

## INVESTMENT PROJECTS VALUATION

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Code: 16227

Main Scientific Area: Finance

Lecturer: Maria do Carmo Castro Correia

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 60h Total Workload: 108h

ECTS: 6,0

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### **Objectives**

- Understanding general, specific and internal aspects of investment projects;
- Apply evaluation criteria to select investment projects in the context of certainty and risk;
- Consider inflation in the investment decision;
- Estimate the cost of capital.

### **Learning Outcomes**

At the end of the curricular unit, students should be able to identify and calculate cash flows that are relevant to the elaboration of investment projects. Students should also know to evaluate and select alternative investment projects.

### **Course Contents**

#### 1. General Aspects of Projects

##### 1.1. Development strategy, economic policy and investment projects

1.2. The critical milestones for developing and evaluating projects: The project cycle. The economic, social and environmental assessment of projects

##### 1.3. The project analysis in the context of corporate finance

#### 2. Specific and Internal Aspects of Projects

##### 2.1. Market research

##### 2.2. Technical and forecasting of costs study

##### 2.3. Definition and analysis of variants

#### 3. Capital Budgeting: General principles

##### 3.1. Meaning

3.2. Importance and difficulties

3.3. Other classifications of investment projects

3.4. Types of decisions

3.5. Identification and estimation of cash flows relevant

4. Evaluation Criteria and Selection of Projects

4.1. Introduction

4.2. Static analysis:

4.2.1. In a context of certainty:

4.2.1.1. Traditional criteria

4.2.1.2. Criteria based on the present value and discounting

4.2.2. In a context of uncertainty (risk):

4.2.2.1. Introduction

4.2.2.2. Criteria/methods of approach to risk

4.2.2.3. Methods for estimating risk

4.3. Dynamic analysis: Quick reference

5. Inflation and the Decision to Invest

5.1. Definition

5.2. Indicators and their limitations

5.3. Interest rate and inflation

5.4. Analysis at constant prices

5.5. Analysis at current prices

6. Concept and Estimation of the Cost of Capital

6.1. Importance, concepts and assumptions

6.2. Explicit and implicit costs

6.3. Estimating the cost of capital

## **Recommended Bibliography**

- Brealey, R.A.; Myers, S.; Allen, F., 2017, "Principles of Corporate Finance", 12.<sup>a</sup> Edição, McGraw-Hill College Division.
- Ross, S.; Westerfield, R.; Jaffe, J.; Jordan, B., 2016, "Corporate Finance", 11th Edition, McGraw-Hill College Division.
- Soares, I.; Moreira, J.; Pinho, C.; Couto, J., 2015, "Decisões de Investimento: Análise Financeira de Projectos", 4.<sup>a</sup> Edição, Sílabo.

## **Learning and Teaching Methods**

Chapters 1, 2 and 3 are aimed at understanding the general, internal and specific aspects of investment projects. Thus, the course begins with the general aspects of projects (Chapter 1), with the primary focus being the main steps for the preparation and evaluation of projects: The project cycle. Then, in Chapter 2, we discuss the internal and specific aspects of projects, addressing issues such as market research, technical studies, forecasting costs and the definition and analysis of variants. Chapter 3 focuses mainly on identifying and estimating the relevant cash flows needed for the development of a particular investment project: investment, operational and terminal cash flows. Chapter 4 aims to apply evaluation and selection criteria to investment projects, both in the context of certainty and risk. Therefore, in this chapter, we split between the application of criteria in the context of certainty, on the one hand, and in the context of uncertainty (risk), on the other hand. Within the first group, the main highlight is to calculate evaluation criteria taking into account the time value of money. Then, in the second group, we not only calculate evaluation criteria addressing risk, but we also estimate it. Chapter 5 intends to consider the effect of inflation on the decision to invest. In fact, this chapter shows how interest rates should be seen in times of inflation. Thus, we analyze and compare cash flows taking into consideration the incorporation of inflation or not, i.e., we conduct both an analysis at current prices and at constant prices. For each of these scenarios, investment projects evaluation criteria are calculated, since there is a conversion in investment, operational and terminal cash flows and in the cost of capital, depending on whether or not to consider inflation. Chapter 6 is aimed at estimating the cost of capital. Until the last chapter, the cost of capital was provided. However, this chapter exposes the formulas for calculating the rates of several specific capital sources: debt and equity capital; compute the weights of the various sources of financing in order to obtain the weighted average cost of capital.

## **Assessment Methods**

Continuous assessment system:

- 1st test (in person) – weighting of 40%;
- 2nd test (in person) – weighting of 45%;
- Presentation and defence of 1 group work, during the classes (in person) – weighting of 15%.

Minimum grade: 7.0 points in each test.

At the time of the 1st-semester exam and grade improvement:

- Exam (in person) - weighting of 85%;
- Individual classification of group work from continuous assessment - weighting of 15%;

Minimum grade: 7.0 points on Exam.

During special and exceptional examination periods (if applicable):

- Exam (in person) - 100% weighting