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ECONOTE No. 77: Crypto currencies : Digital aberrations as ever.

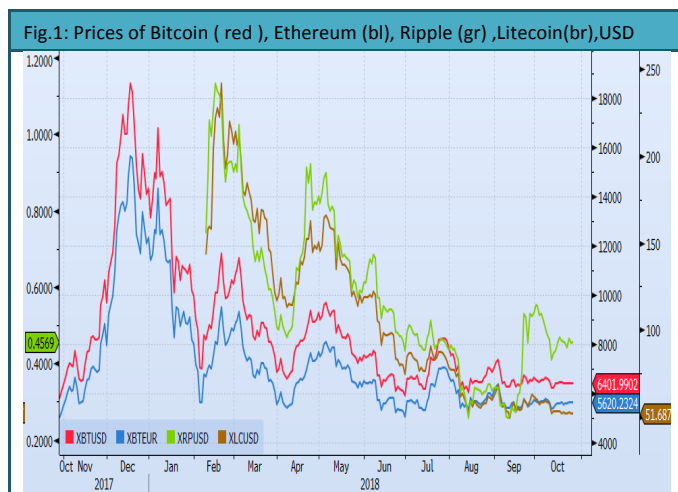
28/10/2018

Summary	Investment Conclusions
<p>We have called crypto currencies “digital aberrations” and the term is more appropriate as ever. The fact that they still survive is not evidence of their inherent validity, or even usefulness, as to the immense gullibility and greed of humankind. P.T Barnum has been attributed to saying that “there is a sucker born every minute” referring to the size of his potential audiences. But Albert Einstein nailed it much more scientifically as “Two things are infinite: the universe and human stupidity; and I’m not sure about the universe.” This report revisits the theme since our last analysis in Econotes Nos 66 & 67, and the results are depressingly familiar. The irrelevancy of cryptos as investment assets persist, volatility is as high as ever, the “industry” of mining cryptos instead of acting as warning has attracted even more potential losers while authorities remain, as ever and correctly, hostile but averse to outright banning of cryptos.</p>	<p>Investing in cryptos must address the following issues. Cryptos are backed by nothing. Cryptos can be created by anyone and hence their potential supply is unlimited. There are now over 2,085 different cryptos. Their “current” supply is limited by the software which allows their creation and which, for some of them, has build-in limits. How fast are cryptos created depends on how fast crypto “miners” can produce them thus making the current supply of cryptos dependent on the absurdity of anyone creating them and, on anyone with sufficient potent mainframe computers, producing them. Finally, cryptos yield no dividends or interest, have no claim on real assets or future income streams and, hence, their only return, capital gains, is based on the willingness of other people to buy them.</p>

Apologies for the repetition

The persistence of cryptos, despite the complete collapse of their prices in 2018 (Fig. 1), has led investors to, reasonably, doubt critics such as the Econotes that persist in warning that the cryptos are literally “nothing” and backed only by the willingness of other people to hold them. So here, again, are the key arguments against holding cryptos. **First**, cryptos are backed by nothing, there are no assets supporting them and hence they have no returns except expected capital gains (or, now, only losses !). Central bank money, whether printed notes or deposits with the central bank, is fully backed by government bonds. Central banks do not create money out of thin air. They create it by lending, mostly to the government. Central bank money is the liability of the central bank backed by bonds which are its assets. We may distrust the government or its bonds, but official money obeys the rule of double entry booking, whereas cryptos do not. This hugely important fact is always missed out in the defences of cryptos. **Second**, cryptos are created through a software which allows “miners” with sufficient computing power to solve a series of problems with the aim of receiving rewards, not in fluffy toys, but in cryptos. These softwares allow only a limited amount of cryptos to be created thus “making them scarce”. The scarcity argument is utter nonsense as there are now 2,085 different cryptos, and rising, some worth only cents per unit, others, such as the Bitcoin, over USD 6,000. How it is possible that “money” can have different value per unit, given also that it is backed by nothing, is never explained by crypto supporters. A lot of these cryptos are not meant to be or used as “money”, but, such as Alt coins, are part of specific applications or uses. The easy riches argument of crypto supporters not only is numerically false, as we explained in detail in Econotes No. 68, but it is further distorted by the

the open manipulation of the crypto markets and the high concentration of their ownership in few hands. **Third**, the general ignorance of what blockchain does has linked the cryptos with the truly useful application of that software. Blockchain is a data and files handling software. Period. It has certain characteristics which makes transactions via it transparent and possibly unhackable. The fact that cryptos use it is not an argument to hold them ! Blockchain type of software predates cryptos and, in fact, the use of cryptos of blockchain may give, at the end, this technology a bad name !



Source: Bloomberg

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Manipulation, theft, fraud and irrelevance

The arguments over the **growing acceptability** of cryptos in daily transactions fall well short of reality. A vociferous advocate of cryptos even made the pathetic mistake of claiming that Japan has made cryptos "legal tender" when Japan simply recognized them as means of transactions. (Japan officially recognizes bitcoin and digital currencies as a "means of payment" that is not a **legal currency**". See Article 2-5 of Japan's Payment Services Act (PSA) 25 May 2016) Legal tender means that certain assets such as central bank notes and coins must be accepted for the settlement of debts, and if refused the debt is considered paid. Nothing of the kind is true for cryptos. Several countries including China have forbidden crypto exchanges. The US accepts only its own legal tender for the payment of taxes and most credit cards do not allow now their use for buying crypto. Last, but not least, how could any debt, say in USD or EUR, could be paid with crypto when its value varies continuously? Suppose that an EU taxpayer wanted to pay his taxes, which are in EUR, using JPY. The only way that this could be done is to exchange JPY for EUR thus ensuring the correct amount of EUR to cover the taxes. Hence cryptos

Fact Box: Thefts of cryptos from crypto exchanges 2014-18

Exchange	Country	Date	USD theft ml
Coincheck	Japan	Jan. 2018	535
Mt Gox	Japan	Jan.2014	450
BitGrail	Italy	Feb.2018	170
Bitfinex	Hong Kong	Aug.2016	77
NiceHash	Slovenia	Dec. 2017	70
DAO	Germany	April 2016	55
Coinrail	S.Korea	June 2018	40
Youbit	S.Korea	April 2017	35
Parity	U.K	July 2017	32
Bithumb	S.Korea	June 2018	32
Bancor	Israel	July 2018	24

Source WSJ 16/7/2018

can only be used to pay items priced in EUR by exchanging them for EUR. **Manipulation of the crypto prices is rife.** Consider the following: (A) The WSJ of 6/8/2018 reported that during Jan-Jul 2018 there were 175 schemes involving a "Pump and Dump" operations with 121 different cryptos which generated USD 825 ml of false trading activities resulting to hundreds of millions of losses to investors (B) The FT of 1/10/2018 reported that in Aug.2018 there was more than USD 6.0bl daily trading volume in cryptos which was fake, thus boosting prices (C) The FT of 10/6/2018 reported that Bitcoin ownership remains extremely concentrated with about 1,600 investors holding USD 37.0 bl, about one third of global total. There is evidence of concerted selling by this group from the end of 2017 to April 2018. (D) The WSJ of 19/5/2018 reported that of 1,450 ICOs investigated 271 contained clear evidence of fraud. And as for **theft**, see the (evidence in the Fact Box above. So much for the unhackability of crypto accounts and the fact that, unlike with a bank or a credit card account, the absence of regulation and of a central authority cryptos, there is no recourse for their theft or loss.

Fig.2: S&P500 (black), Bitcoin (red) VIX (green), 2017-2018



Source: FT Research

So what remains ?

What remains, is the unswerving gullibility of crypto investors to the bright future of these "nothings" based on the notion that everyone makes capital gains coupled with the confusion that blockchain equals cryptos and, hey presto, the adoption of blockchain by banks and accountancy firms shows the growing acceptability of cryptos. Investment-wise cryptos might, just, have had some portfolio diversification value if their price movements were uncorrelated with the prices of other assets, such as shares. Fig. 2 shows that for the last 12 months, during Oct 2017 to about April 2018, the price of Bitcoin followed the movements of S&P 500 but then diverged till Sept. 2018. The same could be said for the movements of VIX, the index of volatility of shares. This sample period, however, is too short, but, nonetheless there is no clear evidence of risk diversification.

And to end on a slightly lighter note, a story from the SCMP of 6/1/2018 quoted a US study which showed that, currently, the mining activities of cryptos are consuming 27 terawatt hours p.a. or about two thirds of Hong Kong's annual electricity consumption. This implies the burning of 11.0 ml tons of coal and the consequent pollution. Switching to solar energy, at least in the US, would not have helped, as this global consumption of energy by crypto miners would have required half of the entire US utility-scale solar panel energy. This is not a criticism of cryptos, but simply of the underlying mania to produce and become rich by selling "digital nothings". Buying cryptos can only be justified on the basis of expectation of gains as cryptos can not be used for everyday transactions and, as shown, can not substitute any means of effecting transactions as the price of the crypto is not constant and nothing in this world is quoted in terms of cryptos, such as oil, commodities, shares, property, milk, shoes etc. All these goods/assets are quoted in USD or in the "legal tender" of national currencies which do exchange for each other, hence forex rates. Cryptos are not quoted in cryptos, but in USD and in other currencies they are supposed to replace!

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