Digital Assets Update 1Q24

Crypto's rebound

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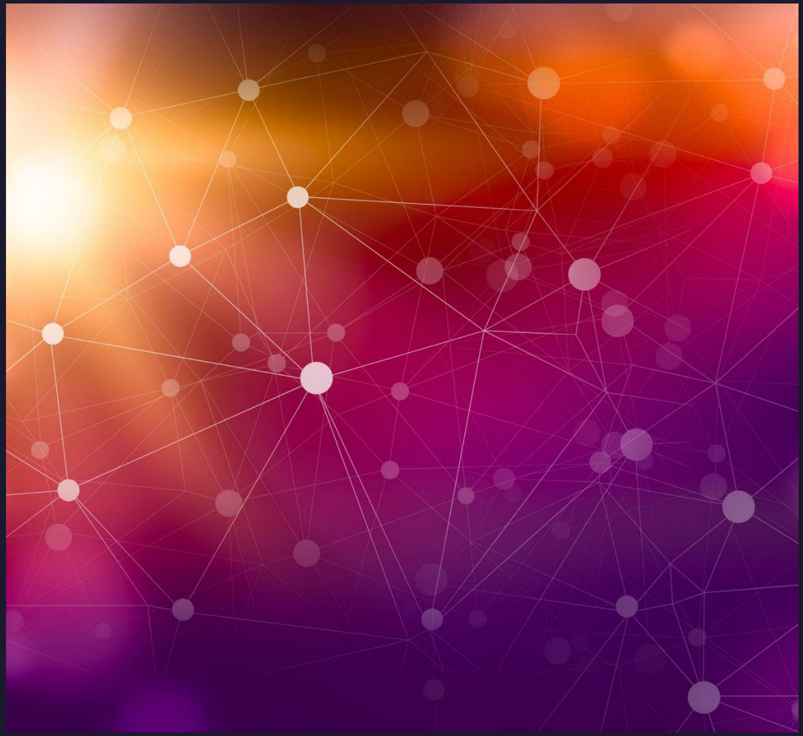

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Digital Assets Update 1Q24: Crypto's rebound

Risk-on sentiments and market structural developments have brought back bullish momentum to the crypto market. Stablecoins and CBDCs continue to receive policy support.

Group Research - Econs 7 Feb 2024

- Cryptos, especially Bitcoin, are a tight beta to US equities.
- Cryptos are also benefitting from ETF approvals and forthcoming Bitcoin halving.
- Other than Bitcoin, Ethereum has some potential upside.
- We review a spate of regulatory and design developments in stablecoins.
- We also examine some CBDC case studies.

Digital Assets Update 1Q24:

Crypto's rebound

Speakers:

Taimur Baig, Nathan Chow, Chang Wei Liang, Samuel Tse

Photo credit: Unsplash Photo

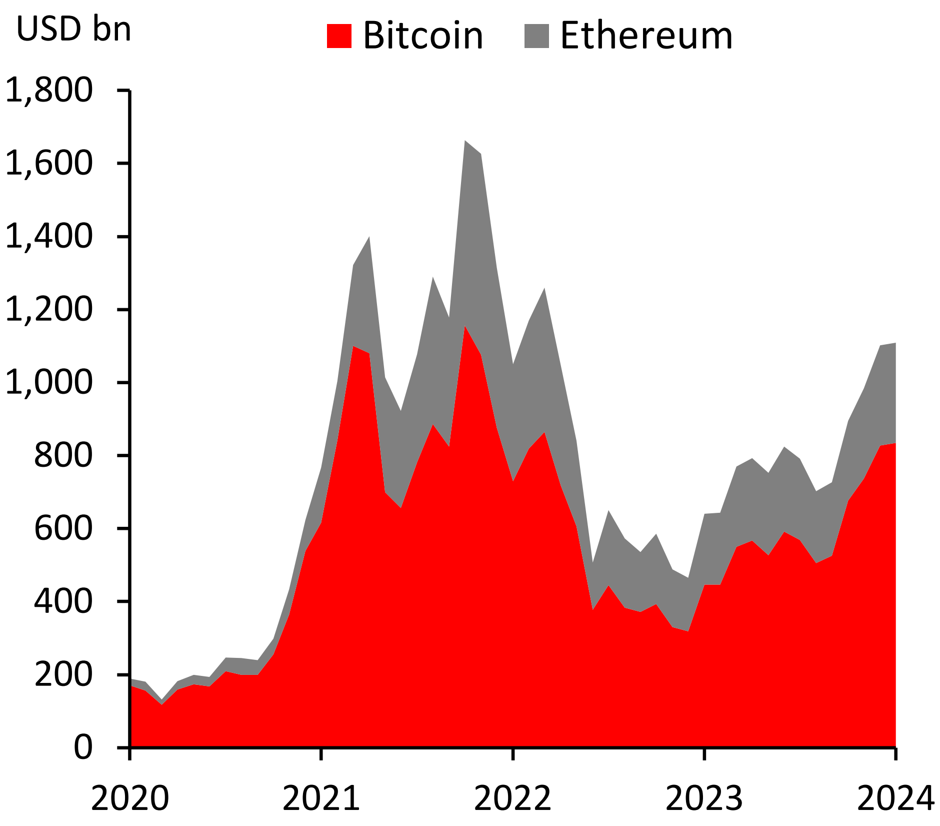
Outline

Crypto market update
– Chang Wei Liang

Stable coins and CBDC update
– Samuel Tse & Nathan Chow

Crypto market: Back to US$1trn market cap

Cryptocurrencies Market Capitalization



Source: Bloomberg, DBS

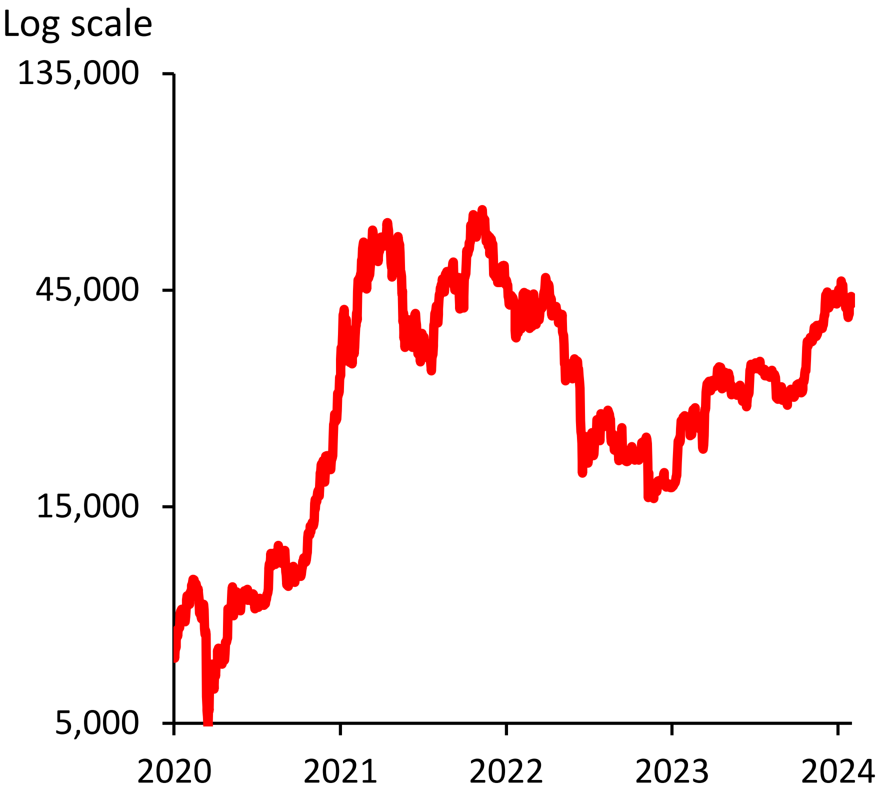
Top 10 cryptocurrencies by market capitalization

Rank	Cryptocurrency	Logo	Market cap (USD bn)	% of Top 10 capitalization
1	Bitcoin		840	60%
2	Ethereum		278	20%
3	Tether USDt		96	7%
4	BNB		45	3%
5	Solana		42	3%
6	XRP		28	2%
7	USDC		27	2%
8	Cardano		17	1%
9	Avalanche		13	1%
10	Dogecoin		11	1%

Source: Coinmarketcap, DBS

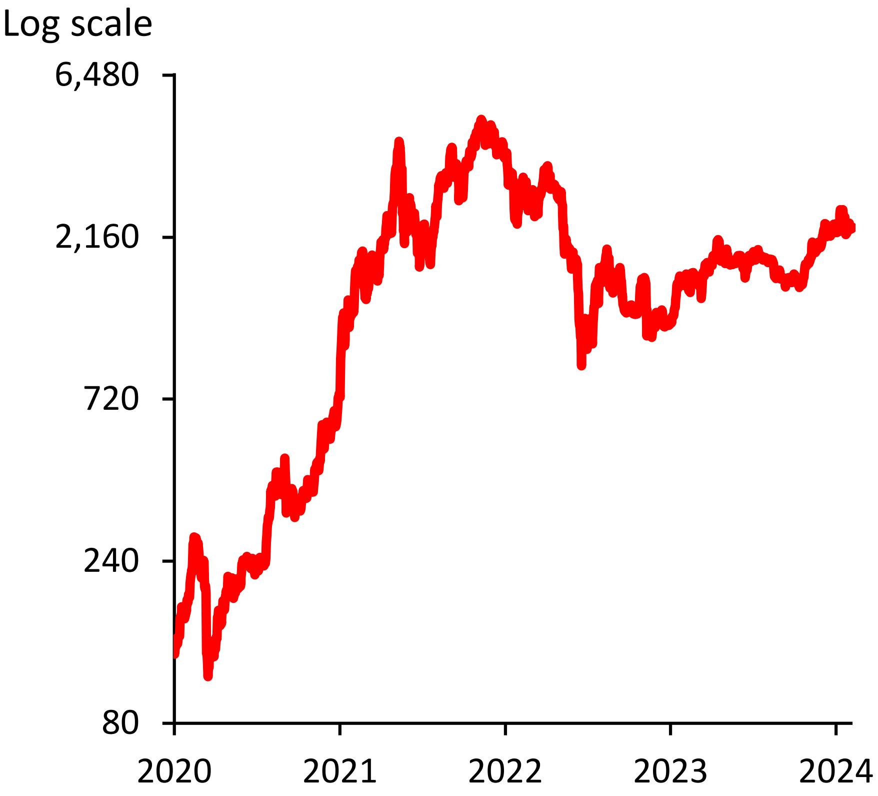
Bitcoin & Ether: Recovery to 2022 highs

Bitcoin price (USD)



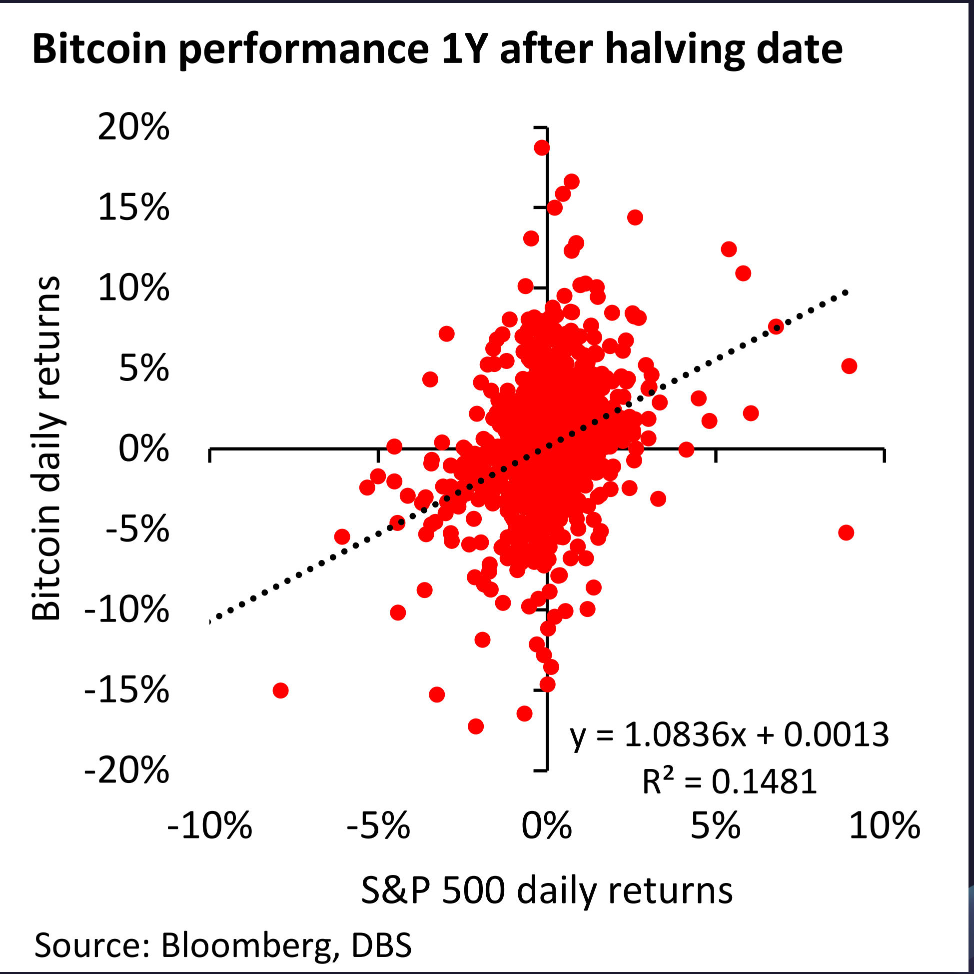
Source: Bloomberg, DBS

Ethereum price (USD)



Source: Bloomberg, DBS

Bitcoin: Lifted by risky asset sentiment



- Around ¾ of Bitcoin's rally since Oct 2023 could be attributed to the sharp rally in global equities (S&P 500)
- Beta of Bitcoin is estimated to be slightly above one
- Very much a risky asset!

BTC-ETH correlation: Steady post-Merge

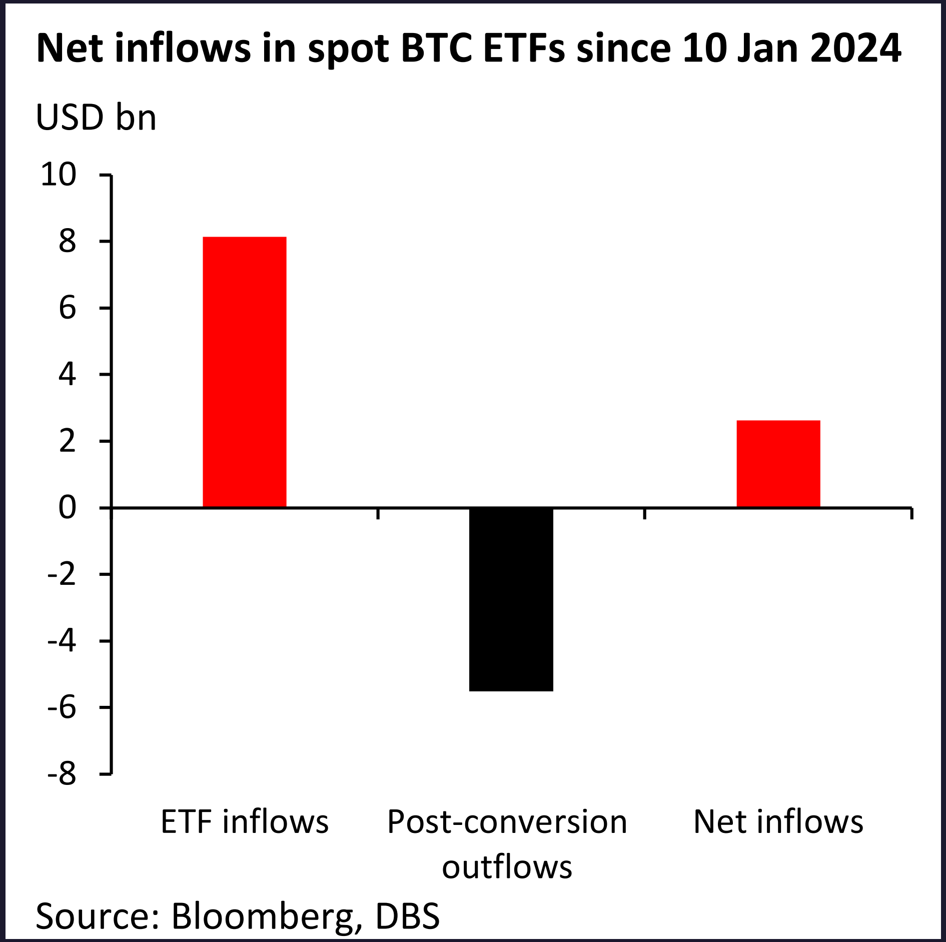
Correlations between Bitcoin and Ether

Comparing ETH's Merge (from PoW to PoS)	Correlation of daily returns	Sample size
Pre-Merge	0.84	346
Post-Merge (15 Sep 2022)	0.87	346

Source: Bloomberg, DBS

- Ethereum's transition to proof-of-stake (the Merge) in Sep 2022 has not significantly changed its close pricing relationship with Bitcoin
- Strongly suggests the existence of a common price of risk across both Bitcoin and Ether markets, independent of protocol
- A compelling reason for investors & regulators to treat Bitcoin and Ether equivalently

Spot BTC ETFs: A longer term positive



- SEC approved 10 spot Bitcoin ETF applications in Jan, and permitted the conversion of a closed end fund to a spot Bitcoin ETF
- Small new inflows in the short-term (< USD 3bn)
- But ETFs offers important long-term benefits to market development and is supportive of pricing

1. Simplicity and ease of access for investors
2. Lower risk premia from improved price discovery
3. Reduced transaction costs and higher cost efficiency

SEC approval for spot Ether ETFs?

Reasons supporting SEC approval of spot ETH ETFs
Similar to Bitcoin in design, and considered a close substitute
Left off the SEC's list of tokens deemed as securities
Already has SEC surveillance and safeguards due to CME futures trading
Highly decentralized with a long operational history
Source:DBS

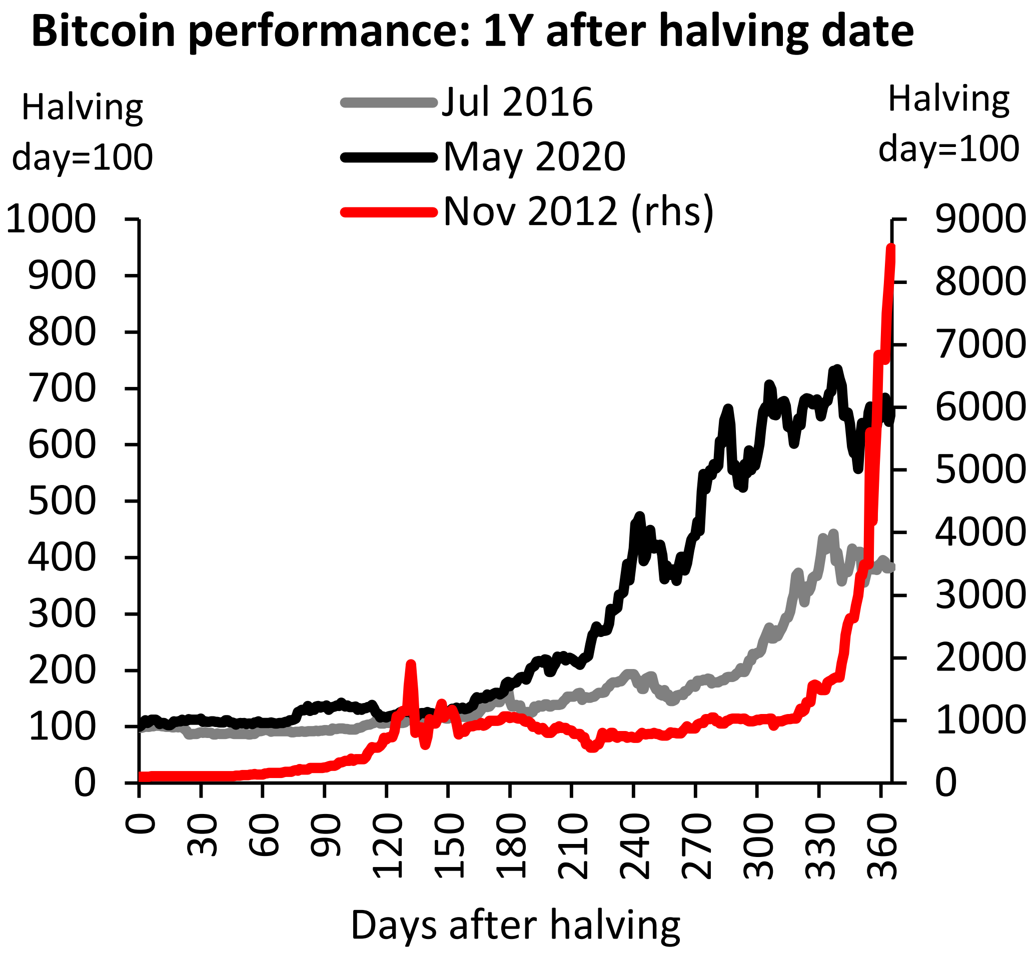
Tokens deemed as securities by SEC

Deemed as securities	Excluded
Solana	Bitcoin
Cardano	Ether
Polygon	
Filecoin	
The Sandbox	

Source: Coindesk, DBS

- Spot ETH ETF applications are already pending a decision by SEC in May
- Spot BTC ETF approvals open the path for Spot ETH ETF approvals, given similar characteristics and futures trading arrangements
- As with BTC, ETH ETFs should also support market development and prices over the long-term

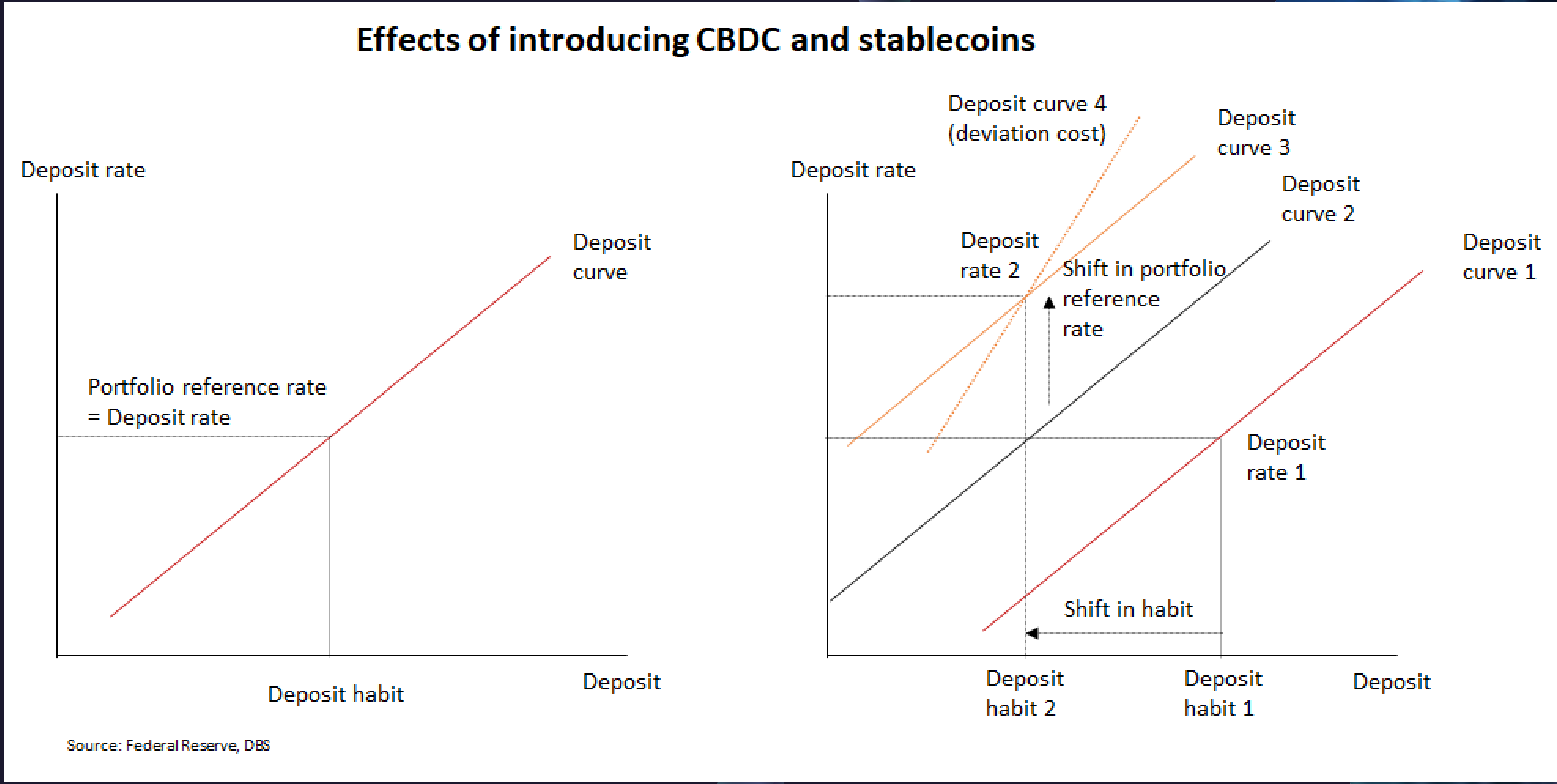
Bitcoin halving in April could lift prices



Source: Bloomberg, DBS

- Bitcoin has historically outperformed in the year after a halving event, which happens around once every four years
- The next halving is expected in April this year, where rewards for mining a block will fall by half to 3.125BTC
- Lesser reward implies a need for higher prices to sustain miner interest

Federal Reserve – Impact of CBDC and stablecoins issuance



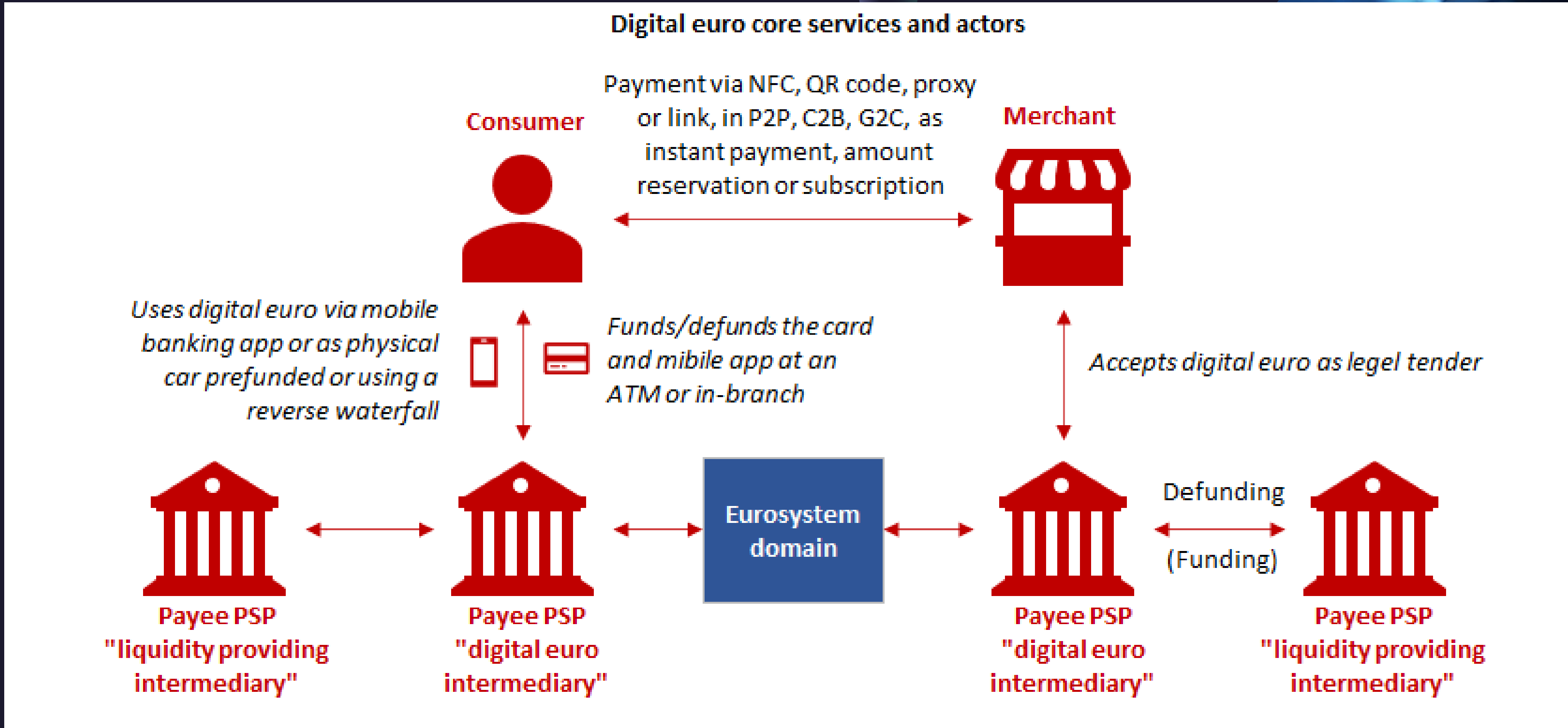
HKMA and MAS – Proposed stablecoins legislation

Proposed stablecoin issuance legislation framework

Area of guidance	Hong Kong	Singapore
Scope of regulation	• Both single-currency pegged and basket of asset pegged stablecoins	• Single-currency pegged stablecoins (SGD and G10 currencies)
Licensing criteria	• Full backing of reserves at all time • Reserves investing only in high quality and liquidity assets (excluding arbitrage or algorithm) • Segregation and safekeeping of assets with banks or custodians • Risk management such as stress testing, disclosure and reporting • Prohibition on paying interests for income or loss from reserve assets	• Full backing of reserves at all time • Return the par value of single-currency stablecoins to holders within five business days of a redemption request • Reserve assets can only be held in the form of cash, cash equivalents, or central bank / AA- or above debt securities with no more than three months residual maturity • Bank issuers: Segregation and safekeeping of assets from other banks' asset and liquidity pool, but no additional reserve backing requirements given banks are already subject to stringent risk-based capital and liquidity. • Non-bank issuers: Reserve assets to be safeguarded by licensed banks, merchant banks and finance companies, and CMSLs licensed for custodial services in Singapore
Capital requirement	• Minimum paid-up capital either HKD25 million or 2% of par value of FRS.	• Base capital – Higher of S$1 million or 50% of annual operating expenses of the SCS issuer.
Jursidiction	• The issuers must be a company incorporated in Hong Kong and have a registered office in Hong Kong. Its chief executive, senior management team and key personnel must be based in Hong Kong.	• Require the multi-jurisdiction issuers in Singapore to provide sufficient assurance that the stablecoin as a whole is subject to sufficient regulatory oversight
Restriction on business activities	• The FRS issuer should not carry on lending and financial intermediation activities and should not conduct other SFO regulated activities.	• The FRS issuer should not invest in and extending loans to other companies, lending or staking of SCS and other DPTs, and trading of DPTs.

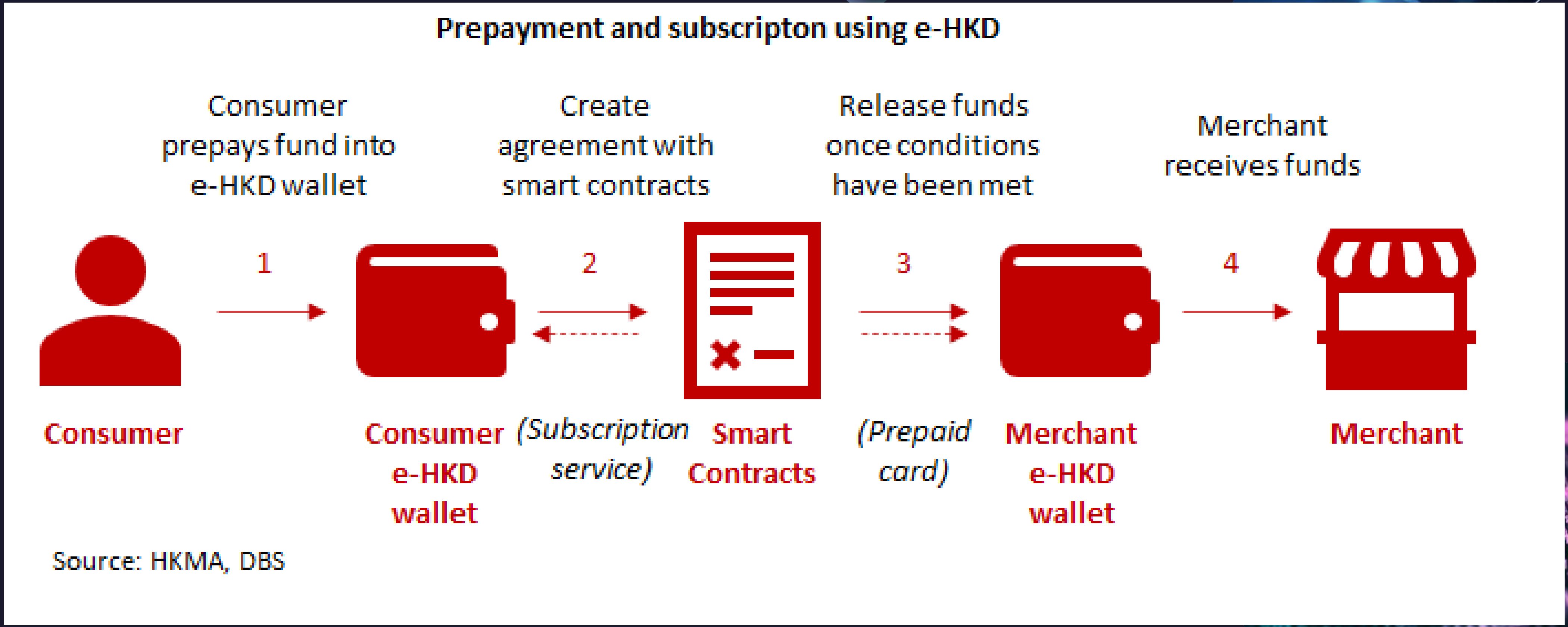
Source: MAS, HKMA, DBS

ECB – Digital Euro Rulebook

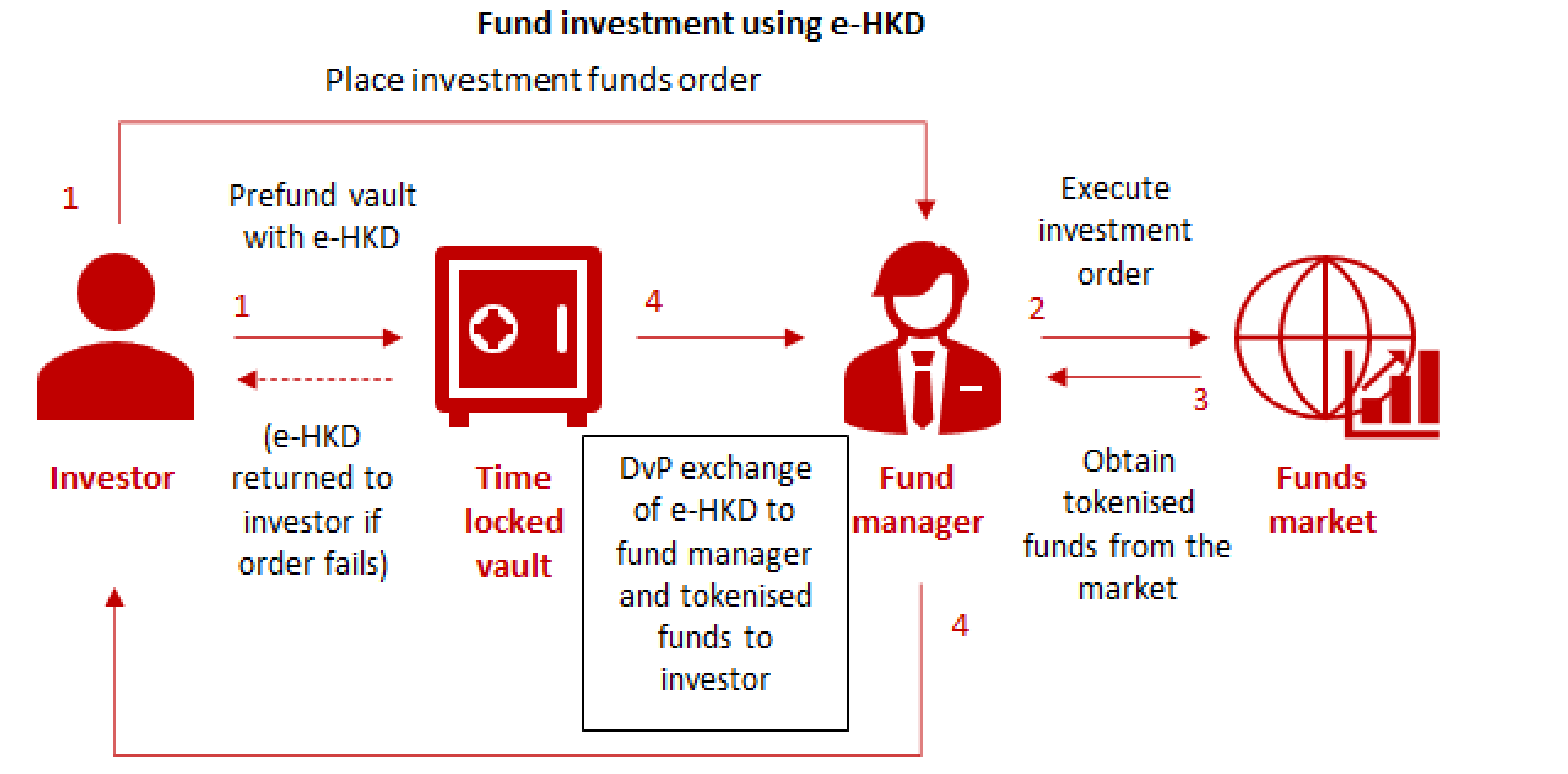


Source: ECB, DBS

HKMA – e-HKD prepayment trails

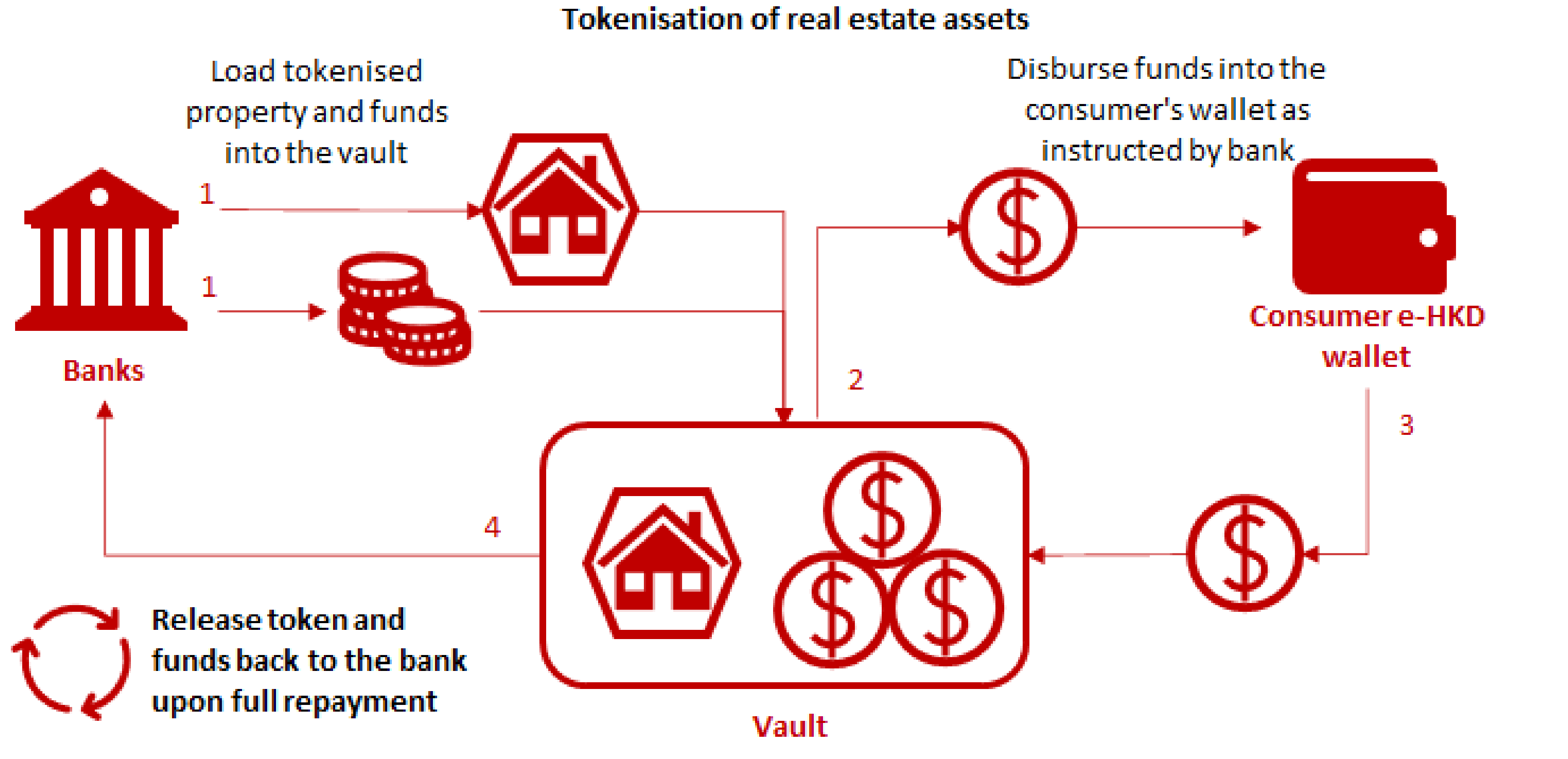


HKMA – e-HKD fund investment trails



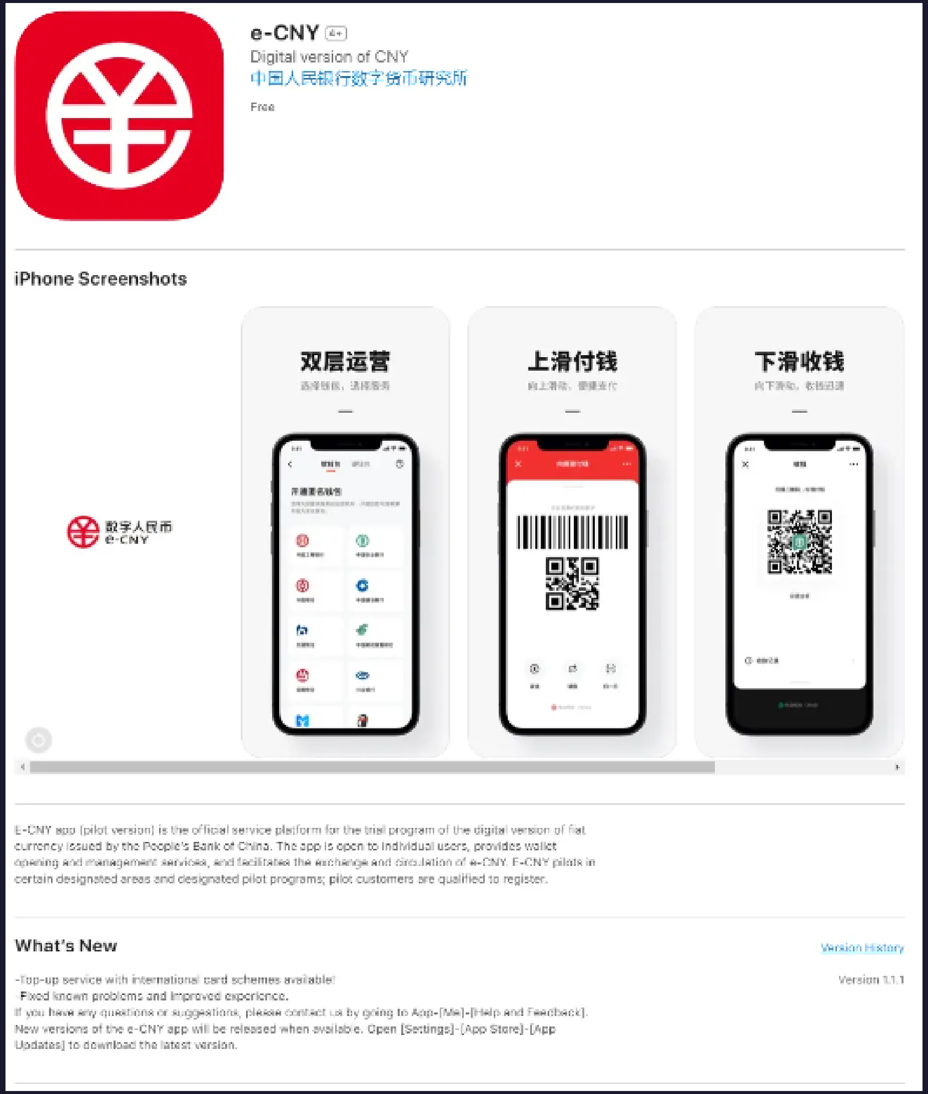
Source: HKMA, DBS

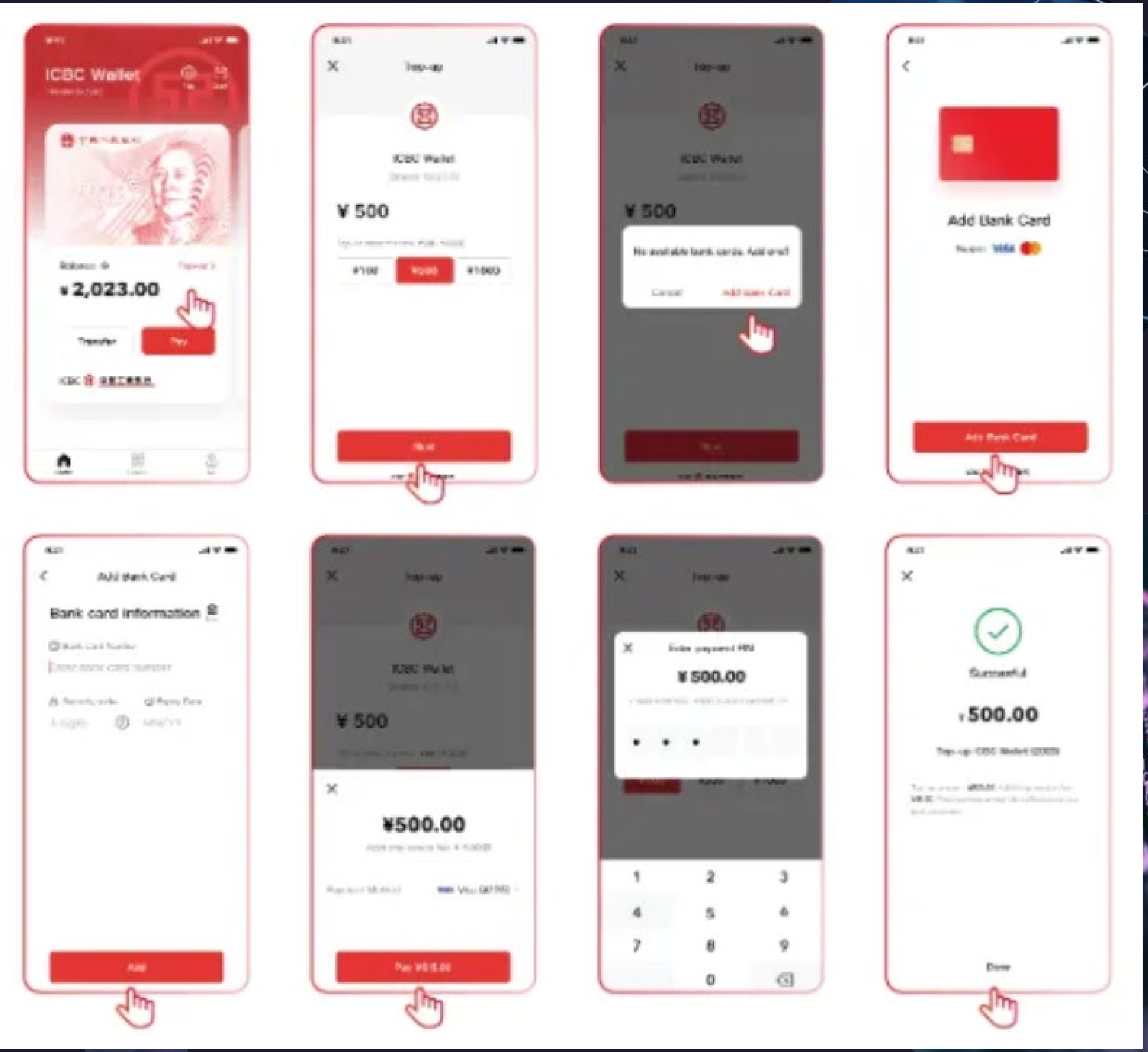
HKMA – e-HKD real estate token trails



Source: HKMA, DBS

Foreign visitors can now top up e-CNY with credit cards



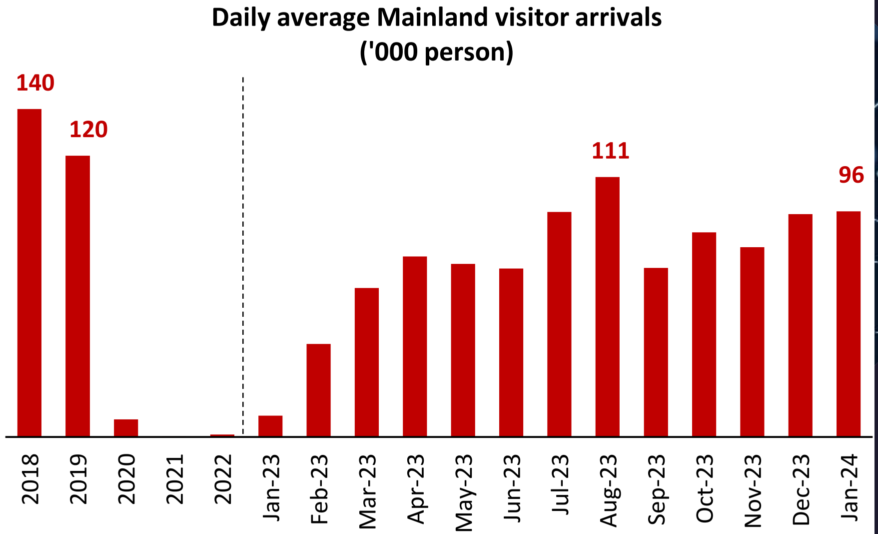


Source: e-CNY app

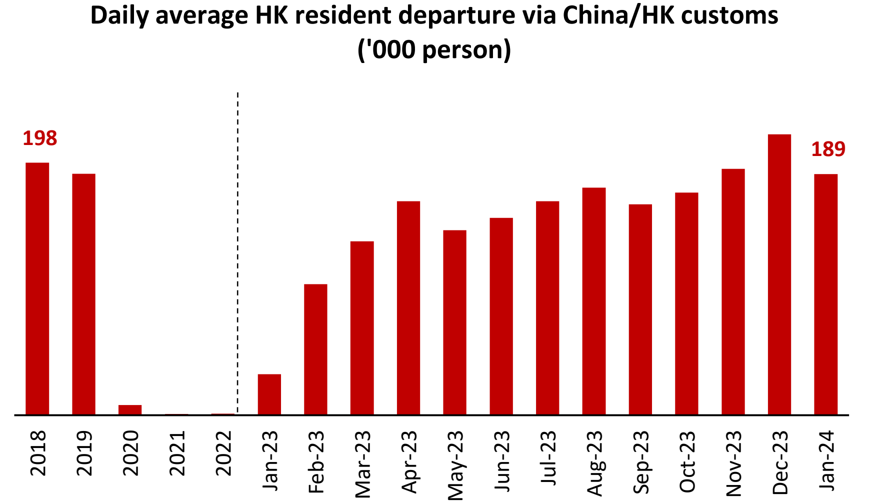
PBOC and HKMA improve cross-border use of e-CNY

- Supporting institutions participating in the pilot
- Improving convenience for digital yuan users
- Increasing the number of Hong Kong-based banks processing e-CNY
- Expanding service scenarios for firms and individuals in Hong Kong
- Exploring new cross-border remittance services using the digital yuan for small payments
- Increasing the number of merchants in Hong Kong that accept the digital yuan
- Tailoring digital yuan services to the habits of Hong Kong residents

Source: DBS



Source: Immigration Office, CEIC, DBS

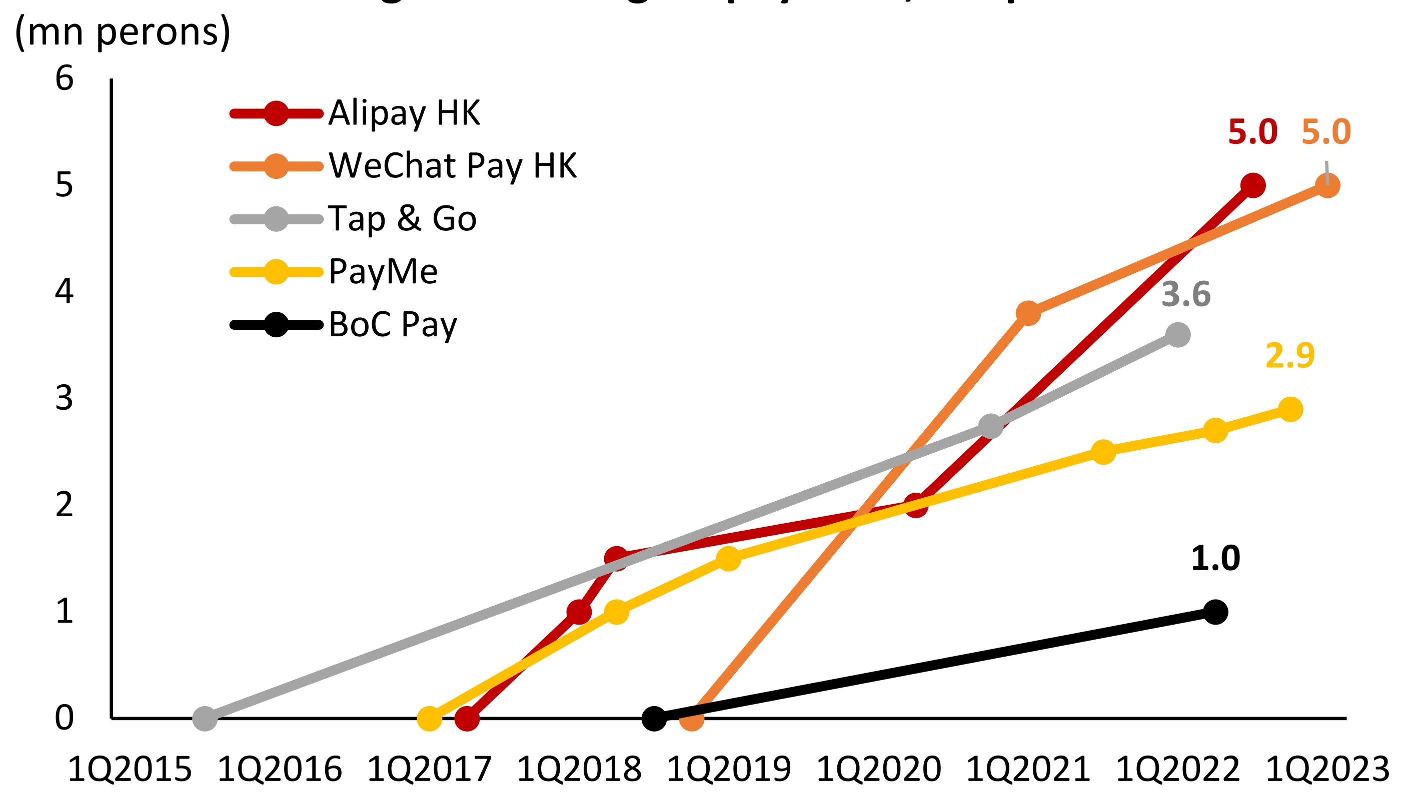


Note: data excludes ferry terminals and HK-Zhuhai-Macao Bridge.
Source: CEIC, DBS

Hong Kong residents embrace digital payments

Government disbursement of 2021 consumption vouchers sparks surge in payment app usage

User growth of digital payment, mn perons



Source: Announcements made by various digital payment platforms, DBS

e-CNY adoption in tourism

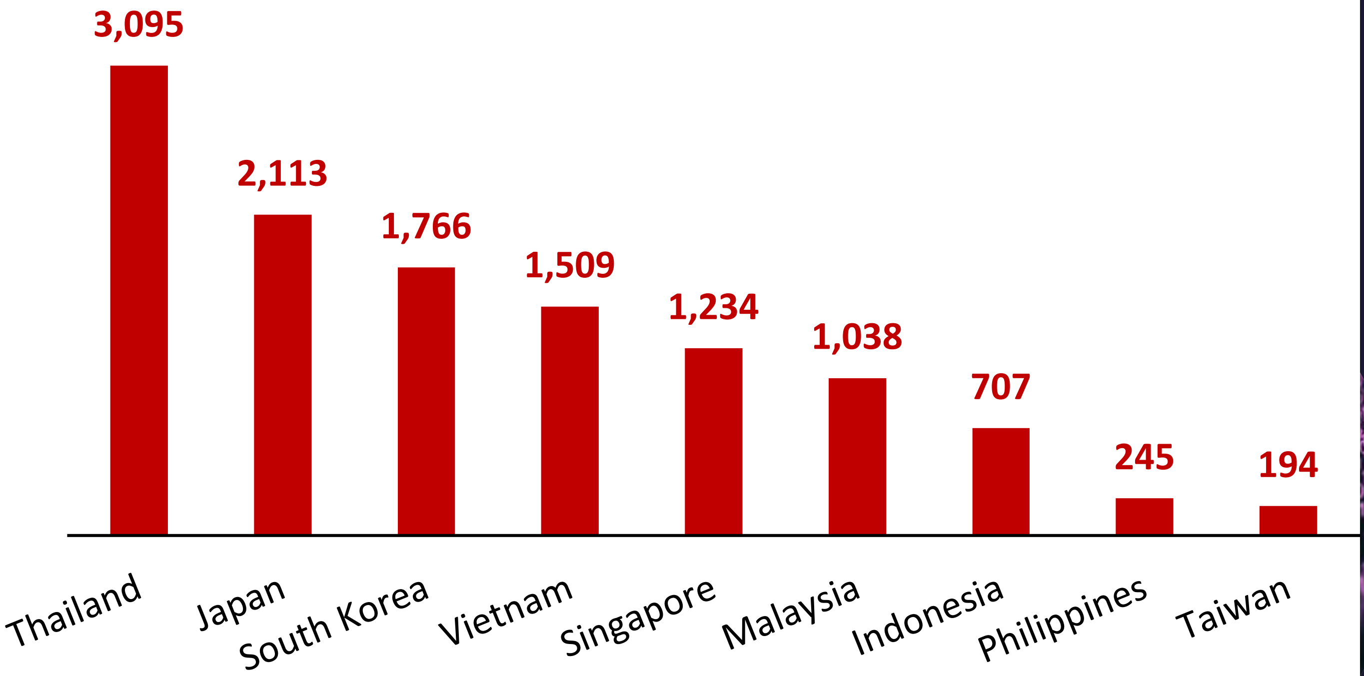
Singapore a key destination for Chinese tourist outbound travel in 2023

Cross-border e-CNY Pilot between China and Singapore

MAS: Following the signing of a Memorandum of Understanding (MOU) on digital finance cooperation in 2020 between MAS and the Digital Currency Institute, People's Bank of China (PBCDCI), MAS and PBCDCI are embarking on a pilot that will allow travellers from both countries to use e-CNY for tourism spending in Singapore and China.

Source: MAS, DBS

Chinese tourist outbound travel to Asia in Nov 2023 YTD, '000 person



Note: Malaysia data is up to Sep 2023

Source: CEIC, DBS

Increasing commodity settlement using e-CNY

Commodities transactions settled using e-CNY

Commodity settlement using e-CNY	
Gold	BOC and BOCHK partnered with the Shanghai Gold Exchange to settle a substantial 100 million RMB gold trade
Iron ore	BOC participated in a cross-border iron ore trade between HK and China's state-owned iron and steel company, Baowu.
Crude oil	PetroChina, China's leading oil and gas company, also made history by settling a crude oil transaction for one million barrels using e-CNY

Source: Bloomberg, Reuters, and other news agencies

Growing business ties between China and Saudi Arabia

Company	Deal
Sinopec	1.Saudi Aramco is in talks with Sinopec and Total Energies for a US10Bn Jafurah development deal 2.Signed Agreement with Saudi Aramco for a greenfield project in Gulei, Fujian province with plans to include a refinery with capacity of 320,000 barrels per day, expected to start operations by end of 2025
PetroChina	Saudi Aramco is among companies considering investing in refinery plants in China, potential target includes PetroChina’s Guangdong Refinery plant
Norinco and Panjin Sincen	Sold 30% stake in a JV project to Saudi Aramco.
Rongsheng Petro Chemical	Sold a 10% stake to Saudi Aramco.

Source: Bloomberg, Reuters, and other news agencies

Questions?

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