The cryptocurrency market compares similarly to the stock market. Both stocks and cryptocurrencies have:
- price, the current value of the asset
- market cap, the total evaluation of all assets
- circulating supply, the amount of assets moved within the past 24 hours

Bitcoin was the first cryptocurrency on the market. The coin was released in early 2009 by an unknown group or individual under the name Satoshi Nakamoto. Nakamoto designed Bitcoin to operate on a decentralized network, as shown to the right. The decentralized network allowed Bitcoin to work without a central processing station. This allowed anyone with internet to connect to Bitcoin. Therefore, Bitcoin was accessible across the world.

Bitcoin’s success relied heavily on its blockchain technology, which is the major functioning component of the cryptocurrency. A blockchain stores information, such as transactions, in block segments. Each block segment contains specific information, as shown to the right. When the block is full, it connects to the blockchain, as shown below. Once the block connects to the blockchain, it is immutable.

In 2012, founders Chris Larsen and Jed McCaleb released Ripple. Ripple is an application of blockchain technology, similar to Bitcoin, but Ripple does not use miners. Ripple was designed for banks, and over 75 banks worldwide currently use Ripple. In 2017, Ripple saw a 36,000% increase in value, from $0.006410 to nearly $4.00. Ripple processes transactions in 5-10 seconds, compared to Bitcoin’s 10 minutes.

Instead of using miners to verify transactions, Ripple verifies transactions using a consensus protocol with gateways and IOUs. Currently, most banks use the SWIFT system to process transactions. SWIFT can take up to four days to process a transactions, or longer if the transaction is international. Since Ripple does not use miners, the transaction fees are low, around .00001 Ripple per transaction. Comparatively, international payments through SWIFT may cost users $20-30.