廣發証券(香港)經紀有限公司
GF SECURITIES (HONG KONG) BROKERAGE LIMITED
香港灣仔駱克道81號廣發大廈27樓
27/F, GF Tower, 81 Lockhart Road, Wan Chai, Hong Kong
T: 852-3719 1111 F: 852-2907 6176 W: www.gfgroup.com.hk

请填妥并签署以下声明后以电邮发送至 seccs@gfgroup.com.hk 或邮寄至 香港湾仔骆克道 81 号广发大厦 27 楼 客服部收。

Please fill and sign the below declaration and submit through email to seccs@gfgroup.com.hk or mail to 27/F, GF Tower, 81 Lockhart Road, Wan Chai, Hong Kong (Attention: CS Department).

虚拟资产知识评估表格

Virtual Assets Knowledge Assessment Form

评估客户对虚拟资产的认识

Assessing Client's Knowledge of Virtual Assets

本人/吾等谨此声明本人/吾等已具备如下加上剔号(✓)的准则 (如适用，可剔选多项准则):

I/ we hereby declare that I/ we have fulfilled the following criterion/ criteria as indicated by a "tick" (please select multiple options if applicable):

☐准则 1：本人/吾等曾接受有关虚拟资产的培训或修讀相关课程。

(请提供相关资料及证明文件，例如课程证书，如未能提供证明文件则须完成学习「虚拟资产的一般知识」并正确地回答所有知识评估问题。)

Criterion 1: I/We have undergone relevant training or attended relevant courses in virtual assets.

(Please provide relevant information and supporting document(s), e.g. course certificate; otherwise, the "General Knowledge on Virtual Assets" is required to be studied and all the knowledge assessment questions are required to be answered correctly.)

请提供相关培训或课程的详情，包括但不限于机构名称、课程名称以及完成日期。Please provide details of relevant training or courses, including but not limited to the institution name, course name and completion date:

_____

☐准则 2：本人/吾等现时或过去拥有与虚拟资产有关的工作经验。

(请提供相关资料及证明文件，例如持牌人中央编号、名片等，如未能提供证明文件则须完成学习「虚拟资产的一般知识」并正确地回答所有知识评估问题。)

Criterion 2: I/We have current or previous work experience related to virtual assets.

(Please provide relevant information and supporting document(s), e.g. CE No. of Licensed Persons, name card, etc.; otherwise, the "General Knowledge on Virtual Assets" is required to be studied and all the knowledge assessment questions are required to be answered correctly.)

Position 职位: _____ Years of experience 经验年期: _____

Other information (e.g. job nature) 其他资料（例如工作性质）：

_____

□准则 3：本人/吾等在过去三年曾执行过五次或以上有关任何虚拟资产(不论是否在交易所买卖)的交易。

(请提供相关证明文件，例如账户结单，如未能提供证明文件则须完成学习「虚拟资产的一般知识」并正确地回答所有知识评估问题。)

Criterion 3: I/We have executed five or more transactions in virtual assets (whether traded on an exchange or not) within the past three years.

(Please provide relevant supporting document(s), e.g. statements of account; otherwise, the "General Knowledge on Virtual Assets" is required to be studied and all the knowledge assessment questions are required to be answered correctly.)

□准则 4：本人/吾等没有虚拟资产相关的知识、工作经验或投资经验。

Criterion 4: I/We have no relevant knowledge, work experience or investment experience in virtual assets.

→ 没有相关知识、工作经验或投资经验的客户将不能买卖虚拟资产或虚拟资产相关产品 Clients without relevant knowledge, work experience or investment experience will not be able to buy or sell virtual assets or virtual asset-related products.

如阁下希望买卖虚拟资产或虚拟资产相关产品，请完成学习「虚拟资产的一般知识」并完成以下相关知识评估问题。阁下须正确地回答以下所有知识评估问题后才可以买卖虚拟资产或虚拟资产相关产品。If you would like to buy or sell virtual assets or virtual asset-related products, please study the "General Knowledge on Virtual Assets" and

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complete the below relevant knowledge assessment questions. You must answer all the following knowledge assessment questions correctly before buying or selling virtual assets or virtual asset-related products.

☐本人/ 吾等确认已阅读「虚拟资产的一般知识」并完全了解有关虚拟资产的性质、常见种类、用途以及相关之风险，并已获邀提出问题及征求独立的意见。

I/We confirm that I/we have read the "General Knowledge on Virtual Assets" and fully understood the virtual assets' nature, common types, applications and the associated risks , and I/we have been invited to raise questions and seek for independent advice.

Q1. 什么是区块链? What is a blockchain?

☐ A. 虚拟资产的一种类型 A type of virtual assets

☐ B. 一种用于加密货币的物理存储设备 A physical storage device for cryptocurrencies

☐ C. 一个用于记录加密货币交易的去中心化数字分类账 A decentralized digital ledger for recording transactions of cryptocurrencies

☐ D. 虚拟资产的交易平台 Trading platforms for virtual assets

Q2. 下列哪一个项目不是虚拟资产? Which of the following is NOT a virtual asset?

☐ A. 比特币 Bitcoin

☐ B. 黄金 Gold

☐ C. 以太币 Ether

☐ D. 非同质化代币 Non-fungible token (NFT)

Q3. 下列哪一个项目是加密货币的核心技术? Which of the following is the core technology of cryptocurrency?

☐ A. 人工智能 Artificial Intelligence

☐ B. 区块链 Blockchain

☐ C. 第五代行动通讯技术 5th-Generation Mobile Communication Technology

☐ D. 大数据 Big Data

Q4. 下列哪一个项目不是比特币的基本特点? Which of the following is NOT the characteristics of Bitcoin?

☐ A. 去中心化 Decentralization

☐ B. 证券化 Securitization

☐ C. 建基于区块链技术 Built on blockchain technology

☐ D. 非以实物方式存在 Not in physical existence

Q5. 下列哪一些项目是虚拟资产的风险? Which of the followings are the risks of virtual assets?

i) 没有内在价值, 价格十分波动 No intrinsic value, highly volatile.

ii) 流动性风险及市场操控 Liquidity risk and market manipulation.

iii) 交易平台和监管风险 Trading platform and regulatory risks.

iv) 借助虚拟资产进行犯罪行为 Using virtual assets to commit crimes.

☐ A. 只有 ii、iii Only ii、iii

☐ B. 只有 ii、iii、iv Only ii、iii、iv

☐ C. 只有 i、ii、iii Only i、ii、iii

☐ D. 以上 皆是 All of the above.

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账户持有人签署 Signatures(s) of Account Holder(s)*

_____

(请用留存于广发证券(香港) 纪录之签署式样 Please use the specimen signature(s) recorded in GF Securities (Hong Kong))

账户持有人姓名 Name of Account Holder(s) : _____

账户号码 Account No.: _____

日期 Date : _____

*若属联名账户，每名账户持有人须独立填写及签署一份虚拟资产知识评估表格。 若属公司客户，则须由被授权人士代表公司填写及签署(及公司印章，如适用)虚拟资产知识评估表格。

* If it is a Joint Account, each account holder needs to complete and sign a Virtual Assets Knowledge Assessment Form independently. If it is a Corporate Account, the Virtual Assets Knowledge Assessment Form needs to be completed and signed (with company chop, if applicable) by the authorized person for and on behalf of the company.

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- 选项 1，2,或 3；或
- 选项 4 已完成学习及 5 题均回答正确</td><td>☐ 不可以买卖
- 选项 4
- 没有完成学习；或
- 5 题未能全部回答正确</td><td>Signature</td><td></td><td></td><td></td></tr>
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虚拟资产的一般知识

基本概念 - 区块链

区块链(Blockchain)是一种支持各种「加密货币」交易的记账及核实交易技术，其中又以比特币最为人熟悉。通过区块链，在比特币网络进行的每一项交易都以匿名方式记录在公开的网上账目内。每当一项新的比特币交易产品产生时，便会被加进区块链内。每项交易均由其他比特币使用者(称为矿工)核实，矿工可以透过核实其他人的交易赚取比特币作为回报。这种核实及奖励过程称为「比特币采矿」(Bitcoin Mining)。

基本概念 - 比特币 / 「加密货币」

比特币并非货币，而是一种虚拟商品，市场俗称比特币及类似的虚拟商品为「加密货币」或「虚拟货币」。比特币于 2009 年面世，是第一只「加密货币」。自此之后数以千计的「加密货币」相继推出，例如以太币(Ether)、瑞波币(Ripple)和莱特币(Litecoin)等。

- 比特币是一组复杂的电子密码，可透过电子方式传送
- 可以向接受比特币的商户购买(或交换)货物或服务
- 比特币以「区块链」(Blockchain)技术核实及记录交易
- 虽然它名字叫比特币，但并非以实物方式存在，所以没有实物的比特币钱币
- 比特币及其他「加密货币」没有任何银行、政府、发行人或实物的支持

在香港，比特币及其他「加密货币」被视作虚拟商品，而非法定货币，不具备成为支付媒介或电子货币的条件，亦未能在日常生活中普遍使用。

基本概念 – ICO (首次代币发行 Initial Coin Offering)

ICO 是一种网上集资活动，一般为研发区块链技术项目而筹集资金。ICO 发起人透过发行数码代币(Digital tokens or coins)，换取广泛使用的「加密货币」(例如比特币或以太币)，作发展项目营运之用。ICO 发起人一般会提供一份称为「白皮书」的文件，列明集资的目的及用途。买入代币的人(即投资者)可获得该区块链项目的使用权或约平权益。代币发行完成后，可能会被安排在「加密货币」交易平台进行交易，以便投资者进行买卖，这些代币日后被视作新的「加密货币」。

虚拟资产 5 大要点

1. 虚拟性质，不具实体形态

虚拟资产不具实体形态，是一种以数码形式来表达价值，可以用作交易、转移、支付以至投资的资产，例如加密资产、去中心化自治组织代币、非同质化代币、或声称有商品或其他资产支持的代币，但不包括法定数码货币（例如中央银行发行的数码货币）。

2. 始于比特币

比特币（Bitcoin）是第一种主要的虚拟资产，而且市值最大，所以要认识虚拟资产，可从比特币开始。比特币概念在 2008 年由一名或一群自称 Satoshi Nakamoto (中文译作中本聪，但其真实身分一直存疑)的人提出，目标是应用区块链技术，建立一个不需要中央机构或中介的电子货币体系。要留意比特币或其他虚拟资产并非政府发行的法定货币 (注)；而在香港，一般不获接纳为付款方式 。

3. 建基于区块链

在传统的买卖交易中，最重要的基础是交易双方的互信，但很多时交易双方都互不认识，所以需通过中央管理机构如中央银行、交易所或银行，辨别买卖双方身份、确认及记录交易。

但与传统交易不一样，虚拟资产一般透过区块链，进行毋须中央管理的去中心化交易。比特币是首个区块链应用，每一个参与者通过互联网连接比特币的网络，并成为「节点」，所有交易验证及纪录将会分散地储存于这些独立的节点上。网络中的节点在交易时会尝试进行运算，核实及确认交易，并把相关数据加入区块链，从而获取特定数量的比特币作为回报，此过程称之为「挖矿」。事务数据被组织成「区块」，并受密码学保护，按时间顺序排列与其他区块连结，形成区块链。所有参与者都可以查看区块链上的交易，但已加入区块链的交易不能修改或取消。

4. 新兴资产，投机味浓

随着比特币掀起热潮，其他虚拟资产大量涌现。据市场统计，目前全球有超过两万种虚拟资产，但不同虚拟资产的特性及运作方式存在不少差异。此外，也有其他不同类别的虚拟资产出现，例如非同质化代币，并逐渐演变成另类新兴资产。此外，亦有一些虚拟资产相关投资产品，例如虚拟资产期货 ETF。但是，不少虚拟资产参与者抱着投机炒卖的心态，希望在短期内捕捉巨额升幅，加剧了虚拟资产的市场波动。

5. 带有多种不同的风险

比特币及其他虚拟资产日渐盛行，并引起广泛市场关注，特别是它们价格过去曾大幅上升，而相关的区块链技术亦有很大的发展潜力。但是，大家必须明白这些新兴资产的性质与风险。与传统资产不同，虚拟资产一般没有内在价值，亦没有任何政府或银行支持。价格主要取决于投资者信心及市场供求，容易受市场消息影响。很多虚拟

资产的规模及用户数量并不大，交投也不活跃，容易构成流通性风险，及出现市场操控情况。基于其虚拟及网上性质，虚拟资产带有多种不同的风险，包括交易平台风险、跨境风险、黑客攻击、钱包保安、洗黑钱或为恐怖活动集资活动等，而很多骗徒亦会利用虚拟资产进行诈骗。此外，不同地区政府对这类新兴资产有不同的取态，虚拟资产交易平台在不同地区可能不受监管或只有轻度监管 (即没有或只有很少投资者保障措施)，未必有足够的投资者保障。

了解风险 - 比特币 / 「加密货币」

1. 高度投机性 - 「加密货币」价格经常大幅波动，甚具投机意味。
2. 没有担保或支持 - 没有任何银行、政府、发行人或实物担保或支持
3. 泡沫风险 - 若泡沫爆破，投资者可能蒙受巨大损失
4. 黑客攻击 – 因黑客攻击而导致「加密货币」失窃个案有上升趋势。
5. 交易风险 – 交易平台由私人公司设立，可能不受规管或位处海外。若倒闭或停止运作，投资者可能会全数损失存放在这些平台上的「加密货币」。
6. 钱包保安 – 若数码钱包受黑客入侵、病毒感染、故障、甚至钱包密码遗失或盗窃，亦可能导致「加密货币」损失。
7. 流通性 – 市场上不一定有足够的活跃买家或卖家，可能难以变现。
8. 违法活动 - 「加密货币」相对匿名及容易转移，可能被不法份子用作犯罪活动，例如洗黑钱、诈骗、恐怖活动资金等。
9. 前景难料 - 「加密货币」正在不断演变，前景难以预测，在国际社会的认受性仍是未知之数。

比特币及其他「加密货币」属于高风险的产品，未有全面了解其特性及风险之前，切勿跟风投机。

了解风险 – ICO

有些 ICO 成功在短时间内筹集巨额资金，因而获媒体关注及报导，但对投资者而言，参与 ICO 可能涉及各种不同风险，包装以下各项:

1. 有限信息及前景成疑 – 很多 ICO 白皮书只列出一个新概念，所披露的资料未必足够或难以核实。投资者所买的可能只是一个项目前景，能否落实则视乎该项目之后的发展。
2. 欺诈及骗局 – 骗徒可能把 ICO 包装成吸引的投资机会，以新科技及高回报作招徕，诱骗投资者投入资金。
3. 高度投机性 – 数码代币的估值通常不透明，而且高度投机性，交易价格或会在短时间内大幅波动，甚至可以变得毫无价值。
4. 流通性风险 – 市场不一定有足够的活跃买定和卖家，代币持有人可能难以出售、变现或使用其代币。

5. 跨境风险 – ICO 可以跨境进行及不受地域限制。如果出现欺诈、违约或倒闭，投资者可能难以行使权利及保障自身权益。
6. 违法活动 – ICO 相对匿名的交易特点及快速的集资能力，使其容易招致潜在洗黑钱及恐怖份子资金筹集的风险。

虚拟资产的风险

虚拟资产近年备受关注，交易量大幅增加，也有愈来愈多传统金融机构开始涉足虚拟资产市场。不少投资者可能被虚拟资产的骄人升幅或「高息」所吸引，而忽略或低估虚拟资产的风险，特别是作为新兴产品，虚拟资产很多风险均有别于传统投资产品。

1. 没有内在价值

虚拟资产一般没有内在价值，也没有任何政府、银行或实物担保，以支持其价值或购买力，价格走势很大程度取决于投资者信心，或虚拟资产本身的供求。由于有很多人以投机心态进行虚拟资产交易，加上市场未必具透明度，虚拟资产价格很容易受到市场传闻及名人效应所影响。

2. 价格十分波动

比特币可说是最具代表性的虚拟资产，自 2009 年面世至今，价格经常大起大跌。虽然比特币经常因价格大升成为市场及媒体焦点，但过去五年已经历了两次暴跌，分别于 2017 年 12 月至 2018 年 12 月大跌超过 80%，及 2021 年 11 月至 2022 年 11 月跌幅超过 70%。其他虚拟资产的波幅较比特币更高，甚至有不少失败清零的例子。就算号称以稳定价格为目标的「稳定币」(Stablecoins) 也不一定稳阵。在 2022 年，曾经是第三大稳定币的「Terra UST」便出现崩盘，币价在短短数天内暴跌近 90%。

3. 流动性风险及市场操控

全球目前约有超过两万只虚拟资产，当中很多规模及用户数量并不大，交投也不活跃，容易构成流通性风险，及出现市场操控情况。

4. 交易平台风险

虚拟资产交易平台一般由私人公司营运，当中只有少数受监管，而且大部分均设于海外。一旦交易平台停止运作、倒闭或被黑客入侵，投资者可能会损失部分或全部存放于交易平台的虚拟资产，相关损失可能难以提出申索

或追讨。在 2022 年，便有大型的虚拟资产市场参与者倒闭 (例如虚拟资产交易平台、基金经理、经纪商、存贷平台)，引发连锁反应，令很多投资者蒙受损失。此外，不同地区政府对这类新兴资产有不同的取态，虚拟资产交易平台在不同地区可能不受监管或只有轻度监管 (即没有或只有很少投资者保障措施)，未必有足够的投资者保障。

5. 钱包保安

近年与虚拟资产相关的黑客攻击及欺诈个案有上升趋势 (特别是连接到互联网的游资包），投资者可能因而严重损失。另外，设备受病毒感染或遗失私钥，也可能导致投资者损失所有虚拟资产。

6. 犯罪行为

由于虚拟资产具有极高匿名性，因此不少罪犯会在犯罪过程中，借助虚拟资产进行洗黑钱，或为恐怖活动集资等活动。此外，近年亦愈来愈多骗徒利用虚拟资产进行诈骗。

7. 其他风险

虚拟资产属创新产品，未来发展难以估计，其认受性及需求可能逆转。此外，各国政府对这类新兴资产及相关活动的政策可能会改变或加强监管，亦可能影响虚拟资产的未来发展，或对价格构成影响。

虚拟资产钱包及私钥

在日常生活中，我们会将钱放进钱包。在虚拟资产的世界里，也会用「钱包」存放、接收或发送虚拟资产。

了解公钥与私钥

要了解虚拟资产钱包的运作，首先要认识公钥及私钥的概念。虚拟资产钱包利用公钥及私钥保护及存取资产。公钥是虚拟资产在区块链上的地址，像银行帐户号码，可以公开显示予其他人用作收款用途。而私钥则是用来证明虚拟资产拥有权的密码，私钥持有人能将有关虚拟资产转移至另一地址。私钥可以通过算法计算出公钥，但公钥不能反过来计算出私钥，从而保障私钥及相关虚拟资产的安全。虚拟资产建基于去中心化系统，没有中央机构可以证明虚拟资产拥有权，一旦私钥遗失或被盗，用户可能无法再接触或使用相关虚拟资产，所以私钥必须小心保管及备份。

由于私钥十分冗长及复杂，当开立虚拟资产钱包时，有些钱包会产生一组通常由 12 至 24 个英文短词组成的「助记词」，以方便用户记录及记忆。助记词等如另一个形式的私钥，因此必须小心保存及不可外泄。用户应尽量以手写抄录并储存在安全的地方，切勿以屏幕截图或拍照等电子方式储存。

公钥及私钥储存在虚拟资产钱包之内，并以密码保护，主要可以分为冷钱包与游资包两类：

冷钱包

冷钱包是指没有连接网络的硬件装置，外形大多类似 USB 硬盘、汽车遥控钥匙或信用卡。它们以脱机方式储存虚拟资产的私钥，安全性较高。

游资包

游资包是指连接网络的虚拟资产储存方式，好处是用户毋须购买额外的装置，交易时亦毋须像冷钱包一样每次连接网络，收发虚拟资产会较为方便。不过，任何连接网络的程序或装置都有同一风险，就是一旦计算机或手机被病毒或恶意软件入侵，当中的私钥便有机会被盗取。常见的游资包有以下两类：

软件钱包

软件钱包是一套软件程序，用户以计算机或流动装置下戴及安装后，就可以产生私钥。

交易平台钱包

交易平台钱包是由虚拟资产交易平台提供的储存服务，它与软件钱包的分别是交易平台会代客户持有及管理私钥，让用户可以快速地存取虚拟资产。但由于交易平台钱包的用户没有私钥的控制权，若平台停止运作、倒闭或被黑客入侵，用户可能失去储存在平台的虚拟资产，特别是现时大部分虚拟资产交易平台都不受监管及设于海外。

Not your keys, not your coins

投资者可以因应需要，选择合适的虚拟资产钱包。由于游资包的安全性不及冷钱包，用户应尽量避免将大量虚拟资产储存在游资包，以减低风险。另外，要留意若把虚拟资产储存在交易平台，若平台停止运作、倒闭或被黑客入侵，投资者可能损失所有虚拟资产。

无论选用哪一类钱包，管理虚拟资产钱包的首要一步都是妥善储存私钥，减低私钥被盗用或遗失的风险。正如上文提到，私钥就是虚拟资产拥有权的证明，一旦失去私钥基本上等于失去虚拟资产。因此，切记小心保管虚拟资产钱包及私钥，应以脱机方式为私钥作备份及保存在安全的地方。

【投资虚拟资产 】DYOR 至关重要

虚拟资产由最初以支付作目标的工具，逐渐演化出不同的类别，并成为新兴的另类投资。投资者应否参与虚拟资产投资，成为了不少人关心的问题。

如何选择投资工具，可说是因人而异，但基本原则是按照个人投资目标、投资期及承受潜在损失的能力，决定不同资产的比重，及选择合适的投资产品。

审慎评估风险承受能力

评估自己的风险承受能力对投资者十分重要，特别是考虑投资虚拟资产的时候。从历史波幅看，虚拟资产无疑属高风险产品。以比特币为例，过去五年已经历了两次暴跌，分别于 2017 年 12 月至 2018 年 12 月大跌超过 80%，及 2021 年 11 月至 2022 年 11 月跌幅超过 70%。其他虚拟资产的波幅较比特币更高，甚至有不少失败清零的例子。虚拟资产一般没有实物资产支持，容易成为投机炒卖的工具，而且对市场消息和传闻非常敏感，一则社交媒体贴文随时可以令虚拟资产价格在短时间内大幅波动。

此外，基于其虚拟及网上性质，虚拟资产还带有多种不同的风险。所以考虑投资虚拟资产前，必须先考虑自己能否承受可能出现的巨大亏损。

切忌 YOLO 与 FOMO

社交媒体上有很多关于虚拟资产的讨论及分享，亦经常会听到 YOLO 及 FOMO 两个潮语。YOLO (即 You Only Live Once)，意谓人只可以活一次，所以要博尽，争取最大回报；而 FOMO (Fear Of Missing Out) 则是指因害怕错过赚钱机会，所以加入炒卖虚拟资产。不少人正是抱着「搏一搏」及「唔好执输」的心态投资虚拟资产。虚拟资产是创新产品，经过不同演绎，加上过去累积巨大升幅，在市场情绪推动下，不少人只着眼潜在机会，而忽略虚拟资产的性质及风险，在不了解虚拟资产的情况下跟风投机，其实无异于赌博。

DYOR 至为关键

不做功课及跟风投机都是投资大忌，所以虚拟资产圈子经常会提醒参与者 DYOR (Do Your Own Research)，意谓投资者应自己做好研究及分析，当中包含两层意思。首先，投资虚拟资产前必须做功课，深入了解虚拟资产的性质、运作及风险。市面上有很多不同的虚拟资产，每一种的特点和风险并不一样。投资之前，一定要充分了解。此外，社交媒体上充斥着大量虚拟资产的投资意见、分析或消息，DYOR 亦指不要盲目地听从别人的话，投资者必须自己进行研究，有独立思考及判断。

总括而言，虚拟资产走势极为波动，亦涉及多种不同风险。投资者若有兴趣投资虚拟资产或在资产配置中加入这类资产，必须做足功课，深入了解虚拟资产的特性及风险，小心衡量自己风险承受能力，切忌抱孤注一掷的心态，或盲目跟风投机。另外，近年有愈来愈多关于虚拟资产的骗局出现，手法更是层出不穷，有意买卖虚拟资产的人士必须加倍要小心。

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Basic concept – Blockchain

Blockchain technology is the underlying foundation of "cryptocurrencies", most notably bitcoin. It verifies and records the transactions of "cryptocurrencies". For example, with bitcoin, very single transaction that takes place in the bitcoin network is recorded in a shared public ledger. Whenever a new block of transactions is created, it is added to the blockchain. Transactions are verified by other bitcoin users (known as miners) who earn a reward in bitcoins for this service. This verification and reward process is known as bitcoin mining.

Basic concept - Bitcoin/"cryptocurrencies"

Bitcoin is a virtual commodity and is not a currency. The market generally calls bitcoin and alikes as "cryptocurrencies" or "virtual currencies". Bitcoin was the first "cryptocurrency" that was introduced in 2009, and since then, thousands of alternative "cryptocurrencies" have emerged such as Ether, Ripple and Litecoin etc.

- You can imagine bitcoin as a series of complicated and encrypted passwords which can be transferred electronically.
- Bitcoin can be used as a means to "pay"/exchange for goods or services with merchants who accept them.
- Bitcoin is operated under blockchain technology to verify and record transactions.
- Though it is called bitcoin, it does not physically exist. There is no actual physical bitcoin.
- Bitcoin is not backed by any bank, government, not supported by its issuers or tied to any tangible assets.

In Hong Kong, bitcoin and other "cryptocurrencies" are considered to be virtual commodities, and are not legal tenders. Usage is limited as they are not widely accepted as a means of payment or recognised as a digital currency.

Basic concept – ICO

ICOs are typically online fundraising activities for block-chain technology related projects. A project operator issues digital "tokens" or "coins" to fund the project in exchange for a widely-used "cryptocurrency" (such as Bitcoin or Ether) or cash. The project operator often sets out the business proposal and usage of raised funds in a so-called "white paper". People buying the tokens (i.e. investors) can be entitled to certain rights of the prospective blockchain project. These new digital tokens may be made available to trade in "cryptocurrency" trading platforms after the initial offering to enable secondary market transactions. These tokens are generally regarded as new "cryptocurrencies".

Five things you should know about virtual assets

1. Virtual nature and no physical form

Virtual assets have no physical form and are a digital representation of value that can be traded, transferred or used for payment or investment purposes. Examples of virtual assets include crypto assets, decentralized autonomous organisation tokens, non-fungible tokens, and tokens claiming to be backed by commodities or other underlying assets. However, virtual assets do not include digital fiat currencies (e.g. e-currencies issued by central banks).

2. Starting from bitcoins

Bitcoin is the first major type of virtual asset and has the largest market cap. So understanding bitcoin is a good starting point for learning about virtual assets. The concept of bitcoin was first brought forward by a person or a group of persons called Satoshi Nakamoto in 2008 (but the identity of such has never been confirmed), with the aim to use blockchain technology to build a digital currency system that does not require any central authority. But one must note that bitcoins and other virtual assets are not legal tenders issued by governments (Note) and in Hong Kong, they are not a generally accepted form of payment.

3. Built on blockchain

Traditional transactions are built upon mutual trust. However in many trading transactions, buyers and sellers do not know each other, as such, central authorities like central banks, exchanges or banks, are needed to verify the identities of both parties, confirm and record the transactions.

But unlike traditional transactions, virtual assets are generally traded through blockchain, a decentralized system that does not require any central authority. Bitcoin is the first blockchain application. Each participant is connected to the bitcoin network via internet and becomes a 'node' of the network. All transaction verification and records will be sparsely stored in these independent nodes. When there are new transactions, the nodes will try to validate and confirm them, and add them to the blockchain so that a certain amount of bitcoin can be received as rewards. This process is known as bitcoin mining. The transaction data are organised into blocks and secured by cryptography. The new block is then connected with other blocks chronologically, forming a chain of blocks. All participants can see and check the transactions on blockchain but the data on the blockchain cannot be altered or cancelled.

4. Emerging products and highly speculative

Riding on the wave of bitcoin, other virtual assets are springing up in the market. According to market research, there are over 20,000 virtual assets with different features and operations. There are also other kinds of virtual assets such as non-fungible tokens, which has become an emerging asset class. Besides, there are different investment products that come with virtual asset exposure, e.g. virtual asset futures ETFs. However, many investors see virtual assets as speculation tools to capture potential massive upside gains in the short term, increasing market volatility of virtual assets.

5. Associated with different types of risks

Bitcoin and other virtual assets are gaining popularity and market attention as their prices have gone up drastically in the past, while blockchain technology has great potential. Yet we must understand such emerging asset's features and risks. Unlike traditional assets, virtual assets generally do not have any intrinsic value, nor are they backed by any government or bank. Their prices mainly rely on investor confidence and market demand & supply which are sensitive to market news and rumours. Besides, the scale and number of users of many virtual assets are not large and trading may not be active. This may lead to liquidity risk and potential market manipulation. Due to their virtual and digital nature, virtual assets are associated with different types of risks, including trading platform risk, cross-border risk, cyberattacks, wallet security, money laundering and terrorist financing. There are also more and more virtual asset related scams where fraudsters are using virtual assets as bait to make off with your money. Moreover, different jurisdictions may have different stances on these emerging assets. Virtual asset trading platforms may be unregulated or only subject to

light regulation (i.e. subject to none or minimal investor protection measures) in different jurisdictions and there may not be sufficient protection for investors.

Investors who are interested in virtual assets must conduct research to understand the features, operation and risks of virtual assets. Make sure you evaluate your risk appetite before making investment decisions. If you do not fully understand virtual assets and cannot bear the potential losses, you should refrain from investing in such asset class.

Know about the risks - Bitcoin/"cryptocurrencies"

1. Price volatility – The values of “cryptocurrencies” are highly volatile and speculative.
2. No guarantee or backing – Not backed by any bank, government, issuer nor tangible asset.
3. Bubble risk – Investors may incur significant loss if the bubble burst.
4. Hacking risk – Cyber-attacks resulting in the theft of “cryptocurrencies” are becoming increasing common.
5. Exchange platform – “Cryptocurrency” exchange platforms are set up by private companies which may be unregulated or located overseas. If these platforms cease operations or collapse, investors may face the possible risk of losing their entire investments held on theses platform.
6. Wallet security – Digital wallets can be prone to losses arising out of hacking, virus infection, failure, loss or theft of password etc.
7. Liquidity risk – There may not be enough active buyers and sellers, and may be difficult to liquidate.
8. Illegal activities – Due to the relative anonymity and the ease of transfer, “cryptocurrencies” could be used for money laundering and funding terrorist activities, such as arms trade and drug deals, etc.
9. Emerging technology – It is still in the experimental stage and constantly evolving. Globally, the acceptance of “cryptocurrencies” remains uncertain.

Bitcoin and other “cryptocurrencies” are high risk products. Without full knowledge of the features and risks, the public are advised not to follow the herd and participate in speculation.

Know about the risks – ICO

Although certain ICOs have made the headlines by raising millions of dollars within minutes or hours, from an investor’s perspective, participating in an ICO may pose various risks, including:

1. Lack of due diligence – The white papers may simply list out a new concept and the information disclosed may not be sufficient and may not be verified or verifiable. Investors may be buying into a concept only rather than the underlying economic utility of the project. Whether the project can be implemented will depend how it develops in the future.
2. Possible scam or frauds – fraudsters may entice investors by touting an ICO investment “opportunity” as a way to get into this cutting-edge space, or promising high investment returns.
3. Highly volatile and speculative – The valuation of digital token and “cryptocurrencies” is usually not transparent, and highly speculative. Their prices can fluctuate greatly within a short period of time, and even be rendered worthless.
4. Liquidity risk – There may not be enough active buyers and sellers in the market. Token holders may not be able to liquidate their investments easily.
5. Cross-border risk – ICOs are likely cross-border in nature and may not be confined to a local jurisdiction. Investors may have difficulty enforcing their rights and interests in case of fraud, default or bankruptcy.

Understanding the risks of virtual assets

In recent years, virtual assets have become a hot topic, with trading volume increasing significantly and more traditional financial institutions entering the market. Investors may be drawn by the potential upside gain and high "interest income" offered, but it's important not to overlook or underestimate the risks involved. Virtual assets are emerging products, and many of their risks are different from those of traditional investment products.

1. No intrinsic value

Virtual assets generally do not have any intrinsic value and are not backed by any government, bank or physical assets to support their value or purchasing power. Their prices mainly rely on investor confidence and market demand and supply. Speculative trades around virtual assets are common, and the market may not be transparent. Prices of virtual assets are easily affected by market rumours and celebrity shilling.

2. Highly volatile

Bitcoin is the most popular virtual asset, and its price has been on a roller coaster ride since it first debuted in 2009. Though it often hits headlines and becomes market focus due to huge price gains, bitcoin has experienced two massive plunges in the past five years, dropping over 80% between December 2017 to December 2018; and 70% between November 2021 to November 2022 respectively. Other virtual assets are more volatile than bitcoin, and some even recorded total losses. Even stablecoins which claim to maintain price stability, may not be as stable as their name suggests. In 2022, Terra UST, once the third biggest stablecoin, was unpegged, and its value plummeted by nearly 90% in just a few days.

3. Liquidity risk and market manipulation

Globally, there are currently more than 20,000 virtual assets. The scale and number of users of many virtual assets are not large, and trading may not be active, leading to liquidity risk and potential market manipulation.

4. Trading platforms

Virtual asset trading platforms are generally operated by private companies, with only a few being regulated, and most are located overseas. If these platforms cease to operate or collapse or are hacked, investors may lose some or all of the virtual assets held on these platforms, and it may be difficult for them to seek recourse or recover the losses. In 2022, we saw large virtual asset leading players (such as virtual asset trading platforms, fund managers, brokers, deposit/lending platforms) collapsed, having a knock-on effect and leading to significant losses among many investors. Moreover, different jurisdictions may have different stances on these emerging assets. Virtual asset trading platforms may be unregulated or only subject to light regulation (i.e. subject to none or minimal investor protection measures) in different jurisdictions and there may not be sufficient protection for investors.

5. Wallet security

In recent years, hacks and scams involving virtual assets have been increasing, especially for hot wallets connected to the internet. Investors may incur significant losses in such cases. Besides, investors could lose all their virtual assets if their devices are infected by virus or if they lose their private key.

6. Illegal activities

Due to the high anonymity of virtual assets, they could be used by criminals for money laundering or funding of terrorist activities. Additionally, virtual assets are increasingly being used as a medium for scams.

7. Other risks

Virtual assets are innovative products and their future development is unpredictable, thus their acceptance and demand may move in a different direction. Governments may change their regulatory policies or tighten regulations for virtual assets and their activities, affecting the development and prices of virtual assets.

Keeping virtual asset wallets and private keys safe

In daily life, we use wallets to store money, while in the context of virtual assets, "wallets" are used to store and send/receive virtual assets.

Understanding public keys and private keys

To understand how virtual asset wallets work, we must first understand the concept of public key and private keys. Virtual asset wallets use private and public keys to protect and gain access to virtual assets. The public key is the address of the virtual asset on the blockchain, similar to a bank account number, it can be publicly displayed to others for receiving virtual assets. On the other hand, the private key is the password that proves ownership of the virtual assets, and the holder of the private key can transfer their virtual assets to another address. A private key can generate the public key through algorithms, but the public key cannot be used in reverse to generate the private key. This helps ensure the security of the private key and, consequently, the virtual assets. Virtual assets are built on decentralized systems where a central authority is absent to keep a record of virtual asset ownership. Once the private key is lost or stolen, users may no longer be able to access or use their virtual assets. As such, users should always keep the private key safe with backup.

Since private keys are long and complicated, some virtual asset wallets generate a set of "mnemonic" which is usually composed of 12 to 24 English phrases making it easier to record and remember. In fact, mnemonic is another form of private key and must be kept securely. Users should try to save it in a handwritten format and store it in a safe place, and avoid storing it in the form of screenshots or photos.

Public keys and private keys are stored in virtual asset wallets protected by a set of passwords. Virtual asset wallets can be broadly classified as cold wallets and hot wallets.

Cold wallets

Cold wallets refer to hardware devices that are not connected to the network, and most of them look like USB hard drives, car remote keys or credit cards. They store the private keys offline, offering better protection for virtual assets.

Hot wallets

A hot wallet refers to the storage method of virtual assets connected to the network. The advantage is that users do not need to purchase additional devices, and they can skip the steps of connecting to the network for each transaction like cold wallets. It is more convenient to send and receive virtual assets. However, any programmes/devices that connect to the internet share the same risk, that is, once the computer or mobile phone is invaded by viruses or malware, the private keys inside may be stolen. There are two types of common hot wallets:

Software wallets

A software wallet is a software application. After downloading and installing it on a computer or mobile device, the private key can be generated.

Trading platform-based wallets

Trading platform-based wallets are storage services provided by virtual asset trading platforms. The difference between these wallets and software hot wallets is that the trading platforms hold and manage private keys on behalf of the clients, allowing users to quickly deposit and withdraw their virtual assets. Since users of the trading platform-based wallets do not have control over the private key, they may lose their virtual assets if the trading platform is hacked, collapses or ceases operation, especially most trading platforms are currently unregulated and may be located overseas.

Not your keys, not your coins

Investors can choose a suitable virtual asset wallet according to their needs. Since hot wallets are not as secure as cold wallets, users should try to avoid storing large amount of virtual assets in hot wallets to reduce risks. In addition, investors should note that if virtual assets are stored on a trading platform, they may lose all their virtual assets if the platform collapses or ceases operation or is hacked.

No matter which types of wallets you choose, the first step in managing virtual asset wallets is to safely store the private key to reduce the risks. As mentioned above, the private key is the proof of ownership of virtual assets, and once it is lost, it means losing the virtual assets that the key protects. Therefore, make sure you keep the wallets and private keys safe, back up the private keys offline and store them in a safe place.

DYOR is of utmost importance

Virtual assets have come a long way from the initial purpose of being a payment tool, evolved into various different types, and now become a much-talked-about alternative investment option. The question of whether investors should invest in virtual assets has become a hot topic.

While different people may choose different investment products, the basic principle remains the same, i.e. consideration of your investment goals, tenor and risk appetite, then work on the asset allocation and select appropriate investment products.

Evaluate your risk appetite carefully

It is crucial to evaluate your risk appetite carefully, especially when it comes to virtual assets. Looking at historic price volatility of virtual assets, it is no wonder they are regarded as high risk. For instance, bitcoin has experienced two massive plunges in the past five years, dropping over 80% between December 2017 to December 2018; and 70% between November 2021 to November 2022 respectively. Other virtual assets are more volatile than bitcoin, and some even recorded total losses. Virtual assets are generally not backed by physical assets. They are highly speculative and sensitive to market news and rumours. A post on social media may lead to significant price movements within a short period.

Moreover, due to their virtual and digital nature, virtual assets come with different types of risks. Therefore, investors should consider carefully whether they can bear the potentially substantial losses before investing in virtual assets.

Avoid YOLO and FOMO

There are a lot of discussions and sharing around virtual assets on social media and you may have heard about the terms "YOLO" and "FOMO". YOLO, You Only Live Once, implies people would dedicate themselves for greatest return as we only live once. FOMO, Fear Of Missing Out, applies to the situation in which people speculate on virtual assets for the fear of missing out the opportunities to profit. Virtual assets are innovative products and have accumulated impressive price increases in the past. Coupled with market sentiments, many become too focused on the upside to see the true nature and risks of virtual assets. If investors just follow the herd without understanding the products before investing, it is no different from gambling.

The importance of DYOR

Herd mentality and investing in something that you do not understand are common investment mistakes. Therefore, make sure you "DYOR", Do Your Own Research, another acronym often used in the virtual asset market. There are two meanings to the term. Firstly, before investing in any virtual asset, investors should understand its nature, operations and risks. There are different kinds of virtual assets, and each has different features and risks. Hence, it is crucial to fully understand the product before making investment decisions. Secondly, in the world of social media, there are many sources of investment advice, analysis and news on virtual assets. To DYOR also means to not follow the hype blindly. Always do your own research and think independently and critically.

In conclusion, virtual assets are highly volatile and associated with different types of risks. If you plan to invest in or include them in your portfolio, it’s crucial to do your own research and understand the features and risks thoroughly. Make sure to evaluate your risk appetite, diversify your portfolio and avoid following the crowd blindly. Lastly, there are many scams relating to virtual assets which are of different tactics. Investors should remain vigilant to avoid falling prey to these scams.

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虛擬資產及虛擬資產相關產品風險披露聲明

「虛擬資產」是以數碼形式來表達價值的資產，形式可以是數碼代幣（如功能型代幣，或以證券或資產作為 支持的代幣）、任何其他虛擬商品、加密資產或其他本質基本相同的資產，不論該等資產是否構成《證券及 期貨條例》所界定的「證券」或「期貨合約」，但不包括由中央銀行發行以數碼形式來表達的貨幣。

「虛擬資產相關產品」指符合以下說明的投資產品：(a)其主要投資目標或策略為投資於虛擬資產；(b) 其價值主要源自虛擬資產的價值及特點；或 (c) 跟蹤或模擬與虛擬資產的表現緊密吻合或相應的投資結果 或回報。

投資虛擬資產及虛擬資產相關產品涉及高風險投資。買賣虛擬資產相關產品須承受虛擬資產相關的一般風 險。這些風險可能對涉及虛擬資產及虛擬資產相關產品的交易造成重大財務損失，最壞情況是投資者可能會損失全部投資資金。投資虛擬資產及虛擬資產相關產品前，客戶必須仔細考慮可否接受以下列出的風險以及所有其他適用的風險。

虛擬資產對投資者造成重大風險，當中部分是因虛擬資產本身的固有性質與特點所致，而另一部分則源自虛擬資產交易平台或投資組合管理公司的營運。

虛擬資產及虛擬資產相關產品的一般風險披露

(1) 估值、波動性及流通性

虛擬資產一般欠缺實體資產支持或政府擔保，亦不具實際價值。目前，某些虛擬資產類別並沒有普遍接納的估值原則。二級市場上的價格會因供求而受到影響，及具有短暫和波動的性質。如果虛擬資產的資金池規模細而零散，投資者所面對的波動性便可能進一步擴大。

(2) 會計及審計

在會計的專業範疇內並無協訂標準與行業慣例，說明核數師應以何種方式進行保證程序，從而就虛擬資產是否確實存在及其擁有權取得足夠的審計證據，及確定估值的合理性。

(3) 網絡保安及穩妥保管資產

交易平台營運者及投資組合管理公司可能將客戶資產存放在線上錢包內（即存於有互聯網介面的網上環境），而線上錢包容易受黑客入侵。網絡攻擊導致黑客入侵虛擬資產交易平台及虛擬資產遭盜取的情況普遍。受害人可能難以向黑客或交易平台追討損失，其金額可高達數億美元。

鑑於可供選擇的合資格保管人解決方案有限，虛擬資產基金面對獨有的挑戰；而可供選擇的解決方案亦可能並非完全有效。

(4) 市場廉潔穩健

與受規管的股票交易所不同，虛擬資產的市場仍處於萌芽階段，及並非在一套受認可及具透明度的規則下運作。運作中斷、市場操縱及違規活動時有發生，而這些情況均會造成投資者損失。

(5) 洗錢及恐怖分子資金籌集風險

虛擬資產一般以不記名方式買賣或持有。尤其是，允許法定貨幣與虛擬資產兌換的平台在本質上出現洗錢及恐怖分子資金籌集活動的風險較高。假如涉及刑事活動，投資者便可能因執法行動而無法取回投資。

(6) 利益衝突

虛擬資產交易平台營運者可能同時擔當客戶的代理人及主事人。虛擬資產交易平台像傳統交易所、另類交易系統或證券經紀商那樣，可利便虛擬資產的首次分銷（如首次代幣發行）及／或二級市場交易。若這些營運者不在任何監管機構的監察範圍內，利益衝突便難以被偵測、監察及管理。

(7) 欺詐

虛擬資產可能被用作為欺詐投資者的手段。虛擬資產交易平台營運者或投資組合管理公司在允許虛擬資產在其平台上買賣或為其投資組合投資虛擬資產之前，可能未進行足夠的產品盡職審查。結果，投資者可能成為欺詐的受害者並損失其投資。

(8) 法律及監管風險

所有虛擬資產交易均可能承受法律及監管風險。在法律及監管方面，對虛擬資產採取的處理手法會因不同司法管轄區而異，這些處理手法既不穩定亦可能會迅速變化。因此，根據不同法律的詮釋，虛擬資產可能會或可能不會被視為「財產」，而這項在法律上的不確定因素或會影響投資者在該虛擬資產的權益的性質及可執行效力。

監管及法律風險的影響，是指因法律或監管措施出現改變而可能導致任何虛擬資產的價值下降或失去其全部價值。法律或監管框架的改變或不確定因素、政府或監管機構實施與區塊鏈技術及/或虛擬資產相關的行動，可能會對虛擬資產的使用、儲存、轉移、兌換和價值，以及投資者的投資回報構成負面影響，甚至會令先前接受的投資變為不合法。投資者應諮詢獨立的法律、稅務及財務建議，並因應投資者的虛擬資產及虛擬資產相關產品投資而應繼續留意有關法律及監管狀況。

(9) 流通性風險

基於無法立即將資產出售或轉換為所選的替代資產，或在可以轉換但會引致損失的情況下，投資者可能會因此蒙受虧損。資產存在這種流通性風險，可能是由於缺乏買家、買賣活動有限或第二市場發展不足所造成。

如果某特定虛擬資產的市場消失的話，該虛擬資產的價值可能會下跌，或可能會完全及永久地失去價值。當中的原因包括虛擬資產的價值可能源自市場參與者持續地願意將法定貨幣轉換成為虛擬資產。無法保證目前接受虛擬資產作為付款方法的人士將來亦會繼續這樣做。

(10) 價格波動及估值風險

虛擬資產或虛擬資產相關產品的價值可能會在短時間內大幅波動。這意味著虛擬資產或虛擬資產相關產品的價格可能會上漲或下跌，並可能變得毫無價值。投資者將損失部分或全部資金。任何虛擬資產都可能因各種因素而貶值或失去其全部價值，包括發現不當行為、市場操縱、虛擬資產性質或屬性的變化、政府或監管活動、法律變更、暫停或停止支持對於虛擬資產/虛擬資產相關產品或其他交易所或服務提供商、公眾意見或我們無法控制的其他因素。

某些虛擬資產類別並沒有普遍接納的估值原則。

(11) 潛在價格操縱行為的風險

可能沒有健全的監管框架規管虛擬資產交易、借貸及/或交易平台。由於現時大部分虛擬資產的現貨市場（即虛擬資產相關產品所投資的虛擬資產）均不受監管，故該等市場較大機會存在各種涉及保障投資者的問題，由定價欠缺透明度至潛在的市場操縱不等，這可能造成虛擬資產交易活動的虛假及具誤導性的表象或虛擬資產出現非真實價格。投資者可能會因以虛假價格買入或出售虛擬資產而蒙受財務損失。

(12) 不受規管的風險

目前，虛擬資產的大多數交易、借貸或其他交易平台及託管人不受監管，而虛擬資產相關產品的服務提供商（包括託管人及基金管理人）或不受監管，其僅會出於反洗錢及反恐融資 (AML/CFT) 目的而受監管，或受輕度管制。因此，該等產品可能不會似傳統金融市場中的服務提供商一般受到同樣嚴格監管，監管

機構可能對其並無管轄權。倘發生爭議，尋求追索很可能難度較高，且可能無法獲得法律補救。對虛擬資產或虛擬資產相關產品的任何投資均無保險或保證。

投資者應警惕在不受監管的平台上交易虛擬資產或虛擬資產相關產品的風險。倘平台停止營運、倒閉或遭黑客入侵，投資者可能面臨失去其在平台上持有的全部投資的風險。此外，由於缺乏監管，個人或團體可能參與欺詐或市場操縱，虛擬資產或虛擬資產相關產品的投資者在投資虛擬資產或虛擬資產相關產品時可能較傳統資產類別更容易面臨欺詐、盜竊及市場操縱的風險。倘相關風險實現，可能會導致大眾對虛擬資產或虛擬資產相關產品的接受度下降，從而引致其價值下跌。

(13) 交易對手風險

與發行人、私人買家及賣家或透過交易、借貸或其他買賣平台（統稱「交易對手」）執行交易須承受交易對手風險。在進行任何交易之前，投資者應評估交易對手的比較信貸風險並進行適當的盡職審查。在進行虛擬資產或虛擬資產相關產品交易之前，投資者應仔細閱讀關於虛擬資產或虛擬資產相關產品發行人提供的適用條款、資料及風險披露。在作出任何投資決定之前，投資者應諮詢獨立的專業意見。

(14) 損失虛擬資產的風險

投資虛擬資產須承受損失虛擬資產的風險（尤其是在「線上錢包」內或以「線上儲存方式」持有的虛擬資產）。「線上錢包」或「線上儲存方式」是指虛擬資產的私人密匙儲存在網上的做法。由於「線上錢包」或「線上儲存方式」接達互聯網，故較容易遭受網絡攻擊。網絡攻擊導致黑客入侵虛擬資產交易平台及虛擬資產遭盜取的情況普遍。受害人可能難以向黑客或交易平台追討損失。這可能造成重大損失，導致投資者損失全部投資資金及/或可能對你的利益產生重大影響。

(15) 黑客入侵及技術相關風險

虛擬資產及虛擬資產相關產品可能會被沒收及/或盜竊。黑客可能試圖以不同的方式在未經授權進入下獲取資料及/或資產，包括但不限於惡意軟件攻擊、smurfing 類型的拒絕服務攻擊及電子欺詐，從而導致虛擬資產及虛擬資產相關產品的損失或投資者失去存取或控制其虛擬資產及虛擬資產相關產品的能力。在此情況下可能並無補救措施，且不會保證虛擬資產及虛擬資產相關產品的持有人能得到任何補救、退款或賠償。

此外，虛擬資產依賴於各種類型的分散式帳本技術。其中部分技術乃基於實驗技術（即區塊鏈）的開源軟件。虛擬資產交易存在各種技術風險，包括但不限於技術存在技術缺陷、惡意攻擊、多數挖礦、基於共識或其他挖礦攻擊、共識協議或算法變更、社區或礦工支援減少、相關虛擬資產價值的快速波動、硬件、軟件、互聯網連接故障、惡意軟件引入的風險、網絡攻擊、基礎技術、區塊鏈或其他網絡的故障，電腦病毒、通訊故障、中斷、錯誤、失真或延遲，以及其他攻擊或故障。任何此類網絡安全故障或違規，無論是涉及虛擬資產交易平台或第三方服務提供商，均可能對虛擬資產的價格、流動性及/或可交易性產生負面影響。

(16) 買賣新類別資產的風險

快速發展的區塊鏈及分散式帳本技術有潛力從根本上變革金融格局，在市場上引入新形式的虛擬資產。此類資產或會帶來其一系列獨特風險。

(17) 複雜的交易策略風險

虛擬資產交易通常在網絡上創建、傳播並在添加到全球交易分類帳（區塊鏈）前進行驗證。交易是對虛擬資產網絡參與者之間的價值轉移進行編碼的數據結構。市場參與者針對虛擬資產或虛擬資產相關產品參與更複雜的交易策略或會導致風險增加，這可能會影響虛擬資產或虛擬資產相關產品的價值。

投資虛擬資產期貨合約的額外風險

虛擬資產期貨合約下的虛擬資產價格可能極為波動，這可能由於流動性不足引起。由於相關虛擬資產難以估值，因此為投資者在對虛擬資產期貨合約進行可靠估值方面帶來重大挑戰。因此，預計虛擬資產期貨價格與虛擬資產的當前現金價格（有時稱為「現貨」價格）會有差異。

期貨合約的高度槓桿化性質亦令投資者所面對的風險倍增。此外，虛擬資產或虛擬資產期貨合約的複雜性和固有風險可能會令一般投資者難以明白和理解。

虛擬資產期貨合約市場仍在發展中，或會出現流動性不足的時期。在此期間以理想價格買入或賣出倉位或具挑戰性或不可能實現。市場動盪或波動亦可能使尋找願意以合理價格及足夠規模進行交易的交易對手變得具挑戰性。流動性不足的市場或會造成損失，這或會對虛擬資產期貨的價格造成重大影響，然後會降低虛擬資產期貨的表現與虛擬資產的「現貨」價格之間的相關性。

與更成熟的期貨市場相比，虛擬資產期貨市場欠發達，因此流動性可能更低，波動性更大。儘管虛擬資產期貨市場近年來大幅增長，但無法保證此增長會持續。虛擬資產期貨合約的價格基於若干因素，包括虛擬資產期貨合約的供需。市場條件及預期、倉位限制、抵押品要求及其他因素會影響虛擬資產期貨合約的供需。

由於虛擬資產相關產品是一種相對較新的資產類別，可能存在尚未識別的額外風險。由於波動性和未知的風險性質，只有在客戶準備接受損失其投資於虛擬資產相關產品的所有資金的風險時，客戶才應投資於虛擬資產相關產品。

Risk Disclosure Statements Regarding Virtual Assets and Virtual Asset-related Products

Virtual assets ("VA") refers to digital representations of value which may be in the form of digital tokens (such as utility tokens, stablecoins or security- or asset-backed tokens) or any other virtual commodities, crypto assets or other assets of essentially the same nature, irrespective of whether or not they amount to "securities" or "futures contracts" as defined under the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the "SFO"), but excludes digital representations of fiat currencies issued by central banks.

"VA-related products" refers to investment products which: (a) have a principal investment objective or strategy to invest invirtual assets; (b) derive their value principally from the value and characteristics of VA.

Investing in VA and VA-related products involves risks. VA are high risk investment. Trading in VA-related products is subject to the general risks associated with VA. These risks could result in substantial financial loss in transactions involving VA and VA-related products. In the worst case scenario, the investors may lose their entire investment. You must consider carefully whether the risks set out below, as well as all other applicable risks, are acceptable to the Customer prior to your investment on VA or VA-related products.

Virtual assets pose significant risks to investors. Some of these risks are inherent in the nature and characteristics of the virtual assets themselves and others stem from the operations of platforms or portfolio managers.

General Risk Disclosures for Virtual Assets and Virtual Asset-related Products

(1) Valuation, volatility and liquidity

Virtual assets are generally not backed by physical assets or guaranteed by the government. They have no intrinsic value. There are currently no generally accepted valuation principles governing certain types of virtual assets. Prices on the secondary market are driven by supply and demand and are short-term and volatile by nature. The volatility faced by investors may be further magnified where liquidity pools for virtual assets are small and fragmented.

(2) Accounting and auditing

Among the accounting profession, there are no agreed standards and practices for how an auditor can perform assurance procedures to obtain sufficient audit evidence for the existence and ownership of virtual assets, and ascertain the reasonableness of the valuations.

(3) Cybersecurity and safe custody of assets

Trading platform operators and portfolio managers may store clients' assets in hot wallets (ie, online environments which provide an interface with the internet). These can be prone to hacking. Cyber-attacks resulting in the hacking of virtual asset trading platforms and thefts of virtual assets are common. Victims may have difficulty recovering losses from hackers or trading platforms, which can run to hundreds of millions of US dollars.

Virtual asset funds face a unique challenge due to the limited availability of qualified custodian solutions. Available solutions may not be totally effective.

(4) Market integrity

Unlike regulated stock exchanges, the market for virtual assets is nascent and does not operate under a set of recognised and transparent rules. Outages are not uncommon, as are market manipulative and abusive activities, and these all result in investor losses.

(5) Risk of money laundering and terrorist financing

Virtual assets are generally transacted or held on an anonymous basis. In particular, platforms which allow conversions between fiat currencies and virtual assets are inherently susceptible to higher risks of money laundering and terrorist financing. Where criminal activities are involved, investors may not be able to get back their investments as a result of law enforcement action.

(6) Conflicts of interest

Virtual asset trading platform operators may act as agents for clients as well as principals. Virtual asset trading platforms may facilitate the initial distribution of virtual assets (eg, initial coin offerings), facilitate secondary market trading, or both, as in a traditional exchange, alternative trading system or securities broker. If these operators are not under the purview of any regulator, it would be difficult to detect, monitor and manage conflicts of interest.

(7) Fraud

Virtual assets may be used as a means to defraud investors. Virtual asset trading platform operators or portfolio managers may not have conducted sufficient product due diligence before allowing a virtual asset to be traded on their platforms or investing in a virtual asset for their portfolios. As a result, investors may become victims of fraud and lose their investments.

(8) Legal and Regulatory Risk

All VA transactions are potentially exposed to legal and regulatory risks. The legal and regulatory treatments of the VA vary according to the jurisdiction, they are unsettled and may change rapidly. A VA may or may not be considered as “property” under the law, and such legal uncertainty may affect the nature and enforceability of investors’ interest in such VA.

The effect of regulatory and legal risks is that any VA may decrease in value or lose all of its value due to legal or regulatory change. Changes or uncertainty in the legal or regulatory framework, actions imposed by governmental or regulatory bodies relating to blockchain technology and/or VA may adversely impact the use, storage, transfer, exchange and value of the VA, returns on investors’ investment or even render a previously accepted investment illegal. Investors should seek independent legal, tax and financial advice and continue to monitor the legal and regulatory position in respect of their investment in VA and VA-related products.

(9) Liquidity Risk

There is the possibility for investors to experience losses due to the inability to sell or convert assets into a preferred alternative asset immediately or in instances where conversion is possible but at a loss. Such liquidity risk in an asset may be caused by the absence of buyers, limited buy/sell activity or underdeveloped secondary markets.

The value of a particular VA may decline, or be completely and permanently lost should the market for that VA disappear. This is because the value of a VA may be derived, among other things, from the continued willingness of market participants to exchange fiat currencies for a VA. There is no assurance that a person who accepts a VA as payment, will continue to do so in the future.

(10) Volatility and Valuation Risk

The value of the VA or VA-related Products may fluctuate significantly over a short period of time. This means there is a high risk that the price of VA or VA-related Products may move up or down, and may become valueless. Investor will lose some or all of your money. Any VA may decrease in value or lose all of its value due to various factors including discovery of wrongful conduct, market manipulation, change to the nature or properties of the VA, governmental or regulatory activity, legislative amendment, suspension or cessation of support for a VA / VA-related Products or other exchanges or service providers, public opinions, or other factors outside of our control.

There may not have any generally accepted valuation principles governing certain types of VA.

(11) Risk of Potential Price Manipulation

There may not be a robust regulatory framework to govern VA trading, lending and/or dealing platforms. The spot markets for VA (i.e. the underlying assets of VA-related products) are largely unregulated at present. They are more likely to present investor protection issues, ranging from a lack of pricing transparency to potential market manipulation which may contribute to false and misleading appearance of trading activities in or an artificial price for VA. Investors may suffer financial losses arising from buying or selling VA at a false price.

(12) Unregulated Risk

Currently, most trading, lending, or other dealing platforms and custodians of VA are unregulated and service providers for VA-related products, including custodians and fund administrators, may be unregulated, regulated only for anti-money laundering and counter-financing of terrorism (AML/CFT) purposes or subject to light-touch regulation. Therefore, they may not be subject to the same robust regulation as service providers in traditional financial markets and the regulators may not have jurisdiction over them. In case of disputes, seeking recourse is likely to be difficult and legal remedies may be unavailable. Any investment in VA or VA-related products is not insured or guaranteed.

Investors should be wary of the risks of trading VA or VA-related products on an unregulated platform. If the platform ceases operation, collapses, or is hacked, investors may face the possible risk of losing their entire investments held on the platform. Furthermore, due to the lack of regulation, individuals or groups may engage in fraud or market manipulation, and investors in VA or VA-related products may be more exposed to the risk of fraud, theft, and market manipulation when investing in VA or VA-related products compared to more traditional asset classes. These risks, if realized, can cause a decline in the acceptance of the VA or VA-related products, hence reducing their values.

(13) Counterparty Risk

Effecting transactions with issuers, private buyers and sellers or through trading, lending or other dealing platforms (collectively, the "Counterparties") is subject to counterparty risk. Investors should evaluate the comparative credit risk of the Counterparties and undertake appropriate due diligence before undertaking any transaction. Investors should read the applicable terms, information and risk disclosures provided by the related VA or VA-related product issuer carefully before entering into a VA or VA-related product transaction. Investors should seek independent professional advice before making any investment decision.

(14) Risk of the Loss of VA

Investing in VA is subject to the risk of the loss of VA, especially if the VA is held in "hot wallet" or "hot storage". A "hot wallet" or "hot storage" describes the practice where the private keys to VA are kept in an online environment. As "hot wallet" or "hot storage" is connected to the internet, it is more susceptible to cyber-attacks. Cyber-attacks resulting in the hacking of VA trading platforms and thefts of VA are common. Victims may have difficulty recovering losses from hackers or trading platforms. This could result in significant loss, loss of investors' entire investment, and/or other impacts that may materially affect investor's interests.

(15) Hacking and Technology-related Risks

VA and VA-related products may be subject to expropriation and/or theft. Hackers may attempt to obtain unauthorized access to information and/or assets in different ways, including but not limited to malware attacks, smurfing, and spoofing, resulting in the loss of VA and VA-related products or the loss of an investor's ability to access or control their VA and VA-related products. There may be no remedy in such an event, and holders of VA and VA-related products are not guaranteed any remedy, refund, or compensation.

Additionally, VA rely on various types of distributed ledger technology. Some of this technology is open source software that is built upon experimental technology, namely blockchain. There are various technological risks when transacting in VA, including, but not limited to, the existence of technical flaws in the technology, targeting by malicious persons, majority-mining, consensus-based or other mining attacks, changes in the consensus protocol or algorithms, decreased community or miner support, rapid fluctuations in values of relevant VA, the failure of hardware, software, internet connections, the risk of malicious software introduction, cyber-attack, failure of the underlying technology, blockchain, or other networks, computer viruses, communication failures, disruptions, errors, distortions or delays, and other attacks or failures. Any such cybersecurity failures or breaches, whether involving the VA trading platform or third-party service providers, could negatively affect the VA' price, liquidity, and/or tradability.

(16) Risk of Trading New Type of Asset

The fast-evolving blockchain and distributed ledger technologies have the potential to radically transform the financial landscape, introducing new forms of VA in the market. Such assets will likely come with their own unique set of risks.

(17) Risk of Complex Transaction Strategies

VA transactions are typically created, propagated on the network, and validated before being added to the global ledger of transactions (the blockchain). Transactions are data structures that encode the transfer of value between participants in the VA's network. Market participants' engagement in more complex transaction strategies for VA or VA-related products can result in increased risk, which may impact the values of the VA or VA-related products.

Additional Risks of Investing in Virtual Asset Futures Contracts

The prices of the VA which underlie these futures contracts fluctuate, sometimes dramatically. This may be due to insufficient liquidity. The difficulty in valuing the underlying VA will in turn pose significant challenges for investors in reliably valuing VA futures contracts. Hence, the VA futures price should be expected to differ from the current cash price of the VA, which is sometimes referred to as the "spot" price.

Investors are exposed to amplified risks due to the highly leveraged nature of futures contracts. Moreover, the complexities and inherent risks of VA and/or VA futures contracts are likely to be difficult for the average investor to understand.

The market for VA futures contracts is still developing and may be subject to periods of illiquidity. It may be challenging or impossible to buy or sell a position at the desired price during such times. Market disruptions or volatility can also make it challenging to find a counterparty willing to transact at a reasonable price and adequate size. Illiquid markets can cause losses, which could be significant and impact the price of VA futures, which could reduce the correlation between the performance of VA futures and the "spot" price of a VA.

The market for VA futures is less developed and hence, potentially less liquid and more volatile than futures markets that are more established. While the VA futures market has grown substantially over the recent years, there can be no guarantee that this growth will continue. The price for a VA futures contract is based on several factors, including the supply and demand for the VA futures contract. Market conditions and expectations, position limits, collateral requirements, and other factors can affect the supply and demand for VA futures contracts.

As VA-related Product is a relatively new class of asset, there may be additional risk which have not been identified and mentioned. Due to volatility and unknown risk nature, the Customer should only invest in VA-related Products if the Customer are prepared to accept the risk of losing all the monies they have invested in VA-related Products.