

# De-Fi

# The Future of Banking and Finance

Carol Alexander

Professor of Finance, University of Sussex Business School

Visiting Professor, Peking University HSBC Business School

Co-Editor, Journal Banking and Finance



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Web 1.0 – Information

Web 2.0 – Commerce

# Web 3.0 – Decentralized Finance (De-Fi)

De-Fi is **driven** by **smart contracts**  
which **ride** on **blockchains**  
that are **powered** by **cryptocurrencies**

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# Blockchains, Smart Contracts and Cryptocurrencies

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# Blockchains

- A blockchain is a distributed ledger in which information is stored in blocks that are cryptographically linked in a chain



- **Private** and **permissioned** blockchains must trust a central authority
- De-Fi uses **public** blockchains which are run by a **decentralized, peer-to-peer network** where trust is replaced by a **consensus protocol**

# Bitcoin and bitcoin (BTC)

The blockchain Bitcoin was built for transactions of the cryptocurrency bitcoin

## Latest Blocks

The most recently mined blocks

Height	Mined	Miner	Size
<a href="#">705131</a>	5 minutes	<a href="#">Unknown</a>	1,370,997 bytes
<a href="#">705130</a>	54 minutes	<a href="#">Unknown</a>	1,492,238 bytes
<a href="#">705129</a>	1 hour	<a href="#">Unknown</a>	1,273,094 bytes
<a href="#">705128</a>	1 hour	<a href="#">Unknown</a>	1,518,454 bytes
<a href="#">705127</a>	1 hour	<a href="#">Unknown</a>	1,691,208 bytes
<a href="#">705126</a>	1 hour	<a href="#">Unknown</a>	1,412,111 bytes

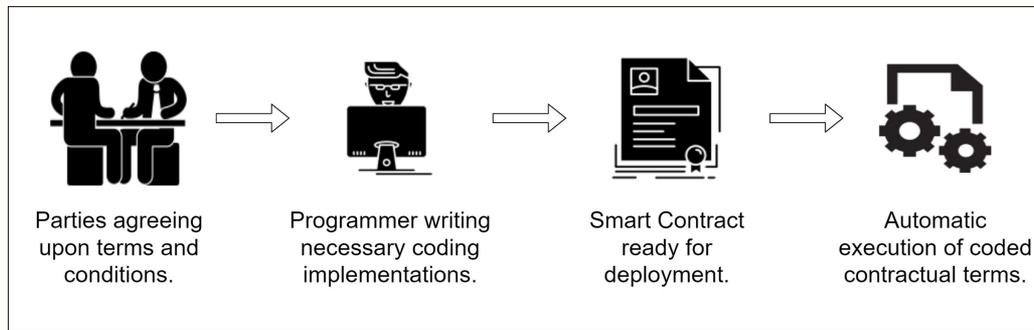
## Latest Transactions

The most recently published unconfirmed transactions

Hash	Time	Amount (BTC)	Amount (USD)
<a href="#">943091d6d0be108d93f9...</a>	16:42	0.00033171 BTC	\$19.83
<a href="#">170589b7ed316fb57bb29...</a>	16:42	0.00175998 BTC	\$105.21
<a href="#">576005fd7b1b913dcc420...</a>	16:42	0.00258680 BTC	\$154.64
<a href="#">7aea2f747f497787e5e929...</a>	16:42	0.20538578 BTC	\$12,277.87
<a href="#">b702dc0b26f9e0372008...</a>	16:42	0.00409070 BTC	\$244.54
<a href="#">b48e261e697a7b1cc9558...</a>	16:42	0.00086976 BTC	\$51.99

# Smart Contracts

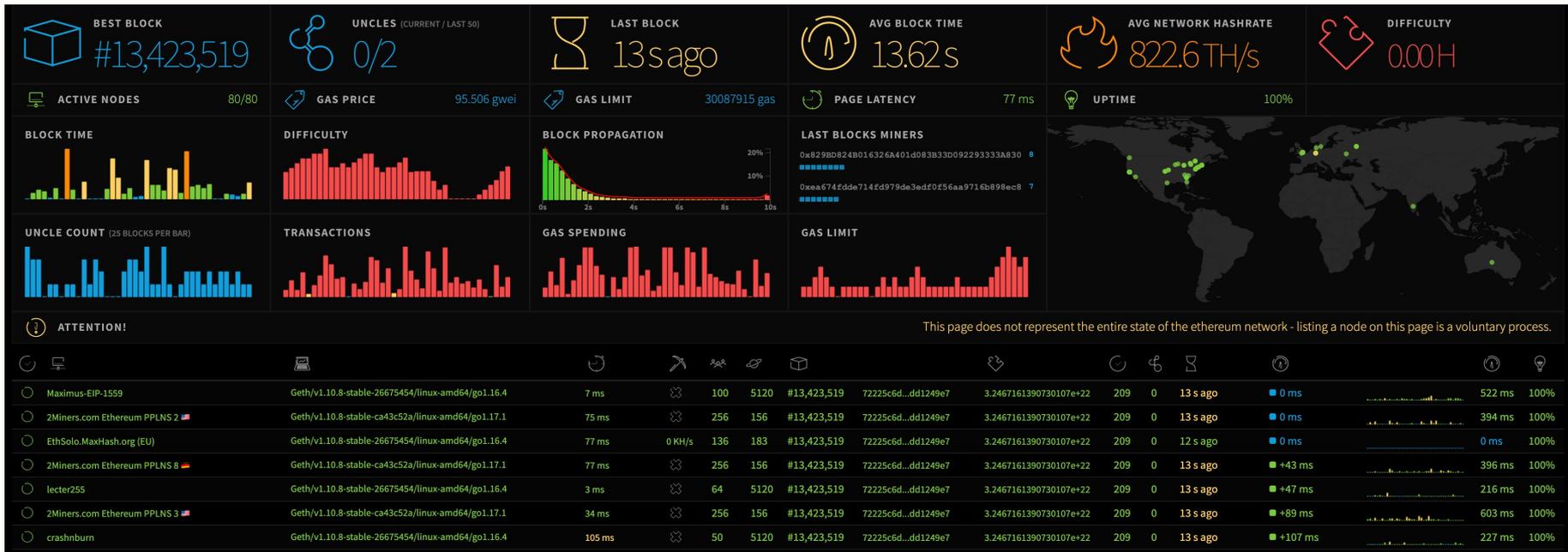
- Smart contracts are programs stored on a blockchain that run automatically when certain conditions are met



- They automate the execution of an agreement that is coded via a sequence of conditional actions
- Common applications of smart contracts include **crowdfunding, trade finance, insurance, real estate, P2P loans** and any type of **cash-flow financial instrument**

# Ethereum and ether

The blockchain Ethereum was build to carry smart contracts powered by gas



# Crypto Assets

Thousands of 'cryptocurrencies' are different types of **crypto assets**

- **Currencies** like **bitcoin** and **ripple** are only used to transfer value. Any fundamental value depends on there being a limited supply.
- **Commodities** like **ether**, **litecoin** and **dot** have a fundamental utility value
- **Securities** are the crypto version of **stocks** and **bonds**

A graphic showing a computer screen with a blue header that says "White Label". The screen displays a list of items, likely representing a white label offering.

**A new offering for your clients**

Polymath's white label solution allows broker-dealers, banks, and asset managers to integrate Polymath's technology into their broader offerings. It lets them leverage Polymath's technology for token creation, issuance, management and corporate actions, while also branding and customizing the process and experience.

- **Stable coins** like **tether** or **DAI** are supposed to be crypto versions of the USD
- Central bank digital currencies, **CBDC**

# The Future of Financial Markets

Risky new types of financial instruments emerge

Unregulated De-Fi companies take on traditional roles of banks and financial services



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# Crypto Derivatives

- New types of derivative products include **perpetuals, inverse products, leveraged up and down tokens**



- Prices and volatility (especially of bitcoin and ether perpetuals on Binance) are manipulated by **large proprietary trading groups**
- This way, the risk and return characteristics of all crypto assets are being driven by a few large players which are completely under the regulators radar

# Centralized Exchanges

There are two types of centralized exchanges (CEX)

- **Regulated:** Coinbase (spot), CME (futures), LedgerX (options)
- **Unregulated:** Binance, Bybit, Huobi, OKEx.....

The unregulated exchanges are not just a trading venue:

- They act as **brokers** giving tether (USDT) in exchange for fiat currency
- They operate as **custodians** of these fiat reserves
- They also operate as their own **clearing house**



# Decentralized Exchanges

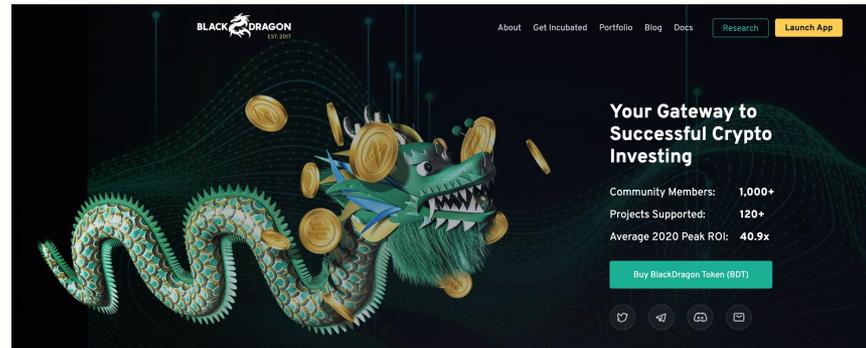
- De-Fi innovations are even more remarkable on the decentralized exchanges (DEX) so-called because they operate *on* a blockchain
- Decentralized exchanges swap tokens using **automated market makers**

 <b>CAKE-BNB</b>	Earned 0	APR 50.45% 	Liquidity \$553,975,783 	Multiplier 40x 	
 <b>BUSD-BNB</b>	Earned 0	APR 34.27% 	Liquidity \$441,015,480 	Multiplier 11x 	
 <b>MCB-BNB</b>	Earned 0	APR 140.3% 	Liquidity \$4,635,284 	Multiplier 1x 	

- Swap prices depend on size of each token's **liquidity pool**
- High interest is available to liquidity providers
- Again, *none* of this activity is regulated

# New Underwriting Services

- **Tokens** are crypto assets that ride on another blockchain (via smart contracts)
- **Fungible tokens** are used to crowdfund new De-Fi projects
- **Non-fungible tokens** represent things like art, collectibles and real estate
- Early investors pay large sums to buy tokens **before** they are launched
- Underwriting services for initial CEX and DEX offerings are in great demand



# New Lending Services

- Centralized exchanges are also moving into the crypto P2P loan business

- Crypto-backed loans in USD and other fiat currencies are facilitated via **oracles**

**Get Instant Crypto Loans**

Use the TOP 20 coins as collateral for crypto loans with the highest loan to value ratio (90%). Get loans in EUR, USD, CHF and GBP and withdraw instantly to credit card and personal banks.

[GET LOAN](#) [WATCH VIDEO](#)

- Digital asset management system with \$150M pooled crime insurance by Ledger Vault
- Instant cash from our own fiat fund. No need to find a lender like in P2P.
- Flexible repayment date and loan-to-value options.

**Crypto Collateral** BTC 1 USD 55319.87

**Loan Amount** 5000 USD

**Loan-to-Value (LTV)**

90.00% 15 DAYS	90.00% 30 DAYS	70.00% 60 DAYS	50.00% 180 DAYS
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**Loan duration** 15 days  
Extend at anytime by paying \$53.20 USD (1.00% loan fee).

**Price down limit** 5.00% or 58393.20 BTC/USD  
Add more collateral and extend PDL.

**Loan repayment** 55873.07 USD  
Full repayment required only for full collateral return.

**55319.87 USD loan**  
For 1.00 BTC collateral

[Get Loan](#)

**Securely connect smart contracts with off-chain data and services**

Chainlink decentralized oracle networks provide tamper-proof inputs, outputs, and computations to support advanced smart contracts on any blockchain.

[Develop with Chainlink](#) [Explore solutions](#)

Questions? [Request a demo.](#)

- High interest rates (but no protection) for crypto liquidity providers

- The exchange rate a borrower receives for crypto collateral is determined by Coinbase or another CEX

# Governance and Regulation

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# Distributed Autonomous Organizations

- Many De-Fi companies are governed by a peer-to-peer network called distributed autonomous organization (DAO)

## Made by the Maker Foundation



### Governance

Vote on changes to the Maker protocol.

- Funds are invested in the DAO via a token such as Maker (MKR)
- By allowing investors to pool funds, members of a DAO can vote to invest in a variety of De-Fi start-ups, while sharing their risk and returns

# Regulation

- Both the NYDA and the CFTC have fined **Tether**
- The FCA have banned **Binance Holdings**
- The SEC have been investigating **Ripple**
- China has banned both **trading** in and **mining** of crypto
- The US Department of Justice and the CFTC are investigating **Binance Inc.**
- The IRS are fining **tax dodgers**
- The SEC are considering **crypto exchange-traded funds**
- Etc. etc. ....

De-Fi regulation has a very long way to go.

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