

H9FNMKT: Financial Markets

Module Code:	H9FNMKT
Long Title	Financial Markets APPROVED
Title	Financial Markets
Module Level:	LEVEL 9
EQF Level:	7
EHEA Level:	Second Cycle
Credits:	10
Module Coordinator:	Rohit Verma
Module Author:	Andrea Del Campo Dugova
Departments:	School of Computing
Specifications of the qualifications and experience required of staff	Lecturer PhD/Master's degree in a computing or cognate discipline. May have industry experience also. Tutor PhD/Master's degree in a computing or cognate discipline. May have industry experience also.
Learning Outcomes	
<i>On successful completion of this module the learner will be able to:</i>	
#	Learning Outcome Description
LO1	Investigate financial markets, their institutions and how they work.
LO2	Explain and critically analyse the theoretical underpinnings of economics and finance and how they support the financial markets.
LO3	Distinguish among the principal classes of securities and alternative investments and apply valuation and modelling techniques to price these instruments.
LO4	Evaluate and critique new technology developments in the financial markets.
LO5	Explore and critique ethical and regulatory issues generated from contemporary developments in technology
Dependencies	
Module Recommendations	
No recommendations listed	
Co-requisite Modules	
No Co-requisite modules listed	
Entry requirements	Programme entry requirements must be satisfied.

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Module Content & Assessment			
Indicative Content			
Week 1: Introduction/Overview The history of financial markets, key periods of disruption (1929, 2007 etc), the 'flow' model of the economy, fundamental challenges of finance/ investments, frameworks for financial analysis, time, and risk, six principles of finance			
Week 2: Money and the Payments System The history of money, define its functions, methods of payment and the future of money, the measurement of money using the monetary aggregates, relationship of money to inflation, interest rates and economic growth. The coming and going of the gold standard. Market and funding liquidity. The importance of price stability. Overview of ECB stability mechanisms.			
Week 3: Financial Instruments, Markets, and Institutions The history and role of financial institutions. Monetary policy and the role of central banks. The role and structure of financial markets. Overview of financial instruments. The role and risk of leverage. Characteristics of financial instruments. The need for standardisation of contracts. Underlying instruments vs derivatives. Overview of futures, options, swaps asset backed securities, collateralised debt obligations. Primary vs secondary markets. OTC and ECN's. Characteristics of well-run markets			
Week 4: Present Value Assets as cashflows. The concept of present value. The time value of money in practice. Discount factors in theory and practice. The perpetuity and the annuity. Compounding. Relationship with inflation. Present value under certainty and uncertainty.			
Week 5: Behavioural Finance vs the Efficient Market Hypothesis (EMH) Fairly deep dive into both schools of thought. Cognitive biases (e.g., loss aversion, anchoring, framing, over-confidence, herding). Efficiency vs inefficiency. Strong form, semi-strong, weak. Relevance to passive vs active investing. EMH and the 2007 financial crisis. Presentation of key arguments from both sides (e.g., Fama, Thaler, Kahneman)			
Week 6 and 7: Fixed Income ('Riskless') securities Overview of the market/industry for riskless/fixed income securities. The sales of bonds, primary and secondary markets. Approaches to valuation of such securities. Sovereign vs corporate bonds. Valuation of coupon bonds, pure discount bonds and consols. Types of risk associated with bonds and measurement of risk. Bond prices and yields. Role of such securities in the sub-prime crisis. Analysing bond markets/maturities/interest rate spreads. Interpreting yield curves as a predictor of macroeconomic performance. Use of bond markets by corporations of locking in rates. Role of Rating agencies.			
Week 8: The Risk and Term Structure of Interest Rates Interest rate spreads in more detail. Link between credit risk, bond ratings and bond yields. More detailed discussion on how yields/spreads determine future economic activity. Expectation Hypothesis, Liquidity Premium Theory, Preferred Habitat Theory. More detailed discussion on bond ratings. Study of long-term interest vs short term interest rates. Comparison of yields on US Treasury vs other instruments.			
Week 9: Equity Markets Overview of the market/industry for riskless/fixed income securities. The sales of bonds, primary and secondary markets. Approaches to valuation of such securities. Sovereign vs corporate bonds. Valuation of coupon bonds, pure discount bonds and consols. Types of risk associated with bonds and measurement of risk. Bond prices and yields. Role of such securities in the sub-prime crisis. Analysing bond markets/maturities/interest rate spreads. Interpreting yield curves as a predictor of macroeconomic performance. Use of bond markets by corporations of locking in rates. Role of Rating agencies.			
Week 10: Portfolio construction and management Portfolio overview. Adapting mathematical models with application to combining assets. Combining risky and riskless assets. Measuring expected risk and return of portfolios. Overview of the Capital Asset Pricing Model (CAPM)			
Week 11: Technology in Financial Markets Overview of HFT systems, data analytics, quant trading. Key components of HFT system. Cryptocurrencies, Mobile Money.			
Week: Evolving nature of markets and module review. Regulatory and pragmatic effects of technology and digitisation, and the future of financial markets. Potential for market manipulation, short selling, etc. Overview of some key regulations.			
Assessment Breakdown			%
Coursework			60.00%
End of Module Assessment			40.00%
Assessments			
Full Time			
Coursework			
Assessment Type:	Continuous Assessment	% of total:	60
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5
Non-Marked:	No		
Assessment Description: Learners will be presented with a key topic in Financial Markets. It will entail an extensive review of relevant academic literature, conducting appropriate market research as well as synthesise and critique of applicable knowledge.			
Assessment Type:	Formative Assessment	% of total:	Non-Marked
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5
Non-Marked:	Yes		
Assessment Description: Formative assessment will be provided on the in-class individual or group activities. Feedback will be provided in written or oral format, or on-line through Moodle. In addition, in class discussions will be undertaken as part of the practical approach to learning.			
End of Module Assessment			
Assessment Type:	Terminal Exam	% of total:	40
Assessment Date:	End-of-Semester	Outcome addressed:	1,2,3,4,5
Non-Marked:	No		
Assessment Description: The examination will be a minimum of two hours in duration and may include a mix of short answer questions, mathematical models (e.g., valuations), vignettes, essay-based questions, and case study-based questions. Marks will be awarded based on clarity, appropriate structure, relevant examples, depth of knowledge and evidence of outside reading.			
No Workplace Assessment			
Reassessment Requirement			
Repeat examination <i>Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.</i>			
Reassessment Description The reassessment strategy for this module will consist of a terminal examination that will assess all learning outcomes.			

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Module Workload				
Module Target Workload Hours 0 Hours				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Classroom and demonstrations	24	Per Semester	2.00
Tutorial	Mentoring and small-group tutoring	24	Per Semester	2.00
Independent Learning	Independent learning	202	Per Semester	16.83
Total Weekly Contact Hours				4.00
Workload: Blended				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Classroom and demonstrations	12	Per Semester	1.00
Tutorial	Mentoring and small-group tutoring	12	Per Semester	1.00
Directed Learning	Directed e-learning	24	Per Semester	2.00
Independent Learning	Independent learning	202	Per Semester	16.83
Total Weekly Contact Hours				4.00
Workload: Part Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Classroom and demonstrations	24	Per Semester	2.00
Tutorial	Mentoring and small-group tutoring	24	Per Semester	2.00
Independent Learning Time	Independent learning	202	Per Semester	16.83
Total Weekly Contact Hours				4.00

Module Resources	
<i>Recommended Book Resources</i>	
Ronald W. Melicher, Edgar A. Norton. (2021), A Introduction to Finance: Markets, Investments, and Financial Management. Wiley,, 17TH ED. p.688. Stephen G. Cecchetti, Kermit Schoenholtz.. (2015), Money, Banking and Financial Markets, McGraw Hill, USA. Stephen Valdez and Philip Molyneux. (2015), An Introduction to Global Financial Markets 8th Edition, 8th. Palgrave Macmillan, [ISBN: 1137497556].	
<i>Supplementary Book Resources</i>	
Narang, R.K.. (2013), Inside the Black Box: A Simple Guide to Quantitative and High Frequency Trading, Wiley, and Sons. Jonathan McMillan. The End of Banking: Credit and the Digital Revolution, Zero/One Economics, [ISBN: 3952438510]. David Hillier, Stephen Ross. (2010), Corporate Finance European Edition, McGraw-Hill.	
<i>This module does not have any article/paper resources</i>	
<i>This module does not have any other resources</i>	
Discussion Note:	