DeFi: opportunities and challenges

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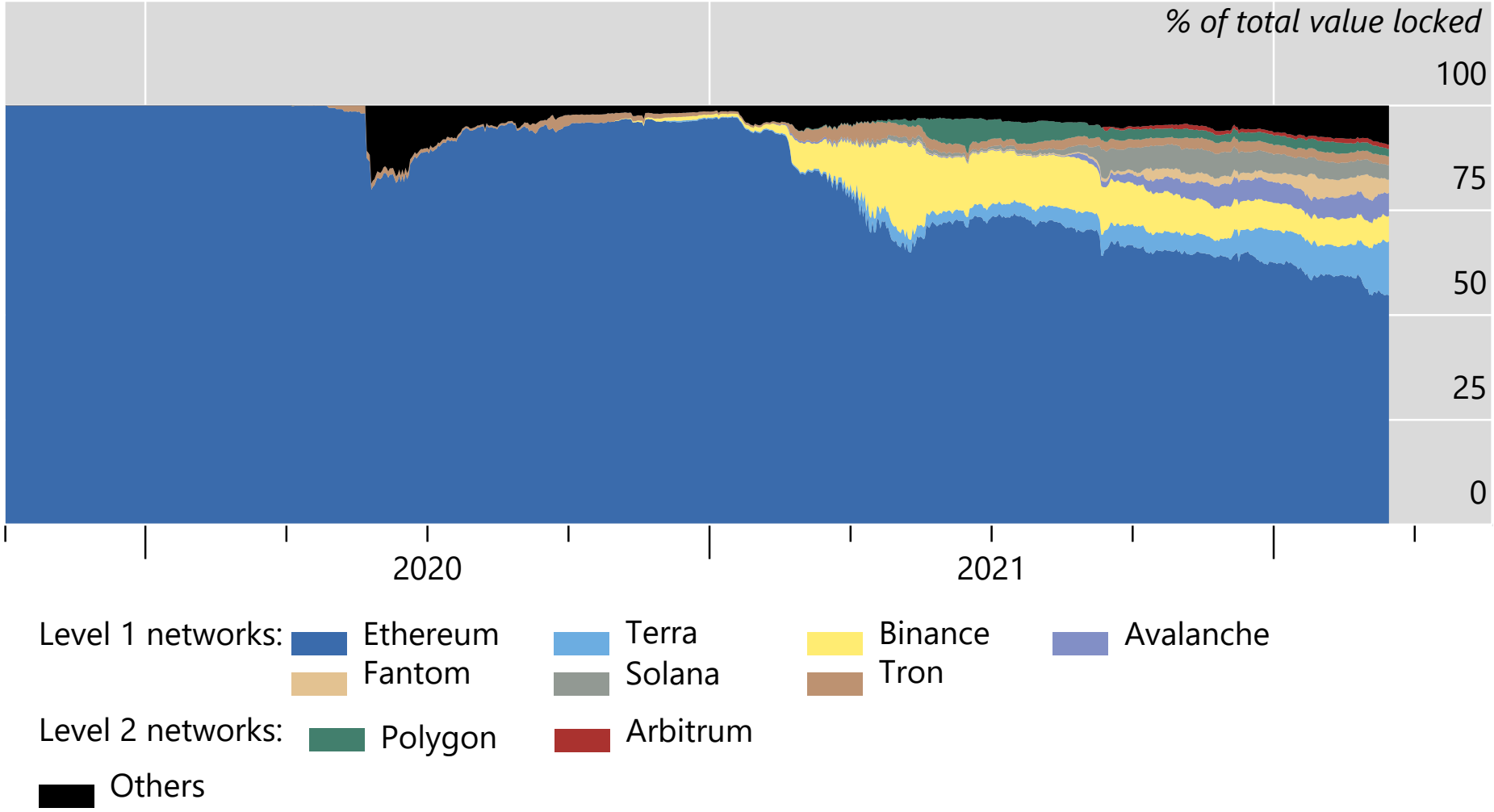
*The views expressed here are mine and not necessarily those of the Bank for International Settlements

Decentralisation in digital finance: possibilities and limits

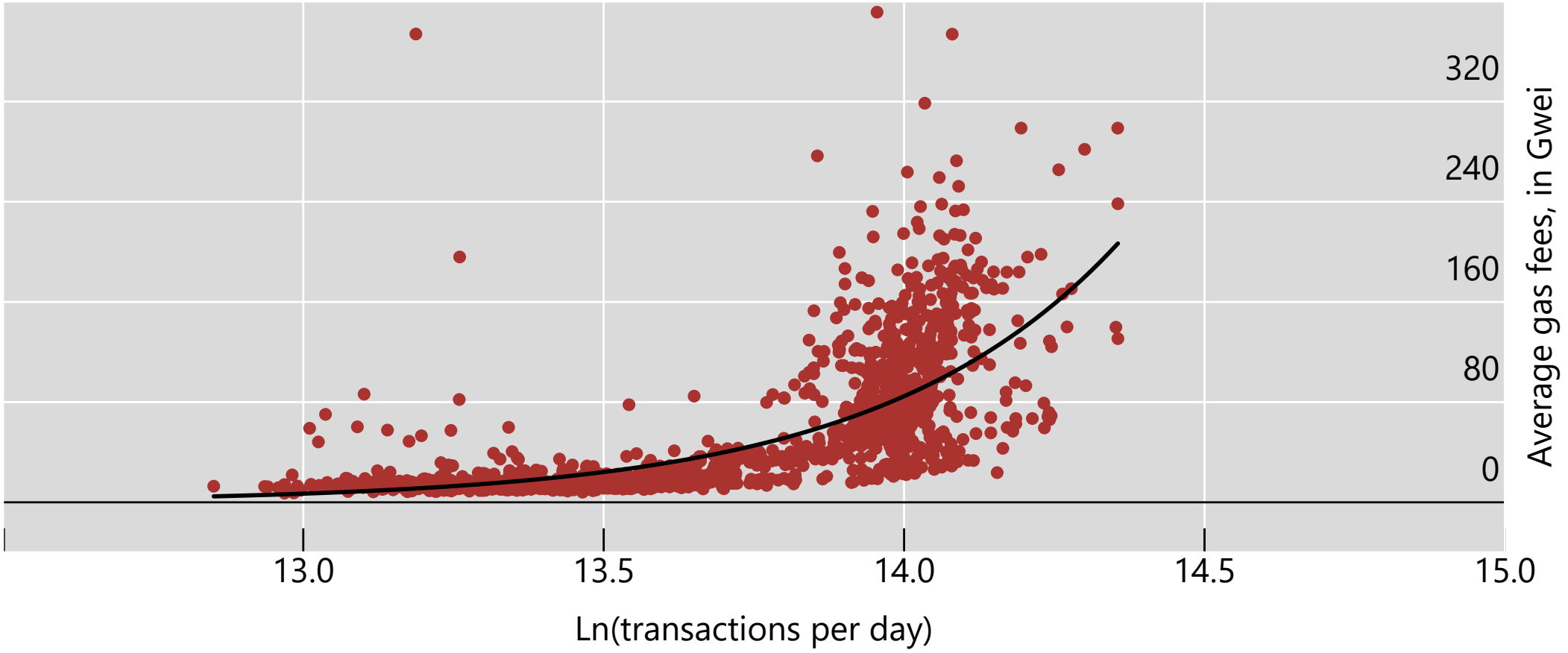
- DLT and smart contracts could improve the efficiency of the monetary and financial system
- At the same time, we need to preserve safety and integrity
- DeFi: decentralisation and anonymity
- As it stands now the DeFi system has some problems and could introduce serious risks
  - Limited network effects
  - Prone to congestions
  - Validators extract high rents

Network effects and "winner takes all" does not hold for DeFi; instead increasing fragmentation of blockchain platforms point to lack of scalability



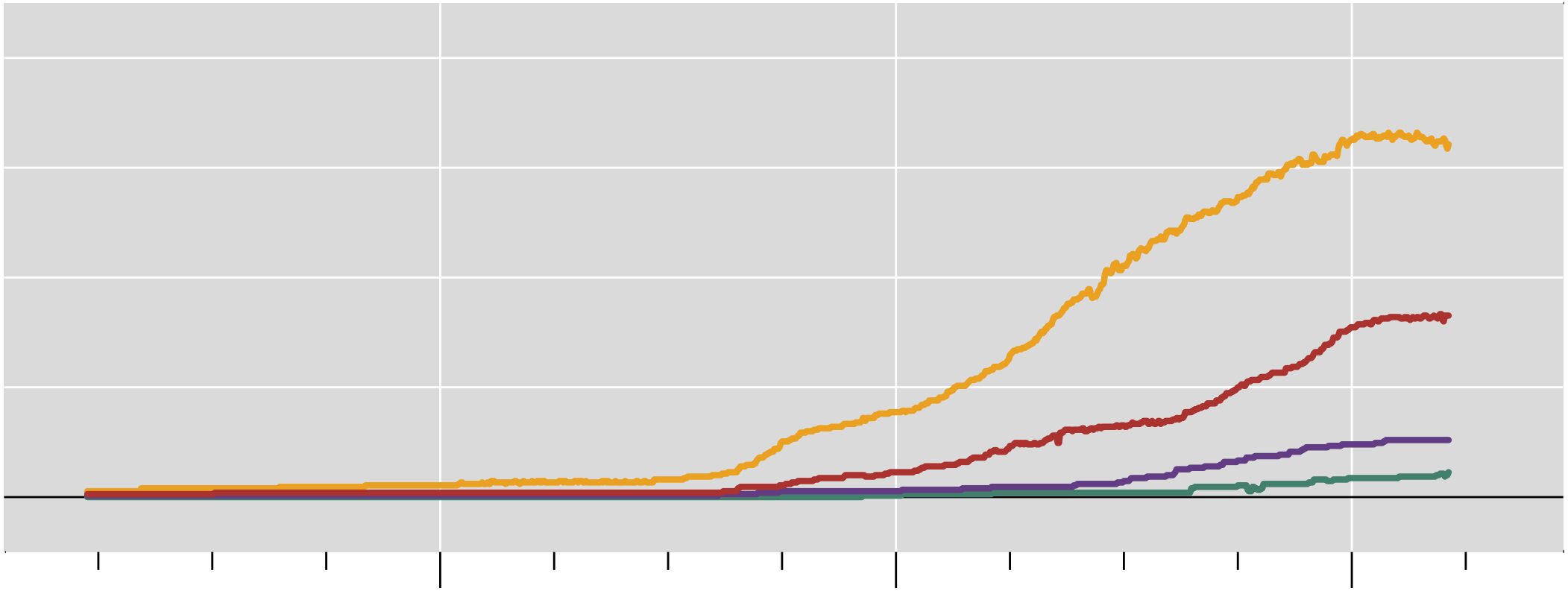
Sources: F Boissay, G Cornelli, S Doerr and J Frost, "Decentralised finance: more monies, more problems", *BIS Bulletins*, forthcoming

Higher gas fees are one symptom of scalability problem, but cutting corners on security cannot be the answer (eg, recent DeFi theft through hacks)



Sources: F Boissay, G Cornelli, S Doerr and J Frost, "Decentralised finance: more monies, more problems", *BIS Bulletins*, forthcoming; Etherscan.

Rise of alternative chains has coincided with rising gas fees, raising question of whether fragmentation is inevitable consequence of Buterin's "Trilemma"



Sources: F Boissay, G Cornelli, S Doerr and J Frost, "Decentralised finance: more monies, more problems", *BIS Bulletins*, forthcoming; DeFi Llama; Etherscan; CoinGecko.

Conclusions

- DeFi offers a range of new financial applications, as part of a broader vision called “Web3”

- But DeFi is not delivering this in practice:
  - DeFi must incentivise validators through high fees; power in the hands of few
  - Blockchain applications do not scale, as they cannot harness the network effects
  - DeFi and automated smart contracts do not fully replace for trust

- To fully benefit from technological advances, we urgently need regulation of cryptoassets, stablecoins and DeFi to address relevant risks