Financial Risk Management
What is Risk

The probability that some event will cause an undesirable outcome on the financial health of your business and/or other business/family goals.
Overall Categories of Risk

- Legal Risk
- Price Risk
- Environmental Risk
- 5 D’s Risk (Death, Disability, Disagreement, Divorce, Disaster)
- Production Risk
- Human Resource Risk
- Relationship/Public Relations Risk
- Financial Risk
How Does Financial Risk Arise?

- There are three main sources of financial risk:
  1. Financial risks arising from an organization’s exposure to changes in market prices, such as interest rates, exchange rates, and commodity prices.
  2. Financial risks arising from the actions of, and transactions with, other organizations such as vendors, customers, and counterparties in derivatives transactions.
  3. Financial risks resulting from internal actions or failures of the organization, particularly people, processes, and systems.
What Is Financial Risk Management?

- Process to deal with the uncertainties resulting from financial markets.
- Involves assessing the financial risks facing an organization and developing management strategies consistent with internal priorities and policies.
- Strategies for risk management often involve derivatives.
The process of financial risk management is an ongoing one. The process can be summarized as follows:

- Identify and prioritize key financial risks.
- Determine an appropriate level of risk tolerance.
- Implement risk management strategy in accordance with policy.
- Measure, report, monitor, and refine as needed.
Diversification

- An important tool in managing financial risks
- Reduces the magnitude of loss if one issuer fails.
- **Hedging**: the business of seeking assets or events that offset, or have weak or negative correlation to, an organization's financial exposures.
Risk Management Process

- The process of financial risk management comprises strategies that enable an organization to manage the risks associated with financial markets.
- It involves and impacts many parts of an organization including treasury, sales, marketing, legal, tax, commodity, and corporate finance.
The risk management process involves both internal and external analysis.

- This part of the process involves identifying and prioritizing the risks facing an organization and understanding their relevance.
- There are three broad alternatives for managing risk:
Factors that Impact Financial Rates and Prices

- Financial rates and prices are affected by a number of factors. It is essential to understand the factors that impact markets because those factors, in turn, impact the potential risk of an organization.
Interest Rates

- Interest rates are a key component in many market prices and an important economic barometer.
- Comprised of the real rate plus a component for expected inflation.
- The value of rate-sensitive assets depends directly or indirectly on the interest rate (or the discount rate) used to present-value the cash flows.
- Interest rate risk is the risk arising from changes in the rate of interest of borrowed or invested (including lent) money.
Factors that Affect Interest Rates

- Expected levels of inflation
- General economic conditions
- Monetary policy and the stance of the central bank
- Foreign exchange market activity
- Foreign investor demand for debt securities
- Levels of sovereign debt outstanding
- Financial and political stability
Factors that Affect Commodity Prices

- Supply and demand
- Speculation
- Expected levels of inflation, particularly for precious metals
- Interest rates
- Exchange rates
- General economic conditions
- Costs of production and ability to deliver to buyers
- Availability of substitutes and shifts in taste and consumption patterns
- Weather, particularly for agricultural commodities and energy
- Political stability, particularly for energy and precious metals
What is risk

• Among many, two definitions of risk are commonly used:
• 1. The variability in possible outcomes around the average
• 2. Risk is the likelihood of losses resulting from changing events
• Are these two definitions different?
How does financial risk arise?

- There are three main sources of financial risk:
  1. From changes in market price, such as interest rates, exchange rates, and commodity prices
  2. From the actions of, and transactions with, other organizations such as vendors and customers
  3. From internal actions or failures such as people, processes and systems
What is financial risk management

• Financial risk management is a process to deal with the uncertainties resulting from financial markets
• It involves:
  – Assessing the financial risk facing an organization
  – Determining level of risk tolerance
  – Develop and implement strategy for managing risk
  – Measure, report, monitor, and refine
• Remember the strategy of taking no action is the acceptance of all risks
Creating Value with Financial risk

• Consider the following scenario:
• Pure Gold Inc. faces risk of fluctuating gold prices. Incase prices of gold fall, the firm sustains losses of revenues which will drag down the share prices and shareholders wealth will decrease (Bearing risk within the firm)
• Incase the firm hedges the risk through financial markets and pays risk premium (risk born outside the firm), and the risk premium is equal to the decrease in the wealth of shareholders as above, will the firm hedge the risk?
The firm will indifferent between the two options

This is what Rene Stulz calls it “risk management irrelevance proposition”

For risk management to create value, it must be more expensive to born the risk inside the firm than outside the firm
Deadweight losses and FRM

• If gold prices unexpectedly fall too low, Pure Gold Inc. will not have enough funds to invest in new projects
• On the other hand, it would be expensive to current shareholders to raise funds in capital markets
• Due to low gold prices, the firm faces two types of costs; **direct** (loss of revenues) and **indirect** (forgone investment projects)
• Indirect costs arising from financial losses are called **deadweight losses**
Bankruptcy costs and FRM

• FRM reduces or eliminates deadweight losses
• Consider another example
• Suppose the firm has used both equity and debt financing. When the firm cannot pay its debt holders, the firm will go bankrupt and pay bankruptcy costs like hiring lawyers, courts costs, and advice fee paid to financial advisors. The chances of bankruptcy will be higher when gold prices fluctuate more. If the firm does not hedge the gold prices risk, bankruptcy costs will be more relevant. The present value of future bankruptcy costs will lower the firms value. Such costs cannot be eliminated by bearing risk within the firm
A major source of corporate default is the inability to service debt.

The higher the debt-to-equity ratio, the riskier the firm.

Risk management can therefore be seen as allowing the firm to have a higher debt-to-equity ratio.

That creates value because debt financing is usually less expensive than equity.
Risk management matter more for whom?

• For many financial institutions, a mere appearance of possibility of financial distress or bankruptcy is enough to threaten the firm.

• An example of how financial distress can lead to disaster is the case of Enron.

• Enron traded energy, broadband, credit risk, and other goods. When its management lost credibility and its debt was downgraded, it started a sequence of events that led to bankruptcy of Enron.