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Oct 29, 2014

The Value of XCP

I've written a bit about Counterparty lately. My writings have been about the potential of the protocol and projects utilizing it, but I have not given much attention to the native currency, XCP.

In this text I will very briefly describe factors which influence its price.

The Origin of XCP

XCP came into existence through a process called *proof-of-burn*. Throughout January 2014 anyone could send BTC to a special address and receive XCP in return. In the beginning of the period one BTC gave 1500 XCP. The ratio gradually declined to 1000 XCP per BTC. With BTC trading above $900 at the time, XCP was priced in the range of $0.60-$0.95.

A total of 2,126 BTC were burned, which generated a total of 2.6 million XCP. No more XCP will ever be created. The burned BTC is not accessible by anyone, meaning they are forever lost.

The Need for XCP

XCP is the native currency of Counterparty. Although XCP and BTC share the same address format and blockchain, only a non-BTC currency can be held in escrow. This is essential for Counterparty. Betting needs it. So does the Decentralized Exchange, and possibly games in the future.

Some fees are also paid for in XCP. Token issuance costs 0.5 XCP at the moment. This is to prevent name squatting. Each token has a unique name, and without such a fee all good names would soon be taken. There's also a dividend fee of 0.0002 XCP per recipient, i.e. 5,000 recipients per XCP. This is to prevent spam. Fees are burned, leading XCP to be a slightly deflationary currency.

A potential other use is for voting on protocol changes.

Some Counterparty uses have no need for XCP. You can store any Counterparty asset on any Bitcoin address, as well as transfer these, without XCP.

The Demand for XCP

Demand for paying fees is negligible, and demand for voting is hypothetical. There could potentially be some demand for trading on the decentralized exchange, but I believe people will prefer to quote prices in BTC and trade on centralized exchanges.

Demand for betting, however, can become massive. A betting house, casino, or financial platform running on Counterparty will need to use XCP as their currency or betting chip. Such services are

under development, and I believe they will become successful. Counterparty's escrow service means that users don't need to register, nor do they have to deposits funds. Service providers will probably benefit from lower legal costs, and certainly from less operating costs. They will rather make money from feed operations and BTC<->XCP vending machines. The more services that utilize Counterparty, the more real demand there will be.

The current demand for XCP is mainly from speculators who hold it in anticipation of a price increase. I'll add that XCP has gotten relatively little mainstream attention, thus there is limited speculative demand for it – still.

The Supply of XCP

Unlike BTC, which is mined, there is no new supply of XCP. There's only a second hand market. Practically all holders at the moment keep them because they believe in a long-term price increase. An exception is the core developers who pay out salaries and bounties in a mix of BTC and XCP. The receivers are likely so involved that they too keep most of their XCP.

This means the supply is at a minimum, which leads to a huge upside if demand picks up.

We know that a total of 2,126 BTC were burned. This was done through more than 2,500 transactions. It gives us a slight clue on the distribution of XCP. Since there was a limitation of one BTC per address at the burn, and the stats clearly show that on average almost one BTC were burned per transaction, I believe that relatively few participants contributed with a large amount of BTC each. E.g. you want to burn 8.4 BTC. In order to do this you you make nine transactions; eight of a single BTC each and a last one of 0.4 BTC. This contributes to a high average burn per transaction. On the contrary, if there had been many small participants, each may on average have burned 0.5 BTC, hence a lower average.

The insight is that there are some large holders of XCP, and any of them offloading may curb the price. Twenty BTC burned would have given about one percent of the total XCP. I wouldn't be surprised if some of the key developers burned more than this, i.e. they sit on more than a percent of all XCP. However, my impression is that these are in it for the long term, I do not think they would use their large holdings to manipulate the price, nor do I think they would gain much if they tried..

The largest single address is controlled by the exchange Bter. It holds 5.7% of all XCP, and it is used daily. This exchange got hacked this summer. The hacker ran away with a large amount of another currency. If the same happens with their XCP address a significant short term price drop is likely.

Price Predictions

XCP trades at $2.90, which gives it a market cap of $7.7 million. BTC, in comparison, is valued at $4.8 *billion*.

Since there's a very limited supply of XCP, even a small increase in demand will drive up the price. Speculative demand is likely to pick up as new projects are launched on Counterparty, hence more people get to know about its potential.

Demand for XCP's escrow feature is where the real value lies. At the moment there are two betting

sites, Xbet.IO and BetXCP. Both are still under development, but will hopefully soon attract users. If just one casino, gaming, or financial site utilizing Counterparty gains popularity, the price will certainly be in a whole different range than it is now.

An analogy I like to make is that if all casinos worldwide used the same chips, and there only were 2.6 million of these, the price of each chip would be astronomical. Even if only a few casinos used this scarce chip, the price would be very high. Just for the record, the XCP chip is divisible up to eight digits. My prediction is that one year from now gamblers will place bets denominated in milli-XCP.

Further Reading

I've authored some blog posts on Counterparty. They are pasted below.

Please note that the formatting is not the best. For the best reader experience, view my blog http://jpja.net/.

The reasons I post these texts here are for future reference and for *proof of prediction*. This pdf's hash is timestamped with a Counterparty broadcast from 1HbJtt8hm7TGd2DhHvxuw4BRdZsd2iuxYp.

The broadcast proves that this exact document existed on October 29, 2014.

Counterparty News

June this year I discovered Counterparty. Back then I considered it a very promising platform. Today, four short months later, several projects are using it. The rate of adoption is all ready so high it is difficult to keep track of everything.

Therefore I've created a blog, Counterparty News. I summarize news as I find them, and I link to the sources. It is a good way for myself to keep track of developments, but I also encourage others to contribute.

The site even has its own Rewards Program – powered by Counterparty, of course. If you contribute you will receive some scarce CPNEWS tokens. These tokens have no value at the moment, but if the blog grows into a popular news site, they will gain some value.

I've compiled a list of the most interesting Counterparty projects. Each project is run by dedicated individuals, and some are even backed by million dollar investments. Please note that the platform is open to anyone, and it's advisable to do your own due diligence before getting involved with any project.

- BetXCP and XBet.IO are betting platforms utilizing Counterparty's trustless escrow.
- BitSIM is a smartphone platform under development.
- DigitalTangible is a precious metals dealer that issues gold and silver tokens backed by bullion.
- FoldingCoin is a coin which comes into existence by folding proteins – medical research at Stanford Univeristy.

- GEMS is a social network under development.

- Koinify and Swarm are crowdfunding platforms.

- LTBcoin is the token of the Let's Talk Bitcoin network.

- Medici is a stock market platform under development.

- Permacredits is a currency for the Global Permaculture Movement.

- Storj is a decentralized cloud storage system under development.

- Vennd is software that enables automatic conversions between Bitcoin and Counterparty assets – a sort of vending machine.

What strikes me about this list is the versatility. The projects use the Counterparty platform in very different ways. I think this is in accordance with the philosophy of the founders. They made a very basic platform for anyone to create digital tokens, to trade and transfer them, and securely store them. The protocol also has an escrow feature which is useful for betting, gambling and some financial contracts. While Counterparty is a set of building blocks, each project is a different implementation of them.

This entry was posted in Technology on October 27, 2014.

Proof of Prediction

There's no shortage of persons who claim they were able to predict a stock market move. There's also plenty of academics and "experts" who arrogantly (and ignorantly) state that this is impossible. In reality it is possible to make a forecast with some degree of accuracy. The problem is to prove that you really did make the predictions that you claim to have made.

I will show you an example. On September 3rd I noted that S&P 500 had broken above 2000 points, and that an imminent decline wouldn't surprise me. Today, six weeks later, the market is 7% lower. This post isn't about the market, but about how to prove your predictions. In this case I used Facebook, and anyone can see that I indeed did make that announcement on that date. However, unless you have been following my wall, you may suspect that I make predictions all the time and remove those that turn out wrong.

On July 13th I believed the S&P 500 to be in a bubble but it was likely to make a bounce to a round number (from 1967 points at the time to 2000) before it would crash. My only proof of this statement is an email – practically worthless. One can easily Photoshop the date.

Recently I made a much more provable prediction. First I wrote a brief report about solar power's potential influence on the silver price. Then I generated a SHA256 hash (a digital fingerprint) of the file. Finally I broadcasted the hash on the Bitcoin blockchain through Counterwallet. This is a 100% secure proof that the file existed at that point in time. Anyone can verify that the file existed by first re-generating the hash and then view my broadcast in a third-party database such as Blockscan.

Still, although this is a proof that the file existed on its its claimed publication date, it is not a proof that I'm a good forecaster. Just like I could have deleted Facebook posts, it could be the case that I only show you those reports that turned out right. To be convincing I should therefore:

- Make all broadcasts from the same address

- Show the file behind every broadcast on request

An analyst who makes this an habit will be able to prove his track-record. An added benefit is that the reports can be kept private for a while albeit the hashes broadcasted immediately.

This entry was posted in Uncategorized on October 16, 2014

Notes from JPBULL and JPBEAR Auctions

UPDATE: The BTC price at expiry was $424.059'01. This means that JPBULL expired worthless, while the holders of JPBEAR received a distribution of BTC 0.075'940'99 each. I'm excited by how easy it was to arrange the experiment. No programming was required. I did everything within Counterwallet.

I recently announced a Counterparty experiment where I'd auction off some contracts. The auctions have now ended, and the winners have received their tokens. Here are the results:

JPBULL			
Bidder	Price	JPBULL	BTC Returned
1LnyAUzoFQJu625Kc6WKJdiYXc58fgPEtW	0.010'000'00	1	0.005'000'00
1Kp8bvP9z4WK2Mt8FThMf5F2uQEyypUgrW	0.009'000'00	1	0.004'000'00
19NBqiXqEP529KugETJxjjVr7VhhvKzUaV	0.005'000'00	1	0.000'000'00
1HuwbqYkUG8VcUV5Wugx2tAb52TQ6XxuH1	0.003'000'00	0	0.002'800'00

JPBEAR			
Bidder	Price	JPBEAR	BTC Returned
19NBqiXqEP529KugETJxjjVr7VhhvKzUaV	0.035'000'00	1	0.019'000'00
1LnyAUzoFQJu625Kc6WKJdiYXc58fgPEtW	0.023'000'00	1	0.007'000'00
1HuwbqYkUG8VcUV5Wugx2tAb52TQ6XxuH1	0.016'000'00	1	0.000'000'00

Notes:

- Transparency is absolute. You can view every BTC transaction for JPBULL and JPBEAR. The winners have received their tokens.

- I reserved the right to participate in the auction, which turned out wise as I was the only participant… Having said that, I never promoted the auction beyond my blog and the Counterparty forum. I did not want many participants in this initial test.

- Don't publish the deadline as a specific block height several days in advance. It is better to tell that on a specific time you will specify the deadline, which then will be the current block plus ten.

- It may never be a good idea to trade these assets on the Counterparty DEx. The value of JPBULL and JPBEAR fluctuate many times more than the underlying BTC price. The DEx has two large disadvantages, which are miner fees for placing orders and slow updates. A good market would have a robot market maker. Because the robot would encounter large costs for placing and changing orders, it would need a large spread – which would be a great disadvantage.

- An alternative is to trade on a centralized market, off-blockchain. In this scenario Counterparty may offer no

value. The disadvantage with this approach is that registration is required, hacking is a larger threat, transparency is limited, and a greater level of trust is needed.

- Another alternative is for the issuer to arrange frequent auctions. These may be twice daily, the first at evening Asia / morning Europe and the second at evening Europe / morning America.

- Yet another option is to use a vending machine. If you send X BTC to it, you get Y JPBULL in return, and vice versa. The server will continuously follow the BTC price and change the prices according to a mathematical formula. This, I believe, is a very good solution.

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The experiment will be finalized when a distribution is paid according to the BTC price 18 Sep 2014 23:00 UTC.

My next goal is to issue contracts with Counterparty's betting system. Stay tuned.

This entry was posted in Economy, Technology on September 8, 2014

BULL and BEAR Contracts for Bitcoin

You can make a bet on the Bitcoin price with my newly issued contracts.

Bitcoin Bull

-Ticker: JPBULL on Counterparty

-Pays a distribution based on XE.com's XBT/USD price on 18 Sep 2014 23:00 UTC

-If the price is >$600, the distribution is 0.100 BTC

-Else if the price is >$500, the distribution is 0.001 BTC per dollar above $500

-Else no distribution

-E.g. if the price is $587.35 the distribution is 0.08735 BTC

Bitcoin Bear

-Ticker: JPBEAR on Counterparty

-Pays a distribution based on XE.com's XBT/USD price on 18 Sep 2014 23:00 UTC

-If the price is <$400, the distribution is 0.100 BTC

-Else if the price is <$500, the distribution is 0.001 BTC per dollar below $500

-Else no distribution

-E.g. if the price is $492.15 the distribution is 0.00785 BTC

I will auction off three JPBULL and three JPBEAR.

How to participate in the JPBULL auction

-Send the maximum amount of BTC you are willing to pay to

1BULLrcfpFmSffN2CdGbHZYYEwaAu8W5v5

-The third largest transfer up to, and including, block 319,714 * (estimated at around 5PM UTC Monday

Sep 8) determines the auction price

-The highest and second highest bidder get one JPBULL each and the BTC difference between their bids

and the auction price returned

-The third largest bidder gets one JPBULL

-Every other bidder get their BTC returned minus a fee of 0.2 mBTC

-Bids received after block 319.650 are not valid but BTC will be returned minus a fee of 2 mBTC

-If there are several input addresses, the largest input address receives the JPBULL and/or BTC

-It is recommended that you send BTC from Counterwallet, and it is essential that you use a wallet where you can receive funds on the address that you sent from

How to participate in the JPBEAR auction

-Send the maximum amount of BTC you are willing to pay to

1BEARq1sxjb5VFktn1nfXYAMwg1XV86c8C

-The rules are similar to those of JPBULL except the deadline is at block 319,720 *

I reserve the right to participate in the auctions.

The Second Hand Market

JPBULL and JPBEAR can be traded on Counterwallet's Exchange. Remember to cancel any outstanding orders before 11pm UTC on Sep 18.

Further comments

This is a small scale experiment only.

Similar bets could have been issued by anyone, and with any system. Back in the days I guess there were bookies on every corner, issuing all sorts of bets. What I am doing now is not that different, except that I'm utilizing new technology. Bitcoin, by drastically reducing transaction costs and enabling full transparency, makes it possible to do this online. Counterparty enables asecond hand market. Counterparty allows for even better contracts than these at the expensive of some more complexity. With JPBULL and JPBEAR you basically have to trust me. Improved contracts use a trustless escrow and may be settled by third party feeds. I plan to offer such contracts in an upcoming blog post.

* UPDATE: Auctions are extended to block 319,714 for JBULL and 319.720 for JPBEAR. The reason is that blocks have been generated faster than expected, and the extension means that the auction will end closer to the estimated 5PM UTC deadline. At the original deadline there were only one bid for each contract. The current bidders benefit from the extension as it can only result in lower or the same price.

This entry was posted in Uncategorized on September 5, 2014

Heat Your Home with Your Computer

Computers generate a lot of heat. Now it is possible to sell computing power, thus get free heat. Here are some examples:

- **Bitcoin mining**. Special hardware is used to secure the Bitcoin network. Anyone, anywhere in the world can run such hardware and make some Bitcoins from it, Although it is difficult to get rich from mining unless you have cheap electricity and don't pay VAT, it is worthwhile if you use your miner as a heater. Right now I'd recommend to buy a used Antminer S1 at eBay for no more than EUR 100. Depending on the Antminer's settings and your electricity tariff, you'll get 180W of heat while making one euro worth of Bitcoin a day at a cost of half a euro of electricity. The network is designed such that the profit margin diminishes over time, so you may never make back what you paid, but you will get cheap heating for sure.
- **Stanford's protein folding**. You can donate processing power to medical research. All you need is to download an application that always runs in the background. With the new FoldingCoin project you will even get rewarded with a special token that runs on the Bitcoin / Counterparty network. The project has just been launched, and the token has no value yet. It might obtain some in the future, which I wrote about in the previous post. Any computer can fold proteins, but I recommend investing in a good computer with a powerful graphics card.
- **Decentralized cloud storage**. Storj aims to create a network where anyone can donate their hard drive. The idea is that you store other people's files on your computer, and for this service you get rewarded. The project is still under development, but if it succeeds it will be much better than today's cloud storage. Files will be encrypted so that no one except the owner can access them (this is not the case with the cloud today), and it will be cheaper. After all, most people have gigabytes upon gigabytes of unused storage. Why not rent it out?
- And much, much more to come. These opportunities are possible because digital currencies are so easy and cheap to send. For those not interested in digital money or uncomfortable with the risk, Bitcoin can be sold for Dollar or Euro at exchanges such as Kraken.

The Economics

The very essence of this post is that by consuming electricity you can generate digital tokens. If the tokens can be converted to your local currency, you will effectively reduce your cost of electricity.

In some cases, as with the Bitcoin miner, the coins you earn are worth more than the electricity you burn.

Then it makes sense to keep it running 24/7. It may not be a good business though, as the upfront cost of the miner may never be paid back.

The most common case, however, is probably that the tokens are worth less than the consumed electricity. Then you only turn on your hardware when you want heat.

Also worth taken into account is your cheapest alternative heating source. If you can heat with gas, and it costs only half as much per heat unit as electricity, your calculations must take this into account. If you have a heat pump installed, you may get something like five kWh of heat for every one kWh of electricity. The Practicalities

Although Bitcoin mining and protein folding is a lot easier than you think, some effort is still required. Those with some interest in technology will think it's fun to play with, while those with other interests will hardly find the efforts worthwhile.

Most computer hardware generate noise. You should therefore dedicate a separate room. If you live in an apartment, you can use an empty bedroom. In a house, the basement is perfect. The room that you use will be great for drying clothes. This is a big plus. If you invest in hardware, such a Bitcoin miners, that should run constantly, keep in mind the unwanted heat during summer.

This entry was posted in Economy, Future, Lifestyle on August 19, 2014

How Counterparty can Cure Disease

Stanford University has a program where anyone can donate computing power for medical research. To participate you only need to install this program. It took me just five minutes to get the program up and running. Now it constantly runs in the background, apparently folding proteins in an attempt to cure Alzheimer's, Parkinson's, and some other diseases.

The program is wonderful as it allows you to donate computing power to medical science. However, as a participant you do not receive any reward. Contribution is pure charity. The problem with charity is not that people are not charitable – lot's of people willingly donate time and money. The problem is that the outcome is usually not as good as it could have been.

I believe the Counterparty token called FoldingCoin (FLDC) has the potential to improve this. As a participant in the project you can receive FLDC. The amount you receive is proportional to your contribution of computing power. FLDC is a cryptocurrency similar to Bitcoin. It can be stored in a Bitcoin wallet and transferred to any Bitcoin address.

FLDC has no value in itself. It does, however, serve as a proof of participation in the project. It can be sold in Counterwallet's decentralized exchange. And this is where FLDC adds value. Say that I want to participate. Up until now I had to run the program on my laptop. My laptop has a slow, inefficient CPU and it runs on expensive European electricity. With FLDC and Counterwallet I can participate in a far more convenient and efficient way. I can buy a few EUR worth of FLDC, and by doing this I reward someone who contributed to the project.

If more people start donating this way, smart individuals will realize that folding proteins for medical science can be profitable. This incentivizes creativity, and soon enough the folding of proteins will see a similar evolution to that of Bitcoin mining. The computing power will increase many times over, which is very good for the ultimate goal of discovering cures for diseases.

I believe FLDC is just a starting point for something even greater. Why not make a general platform where

any medical researcher from around the world can submit work? Does it really matter if the cure to cancer eventually gets discovered in San Francisco, Moscow or Tehran? Maybe tokens should also be required for submitting work, sort of making a market system where only the most important work gets priority?

This entry was posted in Economy, Future on August 12, 2014

Bitcoin 2.0 is Getting Real

When I first wrote about Counterparty two weeks ago I concluded that it was a platform of endless opportunities but needed users. Now it seems that people are starting to use it. This is very good news, and here are some of the projects:

- **JPJA** is my own asset. I promise to pay all tips from my eBook, received until 24 Dec 2014, to the holders of this asset. Each share will receive one percent of the total, and one share can be bought for BTC 0.0005 (~$0.30) or XCP 0.1 through Counterwallet. I deliberately chose to involve very small values to encourage my readers to use the system, The underlying principles are that (1) anyone can issue shares that pay dividends and can be traded just like on the stock market, (2) transparency is absolute through the blockchain, (3) it is backed by something real (tips received), and (4) there is still an element of counter-party risk involved in that you need to trust me paying the dividend as promised.

- **LTBCOIN** is a project by the Let's Talk Bitcoin network. Coins are distributed to content creators, partners, and registered users. Sponsorship can be bought with LTBCOIN only, and this is how it derives its value. The advantage of this approach is that every stakeholder, even the listeners, wants the network to succeed.

- **SWARM** is a startup which aims at creating a crowd-funding platform on top of Counterparty. You can invest BTC in Swarm and get SWARM tokens in return. If they succeed, you will receive dividends from companies that launch coins on this platform. Here's an interview with a founder.

- **NICEPLUM** is a promising musician and active member of the Counterparty community. Owners of his coin are entitled to a share of album sales, gigs, and even free albums. This is an excellent model for any artist, as it lets the fans invest in his or her future success. Listen to Niceplum's interview at Let's Talk Bitcoin.

- **Tatiana Coin** has a slightly different approach. By donating BTC at Coin Powers you get Tatiana Moroz' artist coins in return. These coins can be exchanged for fan club membership, autographed albums, and even a personalized YouTube music video by Tatiana.

These projects are not necessarily good investments, but they illustrate the potential of Counterparty. Anyone can, at almost zero cost, create their own asset. You may even think of it as a token, stock, coin or currency.

An artist or a small business can now issue shares. This has only been possible for large corporations,

which put them at a great advantage. Now your local restaurant, baker and hairdresser can issue stocks. You as a customer and investor will gain a small share of the profit. Thanks to Counterparty we now have a world where anyone can invest as little as ten dollars in small businesses and individuals they trust, support, and believe in.

This entry was posted in Economy on June 30, 2014

Counterparty Adds Betting to Bitcoin

Counterparty (**XCP**) is a young crypto-currency built on top of the Bitcoin protocol. I've tested out the online wallet and all I can say is that it works like magic. There's no need to register. You just get a unique seed you'll have to use every time you log in.

The first thing you should do is transfer a small amount of bitcoins. A few milli-bitcoins is sufficient. The addresses used for XCP are actually real Bitcoin-addresses, The same address can be used both for bitcoins and XCPs. It may sound counter-intuitive, but this is a big plus with Counterparty in my opinion.

To get some XCP you can use t**he exchange inside the wallet** or Bter.

Just for fun I minted my own coin called JP Gold. It can be transferred just as easily as Bitcoin, it can be sent to any Bitcoin address, and all goes through the blockchain. It is even better than Bitcoin in one aspect, I can choose to pay every holder of JP Gold a dividend…
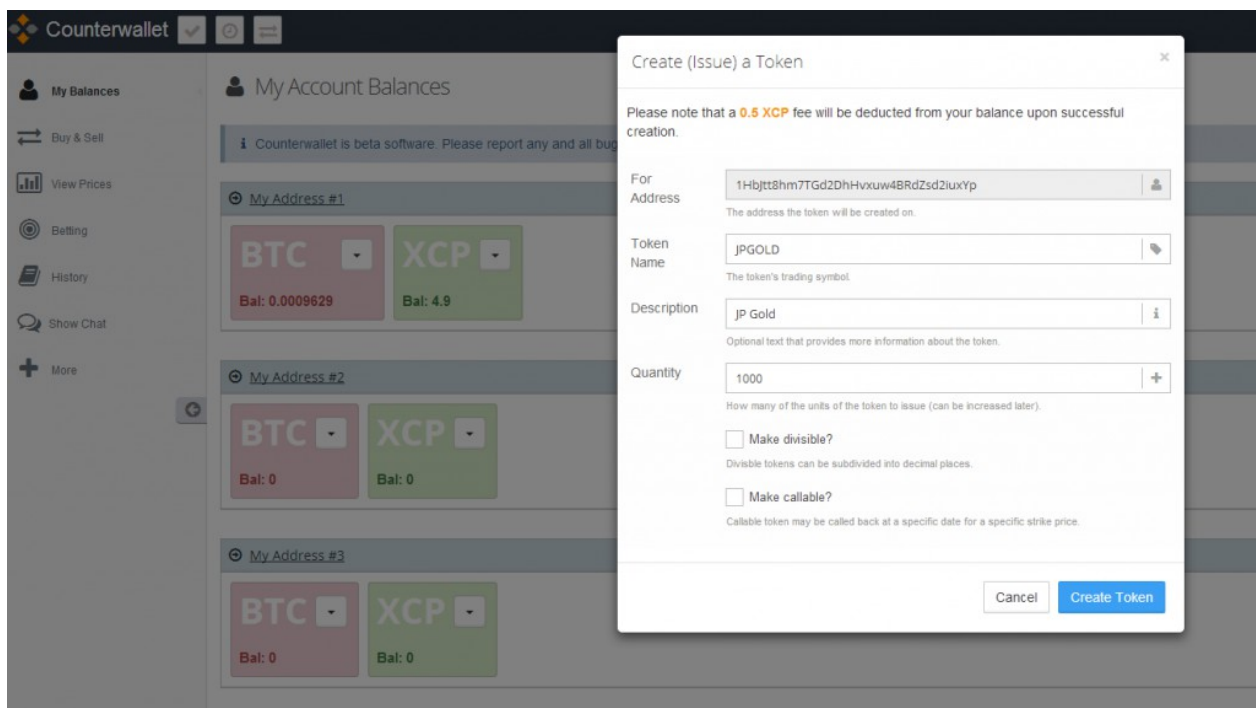
XCP can also be used for **betting**. I tested out a new betting site called **Xbet.io** and it seems to work flawlessly. It was a bit confusing at first, maybe because it's a new system or perhaps because I've never done any sports betting. In either case it took me only half an hour to grasp it. The concept is actually more like a market place. Xbet offers the infrastructure for you to place a bet on something either happening or **not** happening. When you place a bet Xbet gives you a code for posting the bet inside the XCP wallet. It

then broadcasts it on the bitcoin blockchain. If someone else takes the opposite position at matching odds, you have a matching bet.

Xbet does not hold your funds. All Xbet does is to send a message with the result of the bet, which then releases the pot to the winner. Xbet charges a one percent fee for this.

Bets need to be made in XCP. There's a technical reason why bets cannot be placed directly in BTC, but I won't go into that here. In crypto universe, you can say that BTC is money and XCP is casino chips.

I'm simply amazed by the **opportunities** XCP brings. Still it has few practical uses, and unless more people adopt XCP, it may fade out and die. There are several alternatives, so it may be that the market eventually gravitates to Nxt, Mastercoin, BitShares, Etherium or something else. In any case, this technology will be used in ways we still cannot imagine. Betting is just the starting point.

This entry was posted in Economy, Future on June 12, 2014