**Crypto-currencies: Misnamed, Misunderstood, and a Mistake for Casual Investors**

Let me begin by declaring that Bitcoin has jumped the shark. Hopefully the news of exchanges being shutdown and wild price swings will provide sufficient red flags to potential investors so that they may avoid being drawn into this self-evident Ponzi scheme. Alas, this likely does not mean the end for crypto-currencies...for better or for worse.

First, crypto-currencies are not, strictly speaking, currency. I realize that some countries, notably India, were rumored to be (but then denied) considering issuing a fiat crypto currency. (As a side note, it was rumored that the Reserve Bank of India would have named their fiat crypto currency Lakshmi after, of course, Lakshmi Menon--whom I absolutely adore. I think she was named after a Hindu goddess, so cool!). A crypto-currency backed by a national government may be an entirely different animal, as opposed to Bitcoin and the seemingly endless array of knock-offs. They are not backed by the wherewithal of a national government nor linked to a precious metal but instead obtain value from their users/investors and the details of their platforms and structure.

Further to this point, because they are not issued by and backed by a government, the supply of cryptocurrencies is not controlled by governments and central banks.  Yes, the founders of Bitcoin have promised to mine only 21 million Bitcoins. But that doesn't stop others from offering alternatives to Bitcoin that are perfect substitutes. Already there is Ethereum, LiteCoin, ZCash, Dash and Monero--and these are just the bigger ones. These days, everyone is getting in on this craze. Hell, I am even considering issuing a crypto-currency.  You should too. Why not? You just need a Blockchain license and a Web site...well, you get the idea.

Second, prima facie evidence of the fact that cryptocurrencies are not actual currencies is their volatility. For nearly 7 years after being introduced onto the market--and being the preferred means of laundering money by terrorists, drug dealers, and other nefarious sorts--Bitcoin behaved like a traditional fiat currency. In short, it was stable and held its value within fairly narrow parameters (think the "snake in the tunnel" policy among members of the Euro-Zone before the Euro became the regional currency). Then, suddenly, in 2017 Bitcoin appreciated something in the order of 10,000%. Since then, the value of Bitcoin relative to the US Dollar has oscillated wildly--as have other cryptocurrencies. A currency needs to be a store of value in addition to a medium of exchange. Clearly cryptocurrencies have not shown that they are a stable store of value. That is you do not want to hold on to them unless you are in a mood to gamble.

Most recently, Bitcoin and other larger crypto-currencies have tanked--with Bitcoin depreciating 28% in a single day and almost 50% in less than a week.  By stark contrast, most fiat currencies oscillate in value by less than 1% during the course of a single day, and close up or down by a fraction of that. To put this in context, such volatility as Bitcoin and other cryptocurrencies are exhibiting is similar to the Reichsmark during the Weimar period of Germany--an experience so terrible that four generations later German (and by extension EU) monetary and fiscal policy is primarily driven by a desire to avoid repeating it.

Third, while it has been argued that cryptocurrencies may be useful as a means of promoting financial inclusion--to the extent that it will enable a person to set up an e-wallet and transact electronically relatively more easily than with a traditional bank--it is unclear the a cryptocurrency is needed to play the role of a digital currency (witness the success of M-Pesa in Kenya). The case for using cryptocurrencies to promote financial inclusion emphasizes the use of Blockchain to reduce fraud and assumes an appropriate regulatory framework to protect those transacting in crypto-currencies. Candidly, it is hard to reconcile reality with this logic. The barriers that cryptocurrencies help overcome--those that made this the transaction medium of choice for ISIS and drug kingpins--are national financial regulations. And one of the appealing aspects of Blockchain is that it enables anonymity--which is a premium for those seeking to move money across borders without detection.

Given this, it is hard to see how cryptocurrencies can thrive given "appropriate regulations," but far easier to see how a digital fiat-currency could fill this role. Presumably, an appropriate regulatory framework would emphasize know your customer requirements using verifiable means of establishing the identities of the parties to a transaction (buying and selling crypto-currency chiefly among them). This would be necessary to prevent money laundering and to protect the interest of the investors in a cryptocurrency transaction. But once we start down this path, the original appeal and relative advantages of crypto-currency falls by the wayside. As a result, much of the perceived magic of cryptocurrencies--their relative efficiencies in terms of enabling electronic transactions--vanish as you are no longer able to by-pass all those pesky regulations.

Fourth, and most importantly for those of us who care about financial inclusion and economic development, is that cryptocurrencies do not offer stored value. It is true that they may appreciate--even massively--but it is equally true and far more likely that they will oscillate massively or even depreciate considerably. Thus, the Indian smallholder farmer who invests 6,500 Rupees (roughly $100 US, or the net proceeds from 1 season of crops) in Ripple on Monday could have just 3,250 Rupees by Friday--the day he needs to repay 5,000 Rupees to his agriculture supplier. The volatility inherent in non-fiat crypto-currencies are exactly why no responsible member of the Developmentista community should ever encourage a low- to moderate-income person from investing in or transacting in crypto-currency.

In fact, it is unclear altogether what development problem is being solved by cryptocurrency. In some cases it helps overcome the barrier or establishing a reliable financial identity to enable the creation of an e-wallet. Having said that, this is a diminishing problem. India's investment in a national identification system using biometrics demonstrates this point. Soon, there will be few people on earth for whom a digital identity is unavailable. Further, given the plethora of options to cryptocurrency--including the growing multitude of smart-phone friendly payment systems--that don't present formidable barriers to opening an account, it seems preposterous to assume that the financial inclusion benefits from an easier registration outweighs the potential risks from crypto-currency volatility.

Fifth, and finally, as governments increasingly focus on cryptocurrencies (they are, and will for a variety of reasons including micro- and macro-prudential oversight, monitoring potential impacts on monetary policy and/or threats to the fiat currency, monitoring for evidence of fraud and money laundering, monitoring for terrorist activities) they are likely to react in either or both of two ways: (1) ban the use of cryptocurrencies as they enable the bypass of important financial regulations, carry significant risk of harm to individuals, the financial services sector, and possibly the economy as the use of cryptocurrencies grows; and/or (2) introduce a fiat crypto-currency as an alternative to the bevy of non-fiat crypto-currencies.

I tend to think that the current volatility will end with the crypto-currency bubble bursting. I don't know when this will be, but until it happens and there is a government reaction we will continue to see the growth and proliferation of crypto-currencies. Once the bubble bursts, however, there will be a call for government action to protect consumers and investors from future such occurrences. Governments will take this opportunity to ban them and/or replace them with government backed digital currency that is subject to the appropriate set of regulations.  One only hopes that governments are pro-active on this issue and prevent a predictable outcome of pain and suffering associated with the bursting of an asset bubble.

With all that being said, the technology behind Bitcoin (blockchain /distributed ledger) may be useful in facilitating transactions and financial exchanges. But this should be done by well-regulated institutions. There is zero chance that major governments will surrender control over currency or allow large (or a large share of) transactions to be anonymous. These attributes are bugs, not features.

By the time you've finished reading this article, the value of Bitcoin will have oscillated by 50%...by contrast the good old boring Yen, Pound Sterling, Euro, and Dollar may have gone up or down 0.00001 percent. These are far more likely to be around in 100 years too--digital or otherwise. Based on this, you can make your own investment decision...I've made mine--and it's green.

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