

IFWVG

Crypto Assets
Regulatory
Working Group

CONSULTATION PAPER ON POLICY PROPOSALS FOR CRYPTO ASSETS





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Abbreviations

AML	anti-money laundering
ATM	automated teller machine
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CDD	customer due diligence
CFT	combating the financing of terrorism
CPMI	Committee on Payments and Market Infrastructures
FATF	Financial Action Task Force
FIC	Financial Intelligence Centre
FIC Act	Financial Intelligence Centre Act 38 of 2001
fintech	financial technology
FSB	Financial Stability Board
FSCA	Financial Sector Conduct Authority
FSR Act	Financial Sector Regulation Act
IADI	International Association of Deposit Insurers
IAIS	International Association of Insurance Supervisors
IFWG	Intergovernmental FinTech Working Group
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
NT	National Treasury
SARB	South African Reserve Bank
SSB	standard-setting body
SARS	South African Revenue Services

1. Introduction to the consultation paper

1.1 Background

1.1.1 The initial public statement on crypto assets¹ was issued by National Treasury (NT) in 2014 as a joint initiative with the South African Reserve Bank (SARB), the Financial Services Board (now the Financial Sector Conduct Authority (FSCA)),² the South African Revenue Service (SARS) and the Financial Intelligence Centre (FIC).³ The public statement warned members of the public about the risks associated with the use of crypto assets for the purpose of transacting or investing, and advised users to take extreme caution in this regard. It further noted that no specific legislation or regulation exists for the use of crypto assets. Therefore, no legal protection or recourse is offered to users of, or investors in, crypto assets.


1.1.2 Following the user alert, the SARB, through the National Payment System Department, issued a position paper on crypto assets in 2014 (South African Reserve Bank, 2014).⁴ The position paper highlighted the risks surrounding crypto assets, such as money laundering and the financing of terrorism. It noted the lack of a regulatory and legal framework, the absence of consumer protection laws, and the inability to enforce the principle of finality and irrevocability in the payment system as well as the circumvention of exchange control regulations. The position paper stated that the SARB does not oversee, supervise or regulate the crypto assets landscape, systems or intermediaries. Therefore, all activities related to the acquisition, trading or use of crypto assets are done at the end users' sole and independent risk, with no recourse to the SARB. The SARB stated that it would continue monitoring these activities and developments in this area.

¹ At the time this statement was issued, the term 'virtual currencies' was used to refer to crypto assets.

² The Financial Services Board was wound down and a new Financial Sector Conduct Authority was created on 1 April 2018 as a result of the Twin Peaks reforms.

³ http://www.treasury.gov.za/comm_media/press/2014/2014091801%20-%20User%20Alert%20Virtual%20currencies.pdf

⁴ [https://www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem\(NPS\)/Legal/Documents/Position%20Paper/Virtual%20Currencies%20Position%20Paper%20%20Final_02of2014.pdf](https://www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem(NPS)/Legal/Documents/Position%20Paper/Virtual%20Currencies%20Position%20Paper%20%20Final_02of2014.pdf)




1.1.3 In 2016 the Intergovernmental FinTech Working Group (IFWG) was established, comprising members from NT, the SARB, FSCA and FIC. The aim of the IFWG is to develop a common understanding among regulators and policymakers of financial technology (fintech) developments as well as policy and regulatory implications for the financial sector and economy.

1.1.4 At the start of 2018, a joint working group was formed under the auspices of the IFWG to specifically review the position on crypto assets. The working group is represented by the members of the IFWG and SARS, and is referred to as the Crypto Assets Regulatory Working Group.

1.2 Problem statement

1.2.1 The need to develop a policy and regulatory response to crypto asset activities in South Africa is driven by the following:

- a. **Crypto assets are a form of innovation that may impact the financial sector of the country:** Fintech is defined as technology applied to financial services, resulting in new business models, applications, processes, products or services with an associated disruptive effect on financial markets and institutions. This definition emphasises the focus on technology-driven innovations within financial services that could potentially reshape financial services. Given the wide range of innovations across financial services, the existing regulatory architecture should be assessed to determine its appropriateness and effectiveness. Crypto assets are considered to be an innovation that could materially impact financial services, as some view crypto assets as a new form of money that has a direct impact on economic activities such as payments, investments and capital raising, among other things.

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- b. **Crypto assets do not fit neatly within the current regulatory framework:** Globally regulators have not sufficiently addressed the phenomena of crypto assets. From conceptualisation to issues on definition, it remains an area that requires further clarity for regulators. Various approaches have been adopted, as some jurisdictions have explicitly allowed its use and trade, others have banned and restricted it, while most jurisdictions have followed the monitoring approach and issued warnings, but have not declared it illegal.
- c. **Crypto assets may create conditions for regulatory arbitrage while posing risks:** The financial system and all participants operate in a highly regulated area, which assists in ensuring a sound and safe financial system. However, crypto assets perform similar financial sector activities without the need for third-party intermediaries and without similar safety mechanisms. This leaves the crypto asset environment exposed to potential financial and consumer risks. Some of the perceived risks of crypto assets include an increase in undetected illicit financial flows, money laundering and terrorist financing risk, and consumer and investor protection concerns, including market manipulation and tax evasion. Other areas of risk include the circumvention of exchange controls, balance of payments reporting requirements, and financial stability risks.
- d. **There is growing interest, investment and participation in crypto assets:** Financial institutions and individuals have shown growing interest in crypto asset activities. There are more than 2 000 different crypto coins and tokens in circulation,⁵ and this is increasing as new schemes, through initial coin offerings, are continually launched. The available measures to determine the exact size of the crypto assets market are limited. A tool often used by industry players is the price checking website, Coinmarketcap, which indicates a perceived market capitalisation of about US\$200 billion⁶ for all crypto assets.

⁵ <https://coinmarketcap.com/>

⁶ This amount was correct at the time of writing the consultation paper.

1.3 Approach by the Crypto Assets Regulatory Working Group


- 1.3.1 In order to develop policy and regulatory responses to the emergence of crypto assets in South Africa, the Crypto Assets Regulatory Working Group followed a functional approach. This means that the economic function of crypto assets was assessed rather than the specific technology applied or the entity involved. From this viewpoint, the following crypto asset specific use cases were identified: (i) purchasing and/or selling; (ii) payments; (iii) capital raising through initial coin offerings; (iv) crypto derivatives and funds; and (v) market provisioning. It is acknowledged that new use cases may arise as the crypto asset market is a rapidly evolving market, and similarly the underlying economic function will be assessed.
- 1.3.2 An in-depth analysis of the applicable use cases and implicit risks was conducted. Guidance from international standard-setting bodies was considered along with the approaches taken by various other countries.

1.4 Purpose and scope of the consultation paper

- 1.4.1 The purpose of this consultation paper is to:
- a. provide an overview of the perceived risks and benefits associated with crypto assets;
 - b. discuss the available regulatory approaches; and
 - c. present policy proposals to industry participants and stakeholders.
- 1.4.2 This consultation paper focuses exclusively on non-government or non-central-bank-issued crypto assets and not on central bank digital currencies,⁷ including central bank crypto currencies⁸.

⁷ The term 'central bank digital currency' refers to a central bank liability, such as cash or central bank deposits, issued in digital or electronic form, denominated in a sovereign currency and backed by the central bank's assets (Panetta, 2018).

⁸ In contrast, a 'central bank crypto currency' specifically refers to the use of cryptography and distributed ledger technology in the underlying application (BIS, 2018).



1.4.3 This consultation paper focuses on only two of the identified crypto asset use cases, namely:

- a. the purchasing and selling of crypto assets; and
- b. paying for goods and services using crypto assets (payments).


1.4.4 These two use cases form the basis of the crypto assets review, but all the use cases are considered important, and equal attention will be given to the other use cases.

1.4.5 A similar approach will be taken in proposing policy and regulatory responses to the remaining use cases in future policy documents.

2. Classifying crypto assets

2.1 Defining crypto assets

2.1.1 From a regulatory perspective, having definitional clarity on the crypto-phenomenon is crucial, as it directly influences its classification and concomitant regulatory treatment. It may accordingly be noted that various naming conventions have been adopted from ‘digital tokens or assets’ and, most recently, ‘crypto tokens’ and ‘crypto assets’, (CPMI, 2015; FSB, 2018; BIS, 2018, Carney, 2018a) in the space of just a few years. Despite the various nomenclature used, the crypto-phenomenon is commonly based on decentralised technology such as blockchain and distributed ledger technology. The definitions used generally focus on its electronic nature, its potential role as a medium of exchange, and its perceived role as a representation of value. Some jurisdictions have classified it as a unit of account, while others have rejected it as a financial instrument or financial product. Central banks, in particular, have been reluctant to refer to the phenomenon as ‘currencies’ for concern of giving it unwarranted legitimacy as a form of legal tender.



2.1.2 The South African regulatory authorities have taken a functional approach, focusing on the economic activities being performed, compared to a more generic 'all-encompassing' clinical classification. It is acknowledged that crypto assets may perform certain functions similar to those of currencies, securities and commodities. The preferred term of 'crypto assets' thus encapsulates and extends to all these functions and is used throughout this document. The proposed definition is as follows:

“Crypto assets are digital representations or tokens that are accessed, verified, transacted, and traded electronically by a community of users. Crypto assets are issued electronically by decentralised entities and have no legal tender status, and consequently are not considered as electronic money either. It therefore does not have statutory compensation arrangements. Crypto assets have the ability to be used for payments (exchange of such value) and for investment purposes by crypto asset users. Crypto assets have the ability to function as a medium of exchange, and/or unit of account and/or store of value within a community of crypto asset users.”

3. Use case analysis

Developing a thorough understanding of the use cases of crypto assets is important to determine the applicable risk. Crypto assets differ in terms of their value proposition and usage.

3.1 Purchase and/or sale of crypto assets

3.1.1 Crypto assets are purchased for different reasons such as speculative investing (perceived increased future value), as a medium of exchange in facilitating transactions, or for access to specific services or utilities. Crypto assets can also be purchased or acquired for the specific purpose of on-selling or trading. Crypto assets can be purchased using three available options. The buyer can purchase crypto assets from (i) a crypto trading platform

(domestically or internationally based)⁹; (ii) crypto asset vending machines¹⁰; or (iii) bilateral transactions with other holders (peer-to-peer transactions). The buyer may require a digital wallet¹¹ to acquire crypto assets which can be obtained through software platforms or provided by a digital wallet service provider or crypto asset trading platform. An alternative to obtaining or acquiring crypto assets is through the primary sourcing of crypto assets by means of ‘mining’¹² activities. Crypto asset mining is mostly done by big companies or mining pools¹³ with expensive and specialised computing equipment. Crypto asset mining is not included in this specific use case, but will be addressed in use case five, which relates to market provisioning, in consequent consultation papers.

3.2 Payments using crypto assets

3.2.1 This use case was envisioned as the original purpose of crypto assets, namely providing users with an alternative to existing payment systems as described in the white paper on Bitcoin written by Satoshi Nakamoto.¹⁴ The whitepaper describes a purely peer-to-peer means of payment that allows parties to transact without the need for intermediation by a financial institution to execute online payments. Crypto assets are used to make payments,¹⁵ that is, exchange value between actors within the crypto assets user community. Crypto assets are thus used to buy or sell goods and services between transacting parties who accept such tokens as payment. They are used as a medium of exchange, with crypto assets as the store of value as opposed to using fiat currencies. The associated value of crypto assets is still largely tied

⁹ A variation of a crypto asset platform is a decentralised exchange. It uses an artificial intelligence (AI) system that is able to connect crypto asset traders electronically. These trades are done simultaneously through an atomic swap using a smart contract and without any intermediation from a third party.

¹⁰ The crypto asset vending machine allows the user to make a physical deposit or electronic deposit using fiat currency that is credited to a digital wallet. The operator of these machines acts as the counterparty to all transactions.


¹¹ A crypto asset digital wallet is defined as a software program with the ability to store private and public keys that are used to interact with various blockchain protocols that enable the user to send and receive crypto assets with the ability to monitor balances.

¹² Crypto mining is the process of solving complex problems to verify digital transactions using computer hardware. Miners can either create a crypto asset or get paid for the use of their processing power.
Source: www.luno.com

¹³ A network of computers to achieve the necessary computer powers.

¹⁴ <https://nakamotoinstitute.org/static/docs/bitcoin.pdf>

¹⁵ However, this value is not recognised as currency or legal tender in the majority of jurisdictions.




to fiat currency exchange rates, which attests to the fact that crypto assets have not yet been adopted as a unit of account.

3.2.2 Crypto assets challenge not only the process of how the movement of 'funds' get processed or verified (through, for example, 'proof of work' or 'proof of stake' protocols), but also how the underlying store of value is essentially disrupted. It is a decentralised-issued digital token, a perceived new representative store of value, issued by a collective set of unknown participants (i.e. not a single issuer). The token is not government decreed, not currency, not central bank money, not commercial bank money, but rather an online network-created perceived store of value.

3.2.3 In the absence of a legal and regulatory framework for South Africa, the acceptance of crypto assets for the payment of goods and services is currently at the discretion of consumers and willing merchants. Crypto assets are used for online purchases or purchases at physical stores. The majority of crypto payment transactions in South Africa use the crypto asset Bitcoin as the medium of exchange. Crypto assets are accepted at certain physical stores across a variety of industries in South Africa.¹⁶ For both physical and online transactions, the retailer usually displays a crypto asset logo, such as the Bitcoin-accepted logo, in their physical store or on their website. Local consumers can also make payments to international merchants using crypto assets, and South African merchants can accept crypto assets from international consumers. Where this is done for services provided (e.g. paying for website design services), everything can happen electronically. In such scenarios, no goods are exchanged and thus border customs control is not applied. Retailers often prefer to outsource the processing of transactions to accept crypto assets as payments. Some of these entities are referred to as 'payment processors' which are contracted to merchants to provide acceptance, settlement and reconciliation services.

¹⁶ At the time of writing the consultation paper, specific data for physical and online acceptance were not available.



3.2.4 Besides the use of crypto assets for the payment of goods and services, they could also be used for person-to-person credit transfers, such as remittances. Crypto assets have specifically made advances in positioning as a ‘money remittance’ alternative.


4. The risks and potential benefits of crypto assets

4.1 The generic risks posed by crypto assets

4.1.1 The risk with potentially the widest-ranging implications is the threat to central banks’ historical exclusive right to issue money and control the money supply, which ability has the benefit of ensuring an efficient monetary policy transmission mechanism. The risk posed by crypto assets to the monetary policy transmission mechanism is: should demand for crypto assets increase significantly, demand for fiat currency would decrease. In essence, this would lead to the creation of a parallel – and ultimately fragmented – monetary system.

- a. By way of illustration, it may be noted that the largest crypto assets by market capitalisation, Bitcoin, currently has a reward rate of 12.5 and a block time of 10 minutes. This means that 75 new bitcoins are mined every hour, or 1 800 bitcoins per day. At the current market value of around US\$6 500 per Bitcoin, this means that US\$11.7 million worth of new ‘money’ is introduced into the global financial system every day, or approximately US\$350 million per month.¹⁷ While this amount is significant, it is relatively much smaller in quantum from the global supply of fiat money. Compared to existing fiat currencies, the overall value of banknotes and coin in circulation is over US\$7.5 trillion, the global narrow money supply (banknotes and coin, including cheque account deposits) is US\$36.8 trillion, while the global broad money supply (banknotes and coin, cheque account deposits as well as money market accounts, saving


¹⁷ It should be noted that this figure excludes the approximately 2 000 alternative crypto assets in existence. This also excludes the incidence of hard forks, such as the split between Bitcoin and Bitcoin Cash, undermining the fixed supply of the protocol.



accounts and time deposits) is more than US\$90 trillion, making crypto assets still relatively immaterial compared to fiat currencies. The total trade of crypto assets in South Africa is estimated at less than 1% of the narrow money (M1) in South Africa.

Also, where only 180 fiat currencies are recognised by the United Nations, already more than 2 000 crypto assets are listed on the crypto asset tracking website, Coinmarketcap. However, by infringing upon central banks' exclusive right to issue money, although not legal tender, crypto assets can over time lead to the monetary policy transmission mechanism becoming less effective if they become widely adopted. Given that crypto assets will effectively be competing with fiat currencies, the concomitant question is whether traditional monetary policy will remain effective in a world that is not dominated exclusively by central bank money (He, 2018).

- b. The second risk posed by crypto assets pertains to financial stability. South Africa agrees with the FSB (Carney, 2018a), that the crypto assets market (with a total market capitalisation, at the time of writing this document, of around \$200 billion) does not currently pose a threat to financial stability. Although a total crypto assets market capitalisation of US\$1 trillion will still not be considered as systemic by South Africa, it is acknowledged that this figure represents an important psychological level which, once breached, may prompt greater regulatory scrutiny and subsequent action by policymakers and regulators globally. Although the total global market capitalisation of crypto assets is currently relatively small (or about 1.5% of the market capitalisation of the S&P 500 Index), the fact that the crypto market experienced a market capitalisation growth rate of 3 200% in 2017 has raised concerns about the unknown impact of crypto assets, particularly if there is wide-scale use and adoption of such assets. A further significant factor is that low amounts of selling and buying of crypto assets often result in large movements in price. Volatility is an indispensable part of the price discovery process of crypto assets. Currently, the demand and supply of crypto assets can be monitored, but no firm understanding of their intrinsic value exists (if any), noting




traditional valuation metrics such as a discounted cash flow model, among other things, all of which should be investigated further to assess market and liquidity risks as well as leveraged positions.

- c. The third pertinent risk is to the national payment system and, similar to the threat posed to monetary policy implementation, relates to the creation of a parallel – and ultimately fragmented – payment system. If the adoption and use of crypto assets remain at the relatively low levels currently observed, they are unlikely to pose a material threat to the national payment system. However, should they gain widespread adoption, crypto asset payments will essentially be competing directly with the national payment system, but without the same level of regulatory oversight. By way of an example, the estimated total value of crypto assets traded over a three-year period in South Africa is estimated at less than 4% of the approximate amount settled every day via the South African Multiple Option Settlement (SAMOS) system. This is not currently considered as a material value. On a global level, the share of crypto assets in global payment transactions is also low. For example, there are about 284 000 bitcoin transactions daily, compared to around 330 million retail payments in the euro area alone (ECB, 2018).¹⁸

4.1.2 While the three risks highlighted above seem unlikely to materialise at the current juncture, the risks related to crypto assets that are of immediate concern include the lack of consumer protection, possible misuse related to money laundering and terrorist financing, circumvention of exchange controls and the increase of undetected illicit financial flows, inaccurate balance of payments data, illicit purchases (stemming from the anonymity or pseudonymity associated with crypto assets), tax evasion, and the lack of market integrity. Unlike the risks related to monetary policy, the national payment system and financial stability, these risks have already materialised, and therefore require a regulatory response by South African authorities.

¹⁸ Virtual or virtueless? The evolution of money in the digital age. Lecture by Yves Mersch, Member of the Executive Board of the ECB, Official Monetary and Financial Institutions Forum, London, 8 February 2018. <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180208.en.html>




Further to this, as the price of crypto assets has increased, the number of customers as well as the values traded in South Africa have grown significantly over the past three years. These risks and the proposed regulatory actions to negate them are addressed under the policy proposals on the way forward detailed in section eight. The proposed regulatory actions, therefore, specifically aim to address the existing risks that have already materialised, with the articulation of regulatory responses for the risks that are yet to materialise being deferred until such time that they are more likely to materialise.

4.2 The specific risks posed by crypto assets in the use cases identified

4.2.1 Purchasing and selling crypto assets

4.2.1.1 In the case of purchasing crypto assets, there are currently no regulatory requirements for customers to be identified. Hence, when purchasing crypto assets, the risks of clients conducting money laundering or terrorist financing activities, circumventing exchange controls and masking illicit financial flows are potentially high. Although some crypto asset sellers, such as trading platforms, have implemented client identification and verification (due diligence) processes, this is not a generic or standard process for all sellers of crypto assets. It is currently at the discretion of the crypto asset trading platform to implement such measures. A further risk is the tracking of the flow of funds which is separate from the current monitoring activities of the financial system and regulators.

4.2.1.2 Consumers are left vulnerable as sellers of crypto assets are not regulated. Therefore, no specified rules exist to protect them or provide customer resolution mechanisms (e.g. for disputes). Various incidents have been reported of crypto asset trading platforms being hacked and consumers losing their funds. Fraud could also be committed through accounting practices on internal financial systems, as some transactions occur off the blockchain according to the trading platforms' processes. Crypto asset trading platforms and other crypto asset sellers may not have sufficient mechanisms to guard




against fraud and hacking incidents. Consumers are seldom sufficiently informed of the risk of crypto assets and the losses that can be incurred as a result of investing and trading in crypto assets. There is no regulation or independent oversight to ensure that prices, and the fees and charges involved in buying and selling crypto assets, are set fairly and transparently. Users with large holdings of crypto assets have exploited the market with market manipulation tactics whereby hype is created around specific crypto assets. This artificially increases prices and subsequently the crypto assets are sold in masses after significant profits have been made by these users.

4.2.1.3 Crypto asset sellers may wish to buy crypto assets from international providers for the purpose of market making (i.e. creating liquidity in the South African market). For a company, the Currency and Exchanges Manual for Authorised Dealers does not allow cross-border/foreign exchange transfers for the explicit purpose of purchasing crypto assets, since crypto assets are not officially recognised as legal tender in South Africa, nor have they officially been allocated to a specific asset class. These crypto asset sellers are left to find alternative measures to buy or obtain crypto assets. The underlying risk is that companies are forced to come up with inventive means to acquire crypto assets, which measures may not hold up to regulatory compliance. The South African authorities are thus exposed to incomplete information on the flow of funds or the movement of capital.

4.2.2 Payments using crypto assets


4.2.2.1 The non-objection of crypto assets by regulators as a means of payment for the purchase of goods and services (with or without a defined regulatory regime), will imply the acceptance of multiple new decentralised stores of value, different from 'fiat'. Although the shifts to such crypto assets are still negligible, larger shifts away from traditional deposits at banks to these decentralised stores of value may reduce a stable source of deposits for banks, which banks generally use to augment their balance sheets in the intermediation process. The creation of competing stores of value may thus



have negative network effects. If these shifts occur to crypto asset trading platforms that are not locally based, these impacts may be greater. These crypto asset wallets and related stores of tokenised value would thus be different from commercial or central bank money, yet perform the same function as deposits reserved for payment purposes. Participants wanting to offer payment services could simply shift funds to crypto assets and then offer payment services, without the need to comply with any regulatory requirements applied to fiat stores of value for payment purposes. Consequently, the rules and requirements of current payment systems are unjustifiably circumvented due to the alternative payment system being used.

4.2.2.2 Alternate crypto asset payment systems will imply the creation of parallel closed loop payment systems. These payment systems will conceptually result in closed 'three-party payment systems'. Merchants will have to be contracted for multiple crypto asset wallets, potentially under various schemes. Consumers will equally have to sign up for each of these schemes. These competing schemes will likely not be interoperable. This could potentially not be efficient for the system as a whole and may result in the inefficient allocation of resources at the system or national level. Allowing these new competing crypto asset payment systems may result in transactions moving away from current national payment systems. If these shifts happen on a large scale, this may reduce the efficiency of existing national payment systems.

4.2.2.3 Crypto assets are currently not widely accepted as a means of payment by merchants or retailers. They have equally battled to be accepted as a means of exchange among users. By allowing crypto assets within the regulatory ambit, their perceived value will increase. Crypto-proponents potentially require this regulatory intervention in order for crypto assets to move beyond being instruments of speculative investments to their initial intended purpose – a medium of exchange. Regulators thus need to reflect carefully on the appropriateness of regulatory intervention and review the unintended consequences. Accommodative regulatory intervention will create the potential market perception of regulatory acceptance or the endorsement of such instruments.



4.2.2.4 No consumer protection exists for payments in crypto assets, and it is unclear whether payments can be reversed in cases of errors, overpayment or even fraud. There is an increasing risk of payments being used to fund criminal activities (e.g. increasing ransomware attacks where ransom payment is made in crypto assets to avoid detection).

4.3 The potential benefits of crypto assets in the two use cases identified

4.3.1 Customers purchasing crypto assets could seek to diversify their investment portfolio to an asset class that is not necessarily related to specific country risk. The anonymity with purchasing crypto assets is appealing to some users who wish not to be identified. As more crypto asset sellers are able to offer crypto assets locally, the premium paid might be reduced. Market making may potentially increase the supply of (and the demand for) crypto assets in South Africa, and thereby decrease the premium being paid on the international crypto assets price in South Africa.

4.3.2 The holders of crypto assets are able to participate in an alternative market offering (e.g. specialised products/services where the provider only accepts crypto assets), that is. accepting crypto assets as a medium of exchange. Although the potential benefits of crypto assets that are related to lower transactional costs, greater speed and enhanced security of transactions are often touted, actual use cases thus far are yet to demonstrate that crypto assets payments are consistently faster, safer and cheaper than existing options. While South Africa does not refute the potential to increase financial inclusion both within the country and on the broader African continent, current evidence suggests that such benefits are unlikely to be realised over the short to medium term.

5. Developing a regulatory response to crypto assets in South Africa

5.1 Challenges regarding regulating crypto assets

5.1.1 One of the most pertinent reasons why crypto assets are challenging to regulate is because they operate at a global level and could potentially be classified under various economic functions. As a result, responsibility for regulation often cuts across various different regulators and national jurisdictions (He et al, 2016). The danger of a fragmented international regulatory approach and national authorities reacting with varying degrees of regulatory stringency is that crypto asset-related activities will naturally migrate toward jurisdictions that are regulated less stringently in a ‘race to the bottom’ – because crypto assets are borderless. A coordinated global approach is, therefore, vital (Lagarde, 2018a). Similarly, if there is no coherent regulatory approach at a national level, regulatory arbitrage could challenge the effectiveness of regulatory actions. Crypto assets are borderless and their pseudonymous and anonymous nature increases the difficulty of implementing the correct regulatory and monitoring tools.

5.2 Approaches available to regulate crypto assets

5.2.1 The most fundamental question in defining the most appropriate regulatory approach is deciding whether crypto assets require completely new regulation; if they should be regulated in line with existing regulations; or if existing mechanisms should be refined to bring crypto assets into the regulatory ambit (EBA, 2014). There are accordingly two broad approaches to regulating crypto assets (Enria, 2018):

- a. The first approach refers to regulating and restricting new products according to existing regulations, and may in some instances even entail outright banning. Under this approach, innovators are obliged to adapt to the prevailing regulatory environment.

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- b. The second approach assumes a ‘let-things-happen’ approach, described by the Commodity Futures Trading Commission (CFTC) as the ‘do-not-harm’ approach (Giancarlo, 2018), where the financial sector is viewed as dynamic and the concomitant need to innovate is strongly emphasised. The do-not-harm approach is highly cognisant of not letting overregulation stifle innovation, and supports finding the optimal balance between innovation, the concomitant risks and the wider safety of the financial system (He et al., 2016).

5.2.2 These two broad approaches are at opposite ends of the crypto assets regulatory continuum. While the do-not-harm approach encourages innovation, it allows for the build-up of risk in the unregulated sector. Similarly, the apparent inability of regulation to keep pace with innovation impairs regulators’ ability to craft an appropriately agile regulatory framework (Enria, 2018). Regardless of the broad approach followed, reputational risk is a relevant risk regulators stand to incur should the selected regulatory approach fail, followed by the risk that doing nothing may compromise the integrity and viability of regulated financial institutions (EBA, 2014).

5.2.3 Building on these two broad regulatory approaches, Lansky (2018) provides a useful scoring system to classify approaches to regulating crypto assets, rating countries’ approaches on a scale of 0 to 5, with 0 denoting ‘ignoring’ and 5 denoting either a full or partial ban, or integration. Table 1 below is based on Lansky’s scoring system, with Carney (2018b) agreeing that authorities essentially need to decide whether to isolate, regulate or integrate crypto assets and their associated activities.

Table 1: Matrix for classifying approaches to regulating crypto assets

Level	Description of level	No. of countries at this level
Level 0: Ignoring	The government does not pay attention to the existence of crypto assets.	150 countries
Level 1: Monitoring	An official body has released a statement recognising the existence of crypto assets, but no approach to dealing with crypto assets has been defined.	3 countries
Level 2: Recommendation	An official body has released a statement proposing an approach to deal with crypto assets.	25 countries
Level 3: Guidance	An official body has issued guidance to govern the use of crypto assets.	5 countries
Level 4: Regulation	Predefined conditions exist which, once complied with, could lead to formal authorisation to provide crypto assets-related products and services.	3 countries
Level 5: Ban or integration (definitive legislation)	A complete or partial prohibition or adoption of crypto assets. A ban may be implemented via different forms, including banning banks from supporting activities related to crypto assets and a complete ban on all institutions and individuals.	11 countries


Adapted from Lansky, 2018

5.3 Suggested regulatory approach to crypto assets in South Africa

- 5.3.1 Following the publication of the SARB's 2014 position paper on crypto assets and SARS's statement on the treatment of crypto assets for tax purposes,¹⁹ South Africa was classified as Level 2, as recommendations were made by official bodies.
- 5.3.2 Given the related risk in crypto assets, it is proposed that South Africa moves to a higher level in 2019. In order to achieve anti-money laundering/combating the financing of terrorism (AML/CFT) requirements, more specific requirements will be necessary in line with the recent amendments to the Financial Action Task Force (FATF) Recommendations.²⁰ This regulatory approach will not exactly fit into the model created by Lansky, but a new level is proposed between levels 3 and 4, namely 'limited regulation'. At this proposed level, an official body places specific requirements on providers of certain services in respect of crypto assets, without setting predefined conditions for formal authorisation to provide crypto assets-related products or services. Therefore, in terms of the proposed level, the FIC will include crypto assets service providers as an accountable institution and, as such, the accountable institutions will be under legal obligation to comply with AML/CFT requirements in the FIC Act. However, the FIC does not set predefined conditions or market entry requirements for such business – therefore, South Africa will fall under a 'limited regulatory' framework.

¹⁹ Available [here](#).

²⁰ <http://www.fatf-gafi.org/publications/fatfrecommendations/documents/regulation-virtual-assets.html>. It is noted that during October 2018, the FATF adopted changes to the FATF Recommendations and Glossary that clarify how the Recommendations apply in the case of financial activities involving virtual assets. These changes add to the Glossary new definitions of 'virtual assets' and 'virtual asset service providers' – such as exchanges, certain types of wallet providers, and providers of financial services for issuers' offers and/or sale of crypto assets. As a result of these changes, jurisdictions, including South Africa, have to ensure that crypto asset service providers are subject to FATF requirements that are aimed at combatting money laundering and terrorist financing, for example, conducting customer due diligence, including ongoing monitoring, record-keeping and reporting of suspicious transactions. Crypto asset providers that fall within the FATF's definition of 'virtual asset service providers' is proposed to be registered and subject to monitoring to ensure compliance with these requirements.



5.3.3 The decision to further move to levels 4 and 5 will be considered pending developments in the crypto asset environment and further clarity on the regulatory fit of specific crypto asset activities. South Africa thus proposes a phased and dynamic approach to progress between levels.

5.3.4 South Africa does not currently intend to ban the buying, selling or holding of crypto assets, or to ban crypto assets for payments. However, because crypto assets are not recognised as a currency, customers may be exposed to harm in an unregulated environment. The decision not to ban the use of crypto assets is, however, based on the existing landscape and current levels of adoption, acceptance and use. South African authorities, therefore, reserve the right to amend their policy stance should crypto assets pose a material risk to their respective regulatory mandates.


6. Objectives for regulating crypto assets

6.1 The IFWG and Crypto Assets Regulatory Working Group agreed on the following objectives for a crypto assets regulatory framework:


- a. Ensure the safety and efficiency of the financial system and financial institutions.
- b. Ensure consumer and investor protection.
- c. Minimise opportunities for regulatory arbitrage.
- d. Combat the circumvention of exchange control rules and regulations.
- e. Combat illicit financial flows, money laundering and the financing of terrorism.
- f. Combat tax evasion and impermissible tax avoidance arrangements.
- g. Support financial inclusion efforts and the advancement of technological innovation in a responsible and balanced manner.

7. Principles for regulating crypto assets

7.1 The regulatory response by South Africa to crypto assets will be undertaken in line with the principles stipulated below.


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- a. **Risk-based approach:** Regulatory actions will be undertaken in a manner and intensity that are commensurate with the level of risks posed while balancing potential benefits, also taking into account developments and requirements of relevant standard-setting bodies. The South African authorities do, however, reiterate their responsibility to the safety, stability and integrity of the wider financial system given the societal benefits associated with ensuring such stability and integrity.
 - b. **Technology neutral and primarily principles-based:** In general terms, principles-based regulation means moving away from reliance on detailed, prescriptive rules and relying more on high-level, broadly stated principles. The term 'principles' can be used to refer to general requirements and express the fundamental obligations that all users should observe.²¹ Principles can be supported by more detailed regulatory rules and standards, where appropriate. The regulatory framework should also be based on the specific activity or function performed, rather than the specific entity or the type of technology used. The principle imperative is applied to the activity with the support of regulatory rules and standards.
 - c. **Unified regulatory approach:** The regulatory approach adopted should be a joint determination by all regulatory authorities impacted. This paper aims to ensure clear and consistent regulatory treatment by relevant South African regulatory authorities, taking cognisance of international approaches.
 - i. **Resilient and adaptive:** All future amendments, guidance or new legislation should be able to cope with rapid changes in this environment.

²¹ J Black, M Hopper and C Band, 'Making a success of principles-based regulation', *Law and Financial Markets Review*, 2007.

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- ii. **Phased approach:** A phased approach should be followed, where the regulatory treatment is timeously assessed before increased stringent regulatory requirements are imposed.

8. Proposals for regulatory actions for crypto assets

- 8.1 It is envisaged that the proposals will be implemented as appropriate by the relevant and respective South African regulatory authorities, and operationalised through the issuing of policy instruments. The proposals are as follows:
- 8.2 It is recommended that crypto assets remain without legal tender status and are not recognised as electronic money either.
- 8.3 It is proposed that an appropriate regulatory framework is developed through three phases:
 - a. Phase 1: Registration process for crypto asset service providers.
 - b. Phase 2: Review of existing regulatory frameworks followed by new regulatory requirements or amendments to existing regulations.
 - c. Phase 3: Assessment of regulatory actions implemented.
- 8.4 A useful starting point for regulatory intervention at this stage is through registration. The objective of the registration process is to specifically gain further insights from the market participants. South African authorities propose to implement the registration requirements for crypto asset service providers, as defined below in paragraph 8.7. The phased approach, starting with the registration requirement, could lead to formal authorisation and designation as a registered/licensed provider for crypto asset services operating in South Africa at a later stage. The details of the registration process will be set out in a policy paper to be published by the SARB in 2019. This first phase is expected to be implemented by first quarter of 2019 and the subsequent phases will follow thereafter.

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- 8.5 Following registration, in the second phase, authorities will assess whether crypto asset activities could fit into existing regulatory frameworks. Where no legal authority or mandate exists for certain crypto assets-related activities, the regulatory framework will be assessed to determine what amendments are required to bring the relevant activity into the supervisory ambit. Should it be impractical to amend existing regulations appropriately, new regulations can be drafted. The specific framework, the legislative amendments required, the supervisory approach, the services covered and the level of protection afforded will be addressed in this phase. Insights will be drawn from the approach taken regarding AML/CFT requirements, ensuring consistency in regulatory consideration.
- 8.6 A final phase will assess the effectiveness of the regulatory actions that were implemented and if the regulatory actions meet the intended objectives.
- 8.7 Registration is required for all entities performing the following crypto asset activities:
- a. Crypto asset trading platforms (or any other entity facilitating crypto asset transactions)
 - i. Provide intermediary services for the buying and selling crypto assets, including through the use of crypto asset vending machine facilities.
 - ii. Trading, conversion or exchange of fiat currency or other value into crypto assets.
 - iii. Trading, conversion or exchange of crypto assets into fiat currency or other value.
 - iv. Trading, conversion or exchange of crypto assets into other crypto assets.
 - b. Crypto asset digital wallet providers (custodial wallets)

- i. Entity offering a software program with the ability to store private²² and public keys²³ that are used to interact with various digital protocols that enable the user to send and receive crypto assets with the ability to monitor balances.
- c. Crypto asset safe custody service providers (custodial services)
 - i. Safeguarding, storing, holding or maintaining custody of crypto assets belonging to another party.
- d. Crypto asset payment service providers
 - i. All payment services provided when using crypto assets as a medium of exchange


8.8 It is recommended that the following entities are registered at a central point, as stipulated by the Crypto Assets Regulatory Working Group of the IFWG:

- a. Crypto asset trading platforms, and vending machine owners and providers.
- b. Crypto asset digital wallet providers.
- c. Crypto asset safe custody service providers (custodians).
- d. Crypto asset payment service providers.
- e. Merchants and service providers accepting payments in crypto assets.

8.9 It is recommended that crypto asset service providers be required to comply with AML/CFT provisions of the Financial Intelligence Centre Act 38 Of 2001 (FIC Act). These provisions would, among other things, require crypto asset service providers to meet the following obligations:

²² A private key is a secret number, usually a 256 bit encryption technique number, which the holder keeps securely to allow spending (outbound).

²³ A public key is a cryptographic code or number that allows a user to receive crypto assets into his account (inbound). This code is mathematically derived from the allocated private key.

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- a. It is recommended that all crypto asset service providers register with the FIC; conduct customer due diligence, including ongoing monitoring; keep records; and file reports on suspicious and unusual transactions, cash transactions of R25 000.00 and above and of control of property that is linked to terrorist activity or terrorist organisations.
 - b. Institutions that are subject to the requirements of the FIC Act must apply a risk-based approach in their implementation of measures to meet these requirements. This includes the ability to distinguish between different categories of risk and to apply enhanced customer due diligence where business with customers is deemed as higher risk and simplified customer due diligence where business with customers is deemed as lower risk.
 - c. South Africa further proposes that compliance by crypto asset service providers with obligations pursuant to the FIC Act be monitored and that remedial actions be required of crypto asset service providers that fail to meet these requirements. In egregious cases of non-compliance with these requirements or in cases where remedial actions do not have the desired effect of improving compliance with the relevant requirements, administrative sanctions may be imposed.

8.10 South Africa proposes to continue monitoring crypto assets through the Crypto Assets Regulatory Working Group and to define the specific focus of crypto assets monitoring as follows:

- a. Monitoring the overall market capitalisation of crypto assets: As mentioned earlier, a total global crypto assets market capitalisation of US\$1 trillion will not be considered as systemic by South Africa, but this will be the first level that could indicate potential significance. However, South Africa reiterates its intention to be proactive with regard to crypto assets, and will not wait until this level is reached before it starts preparing for the possible eventuality of crypto assets achieving systemic significance in future.


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- b. Monitoring crypto asset trading platforms domiciled in South Africa through reporting: This will be done by monitoring issues including, but not limited to, the flow of funds from fiat into crypto and vice versa, functions performed, services offered, crypto assets trading volume, crypto assets traded, number of customers, insurance obtained, governance mechanisms, and record-keeping of transactions. This will include monitoring the volume and value of off-chain transactions performed within the platform, and on-chain transactions where crypto asset transactions involve counterparties not affiliated with the exchange.
 - c. Monitoring the crypto asset payment service providers and the number of merchants/retailers accepting crypto assets as payment both in South Africa and internationally.
 - d. Monitoring the volume of crypto assets bought and sold via crypto asset vending machines.

8.11 South African regulatory authorities propose not to impose market entry conditions for registered entities at this stage.

9. Conclusion and the way forward

9.1 This consultation paper sets out proposals for a policy and regulatory response to crypto asset activities related to two identified use cases. Subsequent to the first consultation initiative through an industry workshop, the paper will be released for broader public comment. Upon conclusion of the consultation phase, the regulatory authorities will specify the way forward through a policy instrument such as a guidance note or position paper aimed for first quarter of 2019. The remaining use cases will follow a similar approach for review and through engagement with the industry.

9.2 The IFWG and Crypto Assets Regulatory Working Group is of the view that regulatory action should not be delayed until the most appropriate regulatory approach has become clear, but to rather act and amend as innovation



evolves. The IFWG is further of the view that, for innovation to thrive, it does not necessarily mean that lax or even no regulation should be implemented (Carney, 2018b, Werbach, 2017). “We must begin to consider the regulatory framework of the future.” (Lagarde, 2018a, p 10).

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Annexure A: What is money, and are crypto assets money?

In defining its policy stance on crypto assets, South Africa further considered the three fundamental questions of (i) what is money; (ii) who issues it; and (iii) who has the right to issue it? As a departure point for answering these questions, South Africa first considered what crypto assets are not. To this end, South Africa considered the South African Reserve Bank's (2018) definition of legal tender:

Legal tender refers to banknotes or coin that may be legally offered in payment of an obligation and that a creditor is obliged to accept.

Of most significance in the above definition is the fact that creditors are obliged to accept legal tender. Based on this definition, South Africa, like various other countries,²⁴ reiterates that crypto assets are not legal tender in South Africa. However, it is highlighted that although crypto assets are not legal tender in South Africa, there currently exists no prohibition preventing crypto assets from being accepted as a means of payment.

Arguments accordingly abound as to why crypto assets do not satisfy the three criteria for 'money'²⁵ as first identified by Jevons (1875), namely the need to serve as a (i) store of value;²⁶ (ii) medium of exchange;²⁷ and (iii) unit of account.²⁸ South Africa broadly agrees with this position, but qualifies its stance by noting that crypto assets do not currently adequately satisfy the three definitional criteria of money: crypto assets might not be a particularly good or stable store of value, but they are a store of value nonetheless. Similarly, in selected circles, crypto assets are accepted as a medium of exchange, while the largest crypto assets by market capitalisation, Bitcoin, is widely used to price other crypto assets.


²⁴ See, for example, Weidmann (2018), Poloz (2017; 2018), Wilkins (2017; 2018), Carney (2018a, 2018b), Weidmann (2018).

²⁵ See, for example, Bank of France (2018), Poloz (2017, 2018), Panetta (2018) and Wilkins (2018).

²⁶ A store of value means that the instrument must hold its value over time so that people can save it and use it at a later stage, thus allowing them to smooth their consumption over time (IMF, 2018).

²⁷ A medium of exchange means the instrument must be accepted as payment for goods and services (IMF, 2018).

²⁸ A unit of account means that the instrument provides a common base for the setting of prices (IMF, 2018).



With regard to the extent to which crypto assets function as a medium of exchange, the issue is more nuanced. Fundamentally, money is a social convention that is accepted by people in the hope – or trust – that others will do so too (Carney, 2018b, Carstens, 2018). South Africa extends this view of money as a social concept to crypto assets, highlighting Nobel Prize laureate Professor Robert Shiller’s (2018) observation that Bitcoin is a social phenomenon, and echoes sentiments that the crypto assets phenomenon is as much a social one as a technological one.²⁹ Should a particular group of people – termed a society – be willing to offer and accept a particular item as a medium of exchange, that item will essentially become a currency or medium of exchange within that society. With crypto assets, however, the society within which a particular crypto asset could gain prevalence is likely to be dispersed across the globe. In this regard, South Africa maintains that the extent to which crypto assets will become widely accepted as a medium of exchange within the wider, global society still remains to be seen.

South Africa is therefore of the view that crypto assets do not constitute money as per the traditional definition of the word, but may at times perform certain functions akin to those of money, albeit imperfectly so at the current conjuncture. Crypto assets may also function as securities, assets or commodities, and the regulatory challenges associated with this cross-cutting nature are accordingly considered and clarified in this paper.

²⁹ See Reijers and Coeckelbergh (2016) for a more detailed discussion on the social aspect of crypto assets.