KAPLAN PROFESSIONAL

Subject Outline

FIN351 The Derivatives Market

Section 1 — General information

1.1 Administrative details

Duration	Credit points	Level
One study period (12 weeks)	6	AQF9

1.2 Core or elective subject

This is an elective subject for the Graduate Certificate in Applied Finance, Graduate Diploma of Applied Finance and Master of Applied Finance.

1.3 Delivery mode

This subject is delivered online.

1.4 Prerequisites

There are no prerequisites for this subject. However please review the 'Assumed knowledge' section below to understand the prior knowledge Kaplan advises you should hold before enrolling in this subject.

1.5 Assumed knowledge

Whilst there are no prerequisites for this subject, Kaplan assumes that students have completed FIN251 Fixed Income Securities or understand the content covered in this subject, prior to undertaking FIN351 The Derivatives Market.

1.6 Course transition subject equivalence

Students may not be required to complete this subject if they have transitioned from a SIA/Finsia/Kaplan course and have completed the following subjects:

- E112 Futures Markets and Trading
- E113 Options Markets and Trading
- FIN229 Options Markets and Trading
- FIN329 Futures and Options Markets and Trading.

1.7 Work integrated learning

There are no placements, internships or work experience requirements associated with undertaking this subject.

1.8 Other resource requirements

Students do not require access to specialist facilities and/or equipment to undertake this subject.

Section 2 — Academic details

2.1 Subject overview

This subject focuses on derivative products and markets; an area which has grown in size over the past century, with the value of derivatives exposures now dwarfing that of stock and bond exposures. The subject examines market structure, participants and the products used for managing risk and/or trading for profit. Students analyse, price and trade forwards, futures, swaps and options. The subject examines key markets for these contracts including derivative exposures over equities, interest rates, foreign exchange and commodities.

2.2 Subject learning outcomes

On successful completion of this subject, students should be able to:

1. Assess the different types of derivative securities and instruments.
2. Analyse the structure, processing and regulatory framework of derivatives markets.
3. Value derivative exposures and construct options trading strategies.
4. Construct hedging, arbitrage and speculative trading strategies using equity derivatives.
5. Construct hedging, arbitrage and speculative trading strategies using short and long-term interest rate derivatives.
6. Construct hedging, arbitrage and speculative trading strategies using FX and commodity derivatives.

2.3 Topic learning outcomes

Topic 1: Introduction to derivative securities and instruments

On successful completion of this topic, students should be able to:

- explain forwards, futures, swaps and options in the context of financial markets
- explain the benefits and risks of derivatives
- compare the uses of exchange-traded and over-the-counter derivatives
- explain the key elements of derivative securities and instruments
- explain the different types of users of derivatives
- compare using derivatives for hedging, speculative and arbitrage purposes
- explain regulation as it applies to derivatives trading.

Topic 2: Trading in derivatives

On successful completion of this topic, students should be able to:

- explain the most common types of orders
- explore how trades are executed on both exchange-traded and over-the-counter derivatives
- explain the main off market trading facilities offered by the Australian Securities Exchange
- explain mark-to-market principles and margining systems
- explore the key steps in the trade confirmation and allocation process
- assess the use of derivatives in managing financial risks.

Topic 3: Pricing of forwards, futures and swaps

On successful completion of this topic, students should be able to:

- compare fundamental analysis and technical analysis
- analyse the principles used in pricing forwards and futures
- calculate cost of carry using simple, compound and continuous interest
- determine margin levels and mark-to-market values of futures contracts
- explain how to value a swap contract.

Topic 4: Options pricing

On successful completion of this topic, students should be able to:

- analyse the principles used in options pricing
- summarise the put-call parity rule
- assess the pricing of options and underlying securities to determine and value arbitrage opportunities
- compare the strengths and weaknesses of the binomial and Black-Scholes approaches to pricing of options
- analyse historical and implied volatilities and their use in forecasting future volatility
- analyse the characteristics of an option's delta and the information provided by delta
- derive delta, gamma, theta, vega and rho and analyse how options traders use the 'Greeks'.

Topic 5: Options trading and strategies

On successful completion of this topic, students should be able to:

- construct basic pay-off diagrams as a visual representation of the risk–reward profile of options positions
- explain the different option strategies available
- construct option strategies
- evaluate common exotic options.

Topic 6: Equity derivatives

On successful completion of this topic, students should be able to:

- analyse the effectiveness of equity derivative strategies in portfolio construction approaches
- explain the use of equity derivatives in constructing passive investment exposures
- apply equity futures, forwards and swaps in managing exposures to market risk
- apply equity options in managing stock-specific risk.

Topic 7: Interest rate derivatives — short-term

On successful completion of this topic, students should be able to:

- analyse movements in the yield curve
- explain the major uses of bank bill futures
- calculate the value of a physical bank bill and the value of a bank bill futures contract using the discount yield formula
- construct buying and selling hedges for given scenarios using bank bill futures
- evaluate how bank bill futures can be used to hedge instruments other than physical 90-day bank bills and the risks of these uses
- construct and assess arbitrage opportunities in the bank bill futures market
- demonstrate the advantages of using interest rate futures instead of cash market instruments to alter portfolio risk
- explain the mechanics of forward rate agreements.

Topic 8: Interest rate derivatives – long-term

On successful completion of this topic, students should be able to:

- calculate the value of 3-year and 10-year bond futures contracts
- evaluate the uses of bond futures
- calculate a volatility match between physical bonds and bond futures
- construct a buying and selling hedge using bond futures
- explain how a bond switch works
- formulate the fair value of a bond futures contract
- demonstrate how both a cap and a floor are packages of options on interest rates
- analyse the option products and markets available to interest rate risk managers
- explain and interpret the characteristics and uses of swaptions, including the difference between payer and receiver swaptions
- calculate the payoffs and cash flows of an interest rate swaption.

Topic 9: FX derivatives

On successful completion of this topic, students should be able to:

- calculate outright forward rates
- explain when to add or subtract the forward margin
- calculate cross rates on outright forward transactions
- calculate value today and value tomorrow rates
- explain common applications for FX swaps
- describe the main features of a currency option
- explain the various uses of currency options and how they can be combined to meet specific trading or hedging objectives
- describe the status of an option in relation to the current spot rate and the outright forward rate
- identify the fundamentals of options pricing and describe the factors affecting the option premium
- calculate an option's worst case and break-even rate
- explain how to hedge FX risk using currency options.

Topic 10: Commodities

On successful completion of this topic, students should be able to:

- explain the physical characteristics of commodity markets
- analyse the pricing of commodity derivatives
- explain the role of commodity forward curves
- estimate grade basis risk when given historical data
- explain the commodity derivative products traded both on Australian and international exchanges
- assess how commodity derivatives are used to manage risk
- construct hedging, arbitrage and speculative trading strategies using commodity derivatives.

2.4 Assessment schedule

Assessment	Description	Week	Topics	Weighting	Subject learning outcomes assessed
Assignment 1	Short-answer assessment	Week 4	1–3	20%	LO1–LO3
Assignment 2	Short-answer and scenario-based assessment	Week 8	1–6	40%	LO1–LO4
Exam	Multiple-choice and short-answer questions	Week 12	3–10	40%	LO3–LO6

Please refer to our website <www.kaplanprofessional.edu.au> to review student policies relating to your assessment, including the Kaplan *Assessment Policy* and *Academic Integrity and Conduct Policy*.

2.5 Prescribed text

There is no prescribed text for this subject. Students are provided with key readings and access to Kaplan's online databases. Students are encouraged to research and read widely on the topic.

2.6 Study plan

Week(s)	Topic name	Study load in hours
1	Topic 1: Introduction to derivative securities and instruments	8
2	Topic 2: Trading in derivatives	10
3	Topic 3: Pricing of forwards, futures and swaps	12
4	Topic 4: Options pricing **Assignment 1 (Weighting 20%)**	10
5	Topic 5: Options trading and strategies	12
6	Topic 6: Equity derivatives	12
7	Work on Assignment	11
8	Topic 7: Interest rate derivatives — short-term **Assignment 2 (Weighting 40%)**	10
9	Topic 8: Interest rate derivatives – long-term	7
10	Topic 9: FX derivatives	7
11	Topic 10: Commodities	12
12	**Examination (Weighting 40%)**	9
Total minimum study load		**120 hours**

Additional study hours (if required), dependent on knowledge and personal commitments	70 hours
Total study load, including additional study hours	**190 hours**