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smart data

CeFi & DeFi Interconnections Role in Times of Crisis

Investigating the Role of CeFi and DeFi Interdependencies in Celsius' Failure and Stablecoin Depegging

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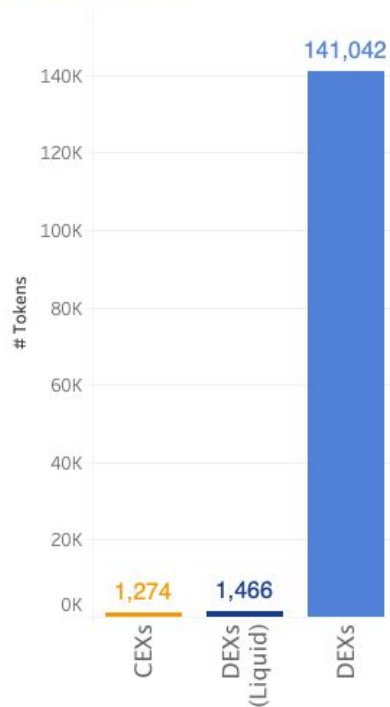
Comparing DeFi & CeFi with Data

DEXs vs CEXs: Token and Market Share Comparison



Number of tokens available for trading

on CEXs and on DEXs



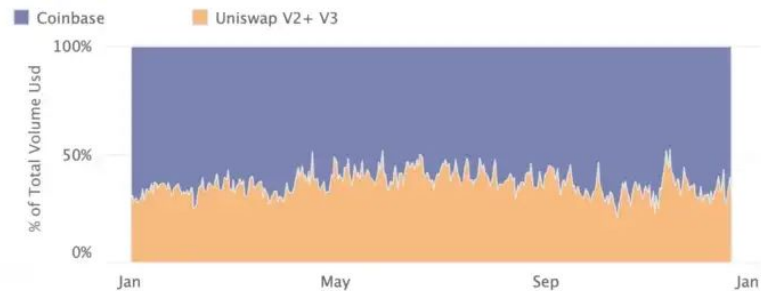
DEXs facilitate trading of any cryptocurrency without requiring token issuers to pay for listing fees.

However, the majority of tokens available for trading on DEXs (98%) are non-liquid altcoins.

Despite this, DEXs offer more liquid tokens than centralized exchanges, with over 200 more assets.

Market Share of Volume

All pairs/pools



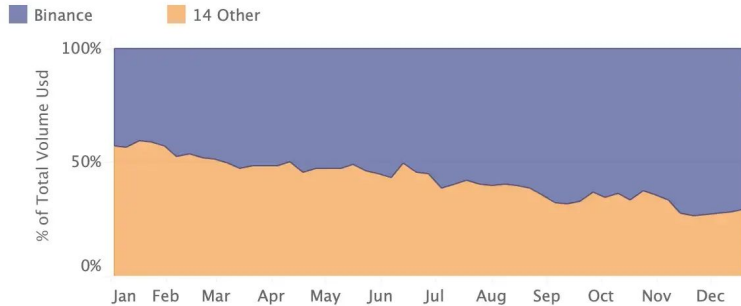
Source: Kaiko exchange volume.

Uniswap, the largest Ethereum DEX, emerged as a strong competitor to centralized exchanges in 2022 with its trade volumes nearly matching Coinbase's. This was due to factors such as more tokens available on Uniswap, lower gas fees, significant bot volumes (estimated at 50% of volume), and Uniswap users being more knowledgeable and likely to trade during a bear market.

High Market Concentration in Cryptocurrency Exchanges



Binance Market Share of Volume in 2022



Source: Kaiko exchange volume. 14 Other include FTX and FTX.US.

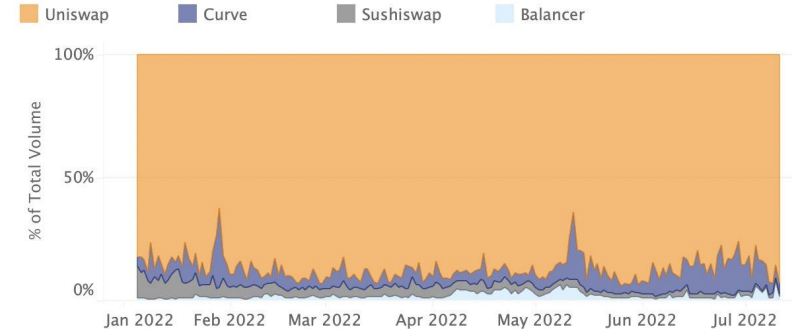
CEXs

Binance removed fees for 13 BTC pairs in July, causing a surge in trading on its platform and market share to 72% compared to 14 other exchanges.

Market Share of Volume



All pools



Data source: Kaiko trade volume

DEXs

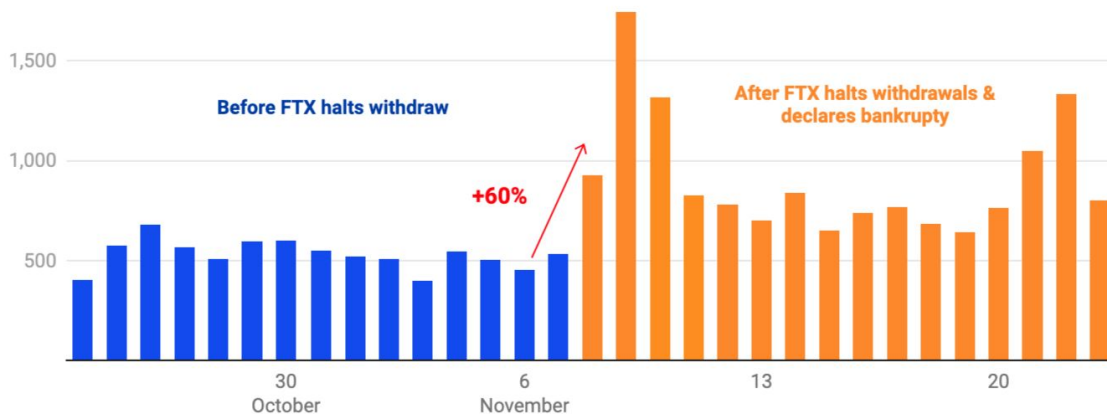
Within the DEX category, Uniswap V3 accounts for between 80–90% of all daily volume

FTX Collapse Drives Adoption of DeFi Lending Protocols



Users on AAVE and Compound, before and after FTX

Number of unique user addresses recorded on AAVE V2 and Compound V2, which initiated borrows, withdrawals, deposits, repayments, or liquidations.



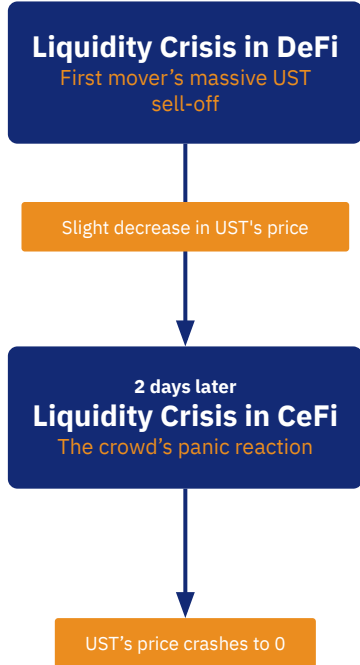
The recent collapse of FTX has resulted in a diminished trust in centralized cryptocurrency intermediaries, prompting a shift towards decentralized finance protocols.

These protocols have experienced a marked increase in their user base, with a 60% growth observed, due to the perceived benefits of greater transparency and financial opportunities.

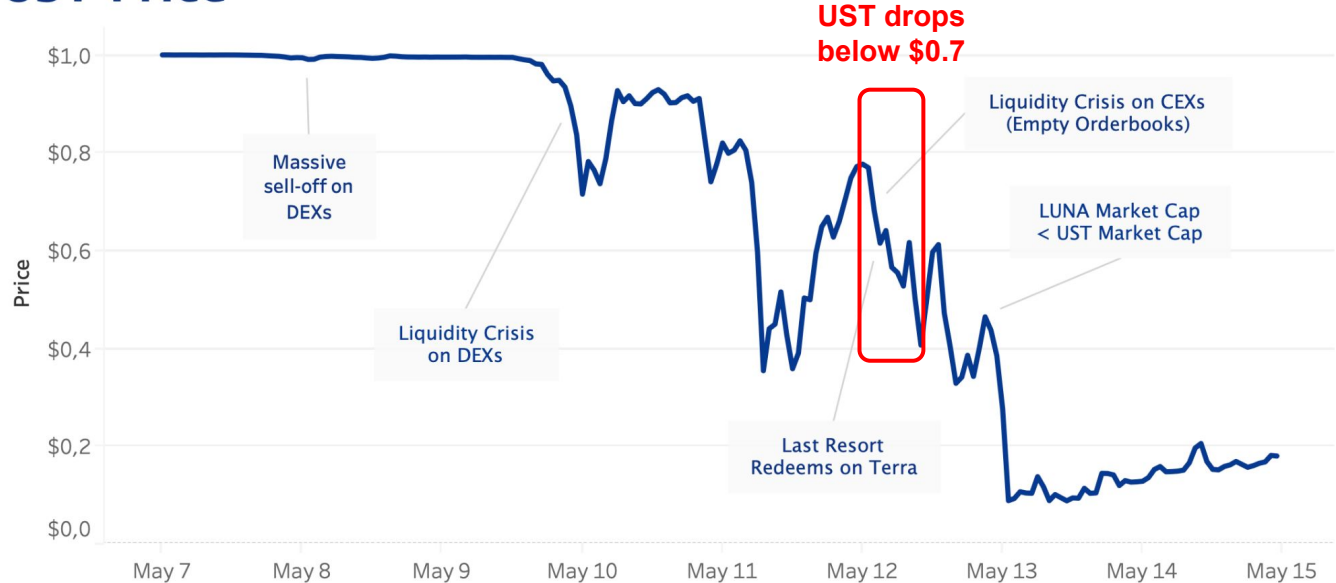


Evidence of DeFi & CeFi Interconnections

UST Collapse Exposes Information Gap between Cefi and DeFi



UST Price



UST Collapse Exposes Information Gap between Cefi and DeFi



Liquidity Crisis in DeFi
 First mover's massive UST sell-off

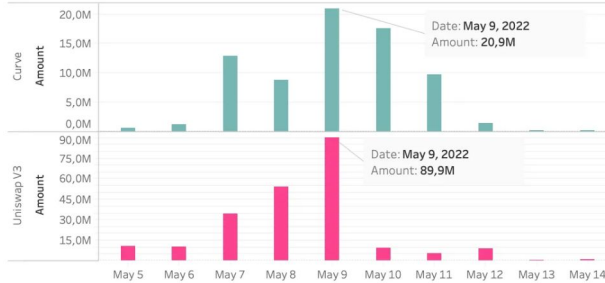
Slight decrease in UST's price

2 days later
Liquidity Crisis in CeFi
 The crowd's panic reaction

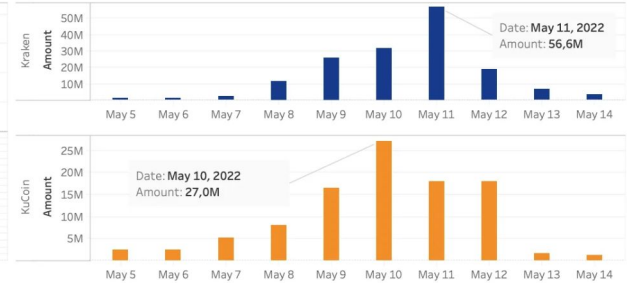
UST's price crashes to 0

CEXs reacted 1–2 days after UST holders trading on DEXs, and after the price had already de-pegged to \$0.8, suffering greater losses

UST Sell Trades Against USDC
 registered on DEXs (Curve and Uniswap)

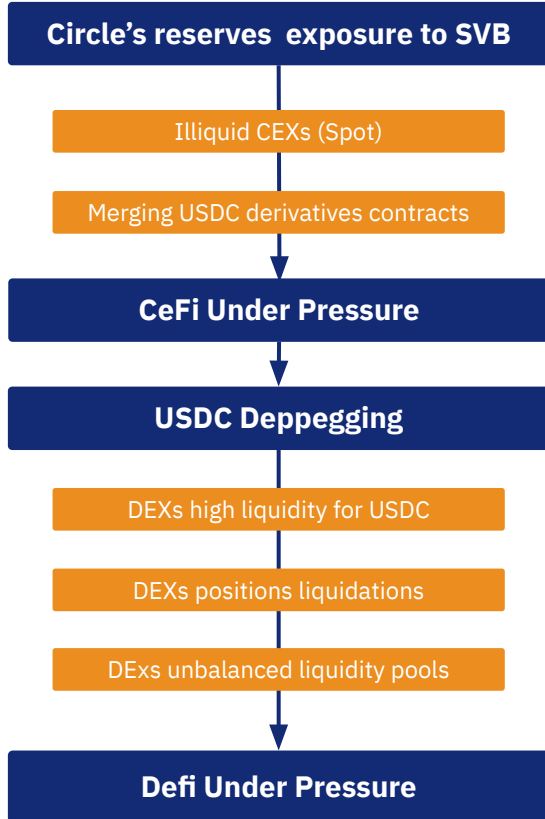


UST Sell Trades Against USDC
 registered on CEXs (Kraken, KuCoin)

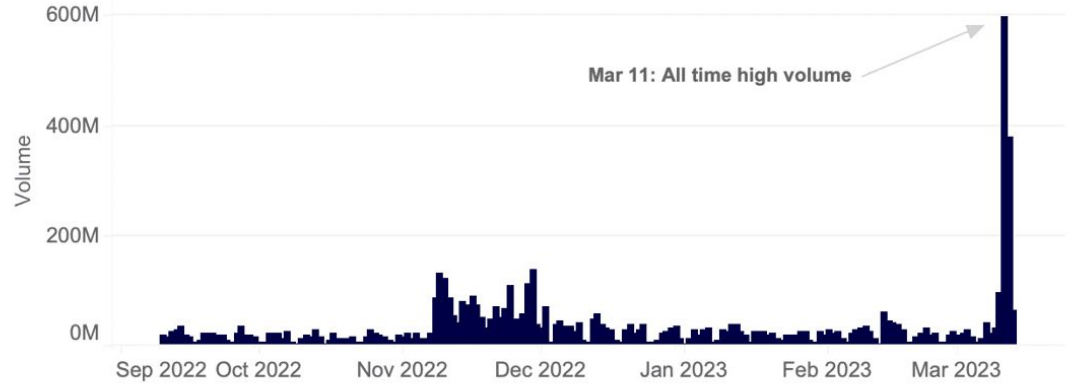


Conclusion : Risk from Information Gap between CeFi and DeFi
 The consequences of DeFi market trends have a wide-ranging effect on CeFi markets, creating a domino effect. In such interconnected markets, the presence of **information asymmetries among participants is a major source of risk.**

USDC's de-peg and the cascading market impact

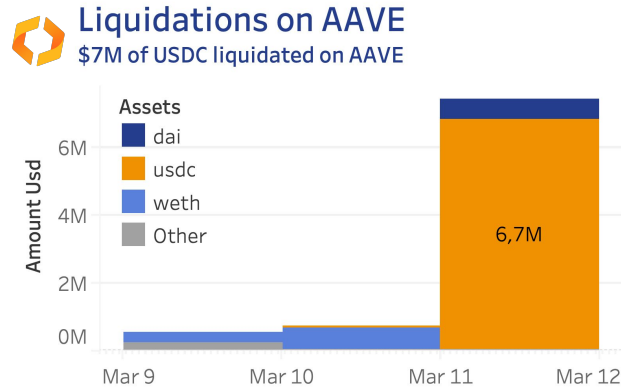
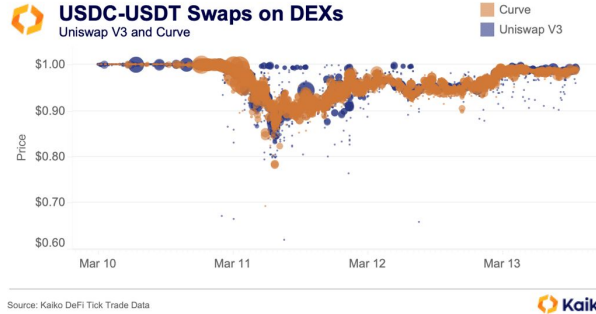
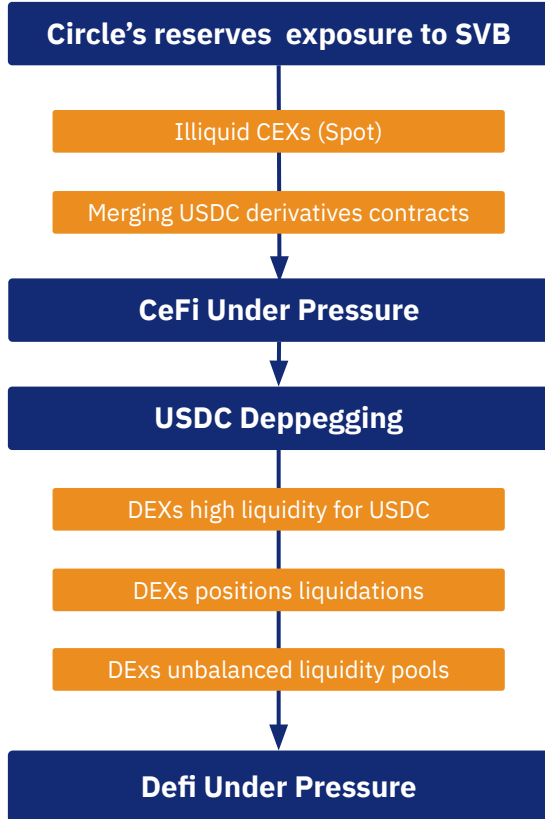


USDC-USD Trade Volume Hits All Time High



Source: Kaiko Trade Volume, All CEX USDC-USD Trading Pairs.

USDC's de-peg and the cascading market impact

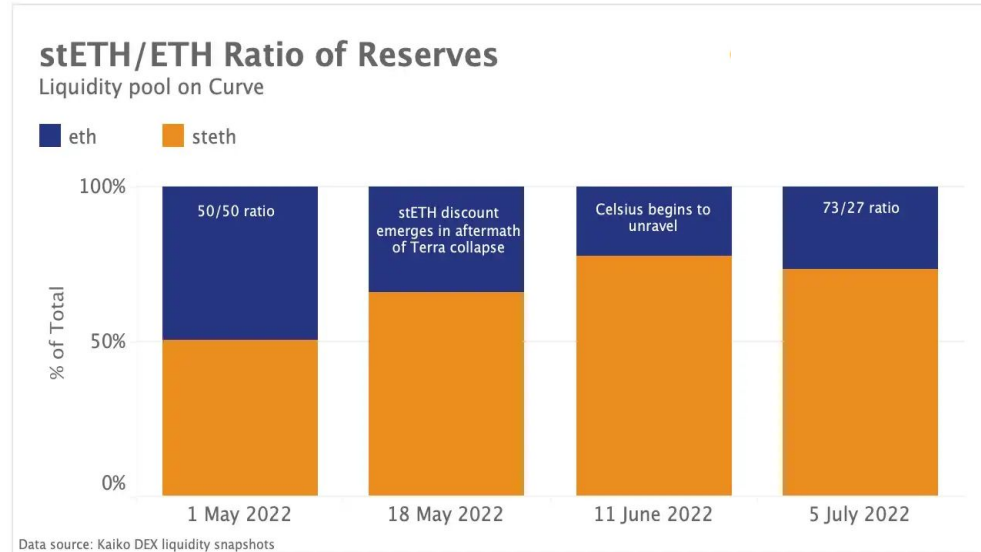
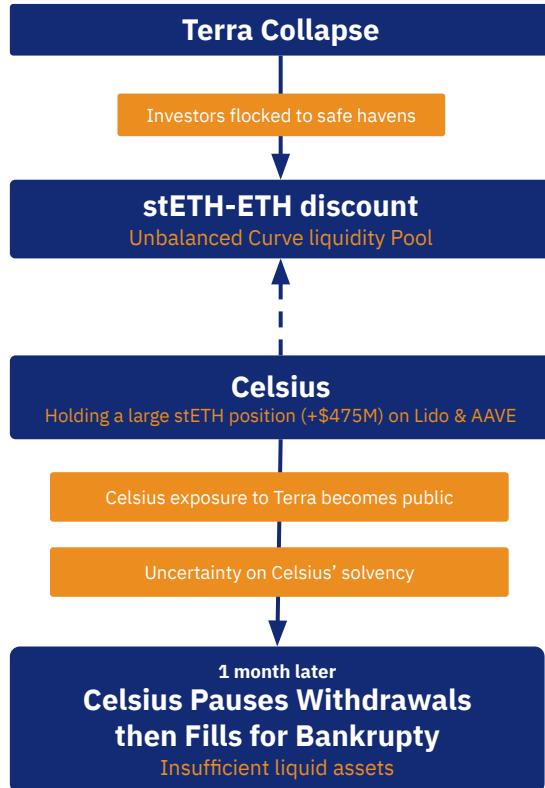


Conclusion:
Threat from CeFi Lending Firms Leveraging DeFi

The de-pegging event was exacerbated by illiquid centralized spot markets, USDC derivatives contracts, and viral price display screenshots. Panic flooded the DeFi ecosystem, leading to significant liquidations and pools imbalances, but the USDC eventually regained its dollar peg.

Case Study n°3

Celsius Under Pressure due to Adverse Market, Poor Risk Management & stETH Discount



Conclusion: Threat from CeFi Lending Firms Leveraging DeFi

The combination of stETH discounts and the bad market conditions, along with Celsius' poor risk management, pose a serious threat to lenders like Celsius who handle client funds with high-risk strategies based on DeFi composability.



Q&A Session