Facts & Figures

CRYPTOCURRENCIES: AN EMERGING ASSET CLASS

There are at least 600 cryptocurrencies in existence today, the biggest being Bitcoin, followed by Ripple and Litecoin.

One would think that the cryptocurrency with the best technology would be dominant but that is not the case. The competition between cryptocurrencies has perhaps surprisingly little, if anything, to do with technology. The whole idea of a cryptocurrency is that all the source code is open. Everyone can see everything. So, if a given currency were introduced with an intriguing feature, bigger cryptocurrencies whose users value that feature could incorporate it into their preferred cryptocurrency. Better technology does not change the balance.

At the moment, the aggregate market capitalization of the 20 leading cryptocurrencies that I was able to count is roughly $7.4 billion. As Table 2 shows, Bitcoin has $6.8 billion in market cap. The next leading currency, Ripple, has a market cap of $210 million.

Table 2: Market Capitalizations of Leading Cryptocurrencies

Bitcoin	$6,821,087,036
Ripple	210,427,648
Litecoin	159,919,640
Ethereum	69,319,607
Dash	15,529,603
Dogecoin	14,799,916
Peercoin	10,015,263
BitShares	9,151,969
Stellar	8,778,061
MaidSafe Coin	6,520,511
Namecoin	6,233,958
Nxt	6,197,772
Bytecoin	5,625,369
NuShares	5,073,980
Monero	5,041,813
GridCoin	3,379,506
Factom	2,630,911
Rubycoin	2,554,005
Clams	2,525,980
EmerCoin	2,402,984

Source: http://coinmarketcap.com/

One common theme in cryptocurrencies is that, in theory, there is no inflation, at least in the sense that the currency can't be debased by inflating the supply of it, as is the habit of central banks. In practice, with fractional banking, there might be a small amount but, because there is a fixed amount of each cryptocurrency, its issuance cannot increase above a certain level.

The existence of more than 600 cryptocurrencies reflects a great demand among many people to strip central banks of the power to create currency and control its value. It was never really possible to do so before: The central bank of a given nation had to have control of its money supply, and there was no alternative except for gold, and that had its own problems. Currencies were fixed in terms of their value in gold. Not cryptocurrencies. The supply of gold can increase or decrease but supplies of cryptocurrencies are fixed.

It will be very interesting to see how this concept develops. Within the next couple of years, cryptocurrency will probably become a legitimate asset class for investment, unless it fails in some way. With a market capitalization of roughly $7 billion, cryptocurrency is not yet big enough to function as an asset class investable by institutions. Importantly, though, it is not correlated to anything and, in a year or two, it might be a viable asset class. It will be very hard to stop this movement, and it will not be easy for governments to suppress it.

Bitcoin is the largest cryptocurrency. There are 14.9 million Bitcoins outstanding and there can only be 21 million by 2140. At the current rate, 3,600 are created each day, with this creation rate to be cut in half by July 2016 and then cut in half again every four years after that. The reason Bitcoin is successful is that its distribution allows for it to be used as a store of value. It was designed to appreciate in value and to become harder to produce. Therefore, its intrinsic value is supposed to rise. One Bitcoin now is worth roughly $430.

It is worth noting that there is no Bitcoin company. There is merely a protocol that is agreed upon by all who use Bitcoin. There is a not-for-profit Bitcoin foundation. One might compare it to Wikipedia: It is people getting together and using technology for a common good.

With Bitcoin's protocol, the so-called "miners," people who create the currency, get to vote on the rules. They call a rule change a "fork," and there's a hard fork and a soft fork. A hard fork means that, if you make a change and other miners do not accept it, they will not be able to participate in Bitcoin. They would not be able to validate the transactions on the general ledger. In a soft fork, which only requires 50% approval, it is possible for some people to not accept that change and the system can still function. Those are the basic rules of Bitcoin. Anybody who becomes a miner could, in theory, have a voice. There is no company that decides, "That's the way it is."

Ripple, whose currency is called XRP, was designed as a secure, peer-to-peer payment system; its use as a currency came second. Ripple is backed by Google, among other entities, and by banks. It was designed as a payment-system technology because banks are very threatened by the idea of peer-to-peer payments. If people can transact on a peer-to-peer system and do so with a sense of security—after all, there is a big ledger that, essentially, is universally distributed, everybody knows what it is, and the transaction can be verified—that poses a threat to the banking system.

Furthermore, the Ripple XRP system is not limited to its own currency or even fiat currencies; all can be used, as well as other cryptocurrencies, like Bitcoin or Litecoin. People can trade a Bitcoin versus an XRP if they wanted to, or Bitcoin versus the euro, or Bitcoin versus the U.S. dollar. Ripple was designed as a frictionless market maker between currencies. It could also be a frictionless market maker for stocks, commodities, options, etc.

The most interesting distinguishing feature between Ripple and Bitcoin is the structure under which the Ripple XRP cryptocurrency is distributed. Ripple creators sought a way to distribute the currency so people have an incentive to use it. Ripple created 100 billion XRP at inception in 2012, with the idea that 80% would be distributed free of charge. Ripple's creators kept 20%, which is interesting, because if the currency proves to have value, 20% of a very big number is a lot of money. And 80% was supposed to be given to charities. Of the 80%, however, 67% is still with the original owners, so that as a medium of exchange, it has not been exchanged much so far; clearly, the issue of how to distribute the sum without destroying the value is not a trivial problem. One XRP is worth less than a penny; $.006242, to be exact.

Some cryptocurrencies were designed for specific purposes, but basically they are intended as alternative currencies. Everyone realizes the ability of the central bank to destroy the value of somebody's bank account. Central banks say as much, that they intend to inflate, and interest rates are lower than the inflation rate. Keeping money in a bank is a guarantee of losing value over time, but there was no alternative for people not in a position to take risk with their money. That circumstance generated demand for an alternative. The current period, with interest rates just about at zero, is without precedent and was bound to bring forth a reaction. The creation of cryptocurrencies was the reaction.

Historically, technology did not allow for the possibility of an alternative currency, although in the United States, in the 19th century, most banks had the right to circulate their bank notes as money. You might think of those bank notes as the cryptocurrency of the era, so cryptocurrencies are not without precedent.

In theory, a cryptocurrency will hold its value against the fiat currencies. If that were to happen, however, that could mean big trouble for the central banking system. It could also be big trouble for the regular banking system. Banks exist on their ability to charge a fee for facilitating people's transactions with one another. The bank is the counterparty, the clearinghouse. You get a check from someone, and accept it as worth its equivalent because the bank guarantees payment. In the world of cryptocurrency, all the transactions are peer-to-peer, with no bank intermediary. Banks no longer acting as intermediaries would more or less signify the end of banking profitability as we know it today.

If that is the case, consider how many banks are in the indices and how many technology companies sell their products to banks so they can perform their functions. This cryptocurrency scenario could create a radically different stock market. This issue should not be ignored.

Many unknowns remain, and we do not really have a good precedent for this. The best precedent is the rise of the Rothschilds in the early 19th century. During the Napoleonic Wars and the attendant difficulty of transporting gold, the Rothschilds took the risk of delivering gold,

functioning as an intermediary. They would deposit the gold in vaults in London and give people tradeable gold receipts. The Rothschilds became trusted intermediaries who could always deliver your gold, or gold equivalent, when you made it to safety. Many aristocrats became émigrés during the French Revolution and the Napoleonic Wars, and needed access to their funds. London was an émigré center. You might say that the Rothschilds radically changed the payment system in the world, and something similar could happen again.

The whole idea behind cryptocurrencies is to bypass the banking system—cryptocurrency developers do not want the banking system making the rules—and to bypass the governments, because they do not want governments making the rules.

It will be hard for governments to stop this activity. One government could make a law to suppress a cryptocurrency, but, as long as only one country makes it legal, that action could easily demonetize that country's whole economy, because the money would flow to the country where it is legal. For the sake of argument, what if Cuba decided to allow Bitcoin, and every other country in the world barred it, but nevertheless people thought Bitcoin was really a store of value. The money would get to Cuba somehow, and there would be very little that the governments of the world could do, other than invade Cuba, which would be drastic. This subject is one that investors must pay attention to.

Cryptocurrencies are not just currency. They enable the exchange of anything. Something might be priced in terms of Bitcoins or in XRPs or in dollars. It would be a frictionless exchange worldwide. That could happen, and that would mean all the intermediaries would be essentially out of business.

It can also be thought of this way: You buy something at a store and pay using a Visa card. The store pays a 3% fee. Let us say the store is a Walmart and has a 3% profit margin. If it did not have to pay this Visa transaction fee, it would make a 6% profit margin not 3%. Walmart theoretically is sacrificing half its profits to allow people to use a credit card. Clearly, it is in Walmart's interest to have peer-to-peer transactions as it is in the interest of a great many companies.

This is a real threat to the established order. This is not a joke. It is serious business. When the stock market realizes what is going on, it will like this development, as a generalization; the possibilities for value-added uses and the scale on which these can take place can hardly be fully imagined yet. This is moving unbelievably rapidly, and there are now 100,000 merchants worldwide that accept Bitcoin, and more every day.