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# BLOCKCHAIN

## INDEX

### 1.- DEFINING BLOCKCHAIN

### 2.- COMPONENTS OF BLOCKCHAIN.

- I. Hash function
- II. Nodes
- III. Block
- IV. Important points

### 3.-OPERATING THE BLOCK CHAIN

- I. The cryptographic keys
- II. Protocols
- III. Proof of Work
- IV. Important points

### 4.- CONFIDENTIALITY - TRANSPARENCY AND PSEUDONOMY

- I. Records
- II. Why is it impossible to shut down the network?
- III. Why is it almost impossible to forge a block?
- IV. Can you use a Blockchain as a normal database?

### 5.- BLOCKCHAIN APPLICATIONS

## BLOCKCHAIN



### 1.- DEFINING BLOCKCHAIN.

Blockchain is a technology or programming system, also known as "blockchain" and that is now on everyone's lips thanks to Bitcoin since Blockchain is the technology behind cryptocurrency. But who invented Blockchain? Although its origins lie in unproven stories, its birth can be traced back to 1991 by scientists Stuart Haber and W. Scott Stornetta when they introduced a computationally practical solution for time-stamped digital documents so that they could not be modified or manipulated.

Later Satoshi Nakamoto used this technology to introduce bitcoin in the markets, with the discovery and advance in the use of the block chain its benefits went beyond the sphere of cryptocurrency, since it can be applied to business processes, contracts or uses of technology media, making all of them more efficient, secure and transparent.

The most basic definition of a blockchain would be: "a shared and digitized record that cannot be modified once a transaction has been recorded and verified". All parties to the transaction, as well as a significant number of third parties, maintain a copy of the registry (i.e. the blockchain), which means that it would be virtually impossible to modify each copy of the registry globally to counterfeit a transaction. Therefore, Blockchain is a journal that is almost impossible to forge.

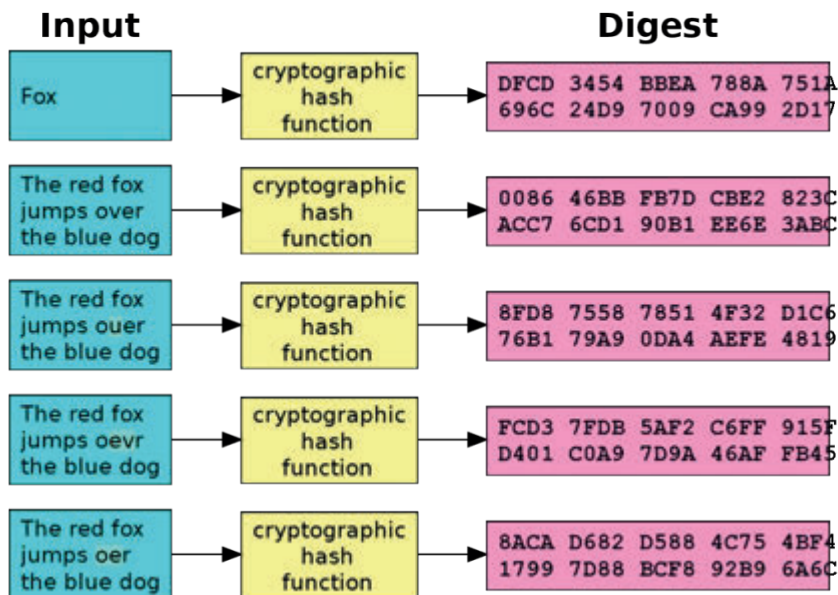
In general, it works like a company's accounting book, it decentralizes information and allows the transaction to be kept for verification and is not susceptible to modification or deletion.

The chain of blocks makes it possible for the transactions to be carried out to be true and verifiable, the records in the block added to the chain are of a public nature however, it is impossible to be modified or eliminated generating security for all parties, replacing the intermediaries that participate in the transactions that we know traditionally.

## 2.- BLOCKCHAIN COMPONENTS.

### Hash function

When we talk about blockchain it is important to know what it is composed of and what its fundamental functions are, one of these components is the hash.



To explain the hash let's imagine that 10 people in a room decided to make a separate coin. They must follow the flow of funds, and one person - let's call him person X - decided to keep a list of all the actions in a diary and list them with date, time, and other details related to it.

Now let's think about it -Person Z tried to steal money and to hide it he made changes in the diary records kept by Person X, the latter when seeing alterations realizes that someone had intervened in the diary and took action by implementing a function that changes his text record into numbers this I call Hash.

A hash is a string of numbers and letters, produced by hash functions. A hash function is a mathematical function that takes a variable number of characters and converts it into a string with a fixed number of characters. Even a small change in a string creates a completely new hash.

After each record, he inserted a hash. The new journal was the next one:

Let's say that to record a new coin purchase person X wrote: "dated June 23rd at 4.05pm 34 coins have been purchased at a value of 10 usd each" instead it will appear something like this: cffg67h9fb73eb7110e9a.

Now let's say that person Z decides again to intervene the record books, changing the 34 coins bought for 40, and a new hash was generated, person X noticed again the manipulation and decided to review the last record made (34 coins) and noticed that this

new for 40 did not coincide with the previous one, what person Z did not know is that to change a record you must modify all the facts before, something impossible due to the encryption system.

### Nodes

Later, Person X realized that there were too many records and that he couldn't keep the diary like that forever. So, when he wrote down 5,000 transactions, he converted them to a one-page spreadsheet.

Person X spread his spreadsheet journal over 5,000 computers, which were all over the world. These computers are called nodes. Each time a transaction occurs, it must be approved by the nodes, each of which checks its validity. Once each node has verified a transaction, there is a kind of electronic vote, as some nodes may think the transaction is valid and others think it is a fraud.

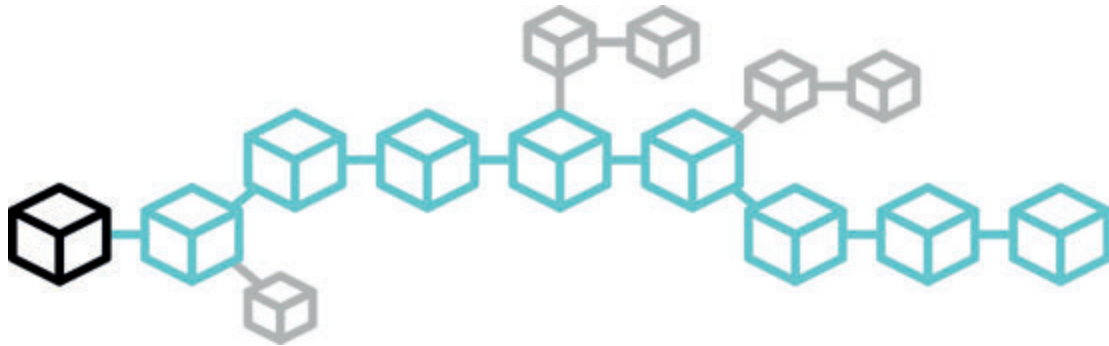
The nodes mentioned above are computers. Each node has a copy of the digital book or Blockchain. Each node checks the validity of each transaction. If most nodes say that a transaction is valid, then it is written in a block.



Now, if person Z changes an entry, all other computers will have the original hash. They wouldn't allow the change to occur.

## Block

This created spreadsheet is called a block. A whole family of blocks is called a Blockchain. Each node has a copy of Blockchain. Once a block reaches a certain number of approved transactions, a new block is formed.



The Blockchain is updated every ten minutes. It does this automatically. No master or mainframe instructs the computers to do this.

As soon as the spreadsheet or the general ledger or the record is updated, it can no longer be changed. Therefore, it is impossible to falsify it. You can only add new entries to it. The log is updated on all computers on the network at the same time.

### Important points:

1. A Blockchain is a type of journal or spreadsheet that contains information about transactions.
2. Each transaction generates a hash.
3. A hash is a string of numbers and letters.
4. Transactions are entered in the order in which they occurred. The order is very important.
5. The hash depends not only on the transaction but also on the hash of the previous transaction.
6. Even a small change in a transaction creates a completely new hash.
7. Nodes check to make sure that a transaction has not been changed by inspecting the hash.
8. If a transaction is approved by most nodes, then it is written to a block.
9. Each block refers to the previous block and together they form the Blockchain.
10. A Blockchain is effective because it is distributed over many computers, each of which has a copy of the Blockchain.
11. These computers are called nodes.
12. The Blockchain is updated every 10 minutes.

### 3.-OPERATING THE BLOCK CHAIN

#### Cryptographic keys

A cryptographic key is a string of numbers and letters. Cryptographic keys are made by key generators or keygens. These keygens use very advanced mathematics involving prime numbers to create keys.

#### Protocols

The Blockchain consists of individual performance specifications, a large set of rules that are programmed into it. These specifications are called protocols. The implementation of specific protocols essentially made the Blockchain what it is - a distributed and secure peer-to-peer information database.

Blockchain's protocols ensure that the network runs the way its creators designed it, even though it is completely autonomous and not controlled by anyone. Here are some examples of protocols implemented in Blockchain:

- The input information for each hash number must include the hash number of the previous block.
- The reward for successfully extracting a block is halved after every 210,000 blocks are sealed.
- To keep the amount of time needed to mine a block to approximately 10 minutes, the mining difficulty is recalculated every 2 016 blocks.

#### Proof of Work

The placement of a transaction in a block is called the successful completion of a test work challenge and is carried out by special nodes called miners.

Proof of work is a system that requires some work from the service applicant, which usually means processing time on a computer. Producing a proof-of-work challenge is a random process with low probability, so it usually requires a lot of trial and error to generate a valid proof-of-work. When it comes to Bitcoins, the hash is what serves as a test job.

#### Important points

1. If you have digital money, then you need a digital wallet
2. A wallet is an address in Blockchain.
3. A wallet is a public key.
4. Someone who wants to make a transaction must send a message with the transaction signed with their private key.
5. Before a transaction is approved, it is reviewed by each node that votes on it in a special electronic way that is different from the elections that most countries have.
6. A transaction is placed in a block by miners who are special nodes.
7. The computers on the network that hold the Blockchain are called nodes.
8. The miners place transactions in blocks in response to test work challenges.
9. After miners successfully close a block transaction, they receive a reward, which is currently 12.5 BTC, and also maintain a transaction fee that is paid by Bitcoin

- holders. The interaction takes place in a Blockchain using rules built into the Blockchain program called protocols.
10. Cryptography is essential in Blockchains to thwart thieves who would like to hack into the Blockchain.
  11. Cryptographic keys are made by key generators or keygens. Keygens use very advanced mathematics involving prime numbers to create keys.
  12. A block contains a time stamp, a reference to the previous block, the transactions, and the computation problem that had to be solved before the block went to the Blockchain.
  13. The distributed network of nodes that need to reach consensus makes fraud almost impossible within the Blockchain.

#### **4.- CONFIDENTIALITY - TRANSPARENCY AND PSEUDONOMY**

Anyone who inspects the Blockchain can see every transaction and its hash value. Someone using the Blockchain can be anonymous if they wish or can give their identification to others. All you see in the Blockchain is a record of transactions between Blockchain addresses.

##### **Records**

Once the recording of a transaction is in the Blockchain and the Blockchain has been updated, then altering the records of this transaction is impossible. This is because that particular transaction record is linked to the record of each previous one. Blockchain records are permanent, chronologically ordered, and available to all other nodes. The diagram shows an extract from the Bitcoin Blockchain.

##### **Why is it impossible to shut down the network?**

Since there are nodes all over the world, it is practically impossible for one part to take over the entire network.

##### **Why is it almost impossible to fake a block?**

The reason it is almost impossible to fake a block is that the validity of the block, and by extension, its inclusion in the Blockchain, is determined by an electronic consensus of nodes. There are thousands of these nodes, scattered all over the world, and as a consequence the capture of the network would require a computer with impossible power.

##### **Can you use a Blockchain as a normal database?**

Can you store 3GB of files in the Blockchain the same way you could use Access, Filemaker or MySQL? This would not be a good idea. Most Blockchains are not suitable for this by design or simply lack the required capacity.

Traditional online databases usually use a client-server network architecture. This means that users with access rights can change the entries stored in the database, but the overall control remains with the administrators. When dealing with a Blockchain database, each user is in charge of maintaining, calculating and updating each new entry. Each node must work together to ensure that they reach the same conclusions.



The Blockchain architecture also means that each node must work independently and compare the results of their work with the rest of the network. Therefore, reaching consensus can be very time consuming. Because of this, Blockchain networks are considered very slow compared to traditional digital transaction technology.

## **5.- BLOCKCHAIN APPLICATIONS**

### **A warranty claims**

Settling warranty claims is usually expensive, time-consuming and often difficult for those making the claim. It is possible to implement smart contracts using Blockchain which will inevitably make the process much easier.

### **Derivatives**

Derivatives are used on stock exchanges and deal with asset values. Smart contracts in securities and stock trading could revolutionize current practices by streamlining, automating and reducing the costs of derivatives trading across the industry. Agreements can be completed in seconds instead of the three days required at this time. With smart contracts, peer-to-peer trading will become a regular operation, resulting in a complete revolution in stock trading. Barclays and several other companies have already tested a way to trade derivatives using smart contracts but concluded that the technology will not work unless banks work together to implement it.

### **Insurance claims**

With intelligent contracts, a certain set of criteria can be established for specific insurance-related situations. In theory, with the implementation of Blockchain technology, you can submit your insurance claim online and receive an instant automatic payment. Providing, of course, that your claim meets all the required criteria. French insurance giant AXA is the first major insurance group to offer insurance with Blockchain technology. They have recently introduced a new flight delay insurance product that will use smart contracts to store and process payments. Other insurance companies are sure to follow suit.

### **Identity verification**

Too much time and effort are currently wasted on identity verification. Using the decentralization of Blockchains, online identity verification will be much faster. Online identity data in a central location will disappear with the use of Blockchain's smart contracts. Hackers will no longer have centralized points of vulnerability to attack. Data storage is inviolable and incorruptible when backed up by Blockchain. Around the world, Blockchain is leading to major improvements in identity verification.

### **The Internet of Things (IoT)**

The Internet of Things (IoT) is the network of physical devices, vehicles and other elements integrated with software, actuators, sensors, software and network connectivity, connected to the Internet. All these features allow these objects to collect and exchange data. Blockchain and its intelligent contracts are ideal for this.

## **Archiving and file storage**

Google Drive, Dropbox, etc. have fully developed electronic document archiving with the use of centralized methods. Centralized sites are always tempting for hackers. Blockchain and its smart contracts offer ways to substantially reduce this threat.

The protection of intellectual property

The file enabled by Blockchain will offer greater protection of intellectual property than before. An application called Ascribe, which uses Blockchain, already offers this protection.

## **Crime**

Lawbreakers must hide and camouflage the money obtained from their exploits. Currently this is done with fake bank accounts, gambling and offshore companies, among other stratagems. There are many concerns regarding the transparency of cryptocurrency transactions. However, all the necessary regulatory elements, such as identification of parties and information, transaction records and even compliance can exist in the crypto currency system.

## **Social Networks**

Today, social media organizations are free to use their clients' personal data. This helps them earn billions of dollars. Through Blockchain's smart contracts, social media users will be able to sell their personal data, if they want to. Such ideas are being researched at MIT. The goal of the OPENPDS/SA project is to provide the owner of the data with the ability to adjust the degree of privacy preservation using the Blockchain technology.

## **The use of smart contracts in elections and surveys**

Elections and polls could be greatly improved with smart contracts. Several applications already exist, such as Blockchain Voting Machine, Follow My Vote and TIVI. All of them promise to eliminate fraud, while providing full transparency to the results and maintaining the anonymity of the votes. However, there is still a long way to go before decentralized voting is widely implemented.

As we can see the blockchain technology can be applied in various areas of public and social order, the integration of this technology will be what really give way to profound changes in our societies, the chain of blocks can make governments, companies and individuals act transparently eliminating the human factor and leaving everything to the blockchain protocols, it is a change that has not yet come but certainly is in progress.

## BINARY OPTIONS

### INDEX

#### 1.- INTRODUCTION

#### 2.- BINARY OPTIONS

#### 3.- DECISIVE PARAMETERS FOR TRADING BINARY OPTIONS

- I. Expiration date
- II. Percentage of return on investment
- III. Knowledge of the underlying asset to which the binary option relates

#### 4.- ANALYSIS IN BINARY OPTIONS TRANSACTIONS

#### 5.- BINARY OPTIONS TRADING STRATEGIES

- I. Buy a Call or Put option
- II. Buying a Call and a Put option at the same time
- III. Redoubling the value of your investment
- IV. News-based strategy
- V. The best way to operate

#### 6.- HOW ARE BINARY OPTIONS DIFFERENT FROM FOREX?

#### 7.- THE MOST POPULAR UNDERLYING ASSETS TO INVEST

### **BINARY OPTIONS.**

#### **1.- INTRODUCTION**

In this lesson we will review the different ways to trade binary options, in our past lessons we reviewed the topic of Derivatives in which we shared with you about options, as a review we will take a brief look at their different types and definitions.

Financial options are financial instruments that give the buyer the right and the seller the obligation to perform the transaction at a fixed price and on a certain date. It is widely used by brokers to hedge their investments.

- premium: commission paid by the buyer of the option.
- call option: the right to buy an underlying at a specified price at a defined time in the future.
- put option: is the right to sell an underlying asset at a given price at a defined time in the future.
- strike - the determined price of the purchase or sale transaction of the option.

Now that we have entered the context, we will enter the world of binary options.



## 2.- BINARY OPTIONS

Binary options are a financial product of a binary nature because there are only two possible outcomes, which is why they are also known as all-or-nothing or digital options. It is a method that allows you to invest in virtually any financial instrument (currencies, stocks, commodities, indices, ...) without the need to have physical ownership of it.

Binary options are OTC (over the counter) derivative instruments that are not traded on an organized market: they are sold directly by the issuer to the buyer. Investment in binary options is based on predicting how the price of a given financial instrument will behave after a period of time, i.e. whether it will rise or fall. If we get our prediction right (it is said that the binary option has expired "in the money") we can get 100% of the amount we have invested plus a percentage that we know in advance (for example 85%) and that depends on the conditions of each binary options broker. If we fail to predict (the binary option is said to have expired "out the money"), we will usually lose the total amount invested.

As with other derivative instruments, we can make a profit either if we believe that the price of the investment instrument will rise (by investing in a binary call option) or if we believe that the price will fall (by investing in a binary put option).

These instruments are an agile, simple, and very fast method of investment. No high capital is required to make a profit and the returns they offer are much higher and much faster to obtain than with other investment methods. On the other hand, you can lose the invested capital if you do not get a reasonable percentage of the times you invest. That is why you need to know well the instrument in which you are going to invest, and you can help yourself with analysis tools, fundamental analysis, coverage strategies, among others.

Currently, binary options trading has taken on a new lease of life thanks to trading platforms that allow you to easily trade this type of instrument yourself, even from your smartphone.

Some of the different types of operations offered by these platforms are:

- Classic Trading: Traditional binary options, you choose between up and down options based on the direction of the price.
- One Touch Trades: Also known as one touch trades, these not only predict the direction of the price, but the price would have to reach a certain level.
- Pair Trading: This is done by confronting two assets based on the behavior of their price.
- Turbo Operations: These are operations with a duration of 60 seconds.

It should not be lost sight of the fact that this is a high-risk mechanism due to its volatility and the amounts involved, and where operations last a very short time, sometimes up to a couple of minutes. It is like a bidding system, where the speed of management plays a fundamental role with respect to the rest of the agents.

### **3.- DECISIVE PARAMETERS FOR TRADING BINARY OPTIONS**

#### **Expiration date of the option**

The expiration of the option is usually short or very short, such as a few hours, a day, two days, or a week. We must consider this parameter because it is only at the end of it when we will evaluate the position of that binary option and therefore to settle the possible gain or loss generated. If we expect that the option will have a value in two days, it will not make sense to acquire a binary option with a maturity of one day. In many binary options it is often the investor himself who establishes the expiry date of this underlying, which gives us an additional advantage when making these investments. Obviously, the term set influences the percentage of profit we will make from such trading.

#### **Percentage of return on investment**

The percentage of return is known prior to the purchase of the binary option so we will know at all times how much money we will earn if we get that option right. This parameter must be considered when investing because we can enter excessive risk for reduced profits, which would be an act of inefficiency. You must correctly manage the risk/reward ratio in binary options trading and keep in mind that there are brokers that offer returns even for out-of-the-money binary options.

#### **Knowledge of the underlying asset to which the binary option relates**

It is obvious that there is no point in investing in an underlying asset whose behavior we know nothing about, as we would be making a blind investment. We have many sources of information on the behavior of the underlying assets. This information will allow us to evaluate the future behavior of that underlying and therefore be able to buy those binary options that will allow us to make a profit on that behavior. Therefore, studying the underlying asset is an essential part of investing in binary options.

## **ANALYSIS IN BINARY OPTIONS TRANSACTIONS**

There are two main streams of analysis that we find very useful when taking positions and defining strategies in binary options trading. These two main streams of analysis are fundamental analysis and technical analysis.

As we have discussed in past lessons, fundamental or macroeconomic analysis looks closely at reports and announcements to obtain accurate information about the future direction of the markets.

As we have already recommended, fundamental analysis must be accompanied by technical analysis without reservation.

Technical analysis allows us to forecast at what point a certain stock is at the minimum point, also called the support level, for a certain position or value and thus be able to evaluate the possibility of a rebound at that point that will allow us to obtain a profit through a binary option, in this case a call option. This same analysis can also help us to know the maximum points or resistance levels, within a certain range, in which we can place put binary options to take advantage of the fall of an asset.

The study of graphics allows us to determine when considerable movements will occur and with what force, whether upward or downward, which is a basic tool for the binary options investor, since with this data can make the best investment decisions, obtaining the maximum possible benefit.

It is worth noting that technical analysis has a more universal and massively applicable feature, as patterns, figures and price formations are analyzed along with the principles of support, resistance, and trend. So whether you are investing in commodities, stocks, indices, currencies or any other asset, the principles of technical analysis will be identical for all assets and you can also complement it with the use of technical indicators and oscillators to define the possible trend of the underlying asset involved.

## **5.- BINARY OPTIONS TRADING STRATEGIES**

Today's binary options investors require a good command of binary options trading strategies to get the most out of their online transactions.

### **Buy a Call or Put option**

The basic strategy for investing in binary options is to buy either Call or Put options. The advantage of this strategy is very simple, for example: if you invest \$500 in a Put option for the EUR/USD currency pair, which expires at the end of the hour, you can receive a return of up to \$850, depending on the return offered by your broker. Even if the purchased option had ended out-of-the-money or in losses, you would have received anyway a 15% return on your initial investment depending as we say on the chosen broker.

### **Buying a Call option and a Put option at the same time**

One of the most popular strategies for trading binary options today is that when investors are making a trade and understand that their option will end up out-of-the-money, they

decide to buy options for the reverse trend. For example, if you have invested \$100 in a Call option that is due to expire at the end of the day for a strike price of \$1.18, when you feel that the option is evolving in the opposite direction from what you originally predicted, you can implement a reverse trend binary options trading strategy. One of the most common binary options trading strategies is to buy a put option for the same value (\$100), which will enable you to minimize your potential losses.

### **Double the value of your investment**

One of the most popular binary options trading strategies for advanced investors is to double up on their trading. For example, suppose you bought a \$100 put option on the Dow Jones index at 10,033. If the trade is moving in your favor and trading at a lower level than the initial one, you may well consider the strategy of buying an additional put option. The advantage of this step would be to be able to earn high returns on your initial investments. Binary options trading strategies of this type are usually only adopted by binary options investors who know the financial markets inside out and perform thorough analysis for this purpose.

### **Strategy based on News**

Another type of strategy, but one that is more complex than binary options trading, is the market pull strategy. The concept of this binary options trading strategy is to invest in a Call or Put option that is undergoing dramatic changes in the financial markets. For example, there have been rumors in the press that the dollar is going to fall, which would motivate an experienced binary options trader to buy a Put option on the USD/JPY pair. The general idea behind this binary options trading strategy is that the trend of that currency pair is going down, which would result in high returns for the investor. Many binary options traders have managed to achieve significant gains from this binary options trading strategy by taking macroeconomic approaches and analyzing the latest market rumors and news.

### **The best way to trade**

There are many binary options trading strategies that can be implemented when trading online. The basic advice for implementing various binary options strategies is that it's up to you. This means that you can do what is best for you as you'll need to choose the trading strategy that suits your personality and trading style and is best suited to your experience. It should also be noted that the most successful binary options traders implement several binary options trading strategies at once. Therefore, the more experience you gain trading binary options, the better. You will also need to behave appropriately to manage your capital, manage risk, and you should define an action plan and strategy to invest objectively.

### **HOW DO BINARY OPTIONS DIFFER FROM FOREX?**

The Forex market is a spot market, a market in which the buy and sell contracts are executed at the moment and the trader pays the market price at that moment. In binary options the trader does not pay "a price" for the asset but invests by speculating on the direction of the price of the underlying asset.

Binary options do not belong to any market, they are betting contracts, and they never move the quotes of the underlying, i.e. the currency pair that has been invested in, and they never own the currency pair they have bet on, so they never impact the market in a positive or

negative way. This new way of investing allows the investor to predict how the stock will move within the market, betting virtually on the rise or fall of the stock. Therefore, we talk about binary currency options because the underlying that you are betting on is the currency.

## 7.- THE MOST POPULAR UNDERLYING ASSETS TO INVEST IN

- The Euro/Dollar pair
- The oil.
- The NASDAQ Composite Index.
- GOLD.

## CRYPTOCURRENCY FUTURES INDEX

### 1.- THE CRYPTOFUTURES

### 2.- OPERATING CRYPTOFUTURES

- I. Buying Bitcoin futures ('long' trading)
- II. Selling Bitcoin futures (short trading' )
- III. Expiry and settlement of contracts

## ADVANTAGES AND DISADVANTAGES OF CRYPTOFUTURES

- I. Advantages
- II. Disadvantages

## CRYPTOCURRENCY FUTURES

### WHAT IS FUTURES TRADING?

As explained above, futures, or futures contracts, are an agreement to buy or sell an asset at a later date at a fixed price. Traders usually use them as a way to hedge other investments or to lock in profits when trading in volatile markets.



## 1.- CRYPTOFUTURES



Cryptofutures' are nothing more than traditional futures, but they allow trading on the price of cryptoactives. The most common ones, of course, are Bitcoin futures, which have been having quite a bit of success in the financial sector lately.

The Chicago Mercantile Exchange (CME) and the Chicago Board Options Exchange (CBOE) have been the most successful Bitcoin futures exchanges in the last year. However, their cryptofutures are not directly backed by bitcoins, but are paid directly in fiat money when the contracts expire.

In fact, they are no different from traditional futures, as they are 'agreements that oblige you to give or receive an asset at a specific date, obviously in the future'.

These types of futures, based on cryptoactives (Bitcoin in this case) can be sold or bought at any time, always following the temporality of the contract and the price conditioned by market supply and demand.

In short, as highlighted, futures allow trading based on 'future' quotes, assuming risks and taking advantage of opportunities without the need to own the underlying asset.

## 2.- OPERATING CRYPTOFUTURES

### **Buying Bitcoin futures (trading 'long')**

Most futures contracts are traded multiple times before they expire. When it comes to Bitcoin futures, this means constantly adapting to a highly volatile market.

For example, let's say that a hypothetical trader named David decides to trade a Bitcoin futures contract, which is set to expire between November 1 and December 1. David could open a buy position at any time within this time, always at the market price, and then sell after the contract expires. This will obviously lead to a loss or gain depending on the price change.

Let's put some numbers on the table and look at a more concrete case of what could happen to David. If he bought a Bitcoin futures contract on November 8 at \$3,100 and sold it two

days later at \$3,200, David would make \$100 profit. But what if the price drops to \$2900? David would sell the contract, collecting that amount; that is, generating \$200 in losses.

### **Selling Bitcoin futures (short trading')**

If David had thought from the beginning that the price would fall, he could have gone 'short' or, in other words, he could have sold. To sell that Bitcoin futures contract, he would have 'borrowed' it from another trader in the hope of buying it later at a lower price and keeping the difference. This process is carried out by the exchange, saving David the trouble of finding someone to 'borrow' a futures contract to pay him back later.

If the Bitcoin quote hits \$3,000 on November 3, and David believes the price will have dropped to \$2,000 by November 18, he could go short on a futures exchange. If the forecast comes true, the trader will pay David \$4000. That is, the initial 3000 USD plus the 1000 USD profit.

This same example could be applied to a broader perspective of selling. What if David were too short at a price of 3000 USD, but without the target set on the 18th? Since David could close his position at any time before the expiration date (December 1). He could 'borrow' a Bitcoin futures contract on November 3, and if the price dropped to 1500 before then (on November 8, for example) there would be nothing to stop him from buying it at that price. The profit in this case would be \$1500, but on the other hand, the Bitcoin price could go up to, say, \$4500. Then, we would also talk about 1500 dollars, but about losses.

### **Expiry and settlement of contracts**

The expiration of a future is the date at which the contract expires, terminating the trading operation. In other words, before the expiration date, traders have a range of options to keep the trade open or close it, although some prefer to wait until the end and face settlement.

The settlement of futures contracts also takes place on specific dates and is known as 'the fulfilment of legal obligations under the contract'. Thus, the agreed amount of the underlying is offered to the holder of the contract on a specified date, and at the market price at the time of settlement.

It should be noted that exchanges that offer Bitcoin futures do not deliver the exact asset, but the value of the asset in fiat money.

## **3.- ADVANTAGES AND DISADVANTAGES OF CRYPTOFUTURES**

### **Advantages**

- Futures are bi-directional, allowing you to go 'against the market' and short your favorite crypto.
- Futures allow for leverage. This is an advantage that offers extra security when it comes to trading on exchanges (mainly because of the risk involved in depositing large amounts of crypts in them).

- For these same reasons, futures are ideal instruments for hedging all types of portfolios. Instead of selling your BTCs, there is the possibility of buying a certain amount of futures to implement a hedging strategy during bearish periods.

### **Disadvantages**

- By definition, futures are high-risk instruments. It is crucial to pay attention if you can afford to pay the likely settlement prices with the capital you are investing.

- Watch out for squeezes. Downward and upward squeezes are common in the market, mainly because it is an ecosystem that lends itself to manipulation. These types of movements are difficult to predict, so they can turn the best of your operations into a real disaster.

- The high volatility of the market often clouds the feeling of the market, making it an impossible variable to define on many occasions. On the other hand, it is this same extreme volatility that fills the pockets of some traders.

- Commissions vary between exchanges, which means that you must be aware of the conditions. In some cases, commissions become prohibitive.