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The October 11th USDe Depeg- A $19 Billion Crypto Financial Engineering Masterclass

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Abstract

On October 11th, USDe—the yield-bearing stablecoin (YBS) sector's dominant player—depegged on Binance, the world's largest offshore crypto exchange, triggering cascade liquidations that set a historic record with an estimated $19 billion in total liquidations. "Crypto Crash" instantly became the clickbait headline du jour across global mainstream media.

But as practitioners, we need to cut through the noise manufactured by media outlets that love crafting sensational narratives, and drill down to the essence of the October 11th YBS depeg—a massive tail risk exposure event in complex financial engineering. This is a lesson in how sophisticated models, high leverage, liquidity, systemic risk, and overconfidence can combine to create a Garden of Eden apple that rationally destroys human self-interest.

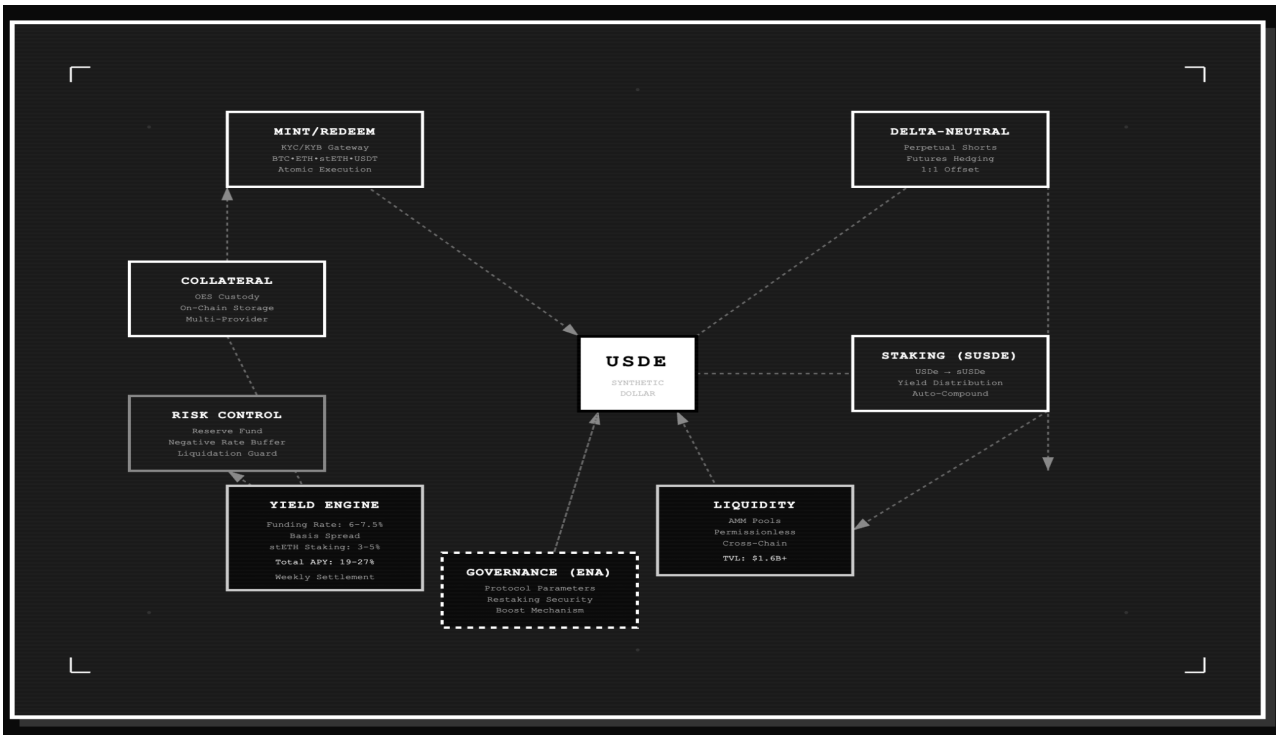
01 / USDe: A Monument to Financial Engineering Rationalism

Before crypto's self-relegation to becoming America's next-gen financial infrastructure, crypto's legitimacy was rooted in creating a mathematically pure, freedom-preserving monetary system.

After the failed monetary experiments of the first innovation cycle (PoW public chain Coin era) and the systemic collapse of algorithmic stablecoins in the second cycle (smart contract Token era), third-cycle crypto builders still couldn't resist their god-complex urge to create a new paradigm stablecoin—the Yield-Bearing Synthetic stablecoin (YBS).

Unlike the utopian optimism of algorithmic stablecoins (which simply abstracted the Fed's monetary issuance mechanism into smart contracts and are now banned under global crypto regulatory frameworks), YBS has been a complex financial system built on financial engineering rationalism since Arthur Hayes first proposed the proto-concept "Nakadollar" in his 2023 blog post "Dust on Crust."

Take USDe from Ethena Protocol—inspired by Arthur Hayes—as an example. It constructed a synthetic dollar protocol consisting of minting/redemption modules, crypto-native delta-neutral strategy modules, collateral management modules, staking modules (sUSDe), risk management modules, liquidity pool modules, yield engine modules, and governance modules—requiring neither fiat reserves nor crypto-native asset overcollateralization.



Source: Pharos Research

USDe's product methodology captures real yield through professional hedging and derivatives markets, while introducing multi-layered risk controls (no excessive leverage, position diversification, reserve funds) to maintain system stability. It then Lego-stacks with DeFi protocols like AAVE, Pendle, and Morpho to boost APY (Annual Percentage Yield) and achieve scale.

Simple example: When User A deposits 1 stETH (worth $3,000), Ethena opens a $3,000 ETH perpetual futures short position. If ETH rises to $3,300, spot gains +$300, short loses -$300, net value = $3,000. If ETH drops to $2,700, spot loses -$300, short gains +$300, net value = $3,000. System Delta = 0. With theoretically zero risk exposure, Ethena Protocol captures three real yield sources:

Funding rates - In bull markets, funding fees paid by perp longs to shorts (typically 10-30% annualized)

Staking yield - Native yield from assets like stETH (~3-5%)

Basis yield - Additional alpha from futures premium

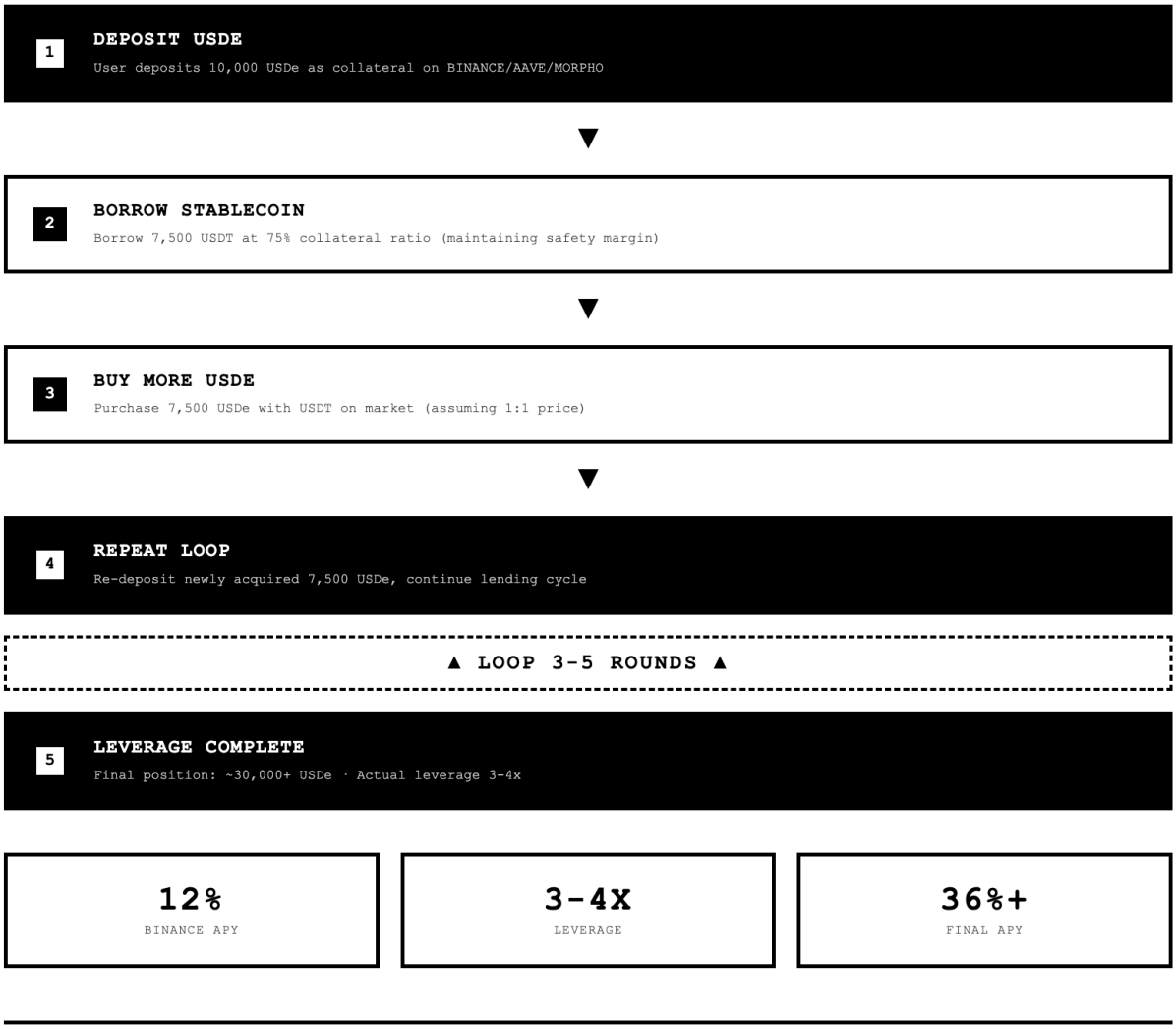
As shown above, USDe's actual APY reached as high as 27%—sexier than any TradFi product. When financial markets operated in steady state, people coined the term "Internet Bond" for USDe, defining it as a global dollar bond requiring no trust in the banking system.

By September 2025, USDe reached a staggering $14 billion market cap, becoming the world's third-largest stablecoin after USDT and USDC. Meanwhile, Arthur Hayes publicly shilled that USDe had 51x growth potential remaining. Financial engineering rationalism appeared to be scoring a major victory in the crypto industry.

02 / The External Leverage Loop Accumulation

Given the painful historical lesson of Luna-UST's death spiral collapse, Ethena deliberately designed its protocol architecture to sever internal feedback reinforcement mechanisms between assets and liabilities, maintaining the red line of never adding the native ENA token to the asset list. USDe's high APY realization primarily relied on external circular lending through users on DeFi protocols like AAVE, Pendle, Morpho and partner CEXs.

But as the 2025 crypto market entered the tail end of its four-year cycle, with stablecoins becoming the only sector achieving positive growth YTD, stablecoin "high-yield deposit gathering" became the most effective growth tool for DeFi protocols and CEXs in this red ocean market. They universally began encouraging and guiding users toward external circular lending with USDe through product mechanisms and marketing.



Source: Pharos Research

On September 22, 2025, "the universe's first exchange" Binance launched a 12% APY rewards program for USDe, allowing users to loop-borrow using built-in lending features. Overconfidently, they set the liquidation price source for USDe borrowing to a single point: Binance's USDe-USDT trading pair price.

Unlike Binance's overconfidence and inexperience, DeFi protocols that survived the post-DeFi Summer liquidation waves generally hardcoded USDe lending liquidation price sources at 1:1 or used oracle services with multiple price data sources.

Binance's brand endorsement, USDe's solid peg history, and the pervasive Uptober optimism created a fatal illusion among many users that USDe's 12% APY was risk-free yield. Driven by market FOMO, they began maniacally deploying circular leverage. Attracted by this program, USDe deposits on Binance surged from $3 billion to $5 billion.

Within the entire $14 billion USDe system liability, approximately 40% (≈$5.6B) was genuine delta-hedged positions, while the remaining 60% (≈$8.4B) was stacked on 2-5x leveraged circular borrowing.

03 / Black Swan Strike & USDe Depeg

October 11, 2025, 5:00 AM Beijing time, Saturday morning. Trump posted on Truth Social: "Starting November 1st, 100% tariffs on Chinese goods."

The historic $19 billion (conservative estimate) crypto liquidation cascade was ignited.

Wave 1: Normal Panic (05:00-05:20): Global risk assets sold off collectively, crypto core assets dumped hard, perps began mass liquidations, leveraged longs were swept out.

Wave 2: System Imbalance (05:20-05:43): Extreme drawdown exceeded thresholds, causing crypto core asset perp funding rates to flip negative. USDe whales began dumping on Binance. Binance's USDe-USDT pair price slipped from $1.00 to $0.9, then to $0.91...

Wave 3: Dam Break (05:43-06:16): Binance's USDe-USDT pair broke below $0.82—the forced liquidation line for 5x circular loans—triggering a system-wide liquidation tsunami:

Stage 1: USDe drops to $0.82

→ 5x circular loans trigger liquidation

Stage 2: Liquidation engine starts dumping USDe to repay USDT debt

→ USDe drops to $0.75

Stage 3: More liquidations trigger

→ 3x and 4x circular loans start getting rekt

Stage 4: Liquidity completely evaporates

→ USDe instantly crashes to $0.6567

Stage 5: Cascade liquidations spiral out of control

→ ADL and unified account mechanisms birth a mega USDe collateral sell-off wave

The entire process took 23 minutes.

Imagine you're a Binance user who loop-borrowed to amplify that 12% APY to 48%. Your friends thought you were a genius. You thought so too. However, in 90 minutes on the morning of October 11, 2025, your account balance went from six figures to zero.

There's a fascinating detail in this perfect storm: the same asset, at the same time, existed in radically different realities on-chain versus off-chain.

Platform	USDe Price	Depeg %
Binance	$0.66	-34.30%
Bybit	$0.92	-8%
Uniswap (on-chain)	$0.98	-2%
Aave (on-chain)	$1.00	0%
Source: Pharos Research		

On-chain DEX Uniswap only briefly depegged 2% due to sufficient on-chain liquidity pools and fast arb bot price balancing. DeFi lending protocol Aave experienced virtually zero USDe/sUSDe liquidations due to oracle prices pegged at $1.00.

Throughout the entire depeg event, USDe minting/redemption functions never stopped, the protocol maintained overcollateralization, and delta-hedged positions operated normally. This wasn't an Ethena Protocol collapse—it was a collapse of Binance's specific market structure.

04 / What Did We Learn from This Perfect Storm?

Crypto promises permissionless innovation, decentralized finance, and math-driven trust, but crypto reality must submit to real-world financial laws. In this USDe depeg perfect storm, we witnessed how complex models, high leverage, liquidity, systemic risk, and overconfidence combine to create system collapse.

Although Ethena Protocol proved its financial engineering system's robustness and risk resilience during this extreme event, the team—driven by greed and growth hunger—defaulted to or actively guided the market to treat high-risk DeFi yield products as risk-free savings, fueling the accumulation of external USDe leverage loops. This became the seed breeding the perfect storm, ultimately backlashing against the protocol's TVL and market confidence.

Stablecoins aren't fiat, aren't CBDCs, lack legal tender status. Their essence is a token representing a claim pegged to $1, allowing holders to redeem corresponding collateral. Stablecoin stability comes from mechanism stability (can the protocol maintain peg under all market conditions), liquidity stability (can the market provide sufficient depth under stress), and confidence stability (do users trust its performance in crisis).

The only lesson humanity learns from history is that humanity never learns. Humans function like reinforcement learning agents—quickly learning the "high leverage + complex hedging = high returns" greedy strategy through dense positive rewards, but unable to thoroughly update their policy due to sparse, extreme, delayed negative rewards. This leads to repeating the same fatal mistakes across different eras and markets.

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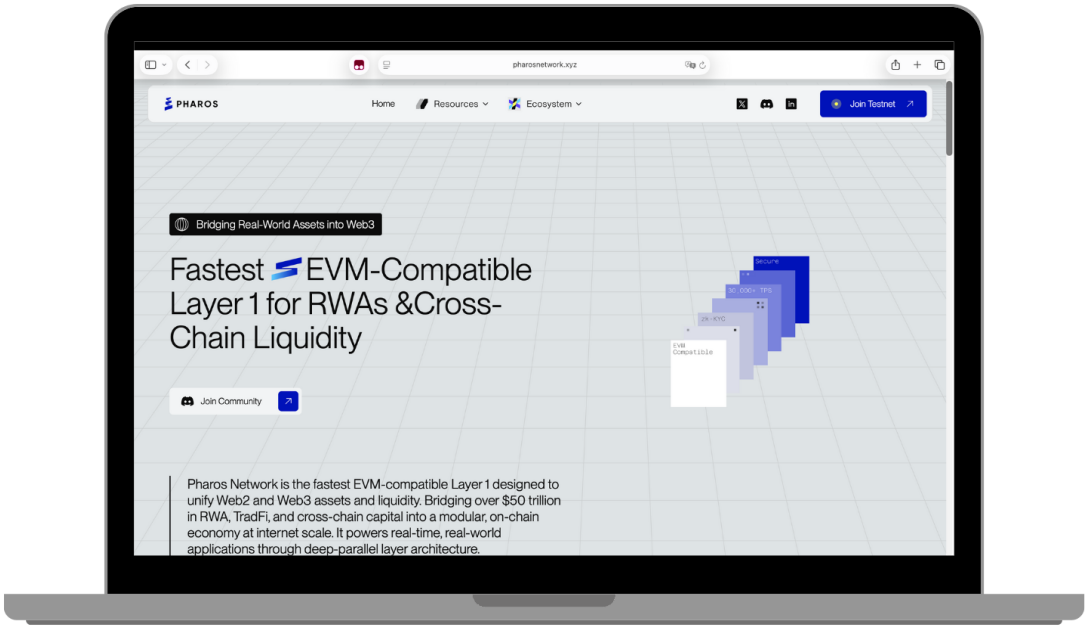
Pharos' Official Website: https://www.pharosnetwork.xyz/



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