

Due Diligence

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About Nomiks

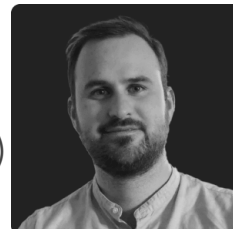
Nomiks is a Geneva-based Web3 analytics firm that specializes in token-economics design, auditing, and risk management.

Its multidisciplinary team of economists, engineers, and data scientists develops both advisory services and a SaaS platform that lets blockchain projects model, stress-test, and actively monitor their token economies from pre-TGE design through post-launch oversight.

By combining simulation-driven analytics with practical governance and liquidity tooling, Nomiks helps protocols and investors build durable, investment-grade token ecosystems and avoid hidden economic risks.

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Portfolio



1. General structure

Our knowledge at Nomiks is to translate the familiar pillars of traditional financial (TradFi) diligence into digital-native analogues, adding the on-chain telemetry, game-theoretic stress tests and real-time compliance checks that crypto demands.

In a decade, the market counts more than 17,000 tokens in circulation, each with its own mix of code bases, incentive structures and regulatory touch-points. Distinguishing “quality from noise” now requires a due-diligence lens that can cut through public-ledger data, tokenomics design and evolving policy mandates. Something the classic private-equity play-book was never built to do.

Our framework stresses this point : without a structured method, investors risk confusing hype or marketing with assets that have real value capture and compliant operating models.

Classic TradFi DD pillar	Digital-asset analogue (+ Nomiks module)
Quality-of-earnings & audit of financial statements	• On-chain treasury & proof-of-reserves reconstruction. • Fair-value & impairment tests under the new FASB ASU 2023-08 (mark-to-market every close).
Capital structure & liquidity analysis	• Unlock-schedule × DEX depth stress-test (Nomiks Secondary-Market Audit). • “Time-to-liquidity-crunch” with Monte-Carlo scenarios.
Business-model & revenue diligence	• Protocol fee-flow capture; token burn / buy-back; value-accrual scores (cash-flow, governance, utility, collateral).
Market/competitive analysis	• On-chain share-of-liquidity, active-address momentum, GitHub velocity dashboards.
Corporate governance review	• DAO voting-power concentration, multisig quorum, delegate liveness.
Legal & regulatory compliance (AML/KYC, licences)	• Travel-Rule traceability, VASP registration, MiCA Article 37 custody diligence.

	• SEC/FINRA AML programme checks on advisers.
Operational / tech ODD	• Smart-contract security audit exploit-simulation (oracle, MEV, bridge risk). • Key-management, upgradeability paths.
ESG & sustainability	• Consensus energy-intensity metrics, validator dispersion. • Treasury-controlled emissions offsets.

1.1 Quality-of-earnings & audit of financial statements

In digital-asset due diligence, “quality of earnings” starts with a wallet-level or smart-contract reconstruction of the on-chain treasury and a verifiable proof-of-reserves. Once the balance sheet is reliably mapped, Nomiks applies fair-value and impairment tests at every close, in line with FASB ASU (Accounting Standards Updates) 2023-08, turning a quarterly PDF exercise into a continuous mark-to-market process.

The outcome is a GAAP-ready statement that investors can reconcile directly to public ledger data, closing the gap that still exists for most crypto holdings.

1.2 Capital structure & liquidity analysis

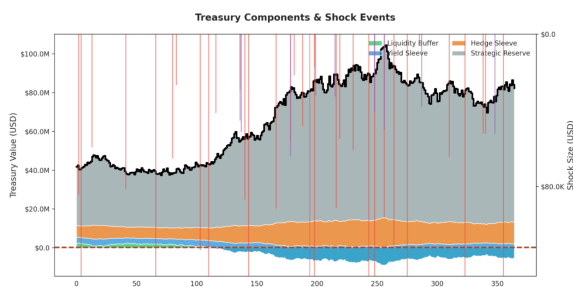
Tokens behave very differently from listed equity: vesting cliffs, staking locks and AMM depth all shape real sell-pressure. Nomiks therefore models the unlock schedule against DEX order-book depth, runs Monte-Carlo shocks and measures a

“time-to-liquidity-crunch” metric that captures slippage risk along the entire distribution of price paths.

This stress-testing framework goes far beyond the traditional float/ADV check used in equities and is essential for forecasting dilution-driven drawdowns.

1.3 Holistic Liquidity & Risk Management: Bitcoin treasury

We maintain a dynamic liquidity buffer calibrated through daily Value-at-Risk (VaR) and Conditional VaR (CVaR) analyses, ensuring sufficient capital to withstand normal market volatility and extreme tail events. Complementing this, our Monte Carlo engine computes the Probability of Ruin (PoR)—the chance that liquid and hedged positions will deplete before the set horizon—so that we can set hard limits on drawdowns, trigger automated hedges, and adjust buffer sizes in real time.



To guarantee stakeholder confidence, we layer on-chain **Proof of Reserves** checks: cryptographic Merkle-proof audits of BTC and USDC holdings are reconciled against off-chain liabilities on a regular cadence. By combining quantitative risk thresholds (VaR/CVaR/PoR) with transparent, verifiable reserves, this dual-pillar approach delivers both disciplined capital preservation and industry-leading transparency.

1.4 Business-model & revenue diligence

A protocol only accrues value if token-holders share in the underlying cash flows. The review traces fee flows, burn or buy-back mechanisms and staking rewards, then benchmarks them with ratio analyses such as FDV/TVL and other web3 KPIs.

The result is a value-accrual score that integrates cash-flow capture, governance rights, utility and collateral properties, highlighting where economic surplus leaks to operators instead of investors.

1.5 Market / competitive analysis

Because crypto code can be forked in days, sustainable advantage lies in network effects : share of on-chain liquidity, momentum in active addresses

and GitHub velocity that signals developer commitment.

Dashboards tracking these metrics allow Nomiks to quantify liquidity stickiness and community traction in real time, replacing slow, survey-based competitive studies with objective blockchain telemetry.

1.6 Corporate governance review

DAO structures often hide “shadow insiders.” The diligence quantifies voting power concentration, multisig quorum robustness and delegate liveness, and flags inequality with Lorenz-curve & Gini analytics.

Recent studies on token-price reflexivity and insider wallet clustering reinforce why such concentration is a material risk to minority holders.

1.7 Legal & regulatory compliance (AML/KYC, licences)

Upcoming regimes such as MiCA Article 37 and the FATF Travel Rule shift compliance from point in time surveys or questionnaires to continuous on-chain monitoring.

Nomiks checks custody segregation, VASP registrations and wallet-level AML scoring, and maps these findings to SEC/FINRA programme expectations for advisers, giving investors a forward compatible compliance stance.

1.8 Operational / tech DD

Technical failure is economic failure in Web3. The review combines a smart-contract audit with exploit simulations covering oracle manipulation, MEV extraction, bridge hacks and upgradeability paths.

Game-theoretic stress tests of incentive design are required to expose hidden attack surfaces.

Investors now demand concrete metrics: consensus energy intensity per transaction, geographic dispersion of validators and the governance of any treasury-financed carbon offsets.

Nomiks captures these KPIs to evidence alignment with ESG mandates and to spotlight protocols whose sustainability claims are not yet backed by on-chain data.

1.9 ESG & sustainability

2. Why does token-engineering matter ?

At Nomiks, token-engineering isn't a theoretical add-on. Our team has spent the past several years designing full-stack token economies, running agent-based simulations, and battle-testing incentive curves under extreme market conditions. That hands-on experience, spanning vesting maths, liquidity-mining game theory, validator economics, and smart-contract risk modelling, has yielded a library of stress-test scenarios and empirical benchmarks that few pure-play research desks can match. When we pivot that expertise toward due diligence, the result is a live diagnostic of how a protocol's economic flywheel will behave under liquidity shocks, governance attacks, or regulatory friction.

2.1 Token Metrics & Economic Design

Before we model supply schedules or benchmark allocation mixes, we draw the protocol's financial "plumbing" end-to-end. Using diagrams for a clear understanding, we map every value stream : token mints, fiat on-ramps, AMM swaps, staking locks, fee rebates, burns and buy-backs. So we can see at a glance who pays, who earns and in what currency.

Each arrow is annotated with its native unit (token, USDC, ETH) and its contractual split (e.g., 70% to LPs, 20% to treasury, 10% to buy-back pool). These visuals expose hidden feedback loops (such as reflexive buy-backs during bull

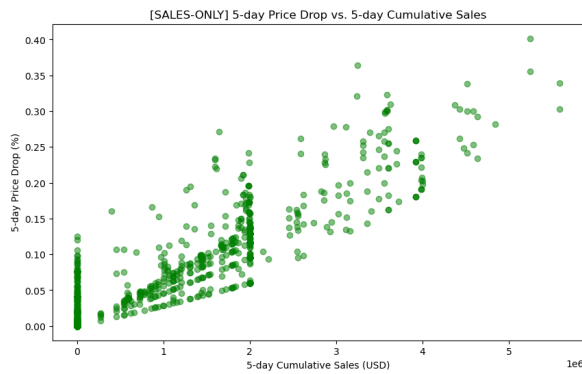


Figure : daily token sales vs drawdown.

2.4 Treasury Sustainability & Cash-Flow

A healthy protocol treasury must fund a multi-year burn without reflexively selling its own token into weakness. We shock monthly OPEX ($\pm 20\%$) and token price (0.5-4 USD) to chart runway probabilities over a five-year horizon. Next, we test yield-buffer integrity : impermanent-loss scenarios versus bonus payouts to ensure staking rewards or interests never exceed net yield. Buy-back absorption limits from the liquidity module are fed back here to avoid circular drain loops.

Alongside these simulations we track actual OPEX/CAPEX outflows and model treasury depletion in real time, giving boards and investors a live runway clock and early warning if capital calls or budget trims are required.

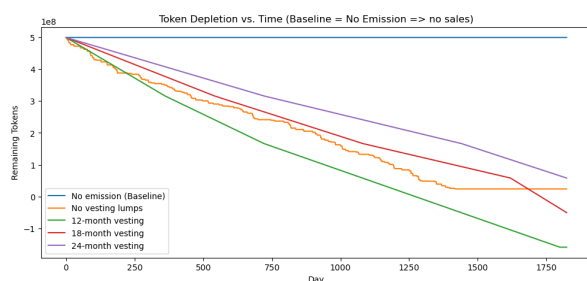


Figure : OpeX Depletion vs emission scenarios.

2.5 Staking Participation & Incentives

Staking is a double-edged sword : it hardens security but usually introduces inflationary rewards. We vary staking ratio (20-80%) and lock duration (30-180d) to find the minimum base-APR that still keeps $> 50\%$ of supply bonded without blowing past the inflation ceiling. We are used to considering more complex staking-based mechanisms with dynamic bonus tiers, that are back-tested against price / TVL triggers to cap runaway reward spend while maintaining validator profitability or stakers churn rate.

Alongside those simulations we stream live staking data, computing circulating versus floating supply in real time, so we can spot whether the protocol is trending toward net inflation or deflation, a critical input for long-term asset valuation.

2.6 Market Behaviour & Risk Parameters

Market micro-structure drives reflexivity. Two parameters dominate our agent-based simulator: the bear-market sell-pressure coefficient and the annualised GBM volatility. By sweeping them jointly, we obtain weekly VaR and count overflow events, days when liquidation demand exceeds depth-at-risk. These statistics feed governance alerts and can trigger pre-programmed circuit breakers or treasury interventions.

Because the model can replay discrete shock scenarios, the FTX collapse, the Terra-Luna death-spiral, COVID-style liquidity freezes, we give risk committees

a fat-tail catalogue of worst-case outcomes and the VaR math to size protective reserves accordingly.

For due diligence solution please contact:

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2.7 Points-System Calibration

For protocols that layer on a points or quest programme, mis-priced incentives can silently bankrupt the treasury or discourage community contributors. We translate behavioural into a points per task table that solves for a sustainable USD / point ratio. Quest weights ($\pm 20\%$) are tuned to avoid Gini spikes, while cohort sizes (500-6 000 users) are scaled against a reserve budget so that total rewards stay within a $\pm 10\%$ guard-band each month.

By mapping points accrual to governance token distribution we also monitor the protocol's power map, flagging concentrations that could enable hostile voting blocs and quantifying how much stake—and cost—it would take to mount a governance attack.

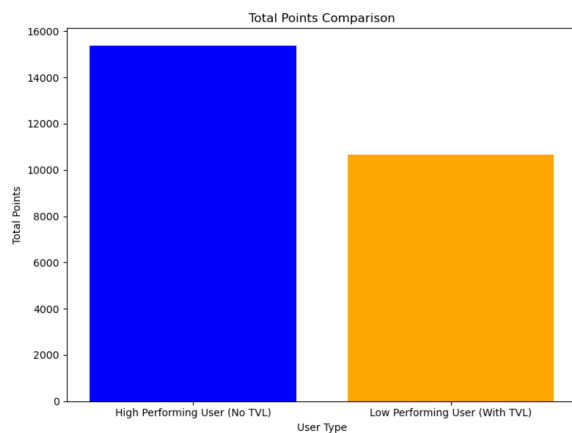


Figure : fairness study of points distribution.