Lecture 6

- **Basics of Risk Management**

  What is Risk Management?

  Types of Risk and Measuring Risk

- **Rationales for Corporate Risk Mgmt.**

  Strategic and Enterprise Wide Risk Mgmt.

- **Methods of Managing Risk**

- **Trade Round #3**

Basics of Risk Management

- **What is Risk Management?**

  Reading: RSD, p.129-132

  Risk management is a vast subject, covering many fields, e.g., medicine, engineering

  In Finance, “risk management” usually refers to management of financial risks (see list of these risks, RSD, p.112)

Types of Risks to be Managed

- ***general business risks***, risks specific to the industry or market of interest also referred to as *commercial risk*
- financial and commodity ***market risks*** associated with changes in prices for equities, exchange rates, interest rates and commodities
- ***credit and liquidity risks***
- ***operational risks***, that can include inadequate management control systems
- ***legal risks***, e.g. contract enforcement

Types of Risk and Measuring Risk

- **Risk versus Uncertainty**

  Read quote from Knight on RSD, p.118

  Reading: RSD, p.116-120.

  → Risk is associated with measurable probability while uncertainty is not measurable.

- **Characteristics of Risks to be Managed**

  Financial risk management differs from actuarial science (insurance risk management) in having the element of profit

How to Measure Risk?

- Various possible methods to measure risk, e.g., standard deviation of return

  → **Value at Risk** (read RSD, p.122-9).

  Value at Risk (VaR) or some variant is a required risk measurement methodology mandated by the capital adequacy standards for depository institutions initially set out in the Basle Accord of 1988.

  VaR is examined in BUS 410.

Accounting vs. Economic Exposure

- A key element in the development of a risk management philosophy; Reading: RSD, p.151-6.

- **Accounting exposure** measures on a transaction by transaction basis. This approach is reflected in conventional textbook presentations of a risk management involving derivatives that assumes that there is only one transaction of interest.

- **Economic exposure** measures attempt to assess the impact of a specific financial or commodity price on the firm's net cash flow. (Possible to run regressions.)

Rationales for Corporate Risk Mgmt.

- From BUS 312 (and other courses) the primary corporate objective is identified as: *maximize the expected utility of the end-of-period wealth of shareholders.*

- **Arguments Against Corporate Risk Mgmt.**

  Modigliani-Miller irrelevance arguments

  CAPM arguments

  Expected Return Arguments

  Reading: RSD, p.142-8.

Rationales for Corporate Risk Mgmt. (cont'd)

- **Arguments in Favor of Corporate Risk Mgmt.**

Relaxation of Perfect Markets Assumptions

→ Bankruptcy Costs, e.g., reduces discount rate in NPV valuation

→ Information Costs

Other arguments: ownership structure, real options

Reading: RSD, p. 148-50.

Strategic and Enterprise Wide Risk Mgmt.

- What is Strategic Risk Management?

Strategic risk management is the process of identifying, implementing and monitoring systems for managing the range of risks confronting the firm.

In the consulting industry (CI), strategic risk management corresponds to **enterprise-wide risk management.** CI refits often emphasize decision support systems, IT methods.

Connection to Class Presentations

- Organizational structure of risk management

  Possible questions to ask: how is the risk management process conducted within the company? Is there a risk management officer? Is this officer a member of the board? Are there subcommittees of the board dealing only with risk management issues?

Methods of Managing Risk

- The ***actuarial science approach***. Deals with insurance risk where the random variable of interest is a loss function taking a value of either *X(t)* (the size of the loss) or zero.
- Risk can be avoided; risk can be transferred; risk can be shared; risk can be reduced; and risk can be retained.

Reading: RSD, p.120-2.

Risk vs. Uncertainty Revisited

- Business risks are encountered in financial activities. Such risks take both positive and negative values.
- Knight (1921) recognizes that business risk has an objectively measurable component, ***risk***, and a component that can only be determined subjectively, ***uncertainty***.
- Correctly dealing with uncertainty is a source of entrepreneurial profit.

More on Class Presentations

- ***Other questions to ask***: Is the risk management process seen to be a source of profit or competitive advantage, e.g., Barrick Gold? Is there a coherent statement of the firm's risk management philosophy, e.g., in the MD&A? If there is such a statement, include this in the presentation.

Reading: RSD, p.151-6.