Class 8

UG3F14
Corporate Finance

Class 8 Topics and Content

- Risk and Return:

- The Concept of Business and Risk
- Types of Risks: Systematic and Unsystematic Risk
- Expected Returns of a Portfolio of Investments
- The Importance of Portfolio Diversification for a Business
- The Beta of a Company (β)

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- Risk and Return:

- Expected returns (profits) on common stocks (this firm value) depends on various factors
- One of the most important is the industry in which a company operates - For example, according to Morningstar, average expected return for department stores (Sears and Kohl's) is 14.47%, air transportation (Delta and Southwest) is 11%, Computer software (Microsoft and Oracle) 11.61%

- The Concept of Business and Risk
  - ✓ Risk:
    - Risk can be referred to the possibility of a business making inadequate profits or losses due to uncertainties.
    - Actions taken by business enterprises themselves in order to maximize shareholder value and profits – for example, companies undertake high-cost risks in marketing to launch a new product in order to gain higher sales
    - Financial Risk is the risk that involves financial loss to firms
      - Financial risk generally arises due to instability and losses in the financial market caused by movements in stock prices, currencies, or interest rates

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- Risk and Return:

- Types of Risks: Systematic and Unsystematic Risk
  - ✓ Systematic Risk: Market risk or non-diversifiable risk – affects all the market and are not controllable by the business
    - Relates to any risk that affects a large number of assets, each to a greater or lesser degree
    - Caused by factors that affect all assets like macroeconomics: tax/regulations, inflation, interest rats or currency fluctuations, environmental like earthquakes, or Covid-19, and social like wars or riots
    - It is not possible to eliminated but it can be mitigated by diversifying investments so that even if one investment fails, the return from others will make up for it – A well diversified portfolio consists of different types of assets from different industries with varying degrees of risk
    - Example: General Electric operates in 130 countries and has diverse lines of businesses: Financial Power, Renewable Energy, Aviation, and Healthcare lines of businesses

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- Risk and Return:

- Types of Risks: Systematic and Unsystematic Risk
  - ✓ Unsystematic Risk: Relates to the risk that is inherent in a specific company or industry, an is *diversifiable*
    - The presence of unsystematic risk means that the owner of a company's securities is at risk of adverse changes in the value of those securities because of the risk associated with that organization
    - An investor's who only holds stock in the transport industry would have to face high unsystematic risk
    - Examples: death of a key manager, the entry of a new competitor into a market, company is forced to recall one of its products, a business is found to have prepared fraudulent financial statements

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- Risk and Return:

- Types of Risks: Systematic and Unsystematic Risk

Systematic risk relates to the probability of a loss that is associated with the *entire market*

Unsystematic risk refers to the probability of a loss within a specific industry or security

Basis	SYSTEMATIC RISK	UNSYSTEMATIC RISK
Meaning	Systematic risk refers to the hazard which is associated with the market or market segment as a whole.	Unsystematic risk refers to the risk associated with a particular security, company or industry.
Nature	Uncontrollable	Controllable
Factors	External factors	Internal factors
Affects	Large number of securities in the market.	Only particular company.
Types	Interest risk, market risk and purchasing power risk.	Business risk and financial risk
Protection	Asset allocation	Portfolio diversification

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- Risk and Return:

- Expected Returns of Portfolio of Investments
    - ✓ It is important as a tool for analyzing business decision as to whether an investment has a positive or negative average net outcome
    - ✓ It's calculated as the *expected value* of an investment given its potential returns in different scenarios
    - ✓ Expected return is based on historical data and is therefore not guaranteed; it is merely a long-term weighted average of historical returns.

Expected Rate of Return (ERR) = R1 x W1 + R2 x W2 … Rn x Wn

R = Rate of return
W = Asset weight

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- Risk and Return:

- Expected Returns of Portfolio of Investments
  - ✓ Expected return is the profit or loss an business anticipates on an investment that has a known or an expected rates of return
  - ✓ Example: Lago Jeep Parts, LLC is valuating an important purchase of parts to service their the Jeep® Grand Cherokee customers. The business policy is accepting all projects with returns greater than 7%. Based in similar operations, the business CFO forecast that the investment has a 50% chance of gaining 20%, and a 50% change of losing 10%

Expected return = (50% * 20%) + (50% * -10%) Expected return = *5%.*

- ✓ The business expected return < required return on the investment; therefore the business will reject the purchase operation

Is the absolute minimum return on investment a business would accept for that investment to be worthwhile

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- Risk and Return:

- Expected Returns of Portfolio of Investments
  - ✓ Limitations
    - It is risky make investment decisions based on expected returns alone
    - It is a tool, there are no guarantees
    - Before making any investment decisions, analyst should assess the risks of the investments, including systematic and unsystematic, to determine if the investments align with their business portfolio goals

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- Risk and Return:

- The Importance of Portfolio Diversification for a Business

  - ✓ Risk and return are highly positive correlated: increased returns on investment go hand-in-hand with increased risk
  - ✓ There are different types of risks include project-specific risk, industry-specific risk, competitive risk, international risk, or market risk
  - ✓ The most basic – and effective – strategy for minimizing risk is diversification
  - ✓ Diversification reduce the overall risk associated with portfolios but also limits potential returns
  - ✓ Making investments in only one market sector may, if that sector significantly outperforms the overall market, generate superior returns, but should the sector decline then opposite will occur

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- Risk and Return:

➢ The Importance of Portfolio Diversification for a Business

- ✓ A well-diversified portfolio of investments consists of different types of assets from diverse industries, with varying degrees of risk, in different geographies, and classes
- ✓ Portfolio diversification will lower the volatility because not all asset categories, industries, or stocks move together
- ✓ Example: **Enron scandal**, series of events that resulted in the bankruptcy of the U.S. energy, commodities, and services company Enron Corporation and the dissolution of Arthur Andersen LLP, which had been one of the
  largest auditing and accounting companies in the world. The collapse of Enron, which held more than $60 billion in assets, involved one of the biggest bankruptcy filings in the history of the United States, generated long-lasting repercussions in the financial world. source: https://www.britannica.com/
  * The business was highly concentrated (not diversified) in highly risk and financial engineered and sophisticated strategies, not following any risk management policy regarding the optimal amount of concentration

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- Risk and Return:

- The Beta of a Company (β)

  - ✓ The beta (β) *of an investment security (i.e. a stock) is a measurement of its volatility of returns relative to the entire market*
  - ✓ *It is used as a measure of risk and is an integral part of the Capital Asset Pricing Model (CAPM)**
  - ✓ *A company* with a higher beta has greater risk and also greater expected returns
  - ✓ A stock's beta compares its movements to the overall market - or a stock index for example the S&P 500

β =1 exactly as volatile as the market
β >1 more volatile than the market
β <1>0 less volatile than the market
β =0 uncorrelated to the market
β <0 negatively correlated to the market

*Method - model that describes the relationship between expected return and risk of a security

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- Risk and Return:

- The Beta of a Company (β) and the stock price fluctuations

High β – A company with a β > 1 is more volatile than the market. For example, a high-risk technology company with a β of 1.75 would have returned 175% of what the market returned in a given period like Marathon Oil Corporation (NYSE: MRO), 2.31 beta

Low β – A company with a β < 1 is less volatile than the whole market. For example, an electric utility company with a β of 0.45, which would have returned only 45% of what the market returned in a given period like Coca-Cola's beta (5 year) is 0.63

Negative β – A company with a negative β is negatively correlated to the returns of the market. For example, a gold company with a β of -0.2, which would have returned -2% when the market was up 10% Like Zoom Video Communications with a beta -1.48

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Businesses can mitigate risks, and earned the expected returns for their investment with the appropiate portfolio o investments diversification, and risk management policy

CAPM topic will be expanded in further lessons