

1 November 2018

## Conceptual framework for the potential regulation of virtual asset trading platform operators

This paper sets out a conceptual framework for the Securities and Futures Commission (SFC) to license and regulate virtual asset trading platforms (commonly known as cryptocurrency exchanges). The SFC intends to, in a sandbox environment, explore (and form a view after the exploratory stage) whether it is appropriate to grant a licence to and regulate any of these platforms under its existing powers. Trading platforms may approach the SFC if they are interested in being licensed and to demonstrate their commitment to adhering to the SFC's requirements and the high standards expected of them.

The SFC considers that clear regulatory standards for virtual asset trading platforms would enhance investor protection as well as foster innovation and market development as a number of the more active virtual asset trading platforms have operations in Hong Kong. None of them are currently licensed by the SFC.

### Background

The SFC's *Statement on regulatory framework for virtual asset portfolios managers, fund distributors and trading platform operators* (Policy Statement) describes the unique features and characteristics of virtual assets and outlines some of the risks associated with investing in them.

In brief, virtual asset trading platforms are online platforms which match buyers' and sellers' orders for trading in virtual assets, and they perform functions similar to traditional securities brokers, stock exchanges and private trading venues (eg, alternative liquidity pools). Investors usually buy, sell or trade virtual assets on these platforms and they play an important role in providing market liquidity and price transparency for these assets.

However, some virtual asset trading platforms may not be subject to any regulatory standards, and protection for investors trading on unregulated platforms is manifestly insufficient. These platforms may not have a sound corporate governance framework or sufficient internal controls. It is not uncommon for these platforms to be hacked. There have also been reports of platforms suspected to be involved in market manipulation and treating investors unfairly<sup>1</sup>.

An additional regulatory challenge is posed by the direct, online access to virtual assets offered by unregulated trading platforms to retail investors. Traditional securities trading venues are typically accessed by regulated brokers which perform know-your-client procedures and anti-money laundering and counter-terrorist financing checks, and ensure product suitability for investors (where applicable). The ease of retail access to unregulated virtual asset trading platforms combined with aggressive online advertising raise important investor protection issues.

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<sup>1</sup> An online article entitled "Cryptocurrency Trader Says The Market Is Manipulated" published on Forbes on 1 June 2018: <https://www.forbes.com/sites/francescoppola/2018/06/01/cryptocurrency-trader-says-the-market-is-manipulated/#48882b0225cd>

## Scope of supervision

If the SFC considers that a virtual asset trading platform operator (Platform Operator) can demonstrate its commitment to adhering to the high standards expected of it, such an operator may be placed in the SFC Regulatory Sandbox<sup>2</sup> (Sandbox). In the initial exploratory stage, the SFC will explore with Platform Operators to determine whether they are appropriate to be regulated. If the SFC makes a positive determination, it would then consider granting a licence to a qualified Platform Operator, subject to licensing conditions.

Under the Securities and Futures Ordinance (Cap. 571)(SFO), the SFC is empowered to grant licences for the carrying on of “regulated activities”<sup>3</sup> as defined under the SFO. If a Platform Operator is interested in being licensed by the SFC, it should operate an online trading platform in Hong Kong and offer trading of at least one or more virtual assets which fall under the definition of “securities”<sup>4</sup> on its platform. Such a Platform Operator would then fall within the jurisdiction of the SFC and require a licence for Type 1 (dealing in securities) and Type 7 (providing automated trading services) regulated activities<sup>5</sup>.

This is an opt-in approach designed to set those Platform Operators who are committed to adhering to the SFC’s high standards apart from those who are unwilling or unable to meet the conduct standards set by the SFC. Details of the Sandbox process are further explained in the Policy Statement.

The SFC notes that some virtual asset trading platforms only provide a direct peer-to-peer marketplace for transactions by investors who typically retain control over their own assets (be they fiat currencies or virtual assets). Others may also trade or intend to trade virtual assets for clients (including order routing) but do not provide automated trading services themselves. At this stage, the SFC does not consider that it is appropriate for existing licensed corporations to conduct such activities<sup>6</sup> under the same regulated entity or for any new licensing applications in this regard to be approved. The SFC will focus its efforts on exploring the regulation of virtual asset trading platforms which provide trading, clearing and settlement services for virtual assets, and have control over investors’ assets.

The SFC will keep the development of activities related to virtual assets in view and may issue further guidance where appropriate.

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<sup>2</sup> Please refer to the press release, “Launch of the SFC Regulatory Sandbox”, dated 29 September 2017 for details.

<sup>3</sup> “Regulated activities” are specified in Part 1 of Schedule 5 to the SFO. Parties engaging in regulated activities in Hong Kong or targeting Hong Kong investors are required to be licensed by the SFC.

<sup>4</sup> The SFC will not consider licensing Platform Operators which trade virtual assets that are “futures contracts” or “structured products” at this stage.

<sup>5</sup> As provided under the Guidelines for the Regulation of Automated Trading Services, parties providing automated trading services (ATS) under the existing regulatory framework should either be authorised under Part III of the SFO, or be licensed or registered for Type 7 regulated activity under Part V of the SFO. In general, an ATS licence or registration under Part V is more appropriate when the provision of ATS is incidental to the performance of a dealing function, such as dealing in securities. Such ATS providers are typically intermediaries providing dealing services, and offer ATS as an added facility. Where the provision of ATS is a core function, an ATS authorisation under Part III is more appropriate.

<sup>6</sup> Licensed corporations are reminded of the notification requirements set out in the Circular to intermediaries on compliance with notification requirements dated 1 June 2018.

## I. Core principles – Proposed licensing conditions

If the SFC concludes that it may grant a licence to a qualified Platform Operator, the SFC will impose certain licensing conditions under section 116(6) of the SFO to address the specific risks associated with a Platform Operator's operations. These conditions are likely to include the core principles (set out below) and other specific terms and conditions (set out in Section II below), subject to modifications and discussion between the SFC and the Platform Operator in the Sandbox.

The SFC expects a licensed Platform Operator (if any) to comply strictly with all licensing conditions imposed on it when conducting its entire virtual asset trading business. Failure to comply with any licensing condition is likely to be considered as misconduct under the SFO. This will reflect adversely on the fitness and properness of a Platform Operator to remain licensed and may result in disciplinary action by the SFC.

### Core principles

#### (1) All virtual asset trading activities under a single legal entity

A Platform Operator should ensure that all virtual asset trading business activities (Relevant Activities) conducted by its group of companies<sup>7</sup> (which are actively marketed to Hong Kong investors or are conducted in Hong Kong) are carried out under a single legal entity licensed by the SFC. Relevant Activities mean any virtual asset (irrespective of the nature of any token) trading activities on and off the platform, and any activities wholly incidental to the provision of such trading services. For the avoidance of doubt, Relevant Activities do not include the distribution of virtual asset funds or management of virtual asset portfolios discussed in the "Circular to intermediaries – Distribution of virtual asset funds" and Appendix 1 to the Policy Statement, "Regulatory standards for licensed corporations managing virtual asset portfolios" dated 1 November 2018.

Placing all Relevant Activities within a single legal corporate entity to be licensed allows the SFC to have comprehensive and holistic oversight of the licensed entity and avoids public confusion about which part of its business is licensed and supervised by the SFC.

#### (2) Compliance with applicable requirements by entire virtual asset trading business

A Platform Operator should comply with all applicable regulatory requirements (including any licensing conditions imposed by the SFC) for all Relevant Activities. Notwithstanding that the activities may not relate to virtual assets which are "securities", they may affect the overall fitness and properness of the Platform Operator.

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<sup>7</sup> "Group of companies" means any two or more corporations one of which is the holding company of the other or others (as defined under Part 1 of Schedule 1 to the SFO).

(3) Services to be offered to “professional investors”<sup>8</sup> only

Given the significant risks associated with the trading of virtual assets, a Platform Operator should provide its services only to “professional investors”.

Where a Platform Operator offers its trading systems to other companies as a technology solution, it should also ensure that its participants and all end users who are able to access its systems are “professional investors”.

(4) Limitations on trading of ICO tokens within the initial 12 months

A Platform Operator should only admit a virtual asset issued by way of an initial coin offering (ICO Tokens) for trading on its platform at least 12 months after the completion of the ICO or when the ICO project has started to generate profit, whichever is earlier.

This ensures that there is sufficient market information and a performance track record for investors to consider whether an ICO Token is backed by a genuine and viable project. This also allows the Platform Operator to have more information to perform proper due diligence on any tokens that it permits to trade on its platform.

(5) Transactions be pre-funded, and no leverage or virtual asset-related futures contracts or other derivative products

A Platform Operator should only execute a trade for a client if there are sufficient fiat currencies or virtual assets in his account with the platform to cover that trade. Further, a Platform Operator should not provide any financial accommodation for investors to acquire virtual assets. It also should not conduct Relevant Activities in relation to virtual assets which are futures contracts or other derivatives.

Virtual assets inherently pose substantial risks for investors due to their volatility. Where a Platform Operator offers margin financing services or allows investors to trade futures contracts or other derivatives of underlying virtual assets, these risks may be magnified by the leverage inherent in the services or products.

## II. Proposed terms and conditions

A licensed Platform Operator (if any) is expected to comply with the SFO and its subsidiary legislation<sup>9</sup>. When conducting Relevant Activities, it is also required<sup>10</sup> to comply with all relevant regulatory requirements set out in the Code of Conduct<sup>11</sup> and guidelines, circulars and frequently asked questions published by the SFC from time to time.

In particular, the SFC highlights that a licensed Platform Operator (if any) will be required to comply with the know-your-client procedures under paragraph 5.1 and the suitability requirement under paragraph 5.2 of the Code of Conduct as well as the Guideline on Anti-

<sup>8</sup> As defined under Part 1 of Schedule 1 to the SFO.

<sup>9</sup> Including but not limited to the Securities and Futures (Financial Resources Requirements) Rules (Cap.571N) and the Securities and Futures (Licensing and Registration)(Information) Rules (Cap.571S).

<sup>10</sup> To be imposed by way of a licensing condition.

<sup>11</sup> The Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission.

Money Laundering and Counter-Financing of Terrorism (For Licensed Corporations) when conducting its Relevant Activities.

In addition to the core principles, where the existing requirements may not directly apply to them (but the SFC considers similar requirements should be observed) or where the virtual assets' unique features or technologies may give rise to new risks for which the SFC considers that enhanced investor protection measures are necessary, the SFC has set out, in the terms and conditions (Terms and Conditions), the regulatory standards which are considered to be generally appropriate for imposition on licensed Platform Operators (if any) as licensing conditions. These terms and conditions can vary according to the operational model, size and nature of business of each Platform Operator, and pursuant to discussions with the SFC in the Sandbox.

Examples of key terms and conditions which may be imposed are set out as follows:

(1) Financial soundness

Depending on its role and functions, a Platform Operator may typically assume multiple responsibilities (for instance, as a custodian of clients' virtual assets). In the event of theft or the hacking of a virtual asset trading platform, a Platform Operator and its clients may suffer from substantial losses. It is therefore of paramount importance that the Platform Operator maintains sufficient financial resources to provide a higher chance of recovery or ensure an orderly wind-down of its critical operations and services for business contingency purposes.

In light of the above, a Platform Operator should maintain financial resources which are commensurate with the role and functions it performs and the level of risk it undertakes. The SFC may require, on a case-by-case basis, a Platform Operator to maintain a reserve equivalent to 12 months of operating expenses as a financial buffer. In determining the level of financial resources required, the SFC may consider factors including:

- (a) the role and functions to be performed by a Platform Operator;
- (b) actual or estimated trading volume on its platform;
- (c) types of virtual assets to be traded on its platform;
- (d) types of "professional investors" to be served by the Platform Operator;
- (e) projected operating expenses in the first 12 months after being licensed;  
and
- (f) financial position of the Platform Operator.

(2) Insurance requirement

A Platform Operator should take out an insurance policy for risks associated with the custody of virtual assets, such as theft or hacking.

The SFC generally expects that the insurance policy would provide full coverage for virtual assets held by a Platform Operator in hot storage and a substantial coverage for those held in cold storage (for instance, 95%)<sup>12</sup>.

(3) Knowledge assessment

Except for institutional professional investors<sup>13</sup>, a Platform Operator should, as part of the know-your-client procedures, assess a client's knowledge of virtual assets (including the relevant risks associated with virtual assets) before providing any services to the client. Where a client does not possess such knowledge, a Platform Operator may only proceed to provide any service to the client if it would be acting in the best interests of the client.

(4) Anti-money laundering and counter-financing of terrorism (AML/CFT)

A Platform Operator should ensure that its AML/CFT systems can adequately manage the money laundering and terrorist financing risks relating to Relevant Activities. Specific measures to be taken by a Platform Operator should include but are not limited to the following:

- (a) to obtain sufficient contact information of the client, and to suspend or terminate the account of any client who provides incomplete or suspicious contact information;
- (b) to conduct all deposits and withdrawals of fiat currencies for a client's account only through a designated bank account opened in the name of the client with an authorised financial institution in Hong Kong or other jurisdictions as agreed by the SFC from time to time;
- (c) to apply enhanced customer due diligence and ongoing monitoring regarding:
  - (i) the use of proxies, any unverifiable or high risk geographical locations, any disposable email addresses or mobile numbers, or use of a constantly changing device to conduct transactions;
  - (ii) transactions involving tainted wallet addresses such as "darknet" marketplace transactions and tumblers; and
  - (iii) transactions involving virtual assets with a higher risk or greater anonymity (eg, virtual assets which mask users' identities or transaction details);
- (d) to establish and maintain adequate and effective systems and processes to monitor transactions involving virtual assets and to conduct appropriate

<sup>12</sup> A Platform Operator typically holds clients' virtual assets in cold or hot storage. Cold storage describes the practice where the private keys to virtual assets are kept off-line, ie, air-gapped. In contrast, hot storage is connected to the internet and is therefore highly vulnerable to hacking.

<sup>13</sup> This refers to the specified entities set out in paragraphs (a) to (i) of the definition of "professional investor" in section 1 of Part 1 of Schedule 1 to the SFO.

enquiries and evaluate potentially suspicious transactions. In particular, a Platform Operator should:

- (i) identify and prohibit transactions with virtual asset addresses or its equivalent which are compromised or tainted<sup>14</sup>; and
  - (ii) employ technology solutions which enable the tracking of virtual assets through multiple transactions to more accurately identify the source and destination of these virtual assets;
- (e) to regularly review the effectiveness of its AML/CFT systems and introduce enhancement measures where necessary, taking into account any new guidance issued by the SFC and latest updates of the Financial Action Task Force (FATF)<sup>15</sup> Recommendations applicable to virtual assets-related activities; and
- (f) where a Platform Operator engages a third-party service provider to assist with its AML/CFT compliance, to conduct adequate due diligence in selecting the service provider and monitor its ongoing performance.

#### (5) Disclosure requirements

A Platform Operator should fully disclose and ensure investors fully understand the nature and risks that they may be exposed to in trading virtual assets and using their virtual asset trading services. The disclosed risks should, among other things, include:

- (a) the protection offered by the Investor Compensation Fund does not apply to transactions involving virtual assets;
- (b) virtual assets are not legal tender;
- (c) transactions in virtual assets may be irreversible, and, accordingly, losses due to fraudulent or accidental transactions may not be recoverable;
- (d) the value of a virtual asset may be derived from the continued willingness of market participants to exchange fiat currency for a virtual asset, which means that the value of a particular virtual asset may be completely and permanently lost should the market for that virtual asset disappear; and
- (e) the volatility and unpredictability of the price of a virtual asset relative to fiat currencies may result in significant losses over a short period of time.

Further, virtual asset trading platforms may have different compositions and descriptions of fees. A Platform Operator should disclose its related fees and

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<sup>14</sup> A digital token address is considered compromised or tainted where there is reasonable suspicion that it is used for the purposes of conducting fraud, identity theft, extorting ransom or any other criminal activity.

<sup>15</sup> For instance, FATF issued a "Guidance for a Risk-based approach to virtual currency" in June 2015: <http://www.fatf-gafi.org/media/fatf/documents/reports/Guidance-RBA-Virtual-Currencies.pdf>

charges to enhance transparency, the comparability of fees and charges and ease of understanding by clients.

All information provided to clients should be presented in a clear and fair manner which is not misleading.

(6) Virtual assets to be admitted for trading

A Platform Operator should have performed all reasonable due diligence on the virtual assets before listing them on its platform. It should also establish and disclose the criteria for admitting a virtual asset to be traded. Below is a list of non-exhaustive factors which a Platform Operator may consider:

- (a) the regulatory status of a virtual asset in relevant jurisdictions;
- (b) the demand and supply, maturity and liquidity of a virtual asset;
- (c) technical aspects of a virtual asset, including:
  - (1) security infrastructure of the blockchain protocol underlying a virtual asset;
  - (2) size of the blockchain and network, in particular, whether it may be susceptible to a 51% attack<sup>16</sup>;
  - (3) type of consensus algorithm; and
- (d) accuracy of the marketing materials of a virtual asset which should be non-misleading.

Further, a Platform Operator should set up a committee responsible for making decisions about whether a certain virtual asset should be admitted for trading on its platform in accordance with the admission criteria.

Where a Platform Operator receives payments for admitting a virtual asset to trade on its platform, it should adopt a fee structure which avoids any potential, perceived or actual conflicts of interest (eg, charge a flat rate for all virtual asset issuers).

(7) Trading rules

Unlike traditional exchange platforms, investors can directly access virtual asset trading platforms without engaging any licensed intermediaries through whom securities trades are typically conducted on behalf of the end clients.

As an additional safeguard to ensure that investors are fully informed about how a virtual asset trading platform operates, a Platform Operator should prepare and

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<sup>16</sup> This refers to an attack on a blockchain by a group of miners controlling more than 50% of the network's mining hash rate or computing power.

publish on its website comprehensive trading rules governing its platform operations which should, at the minimum, cover the following areas:

- (a) trading and operational matters;
- (b) different types of orders;
- (c) order execution methodology;
- (d) rules preventing market manipulative and abusive activities;
- (e) custodial arrangements;
- (f) deposit and withdrawal procedures, including the procedures for transferring virtual assets from the platform account to a user's private wallet and withdrawing fiat currencies to a user's bank account;
- (g) arrangements during trading suspensions and outages; and
- (h) a dispute resolution mechanism, including complaint procedures.

(8) Prevention of market manipulative and abusive activities

These activities include but are not limited to:

- (a) taking any action with the effect of creating a false or misleading appearance of: (i) active trading in, or (ii) with respect to the market for, or the price of, a virtual asset;
- (b) carrying out (or offering to carry out) one or more transactions with the effect of creating or maintaining an artificial price of a virtual asset;
- (c) carrying out (or offering to carry out) any transactions that do not involve a change in the beneficial ownership of a virtual asset with the effect of maintaining, increasing, reducing, stabilising or causing fluctuations in (ie, manipulating) the price of a virtual asset;
- (d) carrying out (or offering to carry out) any fictitious or artificial transaction or device with the effect of manipulating the price of a virtual asset;
- (e) disclosing information about the manipulation of the price of a virtual asset;
- (f) disclosing false or misleading information inducing transactions in a virtual asset; and
- (g) carrying out (or offering to carry out) two or more transactions which are likely to manipulate the price of a virtual asset with the intention to induce another person to trade, or refrain from trading in, the virtual asset.

To safeguard the fairness and integrity of the market, a Platform Operator should establish and implement written policies and procedures to identify, prevent and report malicious actors behind any market manipulative or abusive activities.

The SFC may further require a Platform Operator to adopt an effective market surveillance programme provided by a reputable and independent consultant to identify, monitor, detect and prevent any market manipulative or abusive activities on its platform.

(9) Employee dealings

A Platform Operator should establish and maintain written policies and procedures governing employees' dealings in virtual assets to eliminate, avoid, manage or disclose actual or potential conflicts of interest which may arise from such dealings.

Where employees of a Platform Operator are permitted to deal in virtual assets for their own accounts, the written policy should specify the conditions under which employees may deal for their own account (in particular, those who possess inside information should be prohibited from dealing in the relevant virtual asset). Employees should also be required to identify virtual asset holdings in their own accounts and related or associates' accounts, and report the same to senior management.

(10) Proprietary trading

Orders of clients in virtual assets should have priority over orders for the account of the Platform Operator, or any accounts in which the Platform Operator has an interest or the accounts of any employees or agents of the Platform Operator.

(11) Segregation and custody of clients' money and virtual assets

As an intermediary, a Platform Operator is required to comply with the Securities and Futures (Client Money) Rules (Cap.571I), including the requirement to establish and maintain in Hong Kong one or more segregated accounts for client money in a designated trust account or client account.

Where a Platform Operator holds virtual assets on behalf of its clients, it should ensure that clients' virtual assets, whether they are "*securities*" or not, are held in a segregated account which is designated as a client account and established by the Platform Operator for the purpose of holding virtual assets on behalf of clients only.

A Platform Operator is expected to store a sizable amount (for example, 98%) of clients' virtual assets which are not required to be immediately available in cold storage to minimise exposure to losses arising from a system compromise or hacking.

(12) Ongoing reporting obligations

A Platform Operator will be under closer supervision by the SFC and may be required to submit certain information on a regular basis (as specified by the SFC), for example:

- (a) any changes in the scope and details of its services, eg, the provision of token underwriting services in addition to trading services;
- (b) details of any new virtual assets that it intends to admit to trading on its platform;
- (c) the monthly volume of virtual asset transactions conducted through the Platform Operator (whether on- or off-platform), with a breakdown by types of virtual asset (as specified by the SFC) traded by investors;
- (d) identities and locations of its clients as at the end of the relevant month; and
- (e) other statistics on trading, clearing and settlement activities, as applicable, in Hong Kong.

Interested parties should contact the Fintech Contact Point at [fintech@sfc.hk](mailto:fintech@sfc.hk) for discussion.

Intermediaries Division  
Securities and Futures Commission