Do Two Tokens Separate Financial Risk?

Stress testing payment and governance dependencies

Jace Shim · November 2026 · https://doi.org/10.5281/zenodo.24612007

Abstract

A payment token and a governance token can have different purposes while sharing the same sources of funding or operational control. This paper develops the dual-token proposals in Chapters 7, 14 and 16 of Target Money into a stress test. Risk separation is measured by the payment system's ability to serve redemptions and continue critical operations after the governance token and its supporting market are impaired.

Keywords · dual-token design, stablecoin reserves, governance tokens, contagion, redemption

Why functional separation is insufficient

The payment instrument is designed to settle claims at a stable denomination. The governance instrument may allocate voting power or participate in an economic arrangement whose value varies. Map the legal claims, collateral, authorized operators, common counterparties, and committed funding for each. Shared custody, fee-dependent reserve support, and emergency controls can carry distress across the boundary even where token contracts are distinct.

Stress test at two horizons

For each horizon, subtract due redemption and protected operating outflows from liquid resources available on that horizon. Calculate both asset availability after haircuts and the capacity of the payout rail. Exclude contingent governance-token sale proceeds from a governance-failure scenario. Count external credit only if the borrower can draw it under the modeled conditions and show how it is repaid. Separately test whether authorized payment operators retain the ability to process and reconcile redemptions.

Suppose next-day outflows are 30 and reachable reserves are 24. Projected governance-token sales of 8 would yield an apparent buffer of 2. Under a scenario that removes those proceeds, the shortfall is 6. A committed facility of 7 could cover the timing gap if drawable, while the repayment and ultimate loss still require funding. All values are hypothetical.

Applying the model

Test a governance price collapse, correlated treasury-provider outage, loss of operating fees, and concurrent redemptions. Report uncovered outflows, time to restore service, and which party bears the residual loss. Compare results before and after removing each linkage. Shared dependencies may be tolerable if they are explicit, bounded, and replaceable at stress horizons. The proposed tests establish no safety or legal classification for any token.

Relationship to earlier papers

The small-merchant paper distinguishes timing liquidity from losses at onboarding and payout. This paper applies that distinction to token-system contagion and redemption. The voucher paper studies program eligibility and access, while the present analysis examines the financial and operational capacity behind payments.

References

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