# <u>Disclosures for Digital Asset Spot Transactions (the "Risk Disclosure Statement")</u>

This Risk Disclosure Statement outlines a non-exhaustive list of risks which may be associated with entering into Digital Asset Spot Transactions.

In this Risk Disclosure Statement, the following words have the meaning ascribed below:

"Digital Asset" means any digital representation of value that can be digitally transferred, stored or traded and is accepted by natural or legal persons as a medium of exchange including any digital currency.

"Digital Asset Spot Transaction" means any transaction providing for the delivery of an agreed amount of a Digital Asset in exchange for the payment of an agreed amount of a specified fiat currency or digital currency for settlement within [two] business days.

### Risks Relating to the Underlying Digital Assets

A Digital Asset exists solely by reference to an online, distributed network ("**Digital Network**") designed as a tamper-resistant record of all transactions in the Digital Assets native to that network. No single entity owns or operates the Digital Networks of the Digital Assets. Rather, each one is collectively maintained by: (i) network participants that use cryptographic and algorithmic protocols to process transactions and compute the state of the transaction record via nodes on the Digital Network; and (ii) software developers who propose improvements to these protocols and related software. The supply of Digital Assets is determined programmatically by its protocol rather than controlled by a central entity or issuer. Unlike traditional "fiat" currencies, Digital Assets are not issued by a sovereign government.

Digital Asset Spot Transactions are subject to risks associated with the use and technical operation of Digital Networks. These networks are a form of technological infrastructure, the operation of which may be affected by a variety of factors including flaws in the underlying protocols or cryptography, cyber-attacks and network congestion. Some of these factors are considered further below, although given this is a novel and rapidly evolving market and asset class, new risks may emerge over time.

#### A. Consensus Protocols and Cryptography

Digital Networks and their native Digital Assets depend upon cryptographic and algorithmic protocols that process transactions and compute the state of the transaction record. Malfunctioning nodes and/or errors in the underlying source code could jeopardize the integrity and security of the Digital Network. Material issues may be hard to overcome and/or easy to exploit improperly. In the extreme case, they may cause the entire Digital Network to fail such that the native Digital Assets cease to exist entirely. Any issues with the operation of a Digital Network may affect the availability or value of Digital Assets.

Transactions in Digital Assets are dependent on public key cryptography. Digital Assets are recorded to an address that is typically a hash of a public key which corresponds cryptographically to a unique private key. That private key is required to sign or authenticate any transfer of Digital Assets recorded to the corresponding public key address. This cryptographic process is integral to the operation of Digital Networks and the transfer of Digital Assets. Any flaw or vulnerability in the cryptography, or developments in mathematics and/or technology

(including advances in digital computing, algebraic geometry and/or quantum computing) which may result in such cryptography becoming ineffective, could undermine the integrity of a Digital Network and confidence in its native Digital Asset.

In addition to maintaining a record of Digital Asset transactions, Digital Networks (such as the Ethereum network) may also run 'smart contracts'. Smart contracts are computer programs that execute automatically upon the occurrence of certain pre-defined conditions. Like all software code, smart contracts are exposed to risk that the relevant code contains a bug or a security vulnerability, which can lead to loss of Digital Assets that are held in or transacted through the smart contract, or otherwise cause the smart contract to not operate as intended or expected. Smart contract vulnerabilities may cause losses for Digital Asset investors as well as undermine confidence in Digital Networks.

# B. Fraud, Theft and Cyber-Attacks

Digital Networks are ultimately reliant upon the internet. A significant disruption in internet connectivity could disrupt the operation of a Digital Network and have an adverse effect on the price of its native Digital Asset. Digital Networks have previously been subjected to hacks and the exploitation of other vulnerabilities, such as denial-of-service attacks, which have led to temporary delays in block creation and, consequently, the transfer of Digital Assets. It is possible that if a Digital Asset increases in value, the relevant Digital Network may become a bigger target for hackers and subject to more frequent hacking and denial-of-service attacks. Any such events that impact the operation of the Digital Network or the ability to transfer Digital Assets could have a material effect on the value of a Digital Asset.

As outlined above, the operation of Digital Networks is reliant on a decentralized network of node operators. In order to maintain a high level of security, these networks will ideally comprise a large number of individual node operators. Should one entity or group of colluding entities control a significant amount of the capacity to verify and process transactions on a Digital Network (the requisite amount of capacity being dependent on the consensus protocol underlying the relevant Digital Network), there is a risk that such entity (or group of entities) would be able to control or amend the record of transactions in the Digital Assets (including to "double spend" Digital Assets, meaning a transferor could spend the same Digital Assets twice). This could materially jeopardize confidence in a Digital Network and its native Digital Assets.

Ownership and the ability to transfer or take other actions with respect to Digital Assets is protected by public key cryptography, which requires private keys to be safeguarded and kept private in order to prevent unauthorized transfers. The loss, theft or destruction of private keys required to access and control Digital Assets may be irreversible. If a significant custodian or market infrastructure provider is unable to access its private keys (including due to a hack or its system otherwise becoming compromised), this could cause investor losses and undermine confidence in Digital Asset markets generally.

## C. Forks

When a modification to the Digital Network protocol for a Digital Network is adopted by a majority or significant minority of node operators, and it is not compatible with the protocol prior to its modification, the consequence may be an inadvertent or deliberate "fork" (i.e. a "split") of the Digital Network. The effect of such a fork is generally the existence of two (or more) versions of the network running in parallel; one version running the pre-modified protocol and the other

running the modified protocol, each with its own version of the relevant Digital Asset(s). If both Digital Networks continue to operate in parallel, they could potentially compete with each other for users, developers and node operators. The post-fork value of the Digital Assets that exist by reference to each version of a Digital Network can be volatile and unpredictable. This may result in the holder owning the same Digital Asset after the fork as before the fork, but at a lower market value. Further, one or both of the post-fork Digital Networks may not be supported by an adequate amount of node operators or developers and may be vulnerable to attack and other risks. Forks may ultimately affect the integrity and stability of a Digital Network and overall confidence in its native Digital Asset.

A fork could also fundamentally alter the nature or functionality of a Digital Network and/or Digital Asset, which could have further consequences for a Digital Asset.

#### D. Adoption

The growth and development of the Digital Asset industry is subject to a high degree of uncertainty and volatility. Changes in consumer demographics and public tastes and preferences over time can affect the further development of this industry, which in turn could affect the price of Digital Assets in unexpected and unpredictable ways. Such changes in public tastes and preferences could be in response to, among other factors, the failure to maintain, update or improve Digital Network infrastructure or a growing perception that the use and holding of Digital Assets is no longer safe and secure. Such perceptions may be further influenced by social media and news coverage. Changing public preferences and perceptions with respect to a Digital Asset could cause their market price to fluctuate or fall (including to zero).

The Digital Networks underlying Digital Assets rely on open-source network protocols. The development and improvement of these protocols requires active engagement and contributions from volunteer developers. There can be no assurance that the core developers of a Digital Network will continue to be involved in that network, or that new volunteer developers will emerge to replace them. To the extent that material issues arise with a network protocol or related software and the developers are unable or unwilling to address the issues adequately or in a timely manner, the Digital Asset may diminish in value or become worthless

Other factors that may affect the adoption and use of Digital Assets, include, but are not limited to:

- government and quasi-government regulation of Digital Assets and their use, or restrictions on or regulation of access to and operation of Digital Networks;
- the use of the networks supporting Digital Assets for developing smart contracts and distributed applications; and
- general economic conditions and the regulatory environment relating to Digital Assets.

Ultimately, it is not clear how Digital Assets and Digital Networks will be used in the future. New uses may emerge, existing uses may disappear, and prospective uses may fail to materialise. Each scenario could impact the value of Digital Assets.

#### A. Transaction Fees

Users of a Digital Network typically have to pay a transaction fee in order for their transactions to be processed. These fees are paid to "miners" (on BTC's Digital Network) or "validators" (on ETH's Digital Network) as a reward for processing and validating transactions on a Digital Network. The payment of these fees provides these miners/validators with an economic incentive to continue processing and recording transactions on the Digital Network. The amount of these fees may be subject to market forces and may fluctuate over time. Increased transaction fees may adversely affect the usage of the relevant Digital Network which may, in turn, adversely affect the price of the native Digital Assets. Conversely, if the aggregate revenue from transaction fees is below a miner's/validator's costs, the miner/validator may cease operations. Miners/validators ceasing operations would reduce the collective processing power on the Digital Networks, which would adversely affect the confirmation process for transactions (i.e., temporarily decreasing the speed at which transactions are added to the Digital Network record) and make the Digital Networks more vulnerable to attacks. Any reduction in confidence in the confirmation process or processing power of the Digital Networks may affect the value of its native Digital Asset.

It is also possible that miners/validators could collude to raise transaction fees, which may adversely affect the usage of a Digital Network. If miners/validators collude in an anticompetitive manner to reject low transaction fees, then users of a Digital Network could be forced to pay higher fees, thus reducing the attractiveness of that network. Mining/validating occurs globally, and it may be difficult for authorities to apply antitrust regulations across multiple jurisdictions or have consistent regulations or consistent operations amongst the global population of miners/validators. Any collusion among miners/validators may adversely impact the attractiveness of the Digital Network and may affect the value of the native Digital Asset.

#### Other Risks Relevant to the Valuation of Digital Assets

The market value of a Digital Assets may also be influenced by other factors unconnected to the use and technical operation of the underlying Digital Networks themselves, such as:

- supply and demand for Digital Assets;
- market activity;
- liquidity;
- economic, financial, political, regulatory, geographical, biological, or judicial events; and
- the general interest rate environment.

These factors (some of which are considered below) interrelate in complex ways, and the effect of one factor on the market value of a Digital Assets may reduce or increase the effect of another factor.

The trading prices of many Digital Assets have sometimes experienced extreme volatility, with prices fluctuating significantly in short periods of time, sometimes even absent the occurrence of the types of economic events that normally precipitate price changes for other types of assets. Extreme volatility in the future, including additional rapid and steep declines in the trading prices of Digital Assets.

# A. Momentum Pricing

The value of Digital Assets has previously been subject to momentum pricing caused by speculation regarding potential future appreciation in value. Momentum investing is typically associated with growth stocks and other assets whose valuation, as determined by the investing public, is impacted by anticipated future appreciation in value. Momentum investing in Digital Assets may have resulted, and may continue to result, in speculation regarding potential future appreciation in the value of Digital Assets, leading to increased inflation and volatility in their market value.

#### B. Liquidity

Liquidity (and relative liquidity) is another source of potential volatility for Digital Asset prices. The overall size of many Digital Asset markets can be significantly smaller than markets for other types of assets, which can limit liquidity and increase volatility. Digital Assets trade across different exchanges and in varied jurisdictions, so local and regional events can affect the liquidity, prices and volatility of Digital Assets in unexpected ways. Liquidity can also be adversely affected by the development of updated or new technologies, market standard terms and new digital assets and the migration of trading interest to such new assets or away from existing technologies and market standard terms. This may cause fluctuations in the price of Digital Assets.

The liquidity of Digital Assets and the volatility of Digital Asset prices also depend on the concentration of owners of a Digital Asset or the traders in such Digital Assets. There is little transparency in the ownership of or trading interest in most Digital Assets, nor are there generally limits on concentrated ownership or trading interest. Greater concentration in ownership or trading interest can lead to heightened volatility due to sharp swings in the level of supply or demand. High levels of concentration can also make a market susceptible to manipulation or distortion. High volatility or low liquidity could also lead to difficulties in ascertaining the correct valuation for a Digital Asset.

# C. Supply and Demand

Political, economic, financial or other market events may motivate large-scale sales or acquisitions of Digital Assets, which may affect the value of a Digital Asset.

Ownership of Digital Assets is pseudonymous and the supply of accessible Digital Assets is unknown. Entities with substantial holdings in Digital Assets may engage in large-scale sales or distributions, which could result in a reduction in the value of a Digital Asset. To the extent such large holders of Digital Assets engage in large-scale sales or distributions, it could result in a reduction in the value of Digital Assets.

#### D. Political, Regulatory, Tax and Legal Changes

The regulatory status and regulatory environment for Digital Assets differs across jurisdictions and is constantly evolving. Many regulators have brought enforcement actions and issued guidance and rules relating to the use and exchange of Digital Assets, and the operation of Digital Networks. Continued legal, tax and regulatory actions are likely to be significant to the development of the market and the price of Digital Assets. Such actions may restrict the ability of market participants to invest in, or even assume an exposure to, Digital Assets. These may adversely affect the value of Digital Assets.

The effect of any future regulatory or tax changes on Digital Asset markets is impossible to predict, but such changes could be substantial and adverse. Regulatory or tax developments may also differ across jurisdictions causing structural shifts in the composition of Digital Asset markets. Due to the global and borderless nature of Digital Asset transactions, there may also be uncertainty about which jurisdiction's laws and regulations may apply to a particular Digital Asset or transaction. These and other regulatory and tax uncertainties could have a material effect on the value of Digital Assets.

Lack of effective regulation may also have consequences for Digital Asset markets. For example, certain Digital Assets may not be subject to market abuse or manipulation regulations in certain jurisdictions (although many trading venues seek to impose equivalent or comparable standards through other mechanisms, including contractually). Actions akin to market abuse may cause significant fluctuations in the value of Digital Assets.

### E. Digital Assets Trading Venues

The venues through which Digital Assets trade are relatively new and may be more exposed to operational problems or failure than trading venues for other assets, which could adversely affect the value of Digital Assets. These trading venues are also generally subject to different regulatory requirements than venues for trading more traditional assets, and may be subject to limited or no regulation. They also experience cybercrime, hacks, and malware and have been shut down or have experienced losses of assets placed on the exchange. Furthermore, many such trading venues, including exchanges and over-the-counter trading venues, do not provide the public with significant information regarding their ownership structure, management teams, corporate practices or regulatory compliance. Such trading venues may impose transaction or distribution limits or suspend withdrawals entirely, rendering the exchange of Digital Assets for fiat currency difficult or impossible. They may also hold legal title to the Digital Assets traded and held on the venue, such that the customer's asset is the trading venue's obligation to redeliver equivalent assets rather than a proprietary entitlement to the Digital Assets themselves. In this scenario, the customer is exposed to the risk of losing its assets upon the insolvency of the relevant trading venue. Moreover, a trading venue may hold Digital Assets in multiple ways (including via a vertically integrated 'chain' of custodians), each of which may affect the nature of the customer's right to the Digital Assets and expose the customer to additional operational and practical risks. Any loss of private keys or other issues related to the safeguarding of private keys required to sign or authenticate the transfer of Digital Assets held by a trading venue (including through a 'chain' of sub-custody arrangements) could affect the price of Digital Assets on that trading venue and/or the price of Digital Assets generally.

Operational problems, clerical and systems errors, cyber-attacks, fraud or failed trading venues may disrupt the operation of Digital Asset markets and reduce confidence in Digital Assets generally. This could affect the price of Digital Assets.

## F. Trading Hours May Not Align

The market for many Digital Assets operates on a global and twenty-four hour basis. Your and our hours of operation, during which you and we may transact in, settle and value Digital Assets may not conform to the hours during which the relevant Digital Asset is traded.

#### **Market Disruption Events**

The terms of a Digital Asset Spot Transaction may specify that certain events may be treated as extraordinary events and their occurrence may result in consequences for the Digital Asset Spot Transaction including, if applicable, cancellation or adjustments to terms. The exact consequences may be subject to discretionary determinations by the calculation agent, which may involve subjective judgment and uncertainty. You should be aware of the potential risks of any such events.

#### Financial Ombudsman Service & Financial Services Compensation Scheme Applicability

Your Digital Asset Spot Transaction will not be within the scope of the <u>Financial Ombudsman</u> Service and will not benefit from the Financial Services Compensation Scheme.

## **Dealing as Principal**

Standard Chartered Bank ("SCB") transacts and makes markets in cryptoasset and foreign exchange spot and derivatives. SCB conducts these activities strictly as principal, unless otherwise explicitly pre-agreed in writing. The Firm conducts its principal transactions with you and does not act as an agent, fiduciary or financial advisor or in any similar capacity on your behalf in relation to these transactions.

You should evaluate the appropriateness of any transaction based on your own facts and circumstances and assess a transaction's benefits and execute the transaction based upon your own independent determination of the transaction. Any communications or statements made by or through SCB's personnel, electronic systems or otherwise in the processing or execution of transactions should not be inferred or relied upon as investment recommendations or advice.

SCB may in the course of market making, maintain positions in various products and instruments for multiple counterparties with competing interests, alongside SCB's own business interests. Acting in a principal capacity, SCB may trade prior to or alongside your transaction to execute other transactions for SCB or to facilitate transactions with other counterparties, to manage risk, source liquidity or for other applicable commercial reasons.

SCB's market making and risk management activities may impact the prices communicated to you for a transaction and the availability of liquidity at levels necessary to execute your orders or trade requests. In conducting these activities, SCB intends to carry out market making activities in a manner which seeks to avoid undue market impact.