



UK

SYLLABUS 2025-2026

Cash and Risk Management

MODULE SPECIFICATION

Module Code	2526_DFC_2_EN_006
Campus	Oxford
Department(s)	Law, Finance and Control
Level / Semester	Masters Year 1 (M1); Equivalent to FHEQ level 7 Semester 08
Language of Instruction	English
Teaching Method	<input checked="" type="checkbox"/> In-person (face-to-face) <input type="checkbox"/> Distance learning (live online) <input type="checkbox"/> e-Learning (asynchronous) <input type="checkbox"/> Hybrid: _____
Pre-requisite(s)?	U2 – Financial Analysis; U3 – Cash Management and Risk Management; Mathematical finance/statistics
ECTS <i>Reminder: 1 ECTS = between 20 and 30hr- student workload</i>	5
Equivalent FHEQ credits	10
Study Hours	125 hours which comprise of 28 directed learning and 97 independent learning/assessment hours

MODULE DESCRIPTION

Module Aims	This module provides an in-depth analysis of cash and risk management, equipping students with the advanced quantitative and strategic skills needed to optimise corporate liquidity and mitigate financial exposures. The module also provides a rigorous exploration of financial risk management, specifically through the strategic application of derivatives such as forwards, futures, and options.
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	Students will develop the capacity to translate theoretical knowledge into practical, data-driven solutions for managing a company's financial position.
Teaching Arrangement	The module will be delivered through face-to-face learning.
Learning Outcomes	By the end of this module, students should be able to: <ol style="list-style-type: none"> 1. Formulate and apply a range of cash forecasting and management techniques to critically optimise an organisation's liquidity and strategic financial planning. 2. Systematically analyse the core characteristics and applications of derivative instruments to assess their efficacy in mitigating financial risk. 3. Construct and defend advanced hedging strategies using a variety of derivatives to enhance corporate financial stability and protect against market volatility.
Competency Goals* <i>(Knowledge, expertise and interpersonal skills)</i>	PGE_M_CG01 - To be equipped with efficient business skills
Alignment with Programme Learning Goals*	PGE_M_CG01_LO05 - To identify the appropriate methodology to solve a problem
	PGE_M_CG04_LO02 - To make relevant strategic recommendations

SESSION TOPICS / MODULE SCHEDULE

(Please note, a session/sequence may be more than one scheduled class)

<p><u>Session 1: Introduction and Entry Test</u></p> <p><i>Content:</i></p> <ul style="list-style-type: none"> ● Exchange-trade markets and over-the-counter markets ● Forward contracts ● Future contracts ● Options ● Entry test <p><i>References:</i></p> <ul style="list-style-type: none"> ● Hull, J.C. (2021) <i>Options, futures, and other derivatives</i>. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 1) <p><i>Assignments:</i></p> <ul style="list-style-type: none"> ● Entry test
<p><u>Session 2: Cash Forecasting Techniques – Case Study</u></p> <p><i>Content:</i></p> <ul style="list-style-type: none"> ● Overview of cash forecasting techniques <p><i>References:</i></p> <ul style="list-style-type: none"> ● Case study materials

Last reviewed: 12/09/2025

Assignments:

- Case study

Session 3: Mechanics of Futures Markets

Content:

- Specification of a futures contract
- Convergence of futures price to spot price
- Operation of margin accounts
- Market quotes and delivery
- Types of traders and types of orders
- Regulation
- Forward vs. futures contracts

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 2)

Assignments:

- Practical exercises

Session 4: Hedging Strategies Using Futures

Content:

- Basic principles
- Arguments for and against hedging
- Basis risk
- Cross hedging
- Stock index futures
- Stack and roll

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 3)

Assignments:

- Practical exercises

Session 5: Interest Rates

Content:

- Types and measurement of rates
- Zero rates and bond pricing
- Determining treasury zero rates
- Forward rates and forward rate agreements
- Duration and convexity
- Theories of the term structure of interest rates

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 4)

Assignments:

- Practical exercises

Session 6: Determination of Forward and Future Prices

Content:

- Investment assets vs. short selling
- Forward price for an investment asset
- Known income and known yield
- Valuing forward contracts
- Futures prices of stock indices
- Forward and futures contracts on currencies
- Futures on commodities
- Delivery options

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 5)

Assignments:

- Practical exercises

Session 7: Interest Rate Futures

Content:

- Day count and quotation conventions
- Treasury bond futures
- Eurodollar futures
- Duration-based hedging strategies using futures
- Hedging portfolios of assets and liabilities

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 6)

Assignments:

- Practical exercises

Session 8: Swaps

Content:

- Interest rate swaps
- Reasons for trading interest rate swaps
- Currency swaps
- Credit default swaps

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 7)

Assignments:

- Practical exercises

Session 9: Mechanics of Options Markets

Content:

- Types of options
- Option positions and underlying assets
- Specification of stock options
- Trading and commission
- Margin requirements

- The options clearing corporation
- Regulation and taxation

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 10)

Assignments:

- Practical exercises

Session 10: Trading Strategies Involving Options

Content:

- Trading an option and the underlying asset
- Spreads
- Combinations

References:

- Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education. (Chapter 12)

Assignments:

- Practical exercises

KEY TEXTS

1. Hull, J.C. (2021) *Options, futures, and other derivatives*. 11th edn. Harlow, United Kingdom: Pearson Education.
2. Hull, J.C. (2022) *Fundamentals of futures and options markets*. 9th edn. Harlow, United Kingdom: Pearson Education.

SUPPLEMENTARY TEXTS

1. CFA Institute (2022) *Derivatives*. CFA Institute.
2. CFA Institute (2021) *Derivatives workbook*. CFA Institute.

MODES OF ASSESSMENT

Continuous Assessment (40%)	Written assignment	20%
	Competency evaluation	20%
Final Exam (60%)	Closed book written exam	

MODULE DESIGN TEAM

- Author: *Zhenya Liu*
- Reviewer: *Paul Griffiths*
- External Reviewer: *Arun Chalise*

Last reviewed: 12/09/2025