

Economic and Financial Newsletter

Quo Vadis?

Thinking the unthinkable

Five potential surprises for 2023

#3 The bitcoin narrative doesn't make any sense.

Introduction

People just love a good story, AKA "narratives" in behavioral finance. It is simply in our DNA: for thousands of years, history, information and culture were passed on through stories told around the campfire. In financial markets, narratives are the fuel for bubbles. A good stock market narrative, often with the promise of quick riches, creates naive enthusiasm that turns into blind speculation. Today, numerous modern narratives are launched around the digital campfire of social media. The crypto-narrative suffered a major blow in 2022 when crypto currencies lost some 2/3 of their value, or rather, price. But look, in 2023, crypto is on the rise again. Is the road to the stratosphere back open? No, anyone paying attention can see that the end game has begun. After all, financial bubbles invariably follow the same pattern. The pattern of the South Sea bubble in 1720 and that of crypto, there is no difference. They also have in common that they run on false narratives.

The bitcoin narrative

Bitcoin saw the light of day in January 2009, not coincidentally just after the Great Financial Crisis. Bitcoin cleverly capitalised on that crisis through a strong narrative, which could read as follows:

The Great Financial Crisis taught us that banks, financial intermediaries and governments cannot be trusted.

Because of massive money creation via quantitative easing, you cannot trust government money ("fiat money") either.

It is therefore time to reinvent money and the monetary system. The people need a power grab by launching a revolutionary monetary system with private money instead of fiat money. The system must be decentralised to eliminate banks and financial intermediaries and to keep it beyond government control.

The blockchain and bitcoin are the answer.

The blockchain creates private money, bitcoin, which, unlike fiat money, is scarce.

Thanks to its scarcity, bitcoin will supplant fiat money. Bitcoin is nothing less than a new gold standard.

Bitcoin is the digital, and therefore better, version of physical gold.

Bitcoin, like physical gold, is a good store of value.

Due to its growing popularity, bitcoin's value will increase exponentially.

Those who invest in bitcoin now will get rich quick. Those who don't are too stupid to understand. "Have fun staying poor."

Invest in bitcoin.

Wow. Sounds indeed like a strong narrative. But unfortunately, the narrative is almost entirely false.

Nothing new under the sun

It is no coincidence that the Bitcoin protocol, the first (or most famous) blockchain, was launched in 2009 when trust in the traditional banking system was well below zero. Cryptocurrencies are a form of private money, but this in itself is nothing new. In the past, hundreds of forms of private money have seen the light of day - and then darkness. As a child yourself, you may have sold homemade paper flowers to other children at the beach, getting paid in shells. Those shells are a form of private money. An essential difference between private money and government money is that the latter is "legal tender" and the former is not. Legal tender status means that no one in the country of the currency in question can refuse to be paid with it and the government can oblige you to pay your taxes and fines with it. Private money is only accepted on a voluntary basis. Just try paying your taxes in bitcoin - or in shells.

Figure 1. Private money at the beach



Source: <https://www.focus-wtv.be/nieuws/papieren-bloemen-op-het-strand>

Digital gold

Bitcoin is not only a form of private money, but also a deliberate digital imitation of physical gold, which has actually [become] a form of private money too [once it was legal tender]. Physical gold is a way to stay outside of the banking system, but bitcoin and, by extension, all cryptocurrencies want to offer a more modern, and better, alternative to this. The Bitcoin protocol mimics the natural scarcity of gold by setting the maximum number of bitcoins at 21 million. The digital nature of bitcoin is cited as an argument to tout it as a superior alternative to physical gold.

We need to talk about crypto

Is crypto the new gold? Will crypto supplant physical gold? Will all the world's crypto become worth as much as all the world's gold? The latter would imply that crypto prices go times 12: existing gold reserves are worth \$12 trillion, all cryptocurrencies \$1 trillion.

Alas. The crypto-narrative teeters on the loose screws of a long list of misconceptions, called "narrative fallacies" in behavioral finance:

First narrative fallacy: "Thanks to the blockchain revolution, you should be excited about bitcoin."

Blockchain technology is indeed revolutionary. But many crypto fanatics think that enthusiasm about blockchain necessarily goes hand in hand with enthusiasm for cryptocurrencies. This is wrong. Cryptocurrencies cannot exist without a blockchain unless they are controlled by a centralized entity, but blockchains can exist without cryptocurrencies.

Second narrative fallacy: "Private money like bitcoin will supplant fiat money."**Never**

Private money will never supplant fiat money. The reason is simple. Private money does not have the status of legal tender. Legal tender status, and nothing else, gives value to a dollar or a euro note. The chances that the government will ever decree that a private cryptocurrency be given legal tender status are virtually zero. Governments will never spontaneously erode their own power. What remains of the government's power if its taxes are allowed to be paid in private money under the control of its citizens? Then it can only fall back on tyranny to impose its authority. God help us if bitcoin ever becomes legal tender.

Deflation Doomsday machine

Another reason why bitcoin will never supplant fiat money is that it is a deflationary machine. The maximum number of bitcoins is set at 21 million within the Bitcoin protocol, of which more than 19 million are already in circulation. The protocol foresees it spitting out fewer and fewer bitcoins as time goes on. The maximum number will be reached in 2043. As fewer and fewer bitcoins are produced and a maximum limit is provided, bitcoin is structurally deflationary. Money creation - which in the case of fiat money takes the form of credit - is necessary to enable economic growth. Too much money creation (too much credit) creates a problem of derailing inflation, which you can indeed blame fiat money for. But bitcoin's response creates another, and potentially more weighty problem, that of derailing deflation in the absence of sufficient money creation. If bitcoin displaces fiat money, we are immediately in a new Great Economic Depression, this time with no hope of recovery.

Fiasco

As an alternative means of payment, bitcoin is one big fiasco. After 15 years, crypto has yet to scratch the surface of existing payment systems. The Bitcoin protocol is insanely power-hungry and, due to scalability issues, it can handle a mere 7 transactions per second. Mastercard can handle 5,000 per second and Visa 20,000. If all payments were made via bitcoin, the lights would go out everywhere and the economy would grind to a halt.

The failure of bitcoin as an alternative to fiat money and to existing payment systems has prompted the crypto world to "frame" bitcoin henceforth primarily as a store of value, just like gold. Bitcoin, unlike fiat money, is scarce and would therefore be worth "a lot".

Third narrative fallacy: "Bitcoins are scarce."

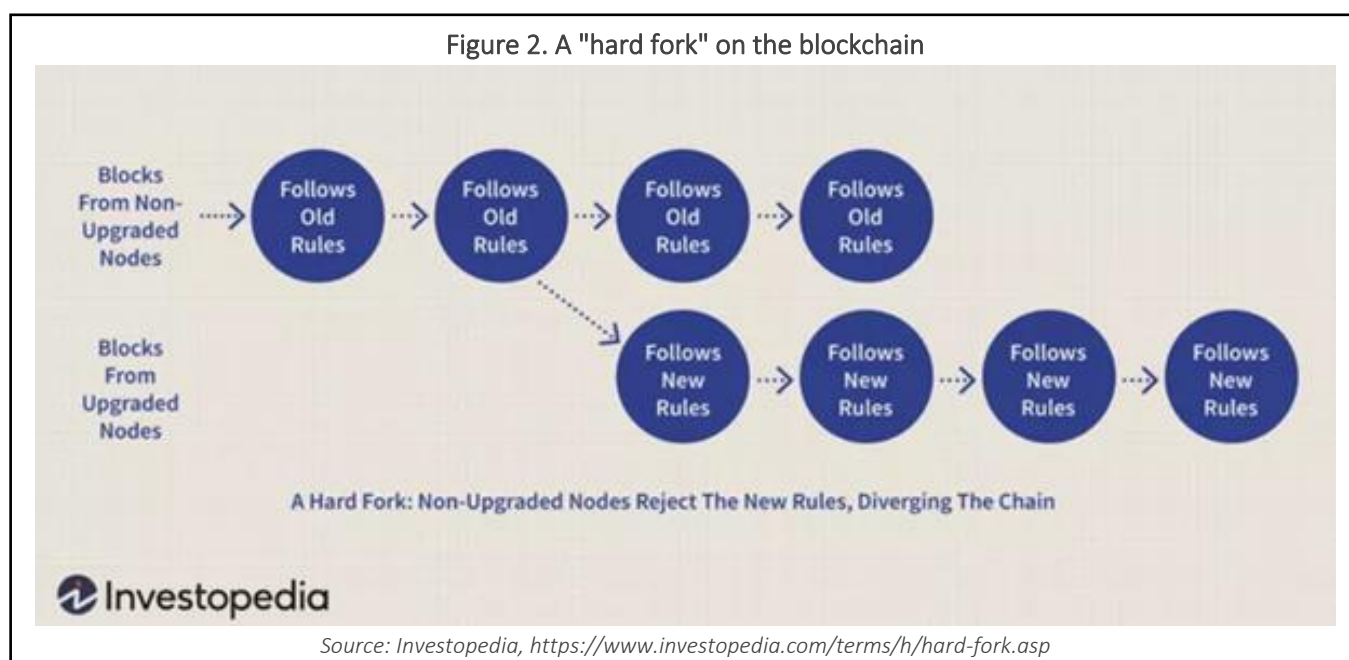
What is scarce? You can choose from around 22,500 other cryptocurrencies in circulation. Any fool can launch their own cryptocurrency tomorrow on a new blockchain or as a *token* on a blockchain like Ethereum. The number of new blockchains is potentially infinite. From that perspective, bitcoins are by no means scarce, just as a limited supply of a certain type of apple does not yet make apples scarce.

Bitcoin does have the advantage of being the largest. Therefore, thanks to network effects, it is not easy for other cryptocurrencies to knock bitcoin off its throne, just as you don't knock Coca-Cola or BlackRock easily off its throne. But in the realm of technology, network effects can have an expiry date when a new and better technology emerges. Think of Google versus ChatGPT.

Bitcoin is also anything but scarce from another perspective:

Fourth narrative fallacy: "The Bitcoin protocol is immutable."

The miners (the parties who own the computer nodes on which the Bitcoin protocol runs) control the blockchain. Only when all miners agree to the rules of a given blockchain protocol can new blocks be added to the blockchain. But sometimes there is disagreement among miners about new rules to accept a block. If that disagreement persists, hard forks (like a fork in the road) occur on the blockchain. The diagram below clarifies this (hopefully):



Due to hard forks, a series of new types of bitcoins such as Bitcoin Cash, which by using larger block sizes can boost the number of transactions per second from 7 to 116, and Bitcoin Gold saw the light of day. Those who thought there is only one bitcoin are mistaken.

Anyway, let's conveniently assume that we may consider bitcoin a scarce commodity anyway. Even then, the crypto-narrative does not hold water.

Fifth narrative fallacy: "The scarcer something is, the more value it has."

George Clooney

Scarcity is a condition for relative value, value preservation and value creation, but scarcity alone is not enough. And this is where the story gets really problematic for bitcoin. For scarcity to also create value, the scarce object must also be coveted. And an object is only desirable if it is useful or beautiful. Bitcoin has no practical use except as a needlessly energy-consuming private means of payment. And is bitcoin beautiful? This is an example of a bitcoin private key:

Figure 3. Bitcoin private key in hexadecimal form
E9873D79C6D87DC0FB6A5778633389

Who but an arithmomaniac could like this? To hide bitcoin's total lack of desirability, bitcoins are invariably visualized as gold coins bearing the bitcoin symbol.

Figure 4. Bitcoin in advertising form



But this visualization, like bitcoin itself, is totally artificial. It is ironic that digital gold makes every effort to present itself as physical gold in an attempt to make itself as desirable. You might as well portray bitcoin as a picture of Pamela Anderson or George Clooney with a bitcoin sign tattooed on the forehead. Or put lipstick on a pig.

Friend with benefits

To qualify as a good store of value, the object must obviously also be able to be stored securely. Investors who conveniently park their bitcoins on crypto platforms or with cryptocustodians are falling into a murder pit. You are, as it were, handing over the private keys to your treasury to a third party. In the crypto world, those third parties are dropping like flies. There are not only numerous hacks - a digital form of bank robbery - but also the endless series of frauds. Just think recently of the bankruptcy of FTX, until then the third largest crypto platform in the world and its affiliated hedge fund Alameda Research. Both were run by a bunch of corrupt and incompetent cyberpunks led by Sam Bankman-Fried, the Bernie Madoff in shorts of the crypto market, and his friend with benefits, Caroline Ellison.

Figure 5. The former CEOs of the world's third largest crypto exchange and hedge fund

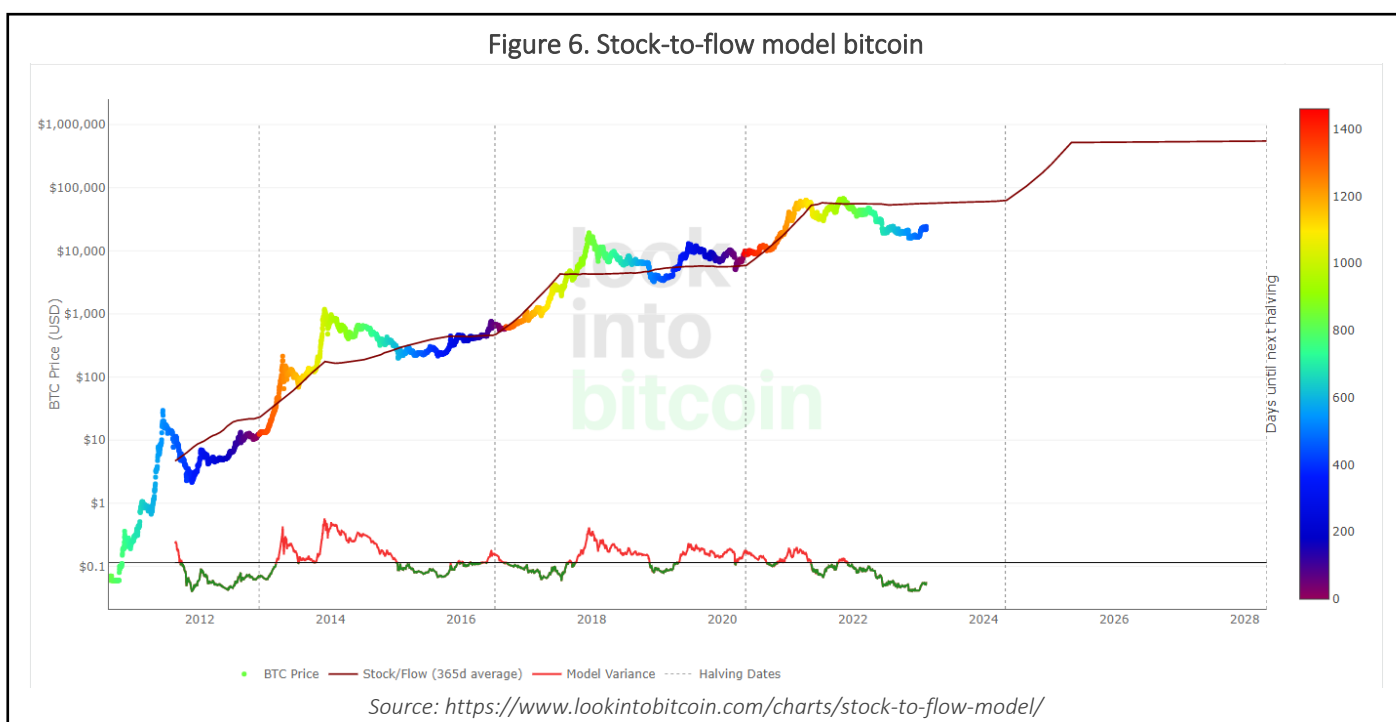


Those who really want to keep their cryptocurrencies safe are therefore better off staying away from crypto platforms and custodians and should store their bitcoins themselves. But that does not solve the problem of safe custody, you just shift it. And what's the difference with physical gold?

Sixth narrative fallacy: "The price of bitcoin follows a stock-to-flow model."

Traditional assets can be valued on the basis of their expected cash flows. Crypto does not produce cash flows, which makes it virtually impossible to value them.

Perhaps the most popular pricing model for bitcoin is the "stock-to-flow" model, which is based on the scarcity of new bitcoins relative to the number of existing bitcoins. The underlying idea is that as the scarcity of new bitcoins increases, the value (and price) of bitcoin should increase.

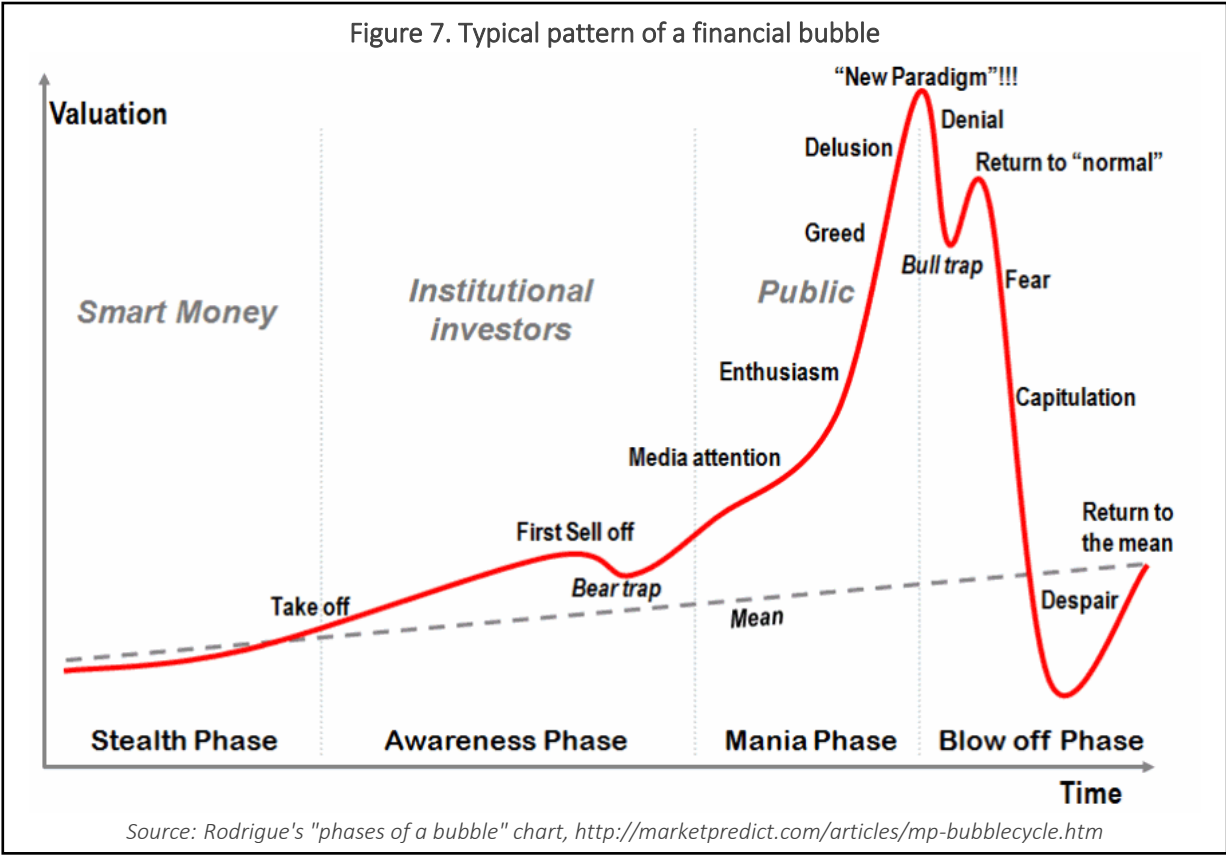


The chart shows some correlation between the model and actual price levels. By the end of 2021, bitcoin was roughly at the model level. This did not stop bitcoin from subsequently plunging deeper. Today, bitcoin is quoting sharply below the model value. Back to the upside then, as the recent price recovery suggests?

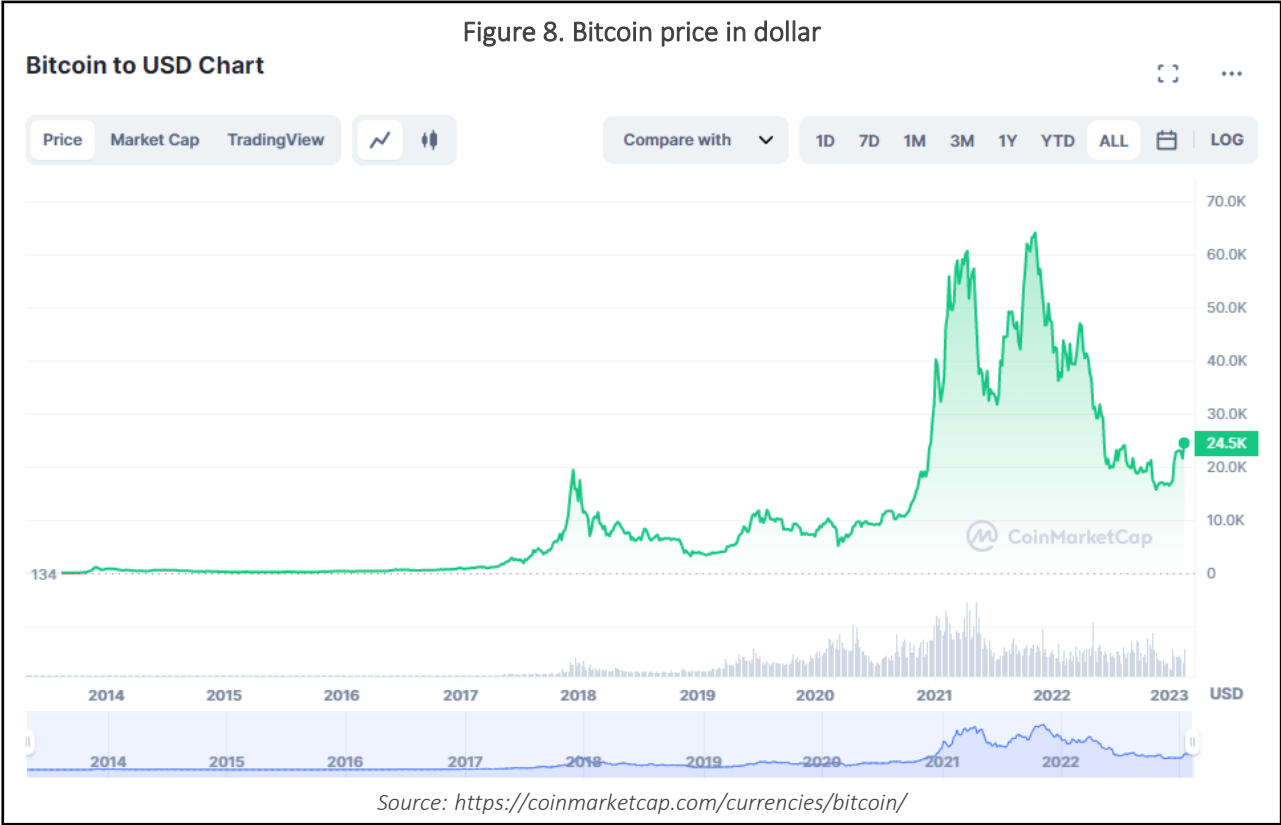
That is far from certain, and for several reasons. Model value is based on a concept of growing scarcity and implicitly assumes that bitcoin's (growing) scarcity gives the currency (more) value. It was argued earlier that without desirability, this growing scarcity is de facto meaningless in terms of value. And in the absence of fundamental value and desirability, the stock-to-flow model for bitcoin will only be useful from a circular reasoning point of view. The price of bitcoin will converge with the model level only if enough investors believe it will. The question then becomes whether you believe that enough investors believe it will. Think about it: the investment case for bitcoin is built on beliefs and on beliefs only.

Seventh - and final - narrative fallacy: "Bitcoin is not a bubble."

The inflation and deflation of a financial bubble invariably draws the same, and very recognizable, graphic pattern. The archetypal pattern of a bubble was beautifully elaborated by the unsurpassed Dr Jean-Paul Rodrigue, a transport economist, showing the way to investors:

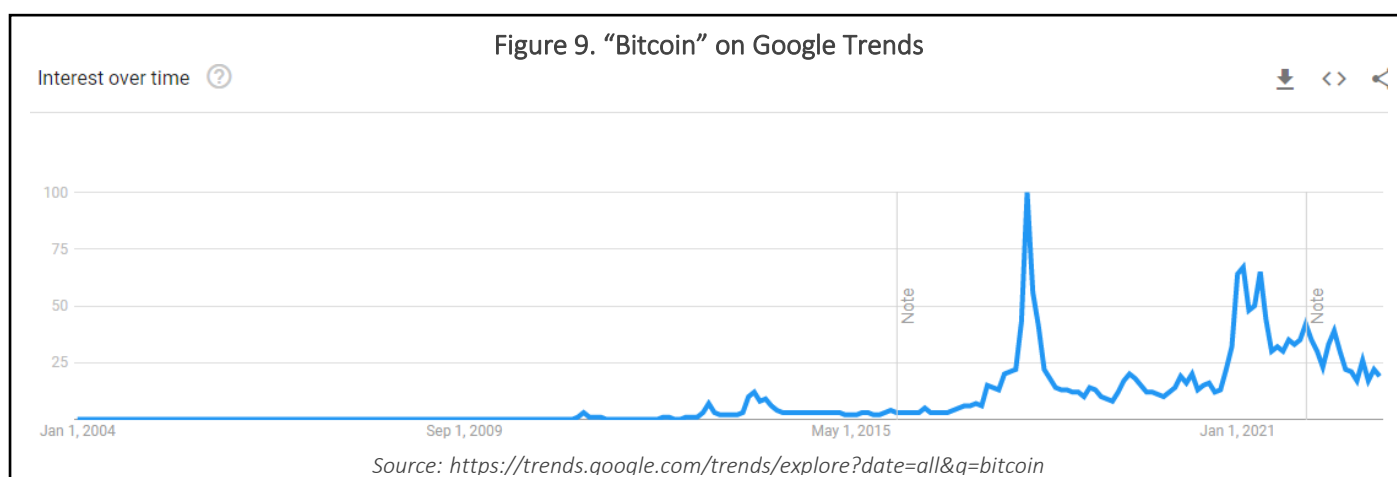


Behold now the full price history of bitcoin:



If it walks and talks like a bubble, it probably is a bubble. In the stock market, bubbles and crashes are not uncommon. The numerous bubbles and crashes in the stock and real estate markets, which were often based on false narratives about conditions at the time, have not stopped favorable long term price development. After all, behind them are growing cash flows and tangible value. But when only a false narrative underpins the price evolution, one day it all ends.

Bitcoin mania is on its last legs. You can see this not only from the graphical progression, but also from the waning enthusiasm. Continually generating new enthusiasm is wearing cryptobelievers out, and bitcoin is catching less and less attention, as Google Trends shows:



Paul Krugman said in 2021 that he has given up on predicting bitcoin's imminent decline: *"There always seems to be a new crop of believers. Maybe just think of it as a cult that can survive indefinitely."* It is quite possible that bitcoin will blow a few smaller bubbles before it blows out the candle. But anyone who thinks false narratives will last forever has history against them. Speculate while you still can and sell it all before it is too late.

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