TEVIS
INVESTMENT MANAGEMENT

A guide to Bitcoin, blockchain… and the rest of it

I get a lot of questions about cryptocurrencies, and while most clients want to steer clear of it, few are sure how exactly it works. And that is part of the problem: It's hard to properly value an investment when you aren't sure how it works.

So I wanted to pull something together to go over the high level basics of the cryptocurrency industry with a focus on Bitcoin (the original), blockchain technology, and what the heck is going on with all of the rest of it.

What is Bitcoin?

A cryptocurrency is a digital currency or payment system that's based in cryptography, or complex computer code. Bitcoin is the original cryptocurrency. An anonymous individual or group going by the name Satoshi Nakamoto created it in 2009. There's a great deal of speculation and mystery around Satoshi's identity.

In the beginning, you had to "mine" Bitcoin by solving complex algorithms, or computer puzzles. Satoshi set a limit to the number of Bitcoins that can be mined to 21 million, so there's an element of scarcity involved, much like gold.

Initially, these Bitcoins weren't worth much. An IT worker in South Wales mined 7,500 of them in 2009 and kept them on his hard drive… which he then threw out, thereby losing his access. Using 2023 prices, that means there's more than $150 million sitting on a hard drive in a UK landfill.

Back then, however, Bitcoin was worth virtually nothing. In fact, the first ever transaction using Bitcoin took place in 2010 when a man paid some 10,000 Bitcoin to buy two slices of pizza.

While Bitcoin mining still exists, most people prefer to buy or sell Bitcoin on secondary markets. FTX is an example of this type of secondary market. You can still keep cryptocurrencies on a “hard wallet” which is similar to a hard drive.

What is blockchain?

The technology that underpins cryptocurrencies is known as a blockchain. In essence, these chains are ledgers.

When you make a purchase, the transaction details get coded and uploaded to a block. They’re then “verified,” similar to the way a credit card purchase might be verified, but the verification is done via a network of computers programmed with code instead of a central credit card processor.

The verified transaction gets added to the block, and once there are enough transactions in the block, the block itself gets a code, called a hash, and is added to the chain. Voila! Blockchain.

This can be applied beyond purchases—namely in shipping and logistics. (Initially, advocates thought blockchain might help create secure online voting, but experts have since come out against the idea.)

Cryptocurrencies, like Bitcoin, are built on their own specific blockchain. Tokens, NFTs, and other digital assets use publicly available blockchains (vs building their own).

Crypto and blockchain in the wild

When you want to buy a stock, you do so via the stock market. To buy or sell a bitcoin, the principle is the same, you use a market for cryptocurrency. As we’ve seen with the collapse of FTX, it’s critical for investors to verify the health of any exchange they use, as these exchanges aren’t regulated as no one is sure quite how to classify crytpcurrencies. (For instance: Are they securities? No one has a clear answer.)

A number of the more eyebrow component of the crypto industry are tied to exchanges and other “supplementary” components. For instance, yield farming was a popular practice in 2021 and 2022 before the industry itself denounced it for resembling a Ponzi scheme.

On the other end of the spectrum, a number of large, well-established and reputable companies are using blockchain technology. FedEx and Walmart, for example, have both incorporated blockchain technology into their supply chain management. AMD, IBM and NVIDIA all produce the tech hardware needed to power blockchain mining, gaming, and more. Plus, financial companies and payment processors have adapted to support the industry.

For many investors, buying shares of these companies is like buying stock in shovel companies during the gold rush—you get some exposure without buying directly into a gold mine out west.

One reason investors may want this kind of exposure? Web3. This term refers to the third generation of the world wide web, which digital insiders think will be largely decentralized.

Right now, when you type in a http address, you're essentially going through a centralized server. Because these servers are very much the back room of the internet, many consumers haven't heard of them (Apache, Cloudfare, nginx) though major players like Amazon and Microsoft also run servers. In Web3, this would become decentralized using some of the same technologies and concepts that led to the creation of decentralized cryptocurrencies.

It's to be determined whether this shift will actually happen and at what pace. If it does happen, it's unclear what kind of impact it would have on basic internet use. But at least now when someone mentions Web3, you'll have some idea what they're referencing.