

Decentralized Finance (DeFi) & Opportunities for Swiss Pension Funds?

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Introduction



Web 3.0

- User own the data – privacy
- Powered by **crypto currencies** (= cryptographically secured and transferable)
- On **blockchains** (= decentralized ledgers)
- New **decentralized applications** (dApp) like lending and borrowing
- “**Smart contracts**” allow algorithm to replace traditional banking & insurance products

Volatility

- Crypto currency are 5x to 10x more volatile than equities
- Institutional investor ask for less volatile crypto investments
- **DeFi** (Decentralised Finance) offers variable or even bond-like fixed income for lending

Building blocks of DeFi (Decentralised Finance)



Blockchains

- Ethereum
- Cardano etc.

$\frac{3}{4}$ of DeFi is implemented on Ethereum



Crypto currencies

- DAI (\$ pegged stablecoin)
- ETH etc.

$\frac{3}{4}$ of DeFi uses stable-coin DAI

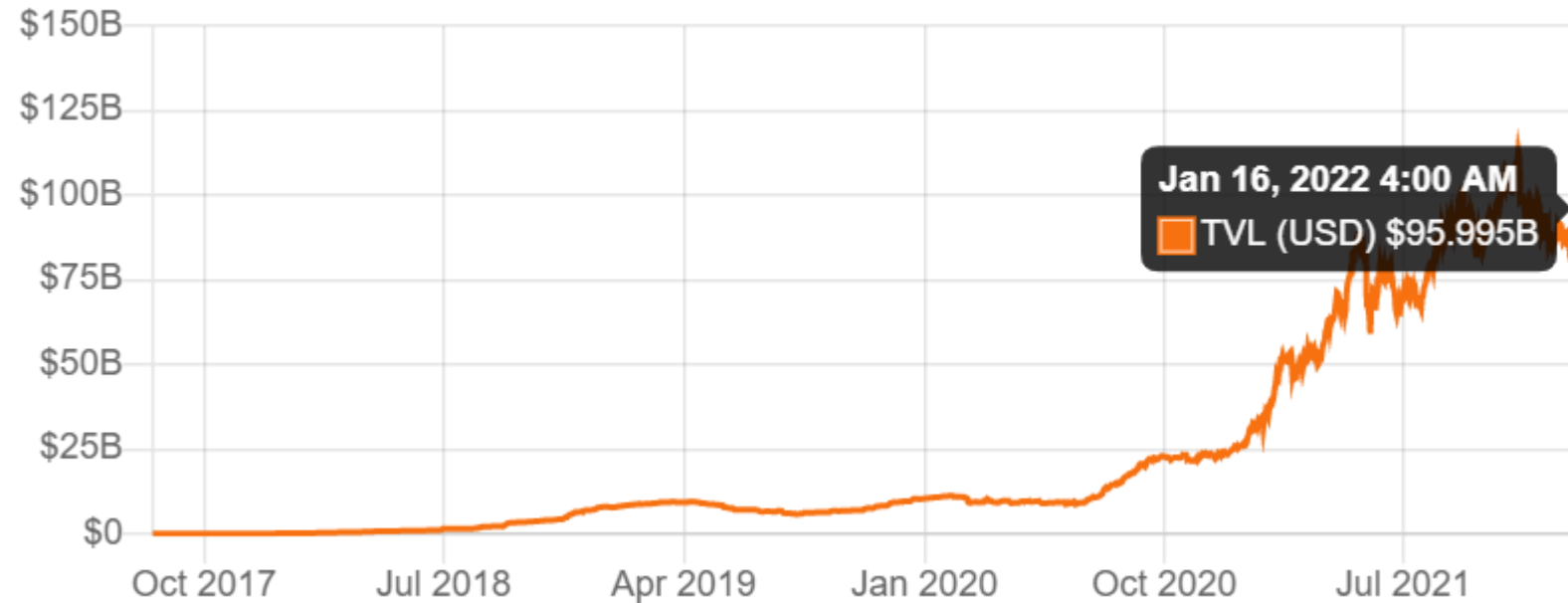


DeFi Protocols

- Compound
- Aave etc.

100 bn USD are invested in DeFi

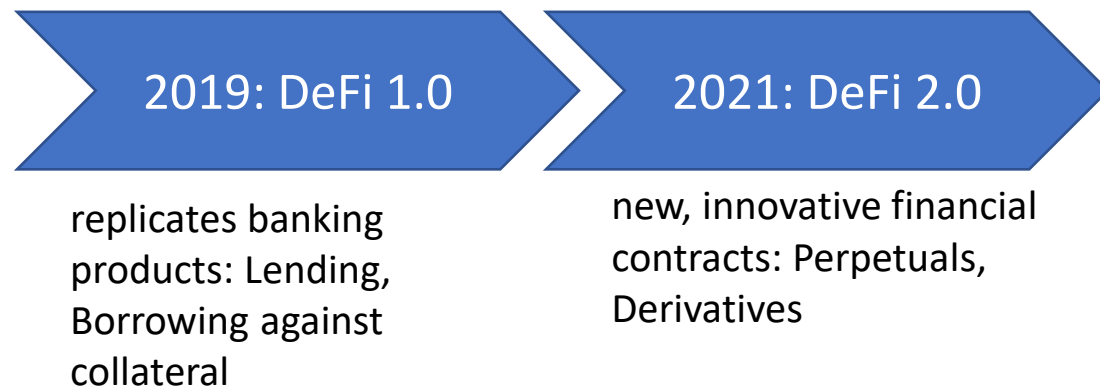
Total value locked (TVL)



Source: DeFi Pulse

DeFi: Definition and examples of protocols

- DeFi represents a **financial infrastructure** for exchange, lending, borrowing and trading
- **No centralized** institution such as a bank
- **Peer-to-peer** transactions
- **blockchain** technology and **smart contracts**



8 Top DeFi protocols

DeFi protocol	Category	Value bn \$
Maker	Lending	18
Curve	Exchange	15
InstaDApp	Lending	11
Aave	Lending	11
Compound	Lending	10
Convex	Assets	10
Uniswap	Exchange	8
Yearn	Asset Mgmt	4

Source: DeFi Pulse, Dec 13, 2021



An example of a “money market”

- Compound = **dApp** based on Ethereum
- Program for earning interest
 - Algorithms adjust interest rate to clear the market of **pooled saving and borrowing**
 - **Specific tokens** (cToken = smart contract) is used to invest and to get interest income
- Compound Labs
 - An open-source software **development company**
 - Building **tools**, products and services for Compound ecosystem
 - 1/3 owned by three **venture capital firms**
- Cooperates with regulators

Market Cap	2 bn
Total Value locked	11 bn
Interest rate for lending DAI	3.0%
Interest rate for borrowing DAI	4.4%
Economic Safety Grade Gauntlet Simulation Platform	95 score (=save)

Compound Treasury offers:

- Fixed **4.00%** p.a. return on USD
- Daily Liquidity
- Easy to operate for investors

Conclusions

- DeFi actually is in an **experimental** stage but might soon be mainstream
- DeFi Risks are manifold
 - High **leverage**
 - Liquidity **mismatches**
 - Lack of **shock-absorbing** capacity
 - **Hacks**
- Crypto currencies and DeFi are **here to stay**

“DeFi will replace all meaningful centralized financial infrastructure in the future. This is a technology of inclusion whereby anyone can pay the flat fee to use and benefit from the innovations of DeFi.”

Campbell R. Harvey (Duke University), DeFi and the Future of Finance, Wiley Aug 2021