Token Economics (Tokenomics)

Lesson 5: Mini-Lecture

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BSc Cryptoeconomics

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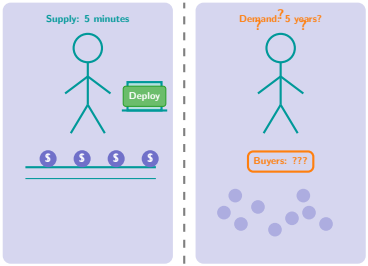
Why do most new tokens lose all their value?

- Thousands of tokens launch every month on permissionless blockchains
- A token can be deployed in under five minutes with a few lines of code
- Yet the vast majority collapse to near-zero within their first year

Creating supply is trivial. Creating lasting value is the hard part.



Easy to mint. Hard to matter.

Insight

Supply is code. Demand is economics. Tokenomics is the bridge.

Toker

studies why some tokens sustain value while most do not.

Have you ever earned points that became worthless?

Think of loyalty points, in-game currencies, or gift cards from a store that closed. You earned them, they had a stated value—and then one day, they were worth nothing. That experience of "value evaporating" is exactly what happens when token economics are poorly designed. The token had supply, but no durable source of demand.

Reflect

Think of a digital currency or point system you have used. What made you trust (or distrust) its value? What would happen if the issuer disappeared tomorrow?

face the same trust problem as any currency: why should anyone believe they will hold value?

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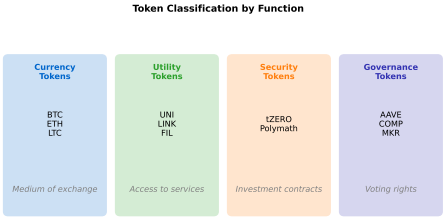
What kinds of tokens exist and how do they differ?

Tokens are not all alike. Their design determines their regulation, utility, and economic behavior.

- **Utility tokens** grant access to a service (like arcade tokens)
- **Governance tokens** grant voting power over protocol decisions
- **Security tokens** represent investment contracts (regulated)



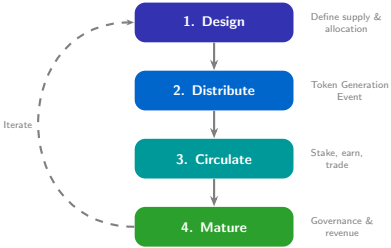
Insight

A token's category determines who regulates it, who uses it, and why it has value.

The boundary between utility and security tokens is the most contested question in crypto regulation.

How does a token go from launch to circulating economy?

1. **Design:** Team defines max supply, allocation splits, and vesting schedules
2. **Distribution:** Token Generation Event releases initial supply; remainder locked under vesting
3. **Circulation:** Users buy, stake, or earn tokens; burning and staking control velocity
4. **Maturity:** Governance decentralizes; value accrual stabilizes around protocol revenue



Insight

Every token lifecycle is a race: can demand grow faster than supply unlocks?

Vesti

schedules exist to prevent insiders from selling before value is established.

Fixed supply or inflationary: which design serves the mission?

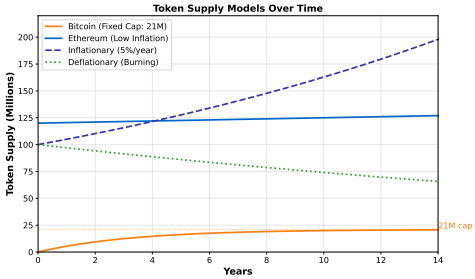
Model A — Fixed Supply (Deflationary):

- Hard cap on total tokens (no new issuance)
- Scarcity increases as tokens are lost or burned
- Rewards early holders; may discourage spending

Model B — Controlled Inflation:

- New tokens minted to reward validators and stakers
- Funds ongoing network security
- Dilutes passive holders; rewards active participants

Neither model is inherently superior. The right choice depends on the protocol's purpose.



Insight

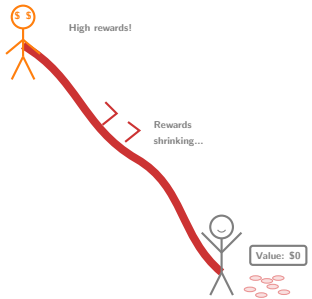
Supply design is monetary policy for a digital nation—choose the wrong model and you get hyperinflation or hoarding.

The best tokenomics often combine elements: controlled inflation with fee-based burning.

What happens when token incentives break?

- **Death spiral:** Inflationary rewards attract mercenary capital; when rewards drop, capital flees, price crashes, more flee
- **Insider dump:** Weak or absent vesting lets founders sell at launch, cratering price before community can benefit
- **Velocity trap:** Token is useful but nobody holds it; users buy, transact, sell instantly, preventing price appreciation

These are not edge cases. They are the most common outcomes.



When the music stops, there are no chairs.

Insight

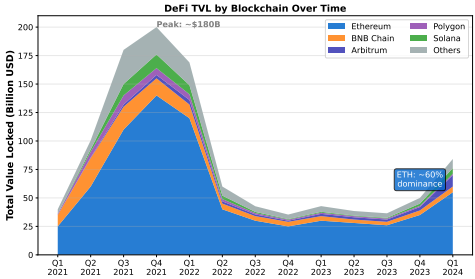
Bad tokenomics do not just lose money—they destroy the community trust needed to rebuild.

The difference between a sustainable token and a Ponzi scheme is where the yield comes from.

Where is real economic activity concentrating on-chain?

- Total Value Locked (TVL) measures how much capital users entrust to smart contracts—a proxy for confidence in tokenomics
- The dominant chains sustain TVL because their token designs align validator incentives with user security
- Chains that relied on inflationary token subsidies to attract TVL saw capital leave when subsidies ended

TVL reveals which tokenomic designs actually sustain real usage.



Insight

Capital flows to where tokenomics create genuine risk-adjusted returns, not just subsidized yields.

TVL is an imperfect metric—it can be inflated by recursive borrowing—but trends over time are meaningful.

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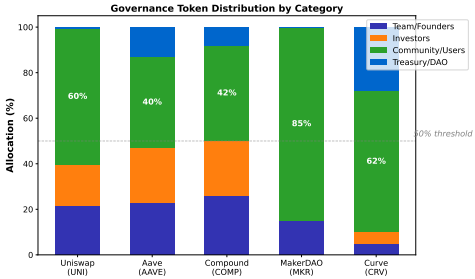
Who benefits and who bears the cost of token design choices?

- **Founders/Team:** Benefit from pre-mine allocations and governance control; bear reputational risk if project fails
- **Early investors:** Get discounted tokens with vesting; benefit from price appreciation post-launch
- **Community users:** Provide liquidity and usage that creates value; often receive the smallest allocation
- **Passive holders:** Diluted by inflation if they do not stake; benefit from burns and demand growth



Insight

Token allocation IS power allocation—the initial split determines who controls the protocol's future.

A protocol claiming to be 'decentralized' while allocating 60% to insiders is a contradiction.

5 Questions That Reveal Whether a Token Has Durable Value

1. **Necessity:** Does the protocol genuinely need a token, or is it bolted on to raise money?
2. **Demand sinks:** Are there reasons to hold (staking, governance, fee discounts) or do users buy-use-sell?
3. **Supply discipline:** Is there a hard cap, controlled inflation, or burn mechanism?
4. **Distribution fairness:** What percentage goes to insiders vs. community? What are the vesting terms?
5. **Value accrual:** Does protocol revenue flow back to token holders, or only to the team?

Insight

Sustainable tokenomics balance supply pressure with demand sinks—if the scale tips, price follows.

Apply these five questions to any token before forming an opinion about its design.

Token Design Challenge (15 minutes)

You are designing a token for a decentralized cloud storage protocol. Users pay tokens to store files; storage providers earn tokens for hosting data.

Design decisions to make:

1. Fixed supply or inflationary? Justify your choice.
2. How will you split the initial allocation among team, investors, community, and protocol treasury?
3. What mechanisms will encourage users to hold the token rather than immediately sell after use?
4. What is your biggest risk, and how does your design mitigate it?

Present: Sketch your token model and defend your choices to a classmate acting as a skeptical investor.

There is no single correct answer—but there are designs that are clearly unsustainable. Your job is to avoid them.