals, Refineries,
- **Transportation:** Pipelines,

Petrochemical

- Fertilisers
- Polyethylene
- Polypropylene
- Aromatics
- Olefins

TELECOMS

- Fixed Telephone Networks
- Cellular Networks
- Fiberoptic Cables
- Satellites
- Cable Television

INFRASTRUCTURE

Ports/Airports

- Toll Roads
- Bridges / Tunnels
- Railways
- Water /Sewerage
- Healthcare

SPECIAL INDUSTRIES

- Automotive
- Agribusiness
- Pulp & Paper
- Mining
- Textile

4. When a PF approach may be used ? financing

- ✓ Bank financing to a local SPV (project finance facility);
- ✓ Bank financing to a foreign SPV importing goods and services from the country where the bank is based and/or operating (international project finance facility and Export Credit);
- ✓ "Multisource" Export and Project finance facility structure: with more export credit facilities provided by various banks and covered by various ECAs, plus a commercial project finance facility (all the facilities has to be intimately coordinated);
- ✓ "Multisource" Export and Project finance facilities with a project finance line participated by multilateral financial institutions (EBRD, IFC, World Bank, ecc.)

4. When PF may be used ? Key factors facilitating the use of a PF technique

Please note that:

An extensive use of PF even in absence of some of the above mentioned key factors is still possible and reflects the financial market development of the country/location where the initiative is implemented (es. Size)