

80233 - Financial Risk Management

TEACHING PLAN

1. Basic description

Name of the course: Finance Risk Management
Academic year: 2022–2023
Term: 2nd
Code: 80233
Degree / Course: International Business Programme
Number of ECTS credits: 6
Total number of hours committed: 150
Teaching language: English
Lecturer: Samer Ajour
Timetable: [SIGMA schedule](#)
Office hours: Tuesday 2.15–3.15 pm

2. Presentation of the course

A Black Swan is costly. This statement is absolutely agreed by businessmen and professionals, particularly those facing inherent risk in their professional lives. Minimizing the cost of risk to an optimum level unanimously means that we are increasing the value of a firm and the value of any investment.

Using integrated approaches and real life cases, the course will emphasize discussion on the design and implementation of risk management practices. Basically, it purports to help students realize, and understand various state-of-the-art risk management theories and practices (such as loss control, loss financing, and internal risk reduction mechanisms) as well as their advancement in the future.

Hence, risk management course is of importance to business students expecting to deal with business and professional lives in the future in a global context.

This course covers all kinds of financial risks such as credit risk, currency risk exposure, interest rate risk, price volatility risk, among others. Hedging financial risk with various risk management concepts, tools, and techniques will be held by the derivative products: Futures, Forwards, Options, and Swaps.

3. Competences to be worked in the course

General competences

Instrumental competences:

- G.I.2. Ability to relate concepts and knowledge from different areas.
- G.I.4. Ability to tackle and solve problems.
- G.I.5. Ability to take decisions in complex and changing environments.
- G.I.8. Oral and written competence in communicating in English.

General personal competences:

G.P.3. Moral commitment and ethical sense.

Generic systemic competences

G.S.3. Ability to think globally.

Competences for applicability

- G.A.1. Ability to apply acquired knowledge and skills.
- G.A.2. Ability to use quantitative criteria and qualitative insights when taking decisions.
- G.A.3. Ability to search and exploit new information sources.

Specific competences

Disciplinary competences

- E.D.1. Facilitate understanding of the determinants and consequences of international trade and international financial transactions.
- E.D.10. Introduce basic financial concepts and analytical techniques and introduce their application to international transactions.

Professional competences

- E.P.1. Ability to understand the decisions taken by economic agents and their interaction in the markets.
- E.P.2. Ability to analyse economic and market indicators when taking decisions within the organisation.
- E.P.9. Assess and discuss an organisation's economic and financial position.
- E.P.17. Ability to express and understand spoken and written communication in English at an advanced level in the international business environment.

The above competences reflect the basic competences set out in Royal Decree 1393/2007, namely:

- a. Competence to comprehend knowledge, on the basis of general secondary education.
- b. Competence to apply knowledge to day-to-day work in international management or marketing, in particular the ability to develop and defend arguments and to solve problems.
- c. Competence to gather and interpret relevant data, enabling the development of critical judgements on the economic and social reality.
- d. Competence to communicate and transmit information (ideas, problems, solutions) to a specialist and non-specialist audience.
- e. Competence to develop learning activities in a relatively autonomous manner.

The competences worked on in the course are divided into two groups: those seen as a development or specification of a basic competence; and those that hone graduates' professional profile with respect to general and specific competences.

Basic competence: understanding of knowledge

I. General competences G.A.2

II. Specific competences E.D.1, E.D.10

Basic competence: application of knowledge

I. General competences G.I.2, G.S.3

Basic competence: gather and interpret data

I. General competences G.A.3

II. Specific competences E.P.2

Basic competence: communicate and transmit information

I. General competences G.I.8

II. Specific competences E.P.17

Basic competence: develop learning activities

I. General competences G.I.4

Competences that hone graduates' professional profile which are not included under basic competences.

In general, these competences combine the following key elements for honing students' professional profile in the area of international business and marketing:

- Provide students with the capacity to adapt to dynamic teams and environments.
- Provide students with the capacity to create their own integral vision of the operation of a business or international marketing project.
- Provide students with the capacity to take complex decisions and carry out negotiation processes.

I. General competences G.I.4, G.I.5, G.A.1

II. Specific competences E.P.9

Learning outcomes:

- a. Students will be able to understand and apply the systems and models that enable financial operations to be carried out in the field of Hedging Financial Risk.
- b. Students will use modern techniques in Finance to minimize the financial risk in the business operations such as Currency Risk Management, Interest Rate.
- c. Students will acquire solid knowledge of derivative products applied on all financial markets.
- d. Minimize Currency Risk.

The competences, the learning outcomes, the assessment elements and the quality of the learning process included in this Teaching Plan will not be affected if during the academic trimester the teaching model has to switch either to an hybrid model (combination of face-to-face and on-line sessions) or to a complete on-line model.

4. Contents

Financial Risk Management

Topic 1 – Recap of:

- All financial Assets
- Definition of Risk
- Foreign Direct Investment
- Short- and Long-Term Financing
- Risk Vs. Return

Topic 2 – Introduction to Risk in the financial markets

- Components of Interest Rate – Return vs. Risk
- CAPM model
- Bid/Ask
- Market Risks

Topic 3 – Valuation of Financial Risk

- Standard Variance under Price Lag Models
- VaR.

Topic 4 – Foreign Exchange Market

- Functions and Structure
- Market Players
- The Spot Market
- The Forward Market
- Model to forecast financial risk management

Topic 5 – Hedging and Risk Management

- Risk Management and Hedging Strategies
- Managing Economic and Translation Exposure
- Usage of Financial Products: FRAs – Futures

Topic 6 – Hedging Capital Markets: Stocks

- Options Market and their concepts
- Daily Settlement of Positions and Posting Margins
- Building Strategies using Derivatives to Hedge: Protective Put, Covered Call, Put Bear Spread, Straddle, etc

Topic 7 – Hedging Interest Rate Risk

- Using Swaps contracts: Plain Vanilla Swaps
- Swap options

Topic 8 – Credit Risk Management

- Use of Financial Reports – D&B Reports
- Use of SAP to manage risks in Multinational Companies

Topic 9 – Financial Crisis

5. Assessment

Regular evaluation

Your final grade will be determined by the weighted average of the following activities carried out throughout the semester:

Assessment elements	Time period	Type of assessment		Assessment agent			Type of activity	Grouping	
		Mandatory	Optional	Lecturer	Self-assess.	Co-assess.		Ind.	Grou
Test of contents and attendance. Participation in planned activities in the classroom. In-class quizzes. Virtual Debates. Class Games	Ongoing	x		x			Conceptual, application-based	x	
Seminar cases	Ongoing	x		x			Conceptual, application-based	x	
Delivery and presentation of 2 group projects	Week 2 & Week 9–10	x		x			Conceptual, application-based, and overall understanding		
Midterm exam	Week 5–6	x		x			Conceptual, application-based, and overall understanding	x	
Final exam	Exam week	x		x			Synthesis	x	

Class participation will be evaluated as follows:

- Demonstrate preparation: relate things to book chapters, readings and previous discussions.
- Contribute in an active and meaningful way to ongoing discussions: keep analysis focused, help in solving exercises and questions, respond thoughtfully to other students' comments, contribute to cooperative argument-building and suggest alternative ways of approaching the material.
- In-class quizzes and case studies.

Group projects

Groups of 3 students. Compulsory presentation. 2 projects: country risk (5%) and final project (10%).

Final exam

When computing the final grade, the on-going activities (participation, in-class quizzes, seminar cases and group projects) will be weighted only if the final exam grade is equal to or greater than 4.0. Therefore, to obtain a passing course grade, the final exam grade must be equal to or greater than 4.0. If the final exam grade is less than 4.0, the final exam grade becomes the final course grade, irrespective of the other grades.

Students **must take the final exam** if they want to receive a quantitative course evaluation. Students who do not sit the final exam will receive a “No Show” overall course grade.

Resits

In accordance with ESCI-UPF academic regulations, students whose weighted final grade for the regular term evaluation is below 5.0 but whose grade for the on-going activities (participation, in-class quizzes and group projects is above 4.0 will be required to retake their final exam, which will account for 50% of their total final grade. The rest of their final total grade will be made up of their grades in the other areas of continuous evaluation.

You may only resit your final exam. You cannot redo the application-based activities

Working competences and assessment of learning outcomes

	GI2	GI4	GI5	GI8	GP3	GS3	GA1	GA2
Quizzes	X			X	X		X	X
Midterm exam	X			X	X		X	X
Case studies / class work	X	X	X	X	X	X	X	X
Presentations	X			X	X		X	X
Final exam	X			X	X		X	X

	GA3	ED1	ED10	EP1	EP2	EP9	P17	Learning outcomes
Quizzes			X					X
Midterm exam			X					X
Case studies / class work	X	X	X	X	X	X	X	X
Presentations	X	X	X	X	X	X	X	X
Final exam			X					X

Any students found copying and/or plagiarising work, in whole or in part, will fail the subject. They will receive a final grade of zero and will not be allowed to take the make-up exam. In accordance with the UPF Disciplinary Rules and Regulations for Students, other additional sanctions may apply depending on the seriousness of the offence.

6. Bibliography and teaching resources

Bibliography

- Bodie, Z., Kane, A., & Marcus, A. J. (2021). Essentials of investments. Taipei: McGraw-Hill/Irwin.
- Brealy, Myres & Macrus (2021) Fundamentals of Corporate Finance McGraw-Hill, 7 th edition.

ICC Publications

- Guide to Documentary Credit Operations. International Chamber of Commerce.
- UCP 600 for Documentary Credits. International Chamber of Commerce.
- A to Z of International Trade. International Chamber of Commerce.
- Rudolf, K. O., Ajour El Zein, S., & Lansdowne, N. J. (2021). Bitcoin as an Investment and Hedge Alternative. A DCC MGARCH Model Analysis. *Risks*, 9(9), 154.

- Ajour El Zein, S., Consolacion-Segura, C., & Huertas-Garcia, R. (2020). The role of sustainability in brand equity value in the financial sector. *Sustainability*, 12(1), 254.
- Ajour El Zein, S., Consolación Segura, C. M., & Huertas García, R. (2020). Firm risk: a responsible business guide control to a better brand value and company value. *Journal of advanced research in dynamic and control systems*, 12(2), 1474-1487.
- Medina-Mijangos, R., El Zein, S. A., Guerrero-García-Rojas, H., & Seguí-Amórtégui, L. (2021). The economic assessment of the environmental and social impacts generated by a light packaging and bulky waste sorting and treatment facility in Spain: a circular economy example. *Environmental Sciences Europe*, 33(1), 1-19.

Other Academic Resources:

- El Zein Ajour, S. (2020). JP Morgan Bank warns of climate change hit to corporate assets, *UPC*, 1-8.
- El Zein Ajour, S. (2020). Cemex Takes Measures to Manage Exchange Rate Morgan Bank warns of climate change hit to corporate assets, *UPC*, 1(1), 1-12.
- De la Orden, R., & de Calonje, I. (2022). Sustainability-Linked Finance.
- Cavoli, T., Christian, D., & SHRESTHA, R. (2022). Understanding SME Trade Finance in ASEAN: An Overview.
- Rudolf, K. O., Ajour El Zein, S., & Lansdowne, N. J. (2021). Bitcoin as an Investment and Hedge Alternative. A DCC MGARCH Model Analysis. *Risks*, 9(9), 154.
- Shields, R., Ajour El Zein, S., & Vila Brunet, N. (2021). An analysis on the NASDAQ's potential for sustainable investment practices during the financial shock from Covid-19. *Sustainability*, 13(7), 3748.
- Baeck, P., Collins, L., & Zhang, B. (2014). Understanding alternative finance. *The UK alternative finance industry report, 2014*.
- Wang, Y., & Zhi, Q. (2016). The role of green finance in environmental protection: Two aspects of market mechanism and policies. *Energy Procedia*, 104, 311-316.

7. Methodology

Lessons

Students will be asked to prepare readings and other materials before each lesson. This preparatory work will be evaluated either at the beginning of each lesson (by answering a questionnaire) or by giving a presentation during the lesson. In the seminars, students should put these materials and readings into practice.

During the lessons, the instructor will focus on explaining the contents and competences of the course. Students will then be asked to analyse the lesson's contents further through specific readings suggested by the teacher.

At the end of the lesson, doubts and queries will be reviewed, students may be asked to answer a short questionnaire or solve a business case, and next lesson's topic will be introduced.

Problems and exercises to prepare for discussion topics must be completed and handed in on an individual basis. These issues will be covered at the beginning of the corresponding seminar class.

8. Scheduled activities

Week	Session	In Class	Class Preparation
Week 1 (26*, 28 Sep)	Lecture 1 Lecture 2	Definition of Risk, historical and Implicit assessment recap	Class activity Grades vs Outcome
Week 2 (03 and 05 Oct)	Lecture 1 Lecture 2	Classification of Market Risks Component of Interest rates conveyed with Risks	Class work exercises
Week 3 (10 oct and 12* oct)	Lecture 1 Lecture 2	Risk Quantification Standard Variation under Price Lag Models	Apple vs Samsung Case – S&P index
Week 4 (17 and 19 oct)	Lecture 1 Lecture 2	Foreign Exchange Market and Currency Risk	GCPAT Case Study
Week 5 (24 and 26)	Lecture 1 Lecture 2	Hedging and Risk Management Strategies Futures Market	Lufthansa Case
Week 6 (31* oct and 02 Nov)	Lecture 1 Lecture 2	Midterm Exam Introduction to Options Market	All previous topics included
Week 7 (07 Nov & 09 Nov)	Lecture 1 Lecture 2	Stock Market Options: Calls and Puts: Protective Put and Covered Call	Class Exercises

Week 8 (14 & 16 Nov)	Lecture 1 Lecture 2	Stock Market Options II: Strategies: Straddle, Call Put Spread Binomial Model Black & Scholl Model	Building Strategies in class with market data online
Week 9 (21 & 23 Nov)	Lecture 1 Lecture 2	Hedging Interest Rate Risk SWAPS VAR Calculation Bit Coins Strategy	Market data live extraction The big Short Movie
Week 10 (28 & 30 Nov)	Lecture 1 Lecture 2	Credit Risk Management D&B Reports and Ethics Presentations	WR GRACE case Barclays' Bank
Final exam week TBC		Exam week	

* To be rescheduled.