

# REAL ESTATE FINANCE

**International MBA IMBA-EN SEP-2024 S-FI**

Area Finance

Number of sessions: 15

Term: Concentrations

Category: regular

Language: English

Professor: **ROBERTO KNOP MUSZYNSKI**

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## **PhD, MRICS, MFIA, CESGA**

Professional with extensive experience in: financial markets (consultancy, management and risks), banking (management and risks), real estate (management, risks, consultancy and valuation). Extensive teaching activity in national and international postgraduate courses related to finance and real estate. Extensive publication activity in financial matters.

## **Academic Background**

PhD in Economic and Business Sciences in "Banking and Stock Exchange" at the Universidad Autónoma de Madrid. Thesis developed on real estate guarantees: "Determining factors in the quotation and valuation of loans with real guarantee". Rating: Cum Laude. July 2018

Degree in Economics and Business Administration from the Universidad Autónoma de Madrid, specialising in Economic Structure. June 1991.

MFIA Master. Financial Master in Alternative Investments. (Id: 49830)

MRICS: Accredited since October 2017

## **Academic Experience**

Professor in various courses held during the last thirty three years (1991-2024) in different financial institutions, regulatory institutions, universities, supranational bodies and business school.

Topics: finance, capital markets, derivatives valuation, management, risks and real estate.

Countries: Spain, United States, United Kingdom, Germany, Egypt, Saudi Arabia, Bulgaria, Kyrgyzstan, Argentina, Brazil, Colombia, Venezuela, Ecuador, Chile.

The classes have been given in Spanish as well as in English. Highlights of the courses are as follows:

Instituto de Empresa: Capital Markets (MIM, Bachelor in Spain and Saudi Arabia-Altamayyuz Program), Real Estate (MIM, Bachelor in Spain).

Banco Bilbao Vizcaya Argentaria, Banco de España, Banco Interamericano de Desarrollo, Banco Popular, Banco Santander, Banesto, Banif, Bankia, Bolsa de Valores de Colombia, Bulbank (Sofia-Bulgaria), Comisión Nacional del Mercado de Valores (CNMV), Confederación Española de Cajas de Ahorro (CECA), Deusto, Deutsche Bank, Ernest & Young, Escuela de Economía, Escuela de Finanzas Aplicadas, Escuela de Negocios NovaCaixaGalicia, Fundación Abanca, Fundación de Estudios Financieros, ICADE, IESIDE, IFAES, ING, Instituto Canario de Empresa, Instituto de Crédito Oficial, Instituto de Estudios Bursátiles (IEB), Instituto de Estudios Financieros (IEF), Instituto de Estudios Superiores de Administración (IESA) Caracas-Venezuela, Instituto de Estudios Superiores San Pablo CEU, Instituto Español de Analistas Financieros, Instituto BME, Ministerio de Finanzas Ecuador, Morgan Stanley, Options & Futures Institute, Peat Marwick, Tesoro Público, UNED, Unespa, Universidad de Oviedo, West LB-Düsseldorf, Zurich Insurance.

### **Corporate Experience**

Tradition Financial Structure. Sales advisor (May 2023-currently)

Analistas Financieros Internacionales. Head of Data Analytics, (May 2020-currently)

Jones Lang Lasalle Head of Valuations & Senior Advisor (2017-currently)

SAREB (Spanish Bad Bank). Director of Risk and Valuations (2013-2017)

Banesto. Director of Treasury Risks (2008-2013)

Barclays. Director of ALM Risks and structuring (2002-2008)

Santander Bank. Director of Methodologies Market Risk (1996-2002)

Analistas Financieros Internacionales: Derivative Instruments analyst (1991-1996)

### **Office Hours**

Office hours will be on request. Please contact at:

## SUBJECT DESCRIPTION

The subject deals with issues related to the techniques of analysis of different types of investment in real estate assets considering the financial aspects that underpin the activity in this area. Aspects related to the risks, profitability and potential returns that come from investments in real estate assets are analysed. The aim of this subject is to address the most relevant aspects that investors in real estate must consider in order to manage diversified portfolios in which this type of asset forms a relevant part of the portfolio.

## LEARNING OBJECTIVES

The main objectives are to provide the student with all the knowledge that revolves around real estate assets, their impact on the economy, their weight in the portfolios of international investors. The student will be trained in knowledge, valuation, management and impact of real estate assets on the economy and finance.

## TEACHING METHODOLOGY

The methodology will be based on a conceptual description and explanation of the subject, followed by real and simulated case studies. There will be a part of the course in which Excel VBA tools will be used to support valuation or financial exercises.

Learning Activity	Weighting
Lectures	20.0 %
Discussions	10.0 %
Exercises in class, Asynchronous sessions, Field Work	20.0 %
Group work	20.0 %
Individual studying	30.0 %
TOTAL	100.0 %

## AI POLICY

In this course, the use of generative artificial intelligence (GenAI) is encouraged, with the goal of developing an informed critical perspective on potential uses and generated outputs.

However, be aware of the limits of GenAI in its current state of development:

-If you provide minimum effort prompts, you will get low quality results. You will need to refine your prompts to get good outcomes. This will take work.

-Don't take ChatGPT's or any GenAI's output at face value. Assume it is wrong unless you either know the answer or can cross-check it with another source. You are responsible for any errors or omissions. You will be able to validate the outputs of GenAI for topics you understand.

-AI is a tool, but one that you need to acknowledge using. Failure to do so is in violation of academic honesty policies. Acknowledging the use of AI will not impact your grade.

**Suggested format to acknowledge the use of generative AI tools:**

I acknowledge the use of [AI systems link] to [specify how you used generative AI]. The prompts used include [list of prompts]. The output of these prompts was used to [explain how you used the outputs in your work].

**If you have chosen not to include any AI generated content in your assignment, the following disclosure is recommended:**

No content generated by AI technologies has been used in this assignment.

## **PROGRAM**

### **SESSION 1 (LIVE IN-PERSON)**

#### **Introduction to real estate finance**

- a. Types of real estate assets
- b. Types of real estate investments
- c. Risk and returns
- d. Sustainability in real estate
- e. History of real estate
- f. Financial-real estate crisis 2007, crisis 2020

### **SESSION 2 (LIVE IN-PERSON)**

#### **Introduction to real estate finance**

- d. History of real estate
- e. Financial-real estate crisis 2007, crisis 2020
- f. Outlook and trends in the real estate sector

### **SESSION 3 (LIVE IN-PERSON)**

#### **Real estate mathematics: Interest rates, curves, discount functions**

- a. Interest rate basic treatment, conventions and algebra
- b. Yield curve analysis
- c. Curves treatment

### **SESSION 4 (LIVE IN-PERSON)**

#### **Real estate mathematics: Interest rates, curves, discount functions**

- d. Discount function calculation
- e. Forward rate calculations
- f. Cash flows treatment for real estate valuation

### **SESSION 5 (LIVE IN-PERSON)**

#### **Real estate economics**

- a. Demand factors
  - Elasticity
  - Endogenous determinants

-Exogenous determinants

## **SESSION 6 (LIVE IN-PERSON)**

### **Real estate economics**

b. Supply factors

-Elasticity

-Drivers

-New construction profile

## **SESSION 7 (LIVE IN-PERSON)**

### **Real Estate Valuation**

a. Introduction

b. Types of valuation

c. Real estate valuations methodologies

## **SESSION 8 (LIVE IN-PERSON)**

### **Real Estate Valuation**

c. Real estate valuations methodologies

Case Study: real estate asset valuation

## **SESSION 9 (LIVE IN-PERSON)**

### **Financial products linked to real estate assets**

a. Mortgages: pricing and risk

b. Securitizations (MBS, ABS)

Excel based exercises

## **SESSION 10 (LIVE IN-PERSON)**

### **Financial products linked to real estate assets**

c. Covered bonds

d. Special vehicles: sale & leaseback transactions

Excel based exercises

## **SESSION 11 (LIVE IN-PERSON)**

### **Real estate capital markets**

a. The role of real estate in an investment portfolio

Direct Investments

Indirect Investments: REITS, ETF and others

b. Real estate investment management

c. The four quadrants

Private debt and equity

a. Non-Bank balance sheet lenders

- b. Crowdfunding
- c. Direct lending
- d. Non performing loans

## **SESSION 12 (LIVE IN-PERSON)**

### **Proptech**

Definition

- a. Financing
- b. Project & construction
- c. Management
- d. Asset utilization
- e. Transactions solutions
- f. Tokenization

## **SESSION 13 (LIVE IN-PERSON)**

### **Investment opportunity analysis**

A real case is going to be shared in order to analyse in class the pros-cons of the investment and identify the main drivers for the investment decision.

Ratios analysis

Scenario analysis

Comparables analysis

### **Case Study presentations**

The groups will have to do their own presentations of the RE Case: proposal of real estate investment

15-20 minutes per group

## **SESSION 14 (LIVE IN-PERSON)**

### **Case Study presentations**

The groups will have to do their own presentations of the RE Case: proposal of real estate investment

15-20 minutes per group

## **SESSION 15 (LIVE IN-PERSON)**

### **EXAM**

The exam will consist of a specific number of multichoice questions that will be weighted equally.

Theoretical/conceptual and numerical questions will be included.

There are 4 possible answers with only one being correct. Negative answers will not be deducted.

## **EVALUATION CRITERIA**

<b>criteria</b>	<b>percentage</b>	<b>Learning Objectives</b>	<b>Comments</b>
Class Participation	20 %		

Case study	40 %		
Final Exam	40 %		

### **FAILING GRADE AND REASSESSMENT**

When students receive a Fail in a course, they have the opportunity to present themselves for reassessment in order to earn the necessary credits toward graduation.

The reassessment of students should be scheduled between 5 and 10 working days after the review session takes place.

Grades for the reassessment are limited to a Low Pass and Fail.

Both, the initial Fail as well as the grade of the reassessment remain on the transcript. For the purpose of calculating the GPA however, only the grade of the reassessment is to be considered. Students receiving a failing grade in the reassessment of a course will not be able to continue in the program.

### **BIBLIOGRAPHY**

#### **Recommended**

- Peter Linneman. (2018). *Real Estate Finance and Investment*. Fifth. Linneman Associates. ISBN 9780692996638 (Printed)
- RICS. (2022). *RICS Red Book*. RICS. ISBN 9781783214 (Printed)
- William J. Poorvu. (1999). *The real estate game*. ISBN 9780684855509 (Printed)
- Eric Shapiro. *Modern Methods of valuation*. ISBN 9781138673205 (Printed)

### **BEHAVIOR RULES**

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

### **ATTENDANCE POLICY**

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

### **ETHICAL POLICY**

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.