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CRYPTOCURRENCIES

A Primer on Digital Money

Mark Grabowski

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Cryptocurrencies

Already in just a decade of existence, cryptocurrencies have been the world's best-performing financial asset, outperforming stocks, bonds, commodities and currencies. This comprehensive, yet concise, book will enable the reader to learn about the nuts and bolts of cryptocurrencies, including their history, technology, regulations and economics. Additionally, this book teaches sound investment strategies that already work along with the spectrum of risks and returns.

This book provides a plain-language primer for beginners worldwide on how to confidently navigate the rapidly evolving world of cryptocurrencies. Beginning by cutting to the chase, the author lists the common burning questions about cryptocurrency and provides succinct answers. Next, he gives an overview of cryptocurrency's underlying technology: blockchain. He then explores the history of cryptocurrency and why it's attracted so much attention. With that foundation, readers will be ready to understand how to invest in cryptocurrency: how cryptocurrency differs from traditional investments, such as stocks; how to decide which cryptocurrency to invest in; how to acquire it; and how to send and receive it, along with investment strategies. Additionally, legal issues, social implications, cybersecurity risks and the vocabulary of cryptocurrency are also covered, including Bitcoin and the many alternative cryptocurrencies.

Written by a journalist-turned-professor, this book's appeal lies in its succinct, informative and easy-to-understand style. It will be of great interest to people looking to further their understanding of what cryptocurrency is, why it's a big deal, how to acquire it and how to send and receive it, as well as investment strategies.



Mark Grabowski is an associate professor at Adelphi University in New York where he teaches tech courses on Bitcoin and Blockchain, Internet Law, and Digital Ethics. Besides being an investor in cryptocurrency, he has advised cryptocurrency projects, been extensively quoted in the media on Bitcoin and blockchain and regularly speaks at international conferences on the legal issues surrounding cryptocurrency.

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Preface

Do you like learning about fascinating technology? Are you tired of wondering what the heck the blockchain is? Are you considering investing in Bitcoin, Ethereum, Ripple or some other cryptocurrency? Or maybe you'd just like to hold your own in a conversation on this topic with friends and coworkers?

My book is for beginners who wish to confidently navigate the rapidly evolving world of cryptocurrency. It covers how to invest in cryptocurrency and explains how it works and why it has become so popular.

I know what it's like to be in your shoes. When I first became curious about cryptocurrency, I had a lot of questions and doubts. Unfortunately, I quickly discovered that there really wasn't a one-stop resource, such as a book or video that explained everything I needed to know in simple language. I had to pore over hundreds of resources that were often convoluted in order to piece together explanations and grasp concepts. So, as a cryptocurrency investor and journalist-turned-professor, I decided to use my skills and experience to explain cryptocurrency in a succinct, informative and easy-to-understand way.

My book begins with an introduction that provides a brief overview of what cryptocurrency is and why it's important. That's followed by a list of frequently asked questions and brief answers. Next, I give a basic overview of cryptocurrency's underlying technology: blockchain. I then explore the history of cryptocurrency and why it's attracted so much attention. With that foundation, you will be ready to take on investing in cryptocurrency. You will learn how cryptocurrency differs from traditional investments, such as stocks; how to decide which cryptocurrency to invest in; how to acquire it; and how to send and receive it, along with investment strategies. Additionally, legal issues, cybersecurity risks and the vocabulary of cryptocurrency are also covered. As a final bonus: this

book has a companion website, CryptocurrencyTextbook.com, which provides additional information, including instructional videos and useful links.

Thanks for reading!

Mark Grabowski

Author and Professor

1 Introduction

U.S. Senator Thomas Carper astutely observed in 2013, “Virtual currencies, perhaps most notably Bitcoin, have captured the imagination of some, struck fear among others, and confused the heck out of the rest of us.”¹

Today, cryptocurrencies are arguably the hottest investment product currently available, but still somewhat of a geeky trend not understood by most people. And that is exactly why you should learn about it and consider investing in it. Jumping on the bandwagon earlier than most will give you an edge, both in terms of experience and potential profits. To wit, this book will help teach you the nuts and bolts of cryptocurrency, including its history, technology, regulations and economics. Most importantly, you’ll learn sound investment strategies that already work along with the spectrum of risks and returns.

In short, cryptocurrency is basically a new form of digital money that is shifting the paradigm and challenging the legacy financial system.

Renowned digital currency expert Andreas Antonopoulos likens cryptocurrency to “the Internet of money.”

Ever since 2009, when a mysterious figure known as Satoshi Nakamoto invented Bitcoin and with it blockchain technology, cryptocurrency has grown into a global phenomenon. You’ll have a hard time finding a major financial institution, a prominent tech company or a government that has not researched cryptocurrencies, published a paper about it or started a blockchain project. About half of the world’s top-50 universities now offer at least one undergraduate course in cryptocurrencies. A 2018 study found that while only 9% of people worldwide owned cryptocurrency at the moment, the number investing was expected to almost triple in the near future.²

2 Introduction

For a growing number of enthusiasts, cryptocurrency not only represents a once-in-a-generation wealth building opportunity but also has the potential to be part of an economic revolution. “It’s a new form of thinking about money, storing money, transferring money, and just dealing, organizing, and understanding money, and all kinds of second order financial effects that come out of that,” explained cryptocurrency analyst Murad Mahmudov.³

Renowned digital currency expert Andreas Antonopoulos likens cryptocurrency to “the Internet of money.”⁴ In the same way that the Internet flattened the communication structure and allowed anyone anywhere on earth to communicate, cryptocurrency can do that with money. Its blockchain technology allows anyone to instantly and securely engage with anyone in world economically without a bank account or middleman. Cryptocurrency also offers many upgrades over traditional money or fiat, such as the following:

- It’s valuable. Unlike fiat, cryptocurrency such as Bitcoin can’t be created out of thin air, and only a limited number will ever be produced, which makes it a scarce asset that’s unlikely to depreciate.
- It’s efficient. Cryptocurrency transactions are also faster, less costly and more secure than fiat transactions because they don’t utilize a third party, such as a bank.
- It’s uncensorable. Instead of being regulated by bureaucrats behind closed doors like government-backed currencies, cryptocurrency is regulated by mathematics and cryptography. There is no headquarters or central place for cryptocurrencies such as Bitcoin, which makes it nearly impossible to shut down and stop. Transactions are also more private.

These features, combined with its ability to be easily converted into traditional currencies, makes it a very attractive financial asset for citizens of any country and a necessity for those in turbulent developing nations. For example, when Turkey’s lira fell 20% overnight in 2018 as the United States imposed sanctions, Turkish cryptocurrency exchange usage saw a massive spike, as Turkish citizens recognized that putting their money into cryptocurrency would help them avoid the lira’s impending depreciation.

Although cryptocurrency is often purchased as a long-term investment, it can also be used as a medium for purchasing products and services – everything from pizza to flights. With so many use cases, it’s no wonder the total daily value in money transferred by all cryptocurrency networks is comparable to the value transferred by Mastercard’s network. The rise of cryptocurrencies represents “the legitimization of an emerging asset class alongside the traditional global economy,” according to Dr. James Canton of the Institute for Global Futures.⁵

Cryptocurrency is not without its controversies, however. Terrorists, criminals and hate groups have all utilized cryptocurrency to evade authorities

and fund their illicit activities. But it's also being increasingly utilized to do good and help people. For example, when Roya Mahboob launched a woman's rights blog in Afghanistan, she paid her female contributors in Bitcoin, as they did not have bank accounts. Meanwhile, the United Nations has used cryptocurrency to aid over 10,000 Syrian refugees.

Another drawback is that cryptocurrency has its financial risks. As with the dot-com boom, cryptocurrency has had its shares of ups and downs. Market volatility, scams, regulations and other setbacks have created uncertainty and doubt. Some individuals have lost their savings, spouses and even the will to live as a result of poor investment decisions.

But the bottom line is, cryptocurrency is likely here to stay and just getting started. For those in the developing world, it's a form of financial populism that takes power away from corrupt governments and central banks, and puts economic power in the hands of people. And for the rest of the world, it's a special investment opportunity. Those who get involved now and invest in the right opportunities may well reap the same bragging rights and riches as the early Internet pioneers who backed Amazon and Facebook. "This is still a nascent technology, it's only 10-years-old," said Anthony Pompliano, founder of Morgan Creek Capital Management. "But it's been the best-performing asset over the past 10 years. It's beaten stocks, bonds, commodities and currencies."⁶

The choice is yours: you can remain confused and hesitant, or you can read on and learn how to become part of history in the making.

Notes

- 1 Aruna Viswanatha, "U.S. Officials: Virtual Currencies Vulnerable to Money Laundering," *Reuters* (Nov. 18, 2013), available at www.reuters.com/article/us-senate-virtualcurrency/virtual-currencies-vulnerable-to-money-laundering-u-s-justice-idUSBRE9AH0P120131118.
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- 3 Anthony Pompliano, "Murad Mahmudov: The Ultimate Bitcoin Argument," *Medium* (Oct. 31, 2018), available at <https://medium.com/@apompliano/murad-mahmudov-the-ultimate-bitcoin-argument-b205a1987408>.
- 4 Andreas M. Antonopoulos, *The Internet of Money*, Sheridan, Wyoming: Merkle Bloom (Aug. 30, 2016).
- 5 N.A., "10 Reasons Why Cryptocurrency Is the Next Big Thing," *CoinSwitch* (July 18, 2018), available at <https://coinswitch.co/news/reasons-why-cryptocurrency-is-the-next-big-thing>.
- 6 Anthony Pompliano, interview, *CNN* (Nov. 23, 2018), available at <https://twitter.com/APompliano/status/1066058486851739648>.

2 Frequently asked questions

Let's begin by cutting to the chase. Next are quick answers to common burning questions about cryptocurrency:

What's Bitcoin?

Bitcoin is a type of digital asset that can be bought, sold or transferred between parties over the Internet. Because of this, it's used to store value, like gold or real estate. It also serves as a form of digital money that can be used to purchase products and services, and to make payments to others over the Internet. Bitcoin is just one of hundreds of cryptocurrencies, but it's the first and most valuable one.

Isn't it fake money?

Bitcoin, along with all cryptocurrencies, only exists in cyberspace. There's no way to download your coins and physically hold them in your hands like traditional money. However, cryptocurrency can be exchanged fairly easily for real money, such as U.S. dollars, on exchanges such as Coinbase.com. Cryptocurrency can also be used to buy food, airline tickets and even cars. So, it has real-world value.

Who invented it?

Bitcoin, the first cryptocurrency, launched in 2009. It was created by Satoshi Nakamoto. This name is believed to be a pseudonym, and his true identity remains a mystery. He could be a she or a group of people. Nakamoto disappeared shortly after creating Bitcoin. His parting words in a 2011 email stated he had "moved on to other things."

Why is it such a big deal?

Some historians see cryptocurrency as the latest phase in the evolution of money. Many technologists are intrigued by the potential of its innovative blockchain technology. For numerous entrepreneurs, especially early adopters, cryptocurrency represents a once-in-a-generation wealth opportunity.

What's the point of cryptocurrency?

Cryptocurrency revolutionizes the way transactions are sent over the Internet. It's fast, secure, relatively anonymous and doesn't require a middleman, such as a bank, which reduces transaction costs and makes it censorship resistant. Thousands of merchants accept payment with Bitcoin – including Subway, Whole Foods, Microsoft, Overstock.com and several airlines.

How is cryptocurrency's price determined?

As with traditional investments, such as stocks, cryptocurrency's price is determined by the market – how much people are willing to pay for it. Because this market is still in its infancy, prices often fluctuate.

How do I buy cryptocurrency?

Numerous ways exist to invest in and buy cryptocurrency. I recommend using an American online cryptocurrency exchange, such as Coinbase.com. It's easy to buy and sell cryptocurrency on, very secure and has an excellent reputation.

Do you have to be rich to invest?

Although Bitcoin is quite expensive, with a single coin costing several thousand dollars, you don't need to be rich to invest in cryptocurrency. You don't have to buy a whole Bitcoin; you can buy a very small fraction of a Bitcoin. There are also hundreds of other cryptocurrencies you can invest in, and some cost less than a penny per coin.

I heard Bitcoin is only used by criminals.

Cryptocurrency is often stereotyped by the mainstream media as something that's only used by criminals for illegal activities, but a 2018 study by the Foundation for Defense of Democracies found that only 1% of all Bitcoin is used for illegal transactions.¹

So, it's legal?

The U.S. government allows cryptocurrency, but you are required to pay taxes on your investment profits. However, a small number of countries, such as Pakistan, have banned cryptocurrency.

But isn't it risky?

Cryptocurrency is often likened to the Old Wild West. The market is highly volatile. Scams are prevalent. It's largely unregulated. It takes time, research and a certain personality to succeed. Fortunately, I've written this book to guide you.

What do experts think?

The world's financial bigwigs have mixed opinions on cryptocurrency. Some won't touch it with a 10-foot pole, while others believe it will do for financial transactions what Amazon did to e-commerce or what Facebook did to social media. Jamie Dimon, CEO of JPMorgan said, "It's a fraud." But James Gorman, CEO of Morgan Stanley, believes it's "more than just a fad." Nobel Prize winning economist Paul Krugman said, "Bitcoin is evil." On the other hand, Janet Yellen, chairwoman of the U.S. Federal Reserve, called it "a very important new technology." Warren Buffett, CEO of Berkshire Hathaway, cautioned that it's "a real bubble." Meanwhile, Christine Lagarde, managing director of the International Monetary Fund, predicted it "might just give existing currencies and monetary policy a run for their money."²

Notes

- 1 Yaya J. Fanusie and Tom Robinson, "Bitcoin Laundering: An Analysis of Illicit Flows into Digital Currency Services," *Foundation for Defense of Democracies* (Jan. 12, 2018), available at http://defenddemocracy.org/content/uploads/documents/MEMO_Bitcoin_Laundering.pdf.
- 2 Joon Ian Wong and John Detrixhe, "What the World's Financial Bigwigs Think about Bitcoin," *Quartz* (Sept. 29, 2017), available at <https://qz.com/1089740/what-the-worlds-financial-bigwigs-think-about-bitcoin/>.