

# DERIVATIVES, FUTURES, FORWARDS AND OPTIONS

## COURSE OVERVIEW

With the recent economic turmoil spreading globally through the use of non-traditional instruments, it has become imperative for professionals to gain a fundamental understanding behind the dynamics of the market. This course builds the conceptual framework for understanding the fundamentals of derivatives and of derivative markets. The essentials of forwards, and swaps in addition to contingent claims in their various forms are introduced.

## TARGET COMPETENCIES

- Derivate Principles
- Derivative Markets
- Types of Derivatives
- Benefits of Derivatives
- Derivatives Pricing

## TARGET AUDIENCE

Financial analysts, department heads, senior management team members, financial controllers, finance managers, chief and financial accountants, professionals in the field of finance and accounting who have any involvement in the financial markets

## COURSE OBJECTIVES

By completely attending this course, participants will be able to:

- Define a derivative and recognize its uses
- Determine the differences between exchange-traded and over-the-counter derivative contracts
- Distinguish between forward commitments and contingent claims
- Differentiate between forwards, futures, options, and swaps
- Discern the underlying components between types of derivatives
- Explain the purposes and controversies related to the derivatives market
- Identify the key principles behind derivatives pricing and valuation

# **COURSE METHODOLOGY**

The course uses a mix of interactive techniques, such as brief presentations, application of theories presented, and demonstrations of real-life examples. It will also include many group and individual exercises to exchange experience and apply knowledge acquired throughout the course.

## **COURSE OUTLINE**

### **INTRODUCTION TO DERIVATIVES**

- What's a derivative?
- Derivatives markets and structure
  - Preamble
  - Exchange traded derivatives
  - Over the counter derivatives

### **TYPES OF DERIVATIVES**

- Forward commitments
  - Forwards
    - Payoff structure
    - Delivery of forwards
  - Futures
    - Standardized contracts
    - Price characteristics
  - Swaps
    - Fixed-rate swap
    - Floating-rate swap
- Contingent claims
  - Options
    - Call option
    - Put option
    - American-style
    - European-style
  - Credit derivatives
    - Credit spread options
    - Credit-linked note (CLN)
    - Credit default swap (CDS)
  - Asset backed securities
    - Collateralized mortgage obligation (CMOs)
    - Collateralized bond obligation (CBOs)
    - Collateralized loan obligation (CLOs)
    - Collateralized debt obligation (CDOs)
- Hybrid derivatives
  - Bonds
    - Callable bonds
    - Convertible bonds
  - Swaps
    - Swap payments
  - Options
    - Options on futures
    - Swaptions

### **NATURE OF THE DERIVATIVES UNDERLYING COMPONENT**

- Equities
- Fixed income
- Currencies
- Interest rates
- Credit
  - Credit default swaps (CDSs)
  - Collateralized debt obligations (CDOs)
- Commodities
- Other

### **PURPOSE AND BENEFITS OF DERIVATIVES**

- Risk allocation
- Information discovery
- Operational advantages
- Market efficiency

### **CRITICISMS AND MISUSES OF DERIVATIVES**

- Speculation
- Hedging
- Risk management

### **ELEMENTARY PRINCIPLES OF DERIVATIVE PRICING**

- Derivative values
- Storage and associated costs
- Arbitrage
  - The law of one price
  - Arbitrage opportunities and their application