CRYPTO A.M.

Our series on AI, Blockchain, Cryptoassets and Tokenisation

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PARTNER CONTENT

CITY A.M.'S CRYPTO INSIDER

JAMES BOWATER

Since column last week, the Crypto market had another flash crash on 10th January and Ripple (XRP) has traded places (again!) with Ethereum (ETH). At the time of writing this piece there are yet more red candles on the trading screen. Bitcoin (BTC) is down circa 12% over the past week trading at US$3,569.05, Ripple (XRP) too is down cicra 12% at US$0.3221 and worse Ethereum (ETH) down over 20% at US$117.61 with the overall Market Cap at US$118bn (data source: www.CryptoCompare.com)

Ten years ago on the 9th January 2009 the Bitcoin network became a reality when the first transaction took place between Satoshi Nakamoto and Hal Finney. In my view this was the defining moment for the crypto / Blockchain world as it set the scene for the new Blockchain protocols and inevitable improvements to and variants to the Bitcoin Blockchain.

The best known of the new entrants was Ethereum with the ability to more easily create decentralised applications, smart contracts and tokens giving birth to the majority of altcoins. As with all new technologies though there were bugs and vulnerabilities so it was inevitable that there were those who wanted to start from scratch having learned from the failings and/or limitations of first and second generation protocols.

Charles Hoskinson was a co-Founder of Ethereum, provided work and help to Ethereum Classic and is the Founder of Cardano. Uniquely in the space he has a broad vision based on his extensive experience to date. I once heard him say if Cardano forks he has failed. What is very refreshing about his approach is that he takes it as seriously as NASA would designing a manned spacecraft where risk of life is ever present. Entrusting your wealth, your identity and even your medical records to a Blockchain protocol, whilst not a risk to life, it is absolutely a risk to livelihood and reputation. The level of detail and scrutiny with scientific standard peer review means that Cardano has been slow and methodical compared to others but that's a price worth paying if what is released is scalable, interoperable and sustainable with no vital flaws.

Changing tack somewhat, regular contributor Barry E James is championing the World First Initiative (see world1sttaskforce.org).He explained that "ten years on we're not just remaking the internet, money and markets - but our entire environment, our future. Disruption on an unprecedented scale. I looked at the work of governments and disruptors alike around the world and saw that we're set to miss a golden opportunity to replace our digital 'toll roads' with public highways, open to all. But this is no-ones job! So concluded we need a taskforce to provide for the thoughtful and purposeful introduction of these frontier technologies. To ensure that disruption is directed to the good of mankind. Not just for profit, regardless of the true cost. Please do join us."

A PRIMER ON MONEY

Designed by Phill Snelling, Bowater Media

Money is the lifeblood of society, yet few people really understand what money is and what it is not. Here I will explain why gold is not money, why no cryptocurrency is money, and the best money we can get is central-bank-issued digital currency run by an automated central bank.

Money is what you use to buy things, keep to spend later, and to get a loan and pay it back. Banks do not magically make money out of thin air - banks take collateral and monetize it, making hard assets liquid. Central banks do make money out of thin air. By adding and subtracting money, they can both stimulate the economy and maintain a good level of inflation.

First, two definitions: Deflation is when prices decline. If £1 buys 4 lollipops today but 5 lollipops tomorrow, many people will hold money rather than spend it, and that can bring an economy to a halt. Gold hoarding was the primary cause of the Great Depression. Because deflation is so destructive, most central banks today prefer a modest level of inflation, which they adjust using various means. A small amount of inflation, say 2%, doubles prices every 36 years and is a small price to pay to keep deflation away.

Gold has almost no intrinsic value, certainly no more than platinum, but for a long time gold and silver were used as money until something better came along. There is a limited supply of Gold. In any year, the most all mines can produce is roughly one percent of world supply. So when demand for gold increases, anything priced in gold goes down relatively, and when demand for gold decreases, prices must go up. As Hayek said: "... because of the increased demand for gold, the value of gold would go up; but that very fact would make it very unsuitable as money."

Bitcoin, created by a person who certainly came from the Austrian school of economics, is a better form of gold. There is no reason why bitcoin (or Zcash or DASH, etc.) should not replace gold as a store of value in the long run, and I hope they do. But all cryptocurrencies have the same flaw: they have a fixed or nearly-fixed quantity, and that makes them equally unsuited to be money. Suppose you lend a friend 100 ether at ten percent interest. A year later, you get 110 ether back, but at that time the purchasing power of the ether may be half or twice as much - this makes it unsuitable for loans, as the interest rate is negligible compared to the exchange rate. Just because we call them "currencies" doesn't mean they are money. They are not.

Money is relative to an economy. What functions as money in Iceland won't work in China. Whatever people say about Brexit, most Brits are probably happy to have pounds, rather than euros, in their wallets. The major currencies are practical solutions that keep evolving and still need a bit of tuning to get right. There are different solutions for different currencies, but the solution for the pound and dollar are the same: automate monetary policy. Most central banks try to keep inflation around 2 percent, yet they manipulate interest rates to try to counteract the business cycle, raising rates when unemployment is low and lowering rates when unemployment is high.

Sometimes this works; usually it doesn't. History has shown that central banker's expert judgment exacerbates the business cycle more often than dampening it. The Great Recession of 2008 was caused more by central banks doing the wrong thing than an overheated housing market. However, Australia hasn't had a recession in 27 years, and it's no accident: Australia's central bankers do a better job managing their supply of money, adding more money when the economy cools and reducing the supply when the economy heats up.

People have argued over the right way to do this for a century now. While Keynesian theorists have focused on government spending and interest rates, monetarists have shown that a) the amount of money in circulation really determines prices, and b) the future intentions of the central bank can increase or reduce the rate of economic growth.

The solution: we can automate central bank monetary policy using something called nominal GDP level targeting. The central bank should say what eventual outcome they want rather than trying to adjust the various rates and instruments that contribute to what they want. NGDP growth incorporates both inflation and growth, so by maintaining a steady rate of NGDP growth, a central bank can provide just the amount of stimulus or braking the economy needs on a daily basis, giving everyone a clear signal that provides the best sustainable growth rate for an economy. By combining central bank digital currency (probably on a government blockchain) with smart contracts that implement NGDP level targeting, we will have an optimal solution for money in the UK with no more recessions, ever. Isn't that the kind of money we really want?

> We will have an optimal solution for money in the UK with no more recessions

At Pillar Labs, we do research on macroeconomics, tokenomics, decentralized systems, governance, and new features for the Pillar wallet which is available in App stores. Learn more at labs.pillarproject.io and the Pillar Wallet at www.pillarproject.io

Credit: David Siegel, Founder & CEO Pillar Project in conversation with James Bowater

THE INTERNET WON'T AFFECT US AT ALL

What is your is your blockchain strategy? This is increasingly a question not just for banks and Fintech companies but across the board. Both for established businesses and those in frontier and sunrise industries.

"It won't affect us" leads inevitably to the questions: Why? How do you know? On what can you base that? Especially in the light of the likes of Kodak and the entire music industry who took a similar approach with disastrous consequences. I happen to know this because in 1996 I was in Nashville Tennessee talking to major record company executives fully three years before the advent of Napster, offering them a paper exploring the remaking of the music industry and offering digital models to renew and revitalize building on the old to create the new. As in Don McLean's now famous lyrics "They would not listen, they did not know how". It was easier "to carry on regardless" hoping for the best.

Having lived through the first digital revolution which remade not just the world of business but our entire environment it's far clearer that tech is no longer just about techies, and technology will continue to transform at a speed and in ways that can be beyond disruptive. An existential threat.

Blockchain technology is providing the means to create new kinds of infrastructure, building trustworthy systems which effortlessly span continents and the world. Integrated not separate from what is there already. With the rollout just the deployment of a dapp (distributed app) to a million or even a billion phones.

Blockchain is the new spine which will support and help deliver securely a host of frontier and other technologies safely, at scale, increasingly at minimal cost. Affecting almost every industry on the planet - and creating whole new ones.

Which is why the British Blockchain Industry Association (BBIA) is embracing not just Frontier Technologies, across the board - including AI, bots and robots, IOT and AR - but each and every vertical, industry - seeking to support their directors, strategists and managers.

Join us now at www.BritishBlockchainIA.org, free until our formal launch, to network with the minds at the forefront of this revolution, and benefit from understanding and insights unavailable elsewhere.

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Barry E James is Founding Chair of the The British Blockchain Industry Association (BBIA)

STOs Set to Take City by Storm?

Security Token Offering (STO) investor Mike Barrell says that security tokens represent "a massive tidal wave of opportunity" for not just geeks but those in the city in 2019. Now he's putting his money where his mouth is as the founder of next week's 'Security Tokens Realised' conference in the city, bringing together the leading minds in the field from the four corners of the planet.

He also believes it is inevitable that such token in their various forms, representing stocks, bonds and new instruments, will become a 'New Normal' for major banks, stock exchanges and the city – able to replace traditional equity, bringing additional liquidity. "We're talking hundreds of millions which I think will quickly go to billions in terms of property portfolios and the tokenisation of existing funds for example."

If this sounds just like insupportable hype then think again. It's widely thought that 2019 will be the year of the Security Token, for good reasons. An increasing number of people see this as a natural progression not just for ICOs but for the mainstream too.

Of course there will be some of that, startups and early-stage companies seeking capital, but the vast majority of security tokens, he believes, will be completely different. And far easier to understand than all the ICO white papers and video pitches, because they will be coming from established companies. So they can be valued in established ways that are familiar to those versed in banking and private equity - without the need to understand blockchain, tokens, and tokenomics.

Which is why, he says, adoption will not just be rapid and the pace rapacious but shortly the established banks and capital markets will have little choice but to dive-in simply because the commodities in which they need to invest will be available only as tokenised securities.

The conference is certainly timely and promises to be a milestone, and possibly a turning point, in the rapid development of tokens and the adoption of blockchain technology as the means of choice to keep account and track ownership. Fostering more fluidly than ever before, at minimal cost. Microscopic cost when compared with more familiar digital transactions, let alone paper (which many of those digital transactions just ape).

I asked Mike if this shift is really an inevitability? "I think absolutely it's 100 percent inevitable." He says. "The train's left the station. It's happening, and the event will be absolutely packed. We have 35 different media outlets clamouring, all extremely interested - this is very, very hot. Because the market that's involved with security tokens will rapidly go to Billions".

Why? "Direct ownership" means there aren't a lot of margins being skimmed off everywhere on each transaction. Plus the removal of most of the cost and friction also allows a kind of hyper-fluidity. "There are a lot of elements , not just one element at play here. There's liquidity, there's cost cutting, there's availability, there's access to assets that people can't currently invest in - including physical assets such as property and art. Plus it's a win-win thing; the person with the asset wins and the investor wins".

If you're in the city, says Mike "You need to learn about this and you need to be part of it because it's happening."

You can hear my full interview with Mike Barrell on ICOrad.io and more on the conference at www.SecurityTokensDelivered.com

Crypto A.M. shines its Spotlight on Wirex

Wirex is a UK-based FCA-regulated provider of a digital money platform for individuals and businesses. The platform is built on state-of -the art technology that integrates with cryptocurrency blockchains to facilitate the everyday spending of both crypto and traditional currencies, providing a trusted and cost-effective service for digital money transactions.

In 2015 we created a stir in the market with the launch of the first ever Wirex Visa card that allowed users to convert and spend their crypto anywhere Visa is accepted.

We also introduced the world's first cryptocurrency rewards programme - Cryptoback™ - which pays card users 0.5% back in Bitcoin on point of sale purchases. Unlike other reward programmes, ours pays users in real money for them to use as they please.

Our platform currently supports Bitcoin, Litecoin, XRP, Ethereum, Waves GBP, EUR and USD with many more currencies in the pipeline.

We place a lot of emphasis on the fact that Wirex is not an ICO, we are backed by reputable financial institutions, including Tokyo-based SBI Group. We preferred to go this route because we wanted to offer the market a tangible product rather than a promise. We are very proud of what we have achieved when so many contenders in this field are still struggling to deliver viable products.

We have spent the last four years building our own secure software platform with a team of 200 highly skilled and dedicated IT professionals. Our in-house team means we can deliver new products and upgrades quickly and efficiently leading to reduced costs for our users. The company currently employs over 320 people around the world and we have offices in London, Kiev, Tokyo, Toronto, Singapore and Atlanta.

> Our aim is to bring cryptocurrencies into the mainstream and to assist people to spend cryptocurrencies as seamlessly as traditional currencies

Dmitry Lazarichev, Co- Founder of Wirex

Pavel Matveev, Co- Founder of Wirex

We are keen followers of trends and developments in the cryptocurrency market and are regularly asked for commentary and thought leadership contributions around the world. With 2 million loyal users in 130 countries, we believe we are playing a significant role in bringing digital currencies into the mainstream. It has always been our aim to bridge the gap between traditional and cryptocurrencies, and to integrate digital money into everyday life. Wirex will soon be adding accounts in over 25 different currencies to deliver a truly bespoke service that enables our users to pay by Wirex with confidence .

We are a looking forward to an exceptional 2019 as some of our long-term projects such as our business offering, and USA launch are coming online in the first quarter.

About Pavel Matveev and Dmitry Lazarichev

Pavel Matveev and his co-founder Dmitry Lazarichev brought Wirex to life in the UK in 2014, after realising that it was extremely difficult for the man in the street to spend their cryptocurrencies. Since then they have expanded the service into Europe, North America, Canada, Singapore and Japan. They lead a team of over 320 of engaged employees, including over 180 highly skilled engineers and developers based in Kiev. Wirex are seen as a thought leader in the arena of mass adoption of cryptocurrencies and the founders are highly sought-after speakers at blockchain and payments conferences around the world.

BLOCKCHAIN PRINCIPLE: IMMUTABILITY

Troy Norcross, Co-Founder Blockchain Rookies

One of the key features of Blockchain is the concept of immutability. Once something is written into the blockchain it cannot be deleted or edited. It cannot be changed. The immutable nature of data written into the blockchain is one of the key differences between blockchain based data and data stored in a traditional database. But why should data on a blockchain be immutable?

The first use of Blockchain technology is Bitcoin. Bitcoin requires that information written into the blockchain be immutable in order to prevent people tampering with the ledger that records all bitcoin transactions. Once a transaction has been written into the blockchain it is permanent. This means that no one can come along later and amend or delete that transaction. The transaction is immutable.

When it comes to using Blockchain technology for improving supply chain transparency, it is also important that the data is immutable. When a record is added to the blockchain identifying a specific transfer of goods including the origin of the goods and their quality, this record is immutable. It cannot be edited or amended and this reduces the opportunity for fraud or corruption and also provides a reliable audit trail.

What if you need to make a change because some of the information entered is wrong?

Immutable doesn't mean correct, it only means unchangeable. Sometimes mistakes happen and records have to be amended. In the world of Blockchain, records are amended by adding new records to the blockchain which identify that a prior record should be updated or possibly an adjusting transaction is added to the blockchain to allow for the ledger to be corrected. Blockchain allows for change by adding new records rather than amending existing records.

And one last thought: Blockchains "can" be built to be fully GDPR compliant in spite of this immutability.