

A BEGINNER'S GUIDE:
**BITCOIN & OTHER
 CRYPTOCURRENCIES**



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Introduction

Cryptocurrency – the word conjures up images of digital cash and overnight success. It has become synonymous with investment and wealth building, but also with hacking and the black market.

What's it really all about?

What about bitcoin – is it the best cryptocurrency out there?

Despite the fact that Crypto currencies have actually been around for quite some time, and that they share more than a few similarities with the national currencies we're all familiar with, there's a lot of confusion surrounding digital currencies.

Within this ebook, we'll explore what digital currencies are, and how they work in a basic way. We'll also dig into bitcoin, and learn not only why it is the most popular cryptocurrency on the market, but how it is used, and the challenges you might experience should you decide to put your money into it. Finally, we'll explore the future of Crypto currencies, at least to the point that speculation can take us.

Whether you're thinking about investing in bitcoin, or you just want to know more about how Crypto currencies work in the first place, this ebook is for you.

01. Chapter

What is a Cryptocurrency?

The word “cryptocurrency” has gained a lot of prominence in the past few years. Currency options like bitcoin, ether and litecoin have made headlines for their (recent) meteoric increase in value, and investors the world over are scrambling to make these alternative currencies part of their portfolios. What are Crypto currencies, though? How do they differ from traditional currencies, like the US dollar, or the British pound? What should potential investors know?

First, A Digression

Before we can discuss Crypto currencies, we need to talk a bit more about conventional, national currencies that we’re all more familiar with. There are some interesting correlations between the two that might surprise you, although there are quite a few differences, as well.

National Currencies

Today, we’re all familiar with national currencies – it’s the currency that your employer pays you in for your work during the week. It’s the currency that’s denoted in your bank account, and the currency that

indicates the value of your investments, such as stocks and bonds. We'll use the dollar for this discussion, as it's one of the most familiar currencies in the world. A dollar has a known value, and predictable exchange rates.

What gives a national currency like the US dollar its store of value, though? Why is a dollar worth a dollar?

The answer might surprise you – it's because the US government says it has value, and because we all, by consensus, agree that it does. If we did not, it would be nothing more than a piece of paper. It would have no intrinsic value the way gold, silver and other precious metals do.

Once, national currencies were backed up by gold and silver reserves. That was true for the US government until the 1970s, when we abandoned the gold standard. Today, the US dollar is backed by nothing more than faith in the government.

Crypto currencies

Now that we've talked a bit about national currencies, we can discuss Crypto currencies, as well as their similarities to and differences from conventional currencies.

Crypto currencies are, at heart, digital assets. Like national currencies, they have no intrinsic value at all. That is, they have monetary value because we agree that they do – they have no value or use outside that of currency, though. They're even less tangible than the US dollar, though, because they only exist in digital form. They're completely electronic. You cannot hold bitcoin or ether in your hand.

That means they are not backed by anything like gold or silver, either. So, they're actually pretty similar to fiat currencies (national currencies).

The main differences are that national banks do not issue Crypto currencies, and they are not physical.

Of course, fiat currencies are largely moving to the digital realm today, too. For instance, if you have direct deposit at your place of employment, chances are good that you almost never touch physical cash – you probably use your debit card for most purchases. That

means you're not really spending physical money, but transferring 0's and 1's when you buy goods or pay for services. As you can see, crypto currencies are much more familiar than you might have suspected.

How are Crypto currencies produced?

Most of us are familiar with how fiat currencies (national currencies) are produced. The central bank of a nation determines that a new infusion of capital is needed, and they print it up – they create physical paper or metallic money, which is then delivered to the market. Each printing or minting of money devalues what is currently on the market, though, so the creation of new capital needs to be kept to a minimum. Runaway money printing could very easily lead to complete economic meltdown.

Crypto currencies are not minted or printed the way national currencies are, because they're not physical and they're not issued by a central bank. In fact, they're not controlled by any national government at all.

Due to this fact, Crypto currencies could be considered a precursor to a one-world monetary solution (if we could ever settle on just one cryptocurrency, of course, which doesn't look likely to happen).

Crypto currencies are created by mining. That is, information is mined, and cryptocurrency creators code the currency into existence. Yes, they're written in code (they're electronic, after all). Most of the Crypto currencies out there, including the most popular ones like bitcoin, litecoin and ether, are based on the same source code. It's available on GitHub, and can be downloaded by anyone, and customized to create new Crypto currencies.

Acceptance and legality of Crypto currencies

Before you rush out to start purchasing (or mining) bitcoin or one of the altcoin options on the market, it's important to understand a few things. First, even bitcoin is not universally accepted. Also, because of its skyrocketing value in recent weeks, it is better used as an investment vehicle, rather than as a currency that you'd use to purchase goods or services on a regular basis.

Many people are simply investing in bitcoin, and then selling it. They then use the proceeds (in US dollars, or their national currency of choice) as regular "spending money".

It's also important to note that Crypto currencies are not just widely accepted as payment by companies. They may or may not be legal for you to use depending on your area of residence. Many countries have no stance on Crypto currencies at all, while some have actually banned them outright.

China is an excellent example – the nation banned the use of bitcoins by financial institutions. Russia has taken the opposite approach, though, but they are not allowed to be used for any in-country purchases. Instead, you're required by law to purchase goods and services with rubles.

In the US, the situation is a bit more complicated. While Crypto currencies are legal, they are counted as property when you file your taxes, and not as currency. So, you would be subject to paying capital gains taxes on your investment gains here. The IRS' decision was made because the organization determined that Crypto currencies had more similarities to precious metals than to currency, so they were all deemed property.

02. Chapter

What is Bitcoin?

When people talk about cryptocurrency, there's a very good chance they're discussing bitcoin, which has become something of a gold standard for the industry (although no gold is used in backing the cryptocurrency). What is bitcoin and why does it have such widespread acceptance? Let's take a closer look.

Bitcoin – Under the Hood

When you dig into the history of cryptocurrency, you'll quickly realize that one of the reasons bitcoin is the most widespread is that it's the oldest one in existence. Bitcoin was the first such currency available. That's not the case today, though. In fact, there are over 1,000 different Crypto currencies out there. With that many options, why is bitcoin still so popular?

There are quite a few reasons that bitcoin remains very popular today. Some of these are tied to bitcoin itself, others to the platform that underpins it and other Crypto currencies, called blockchain. Yet others are benefits found with all Crypto currencies out there:

- No Government Control – This is perhaps one of the most attractive things about bitcoin. The fact that there is no government control makes this a popular currency with Libertarians, as well as those who would prefer to keep the government out of their finances as much as possible, or those who don't want the meddling of a central bank to interfere with their wealth building.
- Secure – Compared to national currencies, bitcoin and other Crypto currencies are incredibly secure. This is thanks to the way blockchain technology works, creating a secure, permanent, unalterable record within a ledger.
- Fixed Asset – Unlike fiat currency, which can be printed as needed and whenever the government desires, bitcoin is a fixed asset. There can only be 21 million bitcoins ever. With that being said, the divisibility of individual bitcoins means that the asset can continue to grow, and that growth is actually unlimited.
- Truly Global – While the US dollar has been used as the global currency of exchange for a very long time, it is not truly a global currency because it is controlled by the US government and the Federal Reserve. Bitcoin, on the other hand, is a truly global currency.
- Complete Transparency – There's no such thing as "dirty money" when it comes to bitcoin.

That's because blockchain technology records every single transaction with the cryptocurrency, ensuring completely transparency from the very beginning.

- Non-Taxable Transactions – Because bitcoin transactions are not traceable, they are also non-taxable (note that this does not mean un-trackable). That makes them an ideal solution for those hoping to avoid the government taking a bite. However, that does not equate to tax-free. Remember that the IRS treats bitcoin as property, so you'll have to claim them on your taxes, and pay capital gains.

The Challenges with Bitcoin

While bitcoin is undeniably beneficial, and has enormous promise, there are some challenges present. One of those is the duality of its nature. Bitcoin works like both a commodity and a currency.

However, because most nations don't recognize it as an actual currency, it is taxed like a commodity. In fact, the cryptocurrency's commodity-oriented nature is coming more and more to the fore, and people are increasingly treating it as an investment vehicle, similar to stocks and bonds, or even gold and silver, or livestock, than as an actual usable currency, which is what was originally intended.

Another challenge with bitcoin is determining how you want to obtain it. There are two primary ways.

First, and most commonly, you can buy it from those who have already mined it. In this scenario, you give someone the fiat currency value of the bitcoin they've mined and they give you the equivalent value in bitcoin. It's just like purchasing any other commodity.

Secondly, you can opt to mine bitcoin yourself by using your computer's processing power to carry out mathematical calculations (the mining process). Mining might sound like the simplest solution, and it was originally before the surge in popularity of Cryptocurrencies. Today, though, the mining process has become much more difficult and much more competitive.

There's also the challenge of dealing with the various bitcoin exchanges out there. Once upon a time, there were 40 exchanges that dealt with bitcoin, but that has changed today. Most exchanges fail out of the gate, and when they do, they take the money you have invested with them. It's gone, with no way to get it back.

Of the original 40 exchanges, 18 were closed, either due to hacking and theft (the case with Bitfloor), a loss of funds, or with no explanation whatsoever. Of those that remain, Mt.Gox is the largest, handling roughly 80% of the world's bitcoin trading. And, while bitcoin itself is secure, the exchanges are not. In fact, attacking them has become more and more common.

Finally, you're left with the question of what to do with your bitcoin – there are very few places to spend them. A handful of companies now accept cryptocurrency as payment, but most don't. You can also spend your bitcoin on Reddit and through WordPress.

03. Chapter

Other Options and the Future of Crypto currencies

While bitcoin and other Crypto currencies are making huge inroads today, and rapidly gaining acceptance around the world, at least with investors and individuals interested in not using a national currency, the future remains a little murky.

Other Popular Crypto currencies

Bitcoin is only one of the many different Crypto currencies out there, albeit the most popular of them all. You can even create your own cryptocurrency if you really wanted to take the time to do so. [Fast Company](https://www.fastcompany.com/3025700/how-to-create-your-own-cryptocurrency) explains how to do that here: <https://www.fastcompany.com/3025700/how-to-create-your-own-cryptocurrency>. What other options are out there, though? Below, you'll find a partial list, organized by popularity at the time of this writing. Note that popularity waxes and wanes incredibly quickly, though:

- Bitcoin
- Litecoin
- Ethereum
- Zcash
- Dash
- Monero
- Ripple

What about the Future?

While Crypto currencies such as bitcoin, ether and litecoin are undeniably popular, there is no certainty for their future. A lot hinges on how world governments decide to treat these interesting new financial developments. Some predict that they will eventually fade away, while others see nothing but good things.

Perhaps the single most important thing to consider here is that while Crypto currencies can rise and fall, and even fail completely, the technology behind them is here to stay. Blockchain technology is currently being investigated and researched by companies ranging from Sun Microsystems and IBM to healthcare giants. Expect blockchain to play a larger and larger part of your daily life, even if you don't invest in Crypto currencies.

Conclusion

Crypto currencies, particularly bitcoin, seem like they're here to stay. However, that's not necessarily true. There's a lot of uncertainty and ambiguity surrounding these alternative currencies, and most countries in the world either choose to ignore them, or treat them as investments, rather than as actual currency. A growing number are actually banning them, with China as the primary example here.

Bitcoin remains the strongest contender on the market, and the most popular cryptocurrency by a wide margin. However, there are others, and many of them are also increasing in value as more people vie for their piece of the crypto pie. It remains to be seen which will be the most important, and which will fall away.

Ultimately, Crypto currencies may end up being a fad, albeit an expensive one. The technology behind them, blockchain, will not, though. Expect to see blockchain making inroads into other areas of your life as companies large and small start to adopt it for security purposes, scalability, ease of access, transparency, and other reasons.

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