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Think Tank Podcast: Are cryptocurrencies the future of money?

TRANSCRIPT

Nisha Pillai (NP): Welcome to Julius Baer's Think Tank Podcast. In this series we'll be walking you through the mega trends of the future, and bringing you closer to our network of thought experts that are capturing the world's big changes and putting them into context for us.

I am Nisha Pillai, former BBC World News presenter and your moderator today.

You probably have already heard something about cryptocurrency, or you may be more familiar with its most popular version, Bitcoin, which was the first decentralized cryptocurrency, introduced in 2009. Since then, many others have followed –there are now more than 6,000 different cryptocurrencies in circulation.

We will be talking today with Alexander Ruchti, Next Generation Research Analyst at Julius Baer, and Esteban Polidura, Head of Advisory and Products for the Americas, about the capabilities and uncertainties of the cryptocurrencies environment, its purposes, practical use and long-term viability.

NP: Alexander, welcome. Let's start with the basics. What are cryptocurrencies? And what is the relation with blockchains? Are they the same thing?

Alexander Ruchti (AR): A blockchain is just a fancy term for a distributed database. You have blocks of data that are chronologically chained to each other. Therefore, blockchain. Theoretically, pretty much any kind of data can be stored in a blockchain, from newspaper articles to weather data. A cryptocurrency is a payment system that uses a blockchain to record transactions. So, every cryptocurrency utilizes a blockchain, but not every blockchain is used to facilitate a cryptocurrency. There are thousands of cryptocurrencies and many more blockchains.

NP: And why are there so many cryptocurrencies?

AR: There are an estimated more than 6,000 cryptocurrencies in existence, and the absolute majority of them are more or less completely worthless. There are a number of reasons why we have arrived at such a situation with more than 6,000 cryptos in circulation.

The first, and most obvious reason, it is quite easy to create a cryptocurrency using the template of Bitcoin or other existing coin. I am very confident that you and all our listeners would be capable of launching a Bitcoin-clone if you decide to invest roughly a week of your time to the topic. So, lot of those 6,000 coins are more like hobby projects or proof of concepts, rather than actual cryptocurrencies with massive ambitions behind them. An entertaining example is the so-called UET, which stands for Useless Ethereum Token. The creator stated that he considers his cryptocurrency as completely useless and said that no one should buy it, but that he was interested if someone might buy it even in spite of his warnings. He hoped that enough people would buy into it for him to be able to purchase a flat screen television from the proceeds. He was able to raise several tens of thousands of US dollars.

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Second, there are also number of scams that have occurred in the cryptocurrency space, particularly during the Initial Coin Offering hype period of late 2017. Many companies collected money from investors from new cryptocurrencies that were supposed to revolutionize the world of finance. Pretty much none of them succeeded and a large number of them turned out to be scams.

The third point is a very positive one. Different cryptocurrencies try different things and there is no one architectural setup that fits every purpose perfectly, so it makes sense that there is not just one cryptocurrency. Bitcoin nowadays aims to be more like a “digital gold”, while Ethereum is kind of the go-to-place for smart contracts. Tether meanwhile aims to act as a stable coin whose value will continue to track the value of the US dollar. So, it makes perfect sense that there is not just one single cryptocurrency to rule them all.

NP: You mentioned that many cryptocurrencies are potentially worthless. Can cryptocurrencies fail?

AR: Yes, you could say that. A cryptocurrency only really works as long as there are actors willing to dedicate resources towards verifying transactions on the blockchain of the cryptocurrency. When those actors disappear, the blockchain ceases to be operational anymore and the cryptocurrency kind of becomes non-functional.

Another kind of failure could be complete loss of value, and we have seen that happen to a number of cryptocurrencies. The aforementioned Useless Ethereum Token, for example, has dropped in value to pretty much zero. But there are also other cryptocurrencies (that weren’t marketed as “useless”) that have dropped in value to approximately zero.

NP: Interesting that you mentioned about the price drops, because cryptocurrencies prices have been really volatile recently. What is going on, Alex?

AR: The reason for the price drop can be attributed to major factors. The first one is related to Elon Musk twitting about Bitcoin not being a payment method option for Tesla anymore because of its environmental impact. If you look at the Bitcoin and how energy inefficient it is, it gets difficult to justify its existence. It does not really work well as a payment solution or as store of value solution. From an energy inefficient point of view, there are estimations about its energy footprint may be the same as the entire country of Argentina. The other factor related to the price decline is related to the Chinese government recently said that tighter crypto regulation is needed to protect the financial system.

Regarding the cryptocurrencies prices, you can apply one of the fundamentals concepts of economics about demand and supply. The supply is pretty much fixed; on the demand side, there is no fundamental reflection on the real world for Bitcoin. When trying to value the bond of a company, we can look at its balance sheet, and, together with some predictions about default probabilities, we can make a pretty accurate estimate on what the fixed income security should be worth. When looking at real estate, we can inspect the building. Together with income estimates from rent, we can make a decent estimate on what that investment should be worth. Equities offer a similar picture. The value of a stock is a function of future company earnings discounted to today. We can estimate those earnings by looking at the products and services the company offers its customers and make estimates from

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there. What these examples have in common is that we have tangible productive references on which to base our calculations upon when trying to predict the value of assets.

However, the majority of cryptocurrencies are entirely different. They tend to be nothing more than a combination of numbers. As such, all approaches to evaluating them tend to be very technical in nature.

NP: You mentioned earlier that Bitcoin has been described as the “digital gold”. How do you see that?

AR: Unlike bonds, equities, and commodities, the price of free-floating cryptocurrencies like Bitcoin cannot be approximated around any sort of tangible intrinsic value, but is rather purely defined by the network effect. When people exchange their fiat currencies for Bitcoins because they want to hold them as a store of value, or to speculate on price appreciations, or utilise them in day-to-day transactions, the price goes up, and vice versa.

This has led to the theory that Bitcoin and other free-floating cryptocurrencies exhibit very little correlation with assets of different asset classes, and could therefore add value as a position in a portfolio from a diversification perspective. For the majority of time, returns of Bitcoin and equities have been neither consistently positively or negatively correlated.

However, in early 2020, Bitcoin lost even more of its value than US equities. In fact, during the last four equity market corrections of more than 10%, Bitcoin has, on each occasion, also lost at least 10% of its value and, on three out of four occasions, noted steeper losses than equities – an indication that diversification benefits are non-existent when they are needed the most. From a limited number of observations, we can gauge that Bitcoin has been treated by the overall market just like other assets that are deemed as generally more risky, such as equities and high-yield corporate debt. Therefore, Bitcoin suffers during periods of heightened market uncertainty when a “flight to safety” occurs, and safe-haven assets such as US Treasuries or gold profit in comparison to assets that are deemed more risky in nature.

Overall, the performance characteristics that Bitcoin has exhibited is the one of an asset with both risk and return far beyond the majority of traditional assets, and of a clear risk-on asset.

NP: We often hear that cryptocurrencies are used for illicit and illegal activities. Is it true?

AR: Yes, but definitely not as much as in the past. When we look back at the crypto market, and Bitcoin in particular, we see roughly three phases where different kinds of actors dominated the environment.

In the very beginning, it was mostly just computer geeks that experimented with Bitcoin. Bitcoin was initially set up by computer geeks who wanted to get rid of the regular financial system since they concluded that banks and central banks had failed the overall population during the 2008 financial crisis.

After some time, organized crime picked up on crypto due to its more anonymous nature compared to regular bank transfers. The most prominent site was called the “Silk Road” and had something like 1.2bn in USD equivalent revenues during its roughly two years of operations.

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Then, a couple years later, retail investors started to become interested in the space. And with the retail investors came the regulators, which then started to demand more and more transparency from the crypto exchanges.

Crypto exchanges nowadays need to fulfil quite a few Know-Your-Client and Anti-Money-Laundering requirements, commonly abbreviated as KYC and AML. As such, the usage of cryptocurrencies for illegal transactions has certainly become harder which has in turn lowered the appeal of cryptos as a payment method in illicit transactions.

NP: What is your opinion: will cryptocurrency be the future of money?

AR: All cryptocurrencies currently face one massive technical challenge, called the “blockchain trilemma”.

For any type of decentralised financial solution to really be able to replace our current fractional banking system, it needs to be three conditions: safe, decentralised, and scalable. However, the blockchain trilemma states that more often than not, cryptocurrencies will be forced to sacrifice one of these aspects for the sake of the other two, and are therefore not able to truly replace our financial system adequately.

The biggest cryptocurrency is Bitcoin and it uses a so-called proof of work consensus mechanism. Bitcoin scores well concerning safety and decentralisation, but has massive difficulties when it comes to scalability. Depending on certain factors, Bitcoin only manages between 5–15 on-chain transactions per second. This is a far cry from what is necessary to act as a useful global payment solution. Visa and Mastercard are already capable of processing tens of thousands of transactions per second. Projects such as the Lightning Network try to solve the scalability issue by creating a so-called layer 2 solution. However, these types of off-chain solutions potentially raise the question as to whether they compromise the safety of transactions as not all are then recorded on-chain, which brings us back to the trilemma.

When you look at cryptocurrencies that use other consensus mechanisms, such as proof of stake, they tend to score much better in terms of scalability and often do well when it comes to safety, but whether they truly are decentralized is often questionable at best.

The blockchain trilemma has been known since Satoshi Nakamoto presented his original Bitcoin whitepaper in 2008, and it remains an unsolved puzzle today that needs a solution for crypto to truly become the future of money and not just a hyper-charged speculative asset.

As of right now, no crypto solved the blockchain trilemma adequately, but we don’t want to completely rule out that a technological breakthrough could usher in a true financial revolution in how we use and think about money.

NP: Really interesting work you have been doing on the cryptocurrencies, Alexander. Thank you so much for joining us on Think Tank.

AR: Thank you, Nisha.

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NP: Let's now bring in Esteban Polidura for his investment views. Esteban, how do investors decide whether to buy or sell cryptocurrencies? Why is it that many still prefer to remain on the side-line?

Esteban Polidura (EP): Thank you very much Nisha for having me. In the case of cryptocurrency assets, there are no cash flows yet. For some there will be in the future, for others not. The absence of cash flows is key because that means that traditional valuation methods based on fundamental analysis are difficult if not impossible to apply. Fundamental analysis attempts to establish the fair price of a security through the study and forecast of variables that affect its value. Among these variables we find revenues, operating income, net profit, free cash flow and dividends. Then, valuation methodologies such as discounted cash flows and relative multiples will use these variables as inputs to arrive at fair values.

Now, in the absence of ideal conditions for fundamental analysis-based valuation methods, technical analysis can shed some light. Technical analysis studies price patterns and stock trends to signal whether the price of an asset could rise or fall. Our team suggests analysing cryptocurrencies with a trend-following approach, as there are periods of strong trends, and then exiting the market when the trend turns bearish.

NP: You mentioned that technical analysis seems to be currently the dominant used by investors. So, what is technical analysis currently saying about the major cryptocurrencies?

EP: Returns in bitcoin make most investors jealous, as it has returned more than 8,000% over the past five years. Looking at the seasonality of bitcoin, our team sees that for the past ten years there has been a tendency to rally into summer and a correction into autumn. It would be unrealistic to expect the same percentage moves as in the past ten years. Nevertheless, there seems to be a good seasonality into summer.

Now, be aware that these returns have come with a high uncertainty and volatility. Bitcoin has experienced three crashes. But even the short-term volatility should not be underestimated, as on average there is a 5% correction every 16 days. Thus, investors need to be able to stomach short-term volatility. From a risk/reward point of view and putting the returns in perspective by taking into account volatility, our team sees that bitcoin has similar returns as the leaders of the past five years: information technology companies.

NP: Esteban, give us a clue, how much should cryptocurrencies account of an investment portfolio?

EP: We think cryptos have become too big to ignore, as the top five cryptocurrencies have a market cap of USD 1.4 trillion, with Bitcoin and Ethereum making up more than 90% market cap of the complete list. In turn, Julius Baer's Research team has started to track the top five cryptocurrencies in its Technical Investment Strategy publication.

Now, one thing is the need to be informed about an active market and another to have to include these assets in a portfolio. The Strategic Asset Allocation of our Chief Investment Office does not include cryptocurrencies currently but instead focuses on traditional asset classes. For example, our team

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suggests the asset allocation for a euro-based balanced risk profile to be split 53% in equities, 36% in bonds, 6% in cash and 5% in alternative investments.

As I said, this doesn't mean that secular stories should be overlooked. The equity portfolio of our team's strategic asset allocation includes a tactical position in Next Generation themes, which are actively followed by our Research team.

NP: Noted that point. Esteban, thank you so much for joining us for an interesting conversation on Think Tank.

EP: My pleasure Nisha, thank you.

NP: We have seen that information is key when it comes to cryptocurrencies. While it can be a novel and exciting asset class, purchasing it can be risky, as you must take on a fair amount of research to fully understand how each system works.

If you have any more questions on cryptocurrencies, please do talk to your representative at Julius Baer. Thank you for listening to this episode of Think Tank. Do subscribe to the podcast on Spotify and Apple Podcasts. From me, Nisha Pillai, goodbye for now.