

# Energy & Precious Metal Derivatives – Risk & Applications

2 Days

## COURSE OVERVIEW

The growth activity in energy and precious metal markets - whether measured by dramatic price volatility during the global financial crisis, by the amount of capital flowing into this asset class or by the growth of hybrids, structured notes and commodities indexes, or even by general interest in energy issues and precious metals as stores of value - makes this course essential for all those needing a comprehensive course on energy and precious metal trading and risk management. The course will cover how derivatives work, what markets trade the different sectors, how physical and derivative markets interplay, and how to participate in, and manage risk through, the energy and precious metal markets in Asia and across the world...

## LEVEL

Intermediate – Advanced

## WHAT WILL I GET OUT OF IT?

- Understand how commodity market structures work
- Learn how to trade the market profitably by forecasting accurately
- Build and manipulate commodity indices
- Investigate the detail of trade and warehouse finance techniques
- Analyze metals, energy, and agricultural commodity markets in detail
- Study the future of the commodities markets in Asia and the world

## WHO'S IT FOR?

- Investment bankers
- Stockbrokers
- Fund Managers
- Traders
- Risk Managers
- Energy, metals and climate companies
- Insurance companies

## COURSE CONTENT

### Day One

#### **Introduction to the commodity markets: understand the theory**

- Spot markets, cash and physical delivery
- Forward and futures pricing
- Derivatives -futures, options and swaps
- Spot and derivative markets compared
- Theory of storage and forward curves in detail
- Concepts of contango, backwardation and convenience yield
- The role of transport and shipping
- The principle of hedging - examples and problems (e.g. basis risk)
- How trading commodities works
- Exotic options
  - The volatility smile
  - Asian and forward start options
  - Swing and volumetric options

#### *Examples and exercises in trading and hedging strategies*

#### **Commodity Markets today: know the practice**

- Historical perspective
- Global commodity markets: their growth and performance
- Commodity exchanges/OTC markets
- Advantages and disadvantages of exchange/OTC trading
- Supply, demand and the weather

#### *Case Study: UNCTAD's work in developing commodity markets*

#### *Examples and applications of straightforward and complex futures and options trading and hedging strategies*

#### **Fundamentals and Trading: how to understand the market**

- Supply and demand indicators
- Economic growth
- Slowdown and Recession
- Producer data and inventories

#### **Technical Analysis: the alternative approach**

- Understanding Data, understanding charts
- Principals of chart investment
- Support/resistance and volumes
- Moving averages and crossovers
- Stochastics and oscillators
- Program trading and money management
- Trading options
- Candlestick analysis

#### *Case Study: Profile of a commodity trading company*

#### **Commodity-linked finance**

- Warehousing and trade finance
- Future flow financing for commodities
- Using bond finance for commodities
- Exchange-Traded Funds and Commodities

*Case Study: Gold-linked notes*

## Day 2: Energy and Metals Markets

### The Metal Markets

- Copper, nickel, lead, aluminium, tin, zinc - specific features of their markets
- The role of the London Metal Exchange and COMEX

*Case Study: The LME rules and their application*

### Specialised markets

- The gold market
- Silver, platinum, palladium and other exotic metal markets
- Metals trading strategies

*Case Study: Gold as a global hedge against recession*

### Conventional Energy Markets

- Introduction to the energy markets: oil, natural gas/LNG and coal
- Demand, supply, reserves and the future: a review of global energy
- Global information sources for energy (Platts and beyond)
- Specialised markets for energy products (e.g. naphtha)
- Modelling energy markets (e.g. dark-spreads, spark-spreads and crack-spread options)
- Spot and derivative markets for conventional energy products

*Case Study: Peak Oil?*

### Energy Trading - Recent Developments

*Case Study: Emissions Trading: the history of the Australian ETS and comparable schemes worldwide*

- Uranium and derivative markets in nuclear fuels
- Renewable energy technology and trading (hydro, wind, solar)

*Case Study: Trading Water*

- Electricity markets and their special features (e.g. seasonality, spikes)
- Applicable models
- The future of energy trading

*Case Study: integrating energy trading into power station project finance*