



TAC Spotlight on XAUm: Gold Ownership Reimagined through Tokenization

In an era of economic uncertainty and inflation concerns, gold continues to stand as a reliable store of value and a highly sought-after hard asset. However, traditional channels for investing in gold come with challenges: physical storage concerns, high costs, and capital inefficiency.

This report explores the advantages of tokenized gold over traditional gold investment methods and highlights [Matrixdock's XAUm](#) product.

Acknowledgments

The Tokenized Asset Coalition (TAC) unites traditional and crypto financial systems with the shared belief that all assets will eventually move onchain. By addressing the opacity, inefficiencies and fragmentation of the current financial infrastructure, the TAC aims to spearhead the next wave of digital transformation.

The TAC Member Deep Dive Series provides a focused inquiry on specific topics within tokenization. We work closely with the TAC member organization and their team to form a deep understanding of why tokenization of the underlying asset makes sense and how the TAC member's solution works

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Special thanks

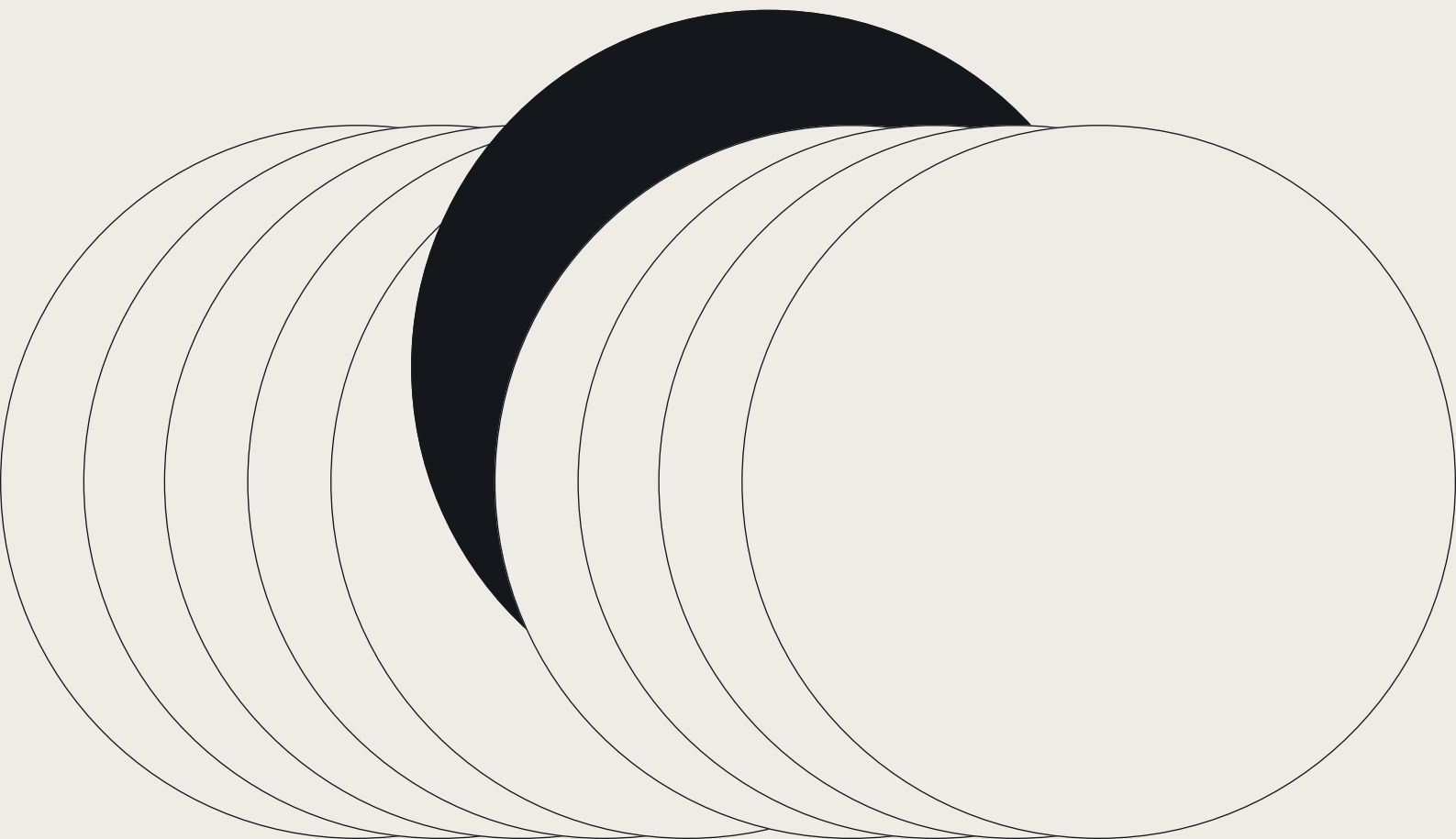
This report was a culmination of effort from a wide group of individuals, collating existing source material from Matrixdock's public documentation, and numerous interviews with various members of the Matrixdock team. A huge thank you to the team at Matrixdock for giving me such a high level of access.

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Why Tokenized Gold?



Before exploring XAUm, it's worth examining whether tokenizing gold makes sense in the first place. Gold has served as a store of value for thousands of years, yet traditional methods of gold ownership like physical possession, ETFs, futures contracts, and mining stocks each present tradeoffs. Tokenization, while presenting its own challenges, offers a new path for investors seeking both the benefits of gold ownership and the efficiency and programmability of blockchain technology.



This marriage creates entirely new possibilities for investors, from fractional ownership and 24/7 trading to enhanced verification systems and integration with digital financial ecosystems.

Practical Benefits

Gold's physical properties create significant practical challenges for modern investors. For starters, gold is heavy. The precious metal's density, weighing in at approximately 19.3 grams per cubic centimeter, means it can quickly become unwieldy to transport or secure. Second, even in small amounts it's valuable. A single kilogram gold bar, worth over \$110,000 at current prices, is smaller than a smartphone and requires specialized handling and security measures. Further, it's difficult to transport across borders, requires specialized verification for authenticity, and cannot be practically divided without destroying its premium pricing. These inherent limitations have historically restricted gold ownership to those with significant resources or relegated smaller investors to paper or synthetic gold products with questionable backing. Tokenization addresses these challenges while preserving gold's fundamental value proposition.

Some features of tokenized gold, generally:



No physical storage concerns

Investors in physical gold must contend with storage security, often relying on home safes, safe deposit boxes, or expensive security systems. Tokenized gold removes the burden of physically securing and insuring gold, as tokens typically represent gold stored safely in professional, insured vaults.



True divisibility

While physical gold can technically be divided, doing so is impractical for everyday investors and often erodes the value for gold purchased in smaller units. What we mean is if you buy a troy ounce of physical gold then break it in half you will for sure sell it below the prevailing spot price. Tokenized gold lets investors own precise, small fractions of gold without losing value, making it easy for anyone to invest exactly as much as they want.



24/7 trading and global access

Traditional gold markets operate during limited business hours in specific financial centers. Tokenized gold breaks these constraints by enabling 24/7 trading every day of the year from anywhere in the world (with exceptions for compliance purposes). This continuous trading capability without geographic limitations is especially valuable during weekend market events when conventional gold markets are closed.



Lower costs

Tokenized gold can significantly reduce the costs associated with traditional gold investments. Buying physical gold entails high costs paid to dealers (typically 1-5% above the spot price), not to mention storage and insurance costs. Similarly, gold ETFs entail ongoing management fees, which undercut the potential return on investment. A well structured tokenized gold product will minimize fees by leveraging economies of scale.

Investment Strategies

Through smart contracts and blockchain technology, tokenized gold becomes a programmable asset. This programmability creates opportunities to implement sophisticated approaches that were previously impractical or impossible with physical gold.

Some examples include:

Dollar-cost averaging (DCA)

Smart contract-powered DCA services enable automatic, regular gold purchases at set intervals. This systematic approach removes the stress of market timing and reduces emotionally-driven decisions, providing a disciplined way to build gold positions over time regardless of market volatility.

Minimizing cash drag

While waiting for DCA conversion, funds can be held in yield-bearing assets rather than sitting idle. This approach minimizes cash drag and ensures capital remains productive even before conversion to gold, improving overall portfolio efficiency.

Portfolio diversification

Gold's historically low correlation with other asset classes makes it an excellent diversifier. Tokenized gold facilitates maintaining optimal allocations within diversified portfolios, while also serving as a volatility refuge within crypto portfolios. [With Bloomberg launching both Bitcoin and Gold indices](#), there's growing recognition that holding both politically neutral assets side by side offers balanced exposure during uncertain economic conditions.



Capital Efficiency

For millennia, gold investors have accepted a fundamental compromise: gold provides security and wealth preservation but remains financially inert. Physical gold typically sits in a safe, appreciating only through market forces. This creates an inevitable tradeoff between holding gold as a safe haven and deploying capital productively. Tokenization fundamentally changes this equation by integrating gold into modern financial infrastructure, allowing it to function as both a reserve asset and active financial capital simultaneously.

Some examples include:



Collateralized borrowing

Tokenized gold can serve as collateral on lending platforms, enabling investors to borrow against their holdings without selling. This solves the traditional liquidity problem of physical gold, where accessing cash value typically requires liquidation. With tokenized gold, investors maintain their gold exposure while simultaneously accessing capital for other investments, expenses, or opportunities without triggering taxable events that would occur when selling physical gold.



Yield potential

While physical gold sits idle, tokenized gold can be deployed into various DeFi protocols to generate yields through lending, liquidity provision, or other strategies. This represents a paradigm shift in gold investing, transforming a traditionally non-yielding asset into a potential source of ongoing income while retaining exposure to gold's price movements.



Leverage

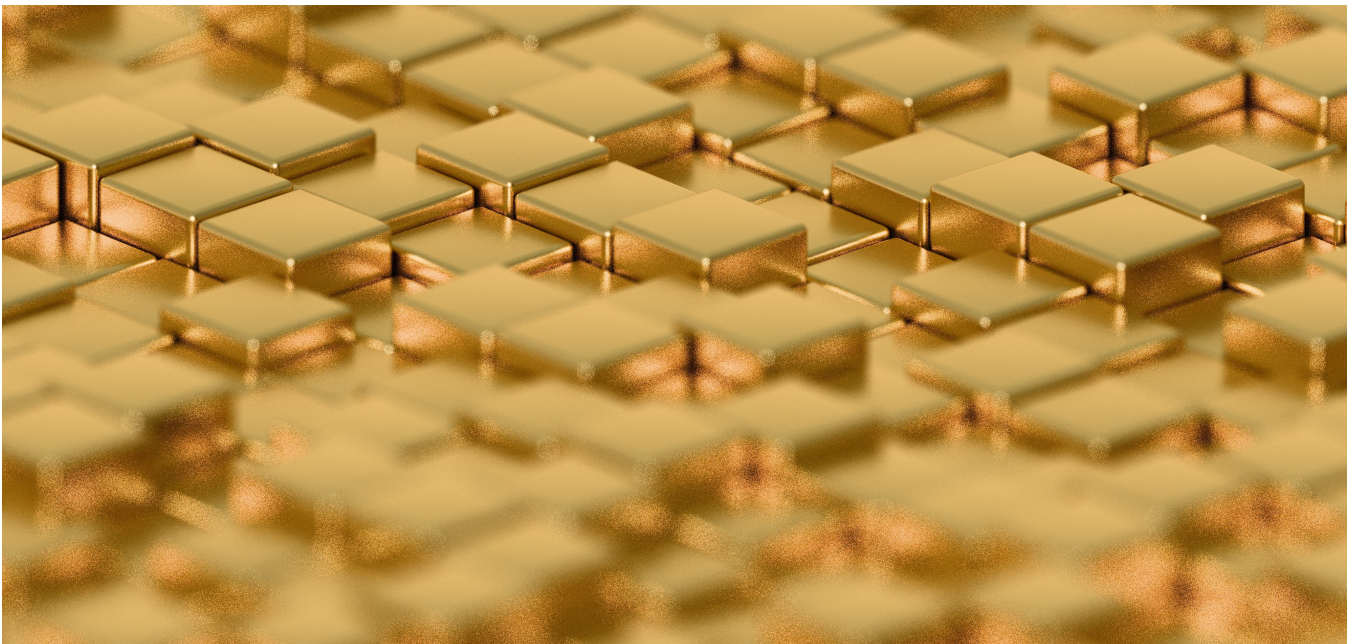
While previously available only to sophisticated traders and institutions, tokenized gold can be purchased by anyone with leverage. Unlike collateralized borrowing, which provides liquidity for other purposes, leverage specifically amplifies gold exposure by allowing investors to control larger gold positions with the same initial capital. Through DeFi and centralized platforms, everyday investors today can access up to 5x leverage when market conditions warrant, implementing more nuanced strategies that were once exclusive to professional traders.

Conclusion

Tokenizing Gold Enhances the Asset

The tokenization of gold reimagines of how this ancient store of value can function in a digital economy. By addressing gold's inherent physical limitations while preserving its core benefits, tokenization creates a more versatile, efficient, and accessible form of gold ownership for today's investors.

The practical advantages alone, like eliminating storage concerns and enabling true divisibility, would justify this evolution. But the real transformation comes through programmability and financial integration, allowing gold to transcend its traditional role as a static asset held in reserve. Through tokenization, gold can simultaneously maintain its historic function as wealth insurance while actively participating in modern financial strategies.

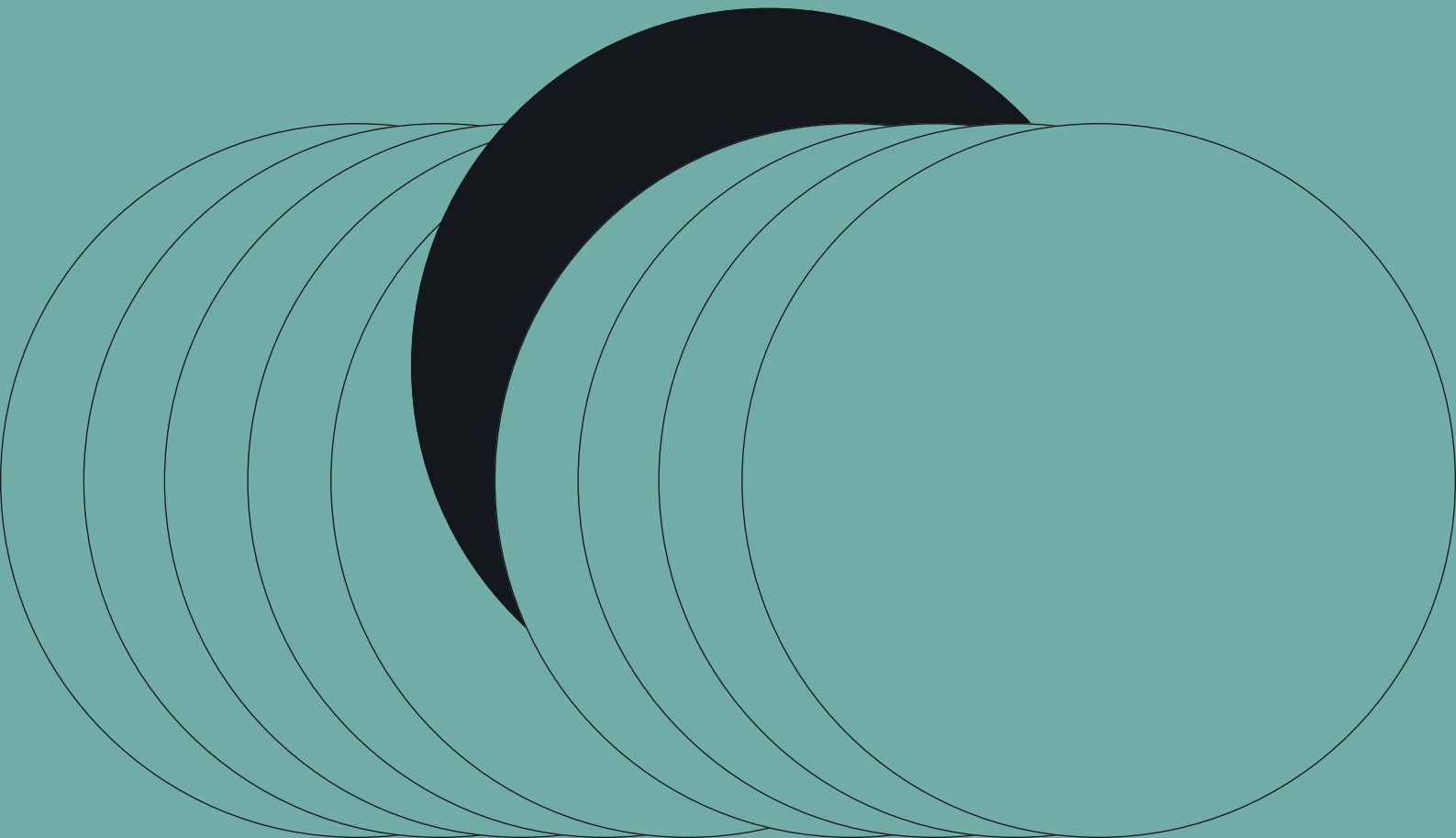


Introduction to XAUm

"A holistic solution for unlocking gold's potential includes utmost transparency, security and quality as basic requirements for establishing a new standard of gold ownership. The exciting part comes from transforming gold from a static asset to a productive one. And expanding access to that functionality to the broader population, not just a privileged few."



Eva Meng
Head of Matrixdock



XAUm is a digital token issued by Matrixdock that represents full ownership of physical gold. Each XAUm token corresponds precisely to one fine troy ounce of LBMA-accredited gold with 99.99% purity, stored in professional vaults in Singapore and Hong Kong.



Below is a discussion of XAUm's core attributes of gold quality and security, legal structure, reserve transparency, how to acquire and redeem XAUm, and some of its broader utility as tokenized gold.

Premium bullion and secure storage

Matrixdock upholds exceptional quality standards for the gold backing XAUm tokens through a comprehensive sourcing and storage system. All XAUm gold is 99.99% purity, which exceeds the industry benchmark minimum London Bullion Market Association (LBMA) standard of 99.5% purity.

The company sources directly from established refineries including Heraeus and Point Gold to minimize acquisition costs and maintain quality control. Their proprietary API-driven procurement system continuously compares prices across venues to secure optimal rates, passing these savings directly to users. This sophisticated sourcing approach has enabled Matrixdock to demonstrate institutional-scale capacity, successfully fulfilling single orders as large as \$10 million in a single day.

The physical gold backing XAUm is secured in professional vaults operated by two industry leaders in precious metals custody:

1. Brink's: A global leader in secure logistics with a heritage dating back to 1859
2. Malca-Amit: A premier secure logistics provider established in 1963.

Both companies maintain dedicated vault facilities in Singapore and Hong Kong, creating strategic geographic diversification that reduces jurisdictional risk while maintaining world-class security standards. For comprehensive protection, all gold is fully insured both in storage and during transit up to \$50 million against risks including theft, damage, or loss.

Bankruptcy remoteness protects XAUm token holders

Matrixdock has implemented a sophisticated bankruptcy-remote structure to ensure XAUm token holders maintain a direct claim on the physical gold assets backing their tokens. This robust legal framework is specifically designed to protect tokenholders against counterparty risks.

The cornerstone of this protection is a purpose trust structure that creates a legal separation between gold ownership and Matrixdock's operational business. Under this arrangement, gold assets are legally held by a dedicated trust entity rather than by Matrixdock itself, establishing a clear legal distinction that protects the underlying assets from potential corporate difficulties.

This protection is further strengthened through independent oversight by third-party professionals. Appleby Global Services serves as trustee, providing fiduciary responsibility while over the structure, while Hamilton Services acts as enforcer, ensuring all parties fulfill their obligations to token holders. This dual oversight adds significant accountability to the system.



Transparency You Can Verify

In the tokenized asset, transparency of reserves is paramount. In the case of tokenized gold, the value of any gold-backed token depends directly on the verifiability of its underlying reserves. XAUm addresses this critical need through multiple complementary verification methods that provide token holders with exceptional visibility into their assets.

XAUm implements a rigorous auditing program featuring quarterly physical verifications conducted by Bureau Veritas, the same respected auditor used by established gold ETFs like SPDR. These comprehensive audits include bar-by-bar inspection, where auditors physically count and verify each gold bar against records, with complete findings published on [Matrixdock's website](#).

Matrixdock Gold Allocation Lookup									
Address					Total Gold				
0x89bb23e4a82e04a11767fedf321c127799					33.648 oz.				
Network	Token Held	Bar ID	Refinery	Vault	Weight	Fineness	Fine Weight	Owned Portion	Allocation Type
	 XAUm NFT #66	HS17870	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	100%	Fixed
	 1.500 XAUm	HS17857	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	4%	Dynamic
1. All weight are in troy ounces									
2. Ethereum Mainnet Allocation report is accurate as of 04-21-2025 14:30:47 and block number 22315595									
3. BNB Chain Allocation report is accurate as of 04-21-2025 14:36:33 and block number 48545062									

Beyond periodic audits, XAUm provides real-time verification tools that give investors unprecedented transparency. The allocation lookup tool allows token holders to view the specific gold bars backing their tokens at any moment, while on-chain records provide independent blockchain verification of all token allocations. This system maintains dynamic updates with near real-time allocation adjustments whenever tokens are minted, redeemed, or transferred.

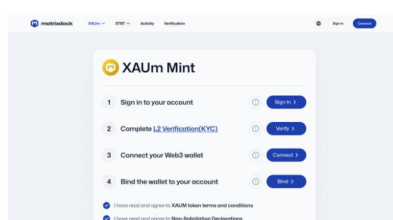
This multi-layered approach to transparency and professional third-party audits with continuous digital verification ensures XAUm holders always have updated, verifiable information about the physical gold backing their digital assets. This verification framework represents a significant advancement over traditional gold investments where reserve verification is typically limited to periodic reports with little direct access for individual investors.

Matrixdock Gold Allocation Lookup									
Address					Total Gold				
0x497E224d7008fE47349035 beDB773e1f4C5					50.109 oz.				
Network	Token Held	Bar ID	Refinery	Vault	Weight	Finesess	Fine Weight	Owned Portion	Allocation Type
	 32.148 XAUm	HS17847	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	100%	Dynamic
	 10.963 XAUm	HS17868	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	34%	Dynamic
	 6.975 XAUm	HS17833	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	21%	Dynamic
	 0.021 XAUm	HS17862	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	0%	Dynamic
	 0.001 XAUm	HS17863	Hereaus	Brink's	32.151 oz.	0.9999	32.148 oz.	0%	Dynamic
1. All weight are in troy ounces 2.BNB Chain Allocation report is accurate as of 04-21-2025 14:33:33 and block number 48545002									

How to acquire XAUm

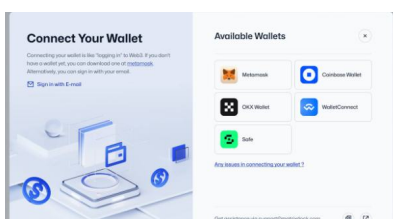
Accessing XAUm has been designed to be straightforward through a simple, transparent process that converts stablecoins or physical gold into tokenized gold holdings. In this section we'll cover how to acquire XAUm from Matrixdock directly. XAUm can also be purchased on various secondary markets. We've not tested those purchase methods directly and so we aren't covering them here.

Step-by-step mint process



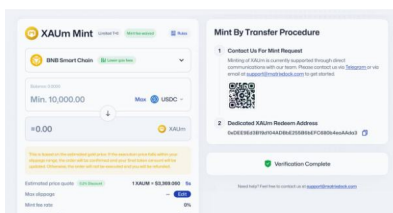
Create an Account

Register on the [Matrixdock platform](#) and complete the standard KYC verification process



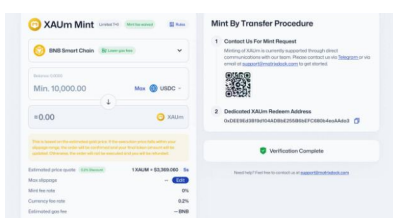
Connect Your Wallet

Link your ERC-20 or BEP-20 compatible wallet to the platform



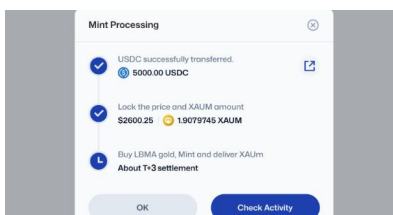
Place Your Order

Specify the amount of stablecoin you want to convert and set your maximum acceptable slippage



Order Processing

Matrixdock sources the physical gold from their established refiner network



Token Delivery

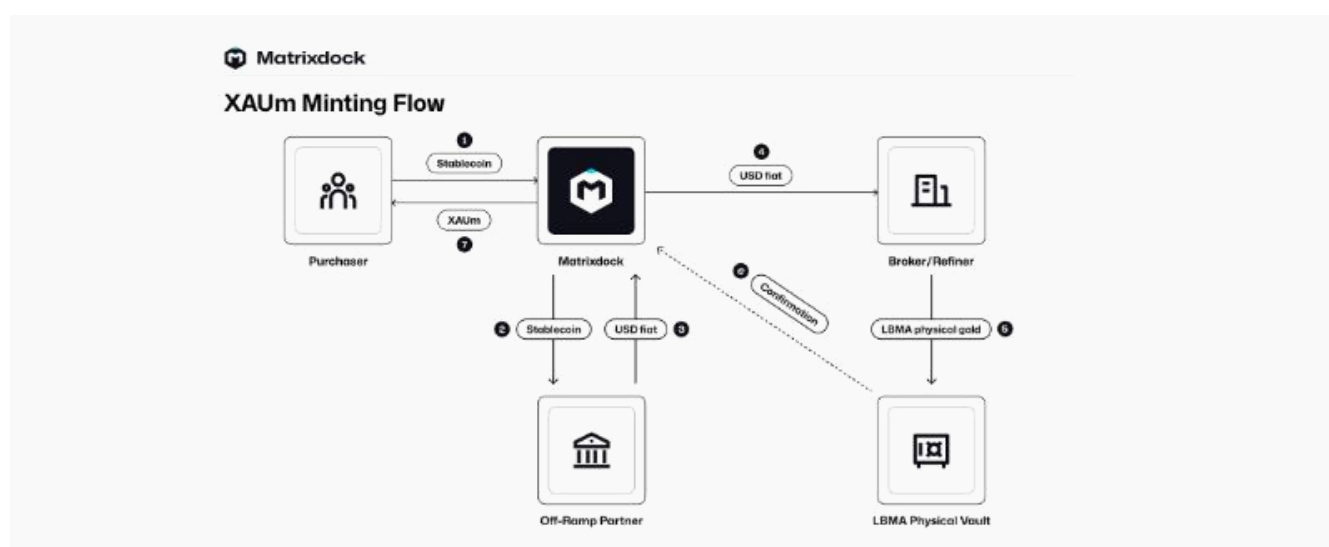
XAUm tokens are delivered to your connected wallet within T+3 days (with faster T+0 delivery available for smaller orders)

Behind the Scenes During T+3

During the delivery period, Matrixdock completes several critical steps to ensure complete backing of each token:

- ✓ Sourcing gold from its proprietary network of quality-verified refiners and brokers
- ✓ Arranging secure transportation to vault facilities
- ✓ Vault partners verifying the gold bar specifications and documenting Matrixdock's ownership
- ✓ Minting the corresponding tokens and updating allocation records

This thorough process ensures that tokens are only created when backed by real, verified physical gold, eliminating the possibility of over-minting and maintaining the integrity of 1:1 backing at all times.



Flexible Redemption Options and Token Formats

Understanding the redemption mechanics of tokenized gold positions is crucial, as liquidity is a key factor for any asset. XAUm provides multiple redemption paths to accommodate different investor needs and preferences.

For investors seeking to convert back to stablecoins, XAUm offers a streamlined digital redemption process through the Matrixdock platform. Users can exchange XAUm tokens back to USDC or USDT with a quick turnaround of T+3 days and a 0.25% redemption fee. This digital path provides efficient liquidity for traders or investors needing to rebalance portfolios.

For those who ultimately want physical possession, XAUm also offers physical redemption. The minimum requirement for physical redemption is 1kg (worth just over 110 thousand USD at the time of writing), which is significantly lower than other offerings that require redemption of full 12.4kg bars (worth over 1.3 million USD at the time of writing). Physical redemption is available in Singapore and Hong Kong, with transparent costs that include the standard 0.25% redemption fee plus any applicable delivery expenses.

On April 22, 2025, Matrixdock completed the first-ever publicly documented physical redemption of a tokenized gold asset. Showcasing simultaneous physical and on-chain reserve management, reinforcing XAUm's 1:1 gold backing, and demonstrating the smooth conversion of tokenized gold into physical bullion.

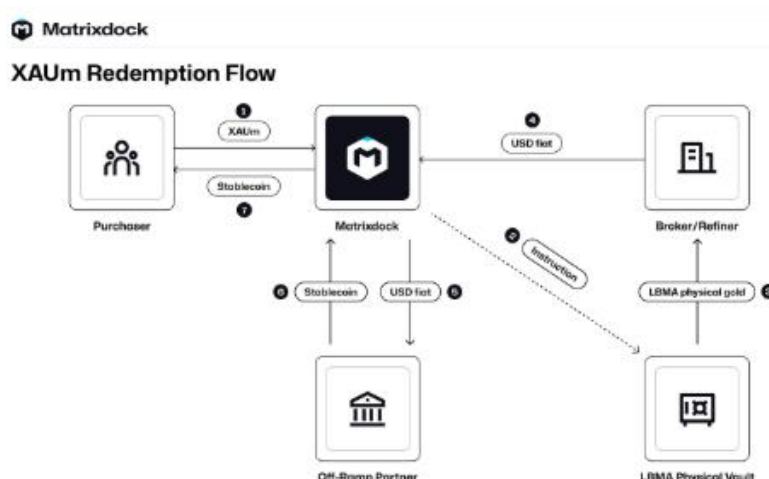


XAUm is available in two distinct but interoperable formats, each serving different investor needs:

1. **ERC-20/BEP-20 Tokens:** These standard tokens feature dynamic allocation to gold bars that may change over time, offering high liquidity and divisibility ideal for trading and DeFi applications. They're available across multiple blockchains including Ethereum, BNB Chain, and Plume (an RWA-specific L1 built on Optimism).
2. **NFT Format:** This alternative provides fixed allocation to specific gold bars, making it perfect for investors seeking guaranteed ownership of particular physical assets. The

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Things you can do with XAUm utility

XAUm is interoperable with various DeFi platforms, unlocking various powerful capabilities for XAUm token holders:

01

Collateralized Borrowing

XAUm can be used as collateral on lending platforms at loan-to-value ratios ranging from 70-93%. This allows XAUm tokenholders to access liquidity from their gold holdings without selling their position, maintaining long-term gold exposure while addressing immediate capital needs or pursuing other investment opportunities.

02

Yield Potential

Through various DeFi strategies, XAUm holders can generate yields between 3-10% APR using their tokens on partnered chains and projects (subject to market conditions). This transforms traditionally non-yielding gold into a productive financial asset while maintaining exposure to gold's value movements.

03

Leverage

XAUm tokenholders can access up to 5x leverage to amplify their gold exposure when market conditions warrant, efficiently utilizing initial capital while maintaining the option to convert profits into physical gold via Matrixdock's physical redemption functionality. You can learn more about trading XAUm with leverage from [Matrixdock's recent post on the topic](#)

04

Secondary Market Liquidity

Matrixdock recognizes that secondary market liquidity is a critical challenge for tokenized gold. Addressing this issue has become a top priority for the team. As a result, investors can now seamlessly buy and swap XAUm across multiple DeFi protocols and centralized trading platforms, building liquidity and enhanced accessibility in the secondary market.

05

Advanced Financial Tools

Matrixdock has developed automated dollar-cost averaging for XAUm and has started exploration of AI-powered portfolio management solutions. Beyond a conventional UI for human users and traditional APIs for developers [Matrixdock is building with an AI agentic future in mind](#), which will further extend XAUm's functionality down the road.

A Summary of XAUm's Strengths

XAUm offers a carefully designed approach to tokenized gold that addresses key concerns of digital asset investors. By focusing on security, flexibility across blockchain ecosystems, and practical redemption options, XAUm provides solutions to common challenges in the tokenized gold space. The following strengths highlight XAUm's position as a comprehensive tokenized gold offering designed for both traditional investors and DeFi participants:

Yield Potential

Available on Ethereum, BNB Chain and Plume

Dual Token Formats

Flexibility between fungible tokens and NFTs

Strong Bankruptcy Protection

Purpose trust structure with multiple safeguards

Direct Refiner Relationships

API-driven sourcing from multiple top-tier refiners and transparent pricing while minting XAUm

Lower Minimum Redemption

Physical redemption with 1kg gold bar versus standard requirements of larger sized bars (12.4 kg)

Geographic Diversification

Multiple vault locations across different jurisdictions

Advanced DeFi Features

High collateralization value on lending platforms (70–93% LTV)

DCA Service

Automated dollar-cost averaging for strategic gold acquisition

Leverage on Spot Gold

Efficiently utilize initial capital up to 5X leverage and option to turn P&L to physical gold seamlessly

AI Integration

Exploring AI-powered portfolio management and optimization solutions for XAUm

Overall, XAUm represents a comprehensive approach to tokenized gold that combines traditional gold market expertise with blockchain innovation. XAUm offers a solution that preserves gold's core benefits while eliminating many of its historical limitations. The product's design reflects an understanding of both gold investors' concerns about security and transparency and digital asset users' demands for flexibility and financial utility.

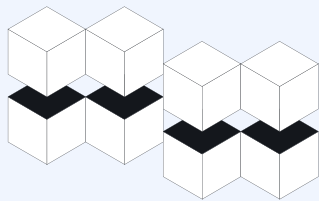
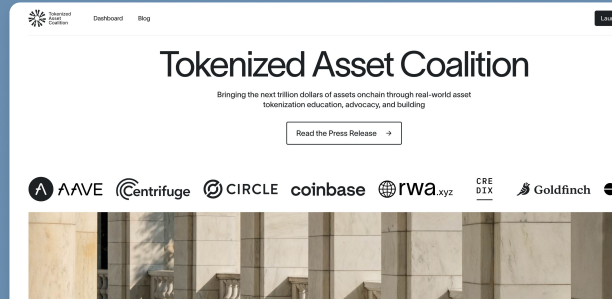
Conclusion

The general question to ask when tokenizing anything is: “does this make sense to tokenize?” In the case of gold the answer is a resounding yes. By addressing gold's inherent physical limitations (storage concerns, limited divisibility, restricted trading hours, and capital inefficiency), tokenization unleashes gold's full potential in the digital economy. This evolution transforms gold from a static asset sitting in vaults to a dynamic financial tool that can be traded continuously, collateralized for borrowing, deployed for yield, and seamlessly integrated into modern financial strategies.

XAUm exemplifies this transformation through its meticulous implementation: LBMA-certified 99.99% pure gold stored in secure insured vaults, protected by a robust bankruptcy-remote trust structure, and verified through transparent auditing processes. With its dual token formats, flexible redemption options and integration with DeFi, XAUm delivers both the timeless security of physical gold and the innovative capabilities of blockchain technology.

Resources

Bringing the next trillion dollars of assets onchain through real-world asset tokenization education, advocacy, and building



The Tokenized Asset Coalition mission lives at the intersection of traditional and crypto finance.

[Read the Press Release](#)



Matrixdock

[XAUM by Matrixdock:](#)
Backed by 99.99% purity LBMA gold, each token represents 1 troy oz.
stored in reputable vaults in Asia with physical redemption options.
Bring gold on-chain to unlock asset efficiency.

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