

We are all looking for opportunities when we invest, sometimes they are sitting right in front of us and we don't realize!! One such opportunity is Arbitrage and while there are many arbitrageurs who are quite familiar with such activities, I believe that there is a large percentage of the population who may not be so versed with the term. Thus, I will try to shed some light in this area of finance.

In its purest form, Arbitrage is the process of earning riskless profits by taking advantage of differential pricing for the same physical asset or security. How does this happen? Well, there are many ways in which this can occur, but due to word limits I will give a general synopsis of three of the most common forms of Arbitrage: ***Market Arbitrage; Merger Arbitrage and Triangular Arbitrage.***

However, before I start I would like to note that the definition above is as stated "in the purest form"- in the real world there is always some risk but it may be less or more depending on other factors, such as: timing, availability of information and transaction costs.

### ***Market Arbitrage***

This involves the purchasing and selling of the same security at the same time in different markets to take advantage of a price difference between the two separate markets. This can only occur when a security is cross listed, that is, the security trades on more than one exchange. Currently, there are thirteen securities on the local exchange which are cross listed on the Jamaica Stock Exchange (JSE), the Barbados Stock Exchange (BSE) or both. Evidently, each of the three countries (Trinidad, Jamaica and Barbados) has its own currency and as such, changes in exchange rates could lead to differences in prices. Also, each exchange would have different amounts of demand and supply for the security which could also lead to differential pricing. These differences in prices create an "arbitrage opportunity", whereby the investor has the chance to make a "riskless profit" by purchasing the stock where it is undervalued (cheaper) and selling it where it is overvalued (more expensive).

However, on the local market due to a settlement period of  $t+3$ , buying and selling on the same day is not possible. Thus, a local investor would have to already own the shares and these shares would have to be in the correct market at the time of the opportunity. Otherwise, by the time the shares are bought and transferred to the exchange in which they should be sold, the opportunity may have already passed. Investors who are watching the market closely may speculate that a price is going to rise in another country and may transfer shares in anticipation of arbitrage profits. On the international markets however settlement periods are much shorter and thus buying and selling on different exchanges can occur faster.

It is important to note that an investor would only engage in an arbitrage opportunity if the estimated profit from the transaction overrides the costs associated with it (e.g. Brokerage Fees). Also, timing is a crucial factor, because if the transaction is not carried out in a timely manner the investor can end up making a loss. Also important, is the fact that once information is widely available, the arbitrage profits are eaten up by other

arbitrageurs and as such the price of the security is eventually restored to equilibrium. That is, the security trades at a price in each market where there is no opportunity to profit!

### ***Merger Arbitrage***

Merger arbitrage is also called risk arbitrage and came about in the 1980's when speculators tried to identify companies targeted for takeover. The speculators would buy blocks of the target's stock which they would sell at a profit when the takeover was announced and the company's share price appreciated in value. Hence, the reason for the name "risk arbitrage" as the investors speculated on such announcements coming to light!

In recent times, this form of arbitrage- slightly more developed, has become very popular as merger and acquisition activity has grown tremendously over the past few years. Essentially, after a company announces its intent to acquire another, the price of the target company's stock generally goes up, although usually not to the full offering price. Instead, because of the risk of the deal not closing on time or at all, the target company's stock will sell at a discount to its value at the transaction's closing. We have all seen this happen with the recent rumors of RBTT Financial Holdings being the possible target for a Canadian entity.

The merger arbitrageur's reaction to the announcement will also be different depending on the terms of the transaction. For instance, in the case of a cash for stock offer, the arbitrageur just has to acquire the stock of the target company and wait for the deal to close in order to profit. However, in the case of a stock for stock offer, the investor must also be cautious of the possibility of the acquirer's stock falling and would have to hedge against this by an activity known as short selling. Short selling is not done on the local market, but entails the selling of a security that the seller does not own. In essence short sellers assume that they will be able to buy back the stock at a price that is lower than the price at which they short sold. However short selling is a very complicated topic and would have to be spoken about in a different article.

While the arbitrage investments mentioned above can result in relatively consistent returns, there is still some level of uncertainty as deals can and do fall through, which can lead to the investor losing rather than gaining. Thus, gauging the risk of a takeover's failure is crucial to an arbitrageur's success. Nevertheless, when compared to the uncertain volatility of the equity markets, merger arbitrage investments have a fair amount of predictability as careful analysis can determine the strength or weakness of the possibility of a transaction.

### ***Triangular Arbitrage***

Unlike the last two forms of arbitrage previously discussed, this form of arbitrage does not deal with stocks or the stock market. Instead it deals with capitalizing on inefficiencies in the Foreign Exchange Market to make a "riskless profit".

Triangular arbitrage is the process of converting one currency to another, converting it again to a third currency and, finally, converting it back to the original currency within a

short time span. The opportunity for riskless profit occurs when the currency's exchange rates do not match up exactly. *See Example 1 below.*

***Example 1:***

Suppose you have USD100,000 and you are provided with the following exchange rates: EUR/USD = 0.8631, EUR/GBP = 1.4600 and USD/GBP = 1.6939.

These exchange rates present an arbitrage opportunity:

**Sell dollars for euros:  $100,000 \times 0.8631 = 86,310$  euros**

**Sell euros for pounds:  $86,310/1.4600 = 59,116.44$  pounds**

**Sell pounds for dollars:  $59,116.44 \times 1.6939 = 100,137.34$  dollars**

**Profit:  $USD100,137.34 - USD100,000 = USD137.34$**

Hence by the process of converting from one currency to the next and then back to the original, the arbitrageur receives a profit of USD137.34 (this of course is assuming that there are no transaction costs or taxes).

It is very important to note that transactions like the one above occur daily in the currency market through the use of highly sophisticated computer programs which allow buying and selling to occur at virtually the same time. Speed is critical in order to take advantage of opportunities before inefficiencies are restored to equilibrium. It would be almost impossible for a human being to find such opportunities by manually converting currencies as currency exchange rates are always changing.

Arbitrage activity is a critical element of any modern and efficient security market. Investors must be quick to spot and act on the opportunities, as they are by definition “riskless” and everyone wants a piece of the action. Many of us know the saying “there is no such thing as free lunch”- this statement was propounded by the economic genius, Milton Friedman. However, if you are a savvy investor who follows the market closely, spotting arbitrage may be your ticket to a “free lunch”!!!