mantraUSD

mantraUSD
Whitepaper

v1.0

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Executive Summary

mantraUSD is an ecosystem stablecoin designed by MANTRA International Limited ("**MANTRA**") to become the primary medium of exchange for tokenized Real World Assets (RWAs). Unlike first-generation stablecoins that generate billions of dollars from the underlying U.S. Treasury yield for their issuers' own benefit, mantraUSD aims to distribute rewards derived from its underlying Treasury collateral to ecosystem partners who drive adoption.

Built on M0's universal stablecoin platform and backed by U.S. Treasury Bills, mantraUSD creates an incentive flywheel that enables RWA value accretion at the protocol level. It is simple: Partners who bring liquidity and drive usage earn proportional rewards according to underlying U.S. Treasury yield. This mechanism transforms stablecoin liquidity from a cost center into a consistent revenue stream for centralized exchanges, decentralized protocols, users, and builders that choose to use mantraUSD as a store of value and medium of exchange.

The result is sustainable ecosystem growth without token inflation. While other L1s dilute their token value through grants and incentives, MANTRA intends to fund its ecosystem expansion, increasingly over time, through distribution of rewards to ecosystem partners that promote mantraUSD. As the supply of mantraUSD increases on MANTRA Chain and, potentially, on other blockchains, MANTRA will create the first "positive-sum ecosystem" where growth strengthens rather than weakens the underlying network.

Please note that the operation of mantraUSD relies on the infrastructure of M0. Users should refer to the M0 docs website for details on the M0 protocol. Capitalized terms that are not defined within this whitepaper shall have the same meanings given to them by M0 protocol.

Similar to any other stablecoin or digital asset, the usage of mantraUSD carries inherent risk. You should carefully assess your risk tolerance and consult independent legal, financial, accounting, and tax advisors before engaging with mantraUSD. Users are strongly advised to review this whitepaper including the Risk Disclosure Statement section hereunder closely. You should not acquire or use mantraUSD if you disagree with any content of this whitepaper.

Purpose and Vision

The stablecoin market stands at an inflection point. What began as a simple solution for crypto volatility has evolved into a $300 billion industry that extracts billions in yield while giving nothing back to the ecosystems that power its growth. This extractive model worked for the first generation, but the upcoming expansion to a multi-trillion dollar stablecoin economy demands a fundamental reimagining of how stablecoins create and distribute value.

mantraUSD aims to be a part of the evolution from the current duopolistic value extraction economy to a multi-polar value distribution across aligned ecosystems. The next decade belongs to stablecoins that share success with their communities rather than hoard it for shareholders.

mantraUSD represents a fundamental shift in stablecoin economics wherein U.S. Treasury yields become accessible to ecosystem participants, RWA transactions gain a purpose-built settlement medium, and sustainable yield-based incentives eliminate the need for dilutive token emissions.

The Stablecoin Evolution

First Generation (2014-2024): The Duopoly Era
Tether's migration from Bitcoin's Omni layer to Ethereum in 2018 unlocked the stablecoin revolution. That single infrastructure decision, moving from 1.48 billion issued USDT to hundreds of billions of USDT in circulation, proved that technology choices define market outcomes.

Today's $300+ billion stablecoin market tells a stark story: two companies control 80% of the stablecoin market and capture all the yield. Billions in Treasury returns flow to Tether and Circle while the onchain ecosystems that made them successful receive nothing.

Next Generation (2025-2035): The Ecosystem Era
U.S. Treasury Secretary Bessent projects $3.7 trillion in stablecoin supply by 2030, a 12x expansion that will change the very fabric of the nascent stablecoin industry.[1] This growth will not follow the old monopolistic playbook. Instead, hundreds of ecosystem-specific stablecoins will emerge, each serving distinct communities with aligned incentives.

mantraUSD is built to become the bridge between TradFi and DeFi in a thriving RWA ecosystem built on MANTRA Chain.

The Builder's Dilemma

Building MANTRA on Cosmos SDK taught us a valuable, albeit painful lesson: token grants as incentives create mercenary behavior. Developers chase price pumps, build minimal products for maximum token extraction, then abandon ship in bear markets. This boom-bust cycle destroys long-term value and makes sustainable growth impossible.

We need incentives that do not dilute our L1 token while attracting committed builders rather than speculators. Our mantraUSD solution generates sustainable revenue for partners and aligns with RWA's long-term investment horizons. Traditional funding models rewarded the stablecoin issuer and mercenary behavior, rather than rewarding actual builders who create value for the ecosystem.

The Ecosystem Specific Stablecoin

Traditional stablecoin issuers extract value from the blockchains on which they are deployed. Ecosystem stablecoins flip the model: rewards flow to a blockchain's builders and community, not to external corporations. mantraUSD implements this vision by capturing the Treasury yield through M0's stablecoin infrastructure and distributing rewards to partners who grow the ecosystem.

This creates sustainable incentives without having to issue more grants of an L1 coin while building the ideal RWA medium of exchange with integrated growth mechanics. Every dollar of mantraUSD in circulation generates rewards that fund ecosystem expansion, creating a perpetual growth engine powered by U.S. Treasuries.

[1] Scott Bessent (@SecScottBessent), "Recent reporting projects that stablecoins could grow into a $3.7 trillion market by the end of the decade," X, June 17, 2025, 1:30pm, https://x.com/SecScottBessent/status/1935027160374210573?s=20.

The mantraUSD Vision

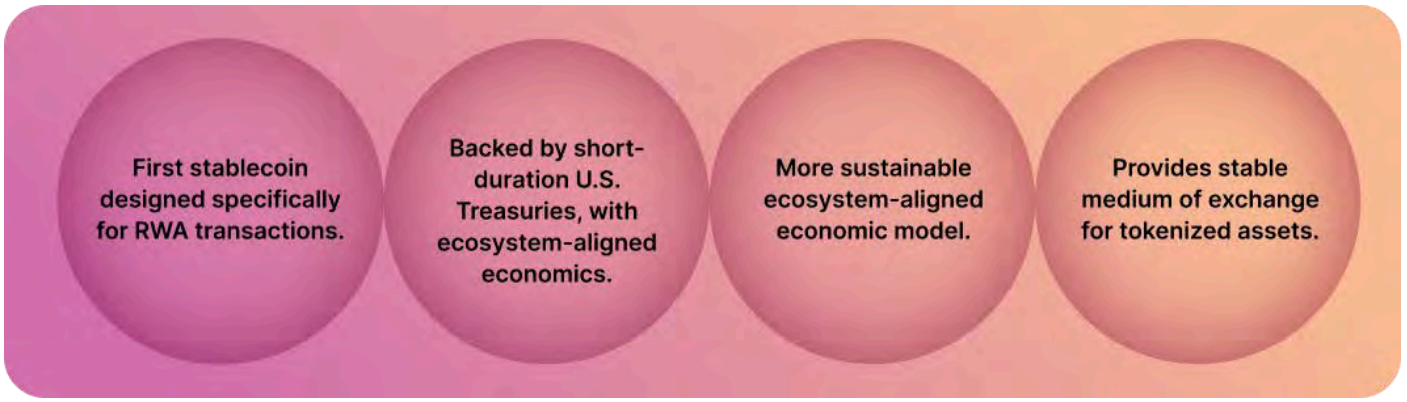

Figure 1: RWA Utility Money

Vision Statement

Establish mantraUSD as the default stablecoin for RWA transactions while providing onchain users easy access to the offchain risk-free rate (RFR) of return. Typically, finance professionals define the RFR according to a blended rate of short-term U.S. Treasury bills. mantraUSD is fully backed by these same extremely liquid, safe, and yield-bearing assets. mantraUSD serves as the bridge between traditional real world financial instruments and decentralized finance (DeFi), pioneering the first large-scale yield-powered builder economy to catalyze the emerging global tokenized asset ecosystem.

Collateral Model

mantraUSD's stability derives directly from the strength of its collateral base. All supply is backed by short-duration U.S. Treasury Bills, held through regulated SPVs under the M0 framework. This approach ensures transparency, daily verifiability, and protection against market volatility. By anchoring the token to the most liquid and creditworthy instruments in global markets, mantraUSD provides a predictable and resilient foundation for both DeFi integrations and real-world asset transactions.

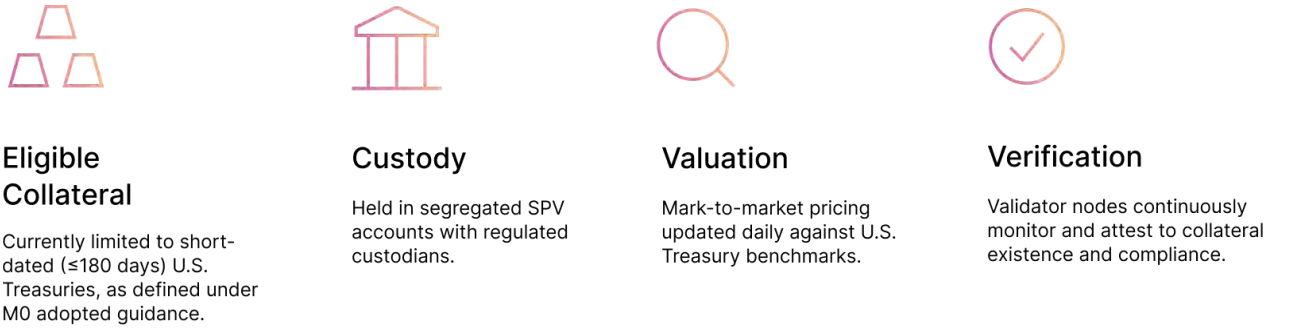

Figure 2: Fully Backed Underlying Collateral, Verifiable Onchain

User deposits are transformed into short-dated U.S. Treasuries via SPVs, with validators ensuring continuous backing for all circulating mantraUSD. The M0 Core Protocol ensures that all tokens minted through the protocol, including mantraUSD supply, are always fully backed and redeemable at par:

Figure 3: Fully Backed and Redeemable at Par

Glossary of Terms

Term	Definition
Collateral Balance	Current total value of eligible collateral (U.S. Treasuries) held by SPVs.
Pending Retrievals	Collateral earmarked for unsettled redemption requests.
Mint Ratio	Safety factor (>1) ensures over-collateralization.
Owned M	Supply of already minted M/mantraUSD.
Proposed M	Amount of new M/mantraUSD requested to be minted.

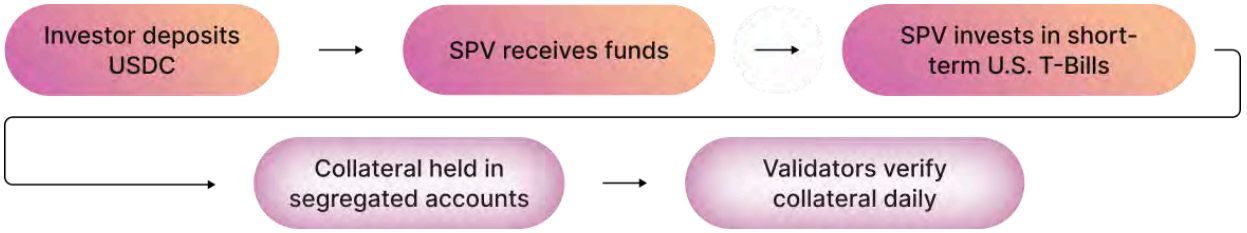

Figure 4: From Collateral Deposit to Issuance of $mantraUSD

System Architecture

mantraUSD inherits M0's security and operational framework while introducing a targeted reward redistribution layer that transforms Treasury returns into ecosystem incentives. The explanations of the system architecture are based on M0's Guidance.

Core Components

Figure 5: M0 Infrastructure Actors

Issuance Architecture

mantraUSD is an ecosystem stablecoin backed by M0 eligible reserve standards. Issuance occurs through a cross-chain process. Users can enter the system primarily in one of two ways:

1. Users provide USD fiat directly to Minters for conversion into Wrapped M; or
2. Users provide stablecoins to MANTRA for conversion into mantraUSD and then MANTRA converts those stablecoins into Wrapped M.

Then

1. Wrapped M ($wM) is then bridged to MANTRA Chain via a dedicated Hyperlane Warp Route.[2]
2. Using M0's smart contracts on MANTRA Chain, an equivalent amount of mantraUSD is minted on MANTRA Chain using the Wrapped M as collateral. The Wrapped M remains inside the mantraUSD smart contract.
3. The wrapped M token represents a 1:1 claim on the value of collateral reserves denominated in short-term U.S. Treasury bills placed with offchain custody and onchain Treasury equivalents. Those Reserves are tracked in real-time on the M0 Dashboard.[3]
4. Periodically, MANTRA claims rewards from the M0 smart contracts by calling the claimYield function, which routes rewards, denominated in mantraUSD, into a secure multisig wallet.

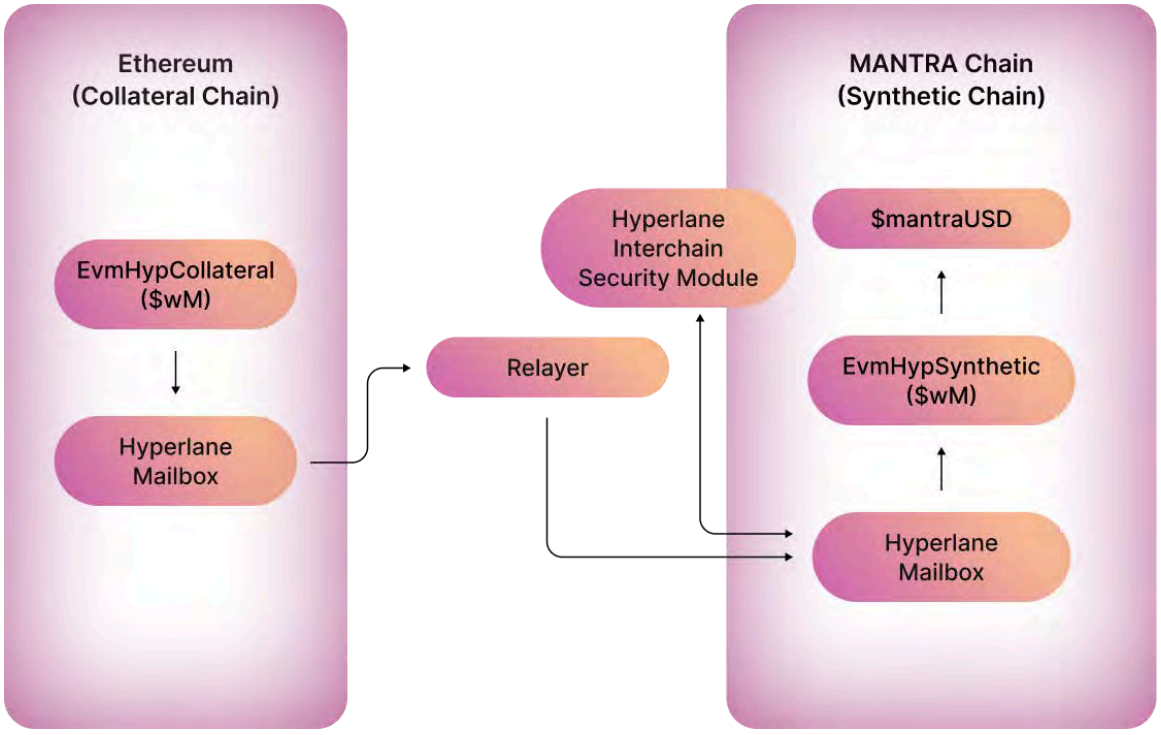

Figure 6: Crosschain Issuance of $mantraUSD

[2] The Hyperlane cross-chain bridge architecture is described at https://docs.hyperlane.xyz/docs/applications/warp-routes/overview.

[3] The M0 Dashboard is hosted by the M0 Foundation at https://dashboard.m0.org/ and tracks the collateral backing of M0-powered instruments.

Yield Capture and Distribution

mantraUSD's underlying yield allows MANTRA to replace arbitrary grant programs with transparent, economically-grounded distribution mechanisms. The system encompasses four critical components: (i) the capture mechanism that aggregates the underlying Treasury yields into a MANTRA-controlled multisig address, (ii) a fair reward distribution framework based on the quantity theory of money, (iii) the partner qualification criteria that maintain ecosystem quality while encouraging growth, and (iv) the mantraUSD acquisition pathways that ensure broad accessibility. Together, these elements create a self-reinforcing system where Treasury yields fund sustainable ecosystem expansion without diluting the L1 token.

Capture Mechanism

- Short-term Treasury Bills generate consistent yield at predictable rates.
- Treasury yield is directed to a single MANTRA-controlled multisig aggregation address.
- No dilution or fees are assessed at the protocol level.

Reward Distribution Framework

Based on the Quantity Theory of Money (QTM), where the product of the

- Monetary supply growth (M_{Supply}) of mantraUSD and the
- Velocity of mantraUSD transactions (V_T) within the ecosystem

are roughly equal to the product of the

- Price level of mantraUSD transactions (P_T) within the ecosystem and the
- Transaction volume (T) of mantraUSD,

rewards will be distributed to ecosystem participants who contribute to both mantraUSD supply expansion and transaction velocity. As rewards are claimed periodically via the claimYield function, they will be distributed to builders, users, and other ecosystem participants, with a relatively small proportion reserved for periodic buybacks of the L1 coin of MANTRA Chain.

The distributions will be based on, but not confined to, the following formula:

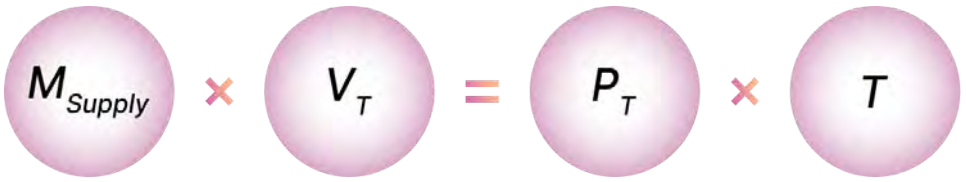

Figure 7: QTM Formula Visualization

Partner Qualification Criteria

MANTRA evaluates prospective ecosystem partners to determine their value to the ecosystem before collaboration begins. While we will generally defer to the quantitative theory truism, as it most accurately captures an assessment

of the *demand* for money in an ecosystem,[4] we may also utilize additional criteria to assess the relative impact of a prospective partner's contribution to the ecosystem. These criteria may include:

- ecosystem alignment,
- integration depth,
- long-term commitment, and
- social signal.

Tying a portion of mantraUSD rewards to the buyback of our L1 coin, in effect, makes the L1 coin backed, at least in part, by the future expected value of the upcoming proportional mantraUSD rewards derived from MANTRA RWA ecosystem activity. A net positive of this association is that, at its next phase as a gas token at the protocol level, mantraUSD also becomes a highly desirable token of "stable value" that can serve as a "more transparent and explicit fee paid by users" to transact economic value across the ecosystem.[5]

This architecture ensures that reward generation directly funds ecosystem growth, creating sustainable incentives without the need to offer L1 token grants and other incentives. MANTRA retains final discretion over partner selection and reward distribution.

User Acquisition Pathway

For builders and users that wish to participate in the mantraUSD onchain economy, there exist two fundamental pathways for spot position accumulation. MANTRA maintains low slippage liquidity pools across MANTRA Chain exchanges that should facilitate most demand. For institutions looking to acquire significant inventory, MANTRA's operations team maintains the capability to execute personalized, premium service protocols for such requests.

Figure 8: Users Obtaining $mantraUSD

Operational Structure

mantraUSD's success will depend not only on its innovative reward distribution model but on the robustness of its operational infrastructure. By combining MANTRA's strategic oversight with M0's operational framework, mantraUSD achieves institutional-grade reliability while maintaining the flexibility needed for ecosystem growth.

This section details how mantraUSD operates in practice, from the legal entities and mandatory contracts that ensure regulatory compliance, to the technical processes that guarantee every token remains fully backed by US Treasuries. The operational framework encompasses seven critical components: entity structure, mandatory documentation requirements, minting/redemption flows, governance mechanisms, multi-chain deployment, stability safeguards, and security protocols, each of which is further explained below.

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[4] Friedman, Milton. "The Quantity Theory of Money: A Restatement." *Studies in the Quantity Theory of Money* (1956): 3-21.
[5] Buterin, Vitalik. "On Medium-of-Exchange Token Valuations." Vitalik Buterin's website. October 17, 2017. https://vitalik.eth.limo/general/2017/10/17/moe.html

Each element has been designed with redundancy and transparency at its core. M0's permissioned actor network, comprising specialized Minters, SPV Operators, and Validators, provides multiple layers of verification and protection. MANTRA's role as the reward aggregation and distribution layer adds value without compromising the underlying stability infrastructure.

1. Entity Structure:

- MANTRA is a BVI-registered entity for regulatory efficiency.
- Leverages M0's permissioned actor network:
  - Minters: Handle collateral and mint operations
  - SPV Operators: Manage Treasury Bill portfolios
  - Validators: Verify collateral daily and authorize operations
- MANTRA controls reward aggregation and distribution.

2. Mandatory Documentation (per M0 framework):

- Minter Operating Memorandum
- Minter-SPV Operator Agreement
- Terms and Conditions of Notes
- SPV Operating Memorandum

3. Minting and Redemption by MANTRA

Minting and redemption are the core processes that ensure mantraUSD remains fully backed and liquid. Users create new supply of mantraUSD by depositing USDC, for example, which flows through authorized Minters and SPVs into short-dated U.S. Treasuries under M0's framework. Redemption works in reverse: holders burn mantraUSD to trigger collateral liquidation and receive USDC on a standard T+2 settlement cycle. These flows are continuously verified by Validators, guaranteeing mantraUSD is always backed with sufficient collateral at a ratio of 100% or higher.

Currently Permissioned Minters (subject to changes by M0):

1. **Minter One Generator (SPV) Ltd.**
   171 Main Street, PO Box 92, Road Town, British Virgin Islands VG1110
   minter.one.generator@mxon.co
   www.mxon.co

2. **Bridge Building, Inc.**
   2120 University Ave Suite 213 Berkeley, CA 94704
   www.bridge.xyz

4. M0 TTG Governance

mantraUSD governance is created by the immutability and security of the M0 Core Protocol. At its foundation, M0's Two Token Governance (TTG) model ensures that collateral, minting, and redemption rules cannot be arbitrarily changed. Key elements of TTG include:

- **POWER Token:** Inflationary governance token with delegation incentives.
- **ZERO Token:** Governance token with special oversight and reset powers.
- **Governors:** Standard, Emergency, and Zero Governors with defined proposal rights.
- **Registrar and Vault:** Registry of system parameters and treasury vault for distribution.

5. Multi-Chain Deployment

mantraUSD is designed to operate natively on MANTRA Chain while extending liquidity and adoption across leading EVM ecosystems. The deployment strategy prioritizes security and transparency, beginning with MANTRA as the source of truth, followed by Ethereum for native issuance as a liquidity hub, and later to bridge additional chains. Cross-chain availability will be achieved either through native issuance on that chain via M0 smart contracts or through standardized bridge contracts and wrapped token synthetic representations, ensuring that supply remains backed and auditable regardless of where mantraUSD circulates. Native issuance would be limited to the:

- MANTRA Chain: The primary chain where mantraUSD is natively minted.
- **Ethereum:** Following mantraUSD on MANTRA Chain, Ethereum will be the next liquidity outpost.

.

Expansion of the mantraUSD network: MANTRA may in the future expand the mantraUSD network by deploying wrapped mantraUSD onto Base, BNB, and other EVM-compatible chains to broaden distribution.

Bridge architecture: Standardized cross-chain wrappers using recognized bridge protocols (to be finalized based on ecosystem partnerships).

6. Stability Safeguards

Stability is the foundation of mantraUSD's design. The protocol combines strict collateralization rules, Validator attestation, immutable core contracts, and emergency wind-down procedures to ensure that every unit of mantraUSD remains fully U.S Treasury backed and redeemable. These mechanisms, inherited from M0 and extended by MANTRA, provide institutional-grade assurances that stability is maintained even under stress scenarios.

Collateralization Enforcement:

- mantraUSD inherits M0's underlying collateral management protocols.
- Ensures over-collateralization at all times.
- Collateral updates required within defined intervals; missed updates trigger penalty rates.

Validator Attestation:

- Permissioned Validators continuously verify:
  - Existence and eligibility of collateral.
  - Accuracy of daily mark-to-market valuations.
  - Settlement of pending retrievals.
- Validators' signatures are mandatory for collateral updates and mint events.

Current Permissioned Validators (subject to changes by M0):

1. Validator One GmbH
   Friedrichstr. 114A, 10117 Berlin, Germany
   contact@validator-one.com
   www.validator-one.com
   Public Key: 0xEF1D05E206Af8103619DF7Cb576068e11Fd07270

2. Chronicle Labs
   190 Elgin Ave, George Town Cayman KY1-9005, Cayman Islands
   hello@chroniclelabs.org
   www.chroniclelabs.org
   Public Key: 0xEe4d4938296E3BD4cD166b9b35EE1B8FeD2F93C1

Currently Approved SPV Operators (subject to changes by M0):

CrossLend GmbH
Leipziger Str. 124, 10117 Berlin, Germany
operations@crosslend.com
www.crosslend.com

Redemption Guarantees:

- 1:1 redemption parity is contractually and programmatically enforced.
- Standard T+2 settlement aligned with U.S. Treasury operations.
- No redemption queues or lockups.

Immutable Core Contracts:

- The M0 Core Protocol is immutable and cannot be altered post-deployment.
- Provides long-term predictability for institutional partners.

Emergency Wind-Down Mode:

- In the event of severe disruption, the M0 Core Protocol allows for:
  - Halt of new minting.
  - Liquidation of SPV-held Treasuries.
  - Pro-rata redemption for holders.
- Controlled via M0's governance modules.

Risk Isolation:

- mantraUSD is insulated from cryptocurrency market volatility because collateralization occurs in offchain SPV structures regulated by M0.
- MANTRA extensions (YieldToOne) operate only at the reward distribution layer and do not affect collateral solvency.

7. Security Model

mantraUSD security is anchored in M0's audited, immutable infrastructure and enhanced by MANTRA-specific safeguards. The protocol integrates layered defenses: rigorous third-party audits, validator oversight of collateral, formal verification of custom extensions, and controlled upgrade paths.

By combining M0's stablecoin infrastructure with additional MANTRA risk controls, mantraUSD ensures resilience against smart contract exploits, governance abuse, and operational failures.

Inherited Protections:

- Third-party security audits on M0 core contracts.
- Validator-based oversight ensures integrity of collateral operations.
- Immutable architecture prevents discretionary intervention.

Upgrade Mechanism:

Wrapped M employs an upgradeable contract to ensure upgrades are auditable, atomic, and limited in scope. MANTRA adopts the same approach for mantraUSD smart contracts, reducing upgrade risk.

Conclusion

The stablecoin industry stands on the precipice of positive transformation. As a result, there is a chance to introduce a fundamental shift in digital asset economics. mantraUSD intends to conclusively demonstrate how protocol incentives can align with ecosystem development through systematic reward distribution.

By redirecting Treasury yields from issuer balance sheets to ecosystem participants, mantraUSD addresses the principal-agent problem inherent in first-generation stablecoin designs. The integration of M0's stablecoin infrastructure with MANTRA's distribution mechanism creates a sustainable funding model for ecosystem development without requiring inflationary token emissions.

What distinguishes this model is its dual innovation: using established monetary theory to solve Web3 incentive challenges while creating a partial backing mechanism for the L1 token through systematic buybacks. The result is an ecosystem where growth strengthens all participants. Builders receive reward distributions. L1 coin holders benefit from continuous value accrual, creating a self-reinforcing cycle where Treasury yield from mantraUSD circulation funds L1 token buybacks, driving token appreciation that attracts new users who mint more mantraUSD, generating additional rewards that further accelerates this flywheel.

This foundation, grounded in the Quantity Theory of Money, provides a quantifiable framework for reward distribution based on participant contributions to monetary velocity and supply expansion. This approach offers a replicable model for future ecosystem-specific stablecoins as the market rapidly expands in the near term..

While implementation risks remain, particularly regarding regulatory evolution and cross-chain technical complexity, the core innovation of transforming yield from a private benefit to a public good within defined ecosystems merits careful consideration. As tokenized assets increasingly require specialized settlement media, stablecoins that align issuer and ecosystem incentives may prove essential infrastructure for sustainable blockchain development.

The implications extend beyond technical architecture to questions of economic coordination in decentralized systems. mantraUSD suggests that sustainable ecosystem growth need not depend on speculative token appreciation or dilutive grant programs, but can instead be funded through the productive deployment of collateral assets. This represents a maturation of blockchain economic models from zero-sum competition to positive-sum collaboration.

Risk Disclosure Statement for mantraUSD

Important Notice:

This Risk Disclosure Statement ("**Statement**") provides a non-exhaustive summary of certain material risks associated with the acquisition, holding, transfer, or use of mantraUSD. mantraUSD is a blockchain-based digital asset intended to reference the value of one U.S. Dollar; it is NOT a deposit, security, money-market instrument, or other regulated financial product unless explicitly determined by applicable law. mantraUSD is NOT guaranteed, insured, or backed by MANTRA, any affiliate thereof, the M0 Protocol, any government, or any central bank.
You should carefully assess your risk tolerance and consult independent legal, financial, accounting, and tax advisors before engaging with mantraUSD. By acquiring or using mantraUSD, you acknowledge and accept all risks described herein and all additional risks not expressly addressed in this Statement.

None of MANTRA International Limited, nor any of its affiliates, officers, employees, or agents, shall bear any liability for any claim, action, loss, damage, cost, or expense incurred by any person in connection with or arising out of the use of mantraUSD. You should not acquire or use mantraUSD if you disagree with or are unable to accept any of the contents of this Statement.

1. Structural, Protocol, and Governance Risks

1.1 Complete Dependency on the M0 Protocol

mantraUSD is issued and operates via the M0 Protocol, an independent open-source protocol that controls its core logic, collateralization processes, validator arrangements, and overall monetary framework. MANTRA does not control or operate the M0 Protocol. Any malfunction, exploit, governance action, or cessation of the M0 Protocol may impair or wholly eliminate the functionality, liquidity, or value of mantraUSD.

1.2 Immutability of Core Components

The M0 Core Protocol is deployed as an immutable set of smart contracts. Critical vulnerabilities discovered post-deployment may be unpatchable without significant system disruption or migration. A failure to remedy material defects could result in:

1) loss or impairment of underlying collateral;
2) inability to process redemptions; or
3) permanent loss of mantraUSD value.

1.3 Subordinated Governance Rights

Governance of the M0 Protocol is conducted through its Two-Token Governance (TTG) mechanism (POWER and ZERO). MANTRA, mantraUSD holders, and the MANTRA community generally do not exercise decision-making authority over:

1) collateral eligibility;
2) monetary parameters;
3) validator configurations;
4) risk controls; or
5) emergency procedures.

Governance actions may materially and adversely affect mantraUSD without consultation or recourse.

1.4 Operational and Validator Risks

The M0 Protocol depends on validator networks and offchain entities coordinating minting, redemption, and collateral operations. Failures or misbehavior by validators, oracle providers, or infrastructure operators could disrupt the mantraUSD system.

2. **Peg Stability, Liquidity, and Redemption Risks:**

2.1 No Assurance of Dollar Parity

mantraUSD is designed to reference (be pegged to) the value of 1.00 U.S. Dollar but may trade at a premium or discount due to factors including without limitation:

1) market volatility;
2) liquidity constraints;
3) systemic incidents;
4) market sentiment; and
5) disruptions in redemption mechanisms.

There is no guarantee that mantraUSD will trade at or near 1.00 U.S. Dollar at any time.

2.2 Redemption Limitations and Settlement Delays

Redemptions for underlying collateral or fiat currency follow conventional T+2 settlement timelines, consistent with U.S. Treasury market operations. Settlement may be delayed or suspended due to:

1) market stress;
2) liquidity shortfalls;
3) operational issues;
4) regulatory action; or
5) cyber incidents.

Users may be unable to exit positions promptly during periods of unstable market conditions.

2.3 Restricted Access to Direct Redemptions

Direct redemptions are generally available only to authorized Minters and institutional participants that satisfy onboarding, KYC/AML, and compliance requirements. Most holders must rely on secondary markets, where liquidity and pricing are not guaranteed.

2.4 Secondary Market Risk

Liquidity on centralized or decentralized exchanges may be fragmented, insufficient, or volatile. Trading venues may impose withdrawal limits, suspend markets, or experience outages, materially impairing users' ability to trade mantraUSD.

3. **Collateral, Custodial, and Counterparty Risks**

3.1 Collateral Structure and Offchain Risk

mantraUSD is backed by U.S. Treasury Bills held within Special Purpose Vehicles ("**SPVs**") managed by independent SPV Operators and regulated custodians. Although structured to be bankruptcy-remote, SPVs are subject to:

1) operational failures;
2) administrative errors;
3) fraud or misappropriation;
4) insolvency of custodians or service providers; and
5) legal disputes regarding asset ownership.

SPV failures may impair redemption value or availability.

3.2 Market and Liquidation Risk

In large redemption scenarios, SPVs may need to liquidate Treasury Bills. Extreme market events could:

1) reduce liquidity in Treasury markets;
2) cause sales below par;
3) extend settlement timelines; and
4) hinder the ability to meet redemption obligations.

3.3 Interest Rate and Reward Volatility

Collateral consists of short-duration Treasury Bills. Changes in interest rates or market demand:

1) may affect collateral valuations;
2) may reduce or eliminate rewards available to ecosystem participants; or
3) may impact system sustainability.

3.4 Counterparty Dependencies

The ecosystem depends on multiple third-party service providers (SPV Operators, custodians, auditors, administrators, compliance vendors, and technical infrastructure providers). Failures or misconduct by any such party may affect the usage and redeemability of mantraUSD.

4. Cross-Chain, Smart Contract, and Technical Risks

4.1 Bridge and Inter-Chain Architecture Risks

mantraUSD relies on a cross-chain architecture in which M-denominated assets are locked on Ethereum and mantraUSD is minted on MANTRA Chain via bridge technologies (including, among others, Wormhole). Bridges are common targets for cyberattacks. A successful attack may lead to:

1) unauthorized minting of unbacked mantraUSD;
2) loss or inaccessibility of underlying collateral;
3) inability to transfer or redeem tokens; or
4) systemic failure of the mantraUSD ecosystem.

4.2 Smart Contract Vulnerabilities

All components—M0 Core Protocol, YieldToOne contracts, MANTRA Chain minting contracts—may contain coding errors, logic flaws, or vulnerabilities. Successful exploits may result in:

1) permanent loss of user funds;
2) freezing of contract functions;
3) unauthorized minting or burning; or
4) destabilization of the 1:1 U.S. Dollar peg.

Audits, testing, and formal verification reduce but cannot eliminate these risks.

4.3 Upgrade and Migration Risks

System upgrades are implemented through migration patterns involving new contract deployments. These processes introduce risks of:

1) implementation errors;
2) corrupted state transitions;
3) malicious governance actions; and
4) incomplete or failed migrations.

A failed upgrade may impair token functionality or result in loss of funds.

4.4 Cybersecurity and Infrastructure Risks

The mantraUSD ecosystem depends on nodes, APIs, custodians, oracles, front-end interfaces, and networking infrastructure. Cyberattacks, outages, or data corruption may restrict access to mantraUSD or disrupt redemptions.

5. Legal, Regulatory, and Compliance Risks

5.1 Evolving Global Regulatory Landscape

Regulation of digital assets, stablecoins, and tokenized securities is rapidly evolving. Regulatory changes may:

1) classify mantraUSD or related activities as regulated products;
2) impose licensing, registration, disclosure, or audit requirements;
3) restrict issuance, transfer, or redemption;
4) require the freezing or seizure of assets held in SPVs; and
5) impose operational or reporting obligations on MANTRA or service providers.

Compliance burdens or legal restrictions may materially impede system operations or user access.

5.2 KYC/AML and Blacklisting Risks

The M0 Protocol and associated infrastructure enforce compliance requirements for Minters. Future changes to AML/CFT rules may compel the restriction, freezing, or blacklisting of addresses. Such enforcement actions may impair the fungibility, transferability, or usability of mantraUSD.

5.3 Legal Uncertainty Regarding Digital Assets

The legal characterization of digital assets varies by jurisdiction and may impact:

1) enforceability of redemption rights;
2) tax treatment;

3) applicability of consumer protection laws;
4) insolvency treatment of SPV assets; and
5) rights in the event of issuer bankruptcy.

Users of mantraUSD bear responsibility for understanding applicable legal requirements, and MANTRA is not responsible for changes in mantraUSD's functionality or availability resulting from regulatory developments.

6. Economic, Reward, and Incentive Risks

6.1 No Reward or Income Rights for mantraUSD Holders

Holding mantraUSD does not entitle users to receive interest, dividends, or any form of income. U.S. Treasury yield generated from underlying collateral is directed via the YieldToOne mechanism to a MANTRA-controlled address and allocated discretionarily to ecosystem participants meeting defined qualification criteria.

6.2 Incentive Model Sustainability

Ecosystem incentives depend on the availability of rewards and market conditions. Lower Treasury yields or reduced economic activity may:

1) diminish rewards;
2) impair ecosystem growth; and
3) affect market demand for mantraUSD.

6.3 Monetary Supply and Velocity Risks

Changes in circulation, redemption volume, or cross-chain flows may influence mantraUSD stability, liquidity, and perceived reliability, potentially affecting the U.S. Dollar peg.

7. General Digital Asset, Market, and Operational Risks

7.1 Market Volatility Risk

Digital asset markets are highly volatile. mantraUSD may experience significant price fluctuations relative to its target reference value, and liquidity conditions may deteriorate unexpectedly.

7.2 Exchange and Platform Risks

Platforms supporting mantraUSD trading may experience:

1) downtime or outages;
2) custodial failures;
3) insolvency;
4) withdrawal restrictions; or
5) delistings.

Users may lose access to tokens held on third-party platforms.

7.3 Loss or Theft of Private Keys

Access to mantraUSD depends on user control of private keys. Loss, theft, compromise, or mismanagement of private keys or wallet credentials may result in permanent loss of assets.

7.4 Force Majeure and Unforeseeable Events

Events such as natural disasters, geopolitical crises, pandemic-related disruptions, or systemic financial shocks may impair the functioning of the M0 Protocol, MANTRA Chain, SPVs, custodians, or redemption mechanisms.

Risk Summary

While we have done our best to highlight the various risks applicable to usage of mantraUSD, various types of risks cannot be anticipated or known, and this Statement cannot enumerate all risks associated with mantraUSD. You are solely responsible for evaluating whether mantraUSD is appropriate for your financial condition, risk tolerance, and investment objectives. By acquiring, holding, or using mantraUSD, you acknowledge that you understand and accept these risks and any additional risks inherent in digital assets and blockchain-based systems. You should not acquire or use mantraUSD if you disagree with or are unable to accept the contents of this Statement.