



Ruhr Master School  
of Applied Sciences

Dieses Wahlpflichtmodul ist ein Angebot der:

**Fachhochschule  
Dortmund**

University of Applied Sciences and Arts

**European Master in Project  
Management**

## **Module J Project Finance, Procurement, Legal Aspects**

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STIFTUNG  
**MERCATOR**



<b>Module J Project Finance, Procurement, Legal Aspects</b>						
<b>Code Number</b>		<b>Semester</b>	<b>Duration</b>	<b>ECTS-Credits</b>		
94303		Sem. 2	1 Sem.	6		
<b>Type of lecture</b>		<b>Language of instruction</b>	<b>Frequency</b>	<b>Semester hours per week</b>		
Elective course		English	Annually - ST	4		
<b>1</b>	<b>Course Title</b>		<b>Contact hours (h)</b>	<b>Self-study (h)</b>	<b>Total workload (h)</b>	<b>SWS</b>
	Project Finance		30	60	90	2
	Legal Aspects in Project Management: Contracts, Procurement and further Issues		30	60	90	2
<b>2</b>	<b>Content</b>					
	<p><b>Project Finance</b></p> <p>Project finance mainly deals with raising of finance for capital investment project where the project has to repay the loan from its operations. The overall aim of this course is to help students to use financial information to improve their decisions as project managers and to learn and apply tools that maximize value. This course provides a broadly-based introduction to the study of project Finance. The course introduces the knowledge of project finance and financial principles to consider and appreciate solutions to gaining finances and funds allocation and contribute to discussions. The course includes case studies and home exercises to develop knowledge, skills and competences of students through real situations and by introducing different scenarios.</p> <p>In the introductory part of the course the students will be provided with the basic terminology in the field of Project Finance. The role of financial manager related to acquisition of financing, investment and project finance will be discussed. Goal of a firm will be highlighted along with the key characteristics of project financing. Why it is important to understand project finance and the advantages and disadvantages of project financing will be elaborated.</p> <p>In the second part the concepts related to the time value of money, project investment appraisal techniques, interest rates, multiple compounding, dynamic and static method of project evaluation will be provided. Small class exercises will be conducted to illustrate decision making based on NPV, IRR, Annuity, Annuity due, perpetuity etc. Students will learn about the basic tools of valuations and their possible limits by using them for the measurement of a project's return. Based on that insight, new tools applicable to the field of Project Finance will be involved.</p> <p>In order to give broader understanding of financial aspects different forms of business incorporations including sole trader, partnership and corporations will be discussed. The students will be introduces with the basic financial statements including income statement, balance sheet, cash flow statement and statement of owners' equity. The main components of the individual financial statement will be briefly discussed. Based on the form of incorporation different financing options will be discussed along with the</p>					

advantages and disadvantages. Students will also learn about the different possible risks in a project and how to identify and classify, assess, mitigate and allocate them.

In the later part different forms of debts, secured debts, collateral etc. will be discussed. The cost of the debt will be elaborated including the discussion on the fluctuation on the cost of debt based on international credit ratings. Bonds and their different types including zero coupon bond, premium bond, discounted bond, euro bond etc. will be discussed. Calculation related to bond valuation at maturity and before maturity will be done. The procedure to launch shares in the stock market (IPO) will be elaborated. Calculations will be done to find the share valuations. Discussions will be made related to issuance and buying of bonds and shares to raise finance and investment accordingly. Students will learn how to evaluate the capital structure of a project and understand which benefits debt can provide to the project

Finally, multinational financial management including exchange rate and trading in foreign market will be elaborated. Research papers/articles related to the project financing and related issues will also be discussed. The students will learn how exchange rate mechanism work and how the profitability of a project is affected by the variations in the exchange rates.

#### **Legal Aspects in Project Management: Contracts, Procurement, and further Issues**

Many legal aspects have to be considered in projects; aspects that can be clustered concerning the main stakeholders in projects:

- Project team members often are **employees** working in contracts shaped by their company or public organization on one side and by the conditions of labour law on the other side. Furthermore, external consultants often work in a project hired on a service contract and of course also under the conditions of labour law.
- **Suppliers** submit products and services based upon contracts.
- Projects lead to results that are sold somehow to those who ordered these results - the **buyer**. There are many options what finally will be sold, outputs of a project, joint venture results, etc. Often many legal aspects have to be considered.
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This course has the main focus on **contracts and procurement**. Further aspects like labour law will be mentioned but not discussed in detail.

Contract law is introduced based on the context of a contract: subject-matter, involved parties, contract types, contract features. Contract administration and claim management are discussed. The impact of contracts on projects is discussed, including special risks with contracts in projects.

Core issues of procurement are buying decisions, classification of commodities and services, supplier selection, contracting, delivery, etc. Procurement processes are discussed.

Finally, international standards on procurement in project - the knowledge areas on procurement in PMBOK and in the PMI Guide on Program Management shape the course.

<b>3</b>	<p><b>Learning Outcomes / Competencies</b></p> <p><b>3.1 Professional Competencies</b></p> <p><b>3.1.1 Knowledge</b></p> <p><b>Project Finance</b></p> <p>The students are able to</p> <ul style="list-style-type: none"> <li>• explain what project financing is and what steps are involved in securing and managing it</li> <li>• explain the difference between Corporate Finance and Project Finance</li> <li>• describe the economic motivations of firms using Project Finance and explain why Project Companies represent optimal governance structures for certain kind of assets</li> <li>• explain for which situations in general and in particular Project Finance might be an attractive mean of financing</li> <li>• explain how to protect the corporate balance sheet from incremental distress costs by using Project Finance</li> <li>• explain the relationship between project structure and both managerial incentives and value creation</li> <li>• explain basic valuation tools and new tools applicable to Project Finance</li> <li>• explain project selection methods for investment</li> <li>• explain and discuss the role of time value in calculations, the use of computational aids, and the basic patterns of cash flow.</li> <li>• explain the concept of future value and present value, their calculation for single amounts, and the relationship between them.</li> <li>• explain the effect that compounding interest more frequently than annually has on future value and the effective annual rate of interest.</li> <li>• explain the motives for key capital expenditure and the steps in the capital budgeting process.</li> <li>• explain and define basic capital budgeting terminology</li> <li>• explain the procedures involved in determining deposits needed to accumulate to a future sum</li> <li>• explain how to identify, assess, mitigate and allocate risks of a project</li> <li>• explain how Risk Management affects the value of a project.</li> <li>• explain advantages and disadvantages of raising capital from loan, Bond and Shares</li> <li>• explain exchange rate mechanism and currency value fluctuations</li> </ul> <p><b>Legal Aspects in Project Management: Contracts, Procurement, and further Issues</b></p> <p>The students are able to</p> <ul style="list-style-type: none"> <li>• describe core issues of legal aspects in project management,</li> <li>• explain contract types,</li> <li>• explain different parties involved in contracts,</li> <li>• explain core features of contracts: subject-matter, duration, validity, delivery, payment, etc.,</li> <li>• explain special features of contracts: warranty, exclusion of liability, etc.,</li> <li>• explain different cases of impairment of performance: contractual penalty, price reduction, compensation, termination, etc.,</li> <li>• explain contract administration: phases, procedures, tools,</li> <li>• explain claim management: individual claim, claim prevention,</li> <li>• explain special risk associated with project contracts,</li> </ul>
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- explain core issues of procurement in in projects: buying decisions, supplier selection, contracting, delivery, etc.,
- explain how to select commodities and services and potential suppliers,
- explain the procurement process: Information gathering, supplier contact, negotiation, shipment, payment, etc.,
- explain procurement according project management standards: knowledge area of procurement in PMBOK and in the Guide to Program Management, processes to run an control procurement in projects,

### **3.1.2 Skills**

#### **Project Finance**

The students are able to

- differentiate between internal and external projects
- discover agency conflicts associated with a project
- build an effective governance structure for a project
- classify sponsor types, asset types, and country settings
- classify project risks
- model the forecasted cash flows of a Project as the basis of the economic analysis
- choose the optimal capital structure
- compute a financial model in order to evaluate the economic value of a certain project
- measure the returns of a project by using certain DCF and IRR methods
- interpret the results in terms of the validity as a sound decision basis.
- calculate both the future value and the present value of a mixed stream of cash flows
- to calculate the initial investment associated with a proposed capital expenditure
- calculate, interpret, and evaluate the payback period
- calculate, interpret, and evaluate the net present value (NPV)
- calculate, interpret, and evaluate the internal rate of return (IRR)
- find the future value and the present value of both an ordinary annuity and an annuity due, and the present value of perpetuity
- find the relevant operating cash inflows associated with a proposed capital expenditure
- determine the terminal cash flow associated with a proposed capital expenditure
- apply better tax treatment for the benefit of the project or project sponsor
- calculate, interpret, and evaluate different currency exchange rate and profit in the international currencies.

#### **Legal Aspects in Project Management: Contracts, Procurement, and further Issues**

The students are able to

- analyse contracts and check the impact of a contract,
- design a contract - and submit it as a proposal,
- select commodities and services and potential suppliers - applying classification of commodities and services,
- select suppliers,
- develop orders regarding all core issues (delivery, shipment, payment, etc.),
- manage the supply chain in projects,

	<ul style="list-style-type: none"> <li>• develop concepts for contracting,</li> <li>• develop business rules for procurement.</li> </ul> <p><b>3.2 Personal Competencies</b></p> <p><b>3.2.1 Social Competencies</b></p> <p>The students can</p> <ul style="list-style-type: none"> <li>• select appropriate source of getting finances and identify appropriate projects for investment</li> <li>• lead to play a role in value maximization and taking financial decisions</li> <li>• detect agency problems and conflicts associated with the project</li> <li>• develop forecasts of the project cash flows of a project</li> <li>• develop solution for gaining finances and funds</li> <li>• detect problems associated with cash flow statement, balance sheet, income statement and statement of owners' equity</li> <li>• handle the tax variations</li> <li>• handle project financial risks by mitigating them by taking appropriate measures</li> <li>• determine relevant cash flows and the relevant discount rate for evaluating project feasibility</li> <li>• present the role and use of capital budgeting techniques in the capital budgeting process</li> <li>• detect issues related to issuance of shares and bonds</li> <li>• develop a strategy to deal with the exchange rate risk</li> </ul> <p><b>3.2.2 Autonomy</b></p> <p>The students can</p> <ul style="list-style-type: none"> <li>• independently work with the provided financial information to take appropriate measures related to financing and investing decisions.</li> <li>• apply gained knowledge about time value of money and tools like NPV and IRR for taking go/no go decisions related to particular project.</li> <li>• choose an appropriate form of business incorporation based on the scope of the business and financial requirements of the project.</li> <li>• analyse different sources of finance like Bonds and shares and develop a strategy for an appropriate capital structure.</li> <li>• ensure the consistent cash flow to meet the financial needs of the project.</li> <li>• manage and transform work or study contexts that are complex, unpredictable and require new approaches.</li> <li>• reflect operational challenges of a project.</li> <li>• the interplay between project and institutional framework and the strategic outline of a company and is able to derive an own mind on it.</li> </ul>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Lectures incl. practitioners' best practices, Interactive case studies, Seminar, Case studies, (Short) presentations, Results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Home work to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>

<b>5</b>	<p><b>Prerequisites for Admission</b></p> <p><b>Formal: -</b></p> <p><b>Knowledge and Competencies: -</b></p>
<b>6</b>	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• 50% contributions within the course (workshops, homework, group work, case studies, 2-5 pages each)</li> <li>• 50% written examination (60 minutes) at the end of the course</li> </ul>
<b>7</b>	<p><b>Requirements for Award of Credits</b></p> <p>Successful completion of examination, assignments, case studies, class work, home assignment some as an individual and some in group)</p>
<b>8</b>	<p><b>Module used in other programmes</b></p>
<b>8</b>	<p><b>Weighting of the mark for the final grade</b></p> <p>EuroMPM (3 Sem.): 6,6 % (6/66) x 73</p> <p>EuroMPM (4 Sem.): 6,8 % (6/66) x 75</p>
<b>10</b>	<p><b>Module Leader</b></p> <p>Prof. Dr. Dechange</p> <p>Khan</p> <p>Legal</p>
<b>11</b>	<p>Literature</p> <p>Project Finance</p> <ul style="list-style-type: none"> <li>• Brigham, E., Ehrhardt, M., (2010) Financial Management theory and practice, 13th ed., (Cengage Learning)</li> <li>• Esty, B.C. (2008): Modern Project Finance: A Casebook, Hoboken (Wiley &amp; Sons).</li> <li>• Finnerty, John D. (2013), Project Financing: Asset Based Financial Engineering, 3. ed., Hoboken (Wiley &amp; Sons)</li> <li>• Khan, F.; Parra, R. (2013): Financing Large Projects: Using Project Finance Techniques and Practices, New York (Prentice Hall), ISBN 978-0131016347.</li> <li>• Project Management Institute (2017): A guide to the project management body of knowledge (PMBOK guide) Sixth edition; Agile practice guide. Newtown Square, PA</li> <li>• Project Management Institute (2017): The Standard for Program Management,</li> </ul>

- Van Horne and Wachowicz, J., (2013): Fundamentals of financial management, 123th ed., (Prentice Hall)
- Yescombe, E. (2013): Principles of Project Finance, Academic Press, ISBN 9780123910585.

Weblinks:

- HBS Project Finance Portal: <http://www.people.hbs.edu/besty/projfinportal>
- Project Finance Magazine: <http://www.projectfinancemagazine.com>
- International Project Finance Association: <http://www.ipfa.org>
- Risk in Project Finance: <http://riskybusiness.wordpress.com>
- Projects Monitor: <http://www.projectsmonitor.com>
- Equator Principles: <http://www.equator-principles.com>

Legal Aspects in Project Management: Contracts, Procurement, and further Issues

- Ewan McKendrick (2018): Contract Law: Text, Cases, and Materials, Oxford University Press 8th edition
- Harold Kerzner (2017): Project Management: A Systems Approach to Planning, Scheduling, and Controlling, John Wiley & Sons
- Lucinda Miller (2019): The Emergence of EU Contract Law: Exploring Europeanization, Oxford University
- Peter Baily, David Farmer, Barry Crocker und David Jessop (2015): Procurement principles and management, Financial Times Prentice Hall
- Project Management Institute (2018): The Standard of Program Management, Newtown Square, PA
- Project Management Institute (2018): The Standard for Portfolio Management, Newtown Square, PA
- Project Management Institute (2017): A guide to the project management body of knowledge (PMBOK guide) Sixth edition; Agile practice guide. Newtown Square, PA
- Richard Stone (2015): Modern law of contract, Routledge.