

# Merger Arbitrage: An Overview

Merger Arbitrage (sometimes referred to as Risk Arbitrage) is a strategy that invests in the securities of companies that are party to a merger or takeover transaction.

In a cash offer where the arbitrageur expects the merger to be successful, they will buy the target company. In the case of a stock exchange the arbitrageur will sell the acquirer and buy the target in the ratio of the exchange.

A couple of examples are helpful:

1. Company B announces a cash offer for Company A for 10 usd. Company A was trading at 6 usd before the announcement. The arbitrageur is happy to pay up to but not more than 10 usd for Company A since they can sell it to Company B for 10 usd. If they are able to buy Company A for anything less than 10 usd they are able to realize a profit by selling it to Company B for 10 usd. Upon announcement, the price of Company A will typically trade up close to the cash offer price. It will usually not trade at precisely the cash offer price since there is always a chance that the deal will break.

2. Company B announces a share exchange offer for Company A at a rate of 2 shares of A for 1 share of B. The arbitrageur will buy 2 shares of A for every share of B that it sells short. It is the intention when the deal closes to exchange the 2 shares of A for 1 share of B to deliver into the short. Upon announcement, the share price of A will typically trade up close to the half the share price of B. It will not trade at exactly half the value of B since there is always some non-zero chance that the deal will not go through. The spread between the market price and the implied price is the deal spread and is what the arbitrageur seeks to lock in.

Merger arbitrage payoffs are not symmetrical. Typically, the potential profit is small relative to the potential downside. As an example, a stock trading at 30 may trade to 50 if the cash offer is 55. The potential upside is 5 if the deal is completed and the potential loss should the deal fail is 20 as the stock may trade back to pre-announcement levels. The relative upside and downside magnitudes are usual of many deals. Why then engage in such a trade?

The arbitrageur typically tries to ascertain the probability of the deal failing. If the probability is 10% in our example above, then the expected return of the trade is  $90\% \times 5 + 10\% \times (-20) = 2.50$  a positive expectation. A positive expected value means that the trade is a viable one. In friendly deals the probability of deal break is circa 3-5%.

By diversifying the portfolio over a number of deals, the probability of achieving the average expected value of the deals is enhanced. The correlation between deals tends to be low since deal risk is idiosyncratic and not systemic. Exceptional circumstances can introduce systemic deal failures such as 2008 when the leverage which is endemic to LBOs was withdrawn by banks while primary liquidity in the leveraged loans market dried up. Absent such catastrophic liquidity conditions, a portfolio approach to a collection of positive expectation, albeit negatively skewed and leptokurtic trades is defensible and indeed efficient.

It is crucial therefore that the arbitrageur quantifies the risk of deal break. Apart from a deal failing to close, it may be delayed or repriced or may face competing bids.

A deal may fail to close if it fails to satisfy the conditions of the merger, if it fails to obtain requisite shareholder approval, if it fails to receive anti-trust and other regulatory approvals, if the acquirer is unable or unwilling to complete, if the target is unwilling or unable to complete or if the financing for the transaction is or becomes

unavailable, among other things.

The risk to the arbitrageur includes:

The Merger Agreement, which specify the terms and conditions of the transaction and govern the rights and obligations of the parties involved to consummate or terminate the transaction.

The acquirer becoming a target, which can happen when M&A activity is elevated, and can result in a loss in both the long and short positions as the acquirer's shares rise and the target's shares fall.

Material changes to the financial condition of the target or the acquirer. The acquirer may terminate a deal if there are material adverse changes to the target. The financing banks may withdraw their support if the solvency or viability of the combined entity is in question.

Market Risk, where market conditions may affect credit conditions for financing a deal or where deal spreads may exhibit significant volatility.

Legal and regulatory risk, where a transaction may require the approval of anti trust authorities or other regulations. Political risk is material in strategic industries or in cross border transactions which may involve mercantilist domiciles.

Alternative expressions of Merger Arbitrage.

To be clear, Ivan Boesky's unique style of merger arbitrage which he perpetrated in the 1980s, that of trading preemptively prior to an announcement on material, non-public information, is patently illegal.

There are many other completely legal and equally exciting and lucrative expressions of merger arbitrage.

Options. The asymmetry of returns to the individual trade present a problem to the arbitrageur which can sometimes be corrected through the use of options. Long positions in the target company can be protected with put options. Or the long cash long put position can be equally expressed through a long call option. This is an expensive strategy but it compensates for the asymmetry of the trade expressed solely in the equity of the companies in question. It is expensive because post announcement, implied volatilities tend to surge as arbitrageurs rush to hedge their short volatility returns profiles. Not only do implied vols tend to rise, they tend to flatten and sometimes invert the term structure. If an arbitrageur goes beyond ascertaining or ascribing probabilities of closure, to establishing an expectation for the path to closure, the options markets offer excellent opportunities. Anti trust and other regulatory decision dates are opportunities for the arbitrageur to buy or sell options depending on their view on specific outcomes. An example is instructive. If the arbitrageur expects an anti trust hearing to delay the closure of a deal they might sell volatility to the initial expected closing date to fund the buying of longer dated options.

Path dependent strategies extract more value and return from a merger event than the garden variety trade expressions.

Credit. When one of the companies in a merger, especially if it is the target, has no listed or traded equities, vanilla arbitrage strategies are confounded. The impact of a merger on the condition of the companies in question range beyond the impact on their equity. The entire capital structure can and often is impacted. The arbitrageur who is able to express the trade across the capital structure, from equity to debt, is often well placed to profit from less crowded trades. An

example might involve a company buying an unlisted company which has bonds or bank debt in issue. Differential treatment of claims under change of control can cause different claims to price differently creating arbitrage or trading opportunities.

Activism is an exciting area of merger arbitrage and involves the arbitrageur actively engaging with the management of one or both of the companies in a transaction. Encouraging and facilitating a higher competing bid is one of the ways of creating value. Helping or facilitating a potentially failing deal to close is another strategy sometimes pursued.