

# Lecture 5

## Corporate Risk Management

- **Developing a Risk Management Philosophy**
- **Rationales for Corporate Risk Management.**
- **Strategic and Enterprise Wide Risk Management**

# Developing a Corporate Risk Mgmt. Philosophy

- Not possible to formalize the procedure for developing such a philosophy
  - ◆ Culp (2001) observes that risk management is a process → this process can be motivated by formulating a number of basic considerations and questions
- The first step in the formulation process is to identify the firm's aggregate and specific risk exposures
  - ◆ Identify the corporate risk profile → determine the method of identification and measurement

# The Corporate Risk Profile

- ***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

# Accounting vs. Economic Exposure

- A key element in the development of a risk management philosophy is the method of measuring risk; 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.

# Connection to Class Presentations

- ***Some 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.

# 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. Definition is from a RiskMetrics publication.



“...the discipline by which an organization in any industry assesses, controls, exploits, finances and monitors risk from all sources for the purposes of increasing the organization's short- and long-term value to its stakeholders.”

## CAS ERM Definition

This definition is also recognized by the Society of Actuaries → there is no standardized definition of either strategic risk management (SRM) and ERM → ERM can be traced to the evolution of risk considered by actuaries → SRM is more concerned with the management of strategic risk (as opposed to financial risks) while ERM considers the portfolio of risks facing the firm (as opposed to the traditional silo-ing of risk)

# 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.

# Chartered Enterprise Risk Analyst (CERA)

- From the Society of Actuaries website: “A Chartered Enterprise Risk Analyst (CERA) of the Society of Actuaries has demonstrated knowledge in the identification, measurement and management of risk within risk-bearing enterprises. The CERA has also completed a professionalism course covering the professional code of conduct and the importance of adherence to recognized standards of practice. CERAs who have the Application for Admission as an Associate approved by the SOA Board of Directors will be granted membership as an Associate.”

# The CERA Course Modules

- Exam P–Probability
- Exam FM–Financial Mathematics
- Exam M–Actuarial Models–Financial Economics Segment (MFE) -- included in .zip
- Exam C–Construction and Evaluation of Actuarial Models
- Advanced Finance/ERM Exam – included in .zip
- VEE\* Economics
- Operational Risk Module – included in .zip
- Associateship Professionalism Course (APC)



# Other Examples from RM programs

- In the .zip file
  - ◆ Casualty Actuarial Society
    - ☞ 492\_CAS\_ERM → intended as part of pro-dev educational material for CAS members
  - ◆ Global Association of Risk Professionals
    - ☞ 492\_FRM\_Readings; 492\_Free\_GARP\_read
    - ☞ 492\_GARP\_EnergyRM
      - GARP does not have an ERM designation or orientation

# More on Class Presentations

- Organizational structure of risk management

**More 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?