

THE PROBLEM WITH CRYPTOCURRENCIES

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Where does this leave us on cryptocurrencies? No economic yield, no theoretical limits to supply, no proprietary technology, limited economic usefulness, and challenges to legitimacy. And, as an inconvenient aside, no vaguely credible means for valuing them in a world gone mad with speculation...

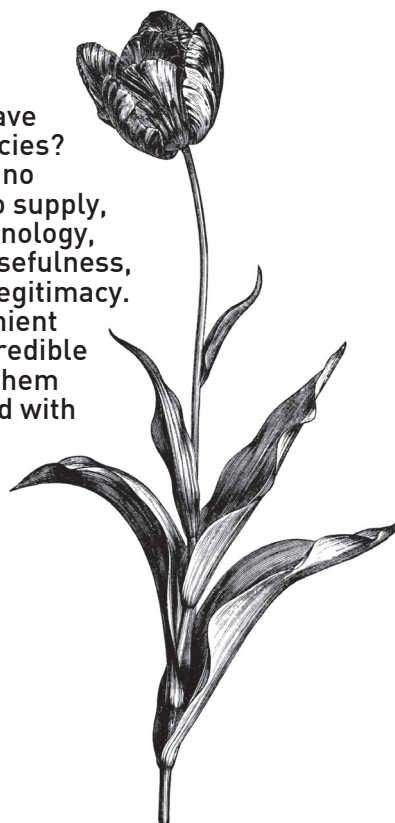


Fig. 118. TULIPA GESNERIANA.

Cover

The South Sea Bubble – An Allegory by William Hogarth (1721) caricatures the financial speculation, corruption and credulity that caused the South Sea Bubble in England in 1720-1. Speculation in the company's stock led to a great economic bubble in 1720, with the company's shares rising rapidly in price from around £100 to over £1,000. Many investors were ruined when the bubble burst and the value of stock crashed – in many ways a repeat of Tulip Mania in the Netherlands (1637).

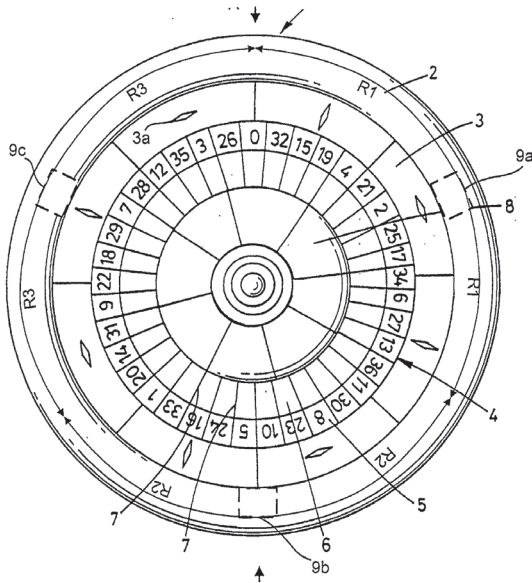
If there is one little sentence that drives me to despair, it has to be, “this time it’s different.” It almost never is, sadly, and the patterns of bubbles and their eventual bust follow a depressingly similar path. Although the arguments in favour are superficially well-constructed and sometimes cloaked in legitimacy, especially when espoused by seemingly-reputable individuals or based on a sliver of truth, most of them fall into the realm of pseudo-logic and are as speculative as the “investments” themselves.

Before finding yourself too quickly persuaded by these arguments, always interrogate the financial incentives behind the sales pitch. It wasn't that long ago that the best and brightest were hailing sub-prime-linked structured products as having permanently revolutionised the credit landscape (Look! Water into Wine!) as everyone scrambled for a piece of the pie. We all know how that played out. What might be useful is to look at how investments have been valued for millennia, with or without academic models or spreadsheets.

Investing in equities, bonds and properties is not gambling simply because the outcomes are uncertain. I am flogging a dead horse when I reiterate that excess returns (over cash) are a function of risk – they only exist because of uncertainty. If the returns on a share were as certain as the returns of a money market fund, the share price would re-rate upwards until the expected return was no more than that of cash. Instead, prices are increasingly discounted the riskier an outcome is, offering excess returns for investors prepared to take that risk.

Unfortunately, this reward for risk-taking can't simply be extended to cryptocurrencies just because they are volatile and indisputably risky. There is a difference between the expected return on risk that can't be avoided on a yielding asset and “empty” risk, which is volatility in the absence of an expected return.

Long before the advent of cryptocurrencies, the only expected return from currency exposures was the interest rate or inflation differentials between countries. Currency volatility offers no additional return over this. South African investors can't drive up the risk premium on US bonds just because they experience a greater volatility in rands than domestic US investors do in dollars. This is empty risk, plain and simple.



Of course, you can make money out of speculating in cryptocurrencies and many have become wealthy beyond their wildest dreams in a very short period. But you can also make money in a casino, which doesn't make gambling an investment. So why are cryptocurrencies not an investment and what is the difference? There are only three important things we need to evaluate when seeking value in cryptocurrencies: economic return, scarcity and utility.

1. Cryptocurrencies have no economic return. Equity returns are based on the underlying profits of companies, which are either paid out as dividends or reinvested, which in turn drives up the value of the firm and the share price. Real estate returns are based on escalating rentals and the growth in the value of the underlying properties. Bond coupons are paid to investors for lending money and are linked to the time value of money, with an additional kicker for taking the risk you might not get your money back.
2. Value can be ascribed to scarcity and demand, where value is underpinned by investor demand and supply is constrained. Gold is a good example of a non-yielding asset that nevertheless has

value. But gold is different to Bitcoin. Gold is gold and there is only so much of it unless someone learns how to rearrange protons, neutrons and electrons to manufacture it, at which point the gold price would collapse. Whilst Bitcoin has artificial scarcity based on a finite number of "coins" that are increasingly difficult to mine, there is no impediment to new currencies coming to market, meaning that supply is practically unlimited. Even the artificial scarcity of Bitcoin itself is not exactly absolute – Bitcoin split or 'forked' into Bitcoin and Bitcoin Cash in August 2017, doubling supply. Bitcoin forked again in October 2017 into Bitcoin and Bitcoin Gold. And again in December 2017 into Bitcoin Diamond.... Regardless of rampant enthusiasm, demand isn't unlimited, meaning that the scarcity argument falls flat - unless you are certain your preferred currency will become ubiquitous and displace all others. Even if one does dominate (unlikely), predicting which one is another gamble.

3. There are several issues with assigning too much value to cryptocurrencies based on their utility or usefulness, which we can deal with separately:
 - a. Blockchain is a brilliant, decentralised, digital ledger pioneered by Bitcoin that records transactions and is highly resistant to being corrupted. Bitcoin is managed by a network and not a centralised authority, allowing it to operate on a peer-to-peer basis. But here is the big problem: it is not proprietary, not to Bitcoin or to cryptocurrencies in general – there is no monopoly on the technology and there is nothing preventing high street banks and exchanges using blockchain. The Australian Stock Exchange is the first major bourse to adopt the technology and more will follow.
 - b. Crypto volatility means that the currencies have limited value for conducting normal commercial transactions on a wholesale basis. In fact, the usual business uncertainty involved in trading goods and services would be spectacularly swamped by currency risk, placing an enormous barrier in the way of widespread adoption and an increase in the cost of things to compensate for risk. The hype around "worthless" fiat currency is overdone. Instead of being backed by gold, the US dollar is quintessentially linked to the value of the US economy and more: every asset, good or service denominated in dollars is linked

to the stock of dollars. Sure, central banks can just “print” more, but this is expected to (eventually) drive up inflation and devalue the currency. Central banks globally are tasked with managing inflation and hence the value of their currencies – this is what market participants (financial and economic) require for confidence.

- c. Crypto suffers credibility issues and enormous regulatory head winds. Why would anyone choose to conduct economic transactions in an insanely volatile currency (leading to huge business risk), added to which transactions are slower and more expensive, rather than through traditional banks? A big part of the answer has to do with opacity and anonymity. This is exactly what regulators and tax authorities worldwide are crushing down on. Efforts to combat money laundering, tracking the proceeds of crime, “know your client” regulations, monitoring the banking activities of “politically connected” persons etc. all represent a massive, synchronised global initiative. Regulators will not ignore this cosy new parallel universe. Not even environmentalists are happy!

Where does this leave us on cryptocurrencies? No economic yield, no theoretical limits to supply, no proprietary technology, limited economic usefulness, and challenges to legitimacy. And, as an inconvenient aside, no vaguely credible means for valuing them in a world gone mad with speculation. BUT, you can (as many have done) make a spectacular profit. It is called speculating, plain and simple.

The Economist nailed it when they characterised the price of Bitcoin as being driven by the Greater Fool Theory, which is defined in Wikipedia as a situation where, “the price of an object is determined not by its intrinsic value, but rather by irrational beliefs and expectations of market participants. A price can be justified by a rational buyer under the belief that another party is willing to pay an even higher price.”

How much of your portfolio should be allocated to cryptocurrencies? Take the portion of your wealth that you would normally allocate to your gambling habit and consider allocating it to cryptocurrencies. You may get it spectacularly right and retire a decade or two early, but you WILL, at some point get it very, very, very spectacularly wrong. In many ways, this describes the pay-off profile of a pyramid scheme (which is different in that it is illegal); make sure you’re off the bus before it plummets off the edge.

I have been asked by financial advisers about allocating client money to crypto, to which I have the following reply: what is the investment case you intend documenting in the client record if you give that advice and what would your explanation be when (not if) the house comes tumbling down? For me personally, I am composed when it comes to losing money on considered risks – I can’t say the same for losing money in casinos or through reckless stupidity.



‘Mining’ new coins, the process whereby server farms solve algorithms to generate more coins, is also massively power intensive. Power that could otherwise be used to heat people’s homes, manufacture for export or for other productive purposes is diverted to producing new coins. Coupled with that the cheapest electricity is normally from coal leading to miners to set up near coal power stations to exploit this. In an investment world increasingly conscious of socially and environmentally responsible investing, coins produced with dirty power are anathema.

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