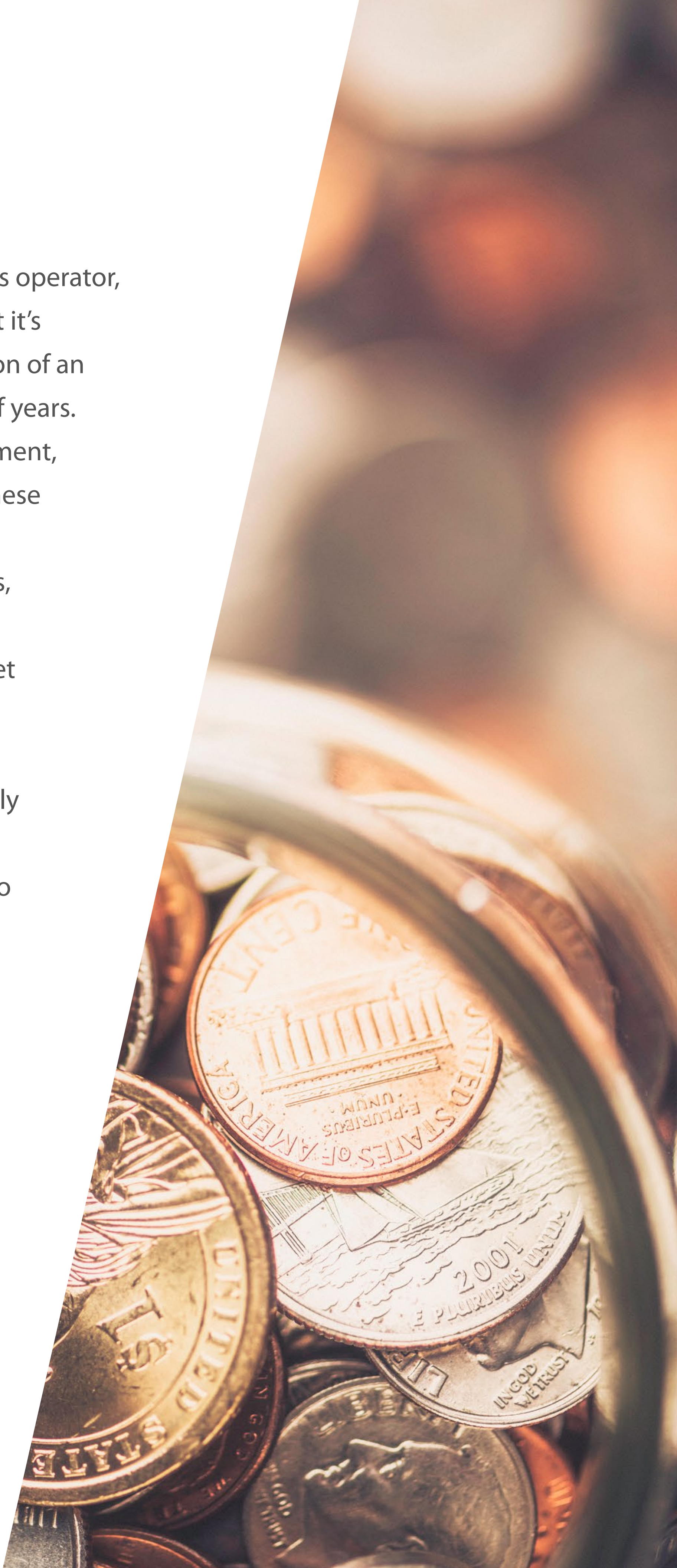
Payfirma


# CRYPTOCURRENCY

## AN ECONOMY OF EVOLUTION

For the average consumer or business operator, cryptocurrency can be confusing, but it's really nothing more than the evolution of an idea that has existed for thousands of years. Cryptocurrency is a new form of payment, existing exclusively in digital form. These currencies have been growing and building momentum for several years, and show little sign of slowing. While most cryptocurrencies are initially met with doubt and uncertainty, similar to eCommerce during the late 90's, they've found success in some unlikely places and continue to evolve. Major cryptocurrencies have worked hard to find inroads in the payments world, adhering to the original ideas behind cryptocurrency's creation. As far as cryptocurrency being an everyday, globally accepted form of payment, it's not a matter of if, but when.



# Humble Beginnings

In 1998, computer science expert Wei Dai published a paper that, although fueled by fierce rhetoric, outlined several key features appealing to an anonymous group of individuals, as well as a truly autonomous economy.  Speaking about the value of digital pseudonyms and privacy while respecting the necessity for verified transaction security and authorization, Dai went on to shape an alternative digital currency and the means of financial ownership, using what he described as "B-Money".

While the digital currency e-cash had been devised by David Chaum in 1990, it would be B-Money that would go on to define the terms of cryptocurrency ownership, contract fulfillment, currency creation, and ultimately, exchange. Cryptocurrency has spent much of its existence marred in debates ranging from legitimacy, all the way to best practices for retail use, but the idea has taken a firm hold in most minds. There is little doubt about the legal complexity and social divisiveness of cryptocurrency, but many popular cryptocurrencies, like Bitcoin, Litecoin, or Peercoin, have already gained a strong foothold, simply because currency is not a new idea.

# The History of Currency

Humans have exchanged goods and services for thousands of years, and in Ancient Egypt, currency was first used to track amounts of grain deposited to granaries from farmers. Starting out as receipts for goods and services, currency settled on rare pieces of metal: the early infancy of coinage. Almost always tied to the value of precious metals, inherent wealth was largely based on gold for hundreds of years.

This changed on July 5, 1933 when Franklin D. Roosevelt removed the U.S. from the gold standard, bullion. This meant that coins would represent wealth and the ability to pay globally, regardless of what was being purchased. This confidence is one that, to this day, remains strong in the commodity, as people around the world believe in the wealth that gold presents. The move away from the gold standard was initially made to curb Americans trading against their own dollar during the Great Depression, although it would eventually allow the Federal Reserve to create money in the form of cash and credit as it saw fit. By 1971, when Richard Nixon completed the abrogation, confidence in the American dollar was absolute, and despite future laws re-allowing the purchase and sale of gold bullion, the course was set; American currency would be created on necessity, not on valuation.

# How Cryptocurrency Works

The uniqueness and evolution of gold has served as the perfect blueprint for the development of cryptocurrency. While gold's creation was a discovery, cryptocurrency's has been very intentional. The most popular cryptocurrencies are created as a means of payment for processing or creating the currency itself; payment is based on the completion of complex algorithms and the processing of transactions using powerful and sophisticated hardware. Once an extremely complex algorithm has been resolved, cryptocoins are unlocked and provided to the person whose computer handled the math. This process is referred to as "mining" and is driven by a community that agrees on the value and opportunity the currency presents. As specialized cryptocurrencies have evolved, the requirements of hardware have grown exponentially; what may have been doable once by a home computer, now requires processors and servers typically used by the likes of Google. The process remains accessible to hobbyists through the collective work of mining pools, where individuals are randomly grouped together and paid in proportion to their work. Regardless of whether a corporation or an enthusiast is doing the work, the more these cryptocurrencies are demanded, the more that are unlocked and made available for use.

## Major Cryptocurrencies

- Aurracoin
- Bitcoin
- BlackCoin
- Dash
- Dogecoin
- DigitalNote
- Ethereum
- Litecoin
- Mastercoin
- MazaCoin
- Monero
- Namecoin
- Nxt
- Peercoin
- Primecoin
- Ripple

A central tenant of any currency is legitimacy, especially when it is framed around the retail space of commerce, one that operates heavily with physical goods. The most successful cryptocurrencies to date maintain a validation process by collecting some measure of personal data and permanently fixing it to a code known as a "public key", not entirely different from the terms and requirements of establishing a bank account or line of credit. Excluding directly private information by way of a public key allows for public record and even full disclosure for transaction history. This means the reliable ownership and record keeping of credit cards with the anonymity that cash can provide. When a cryptocoin is exchanged, the sender and receiver's public keys are recorded. Open source websites such as Blockchain openly track the source and destination of hundreds of Bitcoin transactions per second, massively reducing the risk of fraud or attempts to exploit the system.

Of course, legitimacy is not just about creation and ownership, but also about use.

# The Good, the Bad, and the Ugly

Silk Road was an online black market established in 2009 by Ross William Ulbricht. Existing on the Deep Web, it was almost unreachable through conventional means and search engines and offered its users a secure, free-from-web-monitoring means of buying and selling. By 2013, there were over 10,000 products and services available, and some conservative estimates placed illegal narcotics at almost 70% of products available. After a thorough inquiry by the Federal Bureau of Investigation (FBI), charges were laid. It was found that Silk Road had not simply enabled the sale of illicit substances and illegal materials, but had actively endorsed the behavior while administrators collected seller's fees and paid-for account creation through auction. Ulbricht was convicted on several counts of conspiracy to traffic drugs, computer hacking, and money laundering.

Existing on the Deep Web essentially blocked the use of credit cards and traditional payments. Cryptocurrency became almost the exclusive means of payment as millions of dollars worth of cryptocoin changed hands during the year. In the end, the FBI collected over 150,000 Bitcoins, worth an estimated $33.1 million USD at the time. Although Silk Road was one of the largest stories to push new currencies such as Bitcoin into the spotlight for negative reasons, it is dwarfed by similar stories where US dollars were that currency involved. One such case is a 2007 raid on a home closely linked with Mexican drug cartels that yielded some $207 million dollars in American cash. Any currency that offers some level of anonymity while making it possible to launder money will always present the risk for illegal use, and no currency has ever been immune.

Of the most popular cryptocurrencies, Bitcoin's power has largely been debated; despite the wide-ranging acceptance of Bitcoin, stability has been an issue. When it was introduced on July 19th, 2010, Bitcoins were bought and sold at about $0.07 per coin. As adoption and methods of delivery evolved over the year, each coin held steady at around $6 until May 2011.

# The Bitcoin Boom

Although the trading and valuation of Bitcoin can take place at any point in the day, seven days a week, Bitcoin saw an explosion after a significant amount of media coverage helped to spawn awareness and word of mouth. Opening at $6.74 on Monday, May 23, 2011, Bitcoin closed the week trading at $12.51 - a growth of 86% in five days. By July, the cryptocoins were up to $76.08 a piece. Even with quickly growing prices, one of the more useful aspects of Bitcoin is the ability to break down each coin into percentages. While a single gold bar is only worth the value of the whole bar, a single Bitcoin can be broken down into smaller fractions and percentages; the holder of a Bitcoin is able to turn their coins into the percentage that best represents the value of the purchase. Rather than having to carry around a tenth of an ounce of gold for a cup of coffee, Bitcoin can process the exact amount required to pay for your purchase, no matter how small. Bitcoin has effectively ceased as a novelty and quickly matured as investors, users, and merchants have begun to take the payment seriously.

Unfortunately for Bitcoin, success in the early years was largely based on speculation and only led to more questions when the coins sold as high as $1,200 USD. Regardless of the ability to proportionally break down the coin, the seemingly endless possibility of the cryptocurrency was called into question when after less than six months, Bitcoin lost more than 60% of that value.

Payment methods that fluctuate as widely as Bitcoin will naturally have difficulty finding a home in the wallet of any consumer, but Bitcoin continues to surprise as it matures. It would seem on paper that cryptocurrencies are largely free of the direct sway of global markets except that depreciations and even crashes in value have typically aligned with major economic news or influence. Bitcoin saw one of its lowest valuations since 2013 on January 12th, 2015, coinciding with weeks of sluggish economic growth, a full percentage drop in the Dow Jones, contracting job earnings in the United States, and the report of rapidly declining job numbers in the United Kingdom. As these numbers improved and leveled off, so did the cryptocurrency. Months of closer ties to the various world economies have helped to grow Bitcoin into a stable commodity and currency. Major retailers such as Overstock and TigerDirect have already begun accepting Bitcoin for global sales.

With increasing popularity and value reflecting the real world, governments have clearly taken notice. Several cryptocurrencies, such as Litecoin, Peercoin, Quark, or the Internet meme-based Dogecoin, offer variations on the code that has solidified Bitcoin, whether that is increased security, increased privacy, or financial incentives to spend and circulate. These variations have by and large struggled to succeed in the shadow of Bitcoin, and the gap only widened when the United States Treasury officially classified Bitcoin as a transferrable virtual currency; however, not all governments have reacted the same.

# International Inconsistencies

Amid deepening economic woes, Norway outright banned the sale and trade of Bitcoins in 2013. The government pushed the Icelandic Foreign Exchange Act, as a means to isolate the struggling Krone and help the national currency amid citizens eager to find a legal tender of greater value, a move not unlike FDR's in 1933. Ecuador has moved to ban all decentralized currencies as they advance their own electronic money, while Canada has opted to legalize and regulate Bitcoin under anti-money laundering and anti-terrorism financing laws. While recognizing cryptocurrency as a valid means for completing transactions may have a variety of social and economic influences, to look at a particular response as being right, whether that means embracing or rejecting, does not necessarily imply that it is correct. Doing so ignores the very real value additional currencies can have on a market. Despite gold's rejection over an 80 year span, it enjoyed prices as high as $1,889 USD per ounce in 2011, as people sought financial safety during the fallout of the 2008 global financial crisis.

# The Opportunity

Global eCommerce markets are expected to surpass $1.5 trillion USD by 2018, while social media boasts membership numbers in the billions. We are living more and more of our lives online, so it only makes sense to look for a payment method that suits the needs of that community similar to the early farmers in Egypt. While cryptocurrency is still in its infancy, it has already managed to captivate much of the world and challenge everyday thinking around payments. Just like gold, cryptocurrency walks a line between commodity and currency. Even if governments rush to remove the likes of Bitcoin, there will still be demand from inside the digital world, and out.

Wondering when the right time to accept a new payment can be daunting, but this small idea has sparked a global movement that aims to meet tradition with technology. As it continues to find its place meeting the needs of a community, that community grows rapidly and is ready to spend.

# Sources


- Bitcoin Laws
  http://www.bitcoinbettingreview.com/bitcoin-laws/
- CoinDesk BPI
  http://www.coindesk.com/price/
- Stock Market News for January 12, 2015
  http://www.zacks.com/stock/news/160059/stock-market-news-for-january-12-2015
- Silver linings
  http://www.economist.com/blogs/freeexchange/2015/08/jobs-market
- Online retail expenditure in the United Kingdom (UK) from 2000 to 2013 (in billion GBP)
  http://www.statista.com/statistics/283165/online-retail-expenditure-in-the-united-kingdom-uk/
- Silk Road: the online drug marketplace that officials seem powerless to stop
  http://www.theguardian.com/world/2013/mar/22/silk-road-online-drug-marketplace
- Not Your Average Drug Bust
  http://www.washingtonpost.com/wp-dyn/content/article/2007/07/24/AR2007072400150.html
- Canada Enacts Bitcoin Regulations
  http://blogs.wsj.com/riskandcompliance/2014/06/23/canada-enacts-bitcoin-regulations/
- Global Retail E-Commerce Keeps On Clicking
  https://goo.gl/b6SMgj
- Gold Price History
  http://goldprice.org/gold-price-history.html
- Legality of bitcoin by country
  https://en.wikipedia.org/wiki/Legality_of_bitcoin_by_country
- A brief attempt at explaining the madness of cryptocurrency
  http://www.engadget.com/2015/01/21/cryptocurrency-explainer/
- Overstock.com Becomes First Major Retailer to Accept Bitcoin Worldwide
  http://www.wired.com/2014/09/overstock-com-becomes-first-major-retailer-accept-bitcoin-worldwide/
- TigerDirect Expands Bitcoin Payments to Canada, Mobile Devices
  http://www.coindesk.com/tigerdirect-becomes-canadas-first-bitcoin-e-tailer/
- Silk Road mastermind gets life in prison for drug, conspiracy crimes
  http://fortune.com/2015/05/29/ulbricht-sentenced-silk-road-crimes/

Payfirma

**Be on the first wave of the newest way to pay.**

See if you qualify for the Payfirma Bitcoin Beta API

Qualify for Beta