

# **Digital Ounce (DOZ)**

Stablecoin backed by gold and  
pegged to the ounce of gold

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## **Synopsis**

A digital currency backed by gold provides individuals and organizations with a robust and decentralized method of exchanging value on a scale that is based on an established accounting unit such as the ounce of gold. Gold-backed digital currency issuers and other market participants can take advantage of blockchain technology, to transact in a less volatile digital currency.

In order to maintain accountability and to ensure stability in exchange price, we propose a proven method known as “The Gold Standard” to maintain a three-to-four reserve ratio between a digital currency, called Digital Ounce (DOZ) and the gold on the one hand, and a one-to-one peg to the ounce of gold on the other hand. This method uses DOZ blockchain, Proof of Gold Reserves, and other audit methods to prove that issued coins are fully backed and reserved at all times.

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## I Introduction

There is a variety of assets in the world which people freely use as a store of value, a medium of exchange, or an investment. We believe DOZ blockchain is a better technology for transacting, storing, and accounting for these assets. According to the latest Global Wealth Report<sup>1</sup>, the global wealth is amounting to 418 trillion dollars in 2021 with much of that being held by fiat currency account providers. On the other hand the total amount of gold extracted worldwide reached 197,600 tonnes in 2021. While central banks hold just under one fifth of all the gold extracted worldwide, over 162,600 tonnes of gold is still held by individuals and businesses<sup>2</sup>. The migration of these assets onto the DOZ Blockchain represents a proportionally large opportunity.

The advantages of using DOZ Blockchain are including but not limited to: low transaction costs, international borderless transferability and convertibility, trustless ownership and exchange, realtime transparency. The rationales for the current limited mainstream use of digital currencies are including: volatile price swings, misconceptions, lack of understanding of the underlying technology, and interfaces that are not easy to use.

This white paper focuses on applications wherein the ounce value is stored and transmitted with a software that is opensource, cryptographically secure, and is based on distributed ledger technology.

The solution we propose entails issuing an ounce of gold on the DOZ Blockchain. Each DOZ unit issued into circulation is backed in a three-to-four ratio, that is, one DOZ equal  $\frac{3}{4}$  ounce of gold held in deposit by Paiblock. DOZ may be redeemable/exchangeable for the underlying ounce value pursuant to DOZ terms of service. Once a doz has been issued, it can be transferred, stored and spent, just like any fiat or digital currency. The ounce

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<sup>1</sup> Credit Suisse Research Institute: Global wealth report 2021

<sup>2</sup> Financial Times: China leads record central bank gold buying in first nine months of year

on reserve has gained the properties of a cryptocurrency and its price is permanently pegged to the price of an ounce of gold.

## **II. The Gold standard**

The Cambridge dictionary defines the gold standard as a system of providing and controlling the exchange of money, in which the value of money (compared to foreign money) is fixed against that of gold.

The gold standard was the basis for the international monetary system from the 1870s to the early 1920s, and from the late 1920s to 1932 as well as from 1944 until 1971.

according to economist Michael D. Bordo, the gold standard has three benefits: "its record as a stable nominal anchor; its automaticity; and its role as a credible commitment mechanism."<sup>3</sup> Alan Greenspan argued that "Deficit spending is simply a scheme for the confiscation of wealth. Gold stands in the way of this insidious process. It stands as a protector of property rights. If one grasps this, one has no difficulty in understanding the statist's antagonism toward the gold standard."<sup>4</sup>

## **III. Advantages**

- (i) DOZ is based on the Gold Standard to provide fixed international exchange rates between market participants and thus reduces uncertainty in international trade and payments.
- (ii) DOZ exists on an independent blockchain rather than a third party blockchain e.g Ethereum, Bitcoin.
- (iii) DOZ can be used in a p2p, decentralized, cryptographically secure environment.

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<sup>3</sup> Bordo, Michael D. (May 1999). *The Gold Standard and Related Regimes: Collected Essays*. Cambridge University Press. [doi:10.1017/cbo9780511559624](https://doi.org/10.1017/cbo9780511559624). ISBN 9780521550062. Retrieved 2020-03-28.

<sup>4</sup> Greenspan, Alan (1966). "Gold and Economic Freedom". Constitution.org. Archived from the original on September 25, 2010. Retrieved December 24, 2011.

- (iv) DOZ can be integrated with merchants, exchanges, and wallets in any country.
- (v) DOZ employs a simple but effective approach for conducting Proof of Reserves which significantly reduces Paiblock's counterparty risk as the custodian of the reserve assets.
- (vi) DOZ issuance or redemption will not face any pricing or liquidity constraints. Users can buy or sell as many DOZ as possible,, and at low fees.
- (vii) DOZ will not face any market risks such as Black Swan events, liquidity crunches, etc as reserves are maintained in a three-to-four ratio rather than relying on market forces.
- (viii)DOZ three-to-four backing implementation is easier for nontechnical users to understand as opposed to collateralization techniques or derivative strategies.

At any given time the balance of gold held in our reserves will be equal to (or greater than) 75% of the amount of DOZ in circulation. This simple configuration supports a reliable Proof of Reserves process; a process which is fundamental for maintaining the price parity between DOZ in circulation and the underlying gold held in reserves.

#### **IV. Disadvantages**

The proposed solution isn't entirely decentralized since DOZ and Paiblock must act as a centralized custodian of reserve assets, although DOZ in circulation exists as a decentralized asset. However, we strongly believe that this implementation will create trust while also driving global adoption of digital currencies, making it possible for DOZ holders to use their coins on a daily basis, while also providing merchants with payment gateway that allows for the redemption of DOZ.

It is however desirable to partner with central banks and precious metal storage companies worldwide as a way to mitigating risks inherent to centralizing custody of reserve assets.

## **V. Technology Stack and Processes**

Each DOZ issued into circulation will be backed in a three-to-four ratio with the equivalent amount of gold held in reserves by Paiblock. As the custodian of the backing asset Paiblock are acting as a trusted third party responsible for that asset. This risk is mitigated by a simple implementation that collectively reduces the complexity of conducting both gold and digital currency audits.

DOZ Technology Stack has of 3 layers:

- (i) The DOZ Blockchain containing the transactional ledger
  
- (ii) The coin management layer that ensures:
  - i) control of supply
  - ii) hot and cold storage of coins
  - iii) audit of the circulating supply
  - iv) Transaction enablement for holders and merchants
  
- (iii) The third layer is Paiblock, the business entity primarily responsible for:
  - i) Accepting fiat deposits and issuing the corresponding DOZ
  - ii) Sending fiat withdrawals and revoking the corresponding DOZ and the underlying gold
  - iii) Custody of the gold reserves that back all DOZ in circulation
  - iv) Publicly reporting Proof of Reserves and other audit results
  - v) Initiating and managing integrations with existing blockchain wallets, exchanges, and merchants
  - vi) Operating DOZ web, desktops and mobile wallets, that allow users to send, receive, store, and convert DOZ conveniently.

## **VI. Flow of Funds Process**

There are five steps in the lifecycle of a DOZ

- (i) Step 1 User deposits fiat currency into Paiblock's bank account.
- (ii) Step 2 Paiblock generates and credits the user's DOZ account. DOZ enter circulation. 1 oz deposited fiat equivalent = 1 DOZ issued).
- (iii) Step 3 Users transact with DOZ. The user can transfer, exchange, and store DOZ via a p2p opensource,
- (iv) Step 4 The user deposits DOZ with Paiblock for redemption into fiat currency.
- (v) Step 5 Paiblock returns the DOZ to DOZ reserves account and sends fiat currency to the user's bank account.

Users can obtain DOZ outside of the aforementioned process via an exchange. Once a DOZ enters circulation it can be traded freely between a licensed entity and a business or individual.

## **VII. Main Applications**

### **(i) For Exchanges**

Exchanges can take advantage of a reliable asset class to improve their offering. Because DOZ is less volatile and based on gold standard, exchanges can avail of a number of additional benefits by listing DOZ on their exchanges. This includes but limited to:

- i) Accept DOZ as deposit/withdrawal/storage method rather than using a legacy bank or payment provider
- ii) Allows users to move DOZ in and out of exchange more freely, quickly and cheaply
- iii) Outsource fiat custodial risk to Paiblock just manage cryptos
- iv) Secure customer assets purely through accepted crypto-processes
- v) Conduct audits easier and more securely in a purely crypto environment

### **(ii) For Individuals**

- i) Transact in DOZ/fiat value, without any intermediaries at low fee
- ii) Trade your other cryptocurrencies for DOZ
- iii) Cold store DOZ value by securing one's own private keys
- iv) Avoid the risk of storing fiat on exchanges



v) Avoid having to open a fiat bank account to store fiat value

**(iii) For Merchants**

i) Price goods in DOZ value

ii) Accept payments at a lower fee

iii) Prevent chargebacks, reduce fees, and gain greater privacy

iv) Microtipping and gift cards

v) Create loyalty programs in DOZ

vi) A payment gateway with instant settlement

**VIII. Acquiring services and transactions processing**

Acquiring services and transactions processing commonly known as mining is essential for building the DOZ stablecoin payment infrastructure. DOZ blockchain relies on miners' network for solving blocks and to process on-chain transactions on the Mainnet. Although there is no formal reward for solving blocks, processing millions of transactions every year at a flat rate of DOZ0.0001 per transaction represents a fairly large opportunity for payment processors in the network.

**IX. Legal and Compliance**

Compliance has been entrusted to Paiblock, a joint stock company pursuant to Danish Company Act. Paiblock is licensed by the Danish FSA to provide "virtual wallets services" and to carry out "virtual currencies services", that is, the business of providing one or more of the following services or operations for or on behalf of a natural or legal person or legal arrangement:

(i) exchange between virtual currencies and fiat currencies;

(ii) exchange between one or more other forms of convertible virtual currencies;

(iii) transfer of virtual currencies;

(iv) virtual currency custody service, and

(v) issuance of virtual currencies

Paiblock is undertaking customer due diligence, record keeping, and reporting procedures in accordance with Danish, EU and U.S. AML laws

Paiblock is the world's oldest blockchain company that is on the mission to build a global multipurpose payment infrastructure at the intersection of blockchain and ai.

## **X Non exhaustive risk factors**

### **No guarantee of price stability**

Digitalis Uncia (DU) does not guarantee that the value of one will always equal one (or its equivalent) ounce of gold across all platforms. Due to a variety of factors outside of DU's control, the value of DOZ can fluctuate above or below one ounce of gold.

DU cannot control how third parties value DOZ, and DU is not responsible for any losses or other issues that may result from fluctuations in the value of DOZ. The risk of loss in holding or trading DOZ may be substantial and losses may occur over a short period of time.

The value of DOZ may be derived from or influenced by the continued willingness of market participants to subscribe for DOZ in exchange of fiat currencies, which may result in the potential for permanent and total loss of value of DOZ should the market for DOZ disappear.

You should also take into account the potential risk of loss in respect of buying and selling FDD for the fiat currency which the FDD is denominated in, arising from fluctuations in currency exchange rates. Currency exchange rates can be very volatile and can change quickly and unpredictably.

### **Third-party platforms**

DOZ is based on open source software and blockchain. This means that third parties can elect to support DOZ on their platforms without any authorization or approval by DU or anyone else. As a result, DOZ support on any third-party platform (including digital assets exchange platforms) does not imply any endorsement by DU that such third-party services are valid, legal, stable, or otherwise appropriate. We do not own or control the blockchain that DOZ runs on and are not responsible for the operation of the blockchain network and make no guarantees regarding the network's security, functionality, or availability. DU is not responsible for any losses or other issues you might encounter using DOZ on non-DOZ platforms. Users accept all consequences

from the holding and transfer of DOZ. DOZ transactions are not reversible. Once you send DOZ to an address, you accept the risk that you may lose access to, and any claim on, that DOZ indefinitely or permanently. For example, (i) an address may have been entered incorrectly and the true owner of the address may never be discovered, (ii) you may not have (or subsequently lose) the private key associated with such address, (iii) an address may belong to an entity that will not return the DOZ, (iv) an address belongs to an entity that may return the DOZ but first requires action on your part, such as verification of your identity.

### **Software protocols and operational challenges**

You are aware of and accept the risk of operational challenges. DU may experience sophisticated cyber-attacks, unexpected surges in activity, or other operational or technical difficulties that may cause interruptions to the DOZ Services. You understand that the DOZ Services may experience operational issues that lead to delays, including delays in redeeming DOZ. You agree to accept the risk of transaction failure resulting from unanticipated or heightened technical difficulties, including those resulting from sophisticated attacks. You agree not to hold DU accountable for any related losses.

### **Compliance**

You are responsible for complying with applicable law. You agree that DU is not responsible for determining whether or which laws may apply to your transactions, including tax laws. You are solely responsible for reporting and paying any taxes arising from your use of the DOZ Services, including any accurate reporting of the tax or legal status of DOZ in your jurisdiction.

### **Legislative and regulatory changes**

Legislative and regulatory changes or actions in the jurisdictions where we conduct business may adversely affect the tokenization of fiat currency into DOZ, and the use, transfer, redemption, and/or value of DOZ.

### **Legal treatment of DOZ transfers**

The regulatory status of DOZ and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether regulatory agencies may apply existing regulation with respect to DOZ, blockchain technology, and its applications. Accordingly, it is not possible to determine whether an DOZ transfer would be recognized under applicable law by a court or regulator.

### **On-chain transactions irreversible**

When DOZ is sent out of your DOZ Account to a third-party DOZ address, such transaction is completed on the blockchain. This means that such

transaction is irreversible and DU does not have the ability to reverse or recall any transaction once initiated. You bear all responsibility for any losses that might be incurred as a result of sending DOZ to an incorrect or unintended DOZ address.

## **XI. Glossary of Terms**

**Digital currency:** As defined by [http://en.wikipedia.org/wiki/Digital\\_currency](http://en.wikipedia.org/wiki/Digital_currency)

**Cryptocurrency or decentralized digital currency:** any type of cryptocurrency that is opensource, cryptographically secure, and uses a distributed ledger. See: <http://en.wikipedia.org/wiki/Cryptocurrency>

**Realworld currency, or fiat currency, or national/sovereign currency:** all types of currency that are not cryptocurrencies as defined above.

**Cryptocurrency system:** A collection of software and processes primarily created to enable the existence of a cryptocurrency.

**Legacy financial system:** any financial system that is not a cryptocurrency system.

**Asset backed/pegged cryptocurrency:** Any cryptocurrency whose price is pegged to a realworld asset, i.e. gold its not a “utilitybacked” cryptocurrency.

**DOZ:** a single unit of Digital Ounce issued by Paiblock

**Ounce:** a unit of weight equal to approximately 28 grams

**Proof of Reserves:** The process by which the issuer of any assetbacked decentralized digital currency, cryptographically/mathematically proves that all coins that have been issued are fully reserved and backed by the underlying asset.

**The gold standard:** The gold standard is a fixed monetary regime under which a currency is fixed and may be freely converted into gold. It can also refer to a freely competitive monetary system in which receipts for gold act as the principal medium of exchange; or to a standard of international trade,

## **XII. References**

[1] <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/research/publications/global-wealth-report-2021-en.pdf>

[2] <https://dictionary.cambridge.org/dictionary/english/ounce>

[3] [http://www.deloitte.com/assets/DcomUnitedStates/Local%20Assets/Documents/FSI/us\\_fsi\\_BitcointheNewGoldRush\\_031814.pdf](http://www.deloitte.com/assets/DcomUnitedStates/Local%20Assets/Documents/FSI/us_fsi_BitcointheNewGoldRush_031814.pdf)

[4] <https://www.gold.org/history-gold/the-classical-gold-standard>

[5] <https://www.ft.com/content/abc39431-1755-4906-b11e-ee9e53baadfe>

### XIII. Graphical representation

