

Tydro: kBTC Parameter Review

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Summary

The proposed market design narrows the Tydro base market to USDC as the only globally borrowable reserve, with kBTC designated as the sole collateral asset outside E-Modes. Under this revised market structure, we support setting the kBTC parameters to 85% loan-to-value (LTV), 87% liquidation threshold (LT), and 5% liquidation bonus (LB).

Market Design

Two elements of the proposed market design bear directly on the kBTC parameters.

- First, WETH, USDT0, USDG, GHO, and USDe are disabled globally, reducing the debt menu available against kBTC collateral to USDC.
- Second, kBTC is given no approved eMode debt route, meaning it remains base-market collateral only and cannot access an expanded debt menu through any eMode category. In contrast, the live Ink base market currently allows kBTC collateral to borrow GHO, USDC, USDG, USDe, USDT0, and WETH.

Parameter Review

Parameters are derived from the empirical 99% Conditional Value at Risk (CVaR, the average loss conditional on exceeding the 99th percentile loss) of realized BTC/USD returns over a 1-hour window, measured on the Chainlink BTC/USD feed that Tydro reads. Windows are anchored on each feed publication, and the tail is taken as the worst excursion inside the window rather than the price at its end, since a liquidator is exposed to the lowest price reached before the call lands.

The 1-hour window is set based on measured liquidation behavior. On Aave V3 Ethereum Core, BTC collateral liquidations against stablecoin debt spent a median of 1.2 minutes and a p99 of 71.8 minutes at or below the liquidation price for positions larger than \$1M. A 1-hour window covers that at p99. The LT follows from the no-bad-debt condition. LTV steps back from LT by the 95th percentile of an ordinary move over the same window, which is 3 percentage points for BTC at 6 hours.

Window	Empty windows	Ann. vol	99% CVaR close	99% CVaR excursion	Realised worst	LTV / LT at LB 5.0%
single publication	0.0%	n/a	-0.85%	-0.85%	-3.52%	92% / 94%
15 min	83.3%	60.0%	-1.43%	-1.74%	-7.83%	91% / 93%
30 min	72.2%	62.5%	-2.06%	-2.57%	-9.99%	90% / 92%
1 h (basis)	54.3%	59.4%	-2.66%	-3.49%	-10.52%	89% / 91%
2 h	0.0%	55.9%	-3.29%	-4.58%	-10.52%	88% / 90%
4 h	0.0%	51.9%	-4.77%	-6.38%	-11.10%	87% / 89%
6 h	0.0%	50.9%	-5.79%	-7.87%	-12.50%	84% / 87%
12 h	0.0%	47.4%	-6.76%	-11.26%	-16.13%	81% / 84%
1 d	0.0%	48.7%	-9.93%	-15.26%	-19.67%	75% / 80%

Based on this calibration, we propose an **LTV of 85%, an LT of 87%, and an LB of 5%**. At these parameters, an LT of 87% at a 5% bonus absorbs a collateral fall of 8.65% before the seized collateral stops covering bad debt plus bonus. The 99% worst-excursion tail over 1 hour is 3.49%. The proposed threshold covers it with 6 percentage points to spare. The realised worst price movement was 10.52%, which means that should a scenario like this repeats, the selected parameters would not leave a large enough buffer to prevent bad debt.

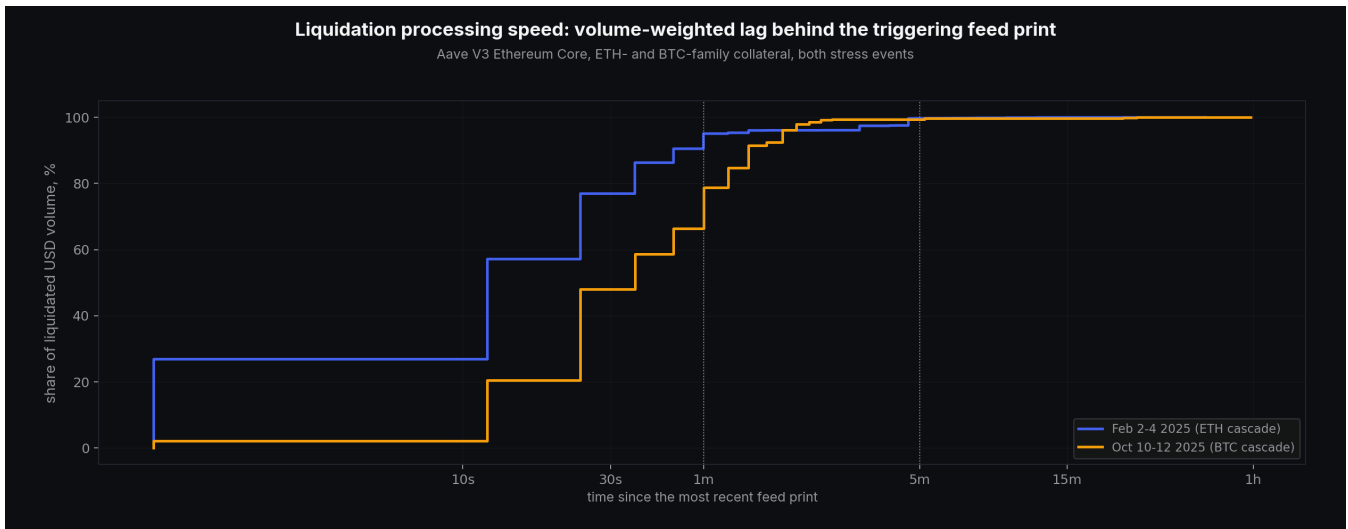
Some other factors/assumptions that also affected kBTC parameters apart from the isolated market design were:

- **Strong Liquidity Assumption:** The analysis assumes that kBTC can be liquidated efficiently under stressed conditions. Tydro team shared with us that SLAs were signed with liquidators, enabling liquidations of \$2M worth of kBTC collateral every 10 minutes. Having this in place is effectively a must considering the current non-existent kBTC/USDC DEX liquidity on Ink.
- **Custody Risk Not Included:** kBTC on Ink is priced using the Chainlink BTC/USD feed. Accordingly, the analysis captures BTC price risk but does not account for wrapper, custody, or other structural risks specific to kBTC.

Liquidation Processing Benchmark

The 1-hour basis and the 87% threshold are underwritten by a specific level of liquidation processing, measured on Aave V3 Ethereum Core through the October 10 to 12, 2025 event, the worst BTC stress of the cycle. BTC-collateral liquidations there cleared \$46.4M

across 96 calls with a median lag of 36 seconds behind the triggering BTC/USD publication. 80% of the seized volume cleared within one minute of a fresh publication and 100% within five minutes.



Source: LlamaRisk, August 20, 2026

Fast processing does not mean positions clear in one call. On Core, 9% of liquidated BTC borrowers were liquidated repeatedly, accounting for 27% of seized volume, with clearing spans reaching eleven hours as each half-debt call resets the health factor just above one and the next leg down re-breaches it. This repeated path is what the measured 1.2-hour p99 time below liquidation price captures, and it is why the basis is 1 hour rather than minutes.

kBTC on Ink would need to match this benchmark for the recommended parameters to hold. With no meaningful kBTC/USDC DEX liquidity on Ink, the SLA liquidator is the entire processing layer, so the SLA needs to encode the Core profile and not only throughput: response within about one minute of each BTC/USD publication, priority to economically meaningful positions, and sustained repeated clearing across a 1-hour stress. Every widening of response latency lengthens the effective exposure window and migrates the basis down the calibration table, to 81% / 84% at 12 hours and 75% / 80% at one day. The 85% / 87% / 5% recommendation is therefore conditional on Core-grade processing being contractually delivered on Ink.

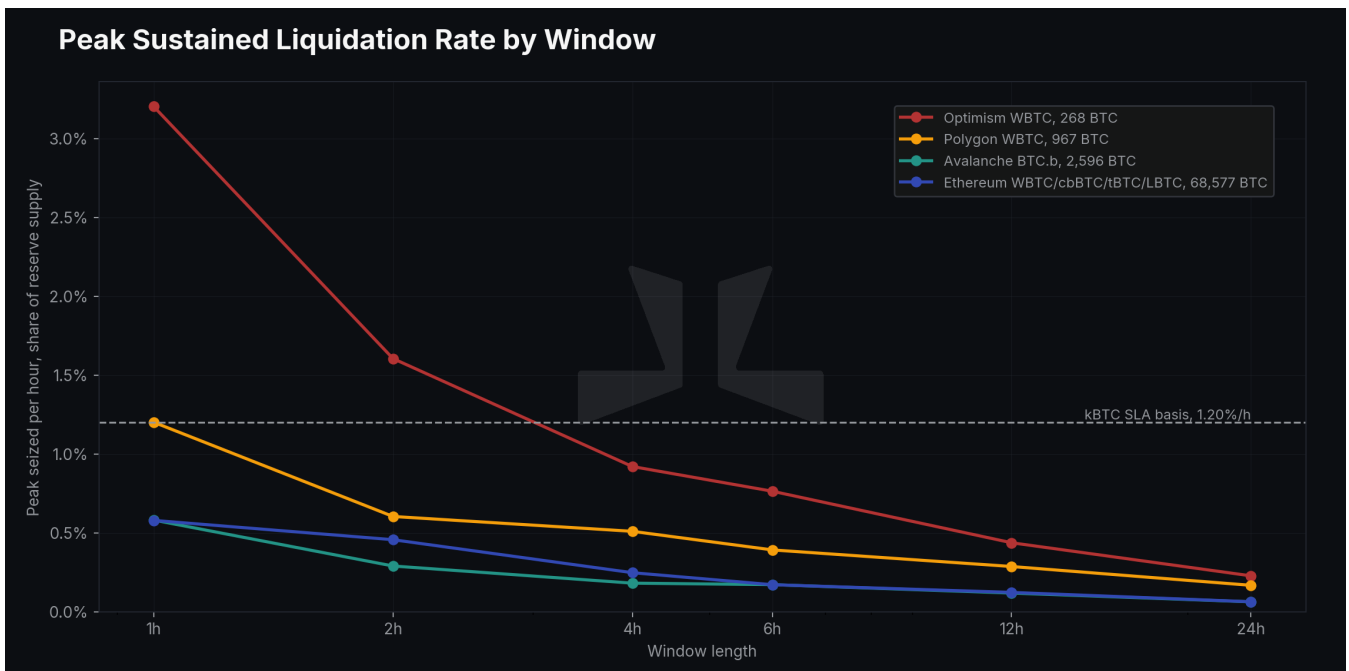
SLA Sizing

In the absence of meaningful DEX liquidity on Ink, we recommend keep the existing SLAs with liquidators who can liquidate or seize **\$2M worth of kBTC per 10m**. This size exceeds a benchmarked amount based on other Aave deployments and considering current kBTC supply cap on the Tydro market, which would be \$2.5M worth of kBTC per hour.

This recommendation was based on measured liquidation throughput, i.e., the largest amount of BTC collateral seized inside any window of a given length, expressed as a share of the reserve.

Market	Window	Peak seized, BTC	Reserve then, BTC	% of reserve	% per hour
Ethereum	1 h	397.90	68,577	0.58%	0.58%
Ethereum	6 h	733.07	70,858	1.03%	0.17%
Ethereum	24 h	1,095.83	70,858	1.55%	0.06%
Avalanche	1 h	15.11	2,596	0.58%	0.58%
Avalanche	6 h	26.92	2,596	1.04%	0.17%
Avalanche	24 h	39.75	2,596	1.53%	0.06%
Polygon	1 h	11.63	967	1.20%	1.20%
Polygon	6 h	22.81	967	2.36%	0.39%
Polygon	24 h	39.15	967	4.05%	0.17%
Optimism	1 h	8.58	268	3.20%	3.20%
Optimism	6 h	12.29	268	4.59%	0.77%
Optimism	24 h	14.69	268	5.49%	0.23%

The throughput rate declines sharply with window length across all markets. Nothing in the data supports the one-hour rate over a longer period, so an hourly SLA is the tightest form of the commitment and the one that binds.



Source: LlamaRisk, August 18, 2026

The peak hourly rate is not constant across markets, and it rises as the reserve gets smaller. It can be attributed to the fact that a small reserve holds fewer and proportionally larger positions, so a single borrower going underwater moves a larger share of the book. As the

reserve grows, the same stress spreads across more positions, and the share falls. A similar high supplier concentration can be observed with kBTC on Ink below.



Source: [LlamaRisk](#), August 18, 2026

At present, kBTC's book (200 supply) is smaller than every market measured and carries \$6.5M of total debt borrowed against kBTC. At the supply cap, kBTC would reach 2,750 BTC, placing it broadly alongside Avalanche BTC.b at 2,596 BTC, which recorded a worst-hour throughput of 0.58%. The recommendation instead uses Polygon's 1.20% rate, measured on a book roughly one-third the size. Using a rate from a smaller book is conservative and avoids adding an arbitrary multiplier.

At a full 2,750 kBTC supply, a 1.20% rate implies 33.1 kBTC of hourly throughput, or approximately \$2.12M per hour. Rounding this up to \$2.5M per hour keeps the limit legible while preserving a conservative buffer.

Specification

Instance	Asset	Recommended LTV	Recommended LT	Recommended LB
Tydro	kBTC	85%	87%	5%