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## Securitized & Structured Products – Fundamentals and Applications

### INTRODUCTION

The securitized, repackaged, and structured credit markets represent one of the largest sectors of the fixed-income markets. Structured product (or structured securities) are commonly referred to as asset-backed securities (ABSs), which, which consisted of variations of ABSs and mortgage-backed securities (MBSs). For more than thirty years, ABSs and MBSs have represented an alternative financing and investment options that has greatly facilitated credit enhancement and liquidity in the lending, financing, and receivables markets. Recently they have become a main talking point almost everywhere in the markets due to their part in the subprime and Alternative-A (Alt-A) lending crisis as collateral pools for ABS CDOs. Even given their role in the crisis, the securitized, repackaged, and structured credit markets still represent profitable opportunities if the inherent risks and pitfalls are properly assessed and managed, and it is the objective of this program to present the steps to how this can be accomplished.

### COURSE OBJECTIVES

This program will focus the fundamentals of the securitization process, what is required for a successful securitization or repackaging of pools of collateral/assets, what are the risks in issuing, investing in, and valuing ABSs and MBSs, and what was the role of securitized products in the subprime and Alt-A crisis, and how to prudently, effectively, efficiently, and profitably issue and invest in ABSs and MBSs. This also includes discussion on highlighting the securitized product risks and the risk factors affecting the securitization process, assessing and valuing the prepayment option, and illustrating the limitations and applicability of ABS and MBS pricing and valuation techniques.

### LEARNING OUTCOMES

At the end of the programme, participants will be able to:

- This program will help understand the issues and complexities inherent to the Subprime and Alt-A crisis.
- Understanding the Securitization Process and what is can and cannot do in the lending, financing, and receivables markets.
- What is the role of credit rating agencies in securitization, repackaging, and structuring transactions
- Understand the wide ranges of available different collateral and receivables pools used securitization, repackaging, and structuring.
- Understand the role of the bankruptcy-remote Special-Purpose Vehicles (SPVs)
- What makes a securitization successful
- What factors lead to excessive risky ABSs or MBSs transactions and what can be done to avoid or mitigate these risks.
- Have a working knowledge of securitized product risks and the risk factors affecting the securitization process,
- Understand how to value and assess the prepayment option and to be aware of the limitations and applicability of ABS and MBS pricing and valuation techniques.

These learning outcomes will be facilitated through the use of lectures, mini case studies, and simulation examples using EXCEL.

**WHO SHOULD ATTEND**

- Accountants and Auditors
- ALM Managers
- Bank/insurance/fund managers
- Bond traders and salespersons
- Corporate Financial Analysts
- Chief operating officers
- Credit rating agency representative
- Credit managers
- Financing Managers
- M&A Advisers
- Mortgage and Lending Analysts
- Portfolio Managers
- Private Equity Specialists
- Property Investors
- Regulatory authorities and securities commissions representatives
- Securitization practitioners, including originators, issuers, underwriters, advisors and investors
- Structured finance managers
- Syndication managers
- Treasury Managers

**PRE-REQUISITE(S)**

The suggested background for this program is a reasonable understanding of basic financial debt instruments such as loans and bonds, credit risk markets, and credit risk concepts. Completion of a mid-level statistics and/or probability course is suggested and beginning-level proficiency with EXCEL is helpful.

**COURSE OUTLINE**

## Module 1 - Structured Finance and Securitization

- Overview of Structured Finance, Structured Credit Products and the Structuring Process
- Special Purpose Vehicle (SPVs) and their Function in Securitization
- Participants in the Securitization Process
- Key Factors in Pricing Securitized and Structured Credit Products
- Comparing the Risks of Structured and Securitized Products with Corporate Bond Risks

## Module 2 - Securitization and Repackaging of Financial Transactions

- A Primer on Securitization and Repackaging
- History of Asset-Backed Securitization
- Rationale for Securitization, Investors Benefits and Value Added Through Securitization
- Requirements and Safeguards Underlying a Successful Securitization Transaction
- Participants in the Securitization Process
- Different Types of Special-Purpose Vehicles (SPVs)
- Categories of Suitable Collateral/Asset Pools for Asset-Back Securities
- Securitization as Credit Risk Insurance

## Module 3 - Mortgage-Backed Securities (MBSs) and Asset-Backed Securities (ABSs)

- Defining and Distinguishing between ABSs and MBSs
- Historical and Recent Development of the Markets for MBSs and ABSs
- Terminology and Risk Factors for MBSs and ABSs
- Credit Enhancement Structures for MBSs and ABSs
- A Primer on Mortgage Lending
  - Characteristics of Standard and Nonconforming Mortgages
  - Taxonomy of Prime and Subprime Mortgage Types
  - Mortgage Origination Process and Mortgage Brokers

- Prepayment Options Associated with Mortgages
- Mortgage-Back Securities (MBSs)
  - Mortgage Pass-Through Securities
  - Residential and Commercial MBSs (RMBSs and CMBSs)
  - Collateralized Mortgage Obligations (CMOs)
    - CMOs as Standardized Sets of Rules
    - Real Estate Mortgage Investment Conduits (REMICs)
    - Standardized Definitions for Principal-Pay, Interest-Pay and Other Types of CMOs and REMICs
  - Stripped Mortgage-Back Securities
  - Home Equity Loans (HELs)
  - Subprime (B and C) Loans and Alternative A (Alt-A) Loans
- Asset-Backed Securities (ABs)
  - Credit Card Receivables
  - Trade-Credit Receivables-Backed Bonds
  - Student Loans
  - Manufactured Housing Loan ABS Market Covered Bonds
  - Recreational Vehicles and Boat Loan ABS Market Covered Bonds
  - Student Loan ABS Market Covered Bonds
- Hybrid CDOs – ABS of CDOs
- Collateralized Fund Obligations (CFOs)
- Equity Default Obligations
- Asset-Backed Commercial Paper (ABCP)
- Covered Bonds
- Securities Lending for MBSs and ABSs using Repurchase Agreements and Dollar Rolls.

#### Module 4 - Mechanics of the MBS and ABS Markets

- ABS and MBS Market Segmentation - Issuers and Investors
- SpvS AMD Legal Structure for ABSs and MBSs
- Clearing and Settlement Procedures for MBSs and ABSs
- Custodial and Prime Broker Services for MBSs and ABSs

#### Module 5 - Securitized Product Risks

- Risks Inherent to Securitized Products
- Impact of Ratings Changes of ABSs
- Securitized Products and Prepayment Risk
- Refinancing Risk, Refinancing Speed, and Burnout
- Priority of Claims in Mortgage Foreclosure
- Asset Securitization and Liquidity Risk Reduction
- Risk Reduction and Reallocation using ABSs and MBSs

#### Module 6 - Risk Factors Affecting the Securitization Process

- Accounting and Legal Issues Associated with Securitization
- Balance Sheet Consolidation, True Sales, and Securitization
  - Consolidation Guidelines and Reflecting Consolidation in the Financial Statements
  - Consolidation and Enron's FAS140 Transactions
  - FIN46R Rule - FASB's Reaction to Enron Use of SPVs
- Credit Risk and External and Internal of Credit Enhancement in Securitization
- Rating Agencies, Credit Enhancement and Securitization
- Risks in Securities Lending of MBSs and ABSs
- Liquidity Risk, Liquidity Enhancement and Securitization
- Currency Risk, Interest Rate Risk, and Securitization
- Tilt Problem and Effects of Inflation of Securitization
- Credit Risk Reinsurance and Securitization

- Regulatory Issues Associated with Securitization

#### Module 7 - Analysis of the Prepayment Option for MBSs and ABSs

- Prepayment Behavior for Different Mortgage Types
- Dependence of Prepayment and MBS Cash Flows on Interest Rate Changes
- Prepayment Projections and Refinancing Behavior – Incentives and Costs
- General Framework for Modeling Prepayment Behavior
- Prepayment Models and Valuing the Prepayment Option - A User's Guide
- Option-Adjusted Spread Analysis, Modeling the Prepayment Options and MBSs
  - Steps Involved in Simulating an Option-Adjusted Spread Analysis
  - Mortgage Pricing, Prepayment Option and Option-Adjusted Spreads

#### Module 8 - ABS and MBS Pricing and Valuation Issues

- Determinants of Credit Risk for ABSs and MBSs
- Major Factors Influencing Prepayment, Curtailments, Delinquency, and Default
- Effective Duration, Key Rate, and Effective Convexity for MBSs
- General Steps to the ABS and MBS Valuation Process
- Default and Loss Curves for Nonprime and Subprime Mortgage Pools
- Default Projections, Default Timing and Loss Curves for MBSs and ABSs
- Effect of Prepayment and Default on ABSs and MBSs
- Expected Default Rates and Credit Tiering for ABSs and MBS Issuers
- Modeling Dependent Defaults for ABSs and MBSs
- Linkage between Defaults and Recoveries
- Rating Agency Models for MBSs and ABSs
- Liquidation and Paydown for Distressed ABS and MBS Transactions
- Exercise - Simulating MBSs with the prepayment options
- Exercise - Simulating MBSs with default

#### Module 9 - Case Studies

- The 1980s Junk Bond Crisis
- The CMO Crisis of the mid-1990s
- The 2000s Subprime Lending Crisis
- Market Turbulence, LTCM, Russian Credit Crisis of 1998 and MBS Hedge Funds