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Academy of Professional Finance 专业金融学院



CFA Level I

Derivatives

Introduction

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Weight of Quantitative Methods

Topic Area	Level I	Level II	Level III
Ethical and Professional Standards	15	10-15	10-15
Quantitative Methods	12	5-10	0
Economics for Valuation	10	5-10	5-15
Financial Reporting and Analysis	20	15-20	0
Corporate Finance	7	5-15	0
Equity Investments	10	15-25	5-15
Fixed Income	10	10-20	10-20
Derivatives	5	5-15	5-15
Alternative Investments	4	5-10	5-15
Portfolio Management	7	5-10	40-55
Total	100	100	100

Data Source: CFAInstitute.org



Readings	
Derivative Markets and Instruments	5
Basics of Derivative Pricing and Valuation	
Risk Management Applications of Option Strategies	2



- 1. Define a derivative and distinguish between exchange-traded and over-the-counter derivatives
- 2. Contrast forward commitments with contingent claims

Derivative Markets and Instruments

- 3. Define forward contracts, futures contracts, options (calls and puts), swaps, and credit derivatives and compare their basic characteristics
- 4. Describe purposes of, and controversies related to, derivative markets
- 5. Explain arbitrage and the role it plays in determining prices and promoting market efficiency



- 1. Explain how the concepts of arbitrage, replication, and risk neutrality are used in pricing derivatives
- 2. Distinguish between value and price of forward and futures contracts

Basics of Derivative Pricing and Valuation

- 3. Explain how the value and price of a forward contract are determined at expiration, during the life of the contract, and at initiation
- 4. Describe monetary and nonmonetary benefits and costs associated with holding the underlying asset and explain how they affect the value and price of a forward contract
- 5. Define a forward rate agreement and describe its uses



- 6. Explain why forward and futures prices differ
- 7. Explain how swap contracts are similar to but different from a series of forward contracts

Basics of Derivative Pricing and Valuation

- 8. Distinguish between the value and price of swaps
- 9. Explain how the value of a European option is determined at expiration
- 10. Explain the exercise value, time value, and moneyness of an option



- 11. Identify the factors that determine the value of an option and explain how each factor affects the value of an option
- 12. Explain put-call parity for European options

Basics of Derivative Pricing and Valuation

- 13. Explain put-call-forward parity for European options
- 14. Explain how the value of an option is determined using a oneperiod binomial model
- 15. Explain under which circumstances the values of European and American options differ



Risk Management Applications of Option Strategies

1. Determine the value at expiration, the profit, maximum profit, maximum loss, breakeven underlying price at expiration, and payoff graph of the strategies of buying and selling calls and puts and determine the potential outcomes for investors using these strategies

2. Determine the value at expiration, profit, maximum profit, maximum loss, breakeven underlying price at expiration, and payoff graph of a covered call strategy and a protective put strategy, and explain the risk management application of each strategy

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