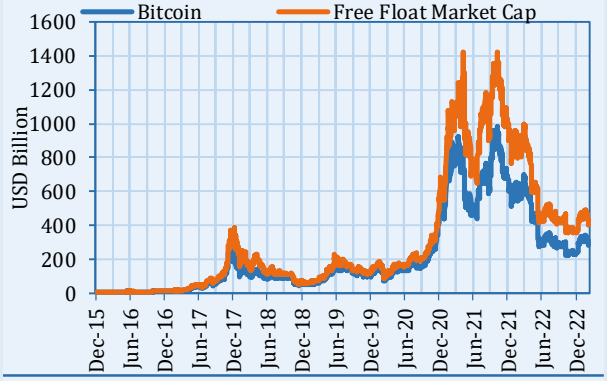
Box 8.1: Crypto Assets - underlying risks and opportunities, and supervisory approaches across the globe

While there are no globally consistent definitions of crypto assets (CAs), they represent assets (such as currencies or tokens, offerings and funds) that are **privately issued digital representations of value that are cryptographically secured and deployed using distributed ledger technology (DLT)**[216].

Unlike conventional financial record-keeping systems that are built on central record-keeping, crypto assets (like Bitcoin and Ether) operate on a decentralized ledger and feature peer-to-peer exchange of value, usually in a pseudonymous manner. They are not under the specific control of any particular country or jurisdiction and are generally decentralized. Crypto assets are neither issued nor backed by any central bank.

Due to their benefits of convenience, anonymity, use for speculation, etc., crypto assets have attracted growing acceptability among some sections of the global populace (**Chart 8.1.1**).

Chart 8.1.1: Free Float Market Capitalization of Cryptocurrencies



Source: Coinmetrics

Key policy challenges in CAs:

The growing size of CAs has nudged central banks and financial supervisors around the world to study and analyse the crypto-ecosystem. The concept and its underlying technologies (e.g., DLT) represent enormous potential benefits e.g., cheap and fast financial transactions, scalability and potential to scale financial inclusion, operational resilience, and traceability of transactions. Therefore, a number of central banks are moving to issue their own central bank digital currencies (CBDCs). However, the CAs raise a number of concerns such as:

- **Implications for monetary policy:** CAs can affect the effectiveness of monetary policy as they are not subject to oversight and control like traditional elements of money supply in the economy resulting in weaker monetary policy transmission channels. Central banks may face challenges in assessing and regulating their impact on the financial system and economy. This can make it difficult for central banks and monetary authorities to achieve price stability.
- **Implications for foreign exchange regime and flight of capital:** Due to their scalability and ability to connect users across borders without oversight of any foreign exchange authority, CAs can create challenges for FX related control mechanisms and lead to untoward outflow of capital that can be a source of concern for a country facing foreign exchange challenges.

[216] The definition does not cover public digital monies such as central bank digital currencies (CBDCs). (Source: International Monetary Fund. (2023). IMF Policy Paper on Elements of Effective Policies for Crypto Assets. *Washington, February.* For details, please visit https://www.imf.org/en/Publications/Policy-Papers/Issues/2023/02/23/Elements-of-Effective-Policies-for-Crypto-Assets-530092).

- **Financial stability** i.e. concerns for the financial soundness of financial institutions and markets. The recent failures of a few banks which, inter alia, have significant exposure to crypto industry, highlight the significance of CAs and the underlying technology. In addition, due to the opaque nature of their operations, there can be a build-up and transfer of vulnerabilities from the crypto-ecosystem to the formal financial system leading to financial stability concerns.
- **Integrity and misuse for financial crimes:** The inherent features of anonymity and lack of supervisory oversight increases the risk concerns of CAs being used for money-laundering and terrorist financing, tax evasion, etc. While the crypto-ecosystem facilitates traceability of transactions, there could still be issues in identifying the beneficial owners of transaction account for many cryptocurrencies. The Silk Road black market is a leading example where crypto assets were used to conduct illegal activities on the dark web.
- **Consumer protection and fair treatment:** Due to the opaque nature of activities, CAs can be misused to commit various illegal activities such as fraud, theft, tax evasion, etc. Inherent complexities, lack of transparency and standardization, coupled with absence of, or weak, conduct supervision can impede the customers' ability to make informed decisions. For example, the filing of bankruptcy by FTX, the second-largest crypto exchange, revealed risky investments, inadequate governance and hinted at possible fraudulent activities. Similarly, in the collapse of Terra USD - a stable coin – there were hints of fraud with regards to its reserves. In addition, while the underlying technology is secure, wallet holders on various exchanges have experienced incidents of thefts. This also raises consumer protection concerns. The US Federal Trade Commission (FTC) – a consumer protection agency - has disclosed that crypto scams have topped USD 1 billion since 2021[217]. Due to the opaque nature of crypto operations and limited oversight and regulations, unscrupulous characters have scammed a lot of crypto holders.
- **Market imperfection and high volatility:** The crypto-industry is dominated by Bitcoin, which is a 1st generation cryptocurrency and distinct from stable coins, in terms of market capitalization. This means that most of the crypto-industry is prone to volatility. This is illustrated by the fact that market capitalisation of the crypto industry is down by 75 percent from its November 2021 peak[218].
- **Environment and Energy Consumption:** Some crypto-asset operations (particularly mining) use considerable energy resulting in greenhouse gas (GHG) emissions as well as additional pollution, noise, and other local impacts to communities living near mining facilities. The accelerated growth of crypto-assets including Bitcoin – that generally do not contribute to real economic activity - could hinder the world's efforts to achieve net-zero carbon pollution.
- **Stable Coin and its dynamics:** While stablecoins are generally considered safer from unbacked tokens (as they are usually backed by assets), there are still some financial stability concerns e.g., adequacy of reserves that were also exposed with the collapse of Terra USD. In addition, due to their increasing interconnectedness with traditional finance, stablecoins pose

[217] Source: https://www.ftc.gov/news-events/data-visualizations/data-spotlight/2022/06/reports-show-scammers-cashing-crypto-craze

[218] Source: Coinmetrics

contagion risks as there are still questions surrounding its "stability".

While crypto assets offer some benefits, the realization of these benefits still requires enabling pre-conditions. For example, to enhance financial inclusion through crypto-assets, consumers need to be financially and digitally literate – the same challenge that consumers of traditional financial products face. Furthermore, while some encouraging work is being conducted to support cross-border payments (e.g., through Ripple's XRP), it still is only on a minuscule level compared to the volume of cross-border payments globally.

Global Approach on Regulations of Crypto Assets:

A review of global practices shows that globally regulators have not yet sufficiently addressed the phenomenon of cryptocurrencies, or settled on a collective approach to this innovation. From conceptualization to the definition and potential usage, it remains an area that requires further regulatory clarity. Various approaches have been adopted, with actions ranging from issuance of communications declaring restrictions on crypto assets-related activities or a downright ban on the use of crypto assets. Therefore, policy responses of jurisdictions on CAs can be categorized as (**Table 8.1.1**):

i. Explicit ban on CAs but permission to utilise underlying technologies for uses such as research, experimentation, record-keeping, etc.

ii. Implicit ban, e.g., prohibiting regulated financial institutions from facilitating and dealing in CAs, and/ or issuing general caution to public about the underlying risks.

iii. Implicit or explicit permission for CAs under an existing or new regulatory framework

iv. Legal tender: CAs can be formally recognized as legal tender. However, only one country i.e. El Salvador has adopted this strategy, as its economy was already dollarized.

Table 8.1.1: Regulatory Approaches on CAs

Regulatory Approach	Jurisdictions
Explicit Ban	China, Tunisia, Morocco, Algeria
Implicit Ban	Pakistan, Saudi Arabia, Bangladesh, Türkiye, Indonesia
Allowed	US, India, Germany, France, England, Japan, Russian Federation
Legal Tender	El Salvador

Source: Law Library of US Congress, Regulation of Cryptocurrency Around the World: November 2021

Recent deliberations on this subject highlight the benefits of underlying technologies and merits of regulating CAs, however, they do not rule out the option of banning them. It is recognized that strict bans may not be the first-best option, however targeted restrictions could apply, depending on the domestic conditions, policy objectives, and capacity constraints of the authorities.[219]

In some countries, with developed financial sectors and ample external account cushions, CAs are considered permissible activities under their regulatory ambit; however, the regulations primarily focus on key policy issues of tax and AML/ CFT risks. The crypto-asset service providers are treated as money service businesses particularly for AML/ CFT purposes. However, due to the decentralized nature of crypto-assets, regulators have to rely on voluntary compliance and self-reporting.

Moreover, analysts note that regulating the crypto industry could create a sense among the

[219] International Monetary Fund. (2023). IMF Policy Paper on Elements of Effective Policies for Crypto Assets. *Washington, February.* For details, please visit https://www.imf.org/en/Publications/Policy-Papers/Issues/2023/02/23/Elements-of-Effective-Policies-for-Crypto-Assets-530092.

public that CAs have the backing of authorities like other regulated financial institutions. Due to this, investors could begin to invest in VAs and increase the interconnectedness with the traditional financial system. So when the next collapse occurs in the crypto-assets industry, there would be calls to bailout the industry as well.

Some observers also note that the crypto-industry faces severe issues of sustainability as it does not generally contribute to real economic activity. Recent volatility and turmoil in the industry has particularly strengthened this view.

Developments in CAs and underlying technologies are quite dynamic and present both opportunities and challenges for economies around the world. However, the appropriate policy response on CAs will largely depend upon the state of economic and financial sector development, and policy objectives of respective jurisdiction. Moreover, it will require a coordinated approach, which incorporates the views of all stakeholders.

State Bank's Stance on Crypto Assets

State Bank of Pakistan through its Circular issued in 2018 cautioned public that cryptocurrencies are not legal tender, issued or guaranteed by the Government of Pakistan. Moreover, SBP clarified that it does not authorize or license any individual or entity for the issuance, sale, purchase, exchange or investment in any such Virtual Currencies (VCs)/ Coins/ Tokens in Pakistan. Therefore, all regulated entities were advised to refrain from processing, using, trading, holding, transferring value, promoting and investing in Virtual Currencies/ Tokens.