# **IB235-15 Finance 1: Financial Markets**

## 20/21

Department Warwick Business School Level Undergraduate Level 2 Module leader Ganesh Viswanath Natraj Credit value 15 Module duration 10 weeks Assessment Multiple Study location University of Warwick main campus, Coventry

# Description

## Introductory description

This module will:

- Introduce students to the workings of the financial markets.
- Equip students with the knowledge to use quantitative tools for pricing stocks, bonds and derivatives, and for measuring risk and return.
- Develop in students a sound understanding of the main theories and models for valuing financial market instruments.
- Make students aware of key empirical tests of asset valuation models, and their implications.
- Provide students with structured opportunities to practise using the key tools and techniques of Financial Markets theory.
- Prepare students for advanced undergraduate and postgraduate studies in Finance.

#### Module aims

By the end of the module, students will:

- understand how risk can be reduced by diversifying investment capital across a portfolio of assets.
- be able to explain, with reference to the theory of market efficiency, why financial markets serve as a benchmark for pricing non-diversifiable risk.

- be able to apply discounted cash-flow techniques to price equities (using dividend growth models) and bonds (using theories of the term structure of interest rates)
- be able to price financial options using risk-neutral valuation models.
- have gained experience of building spreadsheet models to carry out these pricing calculations and to assess the sensitivity of the results to small changes in the values of key input variables.

## **Outline syllabus**

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Market Efficiency Theory and empirical tests of Efficient Markets Hypothesis. Asset Valuation Stocks, Bonds, Discounted Cash Flow techniques. Investor Preferences Risk aversion, Expected utility. Portfolio Theory Diversification and optimal asset allocation. Risk vs. Return Capital Asset Pricing Model. Term Structure Spot rates, forward rates, expected future spot rates. Pure of interest rates Expectations and Liquidity Preference hypotheses. Financial derivatives Arbitrage-free futures pricing, binomial option pricing

### Learning outcomes

By the end of the module, students should be able to:

- Describe how equity, bond and derivatives markets function, and their importance to both individual investors and corporate decision-makers.
- Explain how these markets determine the prices of stocks, bonds and derivatives.
- Define the different forms of market efficiency, and discuss the findings of empirical tests of the Efficient Markets Hypothesis.
- Assess both theoretical and empirical relationships between risk and return.
- Formulate different hypotheses for the term structure of interest rates.

#### Indicative reading list

Bodie Z, Kane A & Marcus AJ (BKM) Investments (10th edition), McGraw-Hill 2014 Hillier D, Ross SA, Westerfield RW, Jaffe J & Jordan BD (HRWJJ) Corporate Finance (3rd edition), McGraw-Hill 2016

Copeland TE, Weston JF and Shastri K (CWS) Financial Theory and Corporate Policy (4th edition), Pearson (Addison Wesley) 2005

Hull JC (H) Options, Futures and Other Derivatives (9th edition), Pearson (Prentice Hall) 2017

## Subject specific skills

- 1. Discuss topical issues about the theory and practice of financial markets.
- 2. Construct spreadsheets to value financial instruments and test the robustness of those values to changes in key inputs.

- 3. Explain and interpret financial market information and data from the financial press.
- 4. Use web-based resources to find and retrieve financial market data, and spreadsheets to process that data.

#### **Transferable skills**

- 1. Solve structured numerical problems.
- 2. Write informed critiques of key issues in asset valuation.
- 3. Analyse case studies and construct arguments to support a particular solution.
- 4. Construct spreadsheets to: (a) determine the risk-return characteristics of portfolios of risky assets. (b) price stocks, bonds and options.
- 5. Calculate the forward price of a traded asset using the noarbitrage principle.
- 6. Price option contracts using the one-period binomial model.
- 7. Calculate spot and forward rates of interest, and use these to price bonds.

## Study

# Study time

Туре	Required	
Lectures	20 sessions of 1 hour (13%)	
Seminars	9 sessions of 1 hour (6%)	
Private study	49 hours (32%)	
Assessment	74 hours (49%)	
Total	152 hours	

## Private study description

Private Study.

## Costs

No further costs have been identified for this module.

## Assessment

You do not need to pass all assessment components to pass the module.

## Assessment group D

	Weighting	Study time	
Participation	10%	9 hours	
Participation in activities on a weekly basis via my.wbs			
Online Examination Exam	90%	65 hours	
~Platforms - AEP			
<ul><li>Answerbook Green (8 page)</li><li>Students may use a calculator</li></ul>			
Assessment group R			
Online Examination - Resit	Weighting	Study time	
Exam	100 %		
~Platforms - AEP			
Answerbook Green (8 page)			

• Students may use a calculator

#### Feedback on assessment

Feedback via my.wbs.

Past exam papers for IB235

# Availability

#### **Pre-requisites**

To take this module, you must have passed:

- All of
  - IB114-15 Financial Management

## Courses

This module is Core for:

- Year 2 of UIBA-N400 Undergraduate Accounting and Finance
- Year 3 of UIBA-N403 Undergraduate Accounting and Finance (with Foundation Year)