

SYLLABUS

CREDIT RISK AND STRUCTURED CREDIT PRODUCTS

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Readings: No textbook exists yet, so readings will be posted on the WEB

WEBSITE for the course: www.neftci.com/ustcredit

Exams and Homeworks: One exam, short cases studies posted on internet

Outline of Topics

A. Introduction

The Early Examples of Credit Trading and Credit risk Management

- Instruments
 1. Corporate bonds
 2. Emerging market bonds
 3. Guaranties
 4. Contingent Credit lines
- Early credit curve building
- Credit risk management until 2000's

B. The basic building block

Credit Default Swap Technology

- Single name Credit Default Swaps (CDS)
 1. Why CDSs are natural default products?
 2. Financial engineering of a Defaultable bond

3. Pricing of a CDS
4. Different approaches to pricing
5. Reduced form models
6. Structural models
7. Why default correlation, interest rates and counterparty correlation does not matter much
8. Can one use a model close to a deterministic model?
9. Market Examples and case studies.

C. Structured finance

Asset Backed Securities Reviewed Briefly

1. What is an ABS?
2. The Mechanics of structuring ABSs
3. Types of ABSs
4. RMBS and CMBS
5. Credit Cards, Home Equity, and others

D. Correlation Products

- Basic CDO structures
 1. What is a CDO?
 2. The notion of Tranche and Subordination.
 3. The Interest and Collateral waterfalls: I/C, O/C tests
 4. The legal and regulatory background.
 5. The role of SPVs
 6. Correlation is the key pricing variable.
 7. The notion of correlation. Theory vs. Practice. Does a default by a name
 8. Significantly affect other spreads?
 9. Role of underlying economic conditions and correlation

10. How important are unknown recovery rates?

11. Market examples and case studies.

- Uses of CDOs

E. Recent CDO structures

- What is single-tranche CDO?
- What is CDO-squared?

F. Modern Approach: Credit index Trading, Hedging

Credit Indices, standard Tranches and their trading

1. iTraxx and CDX indices
2. Standard Tranches
3. Hedging an Equity tranche
4. Market strategies
5. Pricing Standard Tranches
6. Extracting implies correlation
7. Leveraged Super Senior Notes
8. What is Basel II?
9. Relationship between Basel II and index trading
10. Current methods in credit risk management

G. Market Strategies using iTraxx and CDX and Trading Examples

1. Negative Basis Trades
2. Curve flattening-Steepening Trades
3. Long and Short Correlation Trades
4. Options on Indices
5. Forward curves