# What crypto-euphoria says about gold.

*Bitcoin an obvious bubble; but its emergence is meaningful; attention should be paid.*


**Figure 1**: *We found this on Twitter and we want to heartily thank whoever did it. Sums up everything just about perfectly.*

It wasn't supposed to pan out this way. Goldbugs have been luridly prophesizing the withdrawal of confidence from the monetary system, a monetary system whose basic premise was "trust me", since France cashed out its U.S. dollars for gold back in the sixties. In fits and starts we've been right; that gold is no longer $35/oz speaks to as much. But now there is bitcoin and we all look like schmucks. When the tide went out, it was *we* who were supposed to get the yellow Porsche. But no – the dudes eating our lunch were born twenty years after Nixon closed the gold window, wear headphones and sound more puritanical than we ever did.

That there is a bid for cryptocurrencies is without doubt. The "market cap" of bitcoin is now about $70b, which is more than the market caps of the four largest gold producers *combined*. This is insane.

And according to former JP Morgan Chief Strategist, it is going to get more insane yet. Bitcoin is now trading at around $4400 per, but said Tom Lee is calling for $6000 by year's end and $25,000 by 2025. One stated rationale for these aggressive forecasts is the "cannibalization of gold demand," he said. This is but one data point suggesting that lunacy now rules. We show a few others in figure 1.

Even as we admire both the intent and implementation of the concept, it is clear cryptocurrencies are now in a late stage Ponzi. One cannot efficiently transact in bitcoin, there is no effective persistence of bitcoin, there is no anonymity in bitcoin, and there is no inherent scarcity in cryptocurrencies in general. All of which is to say when it comes to ticking monetary boxes, bitcoin in particular and cryptos in general are found clearly wanting. The only reason to buy the stuff is in hope someone else will take you out higher. This is the very definition of mindless speculation

With apologies for belabouring, consider that it takes about 15 kWh to effect a transaction using bitcoin. This is about the same amount of energy that a U.S. household uses over a day and a half. Throughput capacity allows for about two transactions per minute. This compares with about 20,000 transactions per second for Visa. If you own crypto, you wear crypto.

As for persistence, here is a philosophical question: if you forget your security credentials, what happens to your money? Say you die without telling anyone your password; what happens then? No one can even steal it. It begs the question: does your money even exist? This speaks to the truly ephemeral nature of crypto. Frankly, if you can't bury it in your backyard, the truly orthodox amongst us aren't interested.

Some people are drawn to bitcoin because they feel it is "outside the system" and thereby provides them anonymity from prying regulators and authorities. It should be noted that these systems work by documenting in the public domain every transaction that ever takes place. Yes, identities are obscured, but this may not mean much. A recent paper asserts that identities can be recovered by analyzing the patterns in the browser's cookies. Another claims that the identity of the mysterious founder of bitcoin, who goes by the alias Satoshi Nakamoto, has been determined by a lexical analysis of his correspondence, with a little help from the NSA. Expect efforts here to continue. Speaking of Satoshi Nakamoto, he apparently owns of $1b worth of bitcoin. If he will have problems


**Figure 2:** *To the left is the five year chart of bitcoin. Yee-haa! To the right a sampling of the reaction. John McAfee (of anti-virus fame): "I have a doctorate in point-set topology. It predicts BC at $2,431,013 in 3 years. Other math systems—between $1,900,000 and $2,600,000." TV personality Max Keiser: "Looking forward to the day #Bitcoin market cap exceeds market cap of Warren Buffett's Berkshire Hathaway, $438bn." The commentary looks like the chart. Why is it going up? Tom Lee gives some hint: bitcoin futures! In other words, its stratospheric trajectory is being fuelled by evermore greater fools.*

walking this into a bank, we expect others will as well.

But the most glaring weakness in the proposition relates to scarcity, or lack thereof. Yes, bitcoin was designed to be inherently scarce, but the *number* of cryptocurrencies, all essentially the same, are subject to no such constraints. And a proliferation of crypto aspirants is what we see now. We count at least 60 such "currencies" and there are built-in incentives for this number to keep rising. The algorithms behind the scheme price early coins cheap and latter coins dear; it is entirely unsurprising that the winnings with one currency will be recycled into "seed stock" of the next. As with gold equities, the crypto community seems eminently capable of rising to the occasion to meet investor demand.

Another portent of increased supply: the cash cost of mining bitcoin seems to be about 20% of unit revenue for an industrial-scale operation; payback period seem to be about four months. That's equivalent to a gold mine with $250 cash costs — imagine a 3g/t heap leach project that does 10mm ozs/yr. Why *not* do that all day long?

Snark aside, this enthusiasm for alternate, decentralized monetary systems comes from somewhere and it really is no wonder. Much of Europe is at negative interest rates and the U.S. has been at effectively zero for almost a decade now. Not surprisingly, debt is back at all-time highs. More importantly, debt grows faster than GDP, which is really all you need to know.

What else? The debt ceiling looms. In Japan you can hear warning sirens that point out the presence of missiles flying overhead. The geopolitical balance of power is shifting like it has not for years, with Russia and China flexing more clout than Western media may admit; the pall of an empire in decline is there for all to see. The U.S. Treasury has, to use the words of some, not unfairly in our view, weaponized their own currency, not something that adds to its appeal if you're not American. Meanwhile, the meltdown in Washington continues. The head of Finland's largest pension fund recently sold down U.S. exposure because "It seems as if there is no president in the U.S." This is the guy whose face may one day go on the dollar bill, fittingly at that.

All this would drive us to buy bitcoin as well.

Meanwhile, gold languishes. Trading volumes drift lower, fund-flows drip the wrong way and the short position recently was as high as it has been in a long time. Even the likes of Mohammed El-Erian, not someone known to travel with the wingnut crowd, has come out and said gold is becoming passé and increasingly supplanted by crypto.

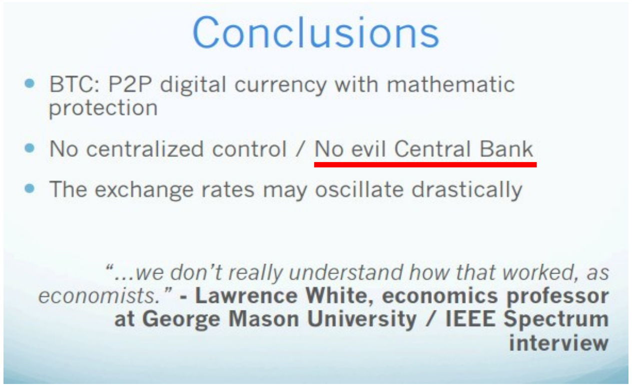



**Figure 3**: *These slides are taken from a presentation of bitcoin's founder, Satoshi Nakamoto, from back in 2006. A few things to note: 1. Politics were there at a motivating factor at the very beginning—"No evil Central Bank"; 2. There was also an appreciation of what governments do — print money; 3. "A bubble may emerge." This could have been written in Ron Paul's office. That these precepts have become as broadly popular as they have, speak to an acceptance in places of not just the peer-to-peer system itself, but the motivations behind it. Having captured a huge swath of the world's attention, this has to be good for gold.*

Yet the macro background that is obviously now supportive of crypto is the same backdrop that should be supportive of gold. We would add two other considerations, apart from the shortcomings aforementioned. 1. In relation to production costs, (which is as good a measure as any) gold is much, much cheaper than bitcoin; and 2. Production of gold, very much unlike production of bitcoin, is about to shrink dramatically. The *ennui* in the sector likely stems from fatigue with gold stocks (which, as businesses, have performed terribly) and boredom associated with "waiting for that day." We see this as being bullish, not bearish.

Diamond exploration is fascinating. You don't start out looking for diamonds because diamonds are generally too scarce and too small. Instead, you look for "indicator minerals": "chromium diopside", "magnesium ilmenite", "pyrope garnets." These minerals form deep in the earth under the same pressure/temperature conditions as diamonds. They are near worthless themselves, but if you find them in your till samples, you know you are in a prospective environment, you know you are on to something.

The surge of enthusiasm behind bitcoin strongly suggests we are onto something.

**Douglas Pollitt**
dpollitt@pollitt.com

Toronto, Ontario
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