



RESEARCH · MONETARY HISTORY

Currencies of the World: from gold to tokens

How money lost its anchor, and what came next

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The current global monetary machine, launched in 1971, is an incongruous parenthesis in the history of humanity, a journey through time, unfortunately still open, and which, by habit, is now taught as normality or even progress.

We all pay in oil

By the end of the Second World War, the international monetary system, previously based on gold as the standard, with the British pound as the reference currency and main pivot to gold, changed drastically with the Bretton Woods Agreement of 1944. Under these agreements, gold retained its role as the global standard, but the US dollar became not the main pivot but the sole pivot. In other words, all the world's currencies express themselves and convert into US dollars, which were convertible into gold at a fixed price of \$35 per ounce. Last month the gold price was nearly \$2,000 per ounce. Did you say inflation?

For the United States, the temptation was strong to take the easy way out, by creating dollars ex nihilo without backing them up with gold acquisitions. This was done in the 1960s to finance the Vietnam War and its intensification from 1965 onwards, as well as the "Great Society" social programmes of President Johnson. In 1965 it was General de Gaulle's France that began to blow on the house of cards, calling for the return of the gold standard and starting to sell its dollars in a sustained way to recover gold. By 1970, there was only the equivalent of \$11 billion worth of gold left to support \$24 billion in reserves held by foreign countries.

In 1971, the United States defaulted. They would not pay back the gold they owed. Gold was no longer convertible at the agreed price. This major political decision, unilateral, unjust and plundering, was presented as "temporary" in order to make it easier to digest. Nothing is more durable than a temporary measure, said Friedman.

Money, for the first time in history, was no longer backed by anything. No goods. This was the birth of purely fiat currencies. As everyone knows, this was followed by a complicated decade: oil shocks, inflation, sluggish growth.

A century and a half of stability, then fifty years of drift

Gold, which had been the very definition of stability for centuries, adjusted to the amount of money available, and the price exploded. Can you imagine that in 1792 the price of one ounce of gold was set at \$19.75 in the United States, a young country

emerging from a war of independence against the world's leading power, the British Empire? In 1932 the price was \$20.67. In a century and a half, the price had not even fluctuated by 5%. But since 1971, in half a century, the price has risen from \$35 to \$2,000, an increase of 5,600%.

In the first months and years following this monetary cataclysm, the influence of the United States was clearly questioned. The emergence of a multipolar world, in the context of a Cold War, was a possibility. The Americans had to find a substitute for gold that would allow them to continue to dominate the international financial and monetary scene. That substitute was oil.

As part of a historic agreement signed in 1974 by Kissinger, US Secretary of State, and the Saudi Crown Prince Fahd, Saudi Arabia would sell its oil exclusively in US dollars and recycle those dollars into US debt. At that moment black gold replaced gold. As Alex Gladstein reports in his article on the hidden cost of the petrodollar, the deal is surprisingly simple: the Americans buy oil from Saudi Arabia and provide the kingdom with military assistance and equipment; in return the Saudis sow billions of dollars from their oil revenues into US Treasuries, and finance the US government's deficit.

OPEC followed suit in 1975, and soon the whole world was defining the price of its oil in dollars. If you want to feed your machines, you need dollars. Since that day, we have all been paying in oil, and in arms, by the way, since that is the counterpart of the agreement. Saudi imports of US military equipment increased from \$300 million to more than \$5 billion between 1972 and 1975.

The narrative, and what it conceals

A "progress" whose legacy in the space of barely fifty years is quite impressive: devaluation of work in favour of capital, feeding ever more inequality; creeping deindustrialisation; incentives for the short term and for consumption. The narrative that has prevailed, to avoid talking about oil or armaments, is that fiat currencies derive their value from the wealth produced by a country or an economic zone, which is completely false. If that were true, how can we explain that we were able to double the monetary base





during the pandemic, for example, while the global economy was at a standstill and shrinking?

The illusion created by an artificial demand and a military-industrial agreement with a Gulf monarchy was enough to preserve the reference status of the American currency, and more generally to sanctuarise the concept of fiat money, which had always seemed an absurdity to our forefathers, and whose every experiment was a disaster. Voltaire already said in the eighteenth century that a paper currency, based solely on confidence in the government that prints it, always ends by returning to its intrinsic value: zero.

From Web 1 to Web 3

The ARPANET network was established on 21 November 1969 between the University of California at Los Angeles and the Stanford Research Institute. A month later, with the addition of the University of Santa Barbara and the University of Utah, the first network node doubled from two to four nodes. By 1981 there were 213 hosts, with a steady pace of a new host every twenty days. This first network was the technical heart of the internet. In 1983 Milnet, the American military part, was separated from ARPANET to create an inter-network for use by the US Department of Defense. The World Wide Web was invented by Tim Berners-Lee and a group of students at CERN in Switzerland, while looking for an efficient way to share information. The introduction of the hyperlink was a major advance at that time.

Web 2.0 is characterised by social networks and centralised dynamic websites that feed on our content. The large platforms are also global advertising agencies, thanks to our content. With Web 2.0, users could interact with websites through databases, forms and social networks, and store information in the cloud. These tools transformed the web experience from a static to a dynamic state.

Web 3.0: NFTs, DAOs, GameFi, liquidity mining, interoperability, decentralised exchanges, yield farming, smart contracts

In 2021 the idea of Web3 gained popularity, especially towards the end of the year, largely due to the interest of cryptocurrency enthusiasts and major investors. This movement aims to create open, connected and intelligent websites and web applications through a better understanding of data by machines. Search algorithms and intelligent big-data analysis mean that machines can intuitively understand usage and recommend content.

The blockchain

Blockchains allow value to be stored and exchanged on the internet without a centralised intermediary. They are the technological engine of cryptocurrencies, of the decentralised web and of its corollary, decentralised finance. A blockchain is a database that contains the history of all exchanges made between its users since its creation. This

database is secure and distributed: it is shared by its different users, without intermediaries, allowing everyone to verify the validity of the chain.

A blockchain can be likened to a public, anonymous and tamper-proof ledger, a very large ledger that everyone can read freely and for free, on which everyone can write, but which is impossible to erase and is indestructible. The first blockchain appeared in 2008 with the digital currency bitcoin, developed by an unknown individual using the pseudonym Satoshi Nakamoto. Bitcoin is non-inflationary: 21 million BTC, not one more. Just over 19 million have already been created, and the last bitcoin will be mined in 2140. The decentralised nature of blockchains, coupled with their security and transparency, promises applications far wider than the monetary field.

DeFi is a term derived from decentralised finance. It can be defined as a set of applications aimed at creating finance without intermediaries, and it requires three technologies: the internet, cryptography and blockchain. By the end of 2020, DeFi recorded a record of about \$10.9 billion; in 2021 it represented more than \$200 billion in total locked value.

Two common misconceptions

On energy consumption: according to the mathematician Jean-Paul Delahaye, the global consumption of cryptocurrencies is about 40 TWh per year, while the global banking system consumes about 5,000 TWh. A Coinshares study suggests that 74% of the energy used for bitcoin mining is green. According to Ademe, digital technology represents 2.5% of global CO₂ emissions, and bitcoin 0.08%. In 2021 the European Union generated more than 700 TWh of surplus, whereas bitcoin mining makes use of energy surpluses.

On money laundering and terrorism financing: Michael Morell, a thirty-three-year intelligence specialist and former CIA director, believed cryptocurrencies were conducive to illicit financial activities. His conclusion was that if all illicit financial activities went through the blockchain, we could put an end to the funding of illicit activities. The blockchain allows for a very precise evaluation of the volume of illicit activity: less than 1%, whereas in traditional finance it is estimated at 5 to 6%. Chainalysis showed that illicit activities related to cryptocurrencies represented 1% of total activity in 2020, and CipherTrace estimated in February 2021 that illicit activity represents less than 0.5% of the total volume of bitcoin transactions.

What to watch

The halving is an event that occurs every 210,000 blocks mined, approximately every four years. When the halving occurs, the bitcoin reward for each mined block is halved; it will be 3.125 BTC per mined block. The last halving took place on 11 May 2020, when the reward went from 12.5 to 6.25 BTC.





A spot ETF is a fund traded on the stock exchange that actually holds the digital asset, rather than indices, futures contracts or other derivatives. It is designed to offer investors a way to invest in bitcoin or ether by buying shares in the ETF.

In the past, each halving has resulted in an increase in the value of digital assets, and the arrival of spot ETFs will put strong pressure on demand, which will contribute to increasing the value of assets and the overall volume of the sector.

— Luxembourg For Family Office.

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