



# Tokenisation of SFC-authorized investment products

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Investment Products Division (IP)



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# A. Introduction

# What is tokenisation?

- In simple terms, tokenisation refers to the creation of **blockchain-based tokens** that represent or aim to represent ownership in certain **assets / rights**.



## Assets / Rights

- Assets are resources economically owned by an individual or an institution.
- Theoretically, tokens can represent any type of assets including financial assets (e.g. bonds, stocks, funds, other securities, etc) and non-financial assets (e.g. real estate, art).



## Blockchain

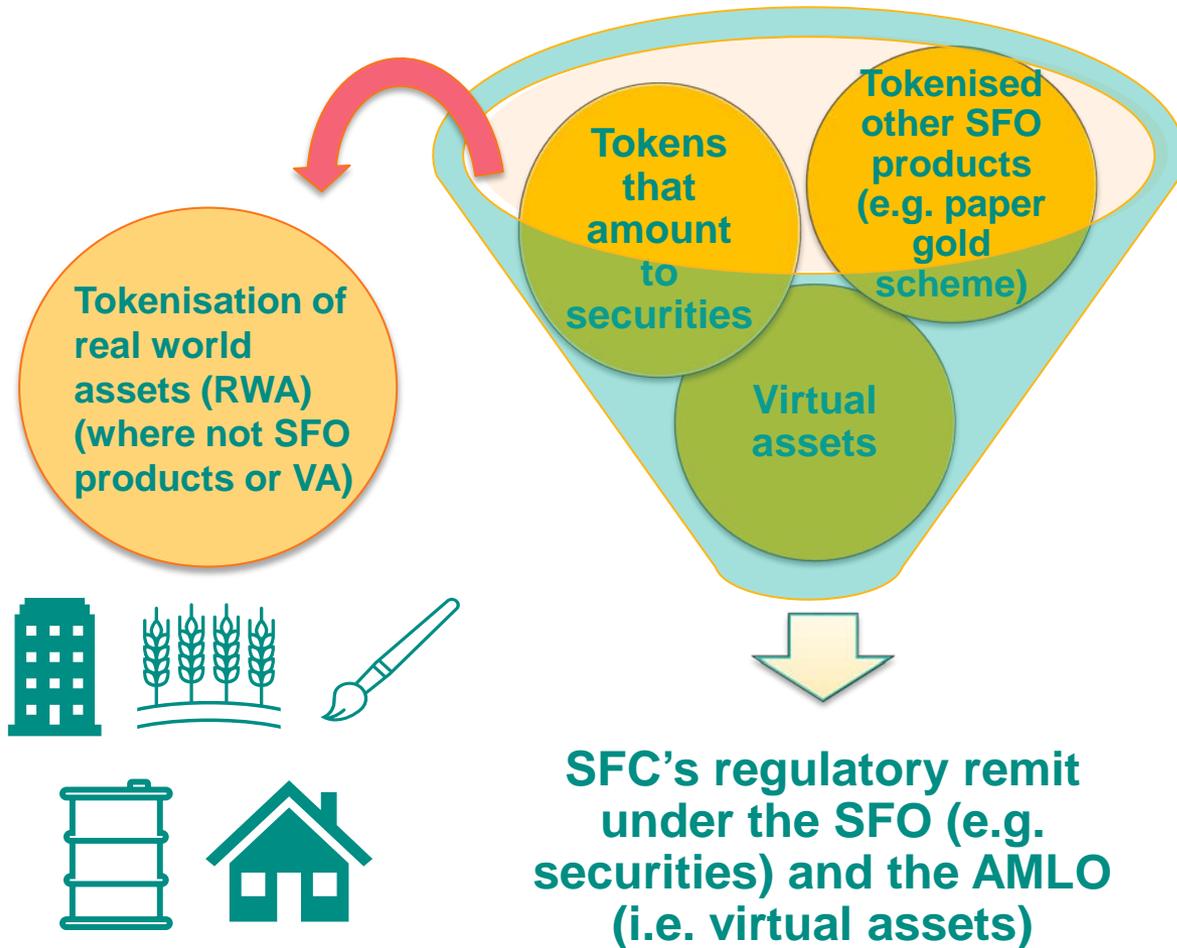
- Blockchain is a programmable ledger built on distributed ledger technology (DLT).
- It operates under fundamentally different rules vs traditional ledger systems as it allows for the use of smart contracts that run when predetermined conditions are met and support functions such as data access, validation, and updates.



## Tokens

- Tokens are digital representations of assets on the blockchain.
- These tokens can be transferred on the blockchain. Theoretically, they can be acquired or sold on a platform, similar to how Bitcoin or Ether are traded.

# SFC's regulatory remit over tokenised products and assets



# Tokenisation of investment products

The rest of the presentation focuses on tokenisation of **investment products**. Such tokenised products can be recorded digitally on the blockchain, offered directly to end-investors, distributed by intermediaries, or traded among the blockchain participants where allowed (i.e. secondary trading). While tokenised investment products may provide certain potential benefits, they may also give rise to investor protection and other risks.



## Potential benefits



Increased efficiency



Reduced reliance on intermediaries (e.g. direct distribution by issuer/manager)



Reach end-investors via new channels (e.g. SFC-licensed VATPs)



Enhanced transparency



Reduced operational costs



## Risks



Ownership risks



Technology risks



Potential challenges in application of existing laws

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## **B. Current adoption globally**

# Tokenisation – current adoption globally (1)

## Hong Kong

- ❑ Currently, there are two tokenised private funds managed by SFC-licensed fund managers investing in real property and fixed income respectively, both of which are available to professional investors only.
- ❑ In Nov 2023, the SFC published guidance on tokenisation of SFC-authorized retail investment products and intermediaries engaging in tokenised securities-related activities.

## US

- ❑ There are tokenised retail funds in the US, such as:
  - Franklin OnChain U.S. Government Money Fund (incepted in Jun 2021); and
  - 13 sub-funds of the WisdomTree Digital Trust (with the first sub-fund incepted in Dec 2022).
- ❑ The tokenised share classes are typically available to investors directly on the managers' app/portal (i.e. not through distributors) with no secondary trading.

## Singapore

- ❑ The Project Guardian is a collaborative initiative launched by MAS in May 2022 to test the applications in asset tokenisation and DeFi.
- ❑ There are various industry pilots under asset & wealth management, fixed income and foreign exchange, focusing on institutional investors.

# Tokenisation – current adoption globally (2)

UK

- ❑ In November 2023, the industry-led Technology Working Group of Treasury’s Asset Management Taskforce (Group) released an interim report outlining a strategic blueprint for the implementation of fund tokenisation in the UK.
- ❑ **Staged approach:** To implement fund tokenisation, the Group will start from a baseline model (stage one), focusing on a register of primary market investors or platforms, for which a fund manager is responsible.
- ❑ A “stage one” tokenised fund is a mainstream investment fund which utilises blockchain for sales and redemptions, with the following characteristics: (1) authorised fund in the UK; (2) holds traditional assets; (3) off-chain, usual cycle settlement; (4) private and permissioned blockchain; and (5) valuation on a daily basis.
- ❑ The FCA has reviewed existing financial regulatory rules and identified **no significant regulatory hurdles** to the stage one baseline model.
- ❑ **Futures stages:** The Group will continue to explore the next possible stages such as the use of a public chain, secondary trading, direct access to end investors, digital money for settlement, funds to hold tokenised underlying assets, etc.



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## C. SFC guidance

# SFC guidance – overview (1)

- In November 2023, the SFC published guidance on tokenisation of SFC-authorized investment products ([Link](#)) and intermediaries engaging in tokenised securities-related activities ([Link](#)).

**We consider tokenised products to be fundamentally traditional products with a tokenisation wrapper. By adopting a see-through approach:**

Primary dealing



- ❑ Primary dealing of tokenised SFC-authorized investment products is allowed, as long as the underlying product meets:
  - all the applicable product authorisation requirements (e.g. UT Code); and
  - all the additional safeguards to address the new risks associated with tokenisation (e.g. ownership and technology).

Secondary trading



- ❑ Secondary trading would warrant more caution and careful consideration, given challenges such as:
  - maintaining instant token ownership record under a set-up of 24/7 trading; and
  - readiness of the trading infrastructure (e.g. rules on order placing and settlement, trading transparency, circuit breakers, market making regime, etc) and market participants to support liquidity and fair pricing of the tokens.

# SFC guidance – overview (2)

**High-level principle: the use of technology should not make investors of tokenised products worse off than investing in the underlying traditional products.**

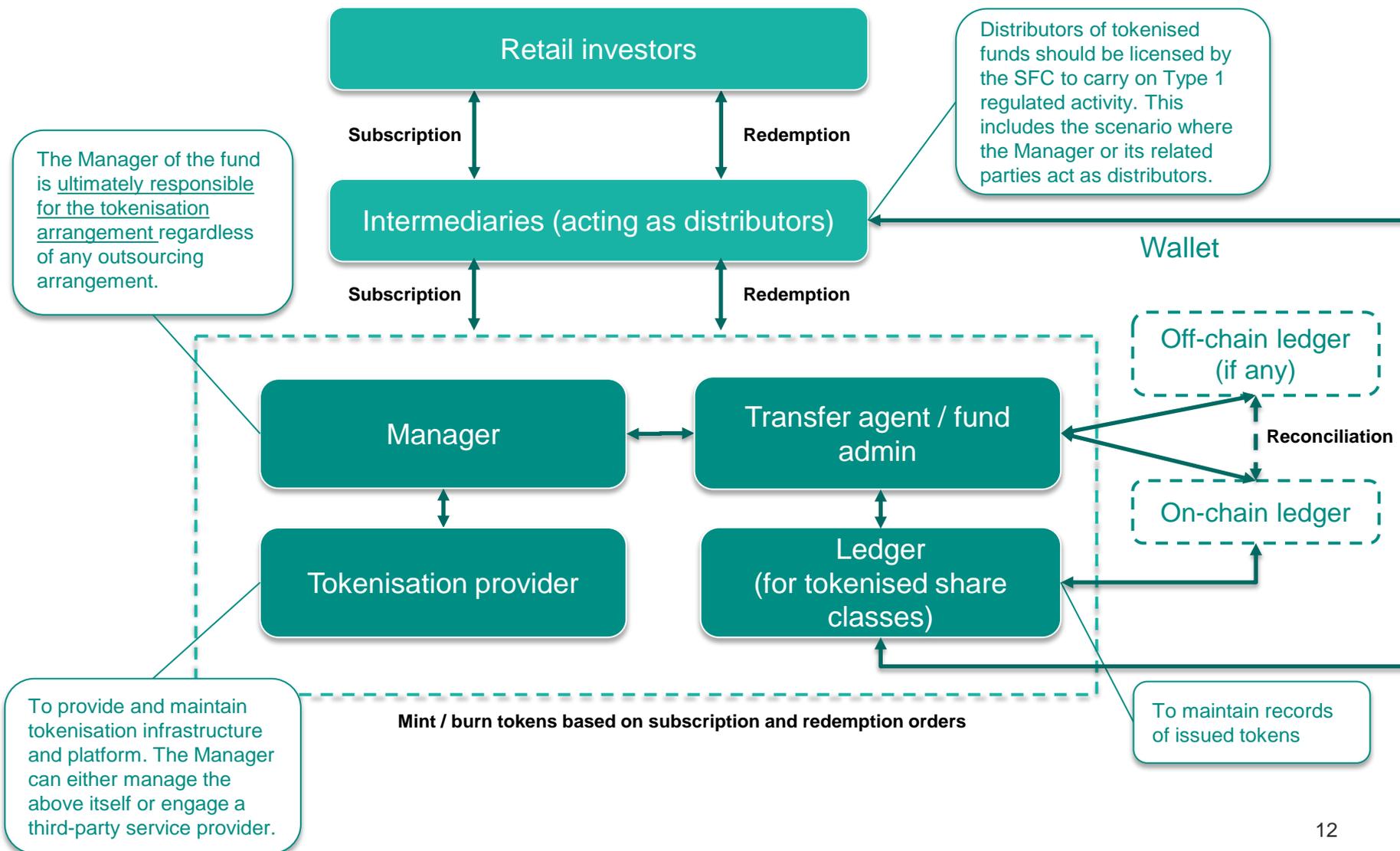
Intermediaries



- ❑ Place due diligence obligation on intermediaries (including fund managers) on, amongst others:
  - legal position on settlement finality and enforceability of extrinsic rights;
  - technology aspects for issuance and maintenance (e.g. technology service provider, private key management, cybersecurity risk and controls); and
  - robust business continuity plan implemented by the issuer.
- ❑ For fund managers, being the issuer of the product, remain responsible for operation of the tokenisation arrangement irrespective of outsourcing to technology service provider.

# Illustrative example – tokenisation arrangement for SFC-authorized funds

This diagram is simplified for illustrative purpose only. The actual arrangement could vary case-by-case.



# Additional safeguards for primary dealing of tokenised SFC-authorized products (1)

## (1) Tokenisation arrangement

### Product providers should:

- remain and be **ultimately responsible for the management and operational soundness of the tokenisation arrangement** adopted and record keeping of ownership, regardless of any outsourcing arrangement.

- ensure that proper records of token holders' ownership interests in the product are maintained and the tokenisation arrangement is operationally compatible with service providers involved.

*Note: not expected to issue tokenised products in bearer form.*

- have appropriate measures in place to manage and mitigate cybersecurity risks, data privacy, system outages and recovery, and maintain a comprehensive and robust business continuity plan.  
*e.g. incorporate a burning and re-issuance mechanism to mitigating hacking risk and theft.*

- not use public-permissionless blockchain networks without additional and proper controls.  
*e.g. to impose additional control by using a permissioned token.*

# Additional safeguards for primary dealing of tokenised SFC-authorized products (2)

## (2) Disclosure

Offering documents should set out clearly :



### Tokenisation arrangement

- whether off-chain or on-chain settlement is final
- Limitations imposed on token transfers (if any)
- Whether a smart contract audit has been conducted
- Key admin controls and BCP for DLT-related events



### Ownership representation of tokens

- Legal and beneficial title of the tokens
- Ownership of / interests in the product



### Associated risks

- Cybersecurity
- System outage
- Possibility of undiscovered technical flaws
- Evolving regulatory landscape
- Potential challenges in application of existing laws

# Additional safeguards for primary dealing of tokenised SFC-authorized products (3)

## (3) Staff competence



### Confirm to have at least 1 competent staff

- With relevant experience & expertise
  - o to operate and/or supervise the tokenisation arrangement; and
  - o to manage new risks related to ownership and technology appropriately

## (4) Intermediaries



### Regulated intermediaries as distributors\*

- E.g. SFC-licensed corporations or registered institution
- Comply with applicable requirements under existing rules, codes & guidelines (e.g. client onboarding requirements, suitability assessment), and **the Circular on intermediaries engaging in tokenised securities-related activities**
- **Custodial arrangement:** Take into account the features and risks of the tokenized products to select the most appropriate custodial arrangement to manage ownership and technology risks

\* A product provider can act as a distributor as well.

# Prior consultation and approval

- For new investment products that have tokenisation features and plan to seek the SFC's authorisation, prior consultation with the SFC is required.
- Prior consultation is also required for tokenisation of existing SFC-authorised investment products and such change may require prior approval.
  - *Prior approval should be obtained before adding the disclosure of new tokenised unit/share class of an SFC-authorised fund in the Hong Kong offering documents and offering it to the public in Hong Kong.*
  - *No prior approval is required for adding another tokenised unit/share class to the same fund if the tokenisation arrangement is substantially the same as the existing one.*

A large, stylized teal graphic of a bird, possibly a phoenix, with its wings spread upwards and outwards. The bird is rendered in a flat, modern style with smooth curves and is positioned on the left side of the page, extending towards the center.

**Thank you.**

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