Crypto dominos:
the bursting crypto bubbles and the destiny of digital finance

Fabio Panetta, Member of the Executive Board of the ECB

Keynote speech at the Insight Summit held at the London Business School
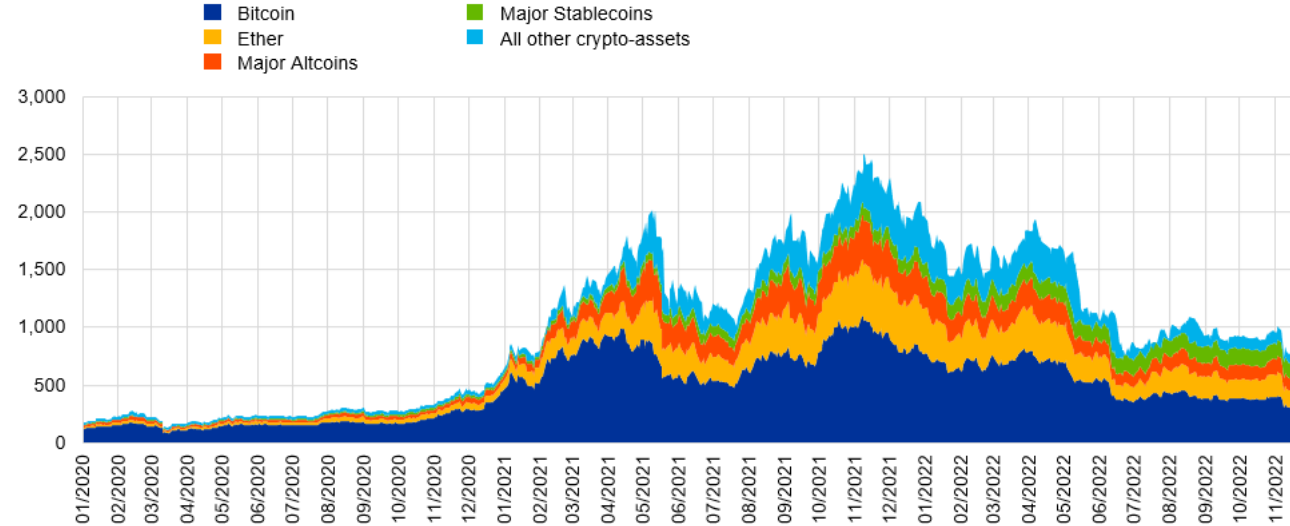
London, 7 December 2022

Fundamental flaws in crypto finance

- Unbacked crypto-assets offer no benefits to society

- Stablecoins are exposed to runs

- Crypto markets are highly leveraged and interconnected

Chart 1

## Market capitalisation of crypto-assets

(EUR billions)

Sources CryptoCompare and ECB calculations.

Notes: Crypto-asset market capitalisation is calculated as the product of circulating supply and the price of crypto-assets. If the circulating supply were adjusted for the lost bitcoins which are proxied by those that have not been used for longer than seven years, it would be around 20% lower. The selected major altcoins are Cardano (ADA), Bitcoin Cash (BCH), Dogecoin (DOGE), Link (LINK), Litecoin (LTC), Binance Coin (BNB), Ripple (XRP), Polkadot (DOT) and Solana (SOL). The selected major stablecoins are Gemini USD (GUSD), True USD (TUSD), USD Coin (USDC), Tether (USDT), Binance USD (BUSD) and Pax Dollar (USDP). Algorithmic stablecoins were excluded.

Chart 2

Correlation between bitcoin and stock markets

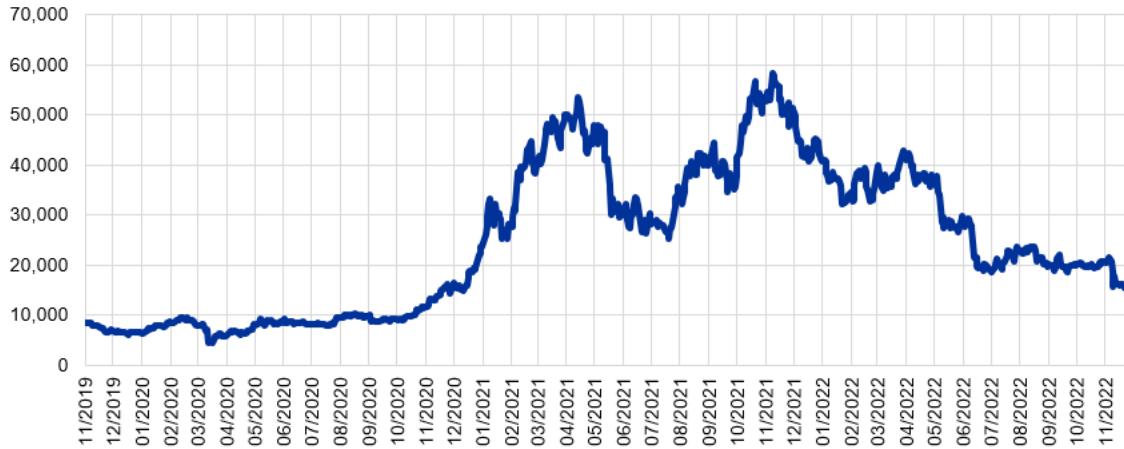**60-day rolling correlation between bitcoin and selected stock indices**

Chart 3
Price of bitcoin

(EUR)
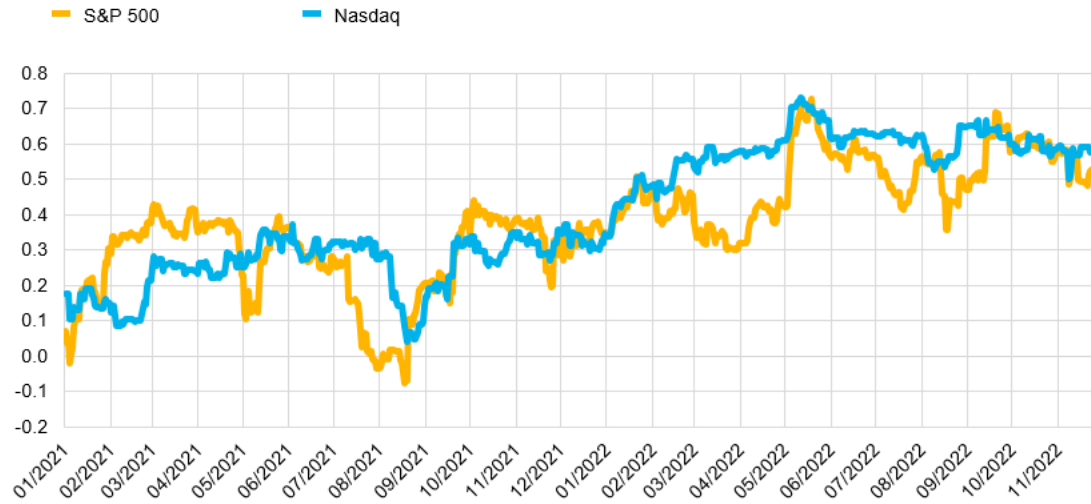
Sources: CryptoCompare and ECB calculations.

Chart 4

## Stablecoin trading volumes and use in crypto trading

a) Trading volumes of bitcoin and ether vis-à-vis other crypto-assets, stablecoins and official currencies (monthly average)

(left-hand scale: percentage points, right-hand scale: EUR billions)

- Total volumes (rhs)
- Tether
- Other stablecoins
- Other crypto-assets
- Official currencies
- Other
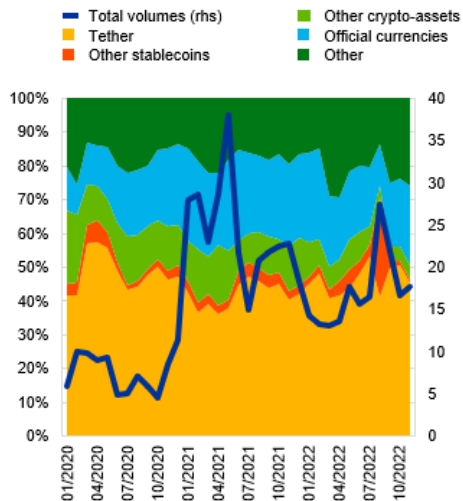
b) Liquidity provision for DeFi trading by type of asset (Curve, Uniswap, SushiSwap)

(EUR billions)

- Stablecoins (collateralised)
- Stablecoins (algorithmic)
- Other crypto-assets
- DeFi tokens
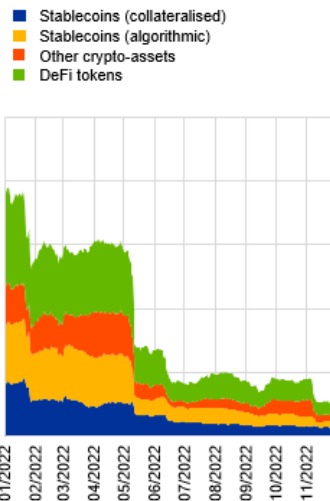
Sources: IntoTheBlock, CryptoCompare and ECB calculations.

Notes:

Panel a): The data are for the period from 1 January 2020 to 29 November 2022. Trading volume data are based on CryptoCompare's real-time aggregate index methodology (CCCAGG), which aggregates transaction data from more than 250 exchanges. The chart reflects the sum of trading volumes involving bitcoin or ether (monthly average), as well as the respective percentages of the volume of trades occurring between bitcoin/ether and listed assets or asset groups. "Other stablecoins" includes USD Coin, DAI, Pax Dollar, TerraUSD and 12 other large stablecoins. "Other crypto-assets" includes 29 of the largest unbacked crypto-assets after bitcoin and ether. "Official currencies" includes USD, EUR, JPY, GBP, RUB, PLN, AUD, BRL, KRW, TRY, UAH, CHF, CAD, NZD, ZAR, NGN, INR and KZT. "Other" consists of remaining assets not included in the preceding categories.

Panel b): The data are for the period from 1 January 2022 to 29 November 2022. Stablecoin liquidity in decentralised exchanges is approximated based on the ten most liquid pairs on Curve, Uniswap and SushiSwap as at 29 November 2022. "Stablecoins (collateralised)" includes Tether, USD Coin and True USD. "Stablecoins (algorithmic)" includes DAI, Magic Internet Money and three further stablecoins. "Other crypto-assets" includes ether, PAX Gold and FNK wallet. "DeFi Tokens" includes wrapped bitcoin, Uniswap's governance token UNI, SushiSwap's governance token SUSHI and 16 other tokens of different DeFi protocols.
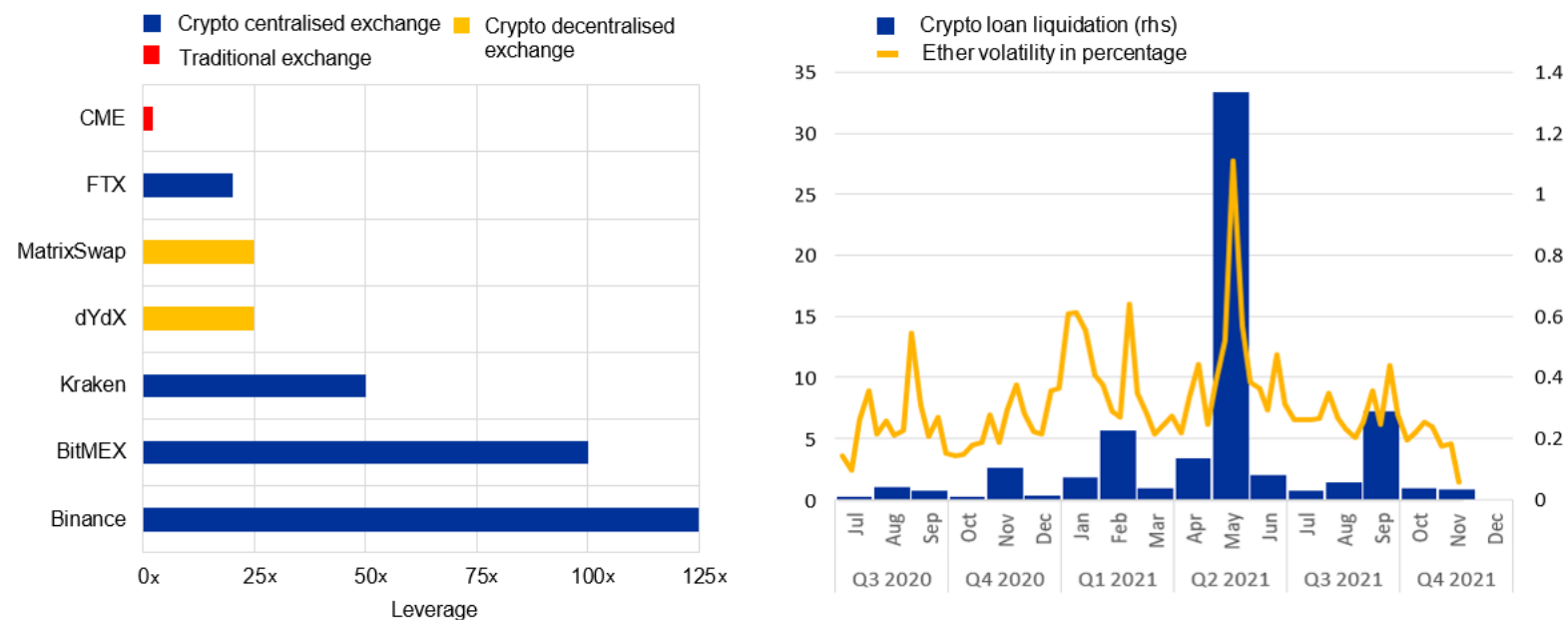
Chart 5

TerraUSD's lost peg

— TerraUSD price
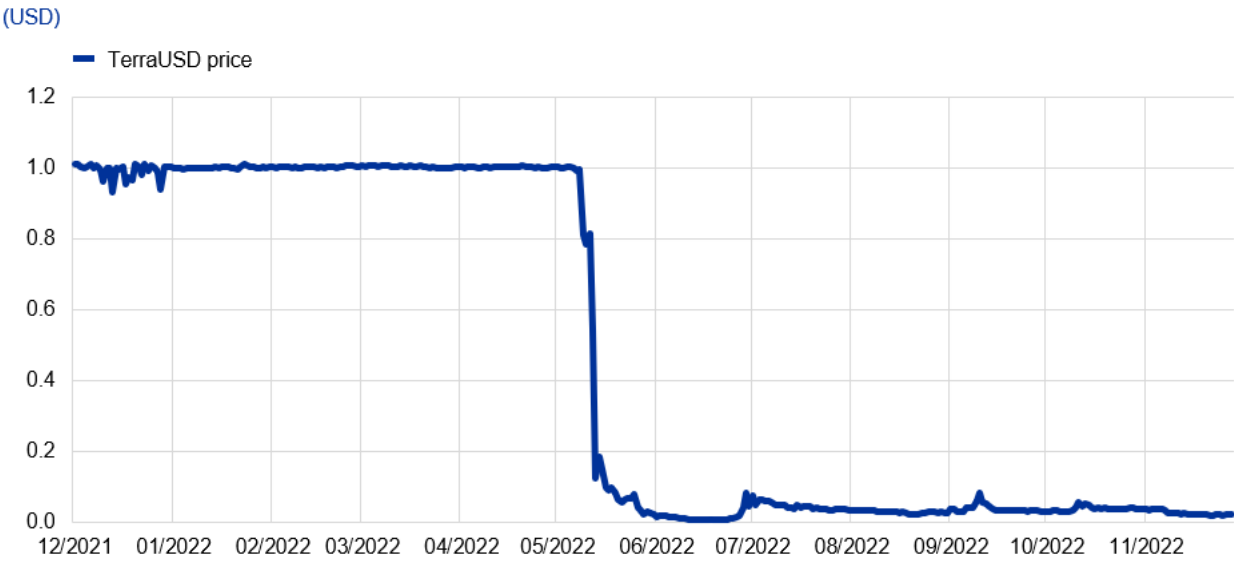
Source: CryptoCompare.

Chart 6

DeFi's vulnerabilities: leverage and procyclicality

The destiny of digital finance

- Regulating crypto-assets

  ➢ Addressing financial risks

  ➢ Addressing and internalising social risks

- Balancing innovation and stability: an anchor of stability for the broader digital finance ecosystem

  ➢ Only central bank money can provide this anchor of stability

Thank you for your attention!