

# BitSilver

## White paper



## Overview

### Challenges Facing the Blockchain Ecosystem

On 10th January 2024, a historic event occurred in the cryptocurrency market: the U.S. Securities and Exchange Commission (SEC) approved 11 Bitcoin spot ETFs (Exchange-Traded Funds), further integrating cryptocurrencies into the traditional financial system. ETFs are typically products that allow investment in assets such as stocks or bonds. The approval of Bitcoin ETFs signifies that Bitcoin is no longer merely an alternative digital asset but is now recognised as a mainstream financial asset. This development has enabled many traditional financial investment firms and institutions to gain access to Bitcoin.

However, Bitcoin was originally created as an alternative to excessive quantitative easing by governments, particularly the over-issuance of currency. Following the 2008 financial crisis, the U.S. government and the Federal Reserve attempted to stimulate the economy through massive quantitative easing. This led to a decline in the value of the dollar, causing widespread concern about currency depreciation. It was at this juncture that Bitcoin emerged, intended to function as a 'peer-to-peer electronic cash system' with a fixed supply, independent of central authorities. Bitcoin was lauded as a hedge against inflation and a new medium of exchange.

Over time, however, Bitcoin has primarily been used as a financial asset, and its original innovative character and alternative purpose have gradually diminished. Bitcoin is no longer seen solely as a hedge against inflation but is now predominantly utilised as an investment vehicle, subject to price volatility. Between 2021 and 2024, Bitcoin's price exhibited extreme volatility, leading some global citizens to increasingly view it as a short-term investment rather than a long-term store of value.

In recent years, there has also been a surge in interest in stablecoins. Stablecoins are cryptocurrencies designed to maintain a stable value by being pegged to fiat currencies like the U.S. dollar. They are often used as an intermediary in digital asset transactions or as a tool to hedge against the volatility of the cryptocurrency market. Prominent stablecoins include Tether (USDT), USD Coin (USDC), Binance USD (BUSD), and DAI.

However, in 2023, the U.S. economy faced significant challenges, leading to a sharp decline in the value of the dollar. This was due to increasing government debt, po-

litical instability, and the Federal Reserve's interest rate policies. The decline in the dollar's value also impacted stablecoins. For example, as U.S. inflation surged and the dollar weakened, the stability of stablecoins pegged to the dollar became precarious. Although stablecoins like Tether are backed by the dollar, their stability is threatened if the dollar itself becomes unstable.

This situation highlights that stablecoins linked to fiat currencies are not entirely risk-free and that their value can fluctuate based on economic and political factors affecting those currencies. This realisation is prompting global citizens, especially those in the developing world whose economies are heavily influenced by the global financial market and U.S. hegemony, to recognise that stablecoins may no longer be a fully reliable store of value. Consequently, this whitepaper seeks to explore new alternatives, focusing on physical silver (Silver) as a potential solution.

## **Chemical Properties of Silver and Its Use by Humanity**

### **Chemical Properties of Silver**

Silver, represented by the chemical symbol Ag, is a precious metal with an atomic number of 47. It belongs to Group 11 in the periodic table and is renowned for having the highest electrical and thermal conductivity of all metals. Additionally, silver has an exceptionally high reflectivity, particularly in the visible light spectrum, making it an excellent reflector of light.

- Purity : Silver can be found in its pure form in nature, and fine silver with a purity of 99.9% or higher is chemically stable. This high level of purity means that silver is highly resistant to corrosion and can be preserved for long periods without tarnishing or corroding.

- Malleability and Ductility : Silver is very soft and highly ductile, allowing it to be easily shaped and formed into thin sheets. This makes it ideal for crafting various items such as jewellery, coins, and electronic components.

- Chemical Reactivity : Silver is relatively unreactive with most acids, but it does react with nitric acid and sulfuric acid to form silver nitrate and silver sulfate, respectively. In the presence of hydrogen sulfide in the air, silver can tarnish and turn black, although this can be easily cleaned.

## Silver in Human History

Silver is one of the oldest metals used by humanity, playing a significant role since the early civilisations. The use of silver dates back to around 4,000 BCE. In ancient Mesopotamian and Egyptian civilisations, silver was utilised in currency, jewellery, and religious ceremonies, often valued as highly as, or even more than, gold.

- Appearance in Ancient Civilisations : In ancient Mesopotamia, silver was primarily used in trade and transactions, with silver coins becoming a principal form of currency. Silver was more readily available than gold, yet still highly valued, and its light weight made it ideal as a medium of exchange.

- Use in Egypt : In ancient Egypt, silver was considered more precious than gold. The early Egyptians referred to silver as the “metal of the moon,” and it was used to craft jewellery and funerary items for royalty and the nobility. Silver also served as currency in Egypt.

- Ancient Greece and Rome : In ancient Greece and the Roman Empire, silver was an important currency. The Roman Empire used silver coins, known as denarii, as a key currency, which was widely circulated throughout the empire. Silver was a crucial asset underpinning the economy and trade of Rome and was regarded as particularly valuable among metals.

## Industrial Importance in Modern Society

Today, silver is an essential material used across various industrial sectors. For instance, silver is a critical component in solar panels used in solar energy generation systems. As of 2023, approximately 1,000 tonnes of silver were utilised in the production of solar panels worldwide. This accounts for about 10% of global silver demand, and as the solar industry continues to grow, the demand for silver is steadily increasing.

Silver also plays a crucial role in the electronics industry. It is used as an electrical conductor in electronic devices such as smartphones, computers, semiconductors, and electric vehicles, leading to a consistently high demand for silver. In 2022 alone, the electronics industry consumed approximately 3,000 tonnes of silver. Thus, silver has established itself as an extremely important industrial resource.

## **Silver as a Store of Value**

Silver has long been used as a store of value due to its durability and resistance to corrosion, making it an asset that can be preserved over long periods. Alongside gold, silver is recognised as a safe-haven asset during times of economic instability and is trusted by people worldwide.

Following the global financial crisis of 2008, many people turned to silver as a safe asset, leading to a significant rise in its price. In 2008, the price of silver was around \$11 per ounce, but by 2011, it had surged to approximately \$49 per ounce. This demonstrates how silver can effectively function as a store of value during periods of economic uncertainty.

## **Silver as a Medium of Exchange**

Historically, silver has been used as a medium of exchange across the world, often alongside gold. For example, the vast amounts of silver extracted from Spain's colonies in Mexico and South America were transported to Europe, laying the groundwork for the Industrial Revolution and strengthening the foundation of European economy and trade.

Notably, the Mexican silver coin, produced during this period, had a high and consistent purity of 91.7%. From the 17th century until the early 20th century, it served as a global reserve currency, widely circulated in China, the Philippines, Thailand, Japan, and other regions as the most common means of trade settlement.

In the United States, prior to the Civil War, the Mexican silver coin was commonly used. Following the Civil War, from 1878 until the mid-20th century, the U.S. operated a bimetallic standard based on both silver and gold (at a ratio of 1:20). The silver dollar (with 90% purity) was widely circulated as a medium of exchange. Silver was perceived as a relatively affordable and stable means of exchange compared to gold.

Additionally, archaeological findings reveal that silver was used as a medium of exchange in ancient China. During the Ming and Qing dynasties, silver became the primary currency. Similarly, in Korea and Japan, silver began to be used as a medium of exchange around the same period. During this time, silver was a crucial means for trade and tax payments, and it served as a major settlement currency in trade between East Asia, Southeast Asia, and Europe.

## The Current Value and Future Outlook for Silver

Over the past 30 years, the gold-to-silver price ratio has generally remained between 50:1 and 80:1. The higher this ratio, the more undervalued silver is relative to gold. As of 2023, the gold-to-silver ratio was approximately 80:1, indicating that silver was relatively undervalued. This suggested the potential for long-term price appreciation for silver. Indeed, between January and July 2024, the price of silver has already increased by 20%.

Unlike gold, silver is widely used in industrial and medical applications, which means its demand will continue to grow steadily, particularly with the expansion of advanced electronics sectors. According to the 2024 Global Silver Market Research Report by the Silver Institute, the demand for silver in advanced electronics, the medical industry, and the solar panel industry is expected to increase by approximately 5% annually over the next decade. However, the global mining industry struggles to keep up with the rising demand for silver, which is a key reason why silver's value is likely to continue increasing.

Thus, silver has played an essential role throughout human history, both as a precious metal and an industrial metal. Silver's chemical properties have enhanced its value, with its exceptional electrical conductivity and reflectivity making it indispensable in modern industries. From its use as currency and jewellery in ancient civilisations to its critical role in contemporary electronics and medical devices, silver has consistently maintained its significance across various fields. These historical and intrinsic qualities continue to make silver a highly regarded asset today.

## What is a Silver-Backed Cryptocurrency?

Silver has long been recognised as a valuable asset, but owning or trading physical silver comes with various challenges. For instance, safely storing silver requires expensive facilities, and transporting it carries risks of theft or damage. Additionally, due to silver's physical properties, there are logistical costs associated with trading it. As a result, many people invest in financial products based on silver rather than owning the metal itself. However, this is not the same as actually owning silver.

## The Need for a Silver-Backed Cryptocurrency

Today, advancements in digital and blockchain technologies have made it possible to realise new forms of asset ownership and trading. A 'silver-backed cryptocurrency' can be an innovative outcome of these technological developments. This concept involves converting the value of physical silver into digital tokens, which can be securely and conveniently owned and traded on a blockchain.

The specific needs for a silver-backed cryptocurrency include:

**1. Stability as an Asset** : Traditional financial products and cryptocurrencies like Bitcoin are often seen as short-term investments due to their high volatility, which makes them unsuitable as stable stores of value. In contrast, silver has historically maintained stable value, especially during times of economic instability. For example, the price of silver tends to rise during global financial crises or periods of inflation. A silver-backed cryptocurrency would translate silver's stability into a digital asset, providing a more stable investment alternative.

**2. Non-Replicability and Trustworthiness** : Blockchain technology is a key element in enhancing the mechanical trust of a silver-backed cryptocurrency. Particularly, a Proof-of-Work (POW) blockchain based on CPU algorithms ensures that all transaction records are stored across a decentralised network, preventing any unauthorised alterations or forgeries. As a result, a silver-backed cryptocurrency becomes a non-replicable, highly trustworthy asset that does not rely on any central authority. The digital silver-backed cryptocurrency is directly linked to a specific amount of silver recorded on the blockchain, and this record can be verified by anyone.

**3. Convenience and Cost Reduction in Transactions** : Trading physical silver involves significant costs and time associated with transportation and storage. A silver-backed cryptocurrency can overcome these physical limitations. Issued as digital tokens, silver-backed cryptocurrency can be traded instantly on the blockchain network, allowing fast and inexpensive transactions worldwide without intermediaries. For example, global citizens holding silver-backed cryptocurrency can easily trade or sell their assets without physically moving the silver, thereby minimising transaction fees.

**4. Transparency and Security** : A silver-backed cryptocurrency leverages the transparency of blockchain technology, where all transaction records are publicly accessible and verifiable. This ensures that global citizens can be confident that their cryptocurrency is genuinely backed by physical silver. Furthermore, the decentralised nature of blockchain means that no government agency or single corporation can control the

silver-backed cryptocurrency, and it is securely protected against hacking or fraudulent transactions.

**5. Relevance in the Modern Economic Environment :** As financial instability increases globally, many people are questioning their trust in fiat currencies. Particularly during periods of sharp currency fluctuations or escalating inflation, people seek safer and more stable assets. A silver-backed cryptocurrency offers a secure and reliable alternative for these global citizens. For instance, it provides a new option as a digital asset that mitigates the risks associated with currency depreciation while being grounded in the stability of physical silver.

## **BTS Token : A Digital Asset Based on Silver**

BTS (BitSilver) is an innovative cryptocurrency backed by 1 gram of silver. Each BTS token is 100% pegged to 1 gram of physical silver, which is securely stored in one of the world's safest vaults. If you hold BTS tokens, you are effectively owning physical silver, and you can exchange these tokens for physical silver whenever needed. Additionally, BTS tokens allow global citizens to own silver in 1-gram units, making it accessible even for small investments.

### **Issuance of BTS Tokens**

Today, financial systems around the world are becoming increasingly digital, with many countries developing or already implementing digital currencies. For example, China is testing the digital yuan, the European Central Bank (ECB) is considering the introduction of a digital euro, and Sweden's digital krona is already in an advanced stage. These digital currencies offer several advantages, such as enhancing the efficiency of financial systems and speeding up transactions. However, Central Bank Digital Currencies (CBDCs) are still controlled by centralised systems and are heavily dependent on government fiscal policies.

In contrast, BTS tokens operate outside the control of any central authority and are 100% pegged to 1 gram of physical silver. This means that BTS tokens are less susceptible to external economic factors such as currency volatility or inflation, which often affect fiat currencies. For instance, during a financial crisis or when government monetary policies lead to a decline in the value of fiat currencies, BTS tokens can serve as a cryptocurrency that hedges against such volatility, being anchored to the



stable value of silver.

The initial issuance of BTS tokens will take place on the MBC platform, with a total supply of 30.1 billion BTS. The issued BTS tokens will be sold through global exchanges and P2P transactions, and the circulation supply will be determined by the amount sold. Correspondingly, the equivalent amount of silver will be held in custody by institutions and stored in vaults.

### **Convenience as a Digital Asset**

The BTS token is issued on the MicroBitcoin (MBC) blockchain, which ensures the security and transparency of transactions. Through blockchain technology, all transaction records are stored on a decentralised network, preventing any unauthorised alterations. Every transaction is recorded and can be verified in real-time, allowing BTS tokens to be traded 24/7 from anywhere in the world.

For example, traditional silver trading is restricted by the operating hours of banks or silver exchanges and incurs high costs due to physical transport and storage. In contrast, BTS tokens exist in digital form, enabling transactions without the limitations of physical movement. Moreover, transactions with BTS tokens can be completed within minutes via the blockchain network, making it much more efficient and convenient than traditional methods of silver trading.

### **Global Integration and Reliability of BTS Tokens**

BTS tokens are 100% pegged to 1 gram of 99.9% pure silver, which is securely stored through trusted custodians, insurance services, and vault services in key countries such as Switzerland, France, the United Kingdom, the United States, and South Korea. The custodians in these countries have a long history and high credibility, playing a crucial role in the global precious metals market.

- Switzerland : Switzerland boasts some of the world's most secure precious metals storage facilities. A prime example is PAMP, which offers top-tier security and reliability in the storage and management of precious metals globally. PAMP is an ideal partner for safely storing the physical silver backing BTS tokens.

- France : In France, institutions like GOLD AVENUE are renowned for their high

reliability in precious metals storage. This institution sets the standard for precious metals management in France and can play a crucial role in storing the physical silver backing BTS tokens.

- United Kingdom : Lloyd's of London, a world-renowned insurance institution, offers a variety of insurance products that cover the risks associated with precious metals storage. Lloyd's of London provides insurance for the physical silver backing BTS tokens, offering global citizens additional trust and security.

- United States : Brinks, a global leader in precious metals storage and transportation services, provides top-tier security facilities and services. Brinks has the infrastructure to securely store the physical silver backing BTS tokens and transport it safely worldwide if needed.

- South Korea : Daesung Metal Co., Ltd., a leading company in South Korea for over 30 years, supplies investment-grade precious metals, foreign mints, and industrial silver. With annual sales of approximately 300 billion KRW, Daesung Metal plays a significant role in the stable supply of silver in Korea. The silver produced by Daesung Metal has a purity of 99.99% and is certified by internationally recognised certification bodies, ensuring that the silver they supply is of the highest quality. Additionally, Daesung Metal collaborates with SECOM, a security company that operates high-level security systems, to safely store the physical silver. SECOM minimises all risks associated with the storage process.

These custodial institutions and vault services guarantee the safety and reliability of the physical silver backing BTS tokens, working in conjunction with insurance companies in each country to minimise the risks of loss or theft. This ensures that BTS token holders can maintain a high level of trust in the physical silver, allowing global citizens to use BTS tokens with confidence.

## **Key Advantages of BTS Tokens**

- **Smart Contracts** : BTS tokens are backed by physical silver, and each transaction is assigned a unique identification code. This ensures that transactions are conducted securely and transparently through smart contracts, effectively transferring ownership of the physical silver via BTS tokens. Each transaction is recorded on the blockchain, making the information available for anyone to verify.

- **Micro-Investment Opportunities** : BTS tokens are pegged to 1 gram of silver, making it accessible for anyone to invest. Previously, investing in silver required purchasing expensive silver bars, but now even small amounts can be invested in silver. Moreover, no taxes are levied on these transactions. This lowers the entry barrier for investment, allowing a broader range of people to participate in silver investment. BTS tokens can be divided up to three decimal places, enabling easy payments via QR codes both online and offline.

- **Low Transaction Costs** : BTS tokens come with no storage fees and very low transaction fees. Traditional silver transactions involve significant storage and transaction costs, but BTS tokens leverage MBC blockchain technology to dramatically reduce these expenses. For instance, transactions can be conducted at a fraction of the cost (1/10th) compared to the transaction fees on the Ethereum network.

- **Independent Asset Protection** : The physical silver linked to BTS tokens is managed separately from the assets of the token issuer. This means that even if the issuer faces financial difficulties, your silver remains safely protected. This ensures that customer assets are securely stored, independent of the issuer's financial status.

- **Decentralised System** : BTS tokens operate on the MBC blockchain, meaning that no single company or institution can control the assets. This enhances the security of your assets, ensuring that no one can tamper with them. Additionally, BTS tokens can be traded globally and managed or traded freely without centralised control.

- **Easy Exchange** : BTS tokens can be easily exchanged for fiat currency or other digital assets on various cryptocurrency exchanges. This provides flexibility, allowing you to convert your BTS tokens into physical silver or other digital assets, or cash, when ever needed.

- **Physical Silver Conversion** : If a BTS token holder possesses tokens equivalent to 15 kg of silver or more, they can convert these tokens into physical silver at any time. This process is facilitated by reputable custodial institutions in various countries, allowing customers to receive their silver either by visiting in person or via postal delivery. For example, institutions such as PAMP in Switzerland, Brinks in the UK, GBI in the US, and SECOM in South Korea securely store the silver and provide physical silver to customers when required.

- **Compliance with National Tax Policies** : When converting BTS tokens into physical

silver, the tax policies of each country must be followed. This means that any taxes or customs duties that may arise when receiving physical silver are subject to the laws of the respective country. Therefore, customers must comply with the tax laws of their country of residence and may seek assistance from tax professionals if necessary.

### **Comparison of BTS with Other Blockchain Financial Services**

Cryptocurrencies like Bitcoin and Ethereum have primarily served as digital assets, mainly functioning as stores of value. However, due to their significant price volatility, these cryptocurrencies may not always be suitable as stable stores of value. For instance, Bitcoin experienced extreme price fluctuations throughout 2021, with significant increases and decreases over short periods. While Bitcoin offers attractive opportunities to global citizens, its value is difficult to predict.

In contrast, BTS tokens are digital assets backed by 1 gram of silver, pegged to the stable value of physical silver. Silver has been used as a reliable store of value for a long time, particularly gaining attention during times of economic uncertainty. During global financial crises or economic depressions, the price of silver tends to rise. For these reasons, BTS tokens, unlike more volatile cryptocurrencies like Bitcoin, can serve as a stable store of value.

### **BTS as a Reliable Medium of Exchange**

BTS tokens are based on the decentralised MBC blockchain technology, ensuring transparency and security in transactions. For example, all BTS transactions are recorded on the blockchain, making them verifiable by anyone, which enhances the trustworthiness of transactions. Moreover, since BTS tokens are directly linked to silver, their value is supported by the tangible asset of silver. As a result, BTS is less prone to value fluctuations and will act as a long-term hedge against inflation and hyperinflation of fiat currencies. Ultimately, BTS aims to establish itself as a globally traded, stable P2P electronic payment system.

### **Use Cases of BTS**

BTS tokens are expected to be listed on cryptocurrency exchanges worldwide, meaning they can be easily traded with other cryptocurrencies like Bitcoin. For instance, global citizens can exchange BTS tokens for Bitcoin, Ethereum, or convert them into fiat currency. BTS tokens are also likely to be used on cryptocurrency lending plat-

forms, where users can offer BTS tokens as collateral and earn interest in return. This demonstrates that BTS tokens can be utilised as a financial asset beyond just a medium of exchange.

For example, on cryptocurrency lending platforms like BlockFi in the United States, users can offer Bitcoin or Ethereum as collateral and earn interest. BTS tokens could be used similarly, providing BTS token holders with opportunities to generate additional income.

Secondly, BTS tokens could be used as a payment method in online subscription services, smartphone app services, WEB3 services, online gaming sites, and the e-commerce market. Furthermore, they are expected to be usable offline, wherever the internet is available, in cash-like transactions at all shops, global franchises, and large supermarkets worldwide. This would mark a historic moment in the evolution of cryptocurrency, heralding an upgraded era of digital currency that fully realises the original philosophy of Bitcoin as a P2P electronic payment system.

## **Conclusion**

The BTS token holds tremendous potential as a globally recognised, silver-backed stable store of value and a reliable medium of exchange. Its decentralised nature makes it less susceptible to external influences, and it has the potential to become a widely accepted asset worldwide. As BTS tokens are actively used across various cryptocurrency exchanges, lending platforms, and as a payment method both online and offline, they will become an attractive asset for global citizens.

Moreover, the same BTS token will be issued on other blockchain platforms (such as Ethereum, Solana, BNB, Klaytn, TRON, Polygon, etc.), automatically integrating with various wallets that support these blockchains. If the MBC blockchain platform wallet, which first supports BTS, is equipped with a feature allowing users to swap between different blockchain platforms within the wallet, the combined influence of MBC and BTS could potentially establish them as a global standard with unprecedented reach.

## **Disclaimer**

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