CREDIT

- 1. SECURITISATION
- 2. CREDIT ANALYSIS AND FINANCIAL MODELING
- 3. BONDS
- 4. CREDIT DERIVATIVES AND STRUCTURED PRODUCTS
- 5. BANK LENDING AND CREDIT ANALYSIS

SECURITISATION

Learning Outcome Statements

- To focus on the practicalities of securitization and on the realities of the post-crisis securitization market
- To understand the issues that are driving the market and the types of transactions which have emerged.
- To examine the role of securitization in the crisis, the regulatory response and the overhang of problem transactions, particularly in CMBS (commercial mortgage backed security).
- To gain a comprehensive overview of the basics of securitization, the rationale, the structuring techniques, SPC variations and the rating processes.

- Introduction to securitization
 - The building blocks of securitization
 - The development of the securitization market
 - Rationale for banks and corporate to securitize assets
 - Differences from ordinary debt and from covered bonds
- Structural features of a securitization
 - o Credit risk
 - Spread and reserve accounts
 - o PDL ledgers
 - Liquidity risk
 - o Cashflow waterfalls
 - o Reinvestment risk
- The rating process
 - Key rating elements
 - CDO cashflow models
 - New counter party criteria
 - Un-rated risks for investors
- Impact of the crisis on the securitisation market
 - The credit crisis and the role of securitisation
 - Impact across different asset classes

- New regulation for Securitisation
- Impact of new Basel 3 capital and liquidity requirements
- The new drivers in the securitisation market
- Asset-backed commercial paper (ABCP)
 - What is a conduit
 - Typical conduit structure
 - Key features
 - Conduit dynamics
 - Benefits for an originator
 - o Outlook for ABCP in the post-crisis market
- Post crisis RMBS
 - Historic performance
 - o What lessons did investors learn
 - The master trust structure
 - The new drivers for originators
 - Put options
 - Trends and pricing
- CMBS and other problems
- The importance of central bank activities

CREDIT ANALYSIS AND FINANCIAL MODELLING

Learning Outcome Statements

- To model and analyse corporate credit risk
- To assess structural and documentation risk
- To gain an overview of dealing with NPLs

- Types of lending and credit ratings
 - o Bank lending and CDS
 - The bond markets: high grade and high yield
 - Credit ratings
 - o Rating scales and definitions
 - Recovery ratings
 - o Relevance of sovereign ratings
- Financial aspects of credit analysis (quantitative factors)
- Analysis of historic results
 - The profit and loss account; adjusting for exceptionals
 - The cashflow statement; re-organising the cashflow statement
 - Earnings vs. Cashflow
 - The balance sheet; liquidity and debt maturity profile
 - o Off balance sheet liabilities
 - o Adjustments for operating leases
 - The importance of forecasting and of cashflow versus assets
 - Ratios for credit analysis (leverage, liquidity, earnings and cash coverage, asset coverage, working capital, asset turnover)
 - Payback/debt servicing analysis
 - Assessing debt capacity for corporates
 - Accounting factors for credit analysis
 - Business risk analysis (qualitative factors)
 - o Sovereign
 - Sovereign credit ratings
 - Economy, currency and political risk analysis

- o Industry
 - Porter's five forces
 - Industry life cycle (growth)
 - Industry cyclicality (earnings quality)
 - Leading indicators
 - Competition
 - Pricing dynamics; Demand versus supply
 - Changing business environments
 - Regulation
 - Capital intensity and cost base
- o Company specific
 - Management
 - Operating, capital and corporate finance strategies
 - Competitive advantages and cost position
 - Product/service offering, differentiation and pricing power
 - Diversification
 - Customer/supplier concentration
- o Structural factors
 - Shareholder structure
 - Ownership and support
 - Structural and contractual subordination
 - Impact of structural issues on ratings
- Leverage analysis
- The advantages and disadvantages of leverage: debt vs. equity
- Suitability for leverage
- o Determinants of leverage
- Impact of shareholder value considerations on credit quality
- Corporate structure and double leverage

CREDIT ANALYSIS AND FINANCIAL MODELLING

- Risk limitation techniques, covenants, documentation, distressed credit situations
- o Purpose and structure of debt facilities
- o **Documentation**
 - Overview of a loan agreement
 - Overview of high grade and high yield bond prospectuses
 - Reps and warranties, conditions precedent, negative pledge MAC clauses, events of default, cross-default, equity cures, etc.
- Focus on covenants financial and non-financial covenants
 - Covenant definitions (financial), including off-balance sheet liabilities
 - Covenant definitions (non-financial) what makes for stronger or weaker covenants

- Pricing for bonds and loans
 - o Recent trends in pricing
- $\circ \quad \text{Determinants of pricing} \\$
- Influence of sovereign spreads, VIX, etc.
- Impact of corporate finance transactions on credit quality; leveraged buyouts
- o Corporate finance transactions
 - Mergers, acquisitions, disposals, break-ups, demergers, LBOs, etc
- Leveraged buyouts
 - Rationale to LBOs
 - Structuring an LBO
 - Quick method of assessing LBO returns
 - Assessing returns to equity and subordinated lenders
 - Modelling an LBO

BONDS

Learning Outcome Statements

- Acquire the foundation knowledge necessary to price and value bonds and fixed income derivative products such as swaps, futures, options, structured notes
- Evaluate the risk and profitable investment opportunities associated fixed income holdings and portfolios
- Position your bond/market skills to take advantage of opportunities

- Fixed rate bonds
 - Pricing fixed coupon bonds
 - Price vs. Yield quotations
 - American (& other) price markets
 - Implied yield
- Floating rate bonds
 - Pricing floating rate bonds
 - Treatment of floating rate margins
 - Fixed vs. Floating rate bonds
- Zero coupon pricing methodology
 - Bonds as portfolios of zero coupon bonds
 - Additive valuation of cash flows using zero coupon bonds
 - Determining price & yield of coupon bonds using zero coupon yields
 - Zero coupon yield curve construction
 - Par rates to zero coupon rates
 - Cheap/dear analysis
 - Credit spread term structure
- Bond yield curves
 - Term structure of interest rates
 - Inflation and yields
 - Fluctuation of the yield curve
 - Modeling yield curves
- Alternative measures of return
 - Current yield
 - Yield to maturity
 - Total return
 - Scenario analysis
 - Comparison of bonds using total return analysis

- Bond price sensitivity
 - Duration
 - Dollar sensitivity
- Managing portfolio risk
- Convexity
- Bond portfolio management models
- Holding period yield immunisation
 - A coupon bond's zero coupon, equivalent
 - Using duration to reduce holding period yield volatility
- Bond trading and portfolio management
 - Interest rate expectations
 - Relative value trading: Curve plays
 - Bond portfolio management strategies
- Foreign denominated bonds
 - The foreign bond market
 - o FX vs. Yield risk
- Option embedded bonds
 - Characteristics & valuation of callable bonds
 - Yield to call (put) vs. Yield to maturity
 - Price sensitivity characteristics of callable bonds
 - Convertible notes
 - Spot-forward interest rate relationship
 - Spot to forward /Forward to spot
 - Yield curve from futures prices

- Price risk

 - Basis point value

BONDS

- Interest rate swaps
 - $\circ\,$ Basic features
 - Computing the fair swap fixed rate
 - $\,\circ\,$ The swap fixed rate as the equaliser of value
 - $\,\circ\,$ A swap as two bond transactions
 - $\circ\,$ Value of an open swap
 - $\,\circ\,$ Credit risk and swap pricing
 - Swap variations
 - Accreting, amortising and power swap
 - $\circ~$ Off market and forward swap
 - $\,\circ\,$ Swaption, set in arrears swap, yield curve swaps
 - \circ CMT swaps

- Fixed interest futures markets
 - $\,\circ\,$ Forward yields and futures prices
 - o Speculating using interest rate futures
 - Hedging using interest rate futures
 - BPV values/ BPV hedging
- VaR for bond portfolios
- Interest rate options
 - $\,\circ\,$ Rates vs. Prices
 - $\,\circ\,$ Bond options
- Eurodollar futures options
- Caps, floors and collars

CREDIT DERIVATIVES & STRUCTURED PRODUCTS

Learning Outcome Statements

- To define structured products
- To explain the fundamental building blocks
- To apply basic derivatives and be able to construct structured products
- To discuss the fundamentals of pricing
- Identify the risks associated with these products

- Credit Default Swaps
 - Mechanics and Structuring of single name and Index CDS
 - Issues: Reference Entities, Definition of Credit Event, Settlement
- Pricing a single name CDS
 - Actuarial Methods
 - Spread induced Methods
 - Equity Pricing Methods / KMV
- Basket and "nth to Default" CDS Mechanics
 Discussion on Default correlation Issues
- Total Rate of Return Swaps
- Credit Spread Forward Contracts
- Credit Spread Options contracts
- Counterparty Risk in CDS correlation between Underlying Default and Counterparty Default
- Standardized ISDA Contracts for Credit Derivatives
 - $\circ~$ The ISDA Standard CDS Model
 - Variations on CDS contracts and other credit derivatives

- Pricing and Hedging Credit Derivatives • Example of Hedging a sovereign CDS
- Credit Linked Notes Structuring and Applications

 Asset Backed Securities vs CDO Tranches
- CDOs Mechanics, Structuring Issues, Risk Transfer Applications
 - Balance Sheet CDOs
 - Arbitrage CDOs
 - Synthetic CDOs
 - Static vs. Managed CDOs
 - Cash Flow vs Market Value CDOs
- Pricing CDOs
 - Rating Based Methods
 - Dealing with Default correlations via Copula Functions
 - The "Contingent Leg Pricing Method"
 - The "Fee Leg Pricing Method"
 - Numeric Examples
 - Dealing with Implied correlations
 - Portfolio effects and the Value of Diversification Discussion in light of lessons learned from the crisis in 2008
- Hedging CDO Exposure

BANK LENDING AND CREDIT ANALYSIS

Learning Outcome Statements

- Scan business environment and identify lending opportunities
- Build robust monitoring and covenant packages to meet the commercial needs of the
- company and provide protection to the lender
- Use financial and non-financial appraisal techniques for screening loan proposals
- Prepare comprehensive and effective credit memos for consideration of credit committee
- Solicit new business and negotiate terms
- Manage lending relationship in mutual interest

Key Contents

Term Lending

- Formulation & appraisal of projects
- Technical feasibility
- Mitigating market risk
- Estimating project cost
- Deciding means of finance
- Role of venture capital financing
- Examining financial viability
- Managerial aspects
- Social cost/benefit analysis

Credit Evaluation Memo

- Causes of problem financing
- Tips for financial analysis
- Red flags for credit analyst
- Important tips for writing credit memo
- Sections of good credit memo-historical background
- Comments on management

- Exposure to borrower and collateral
- Account behavior
- Sources of information
- Financial statement analysis
- Credit risk analysis
- Forecasts and projections

Finance administration and review

- Objectives of credit administration
- Essential components
 - Open communication
 - $\circ~$ Complete and accurate credit file
 - $\circ~$ Efficient credit officers
- Tools of financing administration
- Inspection of borrower unit
- Annual review of borrower
- Objectives of financing review