AYOV CAPITAL MANAGEMENT

AYOV Digital Assets

XAUa · GMAy · SMAy

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Transaction infrastructure: Bovillus Finance

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Foreword

AYOV Digital Assets is designed to connect documented real assets with controlled digital issuance. The programme separates three questions that are often blurred: what an asset is worth under an approved method; how much token supply is permitted against that value; and what price a buyer and seller agree on at a trading venue.

This paper describes the operating system around the tokens, not merely the token code. It covers asset intake, evidence, custody, valuation, approvals, smart-contract controls, treasury distribution, client onboarding, trading, reconciliation, incidents and expansion.

1. Executive summary

The programme records USD 25 million across two distinct reserve sleeves: USD 20 million of documented XAUa gold allocation and USD 5 million of GMAy gemstone-basket allocation. The XAUa allocation comprises the original USD 5 million allocation and an additional USD 15 million allocation dated 4 August 2026. Documented allocation, activated reserve ceiling, minted supply and marketplace price are separate measures. The first XAUa issuance converted USD 5 million at the confirmed USD 4,088.79 XAU/USD observation into 1,222.855661454855837546 XAUa. XAUa v2 is a transactional ERC-20 and is transferable without a mandatory contract time lock.

SMAy, AYOV Strategic Materials, extends the same controlled architecture to approved mercury, nickel, copper and other industrial metals or minerals. SMAy is not included in the current USD 25 million XAUa/GMAy programme allocation. Its reserve ceiling and supply remain zero until a separately approved materials basket is activated.

Product	Economic unit	Pricing method
XAUa	One fine troy ounce	Approved XAU/USD observation
GMAy	USD 1.00 of gemstone-basket NAV	Lot-level appraisal and approved basket NAV
SMAy	USD 1.00 of strategic-materials NAV	Quantity, grade, benchmark and approved basket NAV

The smart contracts implement evidence-linked reserve ceilings, role-separated minting and burning, pause and address restriction controls.

Verified Ethereum mainnet deployment

Contract	Address	Status
XAUa v2 - AYOV Gold - authoritative	0xe275801e41dB31107915E77f73cea0929f66b3b9	Source verified on Etherscan
GMAy - Gemstone Basket	0xa551E3E8c24AA203D63d738edDD1C12170d969C9	Source verified on Etherscan
SMAy - Strategic Materials	0xeC535FC20958f4c71cF25E91106aac10da30a005	Source verified on Etherscan
Legacy XAUa	0xB8DE84AdccED0Ff5acA8C59087a594f8e3110e26	Permanently paused and retired; no active authorities
Legacy Treasury Distribution Vault	0xE3c5c2Ae1B827f24C67cA9F24D099e3a610B4bD3	Permanently retired; no administrator or distributor

Deployment does not itself activate reserve ceilings, mint supply or create liquidity. Those actions require separately recorded activation, role and distribution instructions.

2. Programme principles

- Evidence before activation: an asset enters the registry before it can support a reserve ceiling.
- Approval before supply: the registry cannot mint automatically; a signed instruction and wallet policy intervene.
- Unit integrity: XAUa is ounce-denominated; GMAy and SMAy are USD-reference basket units.
- Separation of values: reference price, reference NAV, reserve coverage and venue price are reported separately.
- Traceable change: asset, valuation, status, allocation, mint, burn and distribution actions create audit events.
- Least privilege: administrator, reserve manager, minter, burner, pauser, compliance and distributor responsibilities are separated.
- Reversibility where possible: suspension, transfer pause and treasury holds precede irreversible on-chain actions.

3. Institutional architecture

The programme has five operating layers.

1. Asset layer: physical gold, individually identified gemstone lots and approved strategic-materials inventory.
2. Evidence layer: ownership, control, custody, insurance, valuation, assay, appraisal and legal records.
3. Registry layer: authoritative asset records, valuation history, eligibility status, allocation and lifecycle audit trail.
4. Blockchain layer: ERC-20 supply, reserve ceiling, roles, restrictions, mint, burn and transferable distribution.
5. Market layer: eligible holders, OTC distribution, market makers, DEX or CEX venues, price and liquidity reporting.

No single database row, document, employee or wallet is intended to activate and distribute supply alone.

4. Inaugural programme economics

Parameter	XAUa	GMAy
Asset allocation	USD 5,000,000	USD 5,000,000
Standard	ERC-20	ERC-20
Unit	One fine troy ounce	USD 1.00 initial basket NAV
Mint calculation	Allocation / approved XAU price	5,000,000 GMAy
Destination	AYOV Token Operations wallet	Designated controlled wallet
Circulation	Recorded wallet-to-wallet distribution	Recorded distribution instruction

The programme size is not the token count. At USD 2,500 per ounce, the XAUa allocation would produce 2,000 XAUa; at USD 4,000 it would produce 1,250 XAUa. The confirmed activation observation determines the actual quantity.

There is no team, marketing or adviser allocation embedded in the inaugural reserve programme. Operating, liquidity or distribution inventory must be released from the disclosed treasury balance under an approved schedule and remains part of circulating-supply reporting.

4.1 Immutable maximum supply

Metric	XAUa	GMAy	SMAy
Immutable protocol maximum	100,000	100,000,000	100,000,000
Documented allocation	USD 20M allocation; ceiling reported separately	USD 5M allocation	Zero until activation
Initial circulating supply	Minted supply becomes transferable	Reported from issuance and distribution records	Zero
Team allocation	Zero	Zero	Zero

Metric	XAUa	GMAy	SMAy
Marketing allocation	Zero	Zero	Zero

The immutable maximum is an outer protocol boundary, not permission to mint. Actual supply remains constrained by the lower evidence-linked reserve ceiling. New reserve value must be approved before the ceiling can rise.

4.2 Market capitalization and fully diluted value

Market capitalization equals confirmed circulating supply multiplied by a qualifying venue price. Locked treasury inventory is excluded from circulating supply. Before market trading begins, AYOV reports reserve NAV and treasury inventory rather than presenting an artificial market capitalization.

Fully diluted valuation is a scenario based on immutable maximum supply multiplied by the relevant reference or venue price. It is not programme NAV, not current supply and not an amount raised. Listing submissions will disclose current total supply, circulating supply, Token Operations inventory, maximum supply, reference value and venue price separately.

4.3 Allocation and release

One hundred per cent of issuance is reserve-linked. There is no free team, adviser or marketing mint. XAUa v2 inventory is minted to the designated Token Operations wallet and becomes transferable; each outgoing transfer requires an approved distribution record and is reported in circulating-supply reconciliation. Transferability does not authorize minting above the evidence-linked ceiling.

5. XAUa - AYOV Gold

XAUa is a fungible gold-linked token denominated in fine troy ounces.

- One XAUa equals one fine troy ounce within the activated gold reserve sleeve.
- The Ethereum Chainlink XAU/USD feed supplies the public reference observation.
- The contract rejects stale observations for issuance calculation.
- Total supply cannot exceed the evidence-linked ounce ceiling.
- A new reserve ceiling is required before any additional issue.
- Reference price does not itself prove custody or title; the reserve activation record does that work.

5.1 Gold asset eligibility

The intake record identifies owner or contributor, asset form, location, quantity, fineness, refiner or resource basis, custody/control party and legal jurisdiction. Applicable evidence may include title, assay, warehouse or vault record, insurance, technical report, independent valuation and authority to encumber or tokenize.

In-ground resources, dore, vaulted bars and receivables are not treated as interchangeable. Each form receives a method-specific haircut, liquidity classification and legal-control analysis before an approved contribution value is assigned.

5.2 Gold pricing

The public reference reports price, source address, observation time and freshness. Activation captures the exact observation used for the mint calculation. A venue trade may execute above or below this reference due to spread, liquidity, fees, transfer restrictions or market conditions.

6. GMAy - AYOV Gemstone Basket

GMAy is a fungible basket token. It fractionalizes economic exposure to an activated portfolio without pretending that a physical stone is physically divided.

Each lot retains a unique registry identity, photographs, weights, species/variety, treatment disclosure, appraisal, laboratory or expert evidence, custody record, eligibility status and approved contribution value. The approved contributions are aggregated into basket NAV.

6.1 Fractionalization

At initial issuance, one GMAy references USD 1.00 of approved gemstone-basket NAV. A USD 5 million approved basket permits a ceiling of 5,000,000 GMAy. The individual stones remain recorded by lot while holders transact in fungible basket units.

6.2 Valuation and concentration

Valuation uses the most relevant available combination of independent appraisal, laboratory description, observable comparables, expected realization costs and liquidity discount. The reserve committee records the approved value, effective date, review date and evidence hash. Concentration by lot, appraiser, custodian, geography and gemstone category is monitored.

6.3 Basket changes

Adding a lot increases the ceiling only after activation. Revaluation, suspension or removal triggers a coverage calculation. If approved NAV falls below outstanding supply at the USD 1.00 reference, minting stops and remediation may include reserve substitution, recapitalization, treasury cancellation or controlled burn.

7. SMAy - AYOV Strategic Materials

SMAy is the trade name for a controlled basket of approved industrial metals and minerals. The eligible universe may include mercury, nickel wire, copper and other inventory accepted under the materials policy.

One SMAy references USD 1.00 of activated basket NAV. The contract stores both an aggregate NAV ceiling and a cryptographic root representing the approved asset-basket evidence set. Updating the basket requires a new root and evidence reference.

7.1 Materials valuation

The method records quantity, unit, grade or purity, form, location, title/control, storage, benchmark source, conversion factors, realization costs, marketability and discount. Exchange-traded benchmark prices are used only where the physical specification and delivery basis are sufficiently comparable. Otherwise the committee approves a documented valuation model.

7.2 Launch rule

SMAy has no assumed allocation in the current USD 25 million XAUa/GMAy programme. Its reserve ceiling and mint quantity are established only after the first materials basket completes intake, valuation and activation. This preserves the integrity of the already defined XAUa and GMAy programme.

8. Asset onboarding and lifecycle

The authenticated control plane uses the following states.

1. INTAKE: record created; identifiers and baseline documents collected.
2. REVIEW: ownership, authority, custody, sanctions, quality and valuation checks in progress.
3. APPROVED: reviewers completed and approved contribution value recorded.
4. ACTIVE: asset is included in a live reserve ceiling.
5. SUSPENDED: asset excluded or discounted pending remediation; minting impact assessed.
6. RETIRED: asset removed after substitution, settlement, sale, redemption or programme closure.

8.1 Add

Create the immutable reference code, token family, asset type, description, quantity/unit, custodian and jurisdiction. Upload evidence to private object storage and record its SHA-256 digest.

8.2 Modify

Material fields are versioned rather than silently overwritten. Each update records actor, time, previous status, new status and reason. Quantity, custody and jurisdiction changes force re-review.

8.3 Price and evaluate

Valuations record method, value in USD with eight decimal places, appraiser, effective date, expiry and evidence hash. Only an approved, unexpired valuation can contribute to activated NAV.

8.4 Allocate and convert

An allocation identifies the asset, token family, approved contribution, permitted token quantity and evidence root. “Convert to AYOV” means issuing the relevant XAUa, GMAy or SMAy under the approved ceiling; it is not a database-only conversion and does not occur automatically.

8.5 Suspend, remove and retire

A failed review, expired valuation, custody event, lien, sanction match, document discrepancy or material price movement can suspend an asset. The programme calculates coverage impact, stops affected minting and initiates remediation before removal or retirement.

9. Evidence and document controls

Private documents are segregated from the public website. Each file receives a unique object key, asset reference, file name, media type, size, hash, uploader and timestamp. Access is authenticated and authorized. Public disclosure uses summaries and hashes unless publication is approved.

Minimum evidence varies by asset type but may include entity authority, identity and beneficial ownership, title, lien search, custody acknowledgement, insurance, assay or laboratory report, appraisal, technical report, photographs, location evidence and sanctions screening.

10. Pricing, NAV and public reporting

AYOV reports four separate measures.

Measure	Meaning	Update trigger
Reference price	Observable market input	Feed observation
Reference NAV	Approved reserve value / relevant supply	Valuation or basket change
Reserve coverage	Approved quantity or value compared with supply	Asset or supply event
Venue price	Executed or quoted market price	Market activity

Reference NAV is not a promise that a holder can sell, redeem or liquidate at that value. Public reporting should also distinguish total supply, Token Operations inventory, circulating supply, liquidity inventory and burned supply.

11. Smart-contract architecture

All three token contracts use a common controlled ERC-20 base.

- MINTER_ROLE: issues within the active reserve ceiling using an issuance evidence reference.
- BURNER_ROLE: performs authorized supply reduction with a burn reference.
- PAUSER_ROLE: stops transfers during an incident or control event.
- COMPLIANCE_ROLE: restricts or releases addresses with a case reference.
- RESERVE_MANAGER_ROLE: changes the evidence-linked reserve ceiling.
- DEFAULT_ADMIN_ROLE: manages roles under the production wallet policy.

The contracts provide EIP-2612 permit support and emit explicit ceiling, issuance, burn and restriction events. They do not implement transfer tax, reflection, rebasing or hidden balance changes.

12. Transactional custody and distribution

XAUa v2 does not impose a mandatory treasury time lock. Initial inventory is minted to the designated AYOV Token Operations wallet after the Reserve Manager has set the evidence-linked ceiling. The wallet may transfer tokens immediately under an approved and recorded distribution instruction. Governance, reserve approval, mint authority and transfer custody remain separated operational roles.

A distribution instruction identifies token, amount, recipient, purpose, venue or agreement, price or pricing method, approvals and settlement reference. Operations-wallet inventory, recipient balances, circulating supply, venue inventory and reserve coverage are reconciled after every transfer.

13. Mint, burn and reconciliation procedures

13.1 Mint

1. Confirm asset status ACTIVE and valuation current.
2. Approve contribution and calculate token ceiling.
3. Record evidence hash or basket root.
4. Generate signed issuance instruction.
5. Confirm destination and role approvals.
6. Set reserve ceiling and mint to the designated Token Operations wallet.
7. Confirm transaction, total supply and operations-wallet balance.
8. Publish approved public data and complete independent reconciliation.

13.2 Burn

1. Open a burn, redemption, correction or cancellation case.
2. Verify authority, token source and settlement conditions.
3. Obtain independent approval.
4. Transfer to the controlled process or use authorized controlled burn.
5. Confirm transaction and reduced supply.
6. Release reserve capacity only after reconciliation.

13.3 Reconciliation

Daily during active distribution and at least monthly otherwise, AYOV compares registry allocation, approved ceiling, on-chain total supply, Token Operations balance, circulating inventory, restricted balances, venue balances and burns. Exceptions are assigned, aged and escalated.

14. Client and counterparty onboarding

Access is restricted by jurisdiction and programme policy. Onboarding collects identity, beneficial ownership, authority, source of funds or wealth as applicable, purpose, wallet ownership/control, sanctions and politically exposed person screening, adverse information, tax or jurisdictional representations and risk rating.

Counterparties such as custodians, appraisers, market makers, exchanges and technology providers undergo entity verification, ownership review, sanctions screening, competence and authorization review, contractual diligence, cybersecurity assessment and ongoing monitoring proportionate to role.

U.S. persons and persons located in the United States are not accepted through this programme. Geolocation or self-certification alone is not treated as sufficient onboarding evidence.

15. Financial-crime and transaction controls

The operating framework includes risk-based customer due diligence, enhanced diligence for higher-risk relationships, sanctions screening, wallet screening, transaction monitoring, unusual-activity escalation, record retention, periodic review and case management.

No smart contract can replace legal or operational review. Restriction and pause functions support the response process but do not determine legal status. Applicable registration, licensing, reporting and travel-rule obligations are assessed before a service or jurisdiction is activated.

16. Governance and approvals

Decision	Preparer	Independent reviewer	Approver
Asset intake	Asset operations	Compliance	Operations lead
Valuation	Valuation specialist	Risk	Reserve committee
Reserve activation	Reserve manager	Legal/compliance	Reserve committee
Mint instruction	Token operations	Reconciliation	Authorized signers
Treasury release	Distribution	Compliance/risk	Authorized signers
Suspension	Any control owner	Risk/compliance	Incident authority

Conflicts are disclosed and managed. A person who originates an asset should not be the sole valuation approver, reserve approver and wallet signer for that asset.

17. Key management and technology operations

Production roles are intended for policy-controlled institutional wallets, including Fireblocks or an equivalent arrangement. Policies should require multiple approvers, named transaction types, address allowlisting, spending or quantity limits, separation of environments and emergency procedures.

Private keys are never stored in the public website, browser admin panel or registry. The blockchain node compiles and verifies source, prepares deployment or transaction payloads and records receipts. The wallet policy remains the signing boundary.

Changes move through source control, review, automated tests, testnet rehearsal and release approval. Verified source and constructor arguments are published on Etherscan after mainnet deployment.

17.1 Contract ring-fencing

The production security sequence is: establish Fireblocks or equivalent multi-approval wallets; grant narrowly scoped MINTER, BURNER, PAUSER, COMPLIANCE, RESERVE_MANAGER and DISTRIBUTOR roles; test each permission with controlled transactions; transfer DEFAULT_ADMIN_ROLE to the approved administration wallet; verify the new administrator can manage roles; and revoke DEFAULT_ADMIN_ROLE from the original deployment EOA. The deployment wallet is not used for routine operations after handover.

Minting remains bounded by both the immutable protocol maximum and the lower evidence-linked reserve ceiling. Address restrictions require a non-zero case reference and are applied only through the compliance role. Emergency pause, wallet allowlists, transaction limits, multi-approval and independent reconciliation provide additional layers.

18. Trading and liquidity pathway

Market access may include eligible OTC distribution, contracted market makers, DEX pools, centralized venues and institutional infrastructure partners. Each venue activation requires technical, commercial, counterparty, legal and liquidity review.

An approved market plan states token and quote asset, opening inventory, target depth, maximum spread, price bands, rebalancing authority, fee treatment, reporting cadence and termination process. Reference NAV is not manufactured through wash trading or unsupported price support.

19. Redemption and settlement

Redemption is available only where definitive product terms, asset form, jurisdiction, operational capacity and counterparty arrangements permit it. The terms specify minimum amount, fees, notice, form of settlement, delivery location, taxes, verification and timing.

Where physical delivery is unavailable, the programme must not imply that every holder can demand an individual bar, stone or materials lot. Cash, in-kind and negotiated institutional settlement are separate product features and must be disclosed precisely.

20. Risk framework

Risk	Exposure	Primary controls
Title/control	Defective ownership, lien or authority	Legal evidence, custody acknowledgement, registry status
Valuation	Appraisal error or stale inputs	Independent review, expiry, haircut, concentration limits
Custody	Loss, substitution or access failure	Named custodian, insurance, inspection, reconciliation
Oracle	Stale or incorrect market data	Feed identity, freshness test, pause and manual escalation
Smart contract	Defect or exploit	Tested standard components, role separation, verification, pause
Key compromise	Unauthorized administration or supply	Institutional wallet policy, multi-approval, allowlists
Liquidity	Wide spreads or inability to exit	Funded market plan, staged release, venue diversification
Counterparty	Failure of venue, custodian or buyer	Diligence, limits, collateral or settlement controls

Risk	Exposure	Primary controls
Compliance	Prohibited person or transaction	Onboarding, sanctions/wallet screening, monitoring, restrictions
Legal/regulatory	Classification or requirement changes	Jurisdiction gate, counsel review, controlled rollout
Cyber/operations	Data loss or unauthorized access	SIWC authentication, allowlist, backups, logs, incident response
Concentration	Dependence on one asset or service provider	Limits, diversification, committee review and disclosure

Controls reduce but do not eliminate risk. Tokens and real assets can be illiquid and may lose value.

21. Incident response and business continuity

Events are classified by impact on assets, supply, customer access, data or markets. The incident authority may pause transfers, restrict addresses, halt distribution, suspend affected assets, preserve evidence and notify service providers. Recovery requires root-cause analysis, coverage reconciliation, approval and documented reopening criteria.

Backups cover registry data, document metadata, contract source, deployment records, transaction receipts and operating procedures. Recovery exercises test data restoration and alternate authorized personnel.

22. Public transparency

The public platform will publish verified contract addresses, token unit, reserve methodology, supply, treasury balance, circulating supply, price-source identity, NAV date, material reserve changes and relevant audit or assurance summaries when available. Confidential ownership, identity and custody documents remain private unless publication is authorized.

23. Scaling roadmap

Phase 1 - Institutional foundation

Deploy and verify authoritative XAUa v2, GMAy and SMAy; retire the superseded XAUa and vault; activate the authenticated registry; complete the inaugural evidence-linked issuance; publish supply and reserve dashboards.

Phase 2 - Controlled distribution

Onboard eligible institutional or professional counterparties; establish funded OTC and market-making arrangements; open approved liquidity venues; implement automated supply and reserve reconciliation.

Phase 3 - Reserve expansion

Add approved gold forms and gemstone lots; activate the first SMAy basket; add independent assurance, expanded custody options and periodic NAV publication.

Phase 4 - Institutional connectivity

Integrate policy-controlled custody, treasury and settlement infrastructure; connect approved liquidity partners; support reporting APIs, institutional client views and controlled cross-border distribution.

Phase 5 - Network and product expansion

Evaluate additional networks, regulated venues and asset sleeves only after demand, legal review, bridge/canonical issuance controls, liquidity and operational capacity are demonstrated. Ethereum remains the primary reputation and settlement network for the initial release.

24. Deployment and verification sequence

1. Complete source review and automated tests on the AYOV blockchain node.
2. Rehearse deployment, role assignment, ceiling updates, mint, transfer and burn on testnet.
3. Confirm production role wallets, inaugural evidence references and distribution instruction.
4. Deploy contracts to Ethereum mainnet.
5. Verify source and constructor arguments on Etherscan.
6. Publish addresses in the website contract register.
7. Activate approved ceilings and mint directly to treasury.
8. Reconcile and publish confirmed supply and Token Operations inventory.
9. Release only the approved trading tranche.

25. Legal and access notice

This document describes intended programme architecture and operating controls. It is not an offer, solicitation, investment recommendation, guarantee of legal classification or promise of liquidity, redemption, price stability or profit. Availability depends on jurisdiction, eligibility, onboarding, definitive terms, reserve activation and available service providers.

The website and programme are not directed to U.S. persons or persons located in the United States. AYOV will assess the requirements applicable to each activity and jurisdiction before activation. A token's technical designation does not determine its legal treatment.

Appendix A - Asset activation checklist

- Complete authority, ownership and beneficial-owner record.
- Complete sanctions, PEP, adverse-information and jurisdiction review.
- Confirm title, liens, transfer or encumbrance authority.
- Confirm asset identity, quantity, quality and location.
- Confirm custody/control acknowledgement and insurance position.
- Complete independent valuation and approved haircut.
- Record document hashes and unresolved exceptions.

- Approve contribution value, token family and ceiling calculation.
- Issue signed Reserve Activation Notice.

Appendix B - Mint instruction minimum fields

- Token contract and chain ID.
- Recipient distribution-wallet address.
- Approved amount and reserve ceiling.
- Asset or basket evidence hash.
- Price/NAV observation and timestamp.
- Instruction reference and approvers.
- Expected transaction parameters and post-mint reconciliation owner.

Appendix C - Public contract functions

XAUa: xauaForUSD, latestXAUUSD8, setReserveCeiling, mint, controlledBurn, pause, unpause, setRestricted and role administration.

GMAy: setReserveNAV, referenceNAVPerTokenUSD8, mint, controlledBurn, pause, unpause, setRestricted and role administration.

SMAy: setReserveNAV with asset-basket root, referenceNAVPerTokenUSD8, mint, controlledBurn, pause, unpause, setRestricted and role administration.

Treasury Distribution Vault: time-locked release, distributor-role administration and reference-linked distribution events.

References

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