

PRIMERS

The
Fundamentals

A companion series of **eight papers** to Grayscale Institute's **five-class course** on the fundamentals of investing in digital assets.

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Understanding Crypto Sectors: Digital Currencies

July 2026

The Essentials

- **DIGITAL CURRENCIES** are the largest crypto sector.
- Their **SUPPLY** and **INFLATION** are typically hard-coded.
- Bitcoin is the **OLDEST** and **LARGEST** of all digital currencies.
- Digital currencies are typically valued as commodities using **SUPPLY-AND-DEMAND ANALYSIS**.
- We consider Bitcoin a **CORE HOLDING** in a digital asset portfolio; the remaining digital currencies covered in this primer—Bitcoin Cash, Litecoin, Zcash, and XRP—could be considered **SATELLITE HOLDINGS**.

I. What are digital currencies?

Simply put, a digital currency is very much like a traditional currency, except that it lives completely online. Traditional currencies have typically served one of three purposes: they are a store of value, a unit of account, or a medium of exchange. Digital currencies are the same.

The value of any currency has always been a reflection of its perceived worth among users as well as aggregate demand considering local, societal, and global macroeconomic risks. The same tenets hold true with digital currencies.

There is, however, a key difference: Decentralized digital currencies—of which Bitcoin is by far the most prominent—are not issued or controlled by a central government. Their supply and inflation are predetermined in code. In effect, they have a “monetary policy” that is hard-coded in the fabric of the blockchain/protocol. The economic incentives built into the blockchain remove the need for an intermediary—traditionally a central bank. In this way, cryptocurrencies are “trustless” (i.e., instead of trusting a centralized authority or intermediary, network users rely on the underlying code).

In the remainder of this primer, we will first dimension this important digital asset sector. Using a consistent template, we will then profile several representative investable tokens—highlighting their market size, investment thesis, and risk considerations—so you can learn and compare them side by side.

II. Sizing the sector

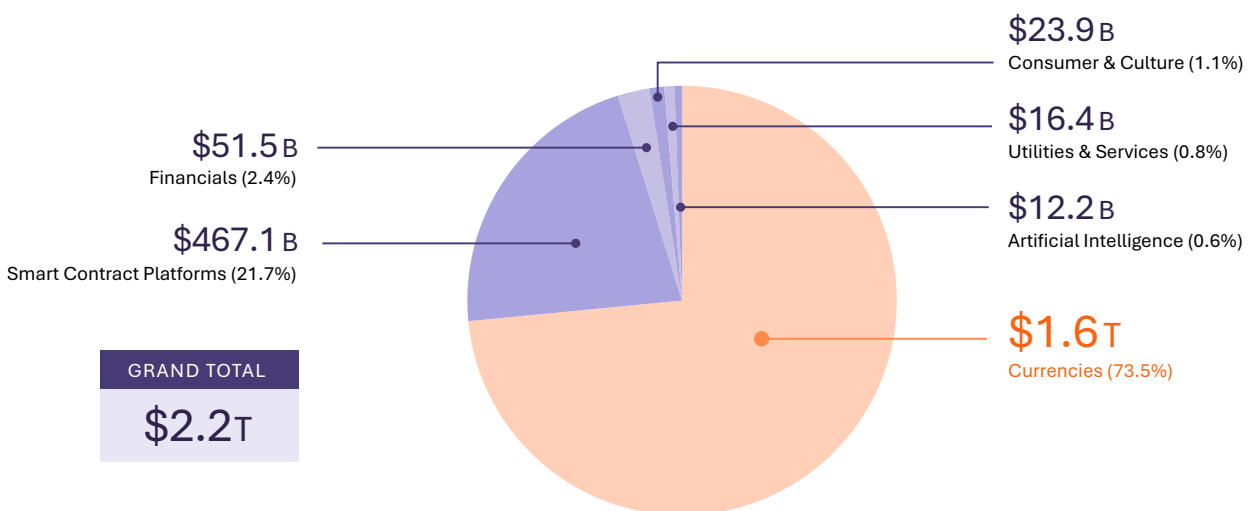
The first step in understanding crypto sectors is to dimension them. **Exhibit 1** demonstrates how currencies are by far the largest sector in digital assets by market cap—about 73.5% of the value of all digital assets as measured by the Grayscale Crypto Sector Index—yet the smallest by number of constituents, at just 13 tokens.¹

The Currencies sector has the lion’s share of the index primarily due to Bitcoin, which, as we will see in more detail soon, is the largest and oldest digital currency. But it’s not the only one, of course. In the remainder of this primer, we highlight, in addition to Bitcoin, four more representative investable tokens in the sector: Bitcoin Cash, Litecoin, Zcash, and XRP.

Also, before we continue, a word on key terms and structure. As a companion to the Grayscale Institute’s *Digital Asset Investing Fundamentals* course, the knowledge in this primer series, like in the course, builds chronologically—this second primer inherits knowledge from the first one, and so on. In this light, please refer back to either previous classes (available on demand) or previous primers if you feel like you need a refresher at any time on certain topics, such as proof-of-work and proof-of-stake blockchains, the role of miners and validators, or our asset valuation approach by behavior (commodity or financial claims). All materials are available on the [Grayscale Institute](https://www.grayscale.com) website.

Exhibit 1: Currencies are the dominant sector in the digital asset universe

SECTORS MARKET CAP BREAKDOWN (BNS)



As of May 31, 2026. Numbers may not add up to 100% due to rounding.
Source: FTSE Russell, Grayscale.

¹ As of May 31, 2026. Source: FTSE Russell, Grayscale. <https://www.grayscale.com/crypto-sectors>

III. Bitcoin: The core asset

Bitcoin is peer-to-peer digital cash that serves as a store of value. Launched in 2009, it has a 17-year track record, and trades as BTC. It is the oldest of all digital currencies. As of May 2026, its market cap was roughly \$1.5 trillion, about 92.6% of Grayscale’s currencies sector index. It runs on a proof-of-work blockchain with a 10-minute average block time (Exhibit 2).

The investment thesis for Bitcoin begins with the role it plays in a portfolio: We believe it works primarily as a store of value, akin to the role gold has played for ages. Like most digital currencies, it tends to behave like a commodity—its price is set primarily as a function of supply and demand.

Supply of Bitcoin is intentionally scarce—issuance is capped at 21 million tokens, more than 95% of which have already been mined—so its inflation mechanism is programmatic. New tokens are introduced as miners receive rewards for maintaining and securing the network as well as validating

transactions. Every four years the block reward of Bitcoin given to miners is cut in half (from 3.125 in 2024 to 1.5625 in 2028), slowing supply growth and increasing scarcity, which may support prices in times of stable to rising demand.

On the demand side, two key sources stand out: Exchange-traded products and digital asset treasury companies (DATs)—publicly listed companies that hold crypto on their balance sheets. Together these entities held almost 13% of all Bitcoin at the end of May 2026. Some companies, such as Strategy, hold virtually their entire market capitalization in BTC. And some operating companies, such as Tesla or SpaceX, hold more than \$1 billion in Bitcoin as an alternative to Dollars.

From an allocation perspective, given its size, track record, and widespread ownership, we consider Bitcoin a core asset—rather, *the* core asset, in a digital asset portfolio.

Exhibit 2: Bitcoin is the oldest, largest, and most invested crypto asset in the world



WHAT IS BITCOIN? • Peer-to-peer digital cash • Token symbol: BTC • Crypto sector: Currencies • Launch year: 2009	MARKET SIZE • Market cap: \$1.5 trillion¹ • Shares of currencies sector: 92.6%¹	TYPE OF BLOCKCHAIN • Proof of Work • Tokens are mined at 10-minute average block time
INVESTMENT THESIS • Role in portfolio: Store of value • Behaves like: Commodity • Staking rewards: No • Core / Satellite: Core	SUPPLY-DEMAND DYNAMICS • Consensus mechanism: Proof of Work SHA-256 • Issuance: Hard-capped, with the limit of 21 million to be reached in 2140² • Inflation mechanism: Programmatic	RISK CONSIDERATIONS • Volatility:³ 49% • Trading track record: 17 years

1 As of May 31, 2026. Source: Grayscale, FTSE Russell
2 Source: Bitcoin White Paper “Bitcoin: A Peer-to-Peer Electronic Cash System” (2008)
3 Three-year volatility of monthly returns as measured by standard deviation; as of May 31, 2026. Source: Artemis

IV. Bitcoin Cash: A fork in the road

Bitcoin Cash has many commonalities with Bitcoin—in fact, they started from the same source code. It launched in 2017, giving it a 9-year track record, and it trades as BCH. As of May 2026, its market cap was \$6 billion, about 0.4% of the currencies sector index. It runs on Proof of Work at a 10-minute block time, shares Bitcoin’s halving schedule and 21-million maximum supply, and uses the same SHA-256 hash algorithm (**Exhibit 3**).

The fork story: Bitcoin Cash is a hard fork of Bitcoin. A hard fork occurs when consensus on an algorithm change cannot be reached. In that event, a new blockchain is built with the updated rules while the original continues unchanged.

Advocates wanted to raise Bitcoin’s block size from 1 to 32 megabytes but could not get the votes. After agreeing to disagree, Bitcoin continued with a small block while Bitcoin Cash launched with an 8-megabyte block (later increased to 32-megabytes), theoretically processing far more transactions. Bitcoin owners received a distribution of Bitcoin Cash tokens when the fork was implemented in 2017.

From an allocation perspective, we consider Bitcoin Cash a satellite holding in digital asset portfolios.

Exhibit 3: Bitcoin Cash is a transaction-oriented version of Bitcoin



WHAT IS BITCOIN CASH?

- Peer-to-peer digital cash designed for greater capacity
- **Token symbol:** BCH
- **Crypto sector:** Currencies
- **Launch year:** 2017

MARKET SIZE

- **Market cap:** \$6.0 billion¹
- **Shares of currencies sector:** 0.4%¹

TYPE OF BLOCKCHAIN

- Proof of Work
- Tokens are mined at 10-minute average block time

INVESTMENT THESIS

- **Role in portfolio:** Opportunistic exposure
- **Behaves like:** Commodity
- **Staking rewards:** No
- **Core / Satellite:** Satellite

SUPPLY-DEMAND DYNAMICS

- **Consensus mechanism:** Proof of Work SHA-256
- **Issuance:** Hard-capped, with the limit of 21 million to be reached in 2140²
- **Inflation mechanism:** Programmatic

RISK CONSIDERATIONS

- **Volatility:**³ 132%
- **Trading track record:** 9 years

¹ As of May 31, 2026. Source: Grayscale, FTSE Russell

² Source: CoinMarketCap.com

³ Three-year volatility of monthly returns as measured by standard deviation; as of May 31, 2026. Source: Artemis.

V. Litecoin: Speed and efficiency

Litecoin also shares much of Bitcoin’s source code. It launched in 2011, giving it a 15-year track record, and trades as LTC. As of May 2026, its market cap was \$4 billion, about 0.3% of the currencies sector index (Exhibit 4).

In essence, Litecoin is designed to be “four times Bitcoin”: four times the number of tokens (a maximum of 84 million) and four blocks written in the time Bitcoin writes one—new blocks every 2.5 minutes versus 10. Rather than SHA-256, it uses a Proof of Work process built on the Script algorithm, designed to be faster and accessible to a broader range of hardware.

Unlike Bitcoin Cash, Litecoin is technically not a fork—the team independently built a blockchain with four times Bitcoin’s capacity rather than seeking consensus to change Bitcoin, so Bitcoin holders did not receive a Litecoin distribution. Together, Bitcoin Cash and Litecoin increase capacity and speed respectively, leaving Bitcoin as the store-of-value token.

From an allocation perspective, we consider Litecoin a satellite holding in a digital asset portfolio.

Exhibit 4: Litecoin focuses on speed and transaction efficiency

		
WHAT IS LITECOIN? • Peer-to-peer digital cash • Token symbol: LTC • Crypto sector: Currencies • Launch year: 2011	MARKET SIZE • Market cap: \$4.0 billion¹ • Shares of currencies sector: 0.3%¹	TYPE OF BLOCKCHAIN • Proof of Work • Tokens are mined at 2.5-minute average block time
INVESTMENT THESIS • Role in portfolio: Opportunistic exposure • Behaves like: Commodity • Staking rewards: No • Core / Satellite: Satellite	SUPPLY-DEMAND DYNAMICS • Consensus mechanism: Proof of Work Script • Issuance: Hard-capped, with a limit of 84 million² • Inflation mechanism: Programmatic	RISK CONSIDERATIONS • Volatility:³ 57% • Trading track record: 15 years

1 As of May 31, 2026. Source: Grayscale, FTSE Russell
2 Source: CoinMarketCap.com
3 Three-year volatility of monthly returns as measured by standard deviation; as of May 31, 2026. Source: Artemis

VI. Zcash: Digital cash with privacy

Zcash launched in 2016, giving it a 10-year track record, and it trades as ZEC. As of May 2026, its market cap was \$9 billion, about 0.6% of the currencies sector index. Like Bitcoin, it is a Proof of Work currency with a 21-million maximum supply, but rather than SHA-256 it uses the Equihash algorithm. Herein lies the key distinction: Zcash adds zero-knowledge cryptography for privacy-preserving transactions. Zcash is the best-known privacy-preserving blockchain today (**Exhibit 5**).

Transparent vs. privacy-preserving blockchains: By default, Bitcoin transactions are public—each wallet has an address whose transactions can be viewed on a block explorer, and over the course of time activity often becomes linkable through exchanges, counterparties, and analytics. Zcash lets users choose transparent or shielded transactions; in a

shielded transfer the sender, receiver, and amount are all obscured, validated with zero-knowledge proofs—verification without full public disclosure. (A zero-knowledge proof verifies something is true without revealing the information: for example, you can prove you know your phone’s password by unlocking it, without disclosing the password.)

We believe privacy is part of what makes money work, and that we may be on the cusp of a new wave of attention to financial privacy, driven by stablecoins and AI-enabled surveillance.

From an allocation perspective, we consider Zcash a satellite holding in a digital asset portfolio. Of particular note, its volatility has been a relatively high 268%, a reflection of recent technical and network security issues.

Exhibit 5: Zcash is digital cash with enhanced privacy options



WHAT IS ZCASH?	MARKET SIZE	TYPE OF BLOCKCHAIN
• Digital cash with privacy options • Token symbol: ZEC • Crypto sector: Currencies • Launch year: 2016	• Market cap: \$9.0 billion¹ • Shares of currencies sector: 0.6%¹	• Proof of Work • Tokens are mined at 10-minute average block time
INVESTMENT THESIS	SUPPLY-DEMAND DYNAMICS	RISK CONSIDERATIONS
• Role in portfolio: Opportunistic exposure • Behaves like: Commodity • Staking rewards: No • Core / Satellite: Satellite	• Consensus mechanism: Proof of Work Equihash • Issuance: Hard-capped, with a limit of 21 million² • Inflation mechanism: Programmatic	• Volatility:³ 268% • Trading track record: 10 years

¹ As of May 31, 2026. CoinMarketCap.com

² Source: CoinMarketCap.com

³ Three-year volatility of monthly returns as measured by standard deviation; as of May 31, 2026. Source: Artemis

VII. XRP: Cost-effective global payments

XRP launched in 2012, giving it a 14-year track record. Its trading ticker reflects the token’s name, XRP. As of May 2026, its market cap was \$81 billion, about 5.1% of the currencies sector index. It differs from the proof-of-work currencies above: Its entire 100-billion supply was created at launch, with about 61.8 billion outstanding in May 2026. (Previously created tokens are released into circulation averaging 300 million a month.) Because no new tokens are mined, there is no Proof of Work—instead, transactions are approved by rounds of validator voting, run by organizations that benefit from the network’s reliability rather than by token rewards (Exhibit 6).

XRP powers the XRP Ledger (XRPL), an open-source blockchain originally designed for cost-efficient cross-border

payments. This is big business: remittances that go through traditional bank channels are both large (~\$900 billion annually) and costly—averaging 6.7%—in addition to being relatively slow when compared to the blockchain. XRPL confirms over 1,500 transactions per second, with fees around \$0.0002 and finality in 3–5 seconds, offering targeted exposure to the evolution of global payment infrastructure. Adoption is not assured, as stablecoins on smart contract platforms also compete in cross-border payments.

From an allocation perspective, we consider XRP a satellite holding in a digital asset portfolio.

Exhibit 6: XRP facilitates global payments in a cost-effective way

		
WHAT IS XRP? - Facilitates fast, low-fee global payments Token symbol: XRP Crypto sector: Currencies Launch year: 2012	MARKET SIZE Market cap: \$81 billion¹ Shares of currencies sector: 5.1%¹	TYPE OF BLOCKCHAIN - No mining 100 billion tokens created at issuance
INVESTMENT THESIS Role in portfolio: Opportunistic exposure Behaves like: Commodity Staking rewards: No Core / Satellite: Satellite	SUPPLY-DEMAND DYNAMICS Consensus mechanism: Rounds of validator voting Issuance: 100 billion initially created; 61.8 billion outstanding² Inflation mechanism: Dynamic	RISK CONSIDERATIONS Volatility:³ 172% Trading track record: 14 years

¹ As of May 31, 2026. Source: Grayscale, FTSE Russell
² Source: CoinMarketCap.com
³ Three-year volatility of monthly returns as measured by standard deviation; as of May 31, 2026. Source: Artemis

VIII. How to access the tokens in the Currencies sector

There are two primary ways to access digital assets across all sectors: direct ownership and ownership through commingled vehicles.²

Direct ownership means opening an account at a centralized exchange, completing know-your-customer verification, depositing fiat currency, and purchasing the asset. From there, an investor can leave holdings on the exchange or move to self-custody in a personal digital wallet.

Commingled vehicles such as exchange-traded products (ETPs), exchange-traded funds (ETFs), and private funds offer exposure through structures investors already know and can be held in existing brokerage or retirement accounts.

Choosing between the two options comes down to a trade-off between control and convenience. We believe that for most investors seeking a diversified portfolio of digital assets, commingled vehicles, particularly ETPs and ETFs, offer the simplest and most operationally efficient way to gain exposure to digital assets, which helps explain the accelerating pace of institutional adoption we have seen recently.

Exhibit 7 details investable vehicle availability for each of the tokens covered in this primer.

Exhibit 7: Different tokens can be accessed in different ways

	CENTRALIZED EXCHANGE	SELF-CUSTODY WALLET	ETF / ETP	PUBLIC FUND	PRIVATE FUND
Bitcoin (BTC)	X	X	X		
Litecoin (LTC)	X	X		X	X
Bitcoin Cash (BCH)	X	X		X	X
XRP	X	X	X		
Zcash (ZEC)	X	X		X	X

Specific tokens are mentioned for educational purposes only and should not be deemed a recommendation to buy or sell any securities, digital assets, or other financial instruments. Analysis based on availability in the US.

Source: Grayscale analysis

² For a detailed explanation, please refer to either the first class of the Digital Asset Investing Fundamentals Course or the first primer of this series. Both are available at <https://grayscaleinstitute.com/>

Important Information

Investments in digital assets are speculative investments that involve significant risk, including a partial or total loss of invested funds. Investments in digital assets are not suitable for any investor that cannot afford loss of the entire investment.

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