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Gold, Bitcoin/Digital Gold, and Fiat Currencies

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Introduction

In the opening scene of *Indiana Jones and the Raiders of the Lost Ark*, Indy trespasses into a sacred temple to retrieve a golden idol statuette. The viewer is led to believe that this ancient artifact has existed for quite some time. It is no surprise that it is made of gold as, historically, civilizations have attached great value to gold. The first pure gold coins with stamped images are credited to king Croesus of Lydia (561-546 BCE[1]), presumably used as a medium of exchange. More recently, prices in both gold and Bitcoin have reached new highs, which has prompted this article, comparing and contrasting gold, Bitcoin, and fiat currencies. Let's begin with a quick history of gold, starting after World War II and the Bretton Woods agreement. Then let's move on to Bitcoin and traditional currencies.

Bretton Woods

In July 1944 delegates from 44 nations met in Bretton Woods, New Hampshire to hammer out an international monetary agreement creating a new international monetary system. Here are the highlights:

- The gold standard: The US dollar would be convertible into gold at a fixed rate of $35.00 per ounce.
- Currencies would be pegged to the US dollar, i.e., exchange rates would be fixed.
- The International Monetary Fund and World Bank (Also known as the International Bank for Reconstruction and Development or IRBD[2]) were established.

Interestingly, one of my first jobs was as a foreign exchange positions clerk (my other main job was to ensure there was enough coffee brewing at all times!). I was responsible for managing the different currency balances in our nostro accounts. I got a report every morning known as the "Gold Report" showing all of the bank's foreign currency balances across the globe. The term "Gold Report" was a holdover from the gold standard days even after the gold standard was abolished.

President Nixon ended the gold standard in 1973 and currencies were free to float.

Gold and Bitcoin: Common Characteristics

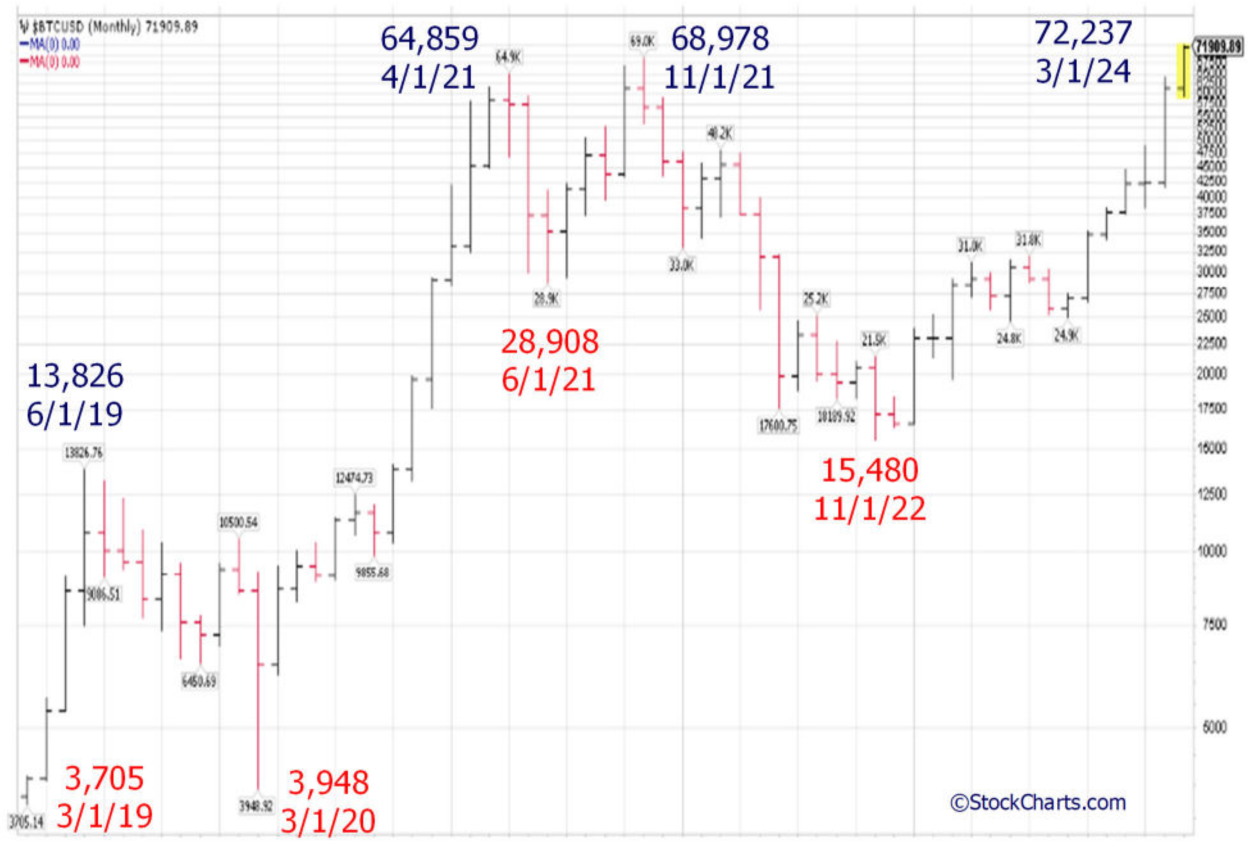
Gold has a lot of history behind it. Bitcoin, on the other hand, has only been around since 2009. Let's identify their common characteristics, which include:

- Store of value
- Medium of exchange
- Durable: King Tut's gold mask is still around! Proponents of Bitcoin say it is durable. You would have to trust the underlying ecosystem of Bitcoin, such as mining, to agree with this feature.
- Scarcity/Limited supply: Both are a scarce resource. Gold is a freestanding precious metal. It is influenced by traditional supply and demand characteristics which may include new discoveries of gold. Nonetheless, it is considered to have limited supply. Bitcoin is designed in such a manner that the amount in circulation cannot increase. Definitely a limited supply!
- Speculative: Generally speaking, investors have turned to gold when inflation rises, the USD weakens, and during times of political or economic turbulence. Proponents of Bitcoin claim the same features. However, I would suggest there is not enough price history for Bitcoin to determine if it is a good hedge against inflation or if it will maintain its value in times of political or economic turbulence.

Gold and Bitcoin: Differences

The main difference between gold and bitcoin is price volatility. Specifically, the price of gold has exhibited a lot less volatility than the price of bitcoin. The following charts look at their respective prices over the last few years and make this difference clear.

Figure 1: Bitcoin Pricing, March 2019-March 2024



Source: https://stockcharts.com/h-sc/ui

The above is a monthly price chart of Bitcoin, where each bar represents the price range including the high and low of the respective month. Let's start at March 2019 and move through to its current price (the last data point is as of Monday morning 3/11/24):

Date	Price	% Change
3/1/2019	$ 3,705	
6/1/2019	$ 13,826	273%
3/1/2020	$ 3,948	-71%
4/1/2021	$ 64,859	1543%
6/1/2021	$ 28,908	-55%
11/1/2021	$ 68,978	139%
11/1/2022	$ 15,480	-78%
3/1/2024	$ 72,237	367%

Clearly, Bitcoin's price fluctuations are anything but stable. Statistical purists and traders would argue I should be using a log scale over a specific time frame; however, I am only featuring the extremes and that is one of the main points. What are people using Bitcoin for? For speculation, a hedge against inflation/turbulent times, a long-term investment, or a medium of exchange? Speculators should be loving the volatility. Long-term investors certainly would need a strong stomach to live through these fluctuations. And if you are thinking about main street using Bitcoin as a medium of exchange, then you must be thinking of the person using it to buy a Tesla or Lamborghini and not traditional main street!

Figure 2: Gold Pricing, March 2019-March 2024

Source: https://stockcharts.com/h-sc/ui

In the chart above, I have used the ETF GLD as a proxy for gold. Not an exact comparison but it will suffice for comparing the differences in volatility. The table below depicts the percentages for the change in gold prices:

Date	Price	% Change
5/1/2019	$ 119	
8/3/2020	$ 194	63%
3/1/2021	$ 157	-19%
3/1/2022	$ 193	23%
11/1/2022	$ 150	-22%
5/1/2023	$ 191	27%
10/2/2023	$ 168	-12%
3/1/2024	$ 203	21%

Quite clearly, Bitcoin's price dispersion is far greater than gold's price dispersion!

Bitcoin versus Fiat Currencies

A fiat currency, such as the US dollar, is backed by the currency's respective government. The currency's value is based on government policies, economic policies, and interest rates. Traditional safe havens have been the US dollar and Swiss Franc. The argument against fiat currencies is that they are at the whim of politicians. To this point, history is riddled with currency devaluations. Many folks do not trust governments. The US has the additional problem of out-of-control spending.

Bitcoin is decentralized and proponents claim it has an extremely high, if not impenetrable, level of security. To play devil's advocate here, we are trusting programmers, Bitcoin miners, and the entire Bitcoin ecosystem, including folks from Wall Street. To refresh everyone's memory, Wall Street brought us the Financial Crisis of 2008, among others!!

What May Go Wrong with Bitcoin?

The *Wall Street Journal* had an interesting article pointing out how new companies and technology have toppled older ones. Here are some highlights from the article[3]:

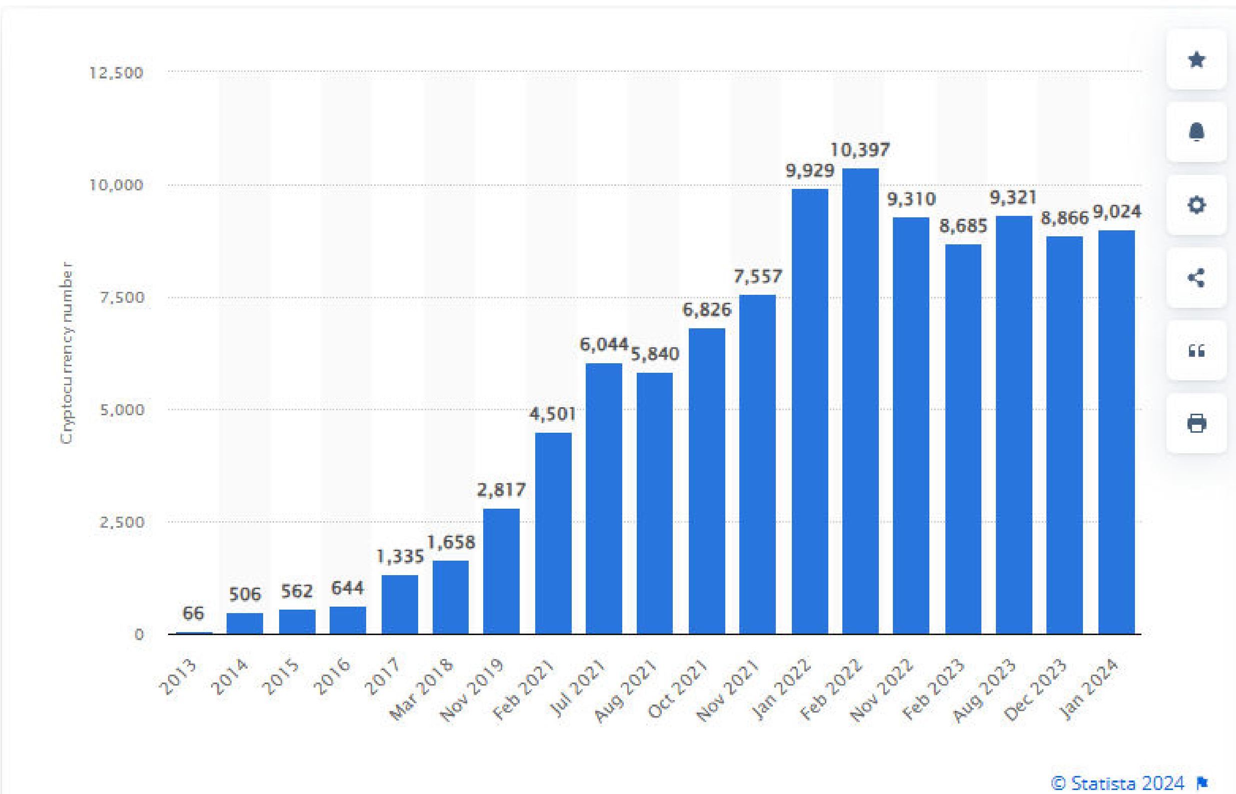
- From 2009 through 2014, BlackBerry boomed from 25 million to 85 million active users as it made flip phones seem like fossils. Then the iPhone blew BlackBerry away.

- In social media, Friendster was supplanted by MySpace, which was obliterated by Facebook.

- Pioneering search engines Go.com and Infoseek were crushed by Yahoo, which was itself decimated by Google.
- Commodore and Atari personal computers were buried by IBM and Apple.
- The code that powers Bitcoin, like all software, requires periodic updating. [The code] has been prone to bugs in the past, although they never severely impaired it.

In addition, as of January 2024, there are a little over 9,000 cryptocurrencies. Below is a chart from Statista showing the growth of cryptocurrencies[4]:

Figure 3: Number of cryptocurrencies worldwide from 2013 to January 2024



Isn't it possible that one or more of these cryptocurrencies will prove superior to Bitcoin? What about Bitcoin disappearing, such as in the Mt. Gox heist[5]? Is this still a real possibility? Finally, what about the advent of Central Bank Digital Currencies (CBDCs)? Will CBDCs have the same high level of security as cryptocurrencies? If so, then Bitcoin and CBDC's will both have superior security putting them on a level playing field.

Conclusion

Gold and fiat currencies have a longer track record than Bitcoin. Even so, there certainly has been more widespread acceptance of Bitcoin, with traditional futures exchanges now offering futures contracts[6] on Bitcoin. In addition, Bitcoin ETFs are now available to the investing public. The main question to ask is, will Bitcoin and other cryptocurrencies have lasting power? Only time will tell.

References

[1] https://www.worldhistory.org/gold/

[2] https://www.imf.org/en/About#:~:text=The%20IMF%20was%20founded%20by,a%20framework%20for%20economic%20cooperation.&text=The%20IMF%20was%20established%20in,Great%20Depression%20of%20the%201930s

https://www.worldbank.org/en/news/feature/2012/07/26/getting_to_know_theworldbank

[3] https://www.wsj.com/finance/currencies/bitcoin-disruption-digital-pearls-95bed498?mod=Searchresults_pos1&page=1

[4] Number of cryptocurrencies 2013-2024 | Statista

[5] The History of the Mt Gox Hack: Bitcoin's Biggest Heist (blockonomi.com)

[6] For more on Cryptocurrency futures go to https://www.gfmi.com/articles/cryptocurrency-derivatives-chicago-mercantile-exchange-cryptocurrency-futures/ and https://www.gfmi.com/articles/cryptocurrency-derivatives-cryptocurrency-perpetual-contracts/

About the Author: Ken Kapner

Ken Kapner, CEO and President, started Global Financial Markets Institute, Inc. (GFMI) a NASBA certified financial learning and consulting boutique, in 1998. For over three decades, Ken has designed, developed and delivered custom instructor led training courses for a variety of clients including most Federal Government Regulators, Asset Managers, Banks, and Insurance Companies as well as a variety of support functions for these clients. Ken is well-versed in most aspects of the Capital Markets. His specific areas of expertise include derivative products, risk management, foreign exchange, fixed income, structured finance, and portfolio management. He has been a Risk Management Advisor to a Mutual Fund's Board of Trustees and has served as an Expert Witness using knowledge of derivatives, trading and risk management.

Prior to starting GFMI in 1998, Ken spent 14 years with the HSBC (Hong Kong and Shanghai Banking Corporation) Group in their Treasury and Capital markets area where he traded a variety of instruments including interest rate derivatives, spot and forward foreign exchange, money markets; managed the balance sheet; sat on the Asset Liability Committee; and was responsible for the overall Treasury activities of the bank. He later headed up HSBC's Global Treasury and Capital Markets Product training for two years in Hong Kong. Specifically, his responsibilities included developing new courses and delivering courses to traders, support staff and relationship managers. In New York, he established a training department for the firms' Securities Division where he was in charge of the MBA Associates Program, continuing education and Section 20 license.

He has co-authored/co-edited seven books on derivatives including The Swaps Handbook and Understanding Swaps.

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