



PROSPECTS OF CRYPTOCURRENCIES:

A Context of Pakistan

POLICY BRIEF - PB02



**The Federation of Pakistan
Chambers of Commerce & Industry**
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Prospects of Cryptocurrencies: A Context of Pakistan

Executive Summary

The influx of cryptocurrencies has taken the world by storm, with many countries still figuring out the possibilities of embracing the decentralized financial technology by carefully examining opportunities and threats rather than putting an outright ban or embracing it completely. Bitcoin is the first decentralized digital asset, introduced in 2006, now reached the market capitalization of around one trillion US dollars. Throughout the world, countries are having difficulties in regulating this new decentralized technology-backed segment. Economies are indecisive about the future of cryptocurrency. Small country like El Salvador has adopted the Bitcoin as a legal tender whereas big economies like the USA, China and India are trying to put restraints on it either by introducing blanket bans or by adopting it with a limited scope. This study evaluates how accommodative/restrictive prevailing legislative framework is in Pakistan along with comparable countries in considering cryptocurrencies as (1) a legal tender, (2) an alternate digital currency, and (3) an asset class.

Cryptocurrency adoption in Pakistan gained momentum in the last couple of years and the country now ranked 3rd in Global Crypto Adoption Index in 2020-21. Pakistan recorded around US\$ 20 billion of cryptocurrency value in 2020-21 showing an abnormal increase of 711 percent. The current legal framework in Pakistan has held the cryptocurrency under the grey area. The State Bank of Pakistan **'advised'** the general public to refrain from indulging into cryptocurrencies whereas SBP put **'prohibition'** on entities under its umbrella on dealing in virtual currencies. Pakistan's trading and lending partners such as China and International Monetary Funds (IMF) have both leveled criticism against the technology. Moreover, the Financial Action Task Force (FATF) has called on the Pakistani authorities to better regulate the crypto industry. Investors are however currently using a peer-to-peer (P2P) crypto investing mechanism which renders investments in crypto assets undetected.

Pakistan has a great potential to encash the windfall gains of billions of dollars in crypto assets of Pakistani/dual nationals. It is imperative to first channelize the accumulated virtual currency assets of Pakistani investors which will help surge reserves as well as additional capital can be pumped into the already challenged economy. A one-time asset declaration scheme along with some capital gain tax is highly recommended. Moreover, there is an urgency to develop a regulatory framework and national cryptocurrency strategy to adopt the ecosystem at the earliest to safeguard economic interest and minimize vulnerabilities to the new system. In any case, there are huge speculative gains existing in digital coins which may not be given the status of a legal tender but should be formalized as an asset class. In addition, crypto-linked exchange traded funds (ETFs) will attract both domestic and foreign portfolio investments. This will help Pakistan Stock Exchange to regain its status of an emerging market. Any undue delay in converting these into solid assets may divert them to other more convenient countries.

1. Introduction

Cryptocurrency is a type of digital or virtual money which is based on blockchain technology. The most popular versions of cryptocurrencies are Bitcoin and Ethereum, but that's not the complete picture, there are more than 5,000 different cryptocurrencies in circulation. These virtual or digital currencies are based on blockchain technology which is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without a need for a central clearing authority.

Technological advancements in finance, e-commerce, and digitalization are leading in a new era that makes payments and other financial services cheaper, faster and accessible across the borders swiftly. Despite potential advantages, crypto assets also pose financial stability challenges. Greater utilization of crypto assets in developing and emerging economies pose additional macro-financial risks especially currency and asset substitution – called *cryptoization*.

A cryptocurrency can be considered as a digital medium of exchange which is encrypted and decentralized. Unlike any physical currency, there is no central authority that manages and maintains the value of the cryptocurrency. Bitcoin was the first cryptocurrency, introduced by Satoshi Nakamoto in 2008 (Nakamoto, 2008). El Salvador has become the first country to make Bitcoin as a legal tender¹. However, regulators across the globe put cryptocurrency in the crosshairs. In a recent development, China outlawed all crypto-related transactions. It strictly prohibits exchanging cryptocurrency for legal tender, trading in crypto derivatives, and providing information or pricing services. Alternatively, China plans to roll out digital Yuan which is currently under the testing stage². Turkey, Indonesia, Egypt, Bolivia and some other countries have also put a complete ban on these digital tokens.

Cryptocurrencies in Pakistan have also been growing at an exorbitant pace. In 2020-21, Pakistan recorded around \$20 billion of cryptocurrency value³ - showing an unprecedented increase of 711 percent. Pakistan's rank on the Global Crypto Adoption Index has also shown improvements by 12 notches to the 3rd position in 2021 only trailing behind Vietnam and India. The biggest crypto exchange used by Pakistani investors is Binance which is headquartered in Cayman Island whereas other renowned platforms include Localbitcoins.com, Binomo and others. Around 67 percent of crypto investors from Pakistan have been utilizing centralized services whereas only 33 percent have been using Decentralized Finances (DeFi) Platforms for crypto-related transactions, according to the recent report published by Chainanalysis. Vietnam has a greater balance between both centralized services (53 percent) and DeFi Platform (47 percent). Whereas Indian market is predominately dependent on the DeFi (59 percent).

¹Legal tender refers to money – typically

²Unlike cryptocurrencies, digital currencies are issued and regulated by central banks.

³<https://blog.chainanalysis.com/reports/2021-global-crypto-adoption-index>.

2. Characteristics of Cryptocurrencies and its Implications

2.1. Implication of Cryptocurrency on Pakistan's inclusion in FATF Grey List

In 2019, the Financial Action Task Force (FATF), the inter-governmental organization against money laundering and terrorism financing, announced that the threat of criminal and terrorist misuse of virtual assets is serious and urgent.

While cryptocurrency is not illegal in Pakistan, the global money-laundering watchdog, the Financial Action Task Force (FATF), has called on the government to better regulate the industry. Pakistan is on the FATF's grey list of countries it monitors for failing to check terror financing and money laundering.

2.2. Crypto Investing Mechanism in Pakistan

Different service providers across the world facilitate financing into cryptocurrencies, popular among them in Pakistan are Binance, Coinbase, Crypto.com and others. The peer-to-peer (P2P) model for investing in cryptocurrencies work in a way that buyer transfers money directly to the seller of coins whereas service providers act as an intermediary and provide escrow services to hedge counterparty credit risks.

Traditional international payment instruments such as debit/credit cannot be used due to the State Bank of Pakistan's prohibition on financial institutions under its umbrella. Investors rather use bank transfers through a local bank account, JazzCash, or EasyPaisa through the P2P system.

2.3. Enormous Consumption of Electricity

Mining of new units of cryptocurrency mimics the central bank printing money. While it is theoretically possible for the average person to mine cryptocurrency but it is extremely difficult in proof of work systems, like Bitcoin. It is estimated that around 0.21 percent of all the world's electricity goes to powering Bitcoin farms which is roughly same amount of power that Switzerland uses annually. Miners have to spend roughly 60% to 80% of what they earn from mining to cover electricity costs. (Forbes, 2021)

In a recent scenario, Bitcoin is about to consume some 95.68 terawatt-hours (Twh) by the end of 2021, according to the Cambridge Bitcoin Electricity Consumption Index. Bitcoin's electricity consumption in 2021 is around 85% of the Pakistan's total electricity consumption during the fiscal year 2020-21 which was 112.1 Twh.

2.4. Cryptocurrencies as Money

Cryptocurrencies do not satisfy the three functions for being considered as money. Economists often describe money as having three important functions that need to be satisfied: (1) medium of exchange (2) unit of account (3) store of value

- **Medium of Exchange:** Medium of exchange is the ability for something to be used as a currency to exchange for goods and services. While not widely accepted, this description fits Bitcoin and companies such as PayPal, CheapAir, Microsoft and others have already adopted Bitcoin as an additional medium of transaction.
- **Unit of Account:** To satisfy the unit of account function, a potential currency must be 'countable' so that there is something to compare the cost of goods and services against. Unit of account is also satisfied by Bitcoin due to the fact that the cryptocurrency is divisible. Most transactions will be fractions of a Bitcoin and these can go as far as eight decimal places.
- **Store of Value:** It refers to an asset that can be set aside for future use. As it can be used in the future, it is believed to hold value over time. Skeptics of Bitcoin argue that the cryptocurrency has no value and is merely worth what the next person is prepared to pay for it. Some also believe that the fact that you cannot physically touch it is consequential when ascertaining its store of value.

3. The Legal Status of Cryptocurrencies

3.1. Regulatory Framework in Pakistan

Khyber Pakhtunkhwa's assembly unanimously passed the resolution to legalize cryptocurrency and crypto-mining in December 2020 and formed the advisory committee in March 2021. However, Khyber Pakhtunkhwa government announced to dissolve the advisory committee in late March 2021 citing that decisions on digital currency can only be taken by the federal government. The federal government, in response to FATF's call on the government to better regulate the crypto industry, has set up a committee to study cryptocurrency regulation, which includes observers from the FATF, federal ministers, and heads of the country's intelligence agencies.

Crypto trading in Pakistan currently lies under the grey area, it is currently unregulated however not deemed illegal for general public. In 2018, the State Bank of Pakistan imposed a **"prohibition"**⁴ on dealing in virtual currencies for the entities it regulates and **"advised"** the general public to refrain from indulging in crypto for the following reasons:

- High price volatility as investments tied to Virtual Currencies are highly unstable and are primarily based on speculations;
- Failure/closure of Virtual Currency exchanges/businesses due to any reason including action by law enforcement agencies; and
- Hacking/security compromises of crypto currency exchanges and wallet businesses as several instances have been recorded around the world where huge amount of funds have been lost due to the exchange/wallet operations being hacked/compromised.

In order to get around this restriction, most Pakistani cryptocurrency traders and investors use peer-to-peer (P2P) transactions as a method to fund and withdraw from their exchange account.

3.2. Regulatory Framework in China

Chinese authorities have put a blanket ban in September 2021 on cryptocurrency speculation and trading, naming national security and protection of people's assets as the main concerns. Ten government agencies issued a joint statement, vowing to work diligently to maintain a "high pressure" crackdown on trading of cryptocurrencies.⁵ People's Bank of China has also separately ordered internet, financial and payment companies from facilitating cryptocurrency trading on their platforms.

⁴See FE Circular No. 03 of 2018 of SBP

⁵https://www.spp.gov.cn/spp/zd gz/202109/t20210924_530777.shtml

National Development and Reform Commission (NDRC) also notified for country-wide crackdown on the mining of cryptocurrencies. Ban on Cryptocurrency has a climatic dimension attached to it as well. Cryptocurrency mining in China was projected to generate more than 130 million metric tons of carbon emissions by 2024, i.e. equivalent to the entire carbon output of Venezuela. China's National Development and Reform Commission have reiterated its support to carbon neutrality goals vowing to cut financial and electricity supply for mining (Reuters, 2021).

Overseas crypto exchanges providing services to Chinese domestic residents are considered as illegal financial activities. Moreover, local financial and non-bank payment institutions are also banned from providing services related to cryptocurrencies. Alternatively, China has launched digital Yuan in 2019.

3.3. Regulatory Framework in India

In April 2018, RBI exercising its power banned cryptocurrencies stating that the Reserve Bank shall not deal in virtual currencies or provide services for facilitating any person or entity in dealing with or settling such currencies. Such services include maintaining accounts, registering, trading, settling, clearing, giving loans against virtual tokens, accepting them as collateral, opening accounts of exchanges dealing with them and transfer/receipt of money in accounts relating to purchase/ sale of VCs.

In mid-2019, the Ministry of Finance of India also published a draft of cryptocurrency bill, titled "Banning of Cryptocurrency and Regulation of Official Digital Currency Bill." The bill recommended a complete ban on all cryptocurrencies except the ones owned by the State. In March 2020 Supreme Court of India overturned RBI's order of banning cryptocurrency, resulting in a massive surge of crypto trading in India.

Currently, India does not have any legal framework governing the issuance, use, and trade of cryptocurrencies. The Indian Government is currently working on the legislative framework of cryptocurrencies.

3.4. Regulatory Framework in United States of America

One of the biggest challenges to roll-out a new legislative framework for cryptocurrencies in the US is the overlap between regulators. Every regulatory body in the US see cryptocurrencies with a different lens. In 2018, Commodity Futures Trading Commission (CFTC) defined cryptocurrencies as a commodity subject to its jurisdiction, however, trading activities needs to be done on regulated exchanges. The Securities and Exchange Commission (SEC) urge the non-security status of cryptocurrencies. The Internal Revenue Service (IRS) treats them as property for tax purposes.

Crypto exchanges are required to comply with the Bank Secrecy Act (BSA), anti-money laundering and combatting the financing of terrorism obligations as well as register with the Financial Crimes Enforcement Network (FinCEN). Regulatory authorities recently hinted that there would be no ban on cryptocurrencies. Federal Reserve has also indicated that they neither aim to ban nor limit cryptocurrency during a congressional hearing in September 2021. In sum, trade and mining of cryptocurrencies are allowed but regulated in the US, however, it does recognize it as a legal tender.

Table 01: Comparison of Legislative Frameworks

	Global Crypto Adoption Ranking	As a Legal Tender	Trading/Speculation	Mining	Alternate Digital Currency
India	02	No	Not regulated	Under a Grey area	Expected by Dec 2021
Pakistan	03	No	Not regulated	Under a Grey area	Not yet
United States	08	No	Allowed but regulated	Allowed	Not yet
China	13	No	Banned	Banned	Trial stage

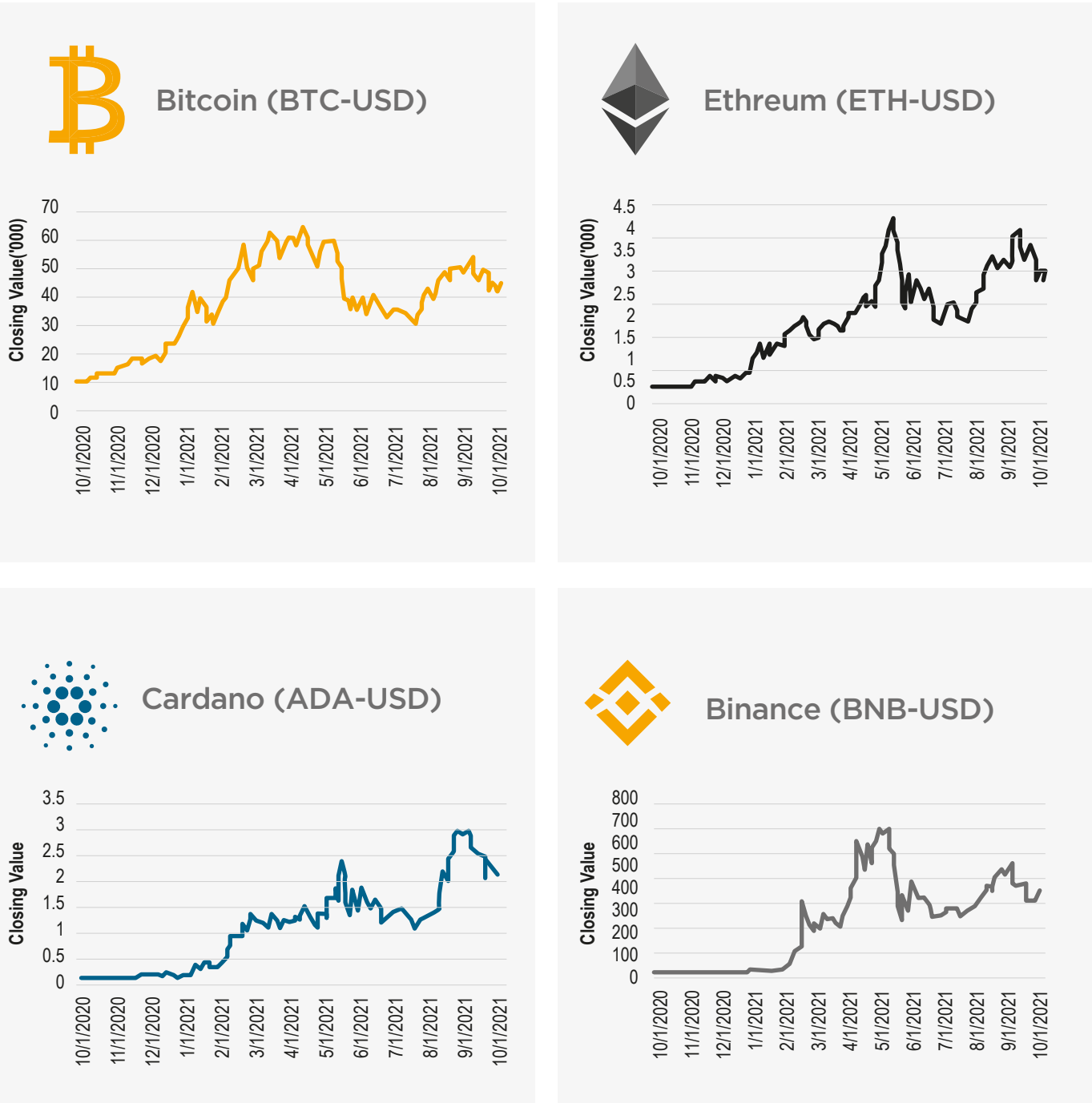
4. Key Considerations and Risks

Overall mainstream acceptance of cryptocurrencies is limited mainly due to the following reasons:

- **Anonymous Transactions:** Cryptocurrencies are basically lines of computer code that are digitally signed each time they travel from one owner to the next. Transactions can be made anonymously, making the currency popular with libertarians as well as tech enthusiasts, speculators and criminals.
- **Decentralized Mechanism:** Cryptocurrencies lack any central monitoring authority. Central banks would rather issue digital currency like digital Yuan or stable coins. Both are backed by some sort of assets.
- **Threat to Financial Stability and Fraudulent Transactions:** Governments may be afraid of Bitcoin because cryptocurrencies can be used to circumvent capital controls, can be used for money laundering or illegal purchases, and could be risky to investors. If Bitcoin become widely adopted, the entire banking system could become irrelevant. Digital currencies in emerging markets expose countries for potentially undermining exchange and capital controls and deteriorating financial stability⁶. Moreover, the potential for tax evasion cannot be overruled.
- **Volatility:** There are currently 18.7 million Bitcoins in circulation and only 21 million will ever exist. Once all 21 million are launched in the market, the volatility of Bitcoin is expected to increase further. Bitcoins as well as other coins exhibit large bouts of price volatility, some of the popular cryptocurrencies are plotted in the figure below to depict the volatility in daily closing values since October 2020.

⁶<https://www.reuters.com/business/finance/emerging-market-cryptoization-threatens-financial-stability-imf-2021-10-01/>

Figure 01: Trends in Top Cryptocurrencies



5. Policy Recommendations

As with any investment, the adoption of the cryptocurrency ecosystem poses several challenges. Considering China's recent ban on cryptocurrency as well as criticism by international regulators such as International Monetary Fund (IMF) and Financial Act Task Force (FATF), it is recommended that government authorities must regulate cryptocurrencies by implementing the legal framework to better align with the Financial Act Task Force (FATF) and the International Monetary Fund's (IMF) guidelines. It is also imperative that the speculative gains by Pakistani/ dual nationals are provided an opportunity to be mainstreamed into the formal economy. The following measures need to be taken in phases to regulate cryptocurrencies:

Phase-I

- **Launch Asset Declaration Scheme.** Investments in cryptocurrencies started with a speculative gaming but in recent years have grown into humongous sizes. These assets which reside in digital clouds, need to be landed safely into economic mainstream. Pakistan recorded around \$20 billion of cryptocurrency value during 2020-21, witnessing an abnormal growth of 711 percent⁷. Investors are actively looking to realize their investment returns related to cryptocurrencies in a formal way.

It is imperative for government authorities to immediately launch a one-time asset declaration scheme and devise a regulatory framework for future transactions. Capital gain taxes, similar to stock market investments, may also be introduced which will provide an additional source of tax revenues to the country. The scheme may have following categories:

- i. Encashment of cryptocurrencies in Pakistan and converting the foreign exchange into Pak rupee may be allowed with no tax.
- ii. Encashment of cryptocurrencies in Pakistan and held as deposits in foreign exchange accounts in Pakistan may be allowed with 5% tax.
- iii. Encashment of cryptocurrencies in Pakistan and held as deposits in Roshan Digital accounts may be allowed with 10% tax for non-resident Pakistani nationals/dual nationals.
- iv. Holding cryptocurrencies as an asset may be allowed to be declared on payment of 15% tax.

Phase-II

- **Broaden the Legislative Framework to incorporate Cryptocurrencies.**
The Banking Companies Ordinance, 1962, and State Bank of Pakistan Act, 1956 are the two major legislative instruments that regulate businesses in the country. Both these laws do not regulate trade and transactions in cryptocurrencies.

⁷<https://blog.chainalysis.com/reports/2021-global-crypto-adoption-index>.

There is a need to review the corresponding legislation and introduce sections that could regulate transactions, trading, and mining activities in Pakistan.

- **Setting-Up Crypto Exchange Platform.** The Securities and Exchange Commission of Pakistan (SECP) should set a formal crypto exchange platform under its umbrella. This will help route transactions through formal channels.
- **Launch Crypto-based Exchange Traded Funds (ETFs).** An ETF is the investment vehicle that tracks the performance of a specific asset or group of assets. It allows investors to get diversified exposure to the pool of assets without actually holding the asset. The first ETF linked with Bitcoin was launched on the New York Stock Exchange in October 2021. Australia, Canada, Malaysia and other countries have also launched ETFs linked with cryptocurrencies.

Crypto-linked ETF trading on the Pakistan Stock Exchange (PSX) will offer attractive investment options to local stock market investors desperate for diversified exposure. Moreover, it will help mobilize both domestic and foreign portfolio investments in the stock market. This will help Pakistan Stock Exchange to regain its status of an emerging market.

Phase - III

- **Monitoring and Surveillance.** Crypto transactions are not directly observable. Authorities should set mechanisms to monitor web traffic data of crypto platforms, usage of VPNs, and other products that mask online activity as these activities compromise ability to monitor the location and the quantum of transactions.
- **Capital Control Restrictions of Crypto Transactions.** The State Bank of Pakistan (SBP) should regulate and impose restrictions on the capital flight due to crypto transactions. Currently, investors are using local bank transfers to invest in cryptocurrencies which are imposing downward pressure on the already difficult current account balance.
- **Avoid recognizing Crypto as a Legal Tender.** The International Monetary Funds (IMF) has warned central banks that cryptocurrencies are not suitable to be considered as a legal tender. As the virtual currency which is on the mercy of market forces could cause problems due to price fluctuations, difficulty setting fiscal policy, and negative environmental impacts.

It is recommended that the State Bank of Pakistan should not recognize cryptocurrency as a legal tender.

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