

#### Overview

Over the last five or more years, the JSE has, at various stages, been approached by a range of institutions to accommodate the listing and regulation of crypto asset referenced ETPs, investment holding companies exposed to crypto currency and other instruments. Similarly to many other global jurisdictions, the JSE expressed concerns regarding the effective regulation of these types of instruments and the ultimate protection of investor interests. The concerns revolved around excessive price movements, potential market manipulation, cyber-attacks on underlying crypto asset holdings and an uncertain regulatory framework for crypto assets. In addition, the Intergovernmental Fintech Working Group ("IFWG") released a position paper on crypto assets, which included the recommended actions needed to regulate crypto assets in June 2021. In particular, the position paper recommended that the issuing and listing of derivative instruments or other securities that reference crypto assets as the underlying asset should not be permitted until further notice ("Recommendation 23").

The JSE had, in the interim, conducted research in order to formulate a more comprehensive understanding of crypto asset regulation across the globe, the concerns with crypto assets and potential solutions to address these. The draft requirements that were formulated were based on the most prudent approaches adopted by other international regulators, including the following:

- From the Australian Securities and Investments Commission Information Sheet 225 and the
  Australian Stock Exchange amendments to the requirements, we incorporated the rules regarding
  what must be considered before a crypto asset can be approved and the requirement for the price
  of the crypto asset to be based on an index rather than a single exchange.
- From the London Stock Exchange factsheet for exchange traded notes ("ETN"), we incorporated the principle of cold storage or suitable other arrangements for the holding of crypto assets, the requirement for the price of the crypto asset to be based multiple sources and the requirement for the custodian to be regulated by AML regulation.

We are therefore of the view that the draft requirements are the most transparent and vigilant requirements in comparison to our international peers. A summary of the research that we found is included in **Annexure A**.

In March 2025, the IFWG provided an update on the implementation of the recommendations in the 2021 position paper ("2025 update"). This included an update on Recommendation 23, which required licensed exchanges to ensure that their rules and listing requirements make provision for the listing of securities that reference crypto assets and satisfy the FSCA that any proposed rules or listing requirements adequately address relevant risks before a listing can be approved.

The steps taken to mitigate these risks are presented below:

	Risk identified in the 2025 update	Provisions to mitigate this risk		
1.	Whether an orderly market in the underlying crypto asset with transparent price discovery in any primary and/or secondary market in any type of crypto asset securities could be established. It is a prerequisite for a fair, efficient and transparent market in any derivative that, as a minimum, there is sufficient confidence in the integrity of the market in the underlying reference asset.	The relevant crypto asset requires pre-approval by the JSE before it can be tracked or referenced by an ETN or ETF. Part of the pre-approval process is to ensure that the relevant crypto asset meets certain minimum requirements. This includes:  • A high level of institutional support and acceptance internationally of the crypto asset;  • Reputable and experienced service providers (including market makers and index providers) are available and willing to the support the ETN/ETF that will provide exposure to the crypto asset;  • A mature spot market for the crypto asset exists;  • A regulated futures market for trading derivatives linked to the crypto asset exists;  • Robust and transparent pricing mechanisms for the crypto asset are available, both throughout the trading day and to determine a NAV at end of day. This criterion can only be met if an index is available on the crypto asset and is calculated by an index provider that complies with either the EU Benchmark Regulations or the IOSCO Principles for financial benchmarks; and  • The index being used to determine the price of the crypto asset is subject to certain minimum criteria as well (see point 2 below).  The above criteria should provide for sufficient confidence in the integrity of the market in the underlying crypto asset.		
2.	How any significant price movements in the underlying crypto asset could be monitored and investigated should they occur. In order to properly discharge their market abuse responsibilities pursuant to the Financial Markets Act, the exchanges must consider whether, and the extent to which, the underlying market in crypto assets is susceptible to market manipulation. There is a general view internationally that the spot market in crypto assets is	In the proposed requirements, the price of the underlying crypto asset can only be determined with reference to an index, calculated by an index provider that complies with either the EU Benchmark Regulations or the IOSCO Principles for financial benchmarks. There are also the following specific requirements for the index rules:  1. The index must provide for an appropriate determination of the reference price for the spot crypto asset(s), including the inclusion of multiple eligible CASPs when determining or selecting the reference price; and 2. Only centralized crypto asset service providers, as defined in the Financial Intelligence Centre Act, CASPs with transparent ownership and management are included in or considered for the index;		

vulnerable to market manipulation

due to its proliferation across many 3. Each CASP must comply with applicable laws and regulations, different platforms, most of which including but not limited to, KYC and AML regulations; are unregulated and not subject to 4. Each CASP must be of a pre-determined size and liquidity; any meaningful oversight. 5. Each CASP must have transparent, reliable, real-time data and price discovery of the crypto asset(s) available; 6. Each CASP makes provision for the surveillance of manipulative trading practices and erroneous transactions; 7. Each CASP evidences a robust IT infrastructure protecting the operation of the CASP and the trading activity which includes business continuity, cyber security and disaster recovery systems; 8. CASPs on third party sanctions lists are excluded; 9. The possible removal of a CASP that has founded accusations of fraud or criminal charges against the CASP or leadership team; and 10. The possible removal of a CASP that has had a meaningful security lapse or breach in the last 12 months which resulted in the loss of client or CASP funds. The use of an index to determine the price and the inclusion of specific requirements for the rules of index have therefore been designed to minimize the risk of manipulation of the reference price. How crypto assets could safely be The proposed requirements stipulate that for ETFs a minimum of 90% held in custody so that they could of the crypto assets must be held in either (i) cold storage, meaning not be hacked. that it must be held in an offline depository wallet and includes cold staking (being a method employed in proof-of-stake blockchain networks to ensure that the private keys of the staked tokens remain undisclosed to the online network) or (ii) in holding arrangements that achieve an equivalent outcome to cold storage, as confirmed by an suitably qualified third party. In addition, Limiting the crypto assets that are available in 'hot' wallets or online therefore reduces the possibility that the crypto assets will be hacked. The secondary market risks relating to crypto ETP's are market 4. How the exchanges could obtain sufficient information in relation to manipulation and suitability. Both ETFs and ETNs can only reference the trading of the underlying assets the price of a crypto asset that is based on an index. The use of an to enable the exchanges to fulfil index that is provided by index providers who are required to comply their own mandates to ensure an with international standards when determining their benchmarks orderly market in the listed should mitigate most of the market manipulation risk. The index derivatives securities. provider must monitor the underlying exchanges in order to determine if these should be removed from their approved exchanges. In addition, settlement of the ETFs and ETNs can only take place in cash.

Normal market surveillance procedures will be applied to monitor trading in ETNs and ETFs referencing crypto assets. There would need to be collaboration with IOSCO counterparts if there are concerns about manipulation of the ETN or ETF price through activity in the spot crypto or crypto derivatives markets, as with all other foreign-referenced products.

Authorised users who provide advice or make investment decisions on ETFs and ETNs referencing crypto assets will be subject to the existing KYC rules for example, needs analysis and risk profile. The JSE Rules will be amended to require clients to provide prior consent before authorised user exercises discretion to purchase ETFs and ETNs referencing crypto assets.

In light of the discussions with various market participants and the 2025 update, the JSE would like to propose amendments to the DSS Requirements, as summarised in the table below. The amendments will allow issuers of exchange traded notes ("ETN") and exchange traded funds ("ETF") (excluding actively managed exchange traded funds) to reference spot crypto assets directly or indirectly, wholly or partially.

It should be noted that the definition of a "**crypto asset**" refers to the definition as per the Financial Advisory and Intermediary Services Act, 2002. For your ease of reference, this definition has been extracted below:

"Crypto asset means a digital representation of value that is not issued by a central bank, but is capable of being traded, transferred or stored electronically by natural and legal persons for the purposes of payment, investment and other forms of utility; applies cryptographic techniques and uses distributed ledger technology. This definition is also included in the proposed amendments."

With reference to the Amendment Schedule, the following sections are impacted:

	Section	Item
1	Definitions	
1.1		Various new and amended definitions in relation to the crypto asset requirements were included.  Please refer to the inclusions and/or amendments in the definitions section.
2	Section 3: Conditions of Listing	
2.1		Specialist Securities  Part C will be amended to detail the specific initial listings requirements for issuers of exchange traded notes and exchange traded funds (excluding actively managed)

		exchanged traded funds) that will reference spot crypto asset(s) directly or indirectly, partially or wholly.
		This includes the requirement for the crypto asset to be previously approved by the JSE and the requirements for the crypto asset index that will be referenced. It should be noted that these minimum listing criteria are in addition to the normal listing criteria required for an ETN or a commodity ETF.
3	Section 4: Listing Particulars	
3.1		Specialist Securities  Part C will be amended to detail the specific information that
		must be disclosed by issuers of exchange traded notes and exchange traded funds (excluding actively managed exchanged traded funds) that will reference spot crypto asset(s) directly or indirectly, partially or wholly.
		This includes the disclosure requirements for an ETF or ETN referencing crypto assets such as information about the index, holding and custody requirements for ETFs, risks specific to crypto assets, etc. It should be noted that this disclosure must be provided in addition to the usual disclosures required for an ETF or ETN.
	Section 6: Continuing Obligations	
6.1		Specialist Securities  Part C will be amended to detail the continuing obligations that issuers of exchange traded notes and exchange traded funds (excluding actively managed exchanged traded funds) referencing spot crypto asset(s) directly or indirectly, partially or wholly must comply with.
		This includes the provision of the annual audit report by the ETF if arrangements other than cold storage are utilised and scenarios where the JSE may consider suspending the ETF or ETN when the crypto asset index no longer complies with the requirements or is discontinued.
	Section 8: The Listing Process	
8.1		Paragraph 8.3 will be amended to include the submission audit report by the ETF if arrangements other than cold storage are utilised.

\* Please refer to the marked-up amendments in the Amendment Schedule.

Annexure A

The JSE research focused on the USA, UK, EU, Canada, Australia, Singapore and Japan.

#### 1. US

Regulation in the US was very fragmented and there were often overlaps between the Securities and Exchange Commission ("SEC") and Commodity Futures Trading Commission ("CFTC"). The SEC approved the listing of ETFs referencing Bitcoin and Etherium in Q1 2024. The exchanges on which these listed did not amend any of their listing requirements. The ETFs are regarded as securities and the normal regulation is applied. Three new crypto relates bills have recently been passed in 2025:

- The Digital Asset Market Structure Clarity Act of 2025 which creates a clear framework for federal agency oversight of digital assets including providing clarity on jurisdiction by each regulator. The SEC will regulate digital assets that qualify as securities or are offered as part of an investment contract (using the Howey test). The CFTC will oversee digital commodities (e.g., Bitcoin, Ethereum, utility tokens) that are not tied to an investment program.
- The Guaranteeing Essential National Infrastructure in US-Stablecoins Act of 2025 ("Genius Act") provides comprehensive legislation on stablecoins.
- The Anti-CBDC Surveillance State Act of 2025 which prohibits a Federal Reserve bank from offering
  products or services directly to an individual, maintaining an account on behalf of an individual, or
  issuing a central bank digital currency.

#### 2. EU

In the EU, the Market in Crypto Asset Regulation was effective from June 2024, with regulation for Crypto Asset Service Providers effective from 30 December 2024. ETPs referencing crypto assets are listed in a number of EU countries for example Switzerland (SIX) and Germany (Deutsche Bourse). SIX introduced new rules to enhance investor protection and ensure that crypto asset collateral is held with prudentially supervised custodians. Deutsche Bourse did not make any changes to the listing requirements. They do however have a list of 26 eligible crypto assets.

#### 3. UK

The Financial Conduct Authority imposed a ban on the marketing, sales and distribution of crypto currencies to retail investors in 2020. The Financial Services and Markets Act was amended on 23 June2023 to recognize crypto assets as a financial instrument. The LSE amended their listing requirements to provide for Exchange Traded Notes referencing crypto assets. The LSE issued a listing factsheet which stipulates, *inter alia*:

- Only Bitcoin and Ethereum are allowed as underlying crypto assets.
- The ETNs must be physically backed i.e. non-leveraged.

- The ETN must have a market price or other value measure of the underlying that is reliable and publicly available, sourced from a diverse range of pricing sources. A single source is not sufficient unless the single source is an index which itself is comprised of multiple pricing sources.
- The underlying crypto asset must be held wholly or principally in "cold storage", which includes coldstaking, or subject to arrangements that achieve an equivalent outcome to cold storage.
- The Underlying crypto assets must be held by custodians that are subject to AML regulation in the UK, EU, Jersey, Switzerland or USA.
- ETNs referencing crypto assets are only appropriate for professional investors.

#### 4. Australia

The Australian Investment Commission ("ASIC") issued a guideline for the listing of exchange traded products ("ETP") referencing crypto assets, Information Sheet 230, in November 2022. The prudential framework for investing in crypto assets for institutional investors is still in consultation phase. The ASIC Information Sheet 230 requires *inter alia*:

- The exchange to assess eligibility of the crypto asset as an underlying for ETP's; and
- Details on how the exchange can assess compliance with the eligibility criteria for example a mature spot market.

The Australian Stock Exchange amended their listing requirements to make provision for ETPs referencing crypto assets and included the following:

- A definition for crypto assets;
- The eligibility criteria to be used in assessing whether a crypto asset is acceptable which includes
  the requirement for a robust and transparent pricing mechanism where the basis of that
  mechanism is a benchmark price of an index; and
- Amended the list of underlyings to specifically include crypto assets

#### 5. Other

In Canada, the Investment Industry Regulatory Organisation views crypto assets as securities. These securities list and trade under the current listing requirements.

In Singapore, crypto currencies are regulated by the Monetary Authority of Singapore. Singapore Stock Exchange has not allowed the listing of any ETPs referencing crypto assets.

In Japan, crypto assets are regulated under the Payment Service Act.