

# De-Fi

# The Future of 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

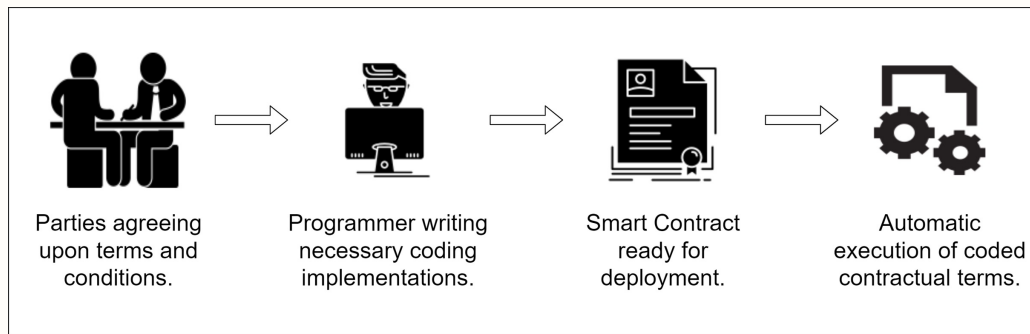
The most recently published unconfirmed transactions

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

The blockchain Ethereum was build to carry smart contracts!

# Smart Contracts

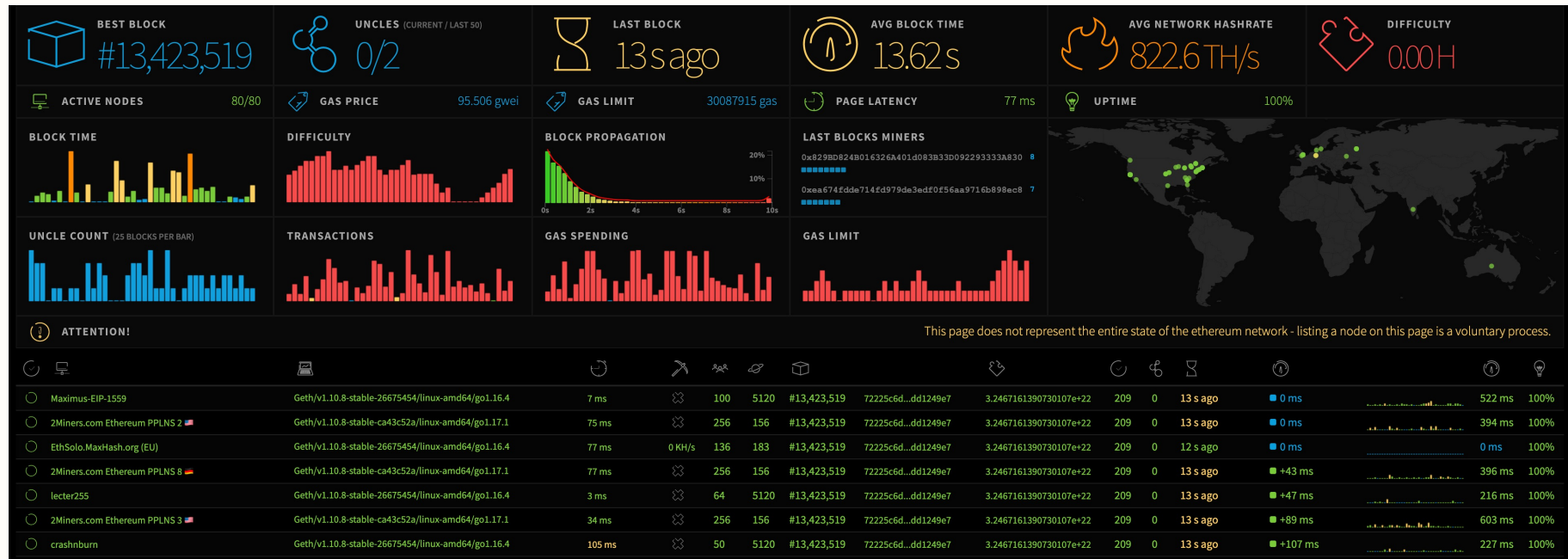
- Smart contracts are programs stored on a blockchain that run automatically when certain conditions are met



- 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

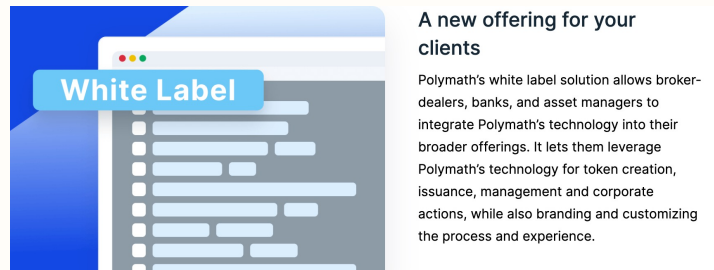
The blockchain Ethereum was build to carry smart contracts powered by gas



# 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**



- **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 propriety 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

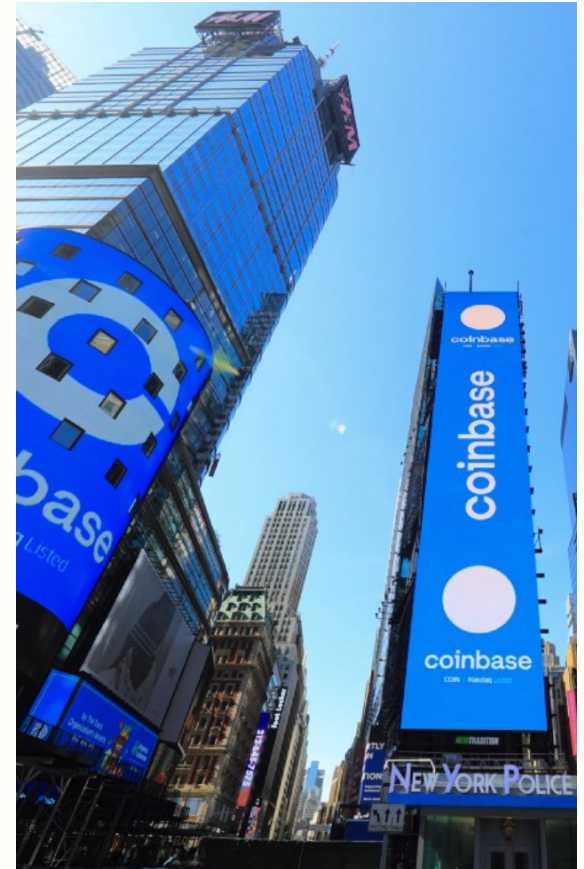
# Centralized Exchanges

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**

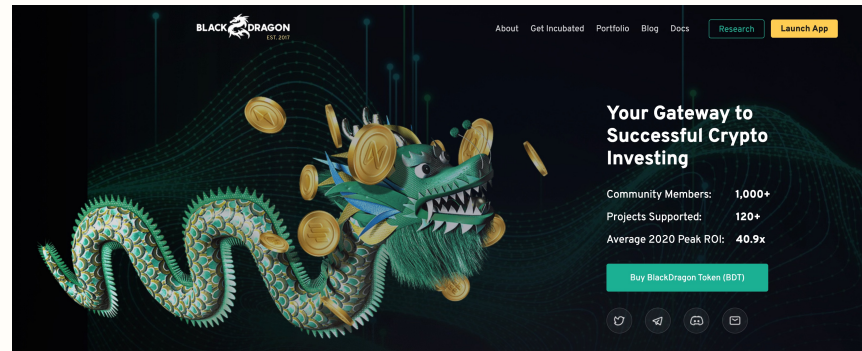
 <b>CAKE-BNB</b>	Earned 0	APR 50.45% 	Liquidity \$553,975,783 	Multiplier 40x 	
 <b>BUSD-BNB</b>	Earned 0	APR 34.27% 	Liquidity \$441,015,480 	Multiplier 11x 	
 <b>MCB-BNB</b>	Earned 0	APR 140.3% 	Liquidity \$4,635,284 	Multiplier 1x 	

- 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	Loan Amount
BTC 1	5000 USD
USD 55319.87	

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

Interest Rate	Loan-to-Value (LTV)
90.00% (11 days)	90.00% (30 days)
70.00% (61 days)	50.00% (180 days)

**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.

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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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