Jan 27: What is financial risk and why is it important to manage it? History of financial crisis and what we learnt from them. Basel I, II and III, Regulation, Dodd-Frank, Volker.

Feb 3: Extreme-value theory and coherent risk measures. Basic probability distributions of EVT. Tail risk. Introduction to liquidity & concentration risk.


March 2: Interest-rate derivatives: the LIBOR swap curve. What instruments are used? Interest-rate volatilities and correlations. Historical vs. synthetic, vs. hybrid models for measuring the risk of swap/futures portfolios.


March 16: SPRING BREAK
RISK AND PORTFOLIO MANAGEMENT: Syllabus, Part 2

March 23: Introduction to risk-management of options portfolios. Standard methodologies and their shortcomings: SPAN & TIMS.


April 6: Credit default swaps: basic pricing formulas. Cleared CDS: variation margin, initial margin, guarantee fund sizing. Single-name and index CDS. Building swap curves and exploring their statistics.


April 20: Risk-management of portfolios of RMBS: prepayment risk, factor risk modeling. Portfolio and diversification effects.


May 4: Course conclusion and final lecture.

May 11: LAST ASSIGNMENT DUE