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

**Global decentralised finance activity (in USD bn)**

- **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

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

<table>
<thead>
<tr>
<th>BRN</th>
<th>KHM</th>
<th>IDN</th>
<th>LAO</th>
<th>MYS</th>
<th>MMR</th>
<th>PHL</th>
<th>SGP</th>
<th>THA</th>
<th>VNM</th>
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</table>

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

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

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

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

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

- Professionals and institutions 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)

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)

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

<table>
<thead>
<tr>
<th>Millions of entities</th>
<th>BTC</th>
<th>ETH</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>20</td>
<td>30</td>
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<td>60</td>
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<td>80</td>
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<td>70</td>
<td>80</td>
<td>90</td>
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</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>BTC</th>
<th>{0, 1)</th>
<th>{1, 10)</th>
<th>{10, 100)</th>
<th>{100, 1k)</th>
<th>1k+</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0.05</td>
<td>0</td>
<td>-0.05</td>
<td>-0.1</td>
<td>-0.15</td>
</tr>
<tr>
<td>0</td>
<td>-0.2</td>
<td>-0.25</td>
<td>-0.3</td>
<td>-0.3</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

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 country\(^1\)

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](image)

![USDC trading on CEXs and DEXs (in USD)](image)
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

Source: (FSB, 2023).
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