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# *How to Use Different Hedging Strategies to Make Your Company Profitable*

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***Abstract:*** The profitability of investors through arbitrage decisions is a topical issue in the economy, and some researchers have found that the study of corporate stocks bonds and markets has a significant impact on investors' hedging, however, there is a lack of uniform explanation of the operational methods and scope of influence behind it. Therefore, this article focuses on four different portfolios to further analyze the importance of market analysis for hedge fund investments. The methodology of this paper is to first select the hedging method we will use, then select two different companies based on various factors such as the recent market and the future trend of stocks and bonds, hedge these two companies on stocktrack, and accept the results after two weeks of hedging. In this paper, four sets of portfolios will be used to enhance the credibility of the article. The results of the study show that the direction of the stock and the general trend of the market are particularly important for investors to make hedging transactions, and that if arbitrage strategies are used arbitrarily without taking into account the actual situation there is a high risk of investment failure. Thus, it is necessary to choose the appropriate arbitrage strategy for hedging based on the future direction of the market and stocks.

***Keywords:*** go long and short, hedging strategies, peg ratio, arbitrage

## 1. Introduction

This thesis focuses on how different arbitrage methods can be used to go long and short so that investors can make profits, as well as choosing the appropriate arbitrage decision based on the company's situation. In the stock and bond markets, many investors trade long and short to earn profit spreads by properly analyzing the market and the direction of stocks and bonds. This has been studied before, but in this four different portfolios will be listed to explain how to properly analyze a company's situation and go long and short. These four portfolio mainly utilize the momentum strategy, value arbitrage, credit arbitrage and peg ratio., which would be used to go long and short under the analysis of sorts of the companies.

## 2. Literature Review

Many people consider hedge funds and private equity to be predatory capitalism, but others believe they are an integral part of the investment industry. When focusing on the field of speculation, the researcher has to pay more attention to the analysis of the market, because the theory is not effective

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to solve the downturn of the market, and the financial companies will be considered as moral stakeholders, in this context, the author has developed a new field and found a new research direction. Economic and moral arguments will promote to deal with criticism on hedge funds and private equity companies on a factual basis [1]. to invest in a mean-reverting assest that follows an Ornstein-Uhlenbeck price process,suzuki solves the optimal, finitelyiterative, three-regime switching problrm [2].

The authors describe an earnings and earnings growth model and demonstrate how the model can be used to estimate expected returns on equity. These estimates are compared to estimates of expected returns implied by commonly used heuristics (PEG ratios and P/E ratios.) Proponents of PEG ratios (P/E ratios divided by short-term earnings growth rates) argue that the ratios take into account differences in short-term earnings growth and provide rankings superior to those based on PE ratios [3].

This is the first study to examine a 52-week high momentum strategy that takes into account economic policy uncertainty (EPU). Empirically, the authors find that China is the second largest stock market in the world with its high 52-week momentum and their findings confirm the US results [4].

The authors provide new firm-level evidence on the impact of capital account liberalization. Based on data on firms' foreign currency credit ratings and a novel index of capital account restrictions, the authors find that capital controls can significantly limit the acquisition of foreign currency debt and raise its cost, especially for firms without foreign currency revenues. As an identification strategy, the authors exploit domestic differences in a firm's access to foreign currency through a differentiation approach, measured by whether the firm is in a non-trading industry. The finding that non-trading firms benefit much more from capital account liberalization than other firms is robust to a broad alternative specification [5].

Ralph Lauren has seen an impressive recovery in revenues and cash flow since the pandemic started.However, a rising cost base could place pressure on the stock going forward[6].

Hedge funds have always caused problems, problems that arise because hedge funds can operate with fewer assets than banks and still have a greater impact on the market. Skilled and explicit use of off-balance sheet instruments allows them to have a much greater impact on the market than their assets would indicate. Changes in market positions that lead to price changes are a key feature of this type of fund, which has given rise to debates on various analyses of speculation and financial markets [7]. Given the uncertainty operating environment, the company decided not to provide Q3 guidance for revenue or adjusted EBITDA [8].

Proposals to regulate credit rating agencies have focused on microprudential issues, aiming to reduce conflicts of interest and increase transparency and competition. In contrast, this paper argues that macro-prudential regulation is necessary to address the systemic risks inherent in ratings [9].

Regulatory arbitrage has a large share in the financial markets and it not only leads to better products for firms, but also to higher returns for them. Regulatory arbitrage strengthens the degree of demand from firms for regulators [10].

although PVH's stock price has fallen significantly this year, the company's capital position is optimistic and the Chinese market is slowly opening up, so there is a good chance that PVH's stock will rebound [11].

## 3. Strategy

When investors trade, people usually like to earn profits by going long and short, going long is simple, it is a term describing the purchase, on the other hand, short refers to the prediction of stocks and other downward trend, first borrow the corresponding shares, and then sell them to get cash, wait until the stock price drops to the lowest point, then use the cash in hand to buy shares, so that not only can pay off the previous debt and can gain income. Shorting is a very useful tool to deal with high volatility in the stock market or depressed market conditions. But if the stock price does not fall as

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expected instead of rising, then the shorting investor faces a huge loss. In particular, the long and short strategies are based on four different strategies.

### 3.1. Momentum Strategy

To begin with, the first strategy is momentum arbitrage. Momentum investing is a key and useful investment method that involves buying stocks or bonds with high returns over the past few months and selling stocks or bonds with low returns over the same period. Because of the high risk associated with momentum investing, it is only logical that the investor's beauty can be highly rewarded, and momentum investing can be used in a variety of sectors and markets

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### 3.2. Peg Ratio

Regarding the peg ratio, generally speaking, the higher the growth rate, the greater the future potential of the company, while the P/E ratio only takes into account the company's current profit, which is only static profit, and does not take into account the company's growth rate, so the peg ratio can make up for the lack of dynamic growth of the company's P/E ratio

### 3.3. Value Arbitrage Strategy

The value arbitrage strategy is based on the price-to-book ratio that compares a company's market value to its book value. The PE ratio is the ratio of stock price divided by earnings per share, or interest attributable to shareholders in the first year of a company's market capitalization

### 3.4. Credit Arbitrage Strategy

The principle of credit arbitrage is credit rating. Credit ratings exist as a method of assessing the credit risk of people and companies, not only to predict whether they will be able to pay their debts but also to predict whether the person or company will default on their debts.

## 4. Data

### 4.1. My First Portfolio Is Formed by Tesla and Netflix

Tesla Inc. is an American electric car and energy company with a market capitalization of $210 billion. The company sells electric cars, energy panels, and energy storage devices.


Figure 1: Stock price of Tesla. (Source from Seeking Alpha [11].)

Netflix is an American company that focuses on streaming services as well as production, providing websites for people to watch movies and TV series. In particular, Netflix plays a large role in the film industry and is a member of the Motion Picture Association.


Figure 2: Stock price of Netflix. (Source from Seeking Alpha [11].)

### 4.2. The Second Portfolio Is Formed by Snapchat and PVH

Snapchat is an American technology company that focuses on researching multimedia communication applications and services. The products produced by this company（snapchat） are very popular among young people because they can make more friends through this software.


Figure 3: Price of snapchat. (Source from Seeking Alpha [11].)

In addition, I searched some information about PVH(Fig.4), it is an American clothing firm, and the service mainly includes manufacturing and retailing. In regard to the third trade.


Figure 4: Price of PVH. (Source from Seeking Alpha [11].)

### 4.3. The Third Portfolio Is Formed by RL and AAPL

Ralph Lauren (RL) is an American clothing brand, the brand mainly sells high-end casual men's clothing.

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Figure 5: Price of RL. (Source from Seeking Alpha [11].)

Apple (AAPL) is an American high-tech company specializing in the production of computer software, electronic products, etc., and is one of the top five information companies in the United States. In terms of the last trade, iShares is a collection of exchange-traded funds (ETFs) managed by BlackRock, which acquired the brand and business from Barclays in 2009.


Figure 6: Price of Apple. (Source from Seeking Alpha [11].)

### 4.4. The Last Portfolio is Formed by Ishares Tips 0-5 years ETF and Ishares 10+ years Investment Corporate Bonds ETF

iShares is a collection of exchange-traded funds (ETFs) managed by BlackRock, which acquired the brand and business from Barclays in 2009.

## 5. Result

### 5.1. Tesla and Netflix

My first trade is based on momentum arbitrage. According to this strategy, I long NFLX and short Tesla. (fig.1) In terms of taking the short position to tesla, there are many self-inflicted problems, and many have yet to be resolved. The latest are claims by California's DMV that Tesla overstated its autopilot capabilities. This returners article tells more about that. California is Tesla's largest U.S. market. The company sold 121,000 vehicles there in 2021, out of an estimated 352,000 sold nationwide. The DMV is seeking remedies that could include suspending Tesla's license to sell vehicles in California and requiring the company to make restitution to drivers. There is no other reputable company that has stirred up so much controversy. Musk believes that self-driving technology is fatal for the company, according to the latest reports, Tesla has recalled nearly one million vehicles worldwide, half a million vehicles in the United States alone, and in order to solve these problems, Tesla must solve these problems for free during the warranty period They all require the vehicle to be returned to a dealer to be fixed. They are a nuisance for the owners and costly for Tesla shareholders.

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For NFLX, Netflix has been making decisions based on financial metrics as opposed to subraces for years, and it is a healthier market now that WBD is joining them in this logical approach. In the first quarter of this year, due to some external factors such as the Russia-Ukraine war, (Fig.2) NFLX lost most of its users in Russia and its stock price fell sharply. However, in the second quarter, the situation was eased to a certain extent, so the trade need to take a long position in NFLX, because no matter what to do, the trade will not lose too much. (Table 1)

Table 1: Tesla and Netflix.

| Momentum | | | | |
|---|---|---|---|---|
| firms | positions | quantity | Price paid | Percentage re-turn |
| tesla | short | 50 | 914.14 | 2.135% |
| netflix | long | 50 | 9.69 | 11.558% |

## 5.2. Snapchat and Pvh

The second deal is based on the peg ratio, The PEG ratio is a measure of a company's price-to-earnings ratio divided by its rate of earnings growth. When he was picking stocks, he was picking companies that had low P/E ratios and high growth rates, and they typically had very low PEG ratios. It should be noted that the numerator and denominator of PEG value are related to the forecast of future earnings growth, which is likely to be wrong. peg ratio>1, sell. Peg ratio<1, invest. The growth stock always has a high peg ratio, so it has fast growing revenue and great profit. On the contrary, the value stock always have low peg ratio, it means that the performance is stable, the risk is small and the dividend yield is high.

The trade goes short the stock just because peg ratio. This trade should pay attention to the stock of other information, the snap on July 20th shares dropped 17.5%, (fig.3) probably because the market condition is not very good and the relationship between inflation, so in this trade, he will continue to fall short, but he has gone up a little.

Actually, the economic status of this company has been stable, therefore, the trade shorts SNAP.

Table 2: Snap and PVH.

| PEG | | | | |
|---|---|---|---|---|
| firms | positions | quantity | Price paid | Percentage re-turn |
| snapchat | short | 50 | 914.14 | 2.135% |
| PVH | long | 50 | 9.69 | 11.558% |

## 5.3. RL and AAPL

Then come the third trade. It employed the value arbitrage. This kind of arbitrage is based on the PE ratio and PB ratio. So this trade need to decide which to take the long position and which to take the short position according to the PB ratio and PE ratio. Firstly, considered a premium brand in Europe and Asia relative to North America, RL is expecting most of its growth will come from international markets. (Fif.5) RL has solid profitability metrics and an overall B+ profitability grade, with $868M in Cash from Operations.(table 3) Moreover, RL is a growth stock so revenue grows fast and going to have incredible p/e ratio. According to p/b ratio, the investment value is higher than AAPL. So I long it.

The stock price of Apple Inc. had been falling until June 15, and then gradually recovered after June 15. (Fig.6) However, due to the poor state of the international market economy and the continuous downturn of the mobile phone market, so this situation will not be long.

Table 3: RL and AAPL.

| VALUE ARBITRAGE | | | | | |
|---|---|---|---|---|---|
| firms | positions | quantity | Price paid | Percentage return | p/e ratio |
| aapl | short | 50 | 162.51 | -3.089% | 27.69 |
| rl | long | 50 | 96.53 | -1.502% | 12.48 |

### 5.4. Ishares Tips 0-5 Years ETF and Ishares 10+ Years Investment Corporate Bonds ETF

The next is the worst trade, this trade is based on credit arbitrage and the principle of credit arbitrage is a credit rating, The credit rating represents an evaluation of a credit rating agency of the qualitative and quantitative information for the prospective debtor, including information provided by the prospective debtor and other non-public information obtained by the credit rating agency's analysts. This trade should long the iShares tips bond ETF and short the iShares INVESTMENT GRADE corporate bond ETF.(table 4) The reason that this trade gain a loss in this deal is that I thought this trade can only short triple b and long triple according to the credit arbitrage. I could actually go the other way and go long BBB to achieve a margin difference.

Table 4: ETF.

| Credit arbitrage | | | | | |
|---|---|---|---|---|---|
| firms | positions | quantity | Price paid | Percentage return | Credit ratings |
| Ishares 0-5 years tips bond ETF | Long | 50 | 101.2 | -0.089% | AAA |
| ISHARES 10+ years investment corporate bond ETF | Short | 50 | 55.69 | -0.833% | BBB |

## 6. Comparison

These four trades, while all applying a hedging mindset, are using different strategies. In the first trade I mainly shorted tesla by predicting the future direction of the company, because according to my analysis of tesla, the company has had more or less problems in recent years, both in production and sales, and these problems will undoubtedly cause their stock price to fall, so I chose to short the company. The specific approach is to borrow fifty stocks, and then sell them, wait until the price drops to a point and then use the money obtained from the sale to buy more shares, so that not only can pay off the previous debt can also gain profits. The second trade uses the peg ratio, and there is a formula for this ratio (peg ratio <1, invest, peg ratio>1 sell) When trading according to this formula, you will generally not lose money. About the third trade (but stock with low p/e and p/b ratio) Generally when a company's P/E and P/N ratio is less than 1, this trade should be going long. The fourth trade was a losing trade, because this transaction can not be traded with too much risk, resulting in a loss of capital, so this trade did not choose to go long BBB, but chose to go long AAA, but this trade did not pay attention to other information about ETF, so that this trade could not take the risk but ended up losing money. So sometimes going long BBB is also a choice, so although you take a high risk but also get a high return.

## 7. Conclusion

The results of the study show that the direction of the stock and the general trend of the market are particularly important for investors to make hedging transactions, and that if arbitrage decisions are used arbitrarily without taking into account the actual situation, there is a high risk of investment failure. In the four portfolios in this paper, the first group is based on the analysis of the two companies, the economic situation of Tesla is less optimistic, but the economic situation of Netflix has been more stable, so this trade choose to go long Netflix. But in fact, long BBB is the more appropriate choice, because although the credit rating is low, but the interest rate is also very high, this transaction can choose to long BBB company-issued etfs to take a risk, and then short AAA.I suggest that the investors should make a decision which are based on the future movement of the bonds and stocks when they make a hedge fund investing. This article will provide insight and help to those who want to understand hedging strategies or those who are not yet exposed to hedging, how to hedge and how to anticipate market movements to choose the right arbitrage strategy.

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