



Central Bank Digital Currency and Stablecoins

April 2021

What is a Digital Currency?

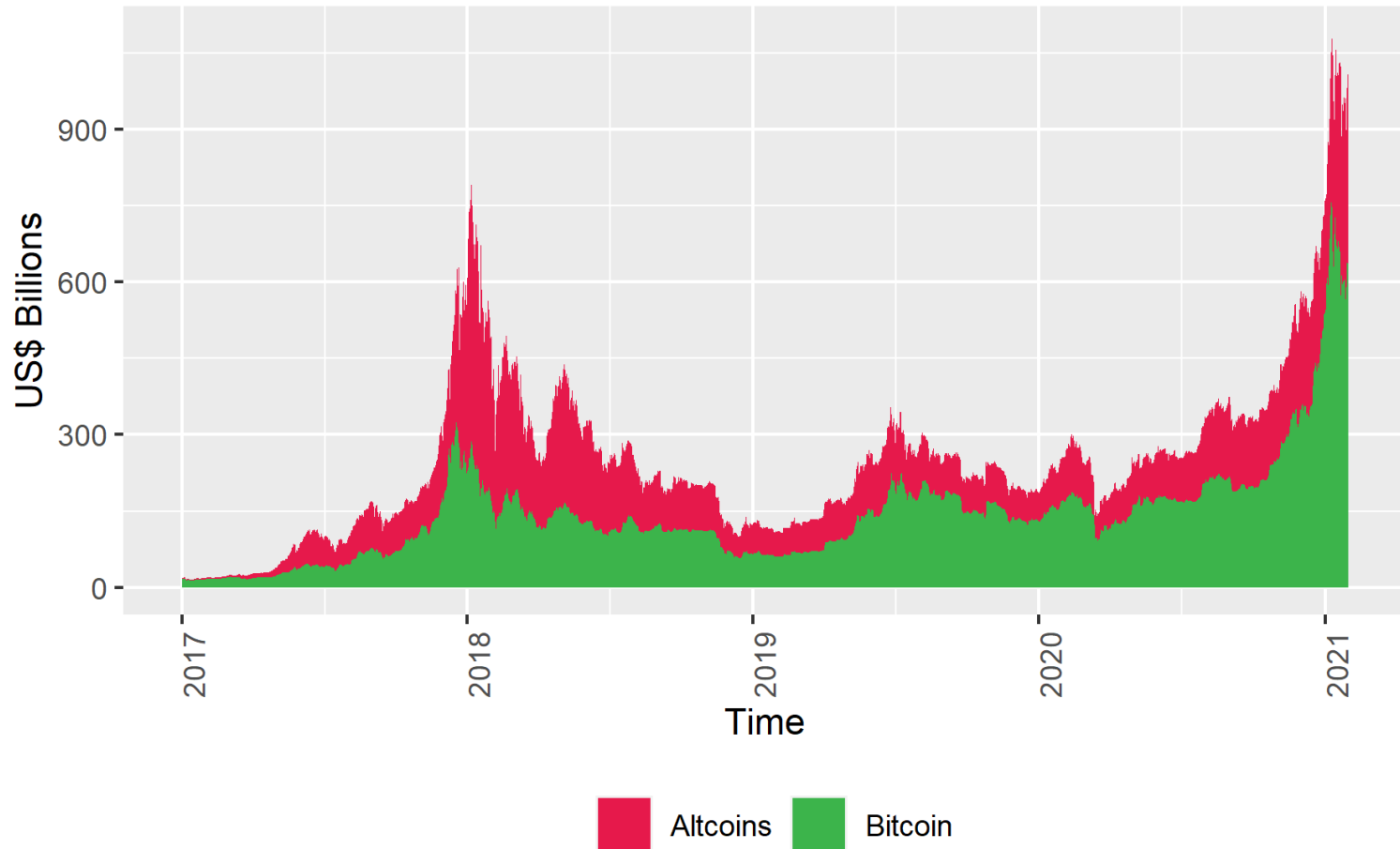
- ❖ Cryptocurrency: an instrument or token based on cryptography that is generally intended to be used as a currency for making purchases
- ❖ Cryptoasset/Security Token: an instrument or token based on cryptography that is intended to be an asset or security and not for use as a money to buy goods and services
- ❖ Cryptoutility/Utility Token: an instrument or token based on cryptography that is used to support the functioning of an online platform.

Bitcoin Price



Updated: February 1, 2021 | Source: coinmarketcap.com

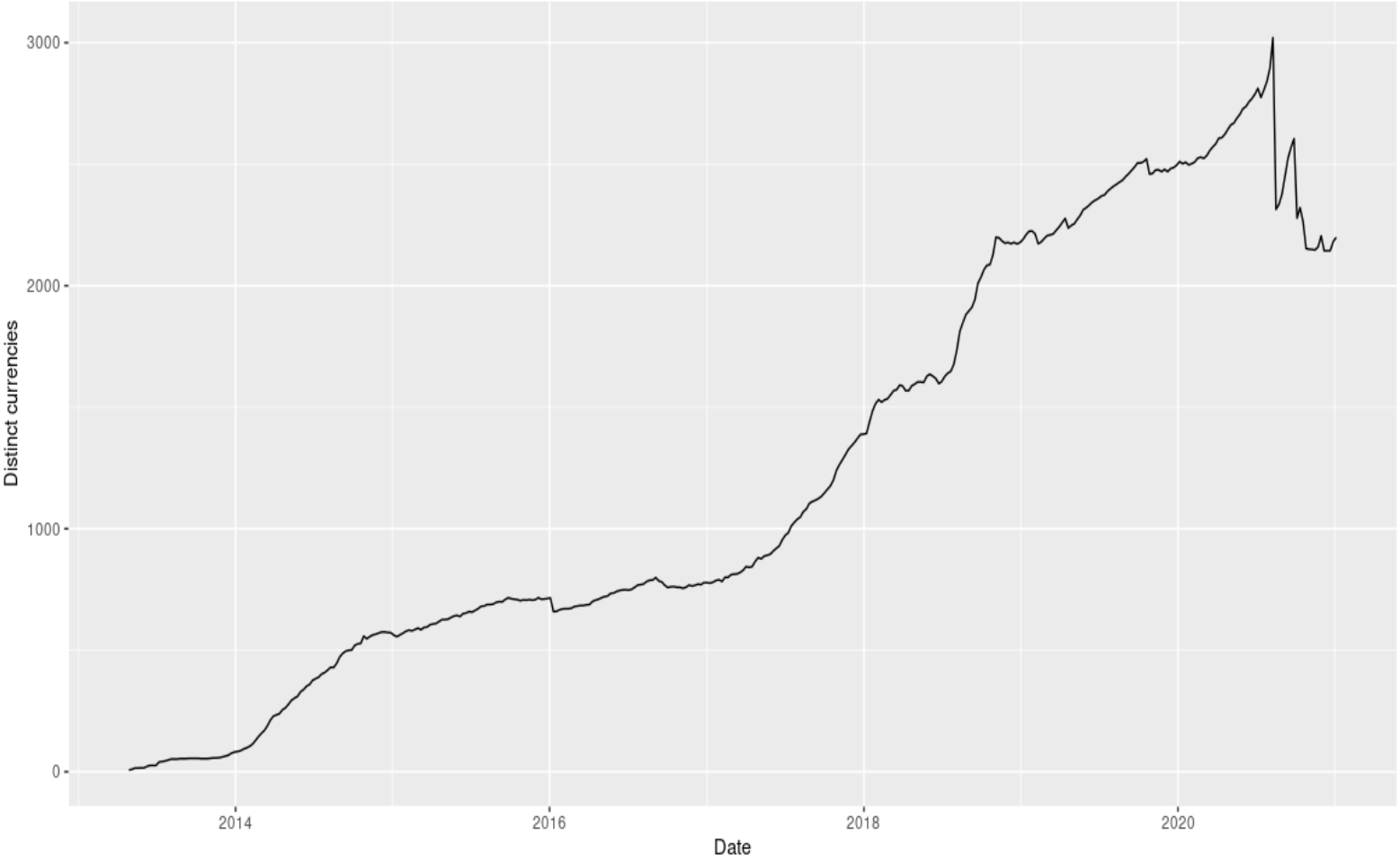
Market Capitalization of Global Crypto



Updated: February 1, 2021 | Source: coinmarketcap.com & coin.dance

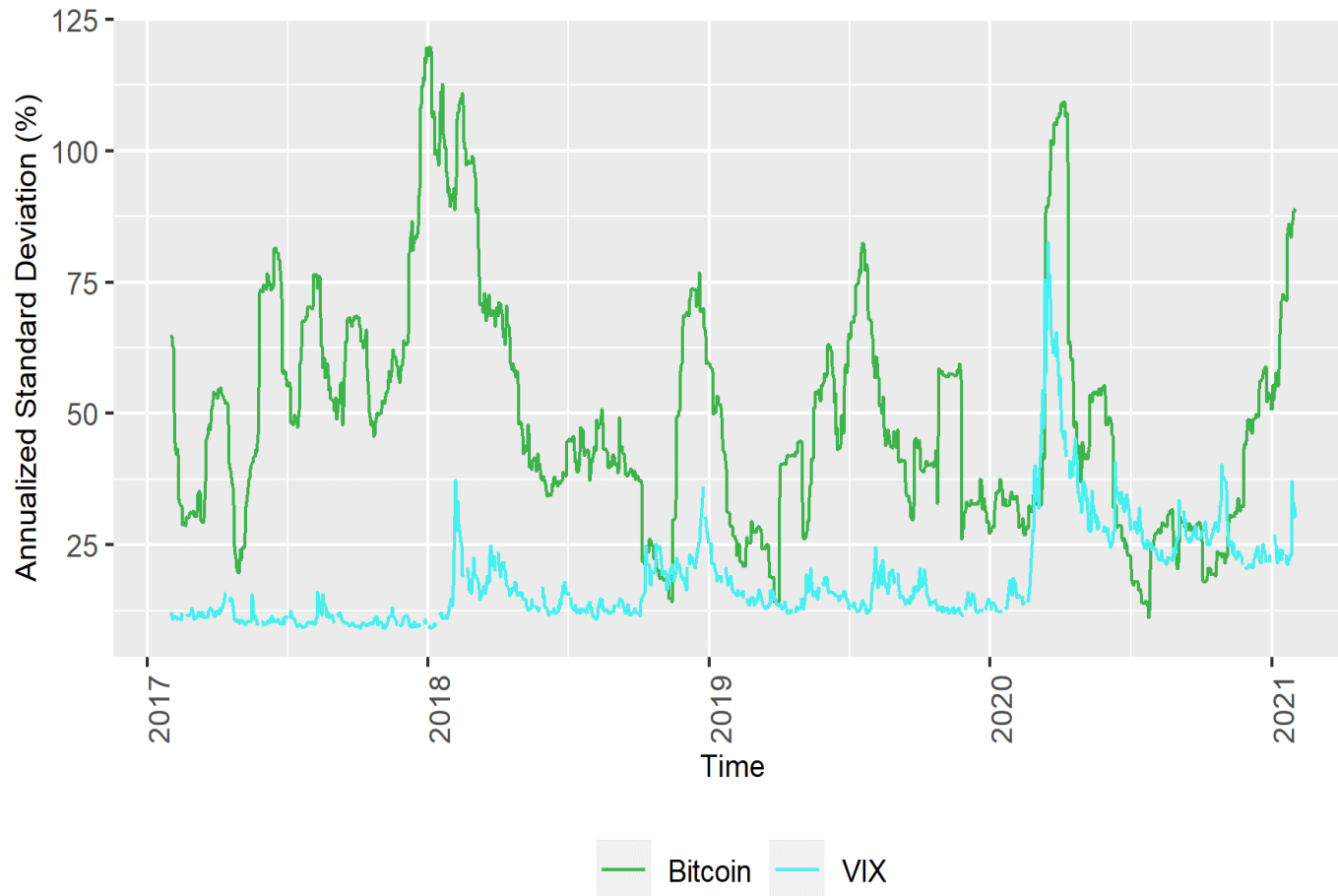
Actively Traded Cryptocurrencies

Total number of cryptoassets actively trading by week



■ Updated: February 1, 2021 | Source: [coinmarketcap.com](https://www.coinmarketcap.com)

Cryptocurrency Volatility



Updated: February 1, 2021 | Source: coinmarketcap.com & Federal Reserve Economic Data (FRED)

Potential Implications of Cryptocurrencies

- ❖ Could erode the effectiveness of monetary policy and Lender of Last Resort policy
- ❖ Could facilitate money laundering and terrorist financing
- ❖ Reduce market integrity
- ❖ Poor consumer and investor protection
- ❖ Not compliant with securities legislation
- ❖ Removes need for other payment intermediaries

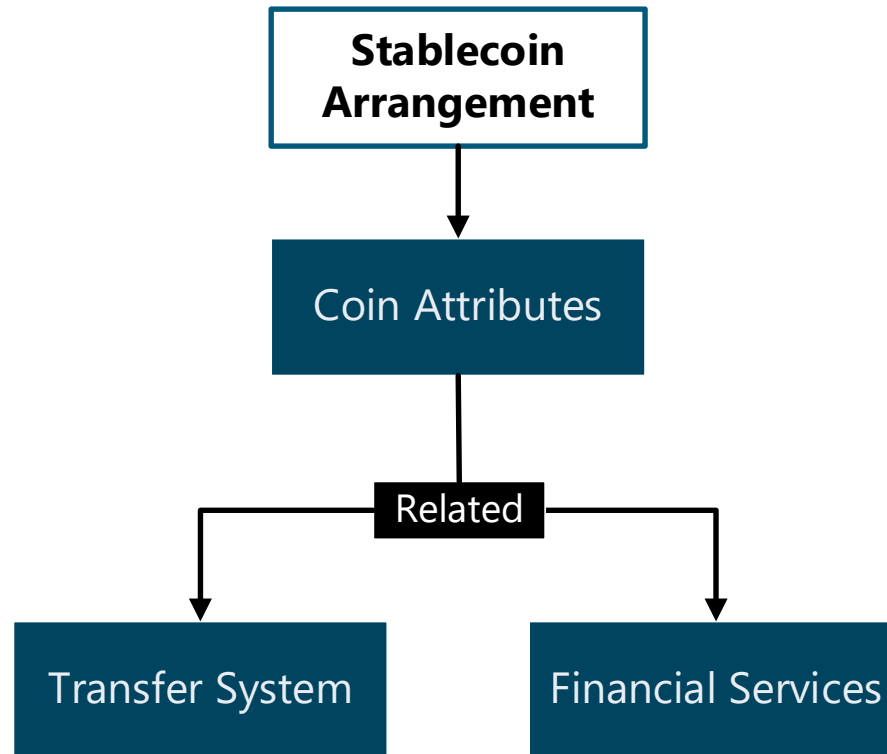


Stablecoins

What is a Stablecoin?

- ❖ **Stablecoins:** type of cryptocurrency which use a stabilization mechanism to attain price stability
- ❖ A stablecoin arrangement refers to a range of **functions** and the related **activities** to provide an instrument that is meant to be used as a **means of payment** and/or **store of value**
 - **Functions:** governance, issuance, transfer, redemption, stabilization, and interactions with users
 - **Activities:** setting rules, minting/burning coins, custody/trust, operating infrastructure, trading, and market making
- ❖ Stablecoins can be classified in multiple regulatory categories
 - ❖ E.g., Currency, deposit, e-money, payment instrument, FMI, collective investment scheme, security, commodity, derivative, unregulated class

Components of a Stablecoin Arrangement



Stabilization Mechanism

- ❖ Stablecoins can be classified in four different types depending on their price stabilization mechanism



Fiat-collateralized

Ex: Tether (USDT) – 1 USDT is backed by 1 USD in reserves



Commodity-collateralized

Ex: Digix Gold (DGX) – 1 DGX is backed by 1g of gold in reserves



crypto-collateralized

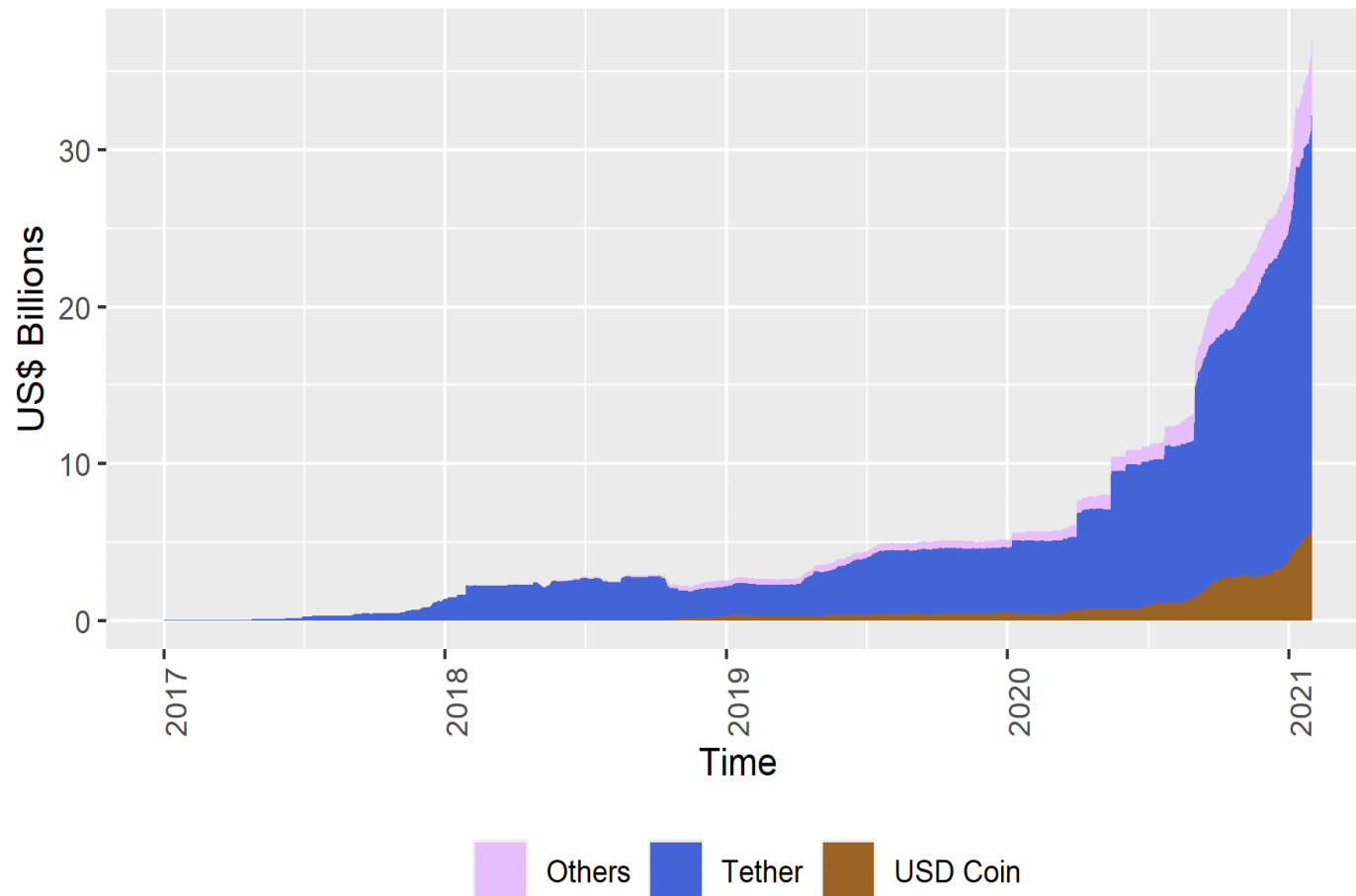
Ex: Dai (DAI) – While Dai is pegged to the USD, the collateral in reserves is comprised of cryptocurrencies



non-collateralized

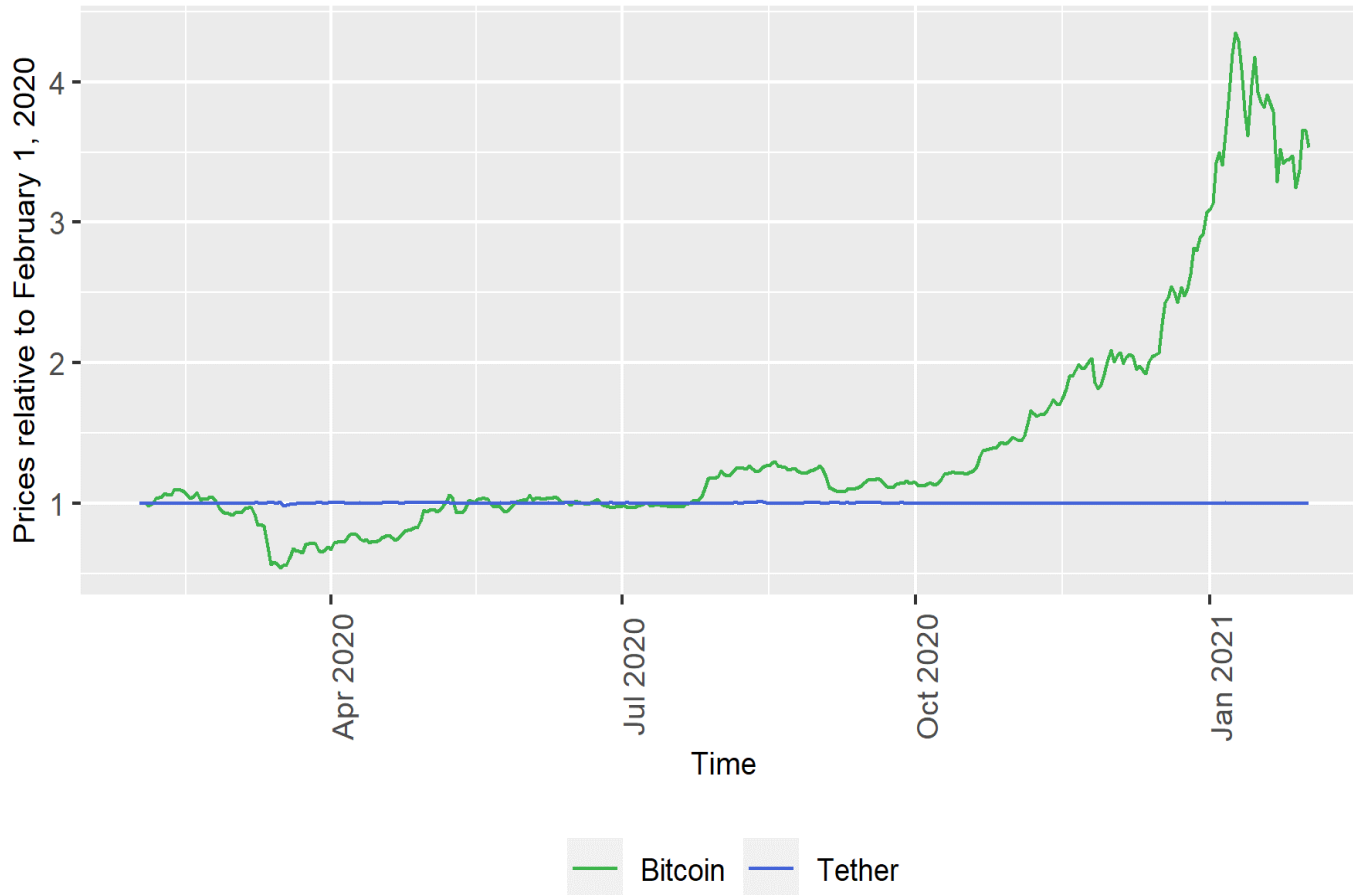
Stablecoins whose price stabilization rely on algorithms that adjust the supply

Stablecoin Market Capitalization



Updated: February 1, 2021 | Source: [coinmarketcap.com](https://www.coinmarketcap.com)

Normalized Prices: Bitcoin and Tether



Normalized to February 1, 2020. Updated: February 1, 2021 | Source: coinmarketcap.com

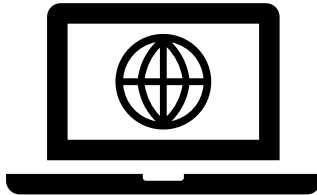


CBDC

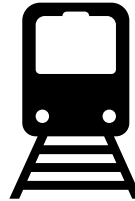
What is CBDC?

- ❖ Central Bank payment liability
- ❖ Denominated in national unit of account: CAD
- ❖ Electronic
- ❖ Retail or wholesale
- ❖ Token or account based

Building a Modern Ecosystem



**Payments
Modernization**



Real Time Rail



Open Banking



Bank notes



CBDC ??

Retail CBDC Potential Benefits

- ❖ Keeps central bank money competitive with private alternatives
- ❖ Maintains general public access to risk-free asset
- ❖ Enhances resilience of payment system
- ❖ Next step in efficiency and security for cash issuance
- ❖ Supports confidence and trust in financial system
- ❖ Central bank only institution to credibly guarantee universal access: anyone, anytime, anywhere
- ❖ Can maintain access to payments privacy
- ❖ Support monetary sovereignty

Retail CBDC Potential Costs or Risks

- ❖ Risk of substituting for retail bank deposits
- ❖ Risk of run toward CBDC during a crisis
- ❖ Cybercrime
- ❖ Money laundering and illicit activity

Current Perspectives

- ❖ Not a compelling case to issue a retail CBDC at this time

- ❖ Canadians will continue to be well-served by the existing payment ecosystem, provided it is modernized and remains fit for purpose

Wholesale CBDC

- ❖ Would a wholesale tokenized CBDC improve settlement efficiency of financial asset transactions?