



THE LIMITS OF DEFI FOR FINANCIAL INCLUSION

OECD Report – Main Findings

Digital Finance in Africa Policy Workshop

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The Limits of DeFi for Financial Inclusion: Lessons from ASEAN

- Importance of developing economies (e.g. ASEAN) for crypto and DeFi markets
 - Testing the ‘democratisation of finance’ promise
 - Policy considerations
-
- ❖ Work supported by the Government of Korea



Decentralised finance (DeFi and crypto) activity: Importance of developing economies

- **Sharp contraction in markets for crypto-assets following domino failures**

- >50% drop since peak of USD 2.7tn (Nov 2021)
- Similar drop in volume of crypto locked in DeFi

- **Recent rebound**

- ETP Spot Bitcoin; institutional investors

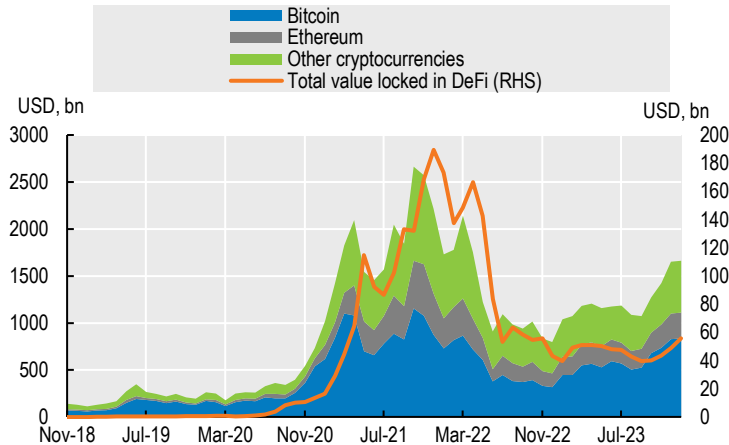
- **Importance of Asian region in markets for crypto-assets**

- Epicenter of 2022-23 downturn (Terra Luna)

- **Similarities to certain African economies**

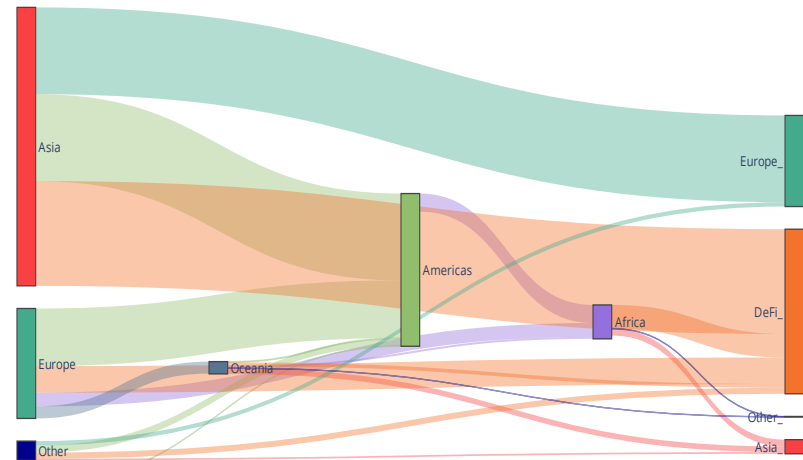
- Tech-savvy, young demographics
- Mobile connectivity and growing FinTech activity
- Diversity in policy approaches

Global decentralised finance activity (in USD bn)



Source: Thomson Reuters Refinitiv, DeFi pulse, as of 5 March 2024.

Estimated aggregate crypto-flows (2020-23)



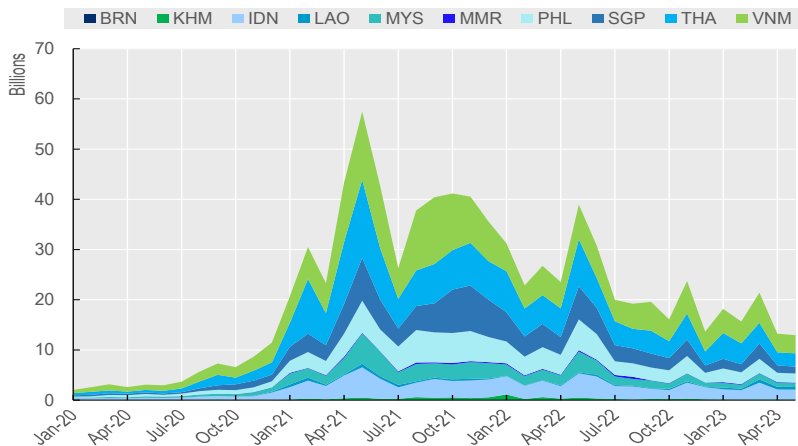
Based on net flows measured in USD. Source: OECD calculations based on Chainalysis data, as of 31 July 2023.



Decentralised finance (DeFi and crypto) activity: Spotlight on ASEAN economies

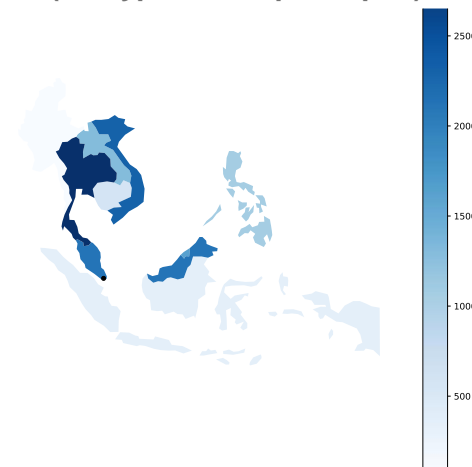
- **South-east Asian economies key participants of decentralised finance markets, lead adoption**
 - Thailand, Philippines, Viet Nam among top 10 crypto-adopters (as of 2022)
 - Malaysia among 9 largest Bitcoin mining countries
 - ‘Play-to-earn’ gaming activity
- Lured in by FOMO, speculation, but also *financial inclusion narrative of the industry*

Crypto-asset flows in ASEAN (in USD)



Source: OECD calculations based on Chainalysis data, as of 31 July 2023.

South-east Asian decentralised finance activity (in crypto-flows per capita)





Drivers of crypto-asset market activity

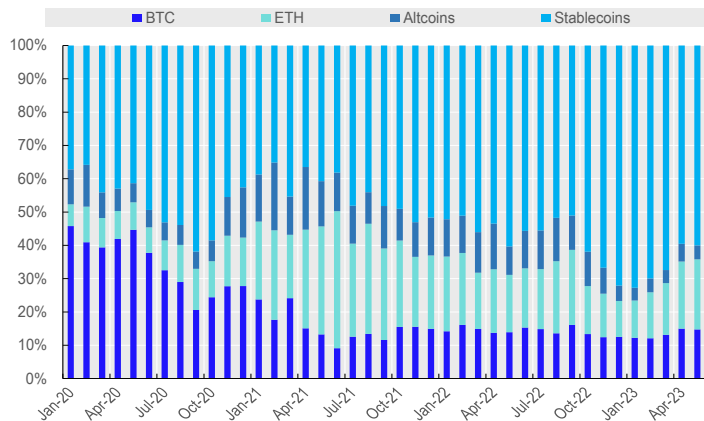
- **Bitcoin, Ether and stablecoins dominate crypto-activity**

- In line with global trends

- **Professionals** account for lion's share of activity

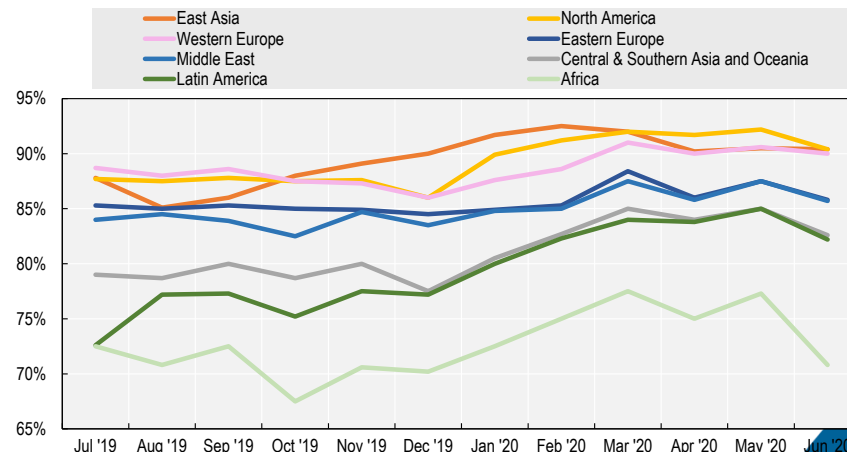
- c.90% of all volume of crypto-assets in East Asia are above USD 10,000 (period 2019-20)

Breakdown of ASEAN flows by type of crypto-asset (in USD)



Source: OECD calculations based on Chainalysis data, as of 31 July 2023.

Professionals dominate East Asian crypto-flows (In % of total crypto-asset flows received)



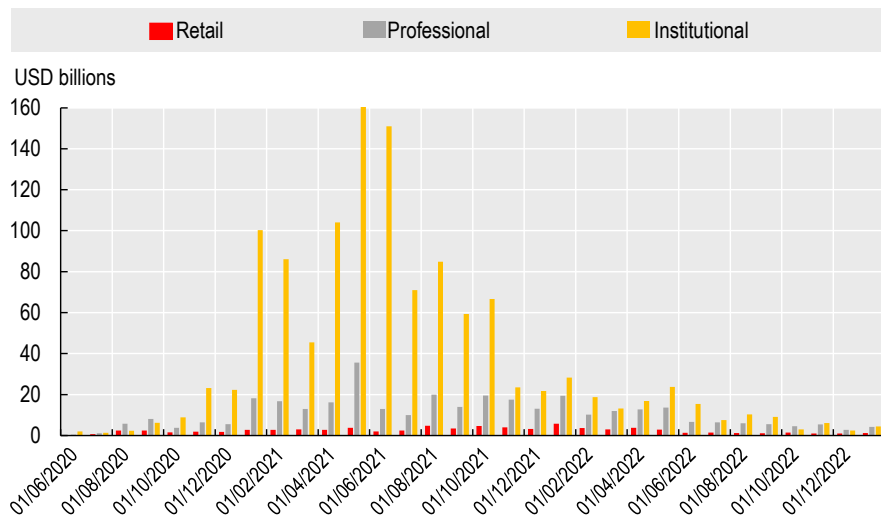
Professional defined as above USD 10,000 transfers. Source: OECD calculations based on Chainalysis data, 2019-20.



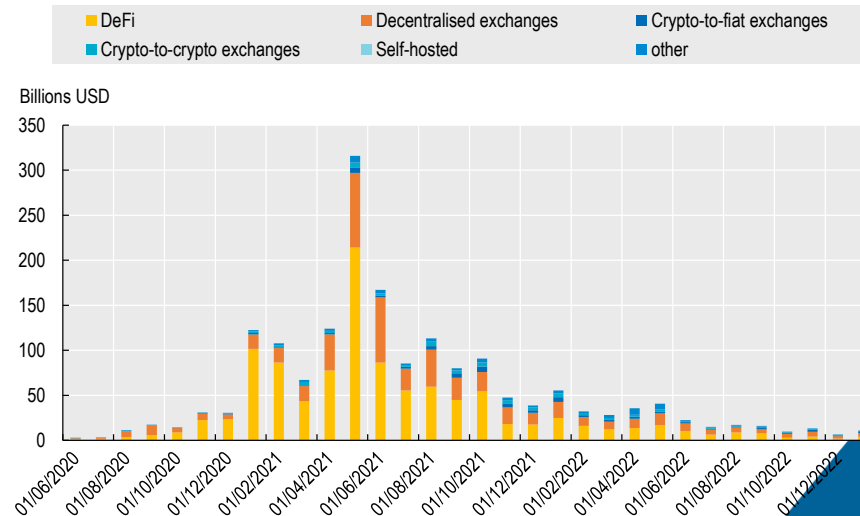
Professionals dominating DeFi activity globally

- **Professionals and institutionals dominate DeFi protocol activity globally in any given month**
- More than half of fund inflows to DeFi come from DeFi in any given month (leverage)

Negligible minority of DeFi transactions come from retail investors (below USD 10K)



Inflow of funds to DeFi by type of investor



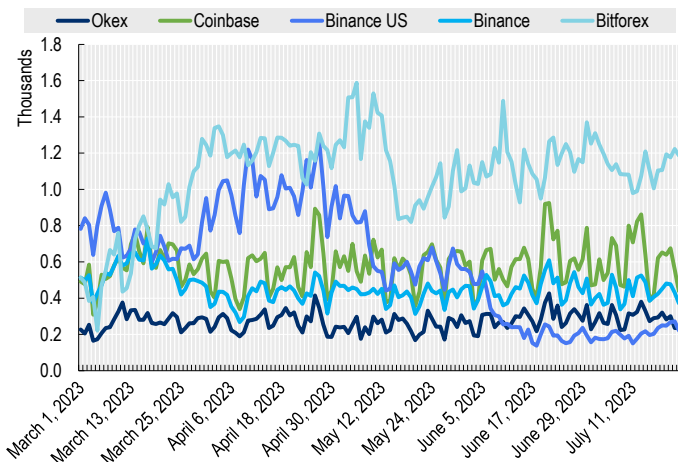
Note: Institutional transactions representing those above USD 1 m, professional between USD 10K and USD 1 m, retail representing those below USD 10K. Crypto-to-crypto exchanges are venues for the trading of cryptocurrencies primarily for other cryptocurrencies, either via a central limit order book or peer-to-peer via a centralised escrow. Crypto-to-fiat exchanges are venues for the trading of cryptocurrencies primarily for fiat, either via a central limit order book or peer-to-peer via a centralised escrow. Source: OECD based on Chainalysis data as of 31 July 2023.



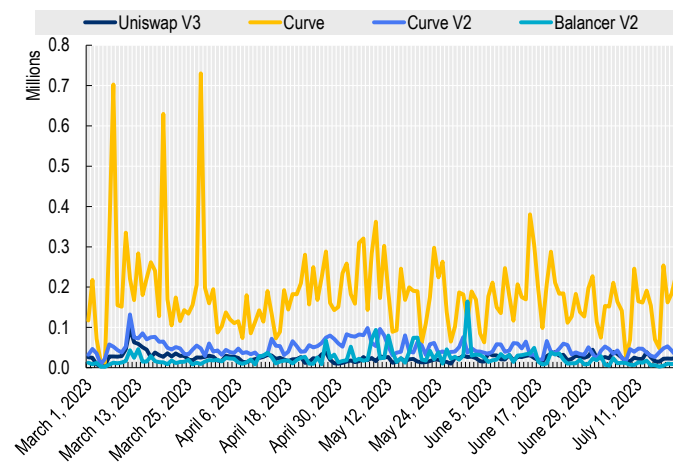
Similar trends observed at crypto-exchange trading

- **Particularly evident in decentralised exchanges**
 - Average trade size on DEXs is 10x – 100x higher than the average trade size on CEXs
 - Particularly in the case of stablecoin trading
- Differences could also be attributed to structural differences

Average trade size at centralised crypto-exchanges (CEXs) (in USD thousands)



Average trade size at decentralised crypto-exchanges (DEXs) (in USD millions)

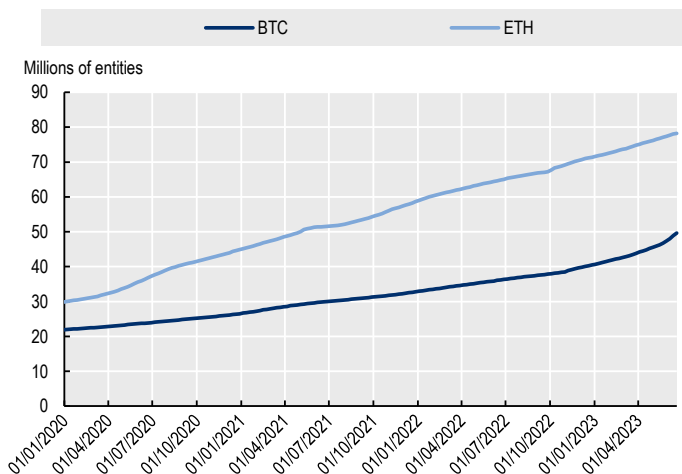




Yet, global retail crypto-activity is growing

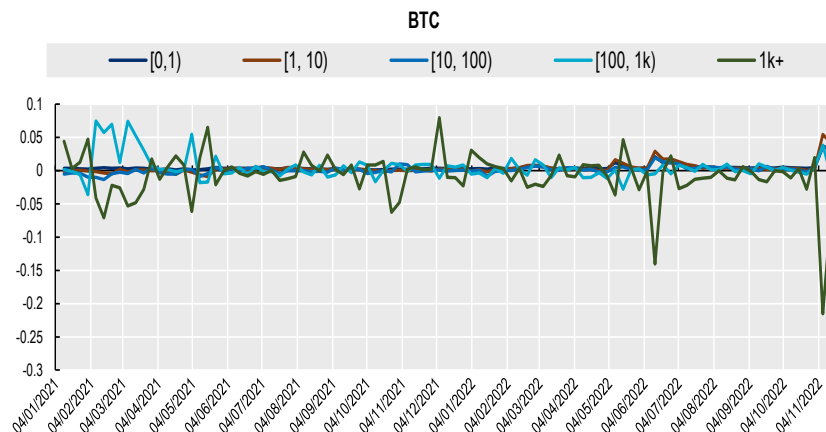
- Despite prominence of professionals, **retail participation is growing**
 - Exposed to important losses without recourse
- Retail investors disproportionately particularly in the aftermath of the crypto-failures
 - Net buyers against larger wallets offloading crypto-assets post collapses

Addresses holding a maximum of 1 Bitcoin / 10 Ether



Source: OECD calculations based on Chainalysis data, as of 31 July 2023.

Small crypto-holders net buyers in the aftermath of the crypto-winter



Source: OECD calculations based on Chainalysis data, as of 01 December 2022.



Stablecoins a prevailing crypto-asset class

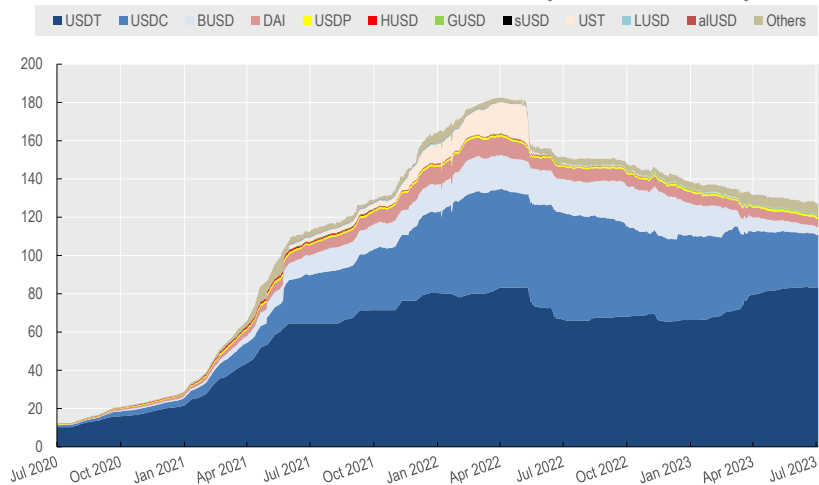
- **Significant volumes of stablecoins**

- In ASEAN, account for 50% of total crypto-asset flows

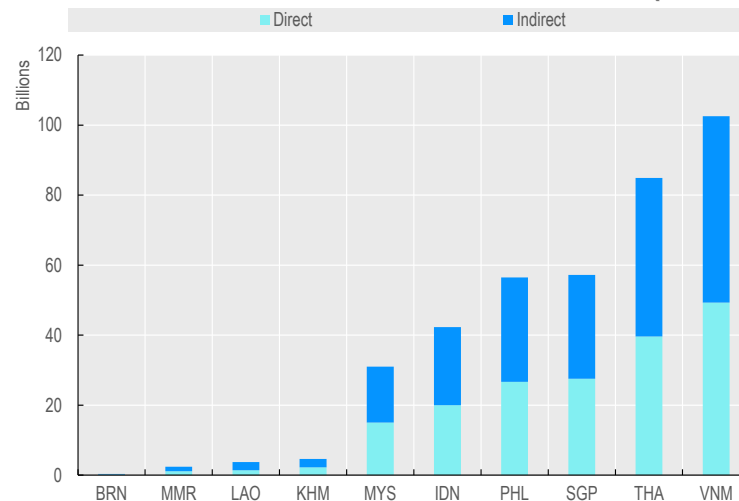
- Part of the activity could be associated with remittances

- **In Africa**, stablecoins perceived to protect against **high inflation, currency devaluation, or the presence of capital flows management measures (CFMs)**, depending on the country¹

Stablecoin market issuance (in USD billion)



Stablecoin flows in ASEAN Member States (in USD)



Notes: (1) As per Cross-border regulatory and supervisory issues of global stablecoin arrangements in EMDEs, FSB report, forthcoming. Source: OECD calculations based on Chainalysis data, as of 31 July 2023.



Potential use cases of stablecoins

MEANS OF PAYMENT FOR RETAIL TRANSACTIONS



- Initial design and stated purpose to be used by retail users for payments
- Claim to address cross-border payment inefficiencies (e.g. international remittances)
- **Today, estimated volume of stablecoins used for retail payments is insignificant**

VEHICLE CURRENCY / MEDIUM OF EXCHANGE FOR CRYPTO-ASSET TRADING



- **Facilitate trading** between crypto-asset pairs
- **Move** between crypto-assets or crypto-exchanges without having to convert to fiat

STORE OF VALUE



- **Hedge** / protect from highly volatile crypto-assets
- **Perceived as store of value in countries with high inflation, currency devaluation, or the presence of CFMs**

KEY INGREDIENT OF DEFI



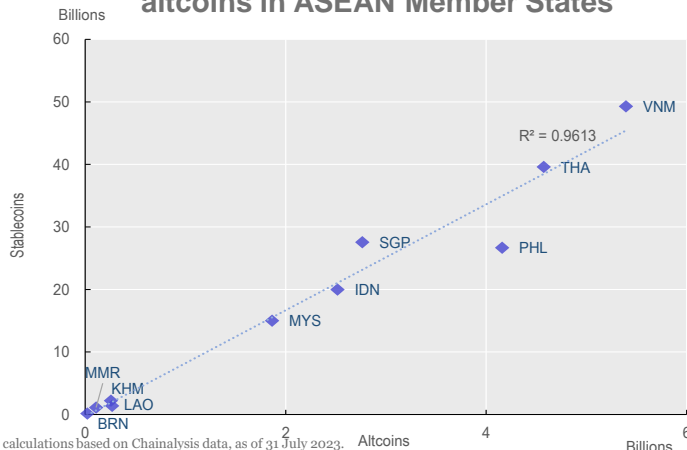
- Used as **collateral** in DeFi lending protocols; as trading facilitators in Decentralised Exchanges (DEXs) or for liquidity mining



However, non-payment use cases seem to emerge more frequently

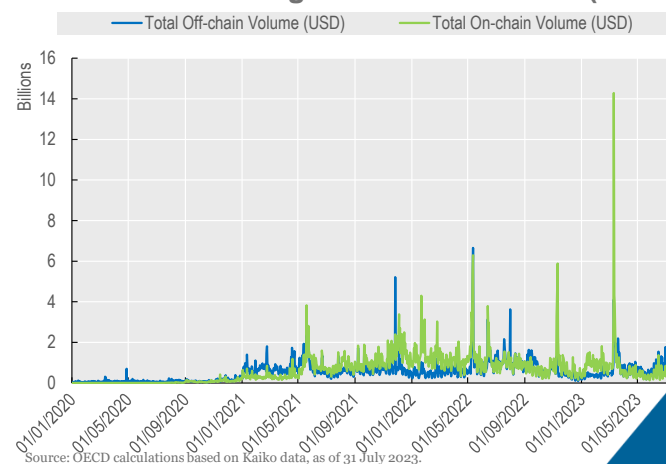
- **Medium of exchange for alternative crypto-assets ('altcoins')**
 - Exchanges do not allow trading between all non-mainstream crypto-asset pairs
- **Heavy use of stablecoins in DeFi**
 - e.g. USD 10-15bn of USDC is pledged on three DeFi protocols
 - Also, the average retail user does not have the expertise to trade on DEXs (complex, non-custodial)
- **In addition to structural deficiencies**
 - Risks of unregulated/non-compliant stablecoins, uncertainty about rights, transaction costs on public DLTs, volatility

High correlation between stablecoins and altcoins in ASEAN Member States



Source: OECD calculations based on Chainalysis data, as of 31 July 2023.

USDC trading on CEXs and DEXs (in USD)



Source: OECD calculations based on Kaiko data, as of 31 July 2023.



Policy considerations: Importance of implementation of global standards for crypto-assets and stablecoins

- Decentralised finance has not delivered on the promise to democratise finance
 - Still, may be able to provide value to digital finance (e.g. smart contracts, automation, atomicity)
 - At the **institutional** investor level and in **compliant manner**
- Importance of protecting markets and their participants
 - *FSB high-level recommendations for crypto-assets and stablecoins*
- Coordination, consistency, capacity

Crypto-asset activities and markets



Source: (FSB, 2023).

“Global Stablecoin” arrangements





Policy considerations: FinTech applications to promote financial inclusion in **EMDEs**

- ✓ Promote policies to support a **safe and responsible digital transformation**
 - Ensure **consistency** in implementation of standards
 - Prevent regulatory arbitrage and a race to the bottom

- ✓ Support the safe development of **FinTech applications** with potential for financial inclusion
 - e.g. Alternative AI-based credit scoring for MSME access to finance
 - e.g. AI tools against fraud in payments

- ✓ Carefully balance risks and opportunities

- ✓ **Build capacity**, upskilling
 - Incl. for the use of digital in RegTech/SupTech

- ✓ **FinTech is no panacea**: combine traditional and digital efforts



Thank you!

www.oecd.org/finance



**The Limits of DeFi
for Financial Inclusion**
LESSONS FROM ASEAN

