Investment Theory

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Price vs. Value

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Price and Value

- Price – a result of supply and demand in the market
- Value - present value of future cash flows (remember valuation and DCF)
- A company's stock price can change even when the company's value or valuation has remained the same
- "Price is what you pay, but value is what you get" – Warren Buffet

Why can price ≠ value?

Overvalued (Price > Value)	Undervalued (Price < Value)

Overvalued (Price > Value)

- Overhyped, plays into a trend
- Unreasonable growth expectations
- Market overreacts to good news
- Large analyst coverage (typically large companies)

Undervalued (Price < Value)

- In an overlooked industry
- Market has a short-term rather than a long-term outlook at the business value
- Market overreacts to bad news
- Little analyst coverage (typically small companies)

Margin of Safety

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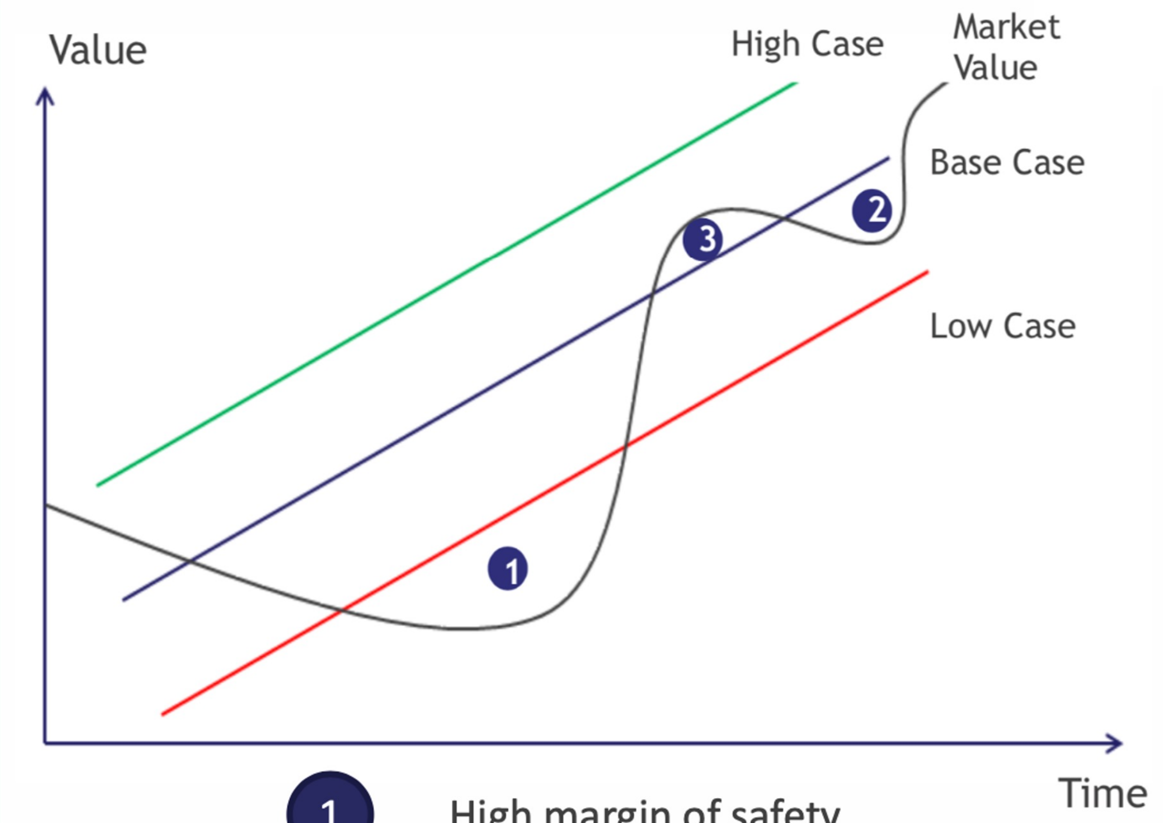
Margin of Safety

- So much attention is paid to the upside that it is easy to lose sight of the risk
- Greater risk does not <u>guarantee</u> greater return; risk can reduce return by causing losses
- A margin of safety is necessary because valuation is an imprecise art, the future is unpredictable, and investors can make mistakes
  - This is why we predict bear, base, and bull cases

Margin of Safety (pictured)



1 High margin of safety

2 Low margin of safety

3 No margin of safety

What is Value Investing?

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What is Value Investing?

- Undervalued opportunities are stocks that are currently trading below their intrinsic value
  - Ask yourself: What is the market missing with this company? Why is this company worth more than the market suggests?
- Invest when the stock is selling low, with the expectation that the price will converge to its true intrinsic value, which will yield returns (a.k.a. “buy low, sell high”)
  - Risk-adjusted returns

Value Investing Rationale

- Value investors believe that the market is mispricing the stock in some way (overreaction to good/bad news, trends, etc), resulting in stock price movements that do not reflect a company's long-term fundamentals and growth prospects
- The overreaction offers an opportunity to profit by buying stocks at discounted prices – on sale
- Value investors use financial analysis, don't follow the herd, and are long-term investors of quality companies

Famous Value Investors

- Warren Buffet: billionaire and CEO of Berkshire Hathaway
- Benjamin Graham: Buffett's professor and mentor
- Seth Klarman: billionaire hedge-fund manager (Baupost Group)
- Charlie Munger: Vice Chairman of Berkshire Hathaway

Reflexivity

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What is reflexivity?

- This is contrary to the idea of ”traditional value,” where fundamentals only affect price but not vice versa
  - Warren Buffet is a believer of traditional value as opposed to reflexivity
- According to reflexivity, fundamental affect price, but price also affects fundamentals

How can price affect fundamentals?

- In the financial markets, rising prices often attract buyers
- As a result, sometimes higher demand leads to higher prices which leads to even more demand
- This prevents an equilibrium from forming and eventually creates a bubble

Expected Return

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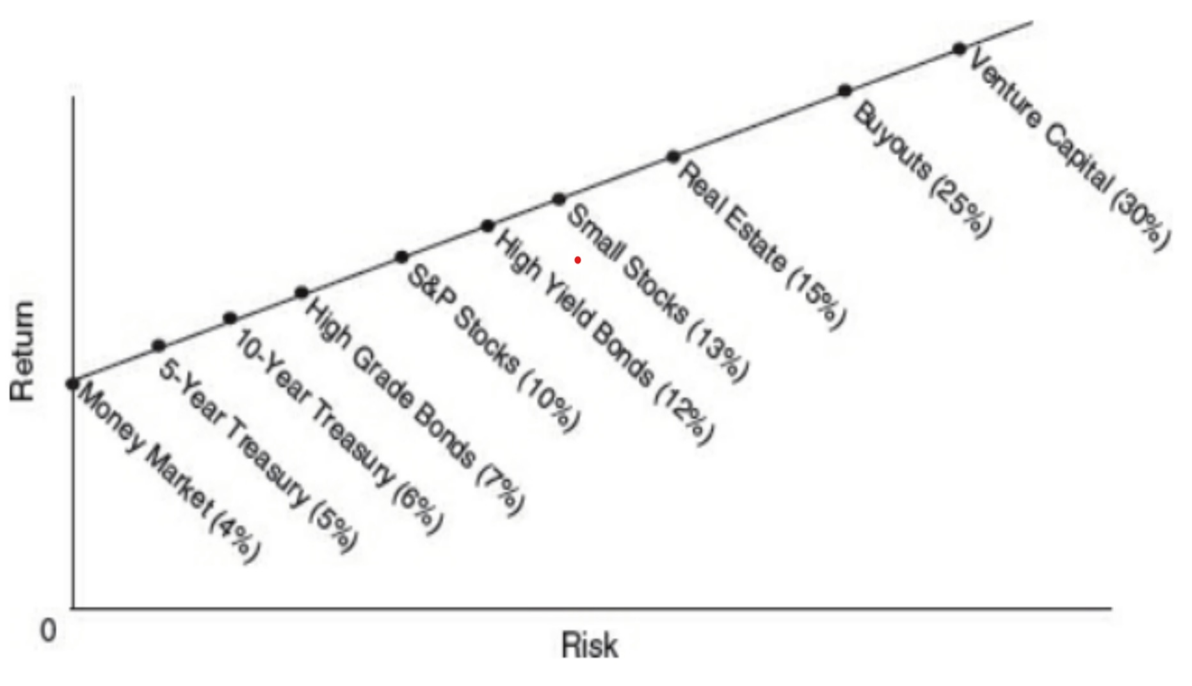
Risk and Return

Return Drivers	Risk Factors
• Yield	• Business Uncertainty
• Earnings Growth	• Price
• Change in Valuation	• Time Horizon
• Macroeconomic changes	• Macroeconomic changes

Risk and Return

- Rational people are (generally) risk averse
- Investors should demand higher rates of return in exchange for taking on more risk
- Therefore, if markets are efficient, the only way to increase your expected return is to take on more risk



Dealing with Risk

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Taking on Risk is Tricky

- Often too many people can be overheard saying, “Riskier investments provide higher returns. If you want to make more money, the answer is to take more risk.”
- But riskier investments absolutely cannot be counted on to deliver higher returns. Why not? It’s simple: if riskier investments reliably produced higher returns, they wouldn’t be riskier!
- The correct formulation is that in order to attract capital, riskier investments have to offer the prospect of higher returns, or higher promised returns, or higher expected returns

Uncertainty

- Uncertainty can be defined as the range of possible outcomes which could occur.
- Uncertainty is an endogenous property
  - This means that it depends on the properties of the security in which we're investing and the macroeconomic environment
  - Can't be controlled by investors
- Three main types of uncertainty:
  - Macroeconomic – How uncertain am I about the macroeconomic future? How much potential is there for discount rates to rise?
  - Firm-Specific - How uncertain am I about the company's future? How will the company fare in a macroeconomic environment which is poor for equities?
  - "Reflexive" - How will the company have to modify its behavior if things don't go as expected? What would the consequences of these modifications be for the company?

Sources of Risk - Price

- There will always be a range of possible outcomes with any given investment
- We can decrease risk by
  - Minimizing the percentage of those outcomes which will result in capital loss
  - Minimizing the size of the expected capital loss in the event that loss does occur
- Both of these goals can be achieved by buying assets when prices are cheap

Sources of Risk – Time Horizon

Short Time Horizon	Long time Horizon

Short Time Horizon

If our time horizon is short, we care much more about short-term volatility and are generally taking on more risk as a result

When would we have a short time horizon?

- Buying a low-quality business that we think is too cheap
- Shorting a company
- Using excessive leverage

Long time Horizon

If our time horizon is long, we can largely ignore short-term volatility and are generally taking on less risk as a result

When would we have a long-time horizon?

- Buying high-quality businesses that we expect will be able to compound returns over time – i.e. Apple

Catalysts

- The presence of a catalyst serves to reduce risk.
- If the gap between price and underlying value is likely to be closed quickly, the probability of losing money due to market fluctuations or adverse business developments is reduced.
  - In the absence of a catalyst, however, underlying value could erode present one way of dealing with the risk of having a short time horizon

Examples of Catalysts

- Shareholder Activism
- Liquidation
- New Product Launches
- Macro Changes
- Spinoffs
- Asset/Business Sales
- M&A
- Management Change