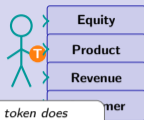


DeFi Business Models: Tokenomics-as-BM

The token is equity, product, revenue and customer — one collapse breaks all four

Digital Finance

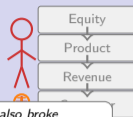
The Founder



One token does everything!

vs.

The Morning After



It also broke everything.

"If a token is everything, then losing the token loses everything."

Why Does One Token Quietly End Up Doing the Job of Four Different Instruments?

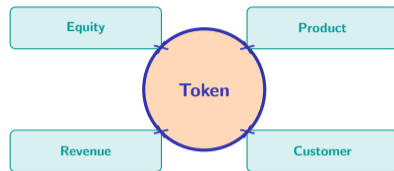
Tokenomics = the economic design of a crypto token (supply schedule, role it plays, how value accrues to holders). *Governance token* = a token whose holders vote on protocol parameters.

The Tokenomics Compression

In a traditional firm, four distinct instruments do four distinct jobs: shareholders hold equity, customers buy a product, the firm earns revenue, and a separate group of users consumes the service. Each role has its own legal form, its own price discovery, and its own protection against the failure of the others.

DeFi compresses all four roles into a single token. The same unit records ownership, gates access to the protocol, accrues fee flows, and gives its holder voting rights over future parameters. The compression is the entire business model.

- **Equity role:** the token is the only claim on protocol cash flows.
- **Product role:** access to features (governance votes, fee rebates, premium tiers) is conditioned on holding it.
- **Revenue role:** fees collected by the protocol are routed back to the token, either through buybacks or direct distribution.
- **Customer role:** the most loyal users are also the largest holders — the customer base IS the cap table.



Four jobs, one instrument

The Business Model Canvas treats Value Proposition, Customer Segments, Revenue Streams, and Key Resources as separable. Tokenomics fuses them into a single instrument — which is the source of both leverage and fragility.

Which Canvas Blocks Stop Being Independent When the Same Token Fills Each One?

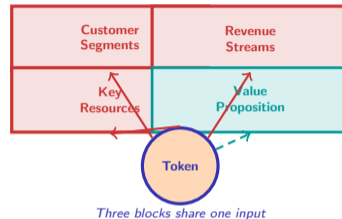
The Re-applied Business Model Canvas

Osterwalder's Business Model Canvas keeps nine blocks logically independent: a firm can change its Channels without rewriting its Customer Segments, or revise its Revenue Streams without touching its Key Resources. The canvas works because the blocks are loosely coupled.

A token-driven protocol violates that coupling. Three blocks become the same instrument:

- **Customer Segments** = token holders (the cap table is the user list).
- **Revenue Streams** = fees that route into the same token via buybacks, burns, or direct distribution.
- **Key Resources** = the token treasury itself, which the protocol uses to pay contributors and bootstrap liquidity.
- **Value Proposition** stays intact, but it is now denominated in the same instrument as the cap table — a circular reference.

The Canvas no longer fits because three blocks share one input. A collapse in token price affects all three at once. There is no loosely-coupled fallback.



The Business Model Canvas was designed for instruments that are independent. A protocol whose token is simultaneously cap table, revenue carrier, and treasury asset breaks that assumption — the canvas needs a coupling overlay.

How Does the Uniswap Token Sit Inside All Four Canvas Roles at Once?

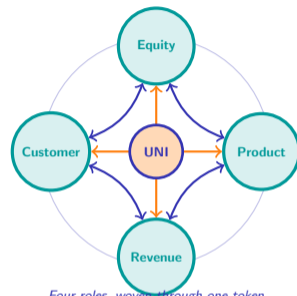
The Uniswap Case

Uniswap (Ethereum-mainnet permissionless decentralised exchange, the largest by volume among *automated market maker* (AMM) venues — smart contracts that quote two-sided prices from a shared pool rather than matching orders in a central book) lets any user swap one token for another by paying a small fee into that pool. *LPs* (liquidity providers) deposit pairs of tokens into the pool and earn the swap fee. The protocol itself charges no fee; the pool does.

- **Equity role:** the governance token grants holders the right to vote on whether the protocol's fee switch is turned on. That single vote is the equity claim.
- **Product role:** liquidity providers stake capital in pools and earn the swap fee. Holding the governance token signals alignment and qualifies for proposal rights.
- **Revenue role:** when the fee switch flips on, a slice of every pool's swap fee accrues to token-holder voting weight — the token becomes the cash-flow claim it always implied.
- **Customer role:** the most active liquidity providers and the most active voters are typically the same wallets. The customer base IS the governance set.

This is multi-sided in the platform-economics sense, but with a twist: the same token sits on every side. Network effects compound BOTH ways — and so does collapse. LPs bear *impermanent loss* (an AMM pool's automatic rebalancing can leave the LP worse off than simply holding the tokens) and the pool itself is exposed to *MEV* (maximal extractable value — profit a block-builder can capture by reordering or front-running transactions within a block).

Platform economics explains why the protocol is multi-sided. Tokenomics-as-BM explains why each side runs through the same token — which is why the network effects multiply and the failure modes correlate.



Four roles, woven through one token

How Does MakerDAO Start as a Loan Mechanism and End as a Currency Issuer?

Unbundling = pulling one service out of a historical bundle and offering it alone;
rebundling = stacking adjacent services onto that foothold once trust is established.

The MakerDAO Rebundling Arc

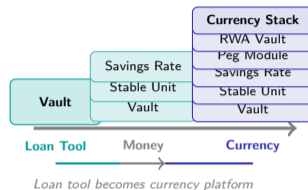
MakerDAO (Ethereum-native decentralised stablecoin issuer governed by MKR token holders, originally founded by Rune Christensen in Denmark) began with a single proposition: lock crypto collateral into a vault and mint a stable unit of account. One mechanism, one product, one token role.

Phase One — Unbundling. The original product was just collateralised lending denominated in a synthetic dollar. The governance token only gated parameter votes.

Phase Two — Stablecoin As Brand. As the synthetic dollar gained traction, holders began using it for payments and savings inside DeFi. The product expanded from "loan facility" to "money".

Phase Three — Rebundling. The protocol added a peg-stability module that lets users swap an outside-issued dollar token for the synthetic one. It added savings rates, real-world-asset collateral, multi-collateral vaults, and finally an aspiration to become a sovereign-grade currency platform. The single-product DeFi protocol became a full monetary stack.

The irony: the endpoint of disintermediation looks like a central bank without the central. The survivors of unbundling rebundle into the very function they replaced.



Christensen's unbundling-to-rebundling cycle still applies in DeFi — but here the rebundled artifact is not a super-app, it is a synthetic monetary system. The endpoint of disintermediation is currency issuance.

Where in a DeFi Value Chain Without Branches Does Synthetix Insert Itself?

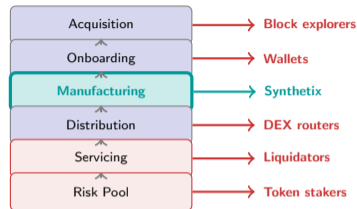
The Synthetic-Asset Value Chain

Value chain = the ordered sequence of activities a service passes through. Evans and Wurster (BCG) argued that when information is cheap, each link of an information-rich chain can be split off to a specialist — the chain deconstructs. DeFi inherits the same banking value chain — but every link is now smart-contract code rather than a department. Synthetix (Australian-founded synthetic-asset protocol, originally launched as Havven and now deployed across Ethereum and Optimism) specialises in one specific link: the manufacturing of synthetic exposure to off-chain prices via a staking pool and *oracles* (price feeds that bring off-chain quotes on-chain so a contract can settle against them).

- **Customer Acquisition** — public block-explorer visibility and incentive emissions
- **Onboarding** — self-custody wallet connect, no KYC by default
- **Product Manufacturing** — the synthetic-asset minting contract (Synthetix's specialism)
- **Distribution** — decentralised exchanges and aggregator routers carry the synthetic to end-users
- **Servicing** — on-chain liquidations and oracle-driven rebalancing
- **Risk Management** — the staking pool collateralises every synthetic position; the cap table absorbs the risk

The critical insight: Synthetix does not own the customer interface. It owns the manufacturing layer.

Distribution is rented from venues and aggregators. The token-holder pool, not a bank treasury, is the ultimate counterparty to every synthetic minted.



Evans and Wurster: information-rich value chains deconstruct. In DeFi the chain is fully deconstructed, and the link a protocol owns determines whether it captures fees or merely moves them through to the layers above.

Did Tornado Cash Convert Permissionlessness Into a Moat or Into a Sanctions Target?

Regulatory arbitrage = a firm earns profit specifically because it faces a lighter rulebook than its competitors, not because it is better at the underlying business; in BM language, a *moat* = a competitive advantage that rivals cannot easily copy.

The Permissionless-As-Arbitrage Tension

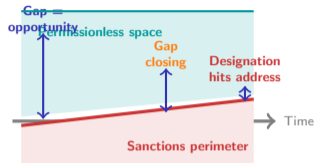
Tornado Cash (Ethereum-deployed privacy-mixing protocol using zero-knowledge proofs, contract addresses since designated by the US OFAC sanctions list) exemplifies how many DeFi protocols owe their early advantage to operating outside the regulatory perimeter that constrains intermediated finance:

- **No KYC** — the protocol cannot identify users because the smart contract sees only addresses, not people.
- **No licence** — code that runs without a counterparty is harder to classify than a firm that holds customer assets.
- **No on/off switch** — once deployed, the contract executes regardless of which jurisdictions object.

For a privacy-mixing protocol like Tornado Cash, that permissionlessness was the value proposition itself — and the arbitrage advantage that drew demand. Then sanctions authorities designated the contract address itself, freezing its tokens at custodians and exposing US-person interactions to penalty risk.

The token-holder cap table, treasury, and governance set were all denominated in the same instrument now sitting under a sanctions designation. The arbitrage didn't just close — it became a prosecutable status. The lesson: arbitrage moats in tokenomics inherit the legal status of the token they are denominated in.

Regulatory arbitrage in DeFi differs from earlier FinTech arbitrage: the moat lives inside the same token that holds the cap table. When the gap closes via designation, the cap table inherits the legal status. Arbitrage and equity become the same exposure.



Why Did dYdX Migrate Off the Place Where It First Found Liquidity?

The Venue-Migration Lesson

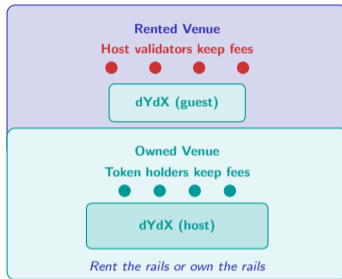
dYdX (decentralised perpetual-futures exchange founded by Antonio Juliano in the US, protocol governed by DYDX token holders) started as a perpetual-futures venue running on a general-purpose smart-contract platform (Ethereum, via a StarkWare Layer-2 rollup). That host platform offered deep token liquidity, mature wallet integrations, and the largest pool of already-onboarded users. dYdX thrived as a guest.

But the host platform charged a transaction fee for every order, every cancel, every fill — collected by the validators of the host chain, not by dYdX. As volume grew, the share of value captured outside the protocol exceeded the share captured inside.

- Tokenomics-as-BM means the token must carry the value capture.
- Renting infrastructure means most of the revenue accrues to whoever owns the rails, not the protocol that wrote the matching engine.
- dYdX migrated to its own application-specific chain so that validator fees could route to its own token holders rather than to a third-party cap table.
- In the new venue, the same matching engine generates the same flow — but the value lands on the right balance sheet.

The lesson: in tokenomics-as-BM, the choice of host venue is the choice of which cap table the network effects feed. Context determines who keeps the value the protocol creates.

Tokenomics-as-BM forces a venue question that classical platform economics does not: the choice of host chain is the choice of which cap table absorbs the validator fees the protocol generates.

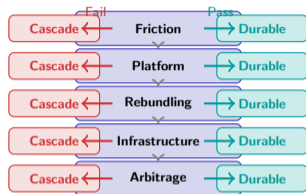


Which Five Tests Decide Whether Tokenomics Holds Together or Cascades Into Collapse?

The Tokenomics Five-Test Synthesis

- 1 **Friction test:** Does the protocol remove a real intermediation friction that off-chain finance still tolerates? If users would migrate even without token incentives, friction is real.
- 2 **Platform test:** Are network effects symmetric across the four token roles? When liquidity providers, voters, fee payers and treasury holders are the same wallets, every cross-side effect doubles — in both directions.
- 3 **Rebundling test:** Can the protocol layer adjacent modules (savings, peg modules, real-world collateral) onto the same token without diluting any of its four roles? MakerDAO answers yes; many forks answer no.
- 4 **Infrastructure test:** Does the protocol rent its rails or own them? If validators on the host chain capture more fee flow than the token, the BM is upside-down.
- 5 **Arbitrage test:** Is the regulatory perimeter on the token's legal status widening or contracting? Tornado Cash showed the arbitrage can become a sanctions designation overnight — and the cap table inherits.

Lasting tokenomics requires passing at least three tests. Most failed DeFi protocols pass only the first.



Three or more = the four roles hold

In tokenomics-as-BM, every failed test is a chord that goes dotted in the chord diagram. Three failures and the four token roles cease to support each other — the cascade is the failure mode.

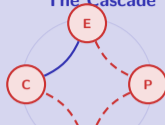
The Token Sale

ONE TOKEN.
ALL ROLES.



vs.

The Cascade



Three chords gone.
One left.

"The most successful tokenomics is the kind that lets you walk away from any single role."