An arbitrage bot helps you find price discrepancies and take advantage of then. But where exactly it happens and how?



The answer is right here.

What is Crypto Arbitrage

Just to be clear on the details, you need to understand what arbitrage means. First, be aware that there are different kinds of arbitrage, but essentially, it originates from traditional stock exchanges and exists as a result of market inefficiencies.

Arbitrage is the purchase and sale of an asset in order to profit from the difference in the asset's price on different markets or in different forms.

For example, when performing stock-futures arbitrage, you buy stock for cash and sell it in the futures market. The difference in price might turn into a risk-free trade.

Arbitrage Crypto Trading

Since the cryptocurrency market is even more inefficient, it makes it the perfect place to implement arbitrage trading. In this piece, we'll take a look at those arbitrage types that are commonly used in crypto: cross-exchange arbitrage and cross-asset arbitrage.

The ultimate difference between crypto and traditional markets, the difference in volatility, comes into play here too, since the extreme volatility of the crypto market reliably produces price differences that can be used for profit.

There are two types of arbitrage bots common for crypto markets: the crossexchange arbitrage bot that explores price differences on top of different exchanges and the cross-asset arbitrage bot scanning for price discrepancies in pairs on top of one exchange.

If you're still not sure about this kind of crypto bot, there are several pros and cons to it, but in essence, you should take into account that it is slightly harder these days to find arbitrage opportunities than it was a couple of years ago.

Cryptocurrency arbitrage has undeniable potential for profit, as it is accessible to most traders and can be scaled up efficiently. However, to make steady profit from arbitrage, the trader must be constantly monitoring the exchanges as well as the market situation in general.

As with any trading, the competition is high, so one must not only identify an opportunity, but also use it before the price difference is evens out. Because of this, traditional arbitrage in the cryptocurrency market may become obsolete, but can still be done for now with the correct software and skills.

Low initial investment makes it even more difficult to extract profit, because one must also pay attention to commission values to make sure that the trade is profitable.

Some coins will also have low liquidity, making it difficult to conduct simultaneous trades necessary for arbitrage.

Arbitrage Bot

Arbitrage is a trading strategy that originates from traditional markets and works in the realm of market inefficiencies. Arbitrage requires constant monitoring and quick actions, since the assets prices even out quite quickly striving for an efficient market.

Crypto market is less automated and individual traders don't always act rationally, leaving space for more inefficiencies to take advantage of. This is the reason why the crypto market is good enough for arbitrage bots to work it. The arbitrage work is boring and mundane. If you did it all manually, it would take you a million years to analyze multiple pairs and find all the discrepancies in them.

Tools

If you don't want to rely on bots to execute your arbitrage strategy, you might still want to use different tools such as arbitrage scanner, arbitrage monitor or arbitrage tracker. Among such tools are ArbiSwap or Xypher.io

These tools monitor the prices on several exchanges and scan more than 700 coins to find discrepancies and opportunities for arbitrage. All you have left to do is go to your exchange account and execute a trade!

TradeSanta offers Manual Terminal for those who have multiple exchange accounts and want to execute trades on different exchanges.

Forums

Crypto arbitrage is a hot topic on different forums, where cryptocurrency traders share their strategies and different tools used to execute triangular or exchange arbitrage.

Take for example this thread on Bitcoin forum.

Across the forums you may also find software and tools developed by the community, such as this Github repository with a framework to monitor the exchanges

Calculator

Some of the arbitrage platforms and tools such as ArbiTool also offer arbitrage calculators. This is important for the following reason: there might be a price difference of an asset on two exchanges, but the trader might still end up with a loss if they don't take into account exchange fees.

With an Arbitrage calculator you may calculate the precise profit taking into account all costs incurred during executing arbitrage transactions.

Triangular Arbitrage

Triangular or cross-asset arbitrage is a type of arbitrage where the bot scans for price discrepancies in pairs on top of one exchange.

In essence, this strategy implies that the price of an asset might vary in different pairs, and this is what you can make a profit on. With triangular arbitrage in crypto, to net a profit while assuming low transaction costs, traders utilize a discrepancy between three currencies, which occurs when exchange rates do not match up.

The profit might be insignificant, but the underlying idea is to close a set of such small deals to eventually accumulate profit.

This form of trading has the word triangular in its name, since it's easier to visualise the algorithm by cracking it down into three logical steps.

Say, we've got Bitcoin to work with. We might sell Bitcoin for Ripple (XRP/ BTC), then sell Ripple for Ethereum (BCH/XRP) and finally convert Ethereum to Bitcoin (BTC/BCH).

Cross Exchanges Arbitrage

Cross-exchange arbitrage is a kind of arbitrage trading where your bot makes profits on market inefficiencies between different exchanges.

This means that the crypto arbitrage bot sells high on one exchange and buys lower on the other, executing two orders simultaneously.

The mechanics for this kind of arbitrage are pretty straightforward, or, at least used to be a few years ago when prices for crypto assets on top of different exchanges tremendously varied.

Exchanges Arbitrage exploits price differences of an asset between various exchanges and independent brokers, since each exchange has a slightly different supply/demand ratio.

The difference in prices is often found between local exchanges, which is tied to the economic situation in the countries where the exchanges are based. Exchanges also have different processing capacities, meaning that smaller exchanges will often be lagging behind larger ones, creating additional opportunities for profit.

When a trader spots a price difference between exchanges, they may buy an asset at a cheaper price and sell it at the exchange where the price is higher. The mechanism also works the other way around.

However, many traders will be aware of the difference, making it an urgent matter, since the prices are quick to even out. In addition, service charges need to be taken into account, since the price difference is usually small.

That makes the profit margin extremely low and may not accommodate the extra commissions on the trades.

Exchange arbitrage is further divided into spatial and cross-border that have the same procedure, but the cross-border one involves exchanges located in different countries.



Arbitrage Trading Example: Binance Vs Bittrex

For instance, as of writing this, on top of Binance, your crypto bot could have purchased one Bitcoin for \$30,870 to sell it for \$30,952 on top of Bittrex. While using an arbitrage bot, you should know that it also considers exchange fees.

At the end of the day, it's not much of a profit, is it? But when thousands of trades are executed each day, the profits start to sum up really nicely.

Exchange-Broker Arbitrage

During impulse movement, when the price difference of an asset between a broker and an exchange occurs, the trader can simultaneously buy the asset on the exchange and sell at the broker, or vice versa.

Once the price difference is back to the normal value, the profitable trade value is higher than that of the loss trade, yielding an overall profit.

Note that brokerage is quite an unusual category for the crypto niche. It is blurring the boundaries between traditional money and cryptocurrencies, adding to the stock characteristics of the crypto token.

And yet, buying and selling cryptocurrencies with a broker is possible for those who don't care if they actually have ownership of the currency they wish to trade.

Say, you're a Forex-oriented investor and just want to extend your existing portfolio with new instruments and you don't have time to explore crypto exchanges and just want to use the existing functionality of your trading terminal, such as MetaTrader.

Pros Of Crypto Arbitrage

Let's break down the advantages of cryptocurrency arbitrage and what makes it appealing for crypto traders.

Endless number of Cryptocurrency markets. The number of cryptocurrency exchanges in the world has surpassed 400. Each of them offers hundreds of markets opening up thousands of opportunities for crypto traders. Tracking opportunities might be a challenging task, but specialized arbitrage software will come handy.

Cryptocurrency market is prone to irregularities and discrepancies between markets. It is much less automated compared to the traditional market, meaning that more decisions are made by human traders, leading to market inefficiency and discrepancies. The barrier to enter the cryptomarket is also low, and new cryptocurrency investors are less likely to stick to strategy and more likely to make rush decisions under the influence of emotion, leading to volatility on the exchanges.

Even the most eatblished coin, Bitcoin, still shows strong fluctuations and is more volatile than the traditional assets. All of this, combined with lack of information flow between exchanges, opens up a wide range of opportunities for crypto traders.

Cryptocurrency arbitrage is executed as soon as the opportunity arises, which means you don't have to lock the asset in an order waiting days or may be months for the target price. All profits are taken as soon as the transaction is completed.

Things To Pay Attention To Doing Crypto Arbitrage

Let's have a look at the aspects of crypto arbitrage you should be cautious of.

Some crypto exchanges have a strict compliance procedure. On top of going through KYC, you may be required to verify your identity. Some exchanges do not only ask you to provide identification, but they may also request you to provide a bank account and other details. The whole verification process may take up to several days. All of this to say, if you found an opportunity but you don't have an account ready to go, you might miss it. So, if you're going for cross exchange arbitrage, make sure you have an account on all of your monitor exchanges ready to go.

Cross exchange arbitrage implies that you might need to store coins across several accounts to be able to act on the opportunity as soon as it arises. What this means for you is that a substantial amount of your coins will be stored on hot wallets on exchanges and are at risk of being stolen as a result of a hack. Be mindful of where you store your funds, since exchange hacks are not as uncommon as we would love them to be.

When you spot an arbitrage opportunity, it doesn't necessarily mean they will turn out profitable. The exchanges usually have deposit, withdrawal and trading fees. The first two are sometimes charged as a fixed amount and can potentially result in your arbitrage trade being unprofitable. So, once the opportunity arises, don't forget to

calculate all underlying fees. Also pay attention to the minimum withdrawal and deposit amount allowed on the exchanges you plan to execute arbitrage trades on.

Arbitrage profits are stable and instant, but they also may seem unsubstantial. To have bigger profits from arbitrage you need to increase a trading volume. That means you have to have a big amount of coins locked on your exchange.

When it comes down to executing an arbitrage trade you have to move fast. Once a potential for profit arises, you have a very short window to act before the market changes and your trades turn on against you resulting in a loss. For instance, you may be stuck in a situation where you bought coins on one exchange, but weren't on time on selling it on the exchange.

As a result, you have coins on your balance that you don't need. Also, take into account that crypto transactions take some time to be processed. Verification time may stand in a way of executing a trade quickly, especially if we're talking about BTC.

Crypto Arbitrage Tips:

We've already discussed in the precios section the downsides of slow transactions, especially BTC ones. So what should you do to not risk arbitrage opportunities with BTC? Our suggestion is to consider avoiding BTC arbitrage at all. On top of transaction costs, you will avoid high deposit and withdrawal fees. ETH and other altcoins might seem like a nice option instead.

Keep an eye out for new coins being listed on the exchanges. The new listings have higher volatilities and may open up plenty of arbitrage opportunities.

Arbitrage as any other trading strategy requires systemized vision and a solid strategy. Plan how much you're ready to trade, how you will spot opportunities, how to deal with fees? How much profit do you want to receive? Can you avoid deposit fees somewhere? Or maybe you can overall get rid of deposit and withdrawal feels buy find inconsistencies between asset prices. Define a strategy that suits you by answering this question and stick to it.

It's important to have an exit plan and limit losses. Cryptocurrency market is still green and not immune to turmoils. If the transaction is taking longer than your expected or the market situation is changing too fast and you risk to lose more, remember that limiting losses is also part of the strategy that makes you a good trader. Always consider risk to reward ratio.

If you decide to go for cross exchange arbitrage, do not limit yourself with the number of exchanges to involve. The more markets you have at your disposal, the more opportunities will arise. Also, diversifying may reduce the risks by not putting all eggs in one basket. But be careful, choose the exchanges carefully. Check the exchange trustworthiness and security before putting any money there. And, we know, we talk about it a lot, but don't forget to calculate the fees and other costs!

Crypto Arbitrage WIth TradeSanta

TradeSanta automated trading platform is there for those who want to try out arbitrage strategy. You can find and execute triangular or cross exchange arbitrage opportunities in these simple steps:

Connect the accounts on the supported exchanges in TradeSanta's access points.

Take a look at TradeSanta's markets page: Here you will find all of the pairs traded on Binance, Okes, Upbit, Huobi, Bittrex, Bitfinex and HitBTC.

One you find an opportunity, go to a trading terminal on TradeSanta's platform and execute the trade! TradeSanta's terminal allows you to trade on multiple exchanges all in one interface.

If you're performing cross arbitrage exchange, you might need to go back to you exchange account and send the coins to another exchange.

Once all the trades are finalized, you may congratulate yourself on successful arbitrage trade!

Is Arbitrage Worth The Effort With Cryptocurrencies?

We've covered a lot in this article. By now you should know that arbitrage is a low risk option generating low profits. The trick is to consistently execute multiple arbitrage trades that will sum up in steady earnings across a long period of time.

Crypto market is much less efficient than the traditional stock market due to the fact that the automation has not reached the same scale. Thus, the crypto market is more prone to inefficiencies leading to arbitrage opportunities.

Arbitrage requires constant price monitoring and complex calculation of the volumes, prices and fee. If you leave this workload to the bots and you dispose of large amounts of crypto, then this low risk earning strategy might be just for you!