

The Study Related to Overvalued and Undervalued Stocks with Special Reference to Portfolio Management

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Abstract

Market observers consider an investment "fully valued" when its market price matches its underlying value. However, an asset is either undervalued or overvalued if its market price differs from its value. Portfolio management prevents stock overvaluation and undervaluation by collecting and monitoring assets that satisfy an investor's long-term financial objectives and risk aversion. Stocks that are overvalued are those which are sold for a price that exceeds their true value. As a proxy for a company's actual value, the present value of its projected free cash flows can be used. External factors are therefore the elements that influence a company's stock prices. The review paper examines how portfolio management affects overvaluation and undervaluation of stocks. The study uses screening to attain its goal. 392 papers from Google scholar, research gate, science direct, and stock-related websites were selected for the initial screening. The second stage evaluated 152 articles based on title, keywords, relevancy, abstract, and content. This review paper's final screening considered 36 papers based on content and references. The study found that a company's stocks are overvalued or undervalued, and particular ratios such as "the price-earnings ratio," the "price-earnings-growth ratio," the "debt-equity ratio," and others can be used to determine this. According to the findings of the study, a stock is overvalued if its intrinsic value exceeds its market price. If a stock's intrinsic benefit is inferior to its market price, it is undervalued. Numerous metrics can be used to evaluate stock valuation.

Keywords: Management, overvalued stock, portfolio, stock market, undervalued stock

INTRODUCTION

The term "equity" is commonly used to refer to stock, which is a type of asset that represents partial ownership in the company issuing the security. Stock is divided into smaller units called "shares," and each share gives its owner a claim on the company's assets and earnings that is directly related to the number of shares they hold. Stocks can be bought and sold, both privately and publicly, on stock markets. To avoid fraud, protect investors, and further the interests of the economy as a whole, such transactions are generally subject to severe government supervision. The impact of a government spending shock on housing values is less severe than the impact on the stock market [1].

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The stock certificates are sent to the depositories in an electronic format, which is sometimes referred to as a 'Demat account' [2]. In exchange for capital to maintain or expand operations, a corporation may offer more shares to the public, diluting the ownership and interests of current shareholders. Additionally, companies can buy back stock, allowing investors to repay their initial

investment and perhaps earn capital gains from later increases in the stock price. Numerous businesses use stock options in the compensation packages they provide employees. Rather than being actual shares of stock, stock options reflect the employee's right to purchase shares at a future date and price [3]. If employees exercise their options when the stock's market price is greater than the guaranteed price, they will understand a windfall since they will be able to sell the shares at a profit and retain the difference (minus taxes) [4].

An asset is said to be overvalued when its current market price is higher than its underlying value at any given time. This phenomenon is known as an 'overvaluation.' For an asset to be considered undervalued, its current market price must be lower than its true value. The fields of Behavioural economics and finance centre their attention on problems associated with overvaluation and undervaluation in financial markets [5, 6]. A stock that is now undervalued might be a good investment if its price is likely to rise in the near future. Therefore, investing in a cheap company gives a higher possibility of achieving significant returns on the investment in the near future. Selling short occurs when investors anticipate a stock's price will fall from its current level. Buying shares of a company at a discount is called going 'long' on the stock. Hedge funds and accredited individuals often take both short and long positions in order to profit from equities that they believe are under or overvalued. Market capitalizations of undervalued stocks will be lower than their fair equity value, while market capitalizations of overpriced companies will be higher than their fair equity value if stock prices are inefficient [7].

For a customer, organisation, or institution to reach its long-term economic ambitions and threat acceptance, it needs to use the art and science of portfolio management. This means choosing and keeping an eye on a set of investments. Simply put, the portfolio is a record of the profits and losses. Property, stocks, and other investment vehicles are all included in this calculation of the net worth because of their potential to provide income in the future. The pursuit of the highest possible return on investment is a constant goal for investors, and one way they do this is by searching for equities that are now trading at unfairly low prices. There's a chance that these stocks are mispriced. Undervalued companies attract investors because of the potential for long-term gains; overpriced stocks, on the other hand, may provide investors with short-term benefits.

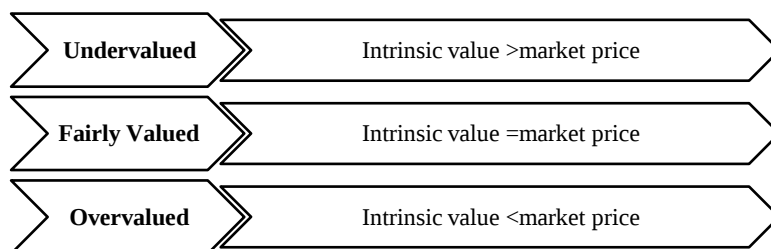


Figure 1. Stock Valuation.

Source: <https://slideplayer.com/slide/5802755/>

Figure 1 Overvalued stocks are those that are selling for more than they are actually worth. The initial worth of a corporation is known as its 'intrinsic value,' and it is based almost entirely on internal variables [8]. The elements that have an impact on a company's stock values are therefore referred to as external factors. Demand for shares can increase and decrease. The market can fluctuate, investors might make irrational decisions that drive up the price of certain equities, etc. Additionally, if a corporation experiences a fiscal or fundamental crisis, its stock may be overvalued owing to internal considerations rather than external ones. Fairly valued stocks are those with a market benefit that is equate to their inherent value or merit. A stock that is undervalued is the exact opposite of one that is overpriced. These equities are traded at a discount to their true market value [9].

Overvalued Stock

A stock is overvalued if its current price is higher than what the market anticipates it will earn in the future, measured by the 'price-earnings' (P/E) ratio. In other words, an inflated stock is one that is overpriced [10]. As a result, economists and market watchers believe the price will fall. An increase in emotional trading, or irrational, gut-driven decision-making, can lead to overvaluation since it drives up the stock price. A decline in a company's fundamentals and financial health can also lead to overvaluation. Prospective buyers of stocks want to avoid paying too much for them [11]. There is a vocal but very small school of thought that holds that markets are inherently efficient. They believe the stock market already knows all there is to know about a company. Thus, conducting a fundamental examination of a stock is useless.

Investors intending to short a position should focus on overvalued equities. The goal is to cash in on a drop in stock price by selling shares at a loss. Stocks might be overpriced for genuine reasons, such as a company's strong brand name or management, or because investors are willing to pay a premium for the stock [12].

Numerous Factors can Lead to the Overvaluation of Stocks, Including

Surges in demand: The number of shares purchased and sold on the market within a certain time period is represented by the trading volume. An overvaluation of the stocks may result from unusually high demand.

Change in Company Earnings: When the economy is bad, governments tend to cut back on expenditure, which might have an adverse effect on private sector profits. Stocks of the firm might be regarded as overpriced if this occurs without a corresponding price change in response to the increased earnings [13].

Good News: If a stock receives much favourable attention in the media, its price may rise too high.

Cyclical Fluctuations: Certain quarters may be more favourable for the stocks of specific industries than others, which may affect the value of the underlying shares.

Undervalued Stock

In the world of finance, the term 'undervalued' is used to describe a security or investment that is being sold at a price below what is generally accepted to be the securities or investment's true value. Undervalued investments can include both stocks and bonds [14]. The present value of a company's projected free cash flows can be used as a proxy for its genuine value. Cash flow, return on assets, profit creation, and capital management are just some of the elements that may be gleaned from a thorough analysis of a company's financial statements, may help you estimate the stock's true worth.

However, value investing is not a fail-safe strategy. There is no assurance that a stock that looks to be trading at a discount will increase in price at some point in the future [15]. Stock intrinsic value is simply a game of informed guesswork, and it cannot be determined with precision. In the context of investing, the term 'undervalued' refers to a stock that, in the eyes of the claimant, is currently being sold for less than it is actually worth. This judgment is very personal and is not necessarily backed up by cold, hard facts about the company's finances.

According to the most up-to-date metrics, such as those found in a valuation model, a certain stock is trading at a price that is too low. It is possible that a company's stock is undervalued if it is trading at a price much lower than the average in its industry. As a result, value investors may look to acquire these investments as a means of generating acceptable returns for a reduced outlay of capital [16]. Whether or not a stock is undervalued is subjective. The stock may be at its fair value already if the valuation technique used to determine that value is flawed or is applied incorrectly.

The reasons for stocks undervalue are:

- i. Lack of confidence among investors has led to a decline in demand.
- ii. Observable, rapid improvement in a company's underlying performance without corresponding increases in its stock price.

How to Find Overvalued and Undervalued Stocks

The Price-Earnings Ratio (P/E)

The "price-to-earnings ratio (P/E)" is a popular metric for estimating the market worth of a company's shares. It breaks down roughly how much money would need to be invested to generate a single pound of gain. Stocks may be overpriced if their P/E ratio is high. As a result, comparing the price-to-earnings ratios of similar firms might shed light on whether or not the stocks you are considering trading are overpriced.

The price-to-earnings ratio is calculated by dividing the share price by the earnings per share. Earnings per share may be calculated by dividing net income by the total number of outstanding shares.

Price-earnings to Growth Ratio (PEG)

The "PEG ratio" evaluates a stock's valuation in light of its "current price-earnings ratio" and its projected "earnings-per-share growth rate" over the following year. A high PEG ratio combined with below-average earnings may indicate that a company is overpriced. The PEG ratio is frequently employed as an approximation [17].

Relative Dividend Yield

One indicator of value is the dividend yield, which varies from one company to the next. An individual stock's dividend yield in comparison to the dividend yield of the whole index is known as its relative dividend yield. Before investing in a company, the dividend yield may be determined by dividing the dividend per share by the share price. The dividend yield of the firm is then split in half and compared to the dividend yield of the index. A low dividend yields as compared to the market may indicate that the stock is priced too high.

Debt-equity ratio (D/E)

A company's leverage indicates how much debt it uses in relation to its equity to finance its assets. This ratio is often referred to as a 'risk,' 'gearing,' or 'leverage' ratio because of its connection to leverage [18].

However, just because a company's ratio of shareholders' funds to total funding is low doesn't suggest its stock is expensive. This may be established by comparing the firm in question to its rivals on a number of key metrics, including the D/E ratio. That's because what constitutes a 'good' or 'poor' ratio varies widely depending on the specific field being studied. To get the D/E ratio, one must divide the company's liabilities by its shareholder equity.

Return on Equity (ROE)

An organization's profitability may be measured by looking at its return on equity. Return on equity (ROE) can alternatively be thought of as return on assets minus liabilities, as shareholder's equity is found by subtracting the value of a company's assets from the value of its liabilities.

ROE is a percentage that indicates how profitable a firm is comparative to the volume of equity it has. "Return on equity (ROE)" is determined by separating net income by stakeholder equity. It's likely that a poor return on equity is indicative of overpriced stock. That's because doing so would reveal that shareholder capital isn't delivering a satisfactory return.

Earnings Yield

The earnings yield is estimated by taking the “earnings per share (EPS)” ratio to the share price. The P/E ratios inverse is what one gets here. As a percentage, the indicated earning yield is easily comparable to current long-term interest rates.

It’s fair to say that the “earnings yield” is the antithesis of the “price-to-earnings ratio.” Rather than figuring out how much a share of stock is worth by dividing earnings per share by that price, this ratio is determined by doing the reverse. Some investors may consider a company to be overpriced if the “interest rate” at which the federal authority, on average, borrows money (the treasury yield) is elevated than the profit yield.

Current Ratio

The current ratio is a measure of a company’s liquidity that may be used to evaluate its capacity to meet its short-term obligations.

The current ratio is a useful indicator of a business’s solvency. one may easily determine it by deducting their assets from their debts. For most situations, if the current ratio is more than 1, it suggests that the assets are sufficient to meet the debts. An increasingly high current ratio is a sign that the stock price is likely to continue rising, maybe to the point where it is overpriced.

Price-book ratio (P/B)

The “Price-book ratio (P/B)” of the corporation is another indicator of its genuine value. The current market price is compared to the firm’s book value using this ratio (“total assets minus liabilities, divided by the number of shares issued”). Divide the current share price by the per-share book value to get the market price. When a stock’s price-to-book ratio (P/B) is more than 1, it may be overpriced.

Portfolio Management

An investor’s portfolio serves as a record of their winnings and losses [19]. Real estate, equities, and other investment assets are all included in this calculation of one’s net worth because of their potential to provide income in the future. Portfolio management is the process of determining an investor’s optimal investment strategy in terms of risk tolerance and desired return [20].

The best investment plan may be suggested through portfolio management by taking into account a person’s income, budget, age, and risk tolerance. Investment risks may be reduced, and rewards boosted with proper portfolio management [21]. In order to help their clients, achieve their financial goals while considering their risk tolerance, portfolio managers analyze the client’s current financial situation and provide a customized investment strategy [22]. Environmental pollution was significantly influenced by financial performance. Managers of investment portfolios can tailor their services to each customer by using portfolio management software [23].

REVIEW OF LITERATURE

Portfolio Management in the Stock Market

Nanda, et al. (2010) [24] presented a data mining approach for the classification of stocks into clusters. Following categorization, stocks for a portfolio might be chosen from several categories. As such, it satisfies the requirement that a portfolio’s risk is kept to a minimum through diversification. In comparison to ‘self-organizing maps (SOM)’ and Fuzzy C-means, the results revealed that K-means cluster analysis creates the most compact clusters when applied to stock categorization data. *Jiang et al. (2019) [25]* stated that with regard to the portfolio implications, both the value of the ideal weight and hedge ratio is high with significant variations for each market pair, which indicates that portfolio managers should modify their investment structure dependent on how various markets are performing. *Gao et al. (2020) [26]* proposed a method for managing investment portfolios called

‘Deep Q-Network (DQN)’ that draws inspiration from a traditional Deep Reinforcement Learning algorithm. The findings prove that the DQN-based technique works better than the other 10 tried-and-true methods. In comparison to other methods, DQN’s return on investment is 30 percent higher. *Pritam et al. (2022) [27]* presented an innovative framework for inexperienced investors to build portfolios using multicriteria decision-making methods while operating in a fuzzy environment. The suggested non-dimensional characteristics, in conjunction with the fractional lion clustering technique, were used in the construction of three different perceptions portfolios.

Understanding Stock Price Behaviour

Deng, (2006) [28] highlighted both the behaviour of the stock price and investors in the market. Further investigation into the scientific validity of the Efficient Market Hypothesis was included in this work. *Ruhani et al. (2018) [29]* suggested that a variety of market participants would benefit from accurate predictions of stock prices. The purpose of the study was to provide a comprehensive literature assessment of the ideas explaining stock price behavior, presenting these theories in two distinct time periods. *Ogbebor et al. (2020) [30]* investigated the influences on stock prices on businesses listed on the ‘Nigerian Stock Exchange’ that may be attributed to individual investors’ stock selection decisions. The study found that the factors used to explain stock price behavior in Nigeria were mutually significant. *Rashmi et al. (2021) [31]* examined the behavior and influence of share prices; these are the “Market study, the Event - study method by computing” “Cumulative Abnormal Returns (CAR),” and the Development of the ‘Generalized Auto Regressive Conditional Heteroskedasticity (GARCH)’ model. Indicated both exceptional and nonremarkable impacts on anomalous returns from “mergers and acquisitions among the chosen businesses in the Oil & Gas industry.” *Cao et al. (2021) [32]* found that it’s possible that companies whose fortunes rise before getting finance and whose fortunes fall after getting financing aren’t the same companies. To reiterate, this reversal pattern is exclusive to companies with modest cash flows.

Understanding Overvalued and Undervalued Stocks

Song et al. (2014) [33] concluded that it’s possible that companies whose fortunes rise before a fundraising round and whose fortunes fall thereafter aren’t always the same companies. Low cash flow enterprises are the only ones likely to exhibit this reversal trend. *Mishra & Kumar (2016) [34]* investigated the market price of several stocks. The “Bombay Stock Exchange” and the “National Stock Exchange” are the two major indexes in the “Indian stock market (BSE & NSE).” The findings indicated that the volatility and inefficiency of the Indian stock market are low. *Dong et al. (2017) [35]* evaluated the impact of stock market overvaluation on business creativity. Research and development, inventive output, and metrics of innovative novelty, originality, and scope are all highly correlated with estimated stock overvaluation. Market overvaluation has been shown to increase inventive production and encourage enterprises to take ‘moonshot’ risks, both of which contribute to societal value. *Wang & Han (2018) [36]* determined if the market was overvalued or undervalued in advance. A straightforward method for automatic trading is provided, one that can deliver long-term results that routinely outperform the stock market as a whole.

RESEARCH QUESTIONS

- i. What is meant by overvalued and undervalued stock?
- ii. What factors are responsible for the overvaluation and undervaluation of the stock?
- iii. What is portfolio management in the stock market?
- iv. How do the undervaluation and overvaluation of stocks impact portfolios?

METHODOLOGY

Data collection, data analysis, and article selection for ‘the study connected to overvalued and undervalued stocks with specific reference to portfolio management are all depicted in the image below Figure 2.

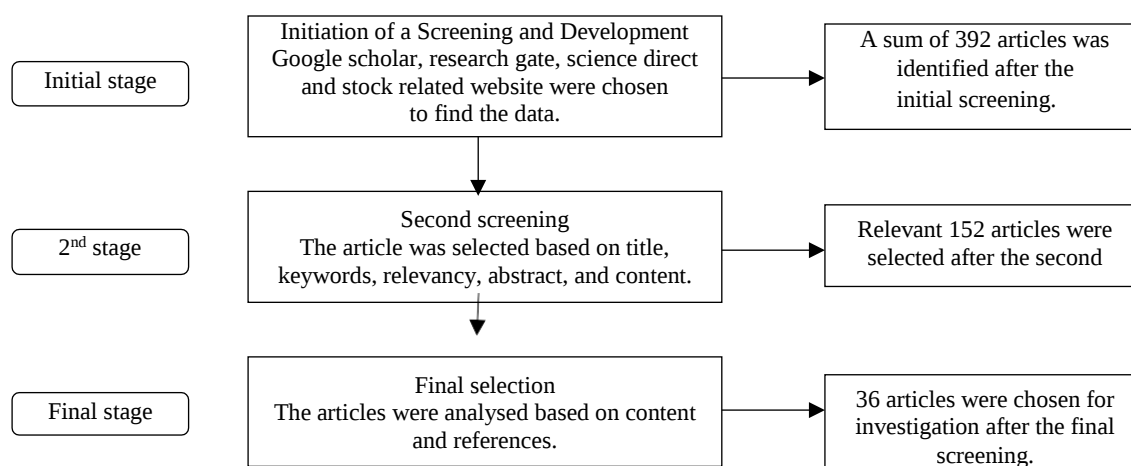


Figure 2. Review Method.

DISCUSSION

This review paper focused on the topic of overpriced and undervalued stocks as it relates to portfolio management. Overvalued stocks, undervalued stocks, and portfolio management are all topics on which many scholars have written and shared their thoughts. This study, in light of this earlier research, highlighted the author's thoughts on overpriced and undervalued stocks, particularly as they relate to portfolio management. In this review study, initially, 392 articles were chosen to collect data on overvalued and undervalued stock in relation to portfolio management. In the subsequent screening, 152 articles made the cut after being evaluated for title, keywords, relevance, abstract, and body. In the end, this study considers 36 papers that passed the final screening process. The following are discussions of a few chosen reviews:

In their study on portfolio management, portfolio managers need to adapt their investment strategy to changing market conditions since the value of the ideal weight and hedging ratio is large, with significant changes for each market pair [25]. Innovative framework for inexperienced investors to design portfolios using multicriteria decision-making methods while operating in an uncertain environment [27]. The elements that individual investors consider when selecting stocks, which ultimately affect the stock prices of firms that are traded on the Nigerian Stock Exchange [30]. It is possible that companies whose fortunes rise before a fundraising round and whose fortunes fall thereafter aren't always the same companies. Low cash flow enterprises are the only ones likely to exhibit this reversal trend [32]. Time and effort into researching stock market prices. India's stock market is split between the "Bombay Stock Exchange" and the "National Stock Exchange", the two largest exchanges in the country (BSE & NSE) [34]. Ex-ante whether the market was overpriced or undervalued. An easy-to-implement algorithm for automatic trading is provided, one that can deliver long-term results that routinely outperform the stock market as a whole [36].

CONCLUSION

This review study concluded that overvalued and undervalued stocks, with a particular focus on portfolio management, were based on the findings of earlier relevant research written by a number of different writers. According to the study's findings, investors can 'short' a stock by selling their shares when the price of that stock is significantly higher than its fundamental worth. When a stock's price is below its fair value, investors have the option to 'go long' by purchasing shares of the company. When playing undervalued or overpriced equities, hedge funds and accredited investors may often combine short and long bets in order to expand their potential profits.

This study found that a stock is overpriced if its intrinsic worth exceeds its current market price. If the inherent benefit of a stock is worse than its market price, one says that the stock is undervalued. Stock valuation may be assessed with the use of many measures, such as the "price-earnings (PE)"

ratio, the “price-earnings to growth (PEG)” ratio, the “debt-equity (D/E)” ratio, and others. The goal of portfolio management is to ensure that a company’s programs and projects are chosen, highlighted, and managed in a way that supports its strategic goals and organizational capacity to deliver. Optimal return on investment may be achieved by striking a balance between new change efforts and continuing with business as usual. Stock overvaluation and undervaluation are crucial factors in portfolio management, making their identification a crucial element of the portfolio management process.

Declaration

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Annexure

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