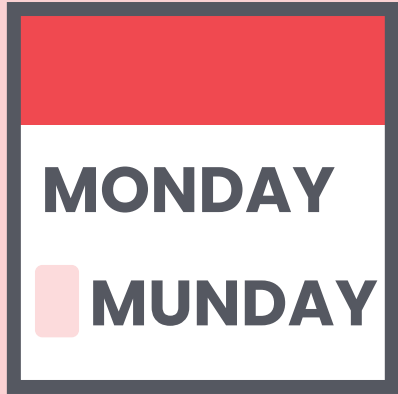


The Banking DeFi Report 2021

My views on how Banks can respond to the threat of DeFi



Why DeFi?

What is DeFi?

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Definition

DeFi uses the features of certain blockchain protocols, namely decentralisation and smart contracts, to allow any one on a blockchain network to build and access finance products in a peer-to-peer fashion without intermediaries

How it uses Blockchain features?

Decentralization

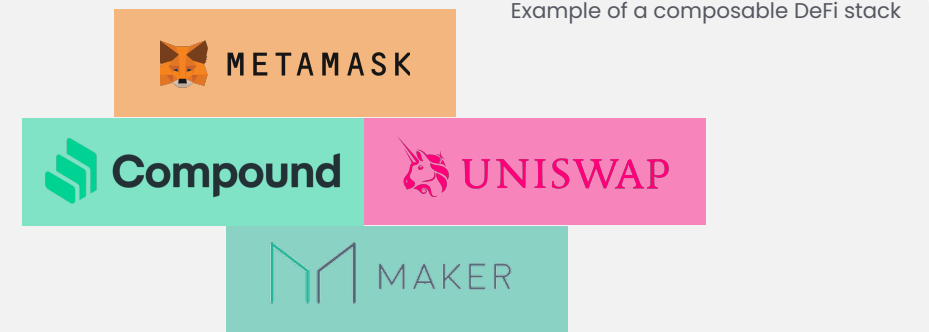
Allows any party to access and use the network without having to rely on a central authority to onboard, custody or validate asset transfer

Smart Contracts

Allows workflows to self execute and be composed together without a central authority to validate

DeFi as Money Legos

DeFi is often compared to 'money legos', as each DeFi Dapp can be combined and joined to create interconnected finance projects, with the layer one protocol acting as the infrastructure layer



Source: Tottle, [Building with Money Legos](#)

A Unified Bank Definition?

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No set definition of DeFi across the literature

Decentralized Finance is finance that operates on public-permissionless Blockchains With the current use-cases around: Monetary value transfer (stablecoins), peer-to-peer (pooled) lending, tokenized assets and derivatives.

Source: [ING, Lessons Learned from Decentralised Finance](#)



The term decentralized finance (DeFi) refers to an alternative financial infrastructure built on top of the Ethereum blockchain.

DeFi uses smart contracts to create protocols that replicate existing financial services in a more open, interoperable, and transparent way.

Source: St. Louis Fed, [Decentralized Finance: On Blockchain- and Smart Contract-Based Financial Markets](#)

A unified view...?

- Not one definition of DeFi
- Predominately Ethereum (St. Louis Fed) but can be any public blockchain with certain characteristics
- Focus on decentralized, transparent and open financial solutions built on blockchain
- Need to see how other Banks and Central Banks define DeFi into 2022

Ethereum: The DeFi King

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Why the focus the focus on Ethereum, as highlighted by the St Louis Fed when other platforms can do DeFi?

Smart contracting

You need smart contracting functionality to build. A DeFi dApp, LI's like Bitcoin and Cardano don't have this functionality



Ethereum Market Cap

Ethereum is the largest market cap smart contracting platform

| Coin | ETH | SOL | Terra | AVAX |
|------------|--------|---------|---------|-------|
| Market Cap | \$15bn | \$1.6bn | \$2.1bn | \$1bn |

Source: [CoinMarketCap, as of 19.12.21](#)

Highest TVL

Total Valued Locked (TVL) is indicative of the value locked in the smart contracts on a chain, and hints at strength of DeFi ecosystem.

TVL of Eth is \$151bn (~10x of Terra, Sol and Avax)

Source: [DeFillama as of 20.12.21](#)

Developer Mindshare

Ethereum has a large developer community compared to other platforms.

Ethereum has 220 Monthly active developers (2x on Bitcoin developers)

Source: [Outlier Ventures](#)

Number of DeFi projects

There are more DeFi projects on Ethereum than any other network

| Coin | ETH | BSC | SOL |
|----------|-----|-----|-----|
| Projects | 214 | 47 | 7 |

Source: [DeFiPrime as of 20.12.21](#)

Why DeFi?

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Crypto assets outperform traditional assets

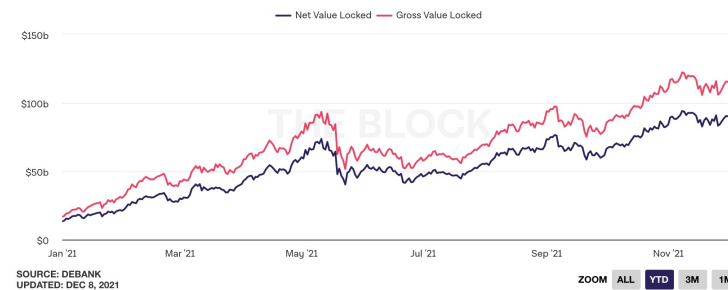


Blue and yellow are BTC / ETH vs S&P500

Additionally, by staking cryptocurrencies you can typically get between 5-10% vs 0-1% interest rates

Investor demand is rising

Asset growth and returns is leading to increased demand and

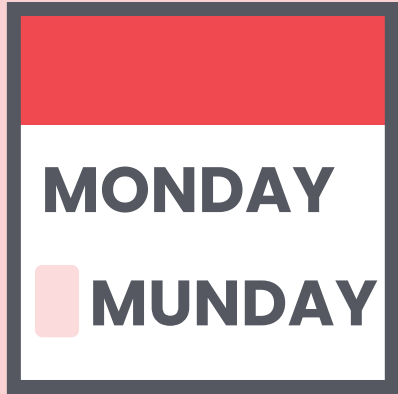


TVL has roughly 7x'd this year

Composability and functionality of DeFi

Composability and functionality of DeFi makes it more versatile than traditional assets.

Individuals and Banks want to harness this functionality to build better and more profitable products for customers.



How can Banks use DeFi?

Use-cases for Banks

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Asset Management

Clients are demanding access to Cryptocurrencies; Banks now need to provide this functionality to clients or risk being disintermediated by fintech's or decentralized infrastructure who are offering these services

Accessing DeFi directly

Banks can access this technology stack to build their own financial products.

Rebuilding Infrastructure

Banks can use DeFi concepts to rebuild their own infrastructure from the ground up.

Let's see how banks approach this...

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Asset Management

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Examples of disruption...

Why?

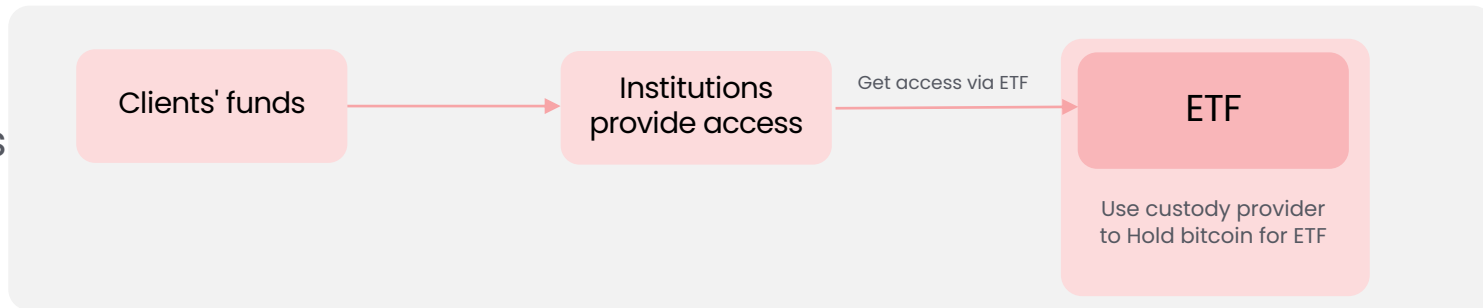
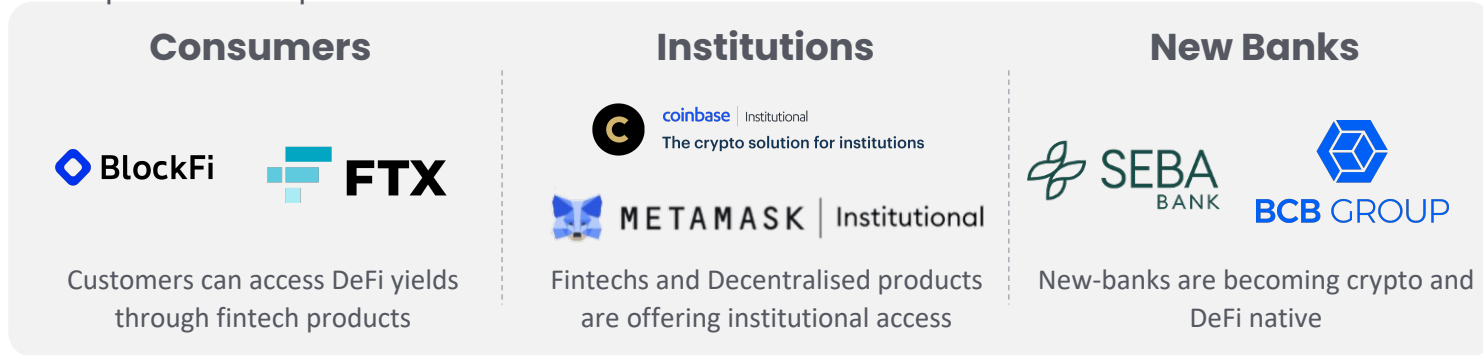
Banks need to help clients access these products otherwise, they will go elsewhere. There is a huge risk of being disintermediated by Fintechs and dApps

How?

Through the use of custody providers and ETFs banks can now provide their customers with access to Crypto

Who?

Several banks are playing in the space and are committed to offering crypto to clients.



Bank Activity

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Looking at banks activities in offering their customers access to Crypto

Goldman Sachs

News

- Invest in Anchorage Digital
- Looking at a Crypto Custody play
- Apply for DeFi ETF
- Partner with Galaxy digital as a counter party for their Crypto trading desk

usbank

News

- Partners with NYDIG to offer crypto custody services to investors through an ETF



BNY MELLON

News

- BNYM will now support Bitcoin for their wealthy clients

WELLS FARGO

News

- Wells Fargo to offer Crypto access to its wealthiest clients

Morgan Stanley

News

- Morgan Stanley to offer Bitcoin access to clients

Santander

News

- Santander looking to offer Cryptocurrency custody to clients

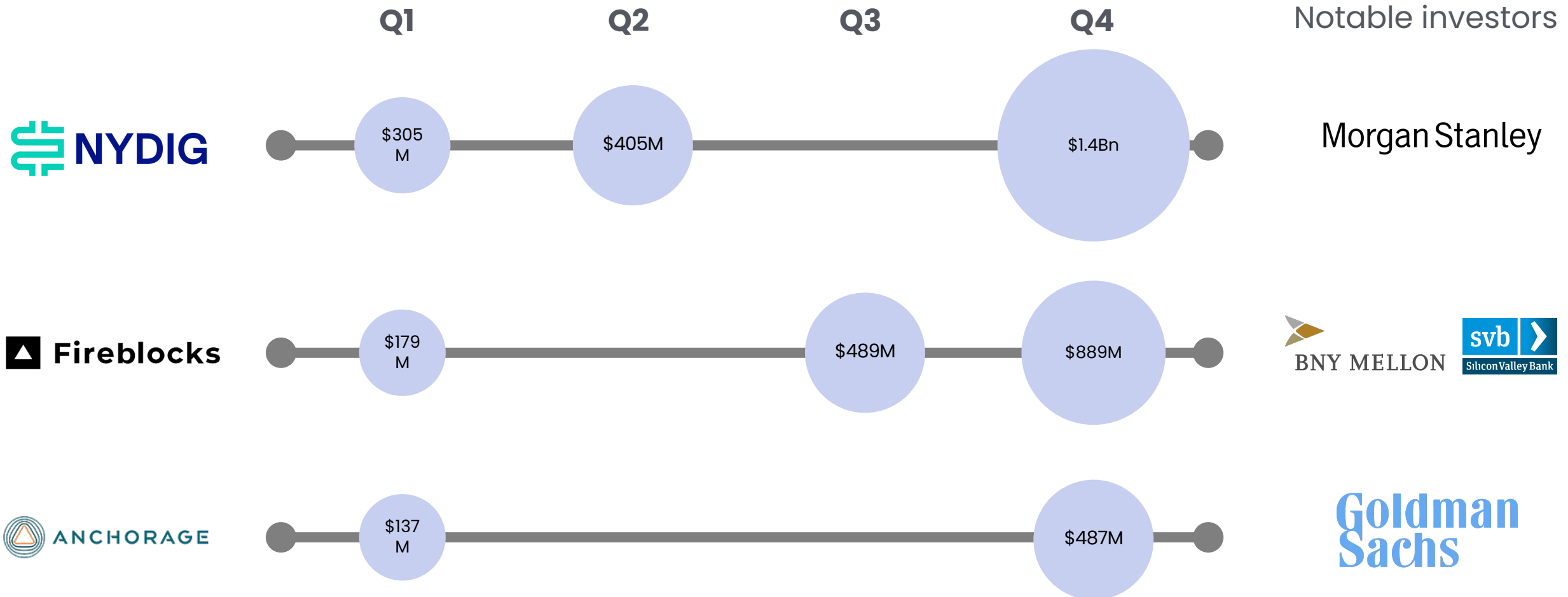
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News

- City bank consider crypto custody and trading platform

Custody Solutions Funding

Huge growth in 2021 of fundraises from custody providers, with major banks participating. Below is a select few custody providers fundraising activity in 2021.



Use-cases for Banks

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Using DeFi



Banks are yet to play around with DeFi **directly**.

Many are interested and see the threat and opportunities

Some have built Crypto trading desks to join in.

Privacy and regulation may be holding them back from committing.

Some Banks view...

ING  "DeFi is more disruptive than bitcoin to banks"

Goldman Sachs "DeFi has its advantages over traditional finance"

Banks are realizing they need to play in this space due to the rising usage of DeFi in financial ecosystems

Bank Opportunities

Using permissioned DeFi Apps – dApps like Aave Arc and Maple Finance



Banks could use privacy focused DeFi apps to provide KYC compliant access to DeFi or utilize the advantages of the platform themselves.

Building on Privacy focused L2s / L1s – Banks can build application with requisite KYC and privacy features on these solutions.

L1 Privacy focused chains

L2 Privacy focused solutions



Using Privacy focused L1 /L2 blockchain networks, Banks can reimagine their services by building DeFi products on top of these privacy-first networks.

Use-cases for Banks

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Rebuilding Infrastructure

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Fintech / Trad Fi are doing it



Block DEX

Block (Prev. Square) are building their own DEX to crypto exchange



Visa & USDC

Visa integrate USDC into their networks to settle payments



SDX

SDX are building a complaint digital exchange with the potential to handle crypto assets

Some Banks are innovating with Digital Assets



SG Forge

SG Forge are building a native Digital Asset suite for SocGen



Santander Blockchain Bond

Santander piloted putting a ECB Bond on the Ethereum network

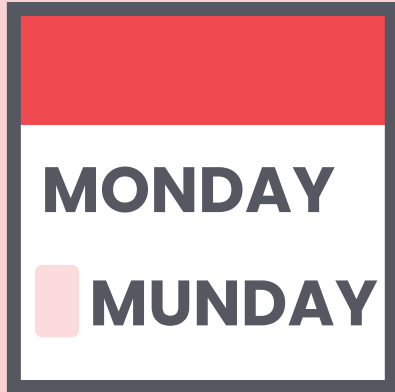


JP Morgan

JP Morgan have a digital asset suite called ONYX, allowing them to innovate in the space.

The way forward...

- Build digital asset infrastructure capable of handling crypto/defi
- Partner with Fintech to provide access to crypto/DeFi
- Build Crypto native infrastructure that is bank-grade
- Banks double-down on being a service portal for Clients



DeFi innovation Playbook

How Banks innovate with DeFi

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The current playbook

Offer access to keep pace

As seen on the 'Asset Management' slide, offering access to keep pace with the innovation is a way to keep customers and monetize them as a service portal for their financial activity.

Keep building digital asset infrastructure

Banks need to continue the work to rebuild their financial infrastructure to be digital asset and crypto friendly as the market develops.

See examples of SG Forge and JPM Onyx as this in action for banks

Partner well...

Continue partnering well to innovate and keep tabs on what's happening in the market.

Look at the investment from Banks into crypto custody providers to see this in action.

If I were a Bank CEO...

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Double down on existing initiatives

Double down on investment and partnership with Fintech's

I would keep up with current levels of investment in fintech and DeFi projects. As Bankless states, these fintech's are the 'DeFi Mullet' and allow Banks to access DeFi (at the back) whilst interacting with Fintech (in the front).

I would extend this to directly investing in privacy-first crypto projects or those with an institutional angle.

Reimagine digital asset infrastructure

Reimagine digital asset infrastructure doesn't just mean continuing existing initiatives in DLT and creating asset servicing.

I would double down into investing into public blockchain infrastructure and building my own applications on top of privacy focused blockchain platforms.

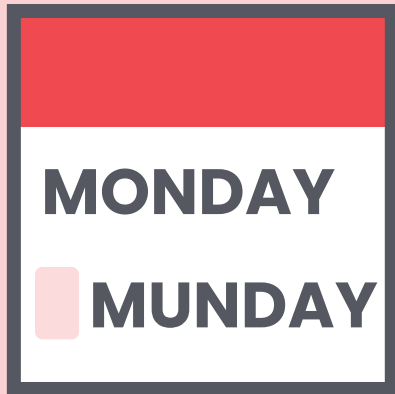
Net new activities

Spin out a DeFi native Bank

Banks should look forward and try and disrupt themselves.

They should look to use the web 3 stack to building a banking service.

As has been recounted from Amazon Kindle's growth, part of the success of that product was down trying to cannibalize the traditional Amazon business.



**Feel free to contact me with comments:
premdeepmunday@gmail.com**