

Important Risks and Disclosures for EU and UK Clients

**Related to USD/Bitcoin and USD/Ether Non-Deliverable
Forward and Non-Deliverable Option Transactions**



1. Introduction

The Reference Asset for a USD/Bitcoin or USD/Ether non-deliverable forward transaction or non-deliverable option transaction (each, a **"Digital Asset Transaction"**) is Bitcoin or Ether. The performance or extent of obligations under a Digital Asset Transaction will be determined by the price of the relevant Reference Asset, as published by the Settlement Price Source. Therefore, any Digital Asset Transaction will involve risks relating to Bitcoin, Ether and/or digital assets generally. This document is intended for use in connection with Digital Asset Transactions between ING Bank N.V. ("**ING**") and counterparties in a member state of the European Union or the United Kingdom. It contains an overview of Bitcoin and Ether generally and related risks. It is important to review and thoroughly understand the information set forth in this document before entering into any Digital Asset Transaction. Any capitalised terms used but not defined herein have the meanings assigned to them in the Confirmation relating to the relevant Digital Asset Transaction (including, for the avoidance of doubt, version 1.01 of the ISDA Digital Asset Derivatives Definitions dated January 26, 2023).

2. Risks

2.1. Risks Relating to Digital Asset Transaction generally

2.1.1. *Certain disruption events may adversely affect the value of a Digital Asset Transaction and result in a loss and may create a conflict of interest*

The markets for Bitcoin and Ether are new and evolving and have been, and may continue to be, subject to significant changes. Accordingly, developments and conditions affecting the markets for Bitcoin and Ether may (a) prevent or delay the calculation of amounts payable under a Digital Asset Transaction, or your ability to make or receive payments in the Settlement Currency and/or (b) result in the application of alternative valuation and settlement mechanisms. Under the terms of a Digital Asset Transaction, the following Disruption Events (as defined in the Confirmation) may occur and have the consequences set out below. In each of the scenarios below ING may have discretion as Calculation Agent to make determinations in relation to a Digital Asset Transaction, including (without limitation) whether these disruption events have occurred. Where ING is acting as Calculation Agent, it may have economic interests that are adverse to your interests and any such determinations may adversely affect the value of a Digital Asset Transaction and result in a loss.

(i) Price Source Distribution

- (a) Price Source Unavailability
A 'Price Source Unavailability' disruption event may be triggered where (i) the Settlement Price in respect of the Valuation Time on the Valuation Date is not published prior to the Valuation Observation Deadline; or (ii) the Calculation Agent determines that the Settlement Price has been calculated incorrectly.
- (b) Price Source Discontinuance
A 'Price Source Discontinuance' disruption event may be triggered where there has been a public statement or announcement by or on behalf of the Settlement Price Source Provider unambiguously communicating that it has ceased or will cease to provide the Settlement Price Source permanently or indefinitely.
- (c) Material Change in Methodology
A 'Material Change in Methodology' disruption event may be triggered where there has, after the Trade Date, been a material change, or an unambiguous public statement or announcement by or on behalf of the Settlement Price Source Provider that it will make a material change, to the formula for or method of calculating the Settlement Price. ING is specified as the Material Change Determining Party such that only ING will be able to trigger the disruption event.

(ii) Price Source Disruption: Fallbacks and Consequences

If the 'Fallback Settlement Price' fallback has been specified as applicable in the Confirmation, it will apply first such that the Settlement Price will be determined by reference to the first available Fallback Settlement Price Source (if any) in the Fallback Settlement Price Source Order.

If the 'Price Source Termination Event' fallback has been specified as applicable in the Confirmation, it will apply as the ultimate fallback following a Price Source Disruption Event and result in the termination of the Digital Asset Transaction. If the parties have elected 'Seller Termination Value' in the Confirmation, then the termination amount payable will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the Buyer is the sole Affected Party. If the parties have elected 'Buyer Termination Value' in the Confirmation, then the termination amount payable will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the Seller is the sole Affected Party. Conversely, if the parties have elected 'Mid-Market Termination Value', then the amount payable will be determined in accordance with the

mid-market valuation provisions that apply in the context of a Force Majeure under Section 6(e)(ii) of the general 2002 ISDA Master Agreement.

The early termination of the transaction may adversely affect the value of a Digital Asset Transaction for you and result in a loss.

If the 'Price Source Termination Event' fallback was disappplied in the Confirmation, then Calculation Agent Determination will apply as the ultimate fallback following any Price Source Disruption Event by default. The 'Calculation Agent Determination' fallback provides discretion to the Calculation Agent, acting in good faith and using commercially reasonable procedures, to make such adjustments to the Transaction as it deems necessary, including determining a commercially reasonable alternative (or alternatives) for the Settlement Price Source. Any such calculation may adversely affect the value of the Digital Asset Transaction and result in a loss.

(iii) Hedging Disruption Events

(a) Hedging Disruption

A 'Hedging Disruption' disruption event may be triggered where a party is unable, after using commercially reasonable efforts to (i) hold, acquire, establish, re-establish, maintain, unwind or dispose of one or more hedge positions; or (ii) realise any amounts that are commercially reasonably connected with one or more hedge positions.

(b) Increased Cost of Hedging

An 'Increased Cost of Hedging' disruption event may be triggered where a party has incurred or will incur a materially increased amount of tax, duty, expense, cost or fee to (i) hold, acquire, establish, re-establish, maintain, unwind or dispose of one or more hedge positions; or (ii) realise the proceeds connected with those positions.

(iv) Hedging Disruption Events: Fallbacks and Consequences

Upon the occurrence of one or more of the above Hedging Disruption Events, (which the Hedging Party shall determine the occurrence of acting in good faith and using commercially reasonable procedures) the affected Hedging Party will either provide a Termination Notice or an Increased Cost Notice to the other party. In the event of an Increased Cost of Hedging and upon the Increased Cost Notice by the relevant Hedging Party, the Non-Hedging Party will, within two Relevant Days of the Increased Cost Notice becoming effective, give a Price Adjustment Election Notice to the Hedging Party. If the Non-Hedging Party elects to agree to make the amendments to the terms of the Transaction or pay an upfront amount

specified in the Increased Cost Notice, then the terms of the Transaction will be amended but if the Non-Hedging Party elects to terminate the Transaction, then the Price Adjustment Election notice will be deemed to be a Termination Notice. The adjustments made (if any) may adversely affect the value of a Digital Asset Transaction and result in a loss.

In the event the Transaction is terminated following a Hedging Disruption Event, the termination amount payable will be calculated by the affected Hedging Party. If the parties have elected "Non-Disrupted Party Termination Value", then the termination amount will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the affected Hedging Party is the sole Affected Party. If the parties have elected "Disrupted Party Termination Value", then the termination amount will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the other party (i.e. not the affected Hedging Party) is the sole Affected Party. Conversely, if the parties have elected 'Mid-Market Termination Value', then the termination amount will be determined in accordance with the mid-market valuation provisions that apply in the context of a Force Majeure under Section 6(e)(ii) of the general 2002 ISDA Master Agreement.

(v) Fork Disruption

A Fork Disruption Event will occur following a Fork Event if the "Price Source Provider Determination Condition" is not met. A Fork Event would occur if, as a result of a Protocol Change in respect of the blockchain underlying the relevant Reference Asset immediately prior to such Protocol Change, two or more digital assets which are native to blockchains that emanate from the original blockchain (being a Successor Asset) are available for trading simultaneously on one or more exchanges. Generally speaking, the Price Source Provider Determination Condition will be met if (i) the Settlement Price Source Provider continues to list only one Successor Asset or provide a single rate; or (ii) it lists multiple Successor Assets / provides multiple rates in respect of those Successor Assets, but clearly communicates that one price source is the continuation of the Settlement Price Source as specified in the Confirmation. ING is the only Fork Determining Party capable of triggering a Fork Disruption Event.

(vi) Change in Law Disruption

(a) Change in Law – Performance Illegality
A ‘Change in Law – Performance Illegality’ disruption event may be triggered where it has become illegal for a party to perform its obligations under the Transaction or to be party to the Transaction.

(b) Increased Cost of Hedging
An ‘Increased Cost of Hedging’ disruption event may be triggered where a party has incurred or will incur a materially increased amount of tax, duty, expense, cost or fee to (i) hold, acquire, establish, re-establish, maintain, unwind or dispose of one or more hedge positions; or (ii) realise the proceeds connected with those positions.

(vii) Change in Law Disruption:

Fallbacks and Consequences If a Change in Law Disruption Event occurs the Transaction will terminate early. If the parties have elected ‘Seller Termination Value’ in the Confirmation, then the termination amount payable will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the Buyer is the sole Affected Party. If the parties have elected ‘Buyer Termination Value’ in the Confirmation, then the termination amount payable will be determined in accordance with Section 6(e)(ii) of the ISDA Master Agreement on the basis that the Seller is the sole Affected Party. Conversely, if the parties have elected ‘Mid-Market Termination Value’, then the amount payable will be determined in accordance with the mid-market valuation provisions that apply in the context of a Force Majeure under Section 6(e)(ii) of the general 2002 ISDA Master Agreement.

2.2. Risks Relating to the Settlement Price Source

2.2.1. Digital Asset Transactions with Bitcoin as the Reference Asset: CME CF Bitcoin Reference Rate (“BRR”)

The BRR is a daily reference rate of the U.S. Dollar price of one Bitcoin as of 4:00 p.m. London time. This rate is the aggregation of executed trade flow from major Bitcoin spot exchanges that conform to the constituent exchange criteria, between 3:00 p.m. and 4:00 p.m. London time. The BRR is disseminated once per day, every day of the year including weekends and holidays between 4:00 p.m. and 4:30 p.m. London time. The BRR is the rate used to determine the final settlement of CME Bitcoin futures contracts. The BRR is one of a number of price sources included in a Settlement Price Source Matrix annexed to the ISDA Digital Asset Derivatives Definitions. Certain trading terms

in the Confirmation, such as the Valuation Time or Settlement Price Source Location, may refer to information included in the Settlement Price Source Matrix. The Settlement Price Source Matrix is versioned separately from the main book. The version of the Settlement Price Source Matrix that applies will be the version as at the Trade Date (unless otherwise agreed between the parties).

Please note the following risks relating to the BRR:

- (i) *The BRR may not be successful and may underperform other Bitcoin-based investments.* The BRR is a daily reference rate of the U.S. dollar price of one Bitcoin. The BRR employs a methodology with specific parameters to determine the price of Bitcoin. It is an aggregation of executed trade flow of major Bitcoin spot exchanges during a specific one-hour calculation window. This one-hour window is then partitioned into twelve, five-minute intervals. For each partition, the volume-weighted median trade price is calculated from the trade prices and sizes of all relevant transactions, i.e. across all constituent exchanges. In an attempt to limit susceptibility to temporary price swings and outlier prices, the BRR has specific eligibility criteria for constituent exchanges which form the basis for participating in the BRR calculation. This means that the BRR does not include all relevant exchanges.
- (ii) *There can be no assurance that the methodology and parameters of the BRR will be an accurate proxy for the price of Bitcoin.* The BRR has been constructed on the basis of certain historically observed trends and assumptions, which may not prove to be correct in any future period. A Bitcoin rate tracking the U.S. dollar price of Bitcoin could also be implemented using all potential exchanges, a different calculation window and/or a different weighting method. The BRR’s methodology and parameters could hinder an effective implementation of a Bitcoin-based investment, and no assurance can be given that the BRR’s methodology will not underperform any alternative implementation of a Bitcoin-based investment. The BRR will not reflect market movements outside of the one-hour observation period prior to the “as of” publication time or on non-referenced exchanges, so performance outside of that period or on other exchanges will not be reflected in the BRR.
- (iii) *The future performance of the BRR cannot be predicted based on historical performance.* The BRR has been calculated and published since November 2016 and therefore has limited historical performance. The level of the BRR during the term of a Digital Asset Transaction may bear little or no relation to the historical level or performance of the BRR. Changes in the levels of

the BRR will affect the value of a Digital Asset Transaction, but it is impossible to predict whether such levels will rise or fall.

- (iv) *The CME CF Cryptocurrency Pricing Products Oversight Committee (the “CME Oversight Committee”) may add or remove constituent exchanges to the BRR. A trading venue may be nominated for addition or removal from the list of constituent exchanges by any member of the public, the exchange or the CME Oversight Committee. CF Benchmarks Ltd., as administrator of the BRR, with at least one of the CME members of the CME Oversight Committee may temporarily remove a venue from the list of constituent exchanges on an ad-hoc basis if the constituent exchange no longer satisfies the eligibility criteria or other circumstances warrant a temporary removal. The CME Oversight Committee will determine whether the removal should be permanent. The constituent exchanges have changed over time.*
- (v) *The administrator of the BRR (the “BRR Administrator”) and the CME Oversight Committee may take actions that adversely affect the level of the BRR, and they have no obligation to consider your interests. The policies of the BRR Administrator concerning the calculation of the BRR may affect the level of the BRR and, therefore, may affect the value of a Digital Asset Transaction. The methodology of the BRR is subject to review at least annually by the BRR Administrator and any changes are overseen by the CME Oversight Committee. Any change in the methodology by which the BRR is calculated could adversely affect the value of the Digital Asset Transaction and result in a loss. In addition, in extraordinary circumstances, the BRR Administrator may utilise expert judgment in the calculation of the BRR. Neither the BRR Administrator nor the CME Oversight Committee has any obligation to consider your interests in taking any actions in respect of the BRR that might affect the value of a Digital Asset Transaction.*

2.2.2. Digital Asset Transactions with Ether as the Reference Asset: CME CF Ether-Dollar Reference Rate (“ERR”)

ERR is a daily reference rate of the U.S. Dollar price of one Ether as of 4:00 p.m. London time. This rate is the aggregation of executed trade flow from major Bitcoin spot exchanges that conform to the constituent exchange criteria, between 3:00 p.m. and 4:00 p.m. London time. The ERR is disseminated once per day, every day of the year including weekends and holidays between 4:00 p.m. and 4:30 p.m. London time. The ERR is the rate used to determine the final settlement of

CME Ether futures contracts. It also serves as a reference rate in the settlement of financial derivatives based on the Ether price and in the net asset value (NAV) calculation of funds. The ERR is one of a number of price sources included in a Settlement Price Source Matrix annexed to the ISDA Digital Asset Derivatives Definitions. Certain trading terms in the Confirmation, such as the Valuation Time or Settlement Price Source Location, may refer to information included in the Settlement Price Source Matrix. The Settlement Price Source Matrix is versioned separately from the main book. The version of the Settlement Price Source Matrix that applies will be the version as at the Trade Date (unless otherwise agreed between the parties).

Please note the following risks relating to the ERR:

- (i) *The ERR may not be successful and may underperform other Ether-based investments. The ERR is a daily reference rate of the U.S. dollar price of one Ether. The CME Ether Rate employs a methodology with specific parameters to determine the price of Ether. It is an aggregation of executed trade flow of major Ether spot exchanges during a specific one-hour calculation window. This one-hour window is then partitioned into twelve, five-minute intervals. For each partition, the volume-weighted median trade price is calculated from the trade prices and sizes of all relevant transactions, i.e. across all constituent exchanges. In an attempt to limit susceptibility to temporary price swings and outlier prices, the ERR has specific eligibility criteria for constituent exchanges which form the basis for participating in the ERR calculation. This means that the ERR does not include all relevant exchanges.*
- (ii) *There can be no assurance that the methodology and parameters of the ERR will be an accurate proxy for the price of Ether. The ERR has been constructed on the basis of certain historically observed trends and assumptions, which may not prove to be correct in any future period. An ERR tracking the U.S. dollar price of Ether could also be implemented using all potential exchanges, a different calculation window and/or a different weighting method. The ERR’s methodology and parameters could hinder an effective implementation of an Ether-based investment, and no assurance can be given that the ERR’s methodology will not underperform any alternative implementation of an Ether-based investment. The ERR will not reflect market movements outside of the one-hour observation period prior to the “as of” publication time or on non-referenced exchanges, so performance outside of that period or on other exchanges will not be reflected in the ERR.*

- (iii) *The future performance of the ERR cannot be predicted based on historical performance.* The ERR has been calculated and published since November 2016 and therefore has limited historical performance. The level of the ERR during the term of a Digital Asset Transaction may bear little or no relation to the historical level or performance of the ERR. Changes in the levels of the ERR will affect the value of a Digital Asset Transaction, but it is impossible to predict whether such levels will rise or fall.
- (iv) *The CME CF Cryptocurrency Pricing Products Oversight Committee (the "CME Oversight Committee") may add or remove constituent exchanges to the ERR.* A trading venue may be nominated for addition or removal from the list of constituent exchanges by any member of the public, the exchange or the CME Oversight Committee. CF Benchmarks Ltd., as administrator of the ERR, with at least one of the CME members of the CME Oversight Committee may temporarily remove a venue from the list of constituent exchanges on an ad-hoc basis if the constituent exchange no longer satisfies the eligibility criteria or other circumstances warrant a temporary removal. The CME Oversight Committee will determine whether the removal should be permanent. The constituent exchanges have changed over time.
- (v) *The CME Ether Rate Administrator (defined below) and the CME Oversight Committee may take actions that adversely affect the level of the ERR, and they have no obligation to consider your interests.* The policies of the CME Ether Rate Administrator concerning the calculation of the ERR may affect the level of the ERR and, therefore, may affect the value of a Digital Asset Transaction. The methodology of the ERR is subject to review at least annually by the CME Ether Rate Administrator and any changes are overseen by the CME Oversight Committee. Any change in the methodology by which the ERR is calculated could adversely affect the value of the Digital Asset Transaction and result in a loss. In addition, in extraordinary circumstances, the CME Ether Rate Administrator may utilise expert judgment in the calculation of the ERR. Neither the CME Ether Rate Administrator nor the CME Oversight Committee has any obligation to consider your interests in taking any actions in respect of the ERR that might affect the value of a Digital Asset Transaction.

2.3. Risks Relating to Digital Assets and the Bitcoin and Ether Markets

In the sections below we describe risks relating to Bitcoin and Ether. Whilst Digital Asset Transactions

are cash-settled, the performance or extent of obligations under these transactions will be determined by the price of Bitcoin or Ether (as applicable), as published by the Settlement Price Source.

General

2.3.1. *Digital Asset Transactions are subject to risks associated with Bitcoin or Ether, as applicable, as the Reference Asset.* The Reference Asset for Digital Asset Transactions is Bitcoin or Ether. Bitcoin and Ether are digital assets, the ownership and behaviour of which are determined by participants in online, peer-to-peer networks that connect computers that run publicly accessible, or "open source," software that follows the rules and procedures governing the Bitcoin and Ethereum networks respectively. The value of Bitcoin and Ether, like the value of other digital assets, is not backed by any government, corporation or other identified body, or a government-issued legal tender, or any other currency or asset. Ownership and the ability to transfer or take other actions with respect to Bitcoin or Ether is protected through public-key cryptography. The supply of Bitcoin and Ether is constrained or formulated by its protocol instead of being explicitly delegated to an identified body (e.g., a central bank) to control. Units of Bitcoin and Ether are treated as fungible. Bitcoin, Ether and certain other types of digital assets are often referred to as digital currencies, cryptocurrencies or cryptoassets. No single entity owns or operates the Bitcoin network or the Ethereum network, the infrastructure of each of which is collectively maintained by (1) a decentralised group of participants who run computer software that results in the recording and validation of transactions (commonly referred to as "miners"), (2) developers who propose improvements to the relevant protocol and the software that enforces the protocol and (3) users who choose what Bitcoin and Ethereum software to run. Bitcoin was released in 2009 and Ethereum was released in 2013 and, as a result, there is little data on their long-term investment potential.

2.3.2. *Digital assets such as Bitcoin and Ether were only introduced recently, and payments on, and the value of, a Digital Asset Transaction is subject to a number of factors relating to the capabilities and development of blockchain technologies and to the fundamental investment characteristics of digital assets that are uncertain and difficult to evaluate.* Digital assets such as Bitcoin and Ether were only introduced within the past decade or so, and payments on, and the value of, a Digital Asset Transaction is influenced by a wide variety

of factors that are uncertain and difficult to evaluate, such as the infancy of their development, their dependence on technologies such as cryptography for key elements of the transaction process, their dependence on the role played by miners and developers and the potential for malicious activity. Moreover, because digital assets, including Bitcoin and Ether, have been in existence for a short period of time and are continuing to develop, there may be additional risks in the future that are impossible to predict or evaluate now.

Market and Volatility Risk

2.3.3. *Bitcoin and Ether have been and may continue to be subject to extreme market volatility.* The trading prices of many digital assets, including Bitcoin and Ether, have experienced extreme volatility in recent periods and may continue to do so. For instance, in recent years, the trading prices of certain digital assets, including Bitcoin and Ether, have experienced rapid and steep declines. Extreme volatility in the future, including additional rapid and steep declines in the trading prices of Bitcoin or Ether could adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.4. *The value of Bitcoin or Ether as represented by the relevant Settlement Price Source may be subject to momentum pricing due to speculation regarding potential future appreciation in value, leading to greater volatility.* Momentum investing typically is 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 of Bitcoin or Ether may have resulted, and may continue to result, in speculation regarding potential future appreciation in the value of Bitcoin or Ether, leading to increased inflation and volatility of the relevant Settlement Price Source. As a result, Bitcoin and Ether may be more likely to fluctuate in value due to changing investor confidence in the future appreciation or depreciation in the value of Bitcoin or Ether, which could adversely affect the relevant Settlement Price Source and, in turn, adversely affect the value of a Digital Asset Transaction and result in a loss.

Adoption Risk

2.3.5. *The further development and acceptance of the Bitcoin and Ethereum networks, which are part of a new and rapidly changing industry, is subject to a variety of factors that are difficult to evaluate.* For example, Bitcoin in particular faces significant obstacles to increasing the usage of Bitcoin without resulting in higher fees or slower

transaction settlement times, and attempts to increase the volume of transactions may not be effective. The slowing, stopping or reversing of the development or acceptance of the Bitcoin network may adversely affect the value of a Digital Asset Transaction referencing Bitcoin and result in a loss. Similar risks exist with respect to Ether and Digital Asset Transactions referencing Ether.

The use of Bitcoin or Ether to, among other things, buy and sell goods and services is part of a new and rapidly evolving industry that employs digital assets based upon computer-generated mathematical and/or cryptographic protocols. Each of Bitcoin and Ether is a prominent, but not unique, part of this industry. The growth of this industry is subject to a high degree of uncertainty. The factors affecting the further development of this industry, include, but are not limited to:

- continued worldwide growth or possible cessation or reversal in the adoption and use of Bitcoin, Ether and other digital assets;
- government and quasi-government regulation of Bitcoin, Ether and other digital assets and their use, or restrictions on or regulation of access to and operation of the Bitcoin network, Ethereum network and other digital asset networks;
- changes in consumer demographics and public tastes and preferences, including the possibility that market participants may come to prefer other digital assets to Bitcoin for a variety of reasons, including that such other digital assets may have features (like different consensus mechanisms) or uses (like the ability to facilitate smart contracts) that Bitcoin lacks;
- the maintenance and development of the open-source software protocol of the Bitcoin network and Ethereum network;
- the availability and popularity of other forms or methods of buying and selling goods and services, including new means of using fiat currencies; the use of the networks supporting digital assets for developing smart contracts and distributed applications;
- general economic conditions and the regulatory environment relating to digital assets; and
- negative consumer or public perception of Bitcoin or Ether specifically and other digital assets generally.

Ultimately, it is not clear how Bitcoin and Ether 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 a Digital Asset Transaction and result in a loss.

2.3.6. *Currently, there is relatively limited use of Bitcoin and Ether in the retail and commercial marketplace, which contributes to price volatility.* Bitcoin and Ether are not commonly accepted as a means of payment for goods and services. Banks and other established financial institutions may refuse to process funds for Bitcoin or Ether transactions; process wire transfers to or from Bitcoin or Ether trading venues, Bitcoin/Ether-related companies or service providers; or maintain accounts for persons or entities transacting in Bitcoin/Ether or providing related services. Conversely, a significant portion of Bitcoin's and Ether's demand is generated by investors seeking a long-term store of value or speculators seeking to profit from the short- or long-term holding of the asset. Price volatility undermines their role as mediums of exchange, as retailers are much less likely to accept it as a form of payment. A lack of expansion into retail and commercial markets, or a contraction of such use, may result in damage to the public perception of Bitcoin and Ether as a means of payment, increased volatility, or a reduction in the value of Bitcoin and Ether, all of which could adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.7. *Miners could act in collusion to raise transaction fees, which may adversely affect the usage of the Bitcoin network and Ethereum network.* Miners, functioning in their transaction confirmation capacity, collect fees for each transaction they confirm. Miners validate unconfirmed transactions by adding the previously unconfirmed transactions to new blocks in the blockchain. Miners are not forced to confirm any specific transaction, but they are economically incentivised to confirm valid transactions as a means of collecting fees. If miners collude in an anticompetitive manner to reject low transaction fees, then Bitcoin/Ethereum users could be forced to pay higher fees, thus reducing the attractiveness of the Bitcoin network and Ethereum network. Mining occurs globally, and it may be difficult for authorities to apply antitrust regulations across multiple jurisdictions. Any collusion among miners may adversely impact the attractiveness of the Bitcoin network and Ethereum network and may adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.8. *Competition from central bank digital currencies ("CBDCs") and other digital assets could adversely affect the value of Bitcoin and other digital*

assets. Central banks have introduced digital forms of legal tender. Whether or not central banks incorporate blockchain or similar technology, CBDCs, as legal tender in the issuing jurisdiction, could have an advantage in competing with, or could replace, Bitcoin, Ether and other digital assets as a medium of exchange or store of value. As a result, the value of Bitcoin and Ether could decrease, which could adversely affect the value of a Digital Asset Transaction and result in a loss.

Other competing digital assets may adversely affect the value of Bitcoin, Ether and digital assets. Promoters of other digital assets claim that such digital assets have solved certain of the purported drawbacks of the Bitcoin and Ethereum networks, for example, allowing faster settlement times, reducing mining fees or reducing electricity usage in connection with mining. If these digital assets are successful, such success could reduce demand for Bitcoin and Ether and adversely affect the value of Bitcoin and Ether and, thus, adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.9. *The open-source structure of the Bitcoin and Ethereum network protocols means that certain core developers and other contributors may not be directly compensated for their contributions in maintaining and developing such protocols.* A failure to properly monitor and upgrade these protocols could damage the Bitcoin and Ethereum networks. The Bitcoin and Ethereum networks operate based on open-source protocol maintained by a group of core developers. As the Bitcoin and Ethereum network protocols do not generate revenues for development teams, core developers may not be directly compensated for maintaining and updating the Bitcoin and Ethereum network protocols. Consequently, developers may lack a financial incentive to maintain or develop the networks, and the core developers may lack the resources to adequately address emerging issues with the networks. There can be no guarantee that developer support will continue or be sufficient in the future. Additionally, some development and developers are funded by companies whose interests may be at odds with other participants in the networks or with investors' interests. To the extent that material issues arise with the Bitcoin and Ethereum network protocols and the core developers and open-source contributors are unable or unwilling to address the issues adequately or in a timely manner, the Bitcoin and Ethereum networks may be adversely affected which could adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.10. *Lack of clarity in the corporate governance of Bitcoin and Ether may lead to ineffective decision-making that slows development or prevents the Bitcoin and Ethereum networks from overcoming important obstacles.* Governance of decentralised networks, such as the Bitcoin and Ethereum networks, is by voluntary consensus and open competition. These networks have no central decision-making body or clear manner in which participants can come to an agreement other than through overwhelming consensus. The lack of clarity on governance may adversely affect Bitcoin's and Ether's utility and ability to grow and face challenges, both of which may require solutions and directed effort to overcome problems, especially long-term problems. To the extent that lack of clarity in the corporate governance of Bitcoin and Ether leads to ineffective decision-making that slows development and growth, the value of a Digital Asset Transaction may be adversely affected and result in a loss.

2.3.11. *Operational cost may exceed the award for solving blocks or transactions fees. Increased transaction fees may adversely affect the usage of the Bitcoin and Ethereum networks.* Miners generate revenue from both newly created Bitcoin/Ether (known as the "block reward") and from fees taken upon verification of transactions. If the aggregate revenue from transaction fees and the block reward is below a miner's cost, the miner may cease operations. Miners ceasing operations would reduce the collective processing power on the Bitcoin and Ethereum networks, which would adversely affect the confirmation process for transactions (i.e., temporarily decreasing the speed at which blocks are added to the blockchain until the next scheduled adjustment in difficulty for block solutions) and make the Bitcoin and Ethereum networks more vulnerable to a malicious actor obtaining sufficient control to alter the blockchain and hinder transactions. Any reduction in confidence in the confirmation process or processing power of the Bitcoin and Ethereum networks may adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.12. *To the extent that any miners exclude some or all transactions, significant increases in fees and widespread delays in the recording of transactions could result in a loss of confidence in the Bitcoin or Ethereum networks.* To the extent that any miners solve blocks that exclude some or all transactions that have been transmitted to the Bitcoin and Ethereum networks, such transactions will not be recorded on the

blockchain until another miner solves a block that incorporates those transactions. To the extent that more blocks are mined without transactions, transactions will settle more slowly and fees will increase. This could result in a loss of confidence in the Bitcoin and Ethereum networks, which could adversely affect the value of a Digital Asset Transaction and result in a loss.

Risks Relating to Hard Forks

2.3.13. *A temporary or permanent blockchain "fork" could adversely affect the value of a Digital Asset Transaction and result in a loss.* Bitcoin and Ethereum software is open source. Any user can download the software, modify it and then propose that users and miners adopt the modification. When a modification is introduced and a substantial majority of users and miners consent to the modification, the change is implemented and the network generally continues uninterrupted. However, if less than a substantial majority of users and miners consent to the proposed modification, the modification is nonetheless implemented by some users and miners, and the modification is not compatible with the software prior to its modification, the consequence would be what is known as a "fork" (i.e. "split") of the network (and the blockchain), with one version running the pre-modified software and the other running the modified software. The effect of such a fork would be 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 native asset. Such a fork typically would be addressed by community-led efforts to merge the forked blockchains, and several prior forks have been so merged. The original blockchain and the forked blockchain could potentially compete with each other for users, developers and miners, leading to a loss of these for the original blockchain. A fork of any kind could adversely affect the value of a Digital Asset Transaction and result in a loss, in particular in the circumstances described above in relation to Fork Disruption Events.

Cybersecurity Risk

2.3.14. *A disruption of the internet may affect the use of Bitcoin and Ethereum and subsequently the value of a Digital Asset Transaction.* Bitcoin and Ether are dependent upon the internet. A significant disruption in internet connectivity could disrupt the network's operations until the disruption is resolved and have an adverse effect on the price of Bitcoin/Ether. In particular, some variants of digital assets have been subjected to a number of denial-of-service attacks, which

have led to temporary delays in block creation and in the transfer of the digital assets. While in certain cases in response to an attack, an additional hard fork has been introduced to increase the cost of certain network functions, the relevant network has continued to be the subject of additional attacks. Moreover, it is possible that if Bitcoin or Ether increases in value, it may become a bigger target for hackers and subject to more frequent hacking and denial-of-service attacks. Any future attacks that impact the ability to transfer Bitcoin or Ether could have a material adverse effect on the price of Bitcoin/Ether and the value of a Digital Asset Transaction.

2.3.15. *An error in Bitcoin's/Ether's code or protocols may compromise the security of the network and subsequently the value of a Digital Asset Transaction.* The source code of Bitcoin and Ethereum is public and may be downloaded and viewed by anyone. Despite this, there may be errors in the code that may jeopardise the integrity and security of the network. Material errors in the protocol may be hard to overcome and/or easy to exploit improperly, which may have a negative effect on the price of Bitcoin/Ether and may in turn adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.16. *A successful attack on the consensus layer would likely damage the integrity of the network and subsequently the value of a Digital Asset Transaction.* The decentralised global P2P-network (peer-to-peer) of nodes making up the Bitcoin/Ethereum network should, to achieve high security, comprise a large number of participants. Should one participant or group of colluding entities control a significant amount of the capacity to verify and process transactions on the network (the requisite amount of capacity being dependent on the consensus protocol underlying the relevant network), there is a risk that such entity (or group of entities) would be able to control or amend the record of transactions (including to "double spend" Bitcoin/Ether, meaning a transferor could spend the same asset twice). Such a scenario would likely materially damage confidence in Bitcoin, Ether and other digital assets in general and adversely affect their prices, which in turn would adversely affect the value of a Digital Asset Transaction.

2.3.17. *If a malicious user of the Bitcoin/Ether network successfully used 'cancer nodes' to isolate certain users from the Bitcoin/Ether network, it may damage confidence in Bitcoin/Ether and adversely affect the value of a Digital Asset Transaction.* A 'cancer node' form of attack

would occur in the event of one or more malicious actors propagating 'cancer nodes' to isolate certain users from the legitimate Bitcoin and Ethereum networks. If a targeted user is surrounded by such cancer nodes they may be placed on a separate network, allowing the malicious actor(s) to relay only blocks created by the separate network in order to open the target to the risk of double-spending attacks or to cut them off from the Bitcoin or Ethereum communities entirely by not relaying any new blocks. Software programs exist to make such attacks more difficult to achieve through limitation of the number of outbound connections through which a user may be connected to the network. However, should the risk occur, this would damage confidence in Bitcoin/Ether and thereby reduce the value of Bitcoin/Ether, which in turn would adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.18. *If a user was effectively able to hack the Bitcoin or Ethereum protocols this may damage confidence in Bitcoin/Ether and therefore adversely affect the value of a Digital Asset Transaction and result in a loss.* Digital asset protocols are meant to be an immutable and final record of transactions, which in turn ensures holders of the digital asset that transactions are accurate and verifiable. For many digital asset protocols, especially those like Bitcoin and Ethereum that rely on limited supply of coins, this accuracy further supports the value of the underlying digital asset. Double spending is essentially a violation of the promise of immutable, accurate and verifiable transactions, as it effectively allows an actor to hack the protocol by creating a transaction without it being appropriately validated. Significant amounts of double spending could materially jeopardise confidence in the underlying protocols, which in turn could damage confidence in Bitcoin/Ether and thereby reduce its value, which in turn would adversely affect the value of a Digital Asset Transaction.

Regulatory and Tax Risks

2.3.19. *Ongoing and future regulatory and tax actions with respect to digital assets generally or any single digital asset in particular may alter, perhaps to a materially adverse extent, the value of a Digital Asset Transaction.* As Bitcoin, Ether and digital assets have grown in both popularity and market size, regulators and legislators worldwide have been examining the operations of digital asset networks, digital asset users and the digital asset exchange market. Many regulators and legislators have brought enforcement actions and issued guidance and

rules relating to digital asset markets. Continued regulatory actions are likely to be significant to the development of the market and the price of Bitcoin and Ether. Any future regulatory or tax actions (whether enforcement actions or extending the regulatory perimeter to regulate digital assets in manners that were not previously the case) may impact the extent to which digital assets are traded and used. Such actions may also differ across jurisdictions causing structural shifts in the composition of digital asset markets. Continued legislative and regulatory changes or uncertainty may adversely affect the price of Bitcoin or Ether and therefore adversely affect the value of a Digital Asset Transaction and result in a loss.

Risks Relating to Market Integrity and Service Ecosystems

2.3.20. *The venues through which Bitcoin and Ether 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 Bitcoin or Ether and therefore adversely affect the value of a Digital Asset Transaction and result in a loss. Venues through which Bitcoin and Ether trade are relatively new.* These trading venues are generally subject to different regulatory requirements than venues for trading more traditional assets and may be subject to limited or no regulation. 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 daily, weekly, monthly, or customer-specific transaction or distribution limits or suspend withdrawals entirely, rendering the exchange of Bitcoin or Ether for fiat currency difficult or impossible. Participation in trading on some venues requires users to take on credit risk by transferring digital assets from a personal account to a third party's account, which could discourage trading on those venues. Operational problems or failed trading venues and fluctuations in Bitcoin/Ether prices may reduce confidence in these venues or in Bitcoin/Ether generally, which could adversely affect the price of Bitcoin/Ether and therefore adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.21. *Political or economic crises may motivate large-scale sales of Bitcoin or Ether, which could result in a reduction in the prices of Bitcoin or Ether and adversely affect the value of Digital Asset Transactions.* As an alternative to fiat currencies that are backed by central governments, Bitcoin

and Ether are subject to supply and demand forces based upon the desirability of an alternative, decentralised means of buying and selling goods and services, and it is unclear how such supply and demand will be impacted by geopolitical events. Nevertheless, political or economic crises may motivate large-scale acquisitions or sales of Bitcoin or Ether, either globally or locally. Large-scale sales of Bitcoin or Ether would result in a reduction in their price and adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.22. *The novelty of the markets for Bitcoin, Ether and other digital assets means that they lack liquidity relative to traditional exchanges and are therefore more vulnerable to failure which could adversely affect the value of a Digital Asset Transaction.* Exchanges for digital assets are not only new, but they are also largely unregulated. As a result, there is a risk of delay or failure of liquidity in the markets for digital assets. Market closures or liquidity failures can affect both the price and tradability of Bitcoin or Ether. In such an event, the price of Bitcoin or Ether may decline or be more volatile which may in turn adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.23. *Ownership of Bitcoin and Ether is pseudonymous and the supply of accessible Bitcoin and Ether is unknown.* Entities with substantial holdings in Bitcoin or Ether may engage in large-scale sales or distributions, either on nonmarket terms or in the ordinary course, which could result in a reduction in the price of Bitcoin or Ether and adversely affect the value of a Digital Asset Transaction and result in a loss. There is no registry showing which individuals or entities own Bitcoin/Ether or the quantity of Bitcoin/Ether that is owned by any particular person or entity. There are no regulations in place that would prevent a large holder of Bitcoin/Ether from selling Bitcoin/Ether it holds. To the extent such large holders of Bitcoin/Ether engage in large-scale sales or distributions, either on nonmarket terms or in the ordinary course, it could result in a reduction in the price of Bitcoin/Ether and adversely affect the value of a Digital Asset Transaction and result in a loss.

2.3.24. *The lower sophistication of the Bitcoin and Ether markets may lead to greater price volatility and other issues, which may adversely affect the value of a Digital Asset Transaction.* The general sophistication of the underlying Bitcoin and Ether markets is lower than that of more standard financial instruments markets, which is what clients would likely be used to dealing with, and in some cases market participants, as well

as the infrastructure and service providers in the market, lack the maturity of their counterparts in traditional markets and are often operating in an unregulated environment. This could give rise to a number of novel risks, including in relation to the reliability or availability of services, resilience and business continuity, the lawfulness of activities that would be unlawful in regulated markets. Some market players also perform multiple roles within this landscape (and may not be subject to regulatory obligations in this regard), there are also heightened risks of conflicts of interest arising and having harmful effects. This may in turn adversely affect the value of a Digital Asset Transaction

2.3.25. *Digital assets are not generally subject to market abuse regulations, which may adversely affect the value of a Digital Asset Transaction.* Bitcoin, Ether and other similar digital assets are not directly subject to market abuse or market manipulation regulations (although many trading venues seek to impose equivalent or comparable standards through other mechanisms, including contractually). However, actions akin to market abuse can result in extreme value movements in digital assets, which may in turn adversely affect the value of a Digital Asset Transaction and result in a loss.