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Cryptocurrencies and India

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CRYPTOCURRENCIES AND INDIA[1]

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Introduction

Progression of mankind necessitated the exchange of goods and services leading to the evolution of money from the ancient stones and shells to coins and eventually to the present fiat currency. Money has evolved with the evolution of societies and trade. In modern economies, central banks are in charge of the money supply in the economy. The evolution of fiat money as well as the credit extended by the banking system, in the broader definition of money, is regulated and supervised by the central bank. The settlement is done by the payment system that maintains people's trust by using computerized bank ledgers, which are also generally under the supervision of the central bank. This ledger system, coupled with the internet revolution has facilitated the evolution of cryptocurrencies. Cryptocurrency does not have a physical form nor is it backed or issued by the apex bank. Cryptocurrencies have quantity limitations and are highly volatile as they are based on market sentiments of demand and supply. They can be mined in any country by any person and investment can be made by any investor from anywhere in the world.

Cryptocurrency is a matter of grave concern among policymakers and central bankers as there are several risks involved which can threaten the financial stability of the economy and national security of the nation (IMF, 2018). In the highly integrated world, spill-overs from any single nation can have serious consequences on the global economy. In a fragile economic environment where Covid–19 has added immense uncertainty in the growth path, any fresh experiments with the financial system needs to be carefully evaluated, especially non-official virtual currencies which can be used to defraud consumers, particularly unsophisticated consumers or investors. Another concern from use of non-official digital currencies is related to their volatility and crippling use of energy (Adrian and Rhoda, 2021).

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This brief article expounds briefly on various issues ranging from evolution of money to the beginning of cryptocurrencies, followed by the current scenario in India and the world. And then offers a few recommendations.

Brief History

In 2009, the first cryptocurrency, Bitcoin, was mined with the pseudonym Satoshi Nakamoto (Vigna, 2021) by a group of programmers.[4] Besides Bitcoin, many other cryptocurrencies have come up, some of which are Ripple, Ethereum and Cardano. It is estimated, that nearly 8,000 cryptocurrencies were in use by the end of December, 2021, among which ten cryptocurrencies - Gala, Axie Infinity, The Sandbox, Polygon, Fantom, Terra, Solana, Kadena, Harmony and Decentraland, accounted for major part of market capitalization (Kumar, 2021).[5] The demand for cryptocurrencies is driven by high profitability, divisibility, inflation resistance, and transparency. They offer numerous benefits but simultaneously carry risks for investors. However, the need for a new global financial instrument (when IMFs SDR already exists) in 2009 (when the world was struggling with global financial crisis), away from any official – national or multinational, oversight, without any clear objectives and aims is perplexing. The discovery continues to be shrouded in secrecy, which adds to concerns of policymakers and regulators, national and multinational.

Scenario in India

The Government of India is considering enacting Cryptocurrency and Regulation of Official Digital Currency Bill, 2021. There has been extensive discussion on cryptocurrency in the last few weeks in India. The Reserve Bank of India (RBI) has expressed concerns while the Central Government, according to press reports, seems willing to discuss the introduction in India with stringent regulations. This accommodative but cautious approach is probably motivated by the lack of any structural mechanism for investor grievances, exposure to illegal activities enabled by pseudo-anonymity, ineffective Know-Your-Customer (KYC) norms, the possibility of overseas transactions, ambiguity in taxation, and lack of accountability. In view of the issues, earlier in April 2018, the RBI had issued an advisory notice to the public not to deal in cryptocurrency, and prohibited banks and financial institutions from providing any related

[4] The creator of Bitcoin, his identity has not been confirmed and not much is known about the person using this name. In 2008, a person or group using the name Satoshi Nakamoto released a paper describing a new software system called Bitcoin.
[5] According to CoinMarketCap, there are 16,290 cryptocurrencies in circulation with a market cap of USD 2 Trillion. (January 03, 2021)

services. The prohibition was challenged in the Supreme Court. Consequently, in March 2020, the ban was lifted, stating that it violated business and professional freedom under Article 19(1) (g) of the Constitution, and permitted the banks and financial institutions to provide services for digital currencies.

In another development, the Securities and Exchange Board of India (SEBI) recently approved India's first Blockchain Index fund called Invesco Coinshares Global Blockchain ETF Fund of Funds, offering investors exposure to global companies involved in Blockchain-related business activities like cryptocurrency mining, Blockchain-based financial services, payment systems.

Crypto – A currency?

Cryptocurrency is a risky currency as it is unregulated, and can be used for nefarious activities. In theory, currency (money) is a unit of account, serves as a store of value, and is a medium of exchange. Traditionally, as a store of value, currency is the most liquid asset and is acceptable for transactions everywhere within the country's jurisdiction as it has legal support. In the case of commodity money, the intrinsic value of the metal decides the value of currency. The above definition of money, universally accepted, does not apply to cryptocurrency, as cryptocurrencies cannot be used in day-to-day transactions, are not readily available and do not have universal acceptability. Therefore, without legal backing and regulation of national authorities, cryptocurrencies lack trust as it can be minted by anyone in the market. A similar situation arose in the 13th century, when Muhammad bin Tughlaq had introduced leather currency: it did not succeed because fake currency started in circulation. Tughlaq tried another alternate currency, made of brass and copper, but unfortunately, many households in the country started producing copper and brass currency. Tughlaq had to withdraw his orders within eight days. Nevertheless, the repercussions of the alternate currency lasted many decades.

In this context, the history of paper money in the USA is also interesting. In February 1690 Massachusetts Bay Colony issued the first paper money in the USA. Following this, during the American revolution of 1775, colonial leaders in the USA tried to replicate Massachusetts paper experiment by issuing Continentals (without any backing of gold or silver) to fund American Revolutionary war. The Continentals crashed by 1785, primarily because of lack of any asset backing. Then, evolved the Bank Notes which can be traced back to issuance of Promissory Notes and IOUs. The Bank Notes were issued by respective banks and could be used to convert into gold or silver, as promised by the respective bank. In the 17th century, for international trade purposes, Bills of Exchange emerged. The goldsmith bankers of London began to give out receipts as payable to bearer of documents, rather than account/deposit holders, an advancement at that time. These instruments could be issued by private entities – business houses and even individuals, national (government) banks, private banks, transportation suppliers such as canal, turnpike and railroad companies. Coal mining and lumber companies have issued money (called scrip) to pay members. Merchants, farmers and community groups have also issued their own money. In the Free Banking era of the 18th century, many entities issued paper currency. The most important concern that emerged was that during a crisis, as people suffer, the government had to intervene: Illustratively, in the US, in March 1933 payment was suspended for 4 days declaring compulsory bank holidays as multiple currency related issues emerged. The multiplicity of instruments in the market, and their issuers complicated the money market. Hence, in the USA, responsibility for standardization of bank notes and issuing authority was fixed with the Federal Reserve in the 1930s. This practice was then replicated in other central banks, including the Bank of England. In modern times, paper currency is a legal tender. It is the responsibility of the respective country's government to ensure that it is respected in the jurisdiction of its governance.

It is not easy to make a currency popular without proper backing of trade volumes, country support, or commodity value of the currency. For example, SDR, IMFs currency, despite various efforts in the last half a century, could not become popular or universally accepted. Euro is another example, and despite consistent efforts by the European Central Bank, for the last two decades, is still not as acceptable as German Mark was earlier; Euro has also not been able to replace the US dollar or UK's pound sterling. China, with its rising national income and global trade, is attempting to make the Renminbi globally acceptable but not being able to displace Gold, US Dollar or Euro as a universal currency.

Crypto – An Asset?

Cryptocurrency is not as popular in advanced countries as in developing and emerging countries (Buchholz, 2021). In advanced countries, there is no liquidity or money supply shortage, and the central banks have ensured an adequate supply of money/liquidity. In developing or emerging economies, investment in cryptocurrency as an asset is increasing as they lack investable assets, which is probably contributing to the popularity of cryptocurrencies (Bains et al., 2021). But cryptocurrencies cannot be treated as a form of an investment asset. When shares are bought and sold there are financial statements backing and accompanying the shares on the basis of which the values of the shares fluctuate. But cryptocurrencies have no financial statements as the firm/enterprise issuing the shares has no existence in reality. Most importantly, cryptocurrency, given its volatility, cannot be considered as an appropriate asset on the balance sheet of the entity, as effectively, it needs to be liquidated/ traded in times of need.[6] In case the asset lacks liquidity, the investor can incur immense unforeseen losses, and the regulator has to be cautious in prescribing risk weights on such assets.

Crypto and Gold

The rationale that Gold (unregulated by any national government) is a universal currency or haven and therefore, cryptocurrency can also be treated similarly is misplaced. Gold is commodity money, Gold's value in gold coins is known and gold is easily available, and acceptable across the world even in most remote places. It is based on market-determined prices based on supply and demand. Cryptocurrency lacks these characteristics. It is an unseen commodity/ currency, and there is no value assigned to cryptocurrency in terms of its content. As the value of cryptocurrency is volatile, its holding can cause wild fluctuations in the central bank's balance sheet, unlike Gold which gives stability.

Crypto Risks

Cryptocurrencies are attractive investments for everyone, including vulnerable small-town investors. But no government is backing the cryptocurrencies; investment decisions are based entirely on the user's own assessment. Since 2013, RBI has maintained a cautionary stance on the use of cryptocurrency in India. It foresees multi-fold risks for the investors as well as the economy. The RBI has expressed grave concerns as it may lead to money laundering and terrorism financing. Further, it may lead to cyber risks of hacking-related thefts of customer funds, market integrity risks of misleading data coupled with inadequate knowledge of the investors. It may also threaten macroeconomic and financial stability with increased exposure to banks - credit risk, liquidity risks, operational risks, market risks, and reputation risks. Cryptocurrency may also widen the income inequalities, disparities, and carbon footprints

[6] However, special types of cryptocurriences like the Stablecoins overcome this volatility. They offer stability as Stablecoins are backed by assets and are classified according to the attribute of collateral backing. The mechanism of price stability is backed by guarantee of currencies or assets. Various types of Stablecoins are cash-based (entirely backed by safe assets, cash or liquid), asset-based (backed solely by noncash comparable assets like corporate bonds, commercial paper, etc.) and crypto-asset-based (backed by crypto). The other concerns associated with crypto (except volatility) continue with stablecoins.

(BIS, 2021) Due to the anonymous nature of crypto currency transactions, it is extremely hard for the authorities to exercise control over it.

In a crypto space, a token is a utility, an asset or a unit of value issued by a company (GOI. 2019). An initial coin offering (ICO) is a way used by companies to raise money where they issue digital tokens in exchange for fiat currency or cryptocurrency.[7] These tokens have many uses, among them, granting investors access to a service, entitling investors to a share of the start-up company's dividend, etc. This method of raising money has become an alternative to conventional forms of financing. Before an ICO is issued, the company issues a whitepaper regarding the technology that it will use and the company's plan of action with the funds that it will raise. A total of 983 ICOs were issued and the amount raised exceeded USD 20 billion as of December 1, 2018.[8] Many more companies are aiming to raise funds via this method without having any substantial product to offer. Thus, regulating the ICOs and digital tokens has become a common worry across the globe coupled with the question whether or not they should be taxed and considered as securities. Further, from an economist's standpoint, finite tokens cannot serve the purpose of money as they cannot address the need for liquidity required in the economy.

The regulation of crypto exchanges is another concern. When it comes to payments and settlements, there are concerns regarding the point of finality of a transaction.[9] From a legal point of view, there are concerns about the cross border distributed ledger systems in terms of jurisdiction of the transaction. Since, no legal entity is in control of the distributed ledger in permissionless distributed ledger systems, regulating distributed ledger systems is more complicated (GOI, 2019). Another major challenge is that permissionless distributed ledger systems hide the identity of the members in the network by using public key encryptions. These types of encryptions make it very difficult for permissionless distributed ledger systems to comply with AML/CFT regulations (GOI, 2019).

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[7] On the basis of the characteristics and the purpose for which they are being issued, tokens can be grouped into two broad categories: one, utility tokens which offer investors access to a company's products or services. They are not to be treated as investment in a company. The other category is security tokens which represent investment in a company. Just like share-holders in a company, token holders are given dividends in the form of additional coins every time the company issuing the tokens earns a profit in the market (GOI, 2019).

[8] Supreme Court of India, Writ Petition (Civil) No.528 of 2018

[9] As a payments system, legal tender and means of exchange, virtual currencies have been regulated differently by countries. Like, in Russia and Canada, virtual currencies are allowed to be exchanged for goods and services. These barter transactions are similar to using virtual currencies as a mode of payment. Switzerland and Thailand allow virtual currencies to be modes of payments. But, no country across the world treats virtual currencies as legal tender. China, further, has completely banned virtual currencies (GOI, 2019).

Regulation, Crypto Ban

Regulating the crypto market is much needed. The need is to examine the crypto market in different components – currency and asset. The platform, Blockchain, is a technological innovation and is different from a financial instrument. Now, as currency, Cryptocurrencies lack intrinsic value (in contrast to commodity currency or fiat currency), are subject to fluctuations (sometimes wildly because of speculation), with no central authority associated with production or circulation (as cryptocurrencies are mined through decentralized networks). Further, transactions in cryptocurrencies are irreversible, and provide partial anonymity to users involved in a transaction. Therefore, consumers need protection as well. According to the GOI (2019), an urgent need to protect consumers was noted when a scam of Rs. 2,000 crore involving GainBitcoin was uncovered in India, where people were promised returns on their investment in GainBitcoin in the form of Bitcoin. This turned out to be a ponzi scheme as investors were asked to bring other members on board to recover their investments, and were also paid in another non-official virtual currency instead of in Bitcoin. In the US too, Centra Tech allegedly raised USD 32 million from investors for a virtual token which was advertised as convertible to fiat currency. The token was not, in fact, convertible, and the SEC initiated proceedings against Centra Tech (GOI, 2019). According to Baslett (2019), OnecoinPonzy[10] scheme, advocated as a cryptocurrency, is "history's biggest scam".

The mining and circulation of cryptocurrencies can be harmful to the financial system and economy of any country. Mining cryptocurrencies take up an immense amount of resources and this use of energy in substantial amounts can have long term adverse effects on the economy as well.[11]

In view of excessive volatility, crypto currencies can affect the ability of central banks to carry out their mandates. Since, central banks cannot regulate the money supply in the economy

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[10] Dr Ruja Ignatova, founder of Onecoin, popularly known as the "Cryptoqueen", marketed and sold the idea to the masses about her company's cryptocurrency known as the "onecoin" that had the capacity to make everyone rich. The company was launched in 2014 and by March 2017, investment from various countries amounted to more than €4bn, as the investors were ignorant of the minting of the Cryptocurrencies using blockchain technologies and believed onecoin to be a cryptocurrency. On October 25, 2017 the "Cryptoqueen" disappeared and is still wanted by the FBI and several other agencies with cases registered against her in several countries. In 2019, Dr Ruja was charged in absentia by the US legal authorities for various frauds including money laundering as reported by BBC (24/11/2019).

[11]The Bank for International Settlements *Cryptocurrencies: Looking beyond the Hype* (2018) report states that to scale to a national level retail payments system, a virtual currency would require crippling levels of storage and processing power. Bitcoin mining has used as much electricity as all of Switzerland, with the report terming it an environmental disaster (GOI, 2019).

when non-official virtual currencies are widely used, as these are decentralized, the central banks don't have considerable means to stabilize the economy.

According to the Financial Action Task Force (FATF), cryptocurrencies can provide greater anonymity than mainstream non-cash payment methods, making them attractive vehicles for to money laundering and use in terrorist financing activities.[12] Therefore, when it comes to cryptocurrencies there is a need to prevent criminal activity because it will affect not only the financial health of a country but also that of the common man.

Another important issue is the regulation of crypto exchanges. In most cases of resettlement (non-custodial wallets) transactions cannot be tracked, and user profiles remain anonymous. Thus, the monetary sovereignty and regulation/supervision of the monetary authority gets eroded with the adoption of cryptocurrencies.

However, a ban on cryptocurrencies may lead to migration of talent and business from India, similar to a situation after the 2018 ban by RBI whereby Blockchain experts left for the European Union, South Africa, Mexico, and the United States. Instead, maybe strong KYC norms with solid regulations can be considered as an alternative. Additionally, it should be noted that historical experiences have shown that innovations that reveal risks if improved upon and not banned, can help in realizing the greater good. For example, the Mortgage-Backed Security (MBS) during the episode of Global Financial Crisis of 2008, were initially lucrative until the Lehman crash happened, eroding their net asset value. The response to this was not a ban, rather an increased regulatory oversight, mandating detailed risk disclosures.

Global Scenario

Governments worldwide are debating whether cryptocurrencies are securities (financial assets), commodities, or currencies. Accordingly, once decided, the policies for supervision and regulations will follow. Some countries have been flexible in accepting the cryptocurrency and coming out with its regulations, whereas others have been skeptical and are still considering a way to regulate the same. Most importantly, in view of the anonymity of the instrument, some countries like China have banned it (Table 1.1).

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[12]They can be used to create new opportunities for criminals to launder their proceeds or finance their illicit activities. To address these challenges, it has called for risk-based supervision. This can be seen when in 2014 the illegal website Silk Road was found to have been using Bitcoin to finance hacking, drug trafficking, and illegal weapon sales. The FBI alleged that Silk Road facilitated more than USD 1 billion worth of transactions in over two years. The case of Western Express International was another example where virtual currencies assisted the sale of thousands of stolen credit card numbers and personal identity information in the United States (GOI, 2019).

Table 1.1 Regulatory approaches to Cryptocurrency

Conditions	Countries Permitting	Countries not permitting	Undecided Countries
Recognition and definition of crypto-assets	United Kingdom, Singapore, Switzerland, Japan, United Arab Emirates, Bermuda and China.	Brazil, India	Nigeria, South Korea
Adoption of FATF Travel Rule	United Kingdom, Singapore, Switzerland, Japan, United Arab Emirates, Bermuda, Nigeria	China, India	South Korea
Taxation	United Kingdom, Singapore, Switzerland, Japan, Brazil, China, South Korea.	Bermuda, Nigeria	United Arab Emirates, India

Source: Annexure 1

Cecchetti and Schoenholtz (2022) elegantly argue that the need is to have regulation by functions and activities. Accordingly, current regulatory frameworks need to be revisited.

Cryptocurrencies and the role of Multilateral Institutions

Multilateral institutions are assisting countries to understand the risks associated with crypto and reach a consensus on the regulatory framework for cryptocurrencies, similar to the efforts that helped to achieve global corporate minimum tax.

Bank for International Settlements (2019a), cautioned banks acquiring these assets to adopt a a minimum - due diligence, governance and risk management, disclosure and supervisory dialogue with the entities involved in crypto space. BIS also alerted banks with respect to financial stability and increased risks faced by them given the high degree of volatility and "immature asset class" due to lack of standardization and constant evolution of cryptocurrencies. Bank for International Settlements (2019b and 2021) highlighted design of prudential treatment of banks exposures to crypto assets.

The IMF (2021) stressed the need to strengthen macroeconomic policies especially in emerging markets, where crypto assets can circumvent exchange and capital control restrictions and also destabilize capital flows. Enforcement, supervision and effectiveness of capital flows must be reassessed, increasing the credibility of the monetary policy, strengthening fiscal position, and enhancing efficiency of legal and regulatory framework to manage macro-financial risks. Challenges from crypto assets include operational and financial integrity risks from providers (Massad, 2021).

Recommendation – A Cautious approach

The introduction of a new instrument or currency has associated risks. In India, there have been two instances that point towards exercising caution. First, highly risky financial derivatives because of which the RBI delayed introduction of complex derivatives in the domestic market. The authorities in the US experimented with it under their 'light-touch' regulation of new financial instruments and had to bear severe consequences in terms of the collapse of Lehman brothers and disruption of financial markets thereafter. Since 2008, economic recovery in the USA has been very slow and with heightened risks and uncertainty from ongoing COVID-19 pandemic, the fear is that the USA could slip in stagflation. Another illustration in the Indian market is that of foreign exchange exposure of the private sector that was tightly regulated by the RBI. In October 2008, the RBI relaxed the exposure of foreign exchange to the private firms through their banks. The consequences of that exposure were severe. The private firms did not understand the risk and the responsibility associated with it. Foreign exchange risks are difficult to measure and are complex. When the foreign exchange markets were hit in early 2009, the firms suffered severely and came back to the RBI seeking accommodation for the exposure and associated losses.

Then, another classic case is the issue of capital account convertibility (CAC) that is most relevant here. There was immense pressure from multilateral agencies on India to adopt CAC after the financial sector reforms were introduced in the early 1990s. The RBI held the position that the Indian markets are still not ready for opening the economy to global competition. In contrast, multilateral agencies argued that CAC is helpful in integrating the domestic market with the global market, expanding the resource base, and providing financial resources to the domestic investors which eventually are helpful in economic growth. The Indian authorities argued that the domestic financial system is yet not prepared to receive the type of financial flow that CAC provides. Consequently, given immense international pressure, the two Committees set up on CAC chaired by the former Deputy Governor of RBI, Shri S S. Tarapore, logically presented the conditionality's that are necessary for successful implementation of CAC in India and reaping the advantages that such an initiative would provide. It is only after 2 decades, sometime in 2012 that multilateral agencies realized that prudential norms and robust financial systems are a precondition for successful implementation of CAC. The global pressure on emerging markets to accept cryptocurrency needs to be evaluated similarly as India was cautious with CAC. As argued repeatedly by the RBI, India's approach towards CAC was careful opening of capital accounts and appropriate sequencing of liberalization, taking baby-steps each time: cautious approach was not important.

The purpose of the government as well as the regulator is to ensure the health of the country's residents and financial system. The financial health of the citizens can be impacted if the financial instruments prevalent in the country are risky. In a continent-size country like India, with various levels of financial literacy, and literacy in general and different capacities to absorb risks, the introduction of any new instrument has to be very cautiously examined. The evaluation of cryptocurrency is that it is risky because it isn't regulated by any government or by any sector-specific regulator. It is minted by digital mechanisms and whenever there is a breach in the firewall, there is a possibility of heavy losses to the investors. In an emerging economy like India, financial resources are scarce. To create an ecosystem and investor friendly environment, it takes decades of hard work by the government and the regulator. Therefore, to retain confidence in the regulatory framework and the financial markets, it is necessary that the investors are adequately educated of the riskiness of the instruments available in the market. Further, the regulators should ensure that risky instruments that have the potential to hurt not only the financial position of the investor but hurt the investment climate to be tightly regulated and isolated from the array of plain vanilla instruments available within the economy. In post-Covid times, this cautionary approach, encased in the regulatory framework, towards cryptocurrency is of utmost importance.

Conclusion - The Way Forward

Regulation and Supervision are important functions to ensure safety of participants, stakeholders and the financial system. As money and monetary instruments are highly liquid, the regulation and supervision of this commodity has to be very rigorous, more than others.

In the present day, we have various cryptocurrencies. Cryptocurrency, unregulated and unaccounted, can neither be factored in investment decisions of the firms and government, nor helpful in forming inflationary expectations. That would be a challenge for the central bankers and policymakers.

In view of the challenges related to Crypto - currency or asset, including large scale frauds in the short span of its existence, it would be necessary to understand the instruments and the exchanges where settlements would take place.

The key factors in this case would be number and types of instruments, easy availability of instruments, transparency of transactions, protection of the investors/consumers, and redressal mechanisms. It would be necessary to establish standards for crypto assets. The data to monitor the crypto ecosystem by identifying data gaps, also needs to be strengthened. Regulatory mechanisms should be established for each of the risks that crypto assets could pose to the economy. In general, the macroeconomic policies and prudential norms of the banks should be strengthened to build inherent resilience in the economy and the financial system.

In the history of the evolution of money, especially paper currency, in the UK and in the USA, the authorities made efforts to standardize the negotiable instruments for the sake of regulation and supervision. Earlier, when commodity money was prevalent, focus was on concentration of one commodity and gold emerged as the consensus commodity but not silver. Similarly, given the multiplicity of cryptocurrencies, consensus would have to evolve around one currency, if ever the instrument is accepted for circulation as a currency.

The multilateral institutions have been trying over a period of time to warn the regulators regarding the dangers of uncontrolled cryptocurrencies and the requirement of all the policy makers to enact common global regulations to rein the wild cryptocurrencies. There must be effective administration and coordination between all the national regulators for the operational enforcement on cryptocurrencies. Crypto trading activity reports should be globally standardized and shared with national regulators for proper detection of illicit activities and jurisdictions. A systematic ongoing vigilant system of monitoring the cryptocurrencies globally is required to minimize the risks associated with crypto for the world.

Cryptocurrencies have associated risks, because unexpected changes in market sentiment can lead to sharp and sudden price movement that has direct implications for the balance sheet of the individual or the firm. In India, a continent-size country, with different income levels as well as large segment of the society which is risk-taking but financially vulnerable, uncertainty around cryptocurrencies can harm the fragile financial stability. Therefore, India should cautiously experiment with new and risky instruments. There are numerous aspects of cryptocurrency which are not completely understood even by financial pundits and therefore, the authorities should consider constituting a high powered committee to examine all issues related to cryptocurrencies and then make recommendations for the Government to adopt.

Annexure 1

Country-level comparison of regulatory approaches to Cryptocurrency- Sept. 2021

Country	Recognition and definition of crypto-assets	Adoption of FATF Travel Rule	Taxation	Country-level impact
United Kingdom	The UK provides guidance on crypto-assets and the applicable regulatory regime for each type. The UK prohibits the sale of investment products that refer cryptocurrencies to retail clients.	Custodian wallets and crypto wallets are required to register with the Financial Conduct Authority (FCA).	A capital gains tax may apply to the sale, exchange, use (for payment), transfer and donation of crypto-assets.	Less regulatory uncertainty and a more conducive policy environment for cryptocurrency.
Singapore	Singapore regulates cryptocurrency-based payments and payment service providers as “digital payment token” (DPT) and “digital payment token services”.	Singapore requires crypto-currency service providers to adhere to AML/CFT compliance measures as per FATF guidelines.	Individuals/businesses that hold DPT as a long-term investment face no capital gains tax. But businesses that buy and sell DPT are required to pay taxes from their profits.	Singapore has grown into a burgeoning crypto-economy with 43 per cent of Singaporeans owning cryptocurrency.
Switzerland	Switzerland provided an expanded framework for regulating Blockchain and DLT based on the token taxonomy in the ICO guidelines.	The country requires Blockchain businesses to verify customer ID and report it to the Money Laundering Reporting Office, abiding by the FATF guidelines.	Private wealth generated from crypto currencies does not incur taxes. Income earned from mining and trading are subject to taxation. The canton of Zug is accepting tax payments in cryptocurrency.	Early guidelines and acts for cryptocurrencies reduced the legal uncertainty such that cryptocurrency businesses have been able to emerge.
Japan	Japan characterizes	Japan requires compliance with global AML/CFT	The profit earned through the sale or use of cryptocurrency	A regulatory framework for crytocurrencies

	cryptocurrencies as crypto-assets.	such as those recommended by FATF. It requires crypto businesses to verify customer IDs and report suspicious transactions to the authorities.	is considered miscellaneous income, Inheritance tax will be imposed on the estate of a deceased individual who held crypto-assets.	has led to proliferation of regulated crypto exchanges and custody services in the country.
United Arab Emirates	Two sets of cryptocurrency regulations have been released.	The UAE prescribes the AML/CFT requirements for abiding by the FATF guidance and the necessary controls and scope of AML/CTF, respectively.	No regulation or guidance on the taxation of cryptocurrencies in the UAE exists.	Regulatory certainty from financial free zones and the federal regulator has resulted in an increasing number of crypto businesses setting up in the UAE.
Bermuda	The framework of digital asset issuance has been provided which regulates the businesses.	Bermudian authorities have put forth AML/anti-terrorist financing (ATF) guidance for digital assets which are to be followed in conjunction with the main guidance notes applicable to regulated financial institutions.	Digital assets do not incur income capital gains. Digital asset transactions are generally exempt from the foreign currency purchase tax of 1 per cent.	The regulations have lowered the barriers to entry for crypto-asset businesses. Bermuda has emerged as a regional fintech hub. Nine leading fintechs have registered in the country to take advantage of the favourable rules on crypto-assets.
Brazil	No specific regulations have been issued for cryptocurrencies. The existing regulations for the financial sector provide a framework for	The current set of AML/CFT laws and regulations, are being applied extensively and comprehensively, and apply to businesses	Specific instructions for stating ownership of cryptocurrencies such as information on Bitcoin holdings and capital gains in the case of sale of Bitcoin, as well as transactions above a certain amount.	Cryptocurrency innovations have emerged in Brazil. The existence of specific crypto regulations would create the necessary legal security for the

	cryptocurrency businesses.	dealing with cryptocurrencies.	General capital gains rules apply to cryptocurrency transactions.	growth of crypto businesses.
China	China recognizes cryptocurrency as Inheritable property. However, China has banned cryptocurrency exchanges and mining operations.	Since China has prohibited virtual asset activities, many AML/ KYC requirements remain inapplicable.	Income earned from the purchase and sale of “virtual currencies” is considered taxable income.	Cryptocurrencies are greatly restricted. China is placing more emphasis on central bank digital currency, namely the digital yuan.
India	India prohibited entities from dealing with crypto-related businesses. This order was struck down in March 2020.	There is no regulation implementing the FATF’s Travel Rule for cryptocurrency service providers.	No regulation or guidance has been issued for the taxation of cryptocurrencies.	The absence of crypto regulation and the ensuing regulatory uncertainty is a hurdle for innovation in the industry.
Nigeria	Nigeria has not yet regulated cryptocurrencies but has recommended that financial institutions do not deal in crypto, nor hold the accounts for crypto exchanges.	Nigeria requires banks to ensure their clients follow appropriate KYC/AML procedures	Nigeria describes cryptocurrency as an intangible asset other than goodwill, and does not levy any taxes on cryptocurrencies.	Nigeria’s approach has created uncertainty for developers and SMEs within Nigeria. The recent focus on collaboration has created some optimism that useful engagement can create regulatory certainty.
South Korea	South Korea has warned about the speculative nature of investment in digital assets since its Emergency Meeting on	The country requires VASPs to interoperate their customers with real name bank accounts and report	They would impose a 20% tax on income earned from renting and transferring digital assets from January 2022.	South Korea’s cautious position on cryptocurrencies and the related businesses has restricted crypto innovation.

	Digital Currencies (2018).	doubtful transactions.		

AML: Anti- Money Laundering; CFT: Combating of Financing of Terrorism; ICO: Initial Coin Offering; FATF: Financial Action Task Force; DLT: Decentralized Ledger Technologies; VASP: Virtual Asset Service Provider

Source: World Economic Forum, 2021

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