

# L32: Lab - Tokenomics Analysis

## Module D: Tokenomics

Blockchain & Cryptocurrency

December 2025

## In this lab, you will:

- Select a real cryptocurrency project to analyze
- Research and document its tokenomics
- Calculate key valuation metrics (NVT, market cap, FDV)
- Evaluate distribution and vesting schedules
- Assess token classification (utility vs. security)
- Develop an investment thesis or critique

**Deliverable:** Tokenomics analysis report (2-3 pages).

**Time:** 90 minutes (in-class work + homework completion).

# Step 1: Choose a Project

## Suggested Projects (pick one):

- **DeFi:** Uniswap (UNI), Aave (AAVE), Curve (CRV)
- **Layer 1:** Solana (SOL), Avalanche (AVAX), Polkadot (DOT)
- **Infrastructure:** Chainlink (LINK), The Graph (GRT), Filecoin (FIL)
- **Stablecoins:** MakerDAO (MKR), Frax (FXS)
- **Other:** Any top 100 token by market cap

## Criteria:

- Must have publicly available tokenomics documentation
- Active trading on major exchanges
- Sufficient on-chain data available

**Action:** Write down your chosen project.

## Step 2: Gather Basic Information

**Find and record:**

### ① Project Overview

- What problem does it solve?
- Core technology/product
- Launch date

### ② Token Details

- Token ticker symbol
- Blockchain/network
- Token standard (ERC-20, SPL, etc.)

### ③ Current Market Data

- Current price
- Market cap
- Circulating supply
- Total/max supply

**Sources:** CoinGecko, CoinMarketCap, project website.

## Step 3: Analyze Token Distribution

### Research and document allocation:

Category	Percentage	Vesting Period
Team & Founders		
Investors (VCs)		
Community Sale		
Ecosystem Fund		
Foundation/Treasury		
Liquidity/Market Making		
Airdrops		

### Questions to answer:

- What percentage do insiders (team + VCs) hold?
- Are vesting schedules transparent?
- Are there upcoming unlock events?

**Sources:** Messari, project docs, Token Unlocks.

## Step 4: Calculate Key Metrics

### Metric 1: Fully Diluted Valuation (FDV)

$$\text{FDV} = \text{Current Price} \times \text{Max Total Supply}$$

### Metric 2: FDV/Market Cap Ratio

$$\text{Dilution Risk} = \frac{\text{FDV}}{\text{Market Cap}}$$

- Ratio  $\geq 2$ : High dilution risk
- Ratio 1-2: Moderate dilution
- Ratio close to 1: Low dilution (most supply circulating)

### Metric 3: Network Value to Transactions (NVT)

$$\text{NVT} = \frac{\text{Market Cap}}{\text{Daily Transaction Volume (USD)}}$$

**Action:** Calculate these metrics for your chosen token.

## Step 5: Evaluate Token Classification

### Apply the Howey Test:

#### ① Investment of Money?

- Did investors pay for tokens? (Yes/No)

#### ② Common Enterprise?

- Are returns pooled/shared? (Yes/No)

#### ③ Expectation of Profits?

- Is it marketed as an investment? (Yes/No)

#### ④ Efforts of Others?

- Do profits depend on team/foundation work? (Yes/No)

### Conclusion:

- All four = Security
- Fails “efforts of others” = Likely Utility Token

**Action:** Write 1-2 paragraphs on whether your token is likely a security.

## Step 6: Assess Value Accrual Mechanisms

### How does the token capture value?

#### Check for:

- **Fee Sharing:** Do holders receive protocol fees?
- **Staking Rewards:** Can tokens be staked for yield?
- **Governance:** Voting rights on important decisions?
- **Token Burns:** Are tokens permanently removed from supply?
- **Utility:** Required to access services?
- **Buybacks:** Protocol buying tokens from market?

#### Example (Uniswap):

- Governance: Yes (vote on protocol changes)
- Fee sharing: Not yet implemented (controversial)
- Utility: No fees required to trade
- Value accrual: Governance power over \$5B+ treasury

**Action:** Identify which mechanisms apply to your token.



# Step 7: Analyze Supply Dynamics

## Determine supply model:

### 1. Fixed Supply

- Max cap exists
- Example: Bitcoin (21M), BNB (100M target)

### 2. Inflationary

- New tokens issued continuously
- Annual inflation rate: \_\_\_%

### 3. Deflationary

- Supply decreases over time
- Burn mechanism: (describe)

### 4. Elastic/Algorithmic

- Supply adjusts based on conditions
- Example: Stablecoins, rebase tokens

**Action:** Classify your token's supply model and justify.

## Step 8: Check Upcoming Unlock Events

Use **Token Unlocks** website ([tokenunlocks.app](https://tokenunlocks.app)):

- 1 Search for your token
- 2 Note upcoming unlock dates
- 3 Record amount unlocking and

**Example Entry:**

- **Date:** January 15, 2025
- **Amount:** 10M tokens
- **Percentage:** 5% of circulating supply
- **Category:** Investor vesting cliff
- **Potential Impact:** Moderate selling pressure expected

**Questions:**

- Are there large unlocks in the next 6 months?
- How might this affect price?

## Step 9: Comparative Analysis

**Find 2-3 comparable tokens in the same category.**

**Compare:**

Metric	Your Token	Comp 1	Comp 2
Market Cap			
NVT Ratio			
FDV/MC Ratio			
Inflation Rate			
Insider Allocation			

**Analysis Questions:**

- Is your token overvalued or undervalued relative to peers?
- Which tokenomics features are better/worse than competitors?
- What explains valuation differences?

**Synthesize your findings into a recommendation.**

**Structure:**

- ① **Summary** (2-3 sentences)
  - Overview of token and its purpose
- ② **Strengths** (bullish factors)
  - What makes tokenomics attractive?
- ③ **Weaknesses** (bearish factors)
  - What are the red flags or risks?
- ④ **Verdict**
  - Buy, Hold, Avoid - with justification

**Note:** This is educational analysis, not financial advice.

## Example Analysis: Uniswap (UNI)

**Summary:** UNI is the governance token of Uniswap, the largest decentralized exchange. Holders vote on protocol upgrades and treasury allocation.

### Strengths:

- Strong product-market fit (billions in daily volume)
- Decentralized distribution (60% to community)
- Governance over massive treasury (\$5B+)
- Network effects and brand recognition

### Weaknesses:

- No direct fee sharing yet (governance only)
- High FDV/MC ratio ( 1.8x dilution)
- Regulatory uncertainty (SEC scrutiny)
- Competition from other DEXs

**Verdict:** Hold. Strong fundamentals, but value accrual uncertain until fee switch activated.

In your analysis, watch out for:

- ❶ **Relying on old data**
  - Use current market data (not outdated reports)
- ❷ **Ignoring unlock events**
  - Upcoming dilution is critical
- ❸ **Comparing apples to oranges**
  - Only compare similar token types (DeFi to DeFi, L1 to L1)
- ❹ **Focusing only on price**
  - Tokenomics matter more than short-term charts
- ❺ **Ignoring qualitative factors**
  - Team, tech, community are important too

## Your report should include:

### ① Cover Page

- Token name, your name, date

### ② Basic Information (1/2 page)

- Project overview, token details, market data

### ③ Distribution Analysis (1/2 page)

- Allocation table, vesting analysis, unlock events

### ④ Valuation Metrics (1/2 page)

- FDV, NVT, comparative analysis

### ⑤ Investment Thesis (1/2 page)

- Strengths, weaknesses, verdict

**Format:** PDF, 2-3 pages, 11pt font minimum.

**Deadline:** [Instructor to specify]

## Market Data:

- CoinGecko: <https://www.coingecko.com>
- CoinMarketCap: <https://coinmarketcap.com>

## Tokenomics Research:

- Messari: <https://messari.io>
- Token Unlocks: <https://tokenunlocks.app>

## On-Chain Data:

- Glassnode: <https://glassnode.com>
- Dune Analytics: <https://dune.com>

## Project Documentation:

- Official websites, whitepapers, governance forums



## Before submitting, verify you have:

- ☐ Chosen a project and documented basic info
- ☐ Researched token distribution and vesting
- ☐ Calculated FDV, FDV/MC ratio, NVT
- ☐ Applied Howey Test for classification
- ☐ Identified value accrual mechanisms
- ☐ Determined supply model (fixed/inflationary/deflationary)
- ☐ Checked for upcoming unlock events
- ☐ Compared to 2-3 similar tokens
- ☐ Written clear investment thesis with justification
- ☐ Cited all data sources

## Key Takeaways:

- Tokenomics analysis requires both quantitative and qualitative assessment
- Distribution and vesting reveal alignment and dilution risks
- Valuation metrics (NVT, FDV/MC) provide relative value insights
- Upcoming unlocks can significantly impact price
- Always compare to peers for context
- Investment thesis must balance strengths and weaknesses

**Next Module:** DeFi Ecosystem - Introduction to Decentralized Finance.