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MERGER ARBITRAGE AS A POTENTIAL DIVERSIFIER IN A PORTFOLIO

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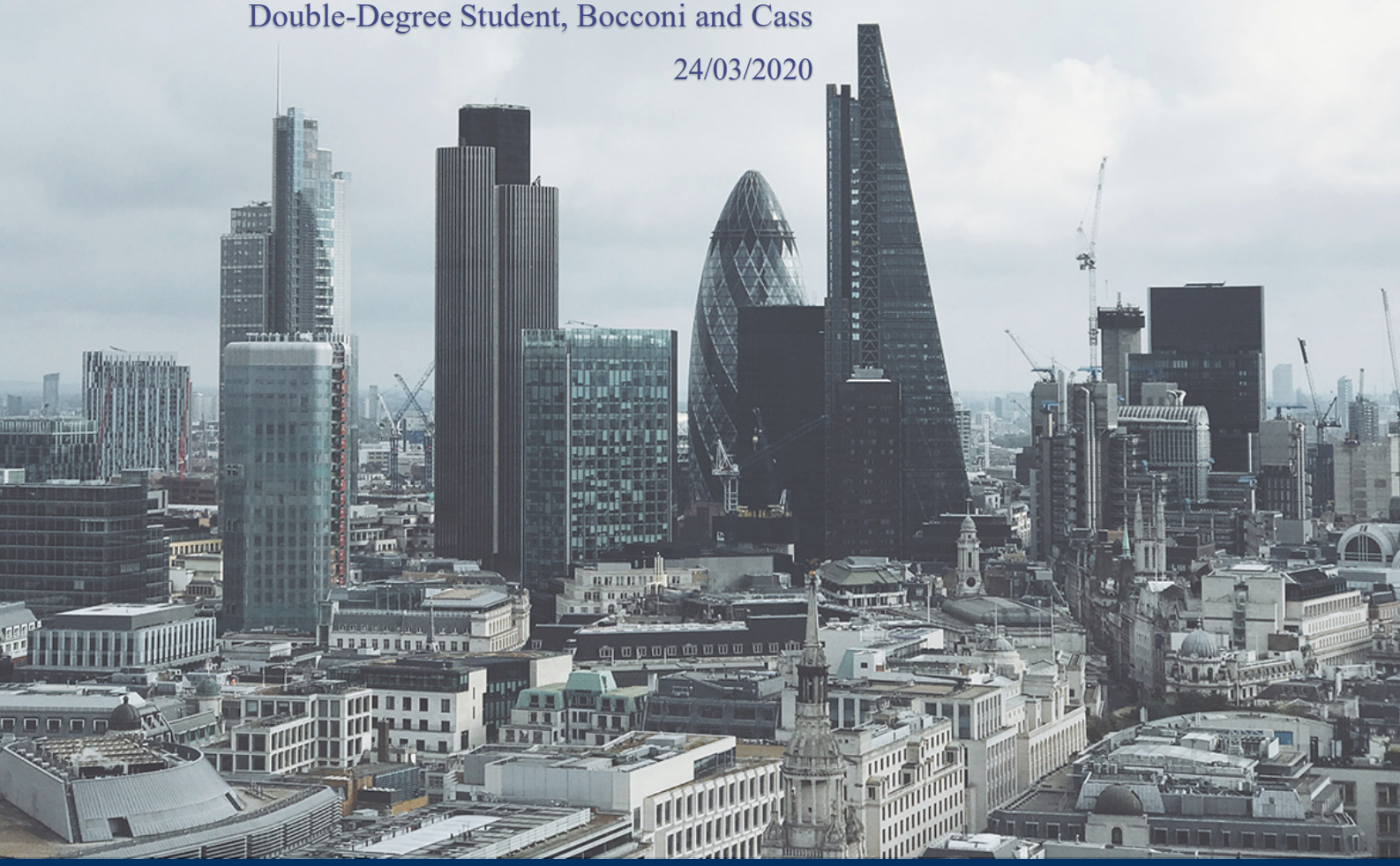

INTRODUCTION TO MERGER ARBITRAGE

Last July, EssilorLuxottica S.A. agreed to buy GrandVision N.V., an optical company established in the Netherlands. As a shareholder of GrandVision N.V., this was the first time I experienced holding a target company. This led me to research the implications of holding a target stock, and what different investors do to profit from these events. An interesting approach is the so-called merger arbitrage strategy.

Merger arbitrage, also known as risk arbitrage, is an event-driven investment strategy which usually involves buying and selling the stocks of two merging companies simultaneously to create "riskless" profits. This strategy aims to exploit market inefficiencies before a merger or acquisition is completed.

The strategy is dependent on the type of merger of acquisition. In a fixed exchange ratio stock merger, one would go long the target stock and short the acquirer's stock according to the merger ratio, in order to isolate the spread and hedge out market risk. In a cash deal, the investor will typically purchase the stock of the target and tender it for the offer price at closing. The principal risk involving merger arbitrage is the actual deal risk, should the deal fail to close.

This investment strategy is mainly used by hedge funds which attempt to capture the spreads in merger or acquisition transactions involving public companies, after the terms of the transaction have been announced. The spread is the difference between the transaction bid and the trading price. Typically, the target stock trades at a discount to the bid in order to account for the risk of the transaction not closing successfully.

Firstly, this Minerva Focus will cover the mechanics behind this strategy. Afterwards, it will provide examples of how hedge funds profit from this strategy, followed by how investors could potentially engage in merger arbitrage. Lastly, it is covered how this strategy can be a diversifier to a portfolio.

MERGER ARBITRAGE MECHANICS

When companies announce they engage in a merger or acquisition, assuming a premium is offered, the target stock price does not rise to the received bid level straight away. This is to discount the risk of the deal not closing. Obviously, the market price of the target stock is relatively lower when the risk of the deal not going through is higher. The whole process can graphically be shown as follows:

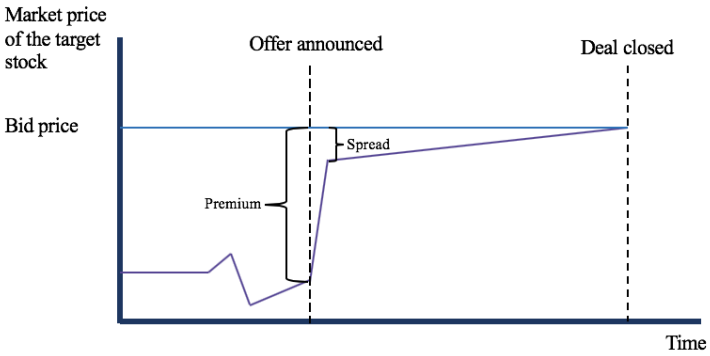

Figure 1. Merger Arbitrage process. Created by author.

In theory, it is of crucial importance to buy shares in the target company as soon as the offer is announced, in order to obtain as much of the premium as possible. In practice, investors employing this strategy have to make a trade-off between buying the target as soon as possible, and analysing the deal and the companies involved in detail. Namely, due diligence on both companies involved in the deal and analysis on the likelihood of institutional involvement before the closing of the deal is essential. This is because if the deal does not go through, the price of the target stock has the possibility to fall a great amount. Therefore, many hedge funds exploiting this strategy primarily focus on capturing the spread, as they want to avoid stepping in if a deal could go bust.

In case of a fixed exchange ratio stock merger, the purchase of the target stock would be funded through shorting the necessary number of shares of the bidding company. Then, when the deal is closed, the target shares will turn in to the acquiring company, so that these can be used to close the short sell. With regards to a cash deal, there are some possibilities to proceed. One of those is to take out a short-term loan to fund the purchase of the target

stock. When the deal is closed, the acquiring company buys the shares for the bid price, so that the majority of cash obtained by the seller can be used to repay the loan plus interest. Again, the remainder is a profit.

HOW DO HEDGE FUNDS PROFIT FROM THIS STRATEGY?

To illustrate the first type of deal, consider the following hypothetical example. Imagine firm y trading for €100 per share, and firm x trading for €60 per share. At some point in time, it appears in the news that firm y is targeted by firm x, which has proposed a fixed exchange ratio bid of 2:1. With other words, firm y proposes to buy a share of firm x with two of its own shares. As company y has 1 million shares outstanding, company x has to issue 2 million additional stocks. This exchange will transfer the full ownership of firm y to firm x.

In case everyone in the market believes that this acquisition is going through, firm y should thus be trading at two times the share price of firm x. This has to be the case, given the proposed bid. Therefore, firm y should be trading at €120 per share. However, since not everyone in the market believes that this deal is certain to happen, the share price of firm y will trade below €120. How much? That will depend on the implied probability that the takeover bid will ultimately be successful. Imagine that this is the case, so that firm y is trading at €110 after the announcement of the bid. Hedge funds will look into this deal with all sorts of models and due diligence processes, and some might be certain that this deal will happen.

Next, the hedge funds that believe in this deal will set up a pairs-trade in which they will buy 1 share of the target, firm y, and short 2 shares of the acquirer, firm x. They will do so in order to rule out market risk. For example, if a fund will only buy shares of company y, it might lose money when the markets go down, as company x should go down with the same percentage. This is because of the future exchange of shares. In this pair-trade, a hedge fund realizes that buying 1 share of firm y will cost only €110, which it will fund with the proceedings from the short sell of 2 shares of firm x, amounting an inflow of €120. So far, there is a net inflow of €10. As soon as the deal is closed, the share of firm y can be exchanged for two shares of firm x. These two shares can then be used to close the short position previously opened, leaving a net profit of €10 minus share borrowing costs and other miscellaneous fees.

The second type of deal is illustrated with the GrandVision stock, as this proposed deal is cash based. The share price has been moving as follows:

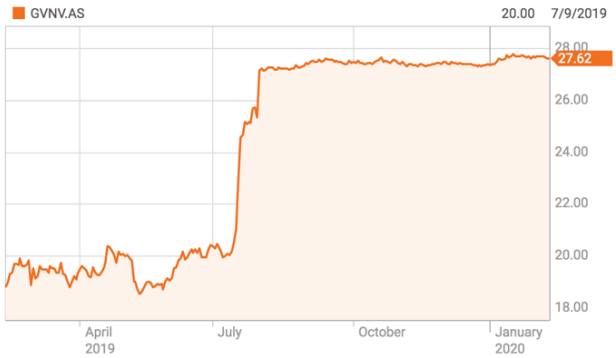

Figure 2. GrandVision N.V. (GVNV.AS) share price movement. From Thomson Reuters.

When the deal between EssilorLuxottica S.A. and GrandVision N.V. was announced, the price represented a 33% premium to GrandVision's closing price on the 16th of July 2019, which was a day before it was reported that the companies were negotiating a deal. In this acquisition, both companies agreed on a deal which valued GrandVision at around €7.3 billion euros. EssilorLuxottica will pay €28 per share for around 77% of the total amount of shares. The remaining shares will have the same price. Following the completion of the deal, EssilorLuxottica will be obligated to make an offer for the remaining part of the shares. Within the details, it was also mentioned that the offer price will increase to €28.42 if the deal is not closed within 12 months. Analysts expected the closing to take around 12 to 24 months. However, the 6th of February 2020, the European Commission announced it has opened an in-depth investigation to this acquisition under the EU Merger Regulation. The commission is concerned that the merger may reduce competition for the wholesale supply of lenses and eyewear, as the

merger combines two leaders in the optical industry. Therefore, it is likely that the deal will not be closed soon. This assumption will be taken in the calculations next.

Given the characteristics of the deal, one can analyze it within the movement of the share price, assuming the bid price will increase to €28.42:

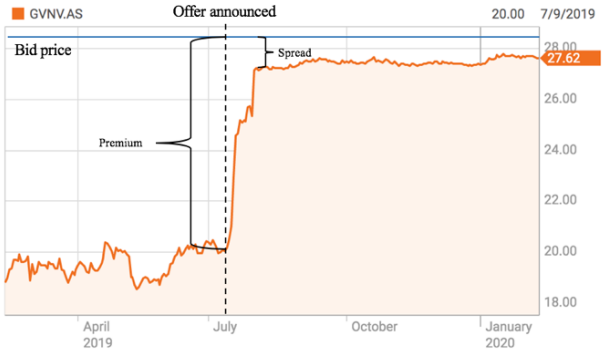

Figure 3. GrandVision N.V. (GVNV.AS) share price movement. Adapted from Thomson Reuters.

Let's assume a price of €20 before the offer announcement and a price of €27.50 shortly after the announcement of the cash offer. An estimate of the market's implied probability that the acquisition will be successful can then be computed as:

$$\frac{(27.50 - 20)}{(28.42 - 20)} = 89.07\%$$

Let's assume hedge fund z stepped in at a price of €27.50, as they are certain this deal is going through. At the deal closing day, this hedge fund would realize a profit of 3.35%.

WHAT CAN INDIVIDUAL INVESTORS DO TO PROFIT FROM THIS STRATEGY?

Engaging in merger arbitrage can be incredibly risky for at least two reasons. Firstly, the nature of short selling can result in great losses. Secondly, holding a target company when a deal goes bust, will lead to the share price falling a relative high amount. Since the entry restrictions to invest in a hedge fund are not for everyone, I make two suggestion to look for alternative ways to potentially engage in this strategy as an addition to a portfolio.

Firstly, individuals can buy indices which engage in merger arbitrage. For example, the Credit Suisse Merger Arbitrage Liquid Index. This index aims to gain broad exposure to the merger arbitrage strategy by performing rules-based mechanical trades on merger deals similar to those done by hedge funds. For the methodology of this index as well as more detailed information, please follow the link in the references. There are more indices one could consider, such as S&P Merger Arbitrage Index and the IQ Merger Arbitrage Index. Secondly, individuals can look for potential target stocks, and look to buy these to reap high premiums in case offers are announced. Intralinks and Cass Business School researched which characteristics can be used to predict the probability of a target being acquired (2016). Based upon a study examining almost 34,000 public and private companies, they found that target companies have higher growth than non-targets. Moreover, target companies have lower levels of liquidity than non-targets. Furthermore, public target companies have lower valuation multiples than public non-target companies.

USING MERGER ARBITRAGE TO REDUCE VOLATILITY IN A PORTFOLIO

Lastly, suppose there is a significant correction in the stock market, so that the market goes down. Almost all stocks would follow, some with greater and some with lesser volatility dependent upon the company's market beta. However, target stocks that have a current reputable bid from a buyer, have historically not been following the market in this downturn, which creates a certain stability. When analysing the returns from the Credit Suisse Merger Arbitrage Liquid Index against the MSCI World Index, one can observe this lower volatility within the merger arbitrage index against the world index, as well as outperformance, therefore reducing volatility in a portfolio.

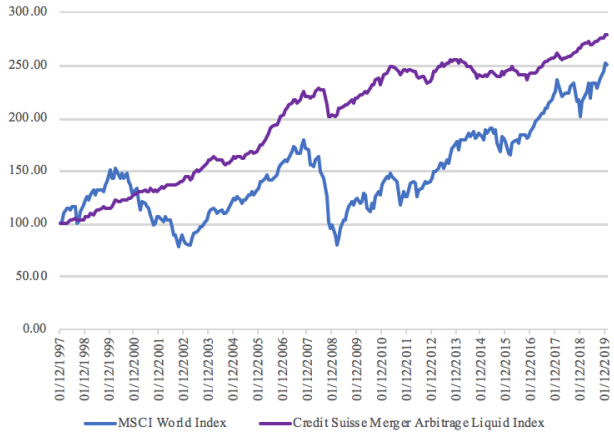

Figure 4. CS Merger Arbitrage Liquid Index against MSCI World Index. Created by author.

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