

**COURSE DATA****Data Subject**

Code	36513
Name	Risk and Return Analysis
Cycle	Grade
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1332 - Degree in Business Intelligence and Analytics	Faculty of Economics	3	First term

Subject-matter

Degree	Subject-matter	Character
1332 - Degree in Business Intelligence and Analytics	12 - Finanzas	Obligatory

Coordination

Name	Department
FARINOS VIÑAS, JOSE EMILIO	172 - Business Finance

SUMMARY

Risk and Return (36513) is a compulsory subject of 6 ECTS credits located in the Finance module. Within the time distribution of the subjects in the BIA degree, it is located in the first semester of the third year of the degree.

This subject introduces students to some of the concepts and ideas that constitute the foundations of Finance in general and Corporate Finance in particular. The main focus of the course is the estimation of the opportunity cost of capital of a risky investment project. The concept of the opportunity cost of capital was introduced in the second year of the BIA degree course Productive Business Investment Analytics (36512) for the case of the valuation of risk-free investment projects.

Under the assumption that the investment project is similar in risk to the firm, the weighted average cost of capital of the firm (r_{WACC}) is used as a proxy for the opportunity cost of capital of the project. The estimation of the different components of the r_{WACC} , the cost of equity (r_S) and the cost of debt (r_B), is used to present and discuss the ideas and theories relating risk and return in the market and the effect of indebtedness on the value of the firm. Linked to these ideas, the different financial sources of the



company and the procedures for estimating their cost are presented.

Without underestimating the importance of professional experience in the financial management of the company, it is essential to know the basic theories of Finance in order to be able to respond to changes. Therefore, it is necessary for the student to understand why companies and markets behave in a certain way, that is, he/she needs to know the theoretical foundations of the financial decision-making in the company.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

In order to develop the concepts of the subject, the student must have a series of knowledge and tools acquired in the subjects of Accounting Information Systems (first year), Basic Models of Operations Research (first year), Chance, Uncertainty and Inference (first year) and Productive Business Investment Analytics (second year).

OUTCOMES

1332 - Degree in Business Intelligence and Analytics

- Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.
- Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.
- Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.
- Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.
- Acquire basic training that can be used to learn new methods and technologies and to adapt to new situations in academic and professional areas.
- Be able to solve problems and to communicate and spread knowledge, skills and abilities, taking account of the ethical, egalitarian and professional responsibility of the activity of business intelligence and analytics.
- Be able to produce models, calculations and reports, and to plan tasks in the specific field of business intelligence and analytics.



- Be able to apply analytical and mathematical methods for the analysis of economic and business problems.
- Demonstrate skills for analysis and synthesis.
- Be able to analyse and search for information from diverse sources.
- Be able to learn autonomously.
- Be able to work in a team demonstrating commitment to quality, ethics, equality and social responsibility.
- Make decisions under certainty and uncertainty.
- Extract internal and external information and use it to estimate the parameters that define productive investments.
- Know the different financing tools and be able to assess the interaction between the investment and financing decisions of the company.

LEARNING OUTCOMES

As a result of the learning process, the student will know concepts such as:

1. Identifying risk and pricing financial assets.
2. Build and manage portfolios of financial assets.
3. Identify the different sources of financing and select the most appropriate one according to the needs of the company.
4. Estimate the cost of the company's financial sources.
5. Understand the relationship between indebtedness and the value of the company.
6. Be able to estimate empirically the weighted average cost of capital of a project and company.
7. Know different methods for risk management.

DESCRIPTION OF CONTENTS

1. UNIT 1. CAPITAL BUDGETING AND RISK

- 1.1. The opportunity cost of capital of risky projects.
- 1.2. The relationship between risk and return in the market: 100 years of empirical evidence.
- 1.3. Introduction to the weighted average cost of capital (WACC).

Berck et al. (2010). Cap. 10 and 12

Brealey et al. (2015). Cap. 7 and 9



2. UNIT 2. RISK AND RETURN OF PORTFOLIOS AND ASSETS

- 2.1. Risk and return measurement for individual assets and portfolios.
- 2.2. Concept of diversification.
- 2.3. Markowitz's portfolio theory.
- 2.4. Capital Asset Pricing Model (CAPM).

Berck et al. (2010). Cap. 10 and 11

Brealey et al. (2015). Cap. 7 and 8

3. UNIT 3. CAPITAL STRUCTURE

- 3.1. The fundamental financing decision.
- 3.2. Do financing decisions create value?
- 3.3. Market efficiency.
- 3.4. Modigliani's and Miller's propositions in perfect financial markets.
- 3.5. Financial structure and taxes. Limits to the use of debt.

Berck et al. (2010). Cap. 15

Brealey et al. (2010). Cap. 13, 17 and 18

4. UNIT 4. FINANCIAL SOURCES OF THE COMPANY

- 4.1. Types of financial sources of the company.
- 4.2. Determination of the cost of financing.
- 4.3. Internal financing.
- 4.4. Long-term external financing.
- 4.5. Short-term external financing.

Brealey et al. (2010). Cap. 24

Farinós (2016). Cap. 6 and 7

5. UNIT 5. THE ESTIMATION OF THE COST OF CAPITAL

- 5.1. Cost of capital of the company and of the project.
- 5.2. Estimation of the cost of borrowed funds.
- 5.3. Estimation of the cost of own resources.
- 5.4. When the WACC cannot be used: The Adjusted Present Value (APV) method.

Berck et al. (2010). Cap. 12

Brealey et al. (2010). Cap. 19

Titman and Martin (2009). Cap. 4, 5 and 7

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Computer classroom practice	30,00	100
Attendance at events and external activities	5,00	0
Development of individual work	10,00	0
Study and independent work	60,00	0
Readings supplementary material	5,00	0
Resolution of case studies	10,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

Given the characteristics of the contents taught in the subject, in the theoretical classes the basic methodology to be used is the master class, although the debate and the participation of the student in it will be encouraged. The objective is to transmit to students the theoretical concepts necessary for the later practical reasoning in financial terms.

In the practical classes problems and cases will arise in the field of the subject so that students are able to synthesise its relevant information and, from this, understand and solve the posed problems related to the assessment.

In any case, and in order to give classes dynamism, and as far as possible, the theoretical and practical contents will alternate regardless of whether the session is theory or practice. In this way, depending on the teaching needs, the practical and theoretical cases will be interspersed.

EVALUATION

In order to evaluate the learning of the subject, a diversified evaluation system will be used, which allows to highlight the different knowledge and skills acquired by students.

Thus, 80% of the final grade will be obtained through a written exam that will consist of a part in which the theoretical concepts studied will be evaluated and another part which will consist of several practical cases. In this way it is possible to evaluate the student's ability to synthesise the relevant information and provide an adequate solution to the problems posed. In the exam the specific punctuation of each section will be specified, and it will be possible to demand a minimum note in some parts to pass the exam.

On the other hand, the remaining 20% of the final grade will be given by the continuous assessment. This will be the result of the assessment of the training activities determined by the teacher throughout the course, such as: completion of tasks and practical exercises in the classroom, basic knowledge tests, as well as attendance and active attitude of the student in the classroom (the latter is not compulsory or essential to pass the subject). In order for the proposed activities to be assessed, they must be handed in on the date and in the manner stipulated for each of them.



The purpose and nature of these tests of continuous evaluation is to encourage and evaluate the work and the progressive and continuous learning of the student throughout the course, as specified in article 6 point 3 of the Regulation of Evaluation and Qualification of the University of Valencia for degrees and master's degrees, which states: "Continuous evaluation is one of the basic criteria of teaching programming, and must be understood as a tool of the teaching-learning process that informs students about their progress and values it". Given the finalist nature of these continuous assessment tests, they will not be recoverable on second call.

In any case, it will be an essential requirement to have passed the written exam so that the grade obtained in the continuous assessment is computed. If in the first call the written exam is not passed, the continuous evaluation grade will be kept for the second call.

REFERENCES

Basic

- Berk, J., DeMarzo, P. y Hardford, J. (2010). Fundamentos de Finanzas Corporativas. Pearson.
- Brealey, R.A., S.C. Myers y F. Allen (2015). Principios de Finanzas Corporativas. McGrawHill. Madrid.
- Farinós, J.E. (2016). Gestión Financiera de la Empresa Turística. Síntesis.
- Titman, S. y J.D. Martin (2009). Valoración. PrenticeHall. Madrid.

Additional

- Benninga, S. (2014): Financial Modelling. The MIT Press. London.
- Titman, S. y J.D. Martin (2011). Valoración. PrenticeHall. Madrid. (online)
- Ross, S., R.W. Westerfield y J.F. Jaffe (2012). Finanzas Corporativas. McGrawHill. México D.F.
- Webpage Prof. Aswath Damodaran (Stern School of Business, New York University):
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