



Canadian  
**Foreign Exchange**  
Committee



# Central Bank Digital Currency and Stablecoins

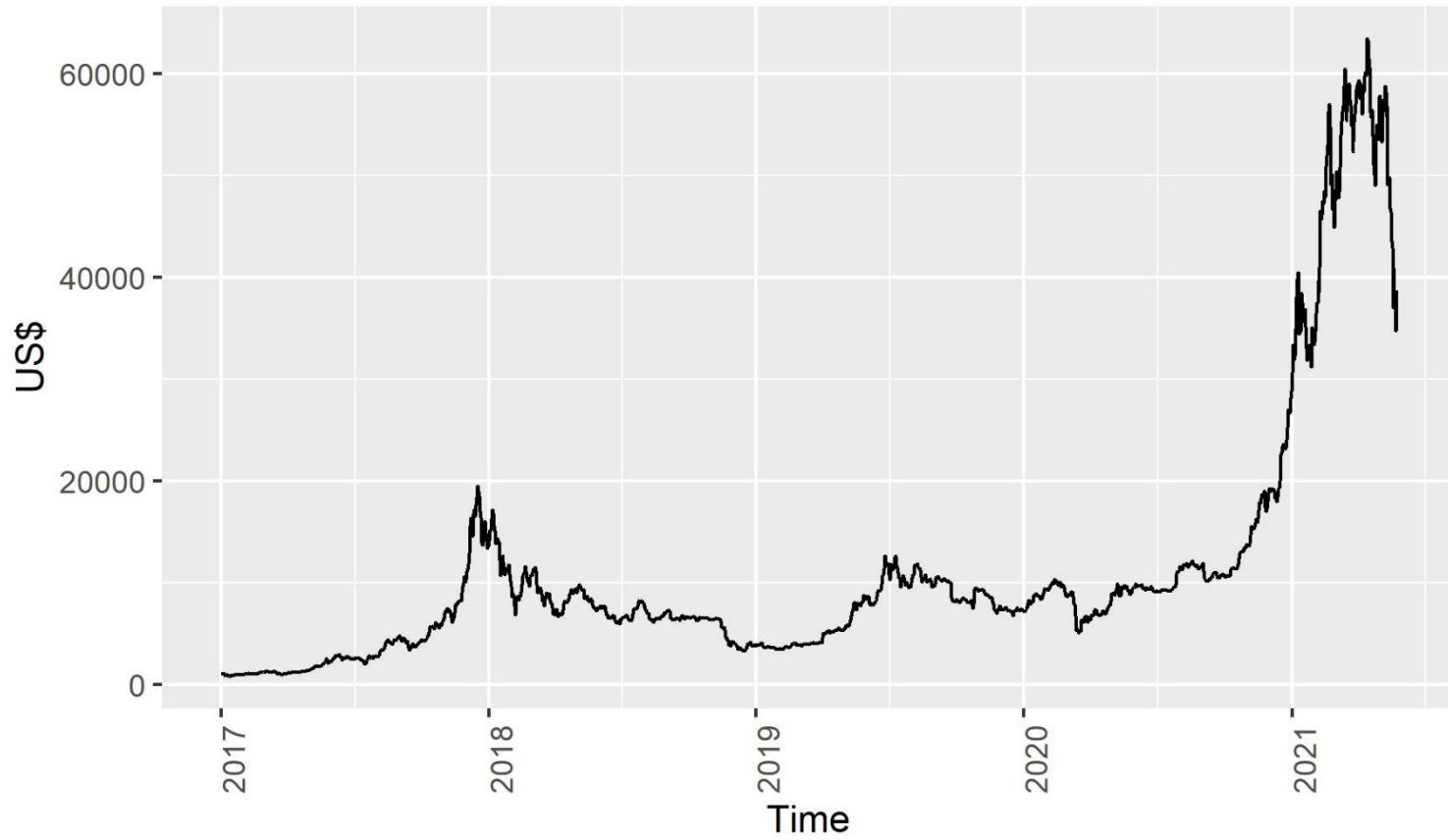
June 2021

# What is a Digital Currency?

---

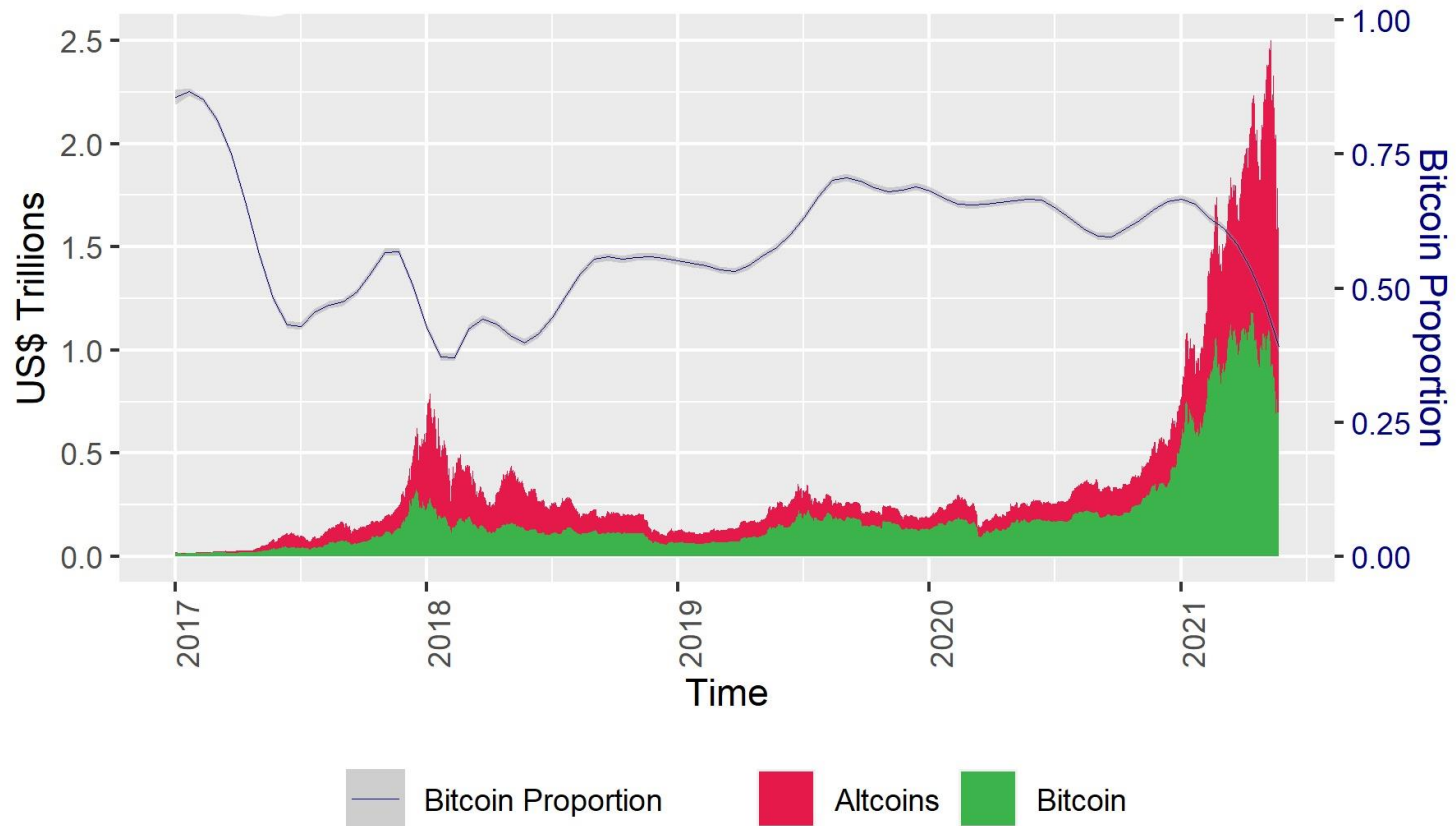
- ❖ Cryptocurrency: an instrument or token based on cryptography that is generally intended to be used as a currency for making purchases
- ❖ Cryptoasset/Security Token: an instrument or token based on cryptography that is intended to be an asset or security and not for use as a money to buy goods and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

# Bitcoin Price



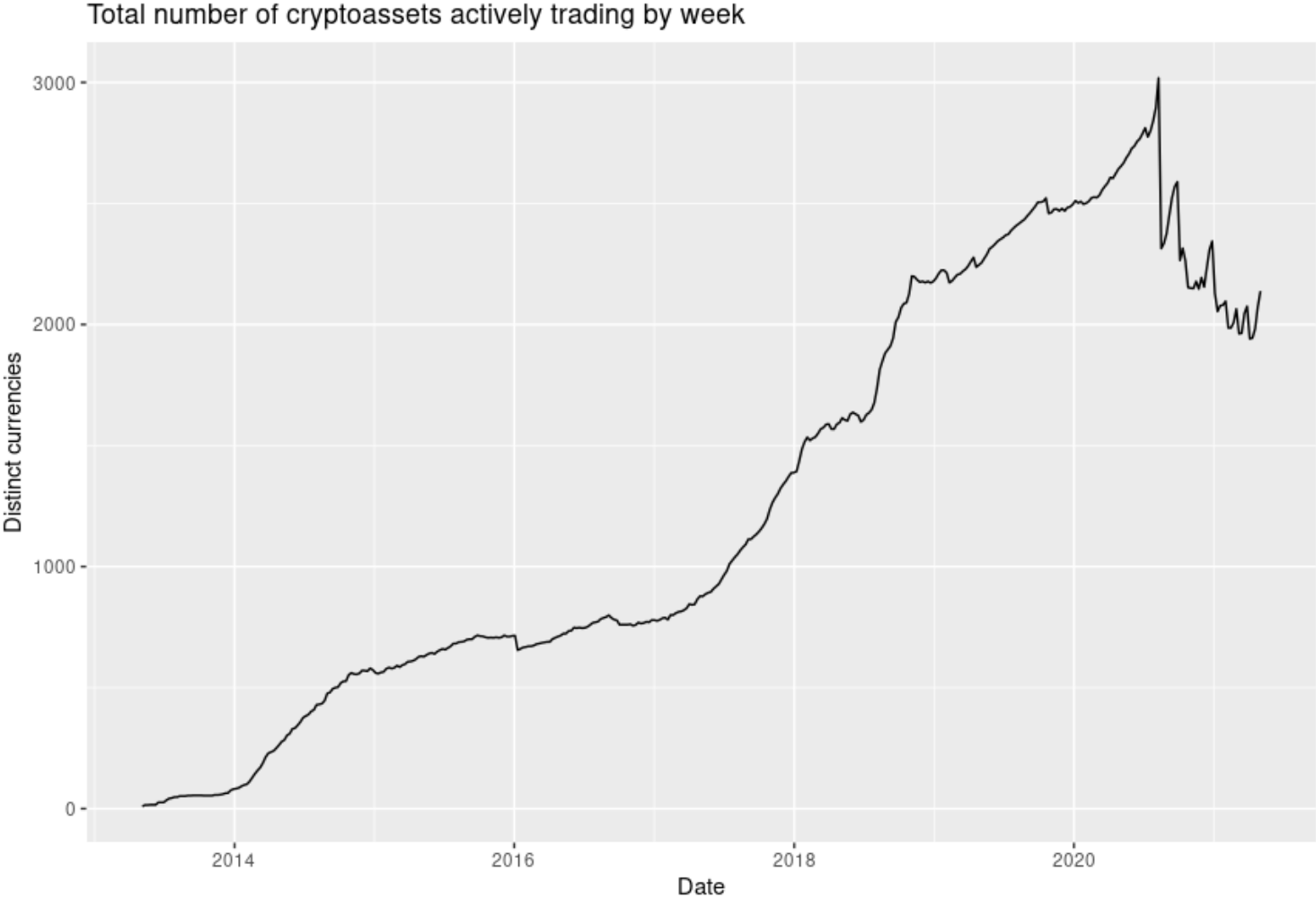
Updated: May 27, 2021 | Source: coinmarketcap.com

# Market Capitalization of Global Crypto



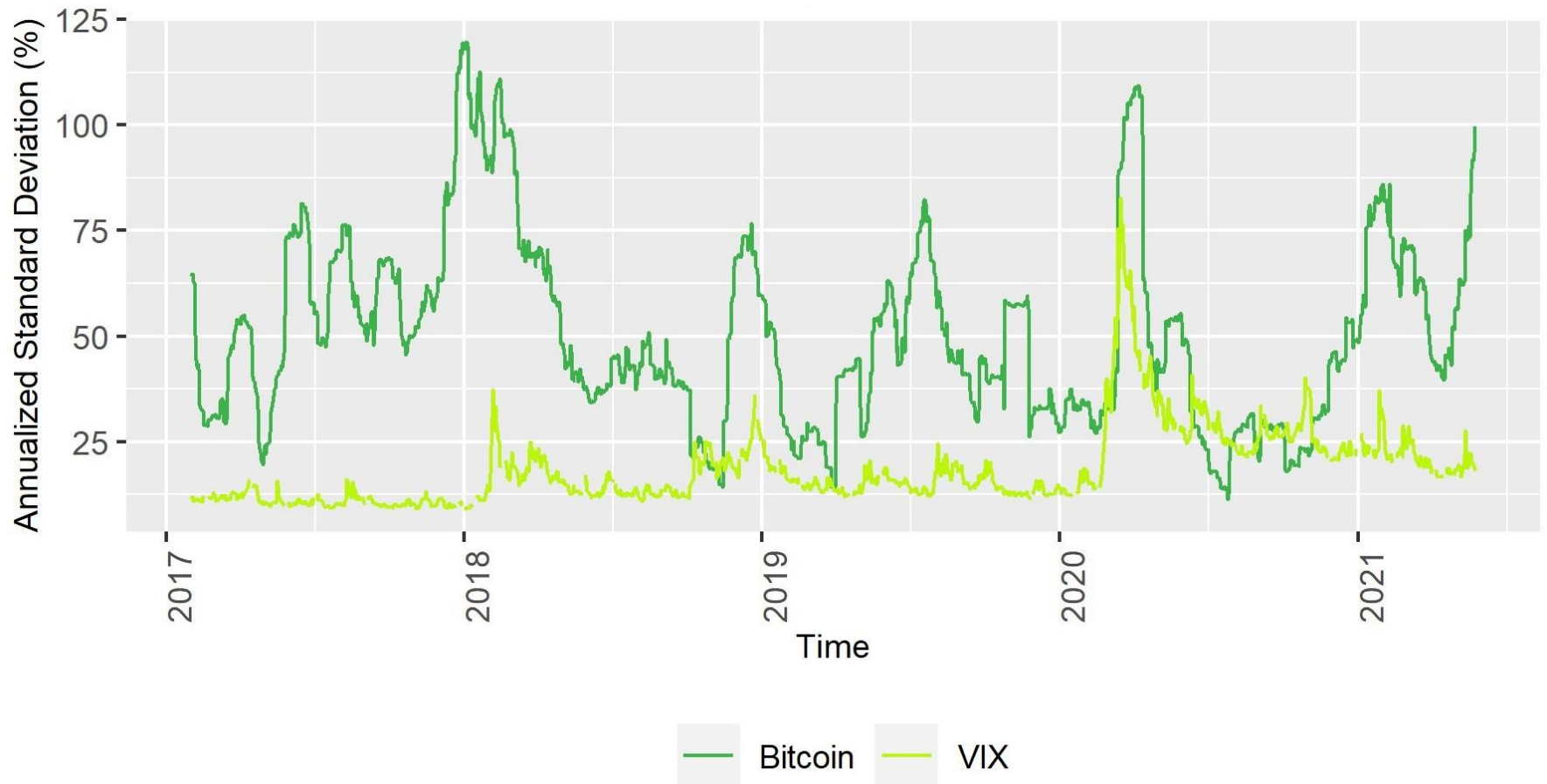
Updated: May 27, 2021 | Source: [coinmarketcap.com](https://coinmarketcap.com) & [coin.dance](https://coin.dance)

# Actively Traded Cryptocurrencies



Updated: May 27, 2021 | Source: coinmarketcap.com

# Cryptocurrency Volatility



Updated: May 27, 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



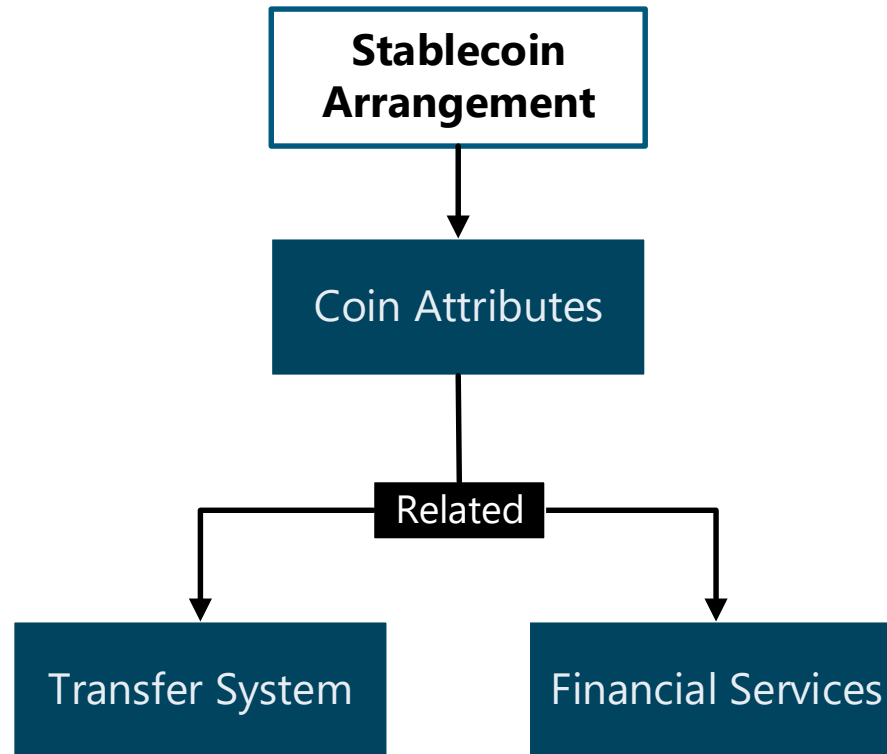
# What is a Stablecoin?

---

- ❖ **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

---



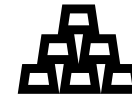
# Stabilization Mechanism

- ❖ 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**

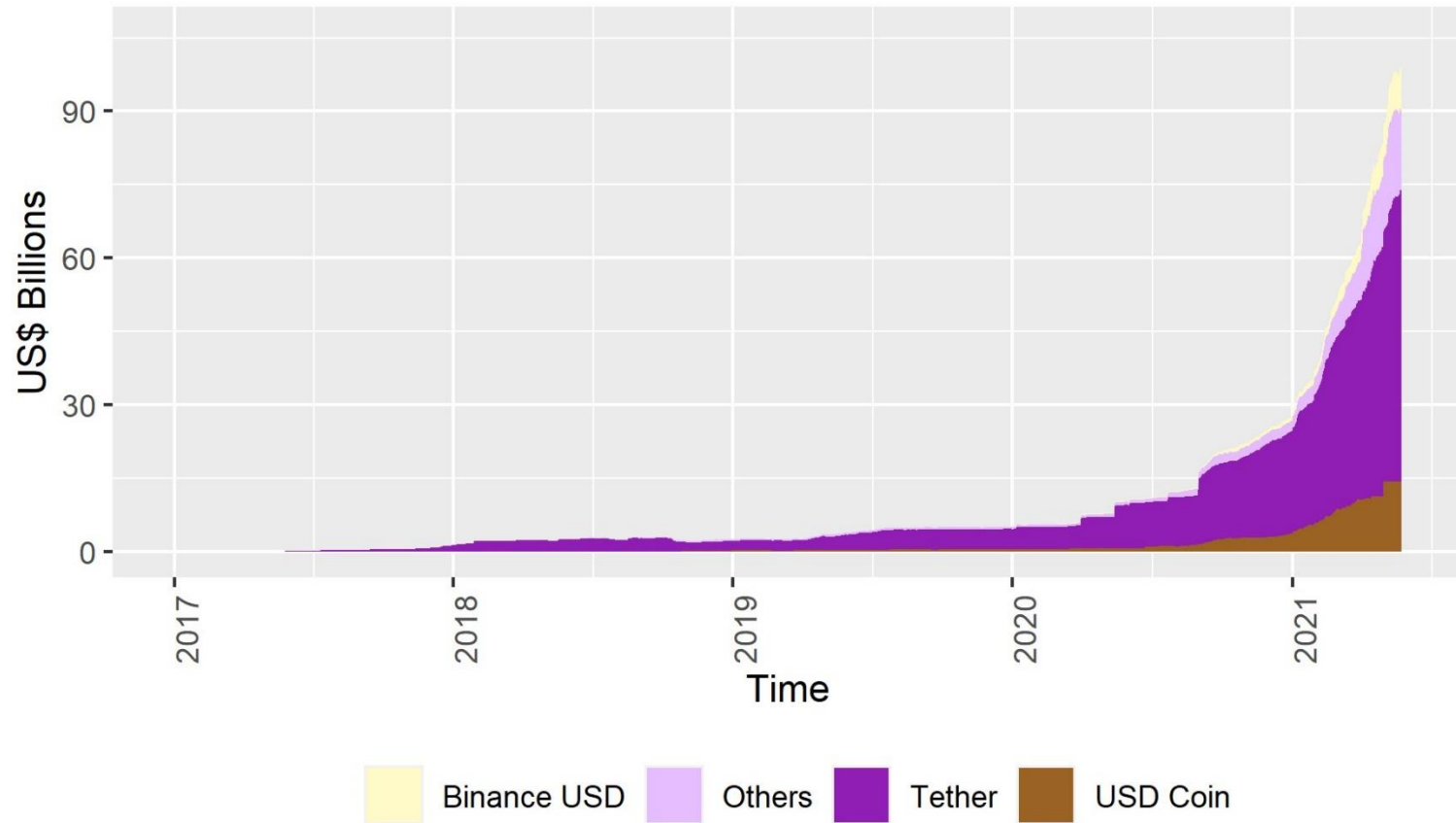
Ex: Dai (DAI) – While Dai is pegged to the USD, the collateral in reserves is comprised of cryptocurrencies



## **non-collateralized**

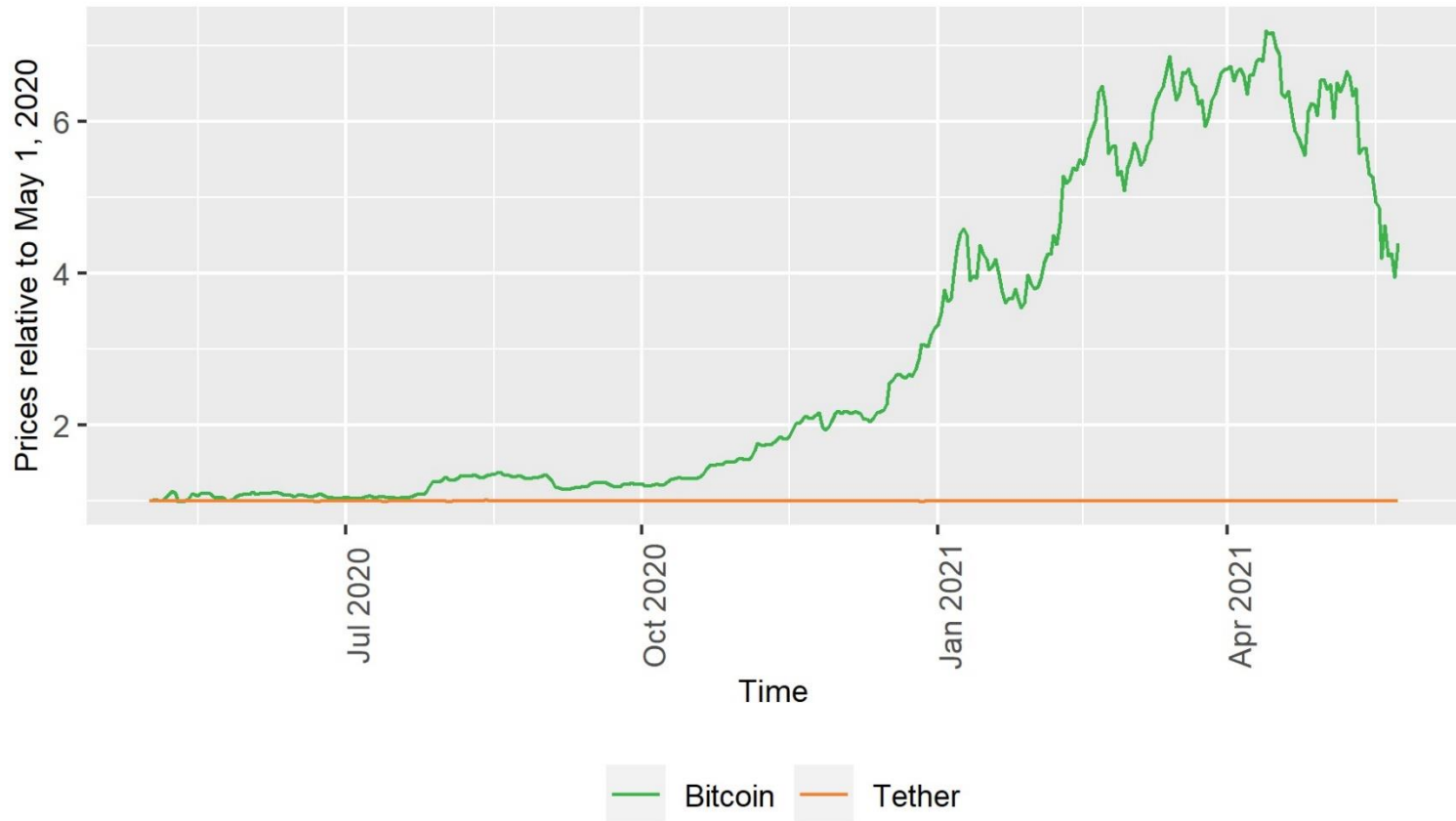
Stablecoins whose price stabilization rely on algorithms that adjust the supply

# Stablecoin Market Capitalization



Updated: May 27, 2021 | Source: coinmarketcap.com

# Normalized Prices: Bitcoin and Tether



Normalized to May 1, 2020. Updated: May 27, 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



# Wholesale CBDC

---

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