**Derivatives Structuring and Financing**

**FRE-GY9733**

**Part 1**

The availability of data and financial information plus open source software and pricing engines have greatly impacted the job market for “quants.” While machines have started to replace some trading positions such as market making in very liquid instruments, there is still a growing need for structuring where the knowledge of derivatives instruments and their workings are needed to create structures that will help companies and investors to manage their financial risks efficiently.

Structuring skills are also in demand at Corporate Treasuries where the emphasis is on using derivatives to manage various financial exposures such as interest rates, Foreign Exchange (FX), or commodities etc. Treasuries of companies usually do not engage in developing pricing modules but apply FE techniques to their hedging, funding, and investment activities to ensure that they receive the best price from the market. Moreover, the accounting treatment of derivatives is also of utmost importance to public companies because accounting impacts their income statement and ROE and ROA.

Similarly, all major banks and investment houses have teams of Derivatives Marketers and Structures who help companies and customers in developing and selecting the optimum risk management tools.

          This course should give students an edge in their job search and also expand the universe of their opportunities to cover Corporate Treasuries.

         The first part of the course will have weekly assignment and a midterm at the end of part 1.

 Following are the major topics that part 1 of the course will try to cove:

* Review of accounting
  1. Balance Sheet
  2. Income Statement
  3. Statement of Cash flows
  4. Relationships among different elements of financial statements
* Short term and long term financing alternatives
* Using swaps, cap, and floors to manage interest rate risk
* Hedging interest risk of corporate finance
* Using options as cheapeners
* Structured swaps
* Structured Notes
* Accounting treatment of derivatives
  1. Cash flow hedging
  2. Accrual accounting
* Hedging Issuance of a bond using Treasuries
* Hedging employee stock options
* Preferred shares and their use in corporate treasury
* Credit Risk and Credit Spread and Funding