Zodial
Unified Portfolio Lending

Zodial is a first lending protocol that can support any use case by through a unified portfolio-based approach. Unlike traditional isolated market protocols, Zodial enables users to borrow and lend against their entire asset portfolio, unlocking better capital efficiency and enabling sophisticated trading strategies previously impossible in DeFi.

Supported by Solana Superteam

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The Problem with Current DeFi Lending

Despite the $3 trillion crypto market, DeFi lending captures only approximately $60bn in total value locked (2% market penetration). This massive gap exists because current lending protocols suffer from fundamental design limitations:

Isolated Markets Create Fragmented Capital

- Users must deposit collateral for each individual borrowing position
- Capital remains siloed across multiple protocols and markets
- Overcollateralization requirements lock up significantly more capital than necessary
- Manual management across multiple positions creates operational complexity

Limited Strategies

- Basic hedging strategies are impossible (only long)
- Cross-market risk management requires multiple platforms
- No unified view of portfolio risk
- Early liquidations due to single-asset exposure

Poor Capital Efficiency

- Low utilization rates result in poor yields for lenders
- Fragmented liquidity across markets reduces overall protocol efficiency
- Current protocols generate $160M in profit from an average 2.6% commission, indicating significant room for growth

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The Zodial Solution – Unified Portfolio Lending

Zodial replaces isolated markets with a comprehensive portfolio-based risk model.
Users can:

- Borrow and lend against their entire asset stack, not just individual tokens
- Execute complex trading strategies including cross-asset hedging and sector-based positions
- Maximize capital efficiency through unified collateral management
- Diversify risk across multiple asset categories automatically

Key Benefits

For Borrowers:

- Access more capital with the same collateral
- Execute sophisticated trading strategies in a single protocol
- Reduce liquidation risk through portfolio-level risk assessment
- Lower overall borrowing costs

For Lenders:

- Higher yields through improved capital utilization
- Better risk diversification across asset classes
- Access to a larger, more liquid market
- Transparent, portfolio-based risk metrics

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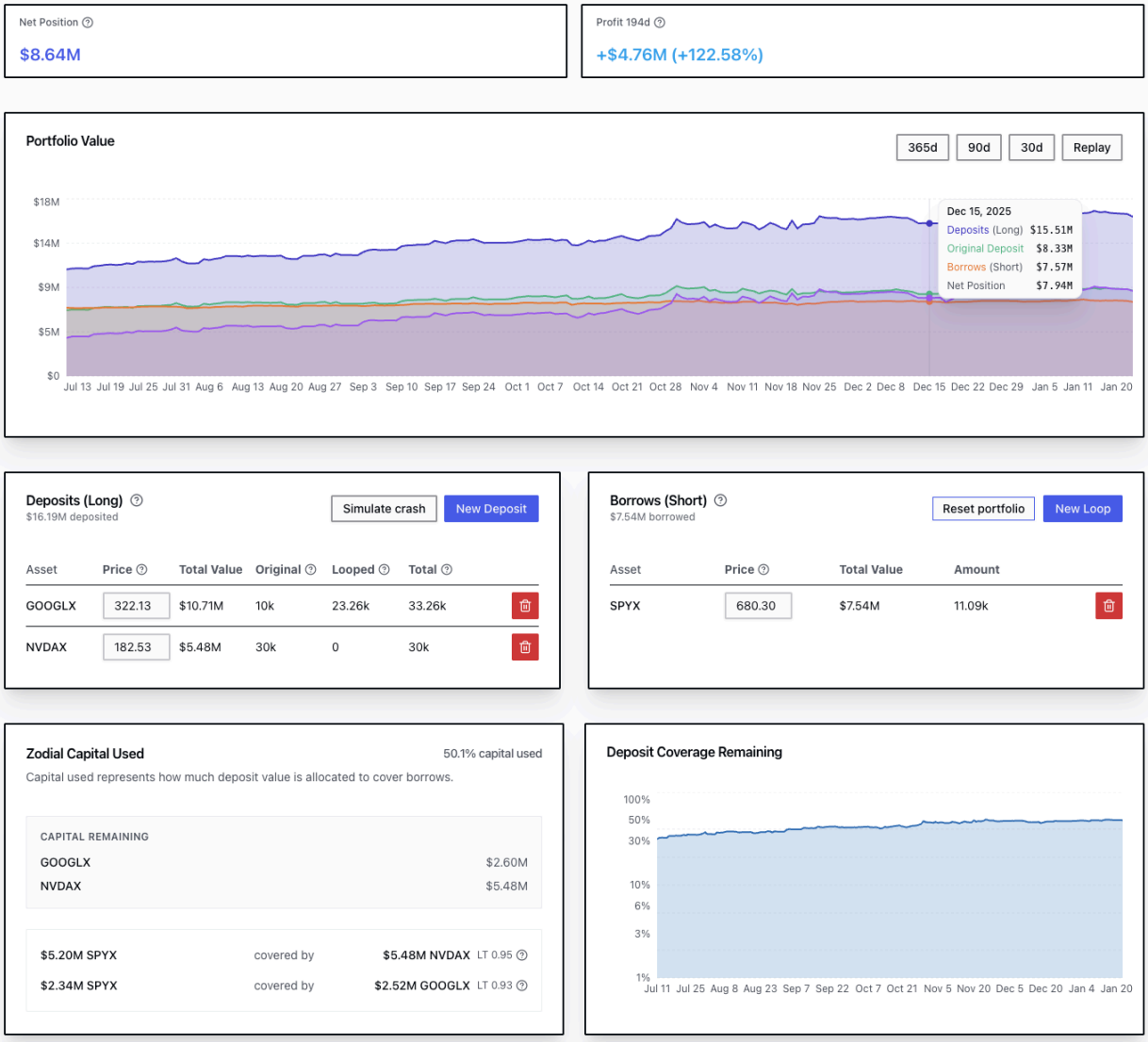
Use Cases – limitless.

Trade and manage risk across RWAs, stablecoins, crypto, commodities, staking, and more to come.

We're building a playground to backtest the strategies people couldn't run before: short stocks to go long crypto, hedge USD versus EUR, or build a truly diversified portfolio.

You could have made over 125% in half a year with a very stable health score. The best part is that in case of a market crash your Hedged.



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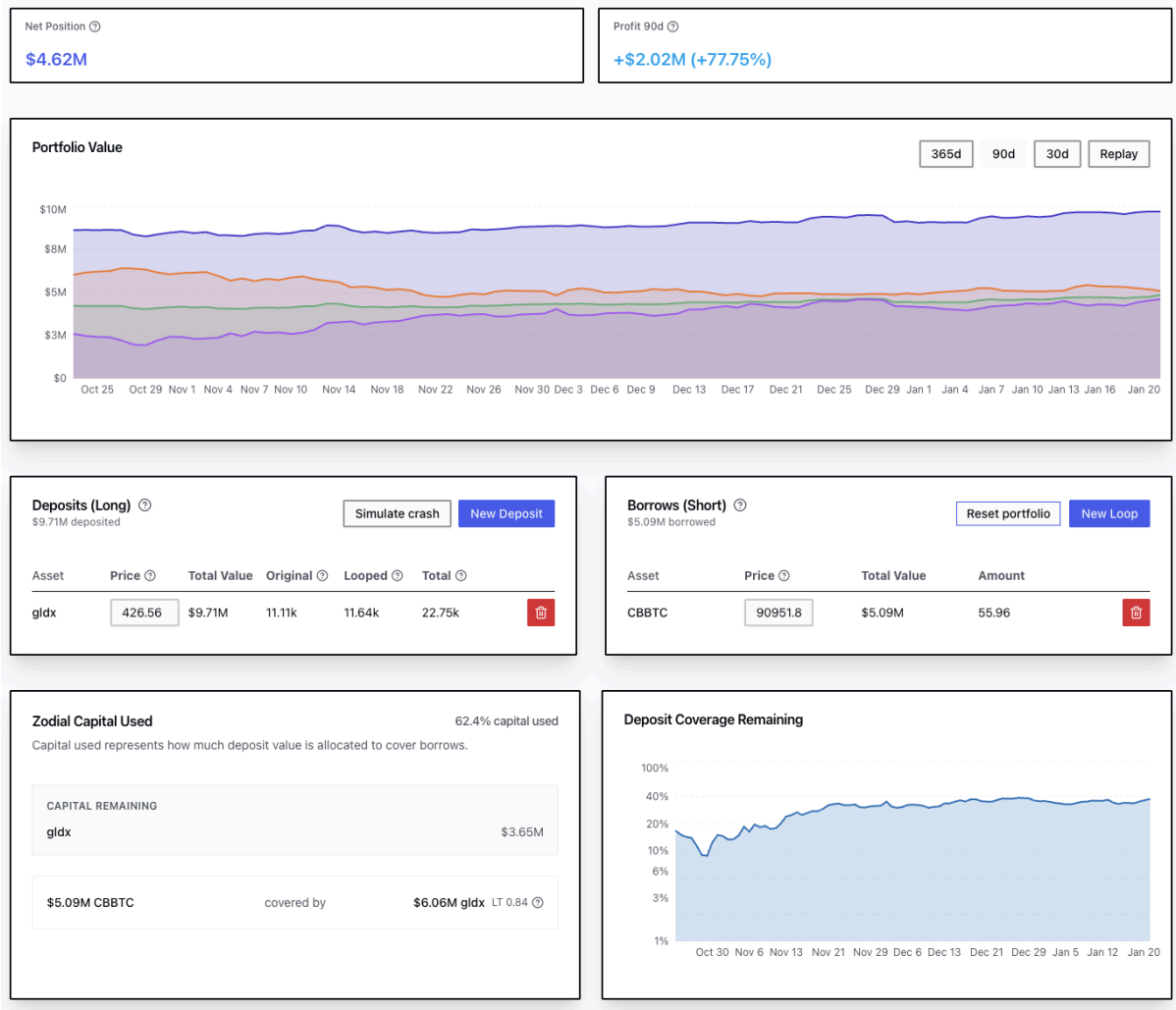
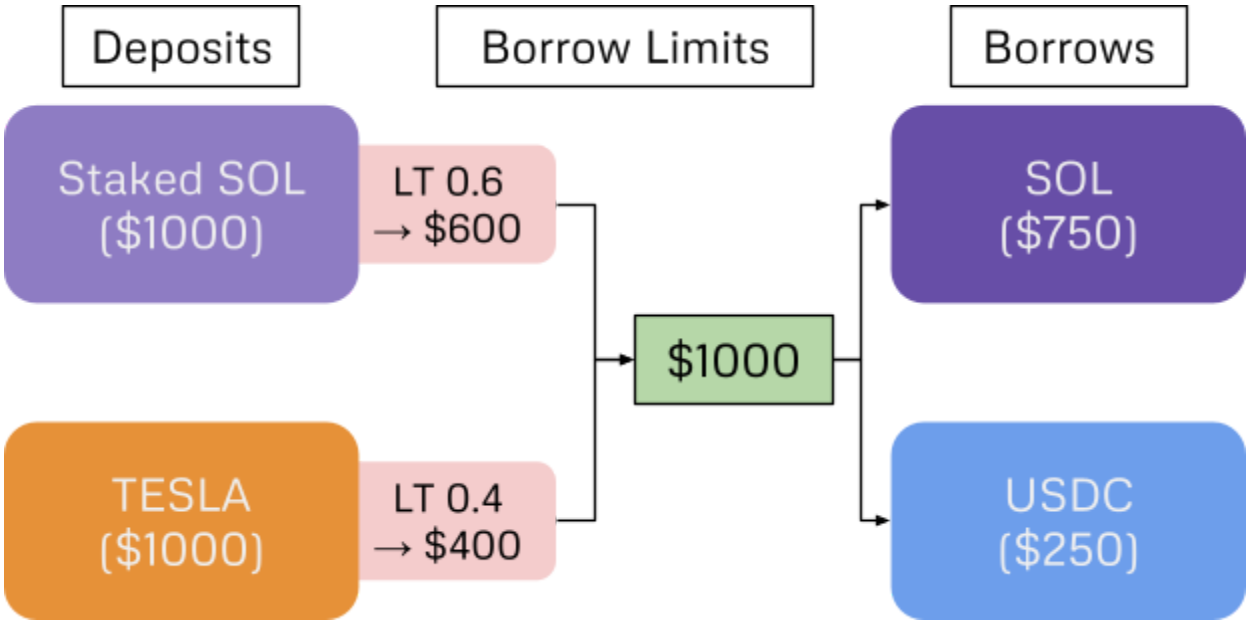
In the future of finance, you'll be able to short digital gold and go long physical gold, building the portfolio you want without being forced into liquidation.



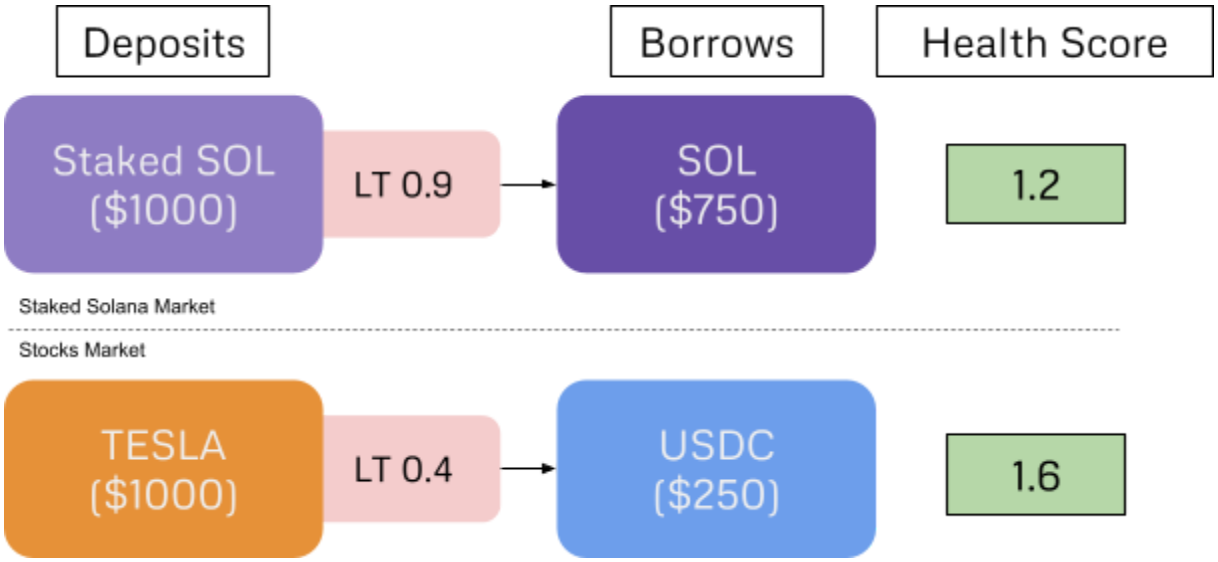
How does it work?

Most lending protocols determine borrowing capacity by summing deposited collateral values weighted by a single per-asset risk factor. This "1D" approach works well when the main use case is borrowing stablecoins against volatile collateral, but it fails to model pairwise risk in strategies such as short positions or correlated long/short portfolios.

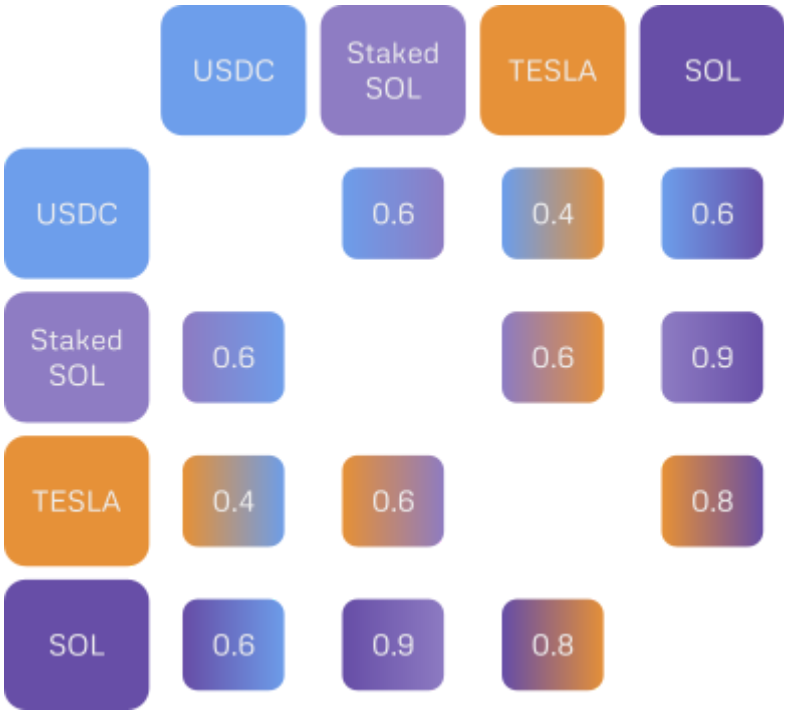
On Solana, Kamino's main market illustrates this limitation: because risk is mapped via one liquidation threshold per asset, it cannot accurately reflect diversification or negative correlation effects.



As a consequence, protocols often resort to isolated markets. Otherwise, a user could create unintended risk exposures—for example by borrowing a volatile asset and shorting SOL—while the system still evaluates risk largely through the deposit side.



To address these shortcomings, our protocol uses a **2D risk model** based on a **pairwise volatility matrix**. Instead of only measuring standalone volatility, we measure **historical price divergence between two assets**, allowing the system to set parameters that are specific to each collateral/borrow pair.



How we think about risk and evaluate it.

Before an asset is included in parameter generation, it must satisfy strict gating criteria:

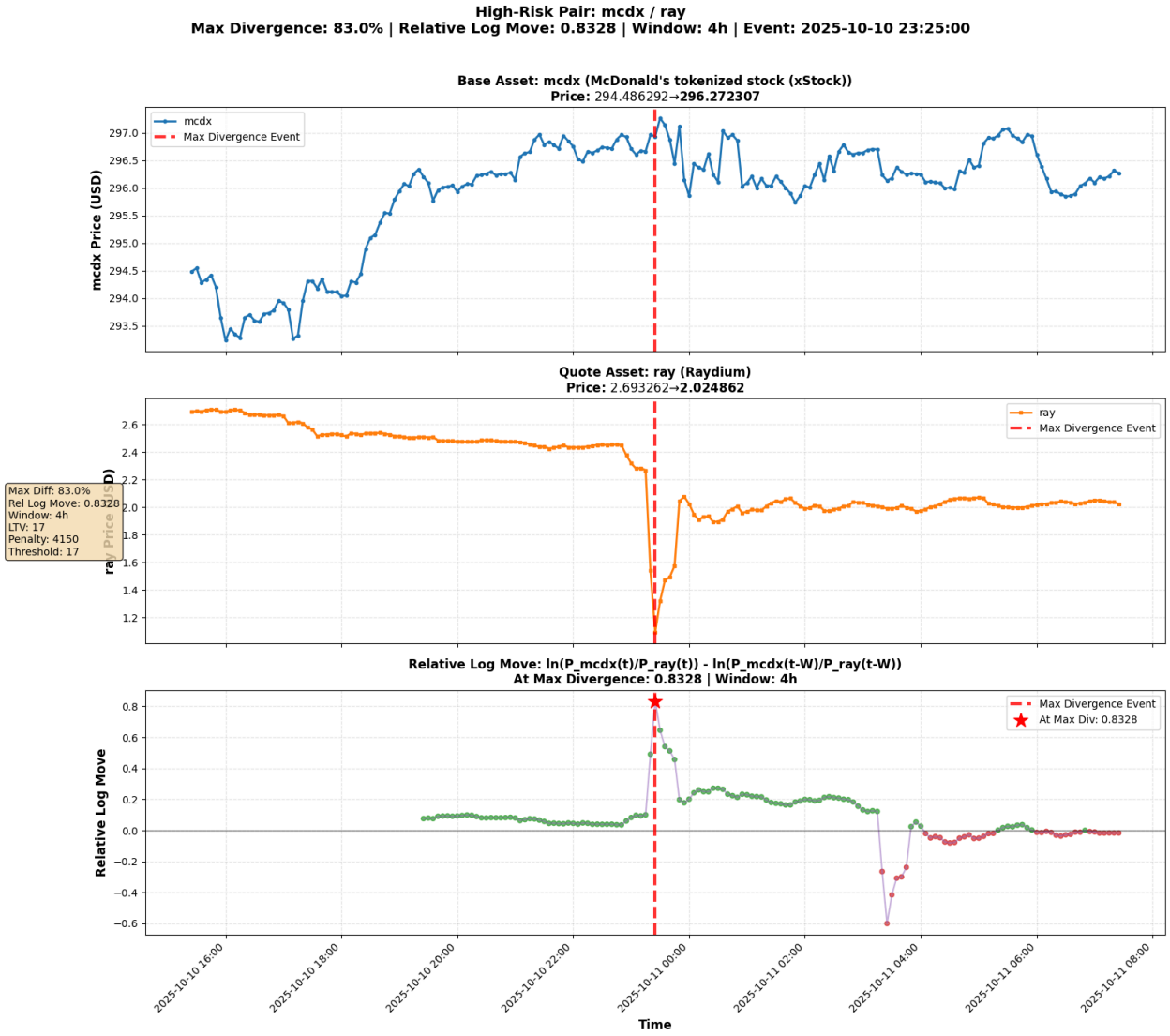
- **Minimum DEX liquidity / volume** (to ensure liquidations are feasible),
- **Protocol maturity / token age** (to reduce manipulation risk and short-lived pricing artifacts).

For each eligible asset, the model ingests an extended **minute-level historical price dataset** aggregated across all relevant trading pairs.

New RWA assets are treated as a special case: we **extend it with the underlying reference asset** ensuring the volatility estimate reflects both on-chain behavior and the underlying exposure.

Liquidity and token age determine a **confidence score**, which influences how conservative the parameter selection is and which historical window is used. For each eligible asset pair (A/B), we compute the **relative log move** over a window (W):

$$Relative\ Log\ Move A/B = ln(PB(t)PA(t)) - ln(PB(t - W)PA(t - W))$$



To capture volatility across market regimes, the model selects an observation window of **4h**, based on DEX liquidity, market capitalization, token maturity. For each collateral/borrow pair, we identify the **maximum observed price divergence**. From this maximum divergence, the protocol deterministically derives pair-specific parameters:

- **Liquidation Threshold (LT):** equal to the max. price divergence
- **Loan-to-Value (LTV):** set to **98% of LT**
- **Liquidation Penalty (LP):** set to **50% of the maximum divergence**

Because risk is assessed per pair, closely correlated assets receive better risk treatment, while poorly correlated or crash-prone pairs remain conservative. This unlocks:

- a **single shared market** with higher asset utility,
- improved capital efficiency for correlated and stable portfolios

To validate the health of a position, the protocol applies a **Maximum Flow** algorithm to verify that, under the derived thresholds, deposits can deterministically cover borrows across the market graph.