Stablenotes: A Revolution in Asset Custody, Tokenization and Financial Services

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Abstract

The tokenization of digital assets and real-world assets (RWA) along with stablecoins and cryptocurrencies are transforming the global financial system from the ground up. With the GENIUS Act signed into law recently in the USA, an avalanche of transformation has been set in motion to what could become the greatest revolution in financial technology since the birth of the Internet itself.

Despite all these new favourable regulatory conditions, there are still critical challenges in custody and accessibility. Large amounts of tokens have already been issued since the appearance of Bitcoin back in 2009 and many more are on their way to be issued. All these tokens are to be found at online custodial platforms, in self-custody digital wallets or end up in cold-storage devices.

Oftentimes, the private keys of the digital wallets holding those tokens get blended with other digital content inside the magnetic storage or flash memories of hard drives, smartphones, PCs, USB-drives, and other types of electronic devices. The risk that at some point these devices will break down, become old or obsolete and will be discarded along with the private keys is substantial[1]. Another risk is the loss of recovery phrases, pin codes and passwords to access the digital wallets holding those tokens.

According to a 2023 report from *Unchained Capital*, there are 3.8 million bitcoins (over $400 billion USD at current valuation) already lost forever due to the above-described situation. Should this status-quo continue, then additional hundreds of billions of dollars in value are at stake as the tokenization trend accelerates. In this context, Stablenotes technology emerges as an innovative solution to this serious problem.

[1] A typical known example is James Howell who lost 8,000 bitcoins in a landfill in UK back in 2013 (~ $800 million at current valuation).

First, Stablenotes technology segregates the private keys of digital wallets holding tokens from getting mixed with a wide variety of other digital content. Next, Stablenotes will give a "face" to the tokens, make them irradiate high value and display the exact content of the tokens in a "always-on" format such that owners will never discard by mistake. The private key (password, mnemonics, or recovery phrases) can be securely embedded in the note because it is offline by design. Physical access—just as with cash money—becomes the only condition to access the value in the token.

It is a fact that crypto is one of the world's most attractive destinations for many different types of bad actors ranging from script youngsters to sophisticated hackers and even nation-states. This attraction will soon extend to comprise tokenized assets as they keep growing. The inherent transparency of the blockchain allows those bad actors to monitor the accumulation of huge amounts of tokens and value in single digital wallets. These wallets become then sitting ducks for bolt strikes such as the recent attack on cryptocurrency exchange *Bybit* where a massive $1.4 billion USD[2] worth of value was stolen during a transaction from a single digital wallet. The above, is another big problem that the Stablenotes technology could easily solve.

In this regard, because of the negligible cost of the air-gapped Stablenotes, token owners can spread out their risks by splitting their tokens into hundreds or even thousands of cold- and long-term storage wallets (Stablenotes) minimizing the attention that these individual wallets would create with cyber criminals.

One last risk worth mentioning is somewhat tabooed but always omni-present is the risk that all types of electronic devices in which tokens are stored today, are extremely likely to be annihilated and rendered useless in the eventuality of a high-altitude EMP[3] weapon detonation. Stablenotes will naturally survive such devastating event thanks to the absence of electronic components.

Stablenotes technology merges blockchain security with the tangibility of traditional assets, in particular cash money, offering a decentralized self-custody model that eliminates digital barriers and ensures absolute user control over their tokenized assets.

With its Stablenotes technology, a novel personal ATM mobile device and the Cryptocash token (CCH), the platform allows users to convert cryptocurrencies, stablecoins, tokenized securities, CBDCs and other digital assets into verifiable physical certificates, providing a secure and offline alternative to traditional custody systems. This infrastructure enables users to store or transfer tokenized assets without requiring a digital wallet, a centralized exchange, or even internet access paving the way for real mass adoption and financial inclusion.

According to recent estimates for 2025, the total value of banknotes in circulation globally is approximately $8.27 trillion printed into almost **1 trillion banknotes**. This is basically one-third of a $25 trillion monetary base as per OECD estimates. Therefore, while digital payment systems are ubiquitous, a substantial portion of

[2] 401,346 ETH stolen on Feb-21-2025 at 02:16:11 PM UTC

[3] Electromagnetic pulse

the money directly created and issued by central banks around the world remains in the familiar form of cash. This underscores the enduring role of physical currency for transactions, as a store of value, and as a fundamental component of the current global financial system. This is also the most indisputable argument supporting the unequivocal right of existence of Stablenotes in the new global financial order.

Stablenotes' value proposition goes beyond secure asset self-custody. The physical handover of a Stablenote from one person to another can effectively protect privacy which is a public good that needs to be preserved. It also enables a physical secondary market for fractional tokens, allowing instant peer-to-peer transactions without reliance on banking or digital infrastructure. Furthermore, by integrating with smart contracts, Stablenotes technology offers a programmable solution for asset management, allowing for automated transactions and regulatory compliance within the tokenized ecosystem.

This document explores the technology behind Stablenotes, how it could contribute to a fundamental realignment of financial services, its impact on the tokenized economy, and its potential to redefine how digital assets—including stablecoins and CBDCs—are stored, used, inherited, and transferred, setting a new standard at the intersection of tokenization, digitalization, and physical money.

1. Introduction

1.1 Tokenization and Its Impact on the Global Economy

Blockchain-based asset tokenization is revolutionizing financial and economic markets by enabling both physical and digital assets to be represented on the blockchain. This process facilitates their transfer, fractionalization, and commercialization in a more accessible and efficient ecosystem. Beyond optimizing traditional financial markets, tokenization is also creating new models of investment and ownership, reducing costs, and democratizing access to assets that were previously reserved for institutional investors.

The most common tokenization subjects in traditional asset fractionalization in public markets are:

- Real estate
- Public equity
- Fixed income
- Commodities

For on-chain asset tokenization in private markets the subjects are mainly:

- Pre-IPO stock
- SME revenues
- Public infra
- Private debt
- Private funds
- Wholesale bonds
- Digital assets
- Physical art
- Exotic beverages

The numbers speak for themselves: according to the Roland Berger Tokenization 2023 Report, the tokenized asset market, valued at $310 billion in 2023, is expected

to experience exponential growth, surpassing $10 trillion by 2030. Another report from Boston Consulting Group estimates that number to be $16 trillion only for tokenized illiquid assets and as much as $68 trillion for all tokenized assets (not including crypto assets). It estimates that at least 10% of the global GDP will be tokenized by 2030, confirming that asset digitalization is not a temporary trend but rather a new powerful financial infrastructure in development. Fresh numbers indicate that RWA went parabolic in Q1 2025 growing 37% quarter-over-quarter to a new all-time-high.

However, despite this growth, the adoption of tokenized assets, cryptocurrencies and CBDCs still faces critical barriers that hinder their widespread use:

- Custody risks: Most tokens are stored in digital wallets controlled by centralized platforms, making them vulnerable to hacks, deliberate frauds from platform owners or the loss of private keys.
- Cost of storage: Due to the high cost of traditional cold storage devices or other electronic devices, token owners opt to load larger number of tokens in single wallets, attracting the attention of cyber criminals.
- Adherence to both KYC and AML regulations in several jurisdictions and lack of traceability options.
- Lack of tangibility and trust: Many traditional investors are hesitant to invest in purely digital assets due to the absence of a physical representation of their investments.
- Access barriers: Most tokenization platforms require technical expertise, digital infrastructure, and complex regulatory compliance, which limits adoption in emerging markets.

1.2 Major disruption taking place: Wallets are becoming the New Banks[4]

In matter of few weeks in the spring of 2025, one after the other, several major players in the global financial industry have announced native support for stablecoins. MasterCard, Visa, and Stripe have all made announcements with the ultimate meaning that stablecoins are becoming a natural element in their market offering. Credit/debit cards can be tied to stablecoin balances to enable direct spending without converting to fiat.

No wondering that the behemoths of the world's payment infrastructure are panicking and taking immediate steps to have stablecoins in their offering when those have recently surpassed Visa—being the largest player in the credit card market—in transaction volumes. The growth curve shows no signs of slowing down any time soon. On the contrary, growth seems to be going parabolic.

[4] Stripe, stablecoins, and the $100B Race to Rebundle Finance -Chuk Okpalugo -Paxos

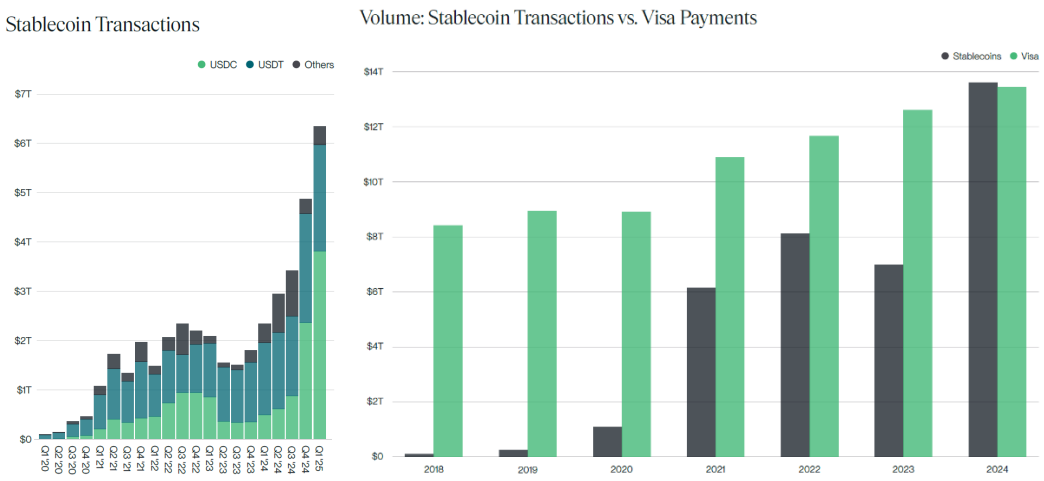

Fig. 1 Stablecoin transactions alone and vs Visa payments. Source: Bitwise Asset Management with data from Coin Metrics and Visa.

The traditional bank account has been unbundled and stripped down by stablecoins into its essential primitives: Hold value and move value. Stablenotes will now reinforce these two primitives even more. The Cryptocash Wallet is already capable of holding and printing stablecoins (USDt) so that they can be moved in truly peer-to-peer transactions. Most importantly, the Stablenotes project is willing to share this capability as a compact printing module with all well-established wallets which already have millions of daily users.

Stablecoins embedded in Visa/MasterCard credit- and debit card transactions along with the reinforcement of optional Stablenotes physical cash money will open the door for other wallets, acquirers and fintechs to re-bundle financial services around programmable, smart, global, on-chain money.

Traditionally, banks captured deposits by offering consumers basic services: a checking account, a debit card, eventually a small interest rate on savings. Today's fintech apps offer much more. Crypto exchanges like Coinbase, OKX, and Kraken, wallets like Revolut, Cash App and Venmo are increasingly capturing consumer balances and combining holding, investing and payments. Other wallets like WeChat Pay and Alipay proved that wallets can dominate daily financial life.

Now, stablecoins are supercharging this trend and Stablenotes can become the extra turbo mode that will help them reach escape velocity.

Control over deposits, payments and the end-user relationship are up for grabs. Whoever manages to capture this shift will build the next $100 billion financial giants. Stablenotes technology is perfectly poised to be in the middle of this financial revolution.

1.3 The Next Phase of Dollarization

Players such as Robinhood, Bybit and Kraken, are offering over 200 US stocks and ETFs to users across more than 140 countries. This could re-arrange how billions of people store and grow wealth. The aspirational destination to grow wealth has

been the U.S. stock market because that's where some of the world's most coveted companies are found, including the so-called "Magnificent 7" (Apple, Google, Amazon, Microsoft, etc.) However, access to this market has been very restricted - until now.

Stablecoin wallets are not just for holding dollars anymore. There are now also becoming investing instruments. Through tokenization, U.S. stocks are now becoming available around the clock to billions of people. A textile worker in Bangladesh, using his stablecoin wallet, could for example, become the owner of $10 dollars' worth of Nvidia stock.

For him, holding this stock physically in his hand as the old paper-based share certificates, could become paramount. Stablenotes technology will enable just that.

1.4 Stablenotes technology: A Solution for Self-Custody of Tokenized Assets, Stablecoins, other cryptocurrencies and CBDCs.

To overcome the previously mentioned custody challenges, Stablenotes technology introduces an accessible, highly affordable, self-custody solution that combines blockchain security and decentralization with the tangibility, transactability and portability of physical assets. It is immutable by design both in its physical- and its digital form.

Through its Stablenotes technology and the personal Cryptocash ATM device, the platform enables any user to store, transfer, and validate tokenized assets or CBDCs in a verifiable physical format, eliminating the direct need for digital wallets in electronic devices or centralized custodians. This means that investors can hold a tangible representation of their tokenized assets, backed by blockchain security but without the risks of traditional digital infrastructure.

The Cryptocash token (CCH) is what powers the Stablenotes technology which is the infrastructure underneath the transformation of the digital assets into the physical notes using the Cryptocash ATM device. CCH is a utility token that will tap into the unique fact that Stablenotes technology need a variety of physical components (including the Cryptocash ATM device and the Stablenotes) that need to be sold to consumers and operators. CCH's utility model will be explained with greater detail in the Tokenomics section of this Whitepaper.

The TON network has been chosen as the underlying network for CCH as one of the most modern networks (5th generation blockchain network) with fast finishing times (~6 sec) and an architecture using sharding technology that allows over 100,000 transactions per second (TPS) according to an audit ran by *CertiK*[5].
TON was publicly backed with a $400MUSD investment in March 2025 by some of the most legendary venture capital firms, including Sequoia, Benchmark, Ribbit, Drape, etc. corroborating the technological superiority of the TON network.

[5] During a livestream hosted by the TON Foundation in November 2023, the TON Blockchain achieved a world record of 104,715 TPS

Although CCH runs on the TON network, the Stablenotes technology platform is chain-agnostic and can work with virtually any Decentralized Ledger Technology (DLT) type that supports smart contracts. That includes the Bitcoin blockchain through Layer-2 protocols such as The Lightning Network. Moreover, most of CBDC projects running around the world, are also based on DLT and smart contracts and therefore compatible with the Stablenotes platform.

1.5 Stablenotes technology's Key Innovations

- Decentralized Physical Self-Custody: Tokenized assets can be stored in air-gapped durable Stablenotes, cutting off the original dependence on digital wallets and eventually, on centralized platforms.
- Intermediary-Free Transfers and Trading: Assets can be transferred peer-to-peer in physical secondary markets, without requiring an immediate digital transaction.
- Blockchain Verification Without Exposing Private Keys: Each Stablenote integrates a public key as a QR-code that is verifiable on the blockchain, allowing confirmation of availability of the asset without compromising the security of the asset. The private key QR-code is protected with a high-security sticker that is temper-proof and certified by financial authorities.
- Optional Traceability Features: A personal digital signature on the backside of the Stablenote and directly linked to the transaction allows to verify ownership source. This feature can be made mandatory depending on jurisdiction and strengthens KYC and AML compliance of solution.
- Financial Inclusion and Global Accessibility: Stablenotes allow any individual, regardless of their technical knowledge, to access tokenized assets without requiring internet access or banking infrastructure.

This document explores how Stablenotes technology is redefining the custody and commercialization of digital assets, establishing a new standard in the tokenization ecosystem and the realignment of financial services. With a strong focus on security, portability, transactability, and global adoption, Cryptocash positions itself as a key player in the evolution of the digital economy, the tokenization of real-world assets (RWA), and the deployment of CBDCs around the world.

Stablenotes technology will also contribute to boost a wider adoption of stablecoins and cryptocurrencies which today are used by as little as only 4.2% of the world population[6]

2. Technology and Functionality of Stablenotes

2.1 Stablenotes: Physical Certificates of Tokenized Ownership

Tokenization has enabled both physical and digital assets to be represented on the blockchain, yet a significant gap remains between digital ownership and its

[6] Source: TripleA Global Crypto Ownership data, August 2024

accessibility in the physical world. Cryptocash bridges this gap with Stablenotes, immutable physical notes that contain a protected cryptographic key pair and an optional personal digital signature, all of which are verifiable on the blockchain, allowing users to store and transfer tokenized assets without requiring digital infrastructure.

Each Stablenote acts as a tangible certificate of ownership that ensures security, autonomy, and verifiability, facilitating tokenization adoption among traditional investors, emerging markets, and sectors where digitalization is not yet fully integrated or where security is crucial.

Each Stablenote includes:

- A public key in form of a validation QR code that allows users to verify the asset's balance on the blockchain without exposing the private key.
- A private key protected by a high-security, tamper-proof sticker, enabling the owner to convert the asset back to the digital domain if so desired.
- An optional personal digital signature on the back side of the note directly associated to the asset displayed on the front, ensuring full traceability and KYC/AML compliance if so required.
- Advanced security features, such as invisible UV- and iridescent inks, optical variable inks, elaborated errors, holograms, watermarks, intaglio, microtext and unique serial numbers. All these features are there not just to deter counterfeiting at the physical level but to irradiate high value to prevent disposal by mistake.
- Highly durable materials as per the toughest requirements for long-term storage. A certificate from a specialized laboratory will be obtained assuring that the combination of ink and substrate will prevail for at least 100 years.

Impact on Tokenization Adoption:

According to the Boston Consulting Group report, in a highly conservative forecast, the total tokenized asset market is expected to grow to a staggering $68 trillion by 2030, driven by the adoption of real-world asset (RWA) tokenization. However, the lack of trust in digital ownership—for a good reason—remains a major barrier for traditional investors. Stablenotes technology overcomes this challenge by enabling users to store their assets in a verifiable immutable physical format, combining the best of both worlds, digital and physical.

2.2 Cryptocash ATM: The Tokenized Asset Convertor

The Cryptocash ATM is a novel printing device that converts digital assets into physical notes (Stablenotes), offering a secure, offline, and decentralized solution for token self-custody. This system cuts off the initial dependence of digital wallets or custodian platforms, allowing anyone to create a physical certificate of tokenized ownership without relying on complex digital infrastructure.

2.2.1 Printing and Self-Custody Process:

1. Selection of Tokenized Asset: The user selects the asset they want to convert into a physical format (cryptocurrencies, tokenized stocks, bonds, real estate tokens, CBDCs, etc.).
2. Generation of Cryptographic Keys: The Cryptocash ATM generates a pair of public and private keys to represent ownership of the asset on the blockchain.
3. Printing the Stablenote: The private key is printed onto a secure, air-gapped physical note with a great variety of anti-counterfeiting features, along with a public key to verify the asset balance on the blockchain. Both keys are printed as QR-codes to facilitate scanning using a regular smartphone device. The QR-codes are cloning-protected.
4. User Autonomy: The user can store, transfer, inherit or redeem the note without needing a bank account or other specialized infrastructure.

2.2.2 Enhanced Security and Offline Self-Custody

- Eliminates hacking and digital theft risks by removing reliance on online wallets and on any kind of wired or wireless radio transmission protocol (USB, Wi-Fi, Bluetooth, NFC, 4G/5G, etc.) making the solution completely air-gapped.
- Does not require internet access to verify asset ownership. (It is required only if it is necessary to verify the balance of the note on the blockchain).
- Enables the creation of physical secondary markets for tokenized assets, allowing Stablenotes to be bought, sold, given away or inherited without requiring an immediate digital transaction.

2.2.3 Stablenotes technology as the Bridge Between Tokenization and the Physical Economy

Tokenization is one of the major megatrends in global financial markets, but mass adoption requires accessible and secure self-custody solutions. The Cryptocash ATM and Stablenotes represent the first truly decentralized solution for storing and transferring tokenized assets in an immutable physical format.

How Stablenotes technology Transforms Token Custody:

- Redefines digital custody by offering secure, air-gapped, offline storage and self-custody.
- Eliminates dependence on centralized custodial platforms and exchanges.
- Facilitates the adoption of tokenization in both industrialized nations and emerging markets.
- Creates an accessible infrastructure for the future tokenized economy.

With Stablenotes technology, tokenization is no longer just a digital concept: It becomes a tangible and verifiable reality, driving the mass adoption of tokenized assets, stablecoins and cryptocurrencies worldwide.

3. Applications and Use Cases

Stablecoins and Tokenization in particular, are democratizing access to digital assets, but they still face challenges in custody, liquidity, interoperability, and global accessibility. Stablenotes technology addresses these issues by providing a physical storage and transfer system that combines the best of all worlds when it comes to money.

Traits of Money	Gold	Fiat currency	Crypto	Stablenotes
Fungible *(Interchangeable)*	High	High	High	High
Non-Consumable	High	High	High	High
Portable	Moderate	High	Moderate	High
Durable	High	Moderate	High	High
Highly Divisible	Moderate	Moderate	High	High
Secure *(Cannot be counterfeited)*	Moderate	Moderate	High	High
Easily Transactable	Low	High	Moderate	High
Scarce *(Predictable Supply)*	Moderate	Low	High	High
Decentralized	Low	Low	High	High
Smart *(Programmable)*	Low	Low	High	High
Traceability	Low	Low	Low	High

Fig. 2 Comparison between Stablenotes and other types of money or value carriers

The technological superiority of the Stablenotes solution is reflected in the fact that there is no trait in which it does not excel compared to any previous types of money and therefore it could be considered as the next step in the evolution of money.

Below are the key use cases where Stablenotes redefines how tokenized assets, stablecoins, crypto and CBDCs are stored, used, inherit, and traded.

3.1 Decentralized physical Self-Custody for regular users and investors

One of the biggest risks in tokenization, stablecoins and crypto is digital asset custody, which relies on online wallets or centralized custodians that can be hacked or become victims of different types of frauds.

Problem:

- Hacking from cyber criminals: Digital wallets and exchanges have been targeted by numerous cyberattacks such as the one against the cryptocurrency exchange *Bybit* highlighted in the abstract of this white paper.
- Dependence on digital infrastructure: Storing tokenized assets requires internet access and expensive specialized hardware.

- Regulatory restrictions: In some countries, governments can censor or confiscate digital assets stored on centralized platforms.

Stablenotes Solution:

- Users can physically store their tokenized assets in durable Stablenotes, eliminating the direct need for digital platforms or electronic wallets.
- Assets remain offline and completely air-gapped—protected from hacks and frauds-, as only the holder of the Stablenote has access to the unique set of private keys and therefore to the asset.
- Investors can spread out their risks by splitting their holdings into a large number of affordable Stablenotes (wallets), minimizing the attention from cyber criminals since all transactions and wallet balances are public information on any blockchain.

Example:
An investor who purchases tokenized bonds can print their assets onto one or many Stablenotes and store them in one or multiple safes or vaults, ensuring proper risk management and offline ownership.

3.2 Providing Tokenized Assets with a clear and tangible "face" and segregating them from other digital content

A clear advantage of tokenization is the intelligence that can be built in the tokens through programmable code which is executed directly on the blockchain (smart contracts). This means that any kind of token is "born" in the digital world by definition and tends to remain there because no good alternatives have been made available so far.

Problem:

- The private keys of digital wallets holding tokenized digital assets have a natural tendency to end-up in some sort of electronic devices such as cold-storage devices, PCs, servers, hard drives, USB-drives, smartphones, where they live a relatively "anonymous" existence often blended with other types of digital content in flash memories or magnetic storage.
- All electronic equipment has a limited life cycle, becomes old and eventually breaks down, gets replaced, disposed, or recycled. The risk that tokens accidentally get lost in the process is somewhat substantial, particularly if the initial value is small.

Stablenotes Solution:

- By printing the tokens in Stablenotes with a lot of security features that irradiate high value, with the asset name, timestamp and current value printed onto the notes to give the token a clear "face", then the risk of accidental note disposal becomes minimal.

- People would never throw away a banknote into a rubbish bin. The same behaviour is pursued for tokenized assets by making them irradiate high value.
- Segregation from other digital content can now take place in physical form, by placing the Stablenotes in a safe at home, in a safe deposit box at a bank or just by hiding them in a safe location.

Example:
A student hears about a new promising token based on a new ultra-rapid L1 blockchain technology and decides to invest a portion of his savings in this token while it is very affordable. Instead of keeping the purchased tokens in his gaming PC—with the risk of becoming old or getting hacked, he decides to print out the tokens into Stablenotes that he then keeps in a safe at his parents' house.

3.3 Fool-proof password management

Tokenized assets are stored in digital wallets as individual tokens. These wallets are accessed through pin codes, biometrics or passwords and need to be backed up using 12 or 24 words-recovery phrases also called mnemonics which are just an easy-to-read-and-write-down visual representation of the digital wallet's private key. The raw digital format of a private key is a 256-bit number which is very difficult to write down without any mistakes.

Problem:

- Passwords and pin codes are often forgotten or misplaced if written down.
- Recovery phrases must never be kept in digital form for obvious reasons. All cryptographic experts are in full consensus about that. Recovery phrases must only be written down on a piece of paper and kept in a safe place. Because of the handwriting and low-value appearance of the piece of paper, there is always a risk that it can end up in a trash can.

Stablenotes Solution:

- Every Stablenote is a digital wallet of its own in a physical format. The private key that controls it, is already embedded in the note which is an offline piece of paper as recommended by all cryptographic experts. Therefore, there is no need to keep a separated recovery phrase.
- The Cryptocash ATM can be used to accurately print out the recovery phrase of the First Digital Wallet (The wallet in a smartphone from which all consecutive physical wallets are created) in a shiny Stablenote that glitters high value which minimizes the risk of disposal by mistake.

Example:
An engineer, lost access to the digital wallet where he stored a previous investment of cryptocurrency as he changed his smartphone. After realizing that he misplaced the recovery phrase, he learnt his lesson and decided to adopt the Stablenotes solution.

3.4 Creating a Secondary Market for Tokenized Assets in Physical Format

Currently, secondary markets for security tokens are limited to online trading platforms, restricting liquidity and access to investors unfamiliar with blockchain technology.

Problem:

- Real-world asset (RWA) tokens cannot yet be traded in physical markets.
- Liquidity still depends on centralized exchanges or regulated platforms.

Stablenotes Solution:

- Cryptocash ATM allows users to create Stablenotes that can be traded physically anywhere.
- Users can sell their notes in physical markets, removing the need to list them on digital platforms.
- Enables instant asset transfers with very low fees and without intermediaries, preserving user privacy and autonomy.

Example:
An investor with a Stablenote representing 10 tokenized company shares can sell the note directly to another person without making an online transaction, increasing asset liquidity.

3.5 Asset Security and Fund Validation with Blockchain

One of the challenges of storing traditional assets in physical format such as share certificates, bonds, contracts, etc. is ensuring their authenticity.

Problem:

- Risk of forgery, counterfeit, and fraud in traditional physical assets.
- Difficult validation process without a digital intermediary.

Stablenotes Solution:

- Each Stablenote includes a public key as a QR code that is verifiable on the blockchain and uniquely linked to the Stablenote, allowing any person to confirm its authenticity before accepting it.
- Private keys are stored behind a security sticker in an encrypted and protected format linked to the unique serial number of the Stablenote, reducing the risk of unauthorized access.
- Assets can be validated in real-time without exposing the private key or requiring an immediate digital transaction.

Example:
Before accepting a Stablenote, a buyer can scan the QR code with their smartphone and verify the balance on the blockchain in real-time, ensuring the asset has not been used. If the note's denomination is very high and if deemed necessary, other security features of the Stablenote can also be checked.

3.6 Integration with Smart Contracts for Automated Custody

Stablenotes not only stores tokenized assets but also enables the automation of custody and transfers using smart contracts.

Benefits of integrating smart contracts:

- Tokens in Stablenotes can be programmed with specific rules, such as expiration dates or locked funds.
- Facilitates regulatory compliance by ensuring that certain transactions are only executed under predefined conditions.
- Reduces manipulation and fraud risks by automating property transfers.

Example:
A financial institution can issue Stablenotes that can only be redeemed after a specific period, ensuring that investors hold their investment until maturity.

3.7 Fractionalization of Tokenized Assets in a Tangible Format

One of the biggest advantages of tokenization is the ability to split high-value assets into accessible fractions, allowing investors with lower capital to participate in markets which were inaccessible to them. However, this process still depends exclusively on digital platforms.

Problem:

- Tokenized assets still require expensive digital infrastructure for acquisition, transfer, or validation.
- Traditional investors distrust purely digital ownership due to its subjective nature, slowing down tokenization adoption.

Stablenotes Solution:

- Affordable Stablenotes allow fractionalized assets to be stored in a physical- and verifiable format segregated from other content and tagged properly with asset name and amount.
- People can buy, sell, give away or swap small fractions of tokenized assets physically, without the need for digital platforms.
- Illiquid assets like real estate, digital art, and commodities can be represented on physical notes, removing adoption barriers.

Example:
A real estate developer can tokenize a building or a plot with big potential and issue Stablenotes representing fractions of ownership, allowing multiple investors to purchase shares without needing complex digital infrastructure.

3.8 Global Accessibility and Elimination of Technological Barriers

Problem:

- Tokenization still depends on internet access, exchanges, and digital wallets.
- In emerging markets, many people lack access to these platforms.

Stablenotes Solution:

- Anyone can store and transfer tokenized assets without needing a bank account or internet access.
- Facilitates financial inclusion in regions where digital infrastructure is limited.

Example:
A farmer in a developing country can store their savings in Stablenotes using a digital token backed by physical gold (i.e., XAUt), without needing a digital wallet for the long-term storage.

3.9 Cost Reduction and Greater Efficiency in Custody

Problem:

- Cost of cold storage devices is relatively high ($150-500 USD)
- Investors must pay custody fees to exchanges and banks.
- Transaction costs can be high on some blockchains. On the Bitcoin blockchain for example, during periods of network congestion fees have soared above $50 per single transaction.

Stablenotes Solution:

- Cost of Stablenotes (being each an individual wallet) is very low (<$1 USD/pc)
- Eliminates the need to pay digital custody fees.
- Allows assets to be stored for a very long term without recurring costs.

Example:
An investor who purchases tokenized bonds can store them physically in very low-cost Stablenotes without paying monthly custody fees.

3.10 Compatibility with Regulations and Legal Frameworks

Stablenotes Solution:

- Can be made compatible with existing legal frameworks—such as the newly signed GENIUS Act in the USA—facilitating regulatory adoption.
- Allows compliance with KYC/AML regulations through smart contract programming and through a personal digital signature on the back side of the note directly associated to the asset displayed on the front via a hash.
- Further compliance with AML regulations can be achieved by limiting the amounts of funds to be printed in a single Stablenote.

Example:
A government could use Stablenotes to issue tokenized sovereign bonds in physical format, ensuring traceability and legal compliance.

3.11 Conclusion: Stablenotes as Key Infrastructure for Tokenization

Stablenotes not only solves digital custody and accessibility problems but also bridges the gap between the traditional economy and tokenization, facilitating the mass adoption of tokenized assets.

By merging blockchain security with the simplicity of cash, Stablenotes introduces a new epitome for asset storage, transfer, and verification—making tokenization more practical, inclusive, and widely adopted.

4. Benefits of Stablenotes in the Tokenized Ecosystem

Stablenotes introduces a new infrastructure for the custody and transfer of tokenized assets, addressing the key challenges faced by the industry: security, accessibility, simplicity, interoperability, and reliable asset validation.

The following table summarizes the key benefits of Stablenotes and its impact on the tokenized ecosystem:

Feature	Benefit	Impact on the Tokenized Ecosystem
Offline Security	Protection against hacks and censorship.	Assets stored in air-gapped Stablenotes do not depend on digital wallets or online platforms, eliminating the risk of hacks and regulatory restrictions.
Tagging and segregation	Protection against disposal by mistake.	Assets are accurately tagged with name, timestamp, and value in a Stablenote dressed in high-value attributes.

Feature	Benefit	Impact on the Tokenized Ecosystem
Effective password management	No more forgotten passwords or misplaced recovery phrases.	Private keys are embedded directly in Stablenotes so no need for extra passwords. Recovery phrases for master wallets can be printed on a note where security features indicate high value.
Global Accessibility	Enables participation of users without banking infrastructure.	Individuals without access to bank accounts or digital platforms can store, exchange, and transfer tokenized assets in physical format, fostering financial inclusion.
Simplicity	No advanced blockchain knowledge required.	Unlike digital wallets, Stablenotes allow any user to store and transfer assets without needing complex processes, in-depth knowledge, or technical infrastructure.
Chain-agnostic	Compatible with multiple blockchains and tokenized assets.	Supports various tokenization standards (ERC-20, ERC-1400, NFTs, security tokens), facilitating adoption in different financial and commercial sectors.
Blockchain Verification	Physical certificates can be validated in real time.	Public keys embedded in Stablenotes as QR codes, allow users to verify balances on the blockchain without exposing the private key, ensuring asset authenticity before use or transfer.

Stablenotes redefines the way tokenized assets are stored and transferred, offering a solution that combines blockchain security with the accessibility and ease of cash transactions.

5. Stablenotes platform architecture: Offline Self-Custody and Digital Asset Management

5.1. Technical Architecture of the Cryptocash ATM device

The Cryptocash ATM is a hardware device and corresponding method designed to transform, store, and secure digital assets into a physical format. It acts as a decentralized custody solution that eliminates reliance on digital wallets, exchanges, and online infrastructure by allowing users to print Stablenotes—a sort of physical certificates of tokenized assets.

This technology is based on secure cryptographic key generation, blockchain verification, and smart contract execution to ensure the authenticity and accessibility of tokenized assets without the risks associated with centralized storage.

Key functional components include:

- Secure Printing Unit: Capable of embedding cryptographic keys into physical notes with anti-counterfeiting features.

- Key Generation Module: Produces high-entropy private and public keys for each printed note.
- Transaction Processing Unit: Handles asset transfers to newly created wallets.
- Secure Storage Module: Uses tamper-resistant hardware to store keys during the printing process (2nd generation device).
- Modular Connectivity: Operates 100% offline or integrates with blockchain networks for optional verification.

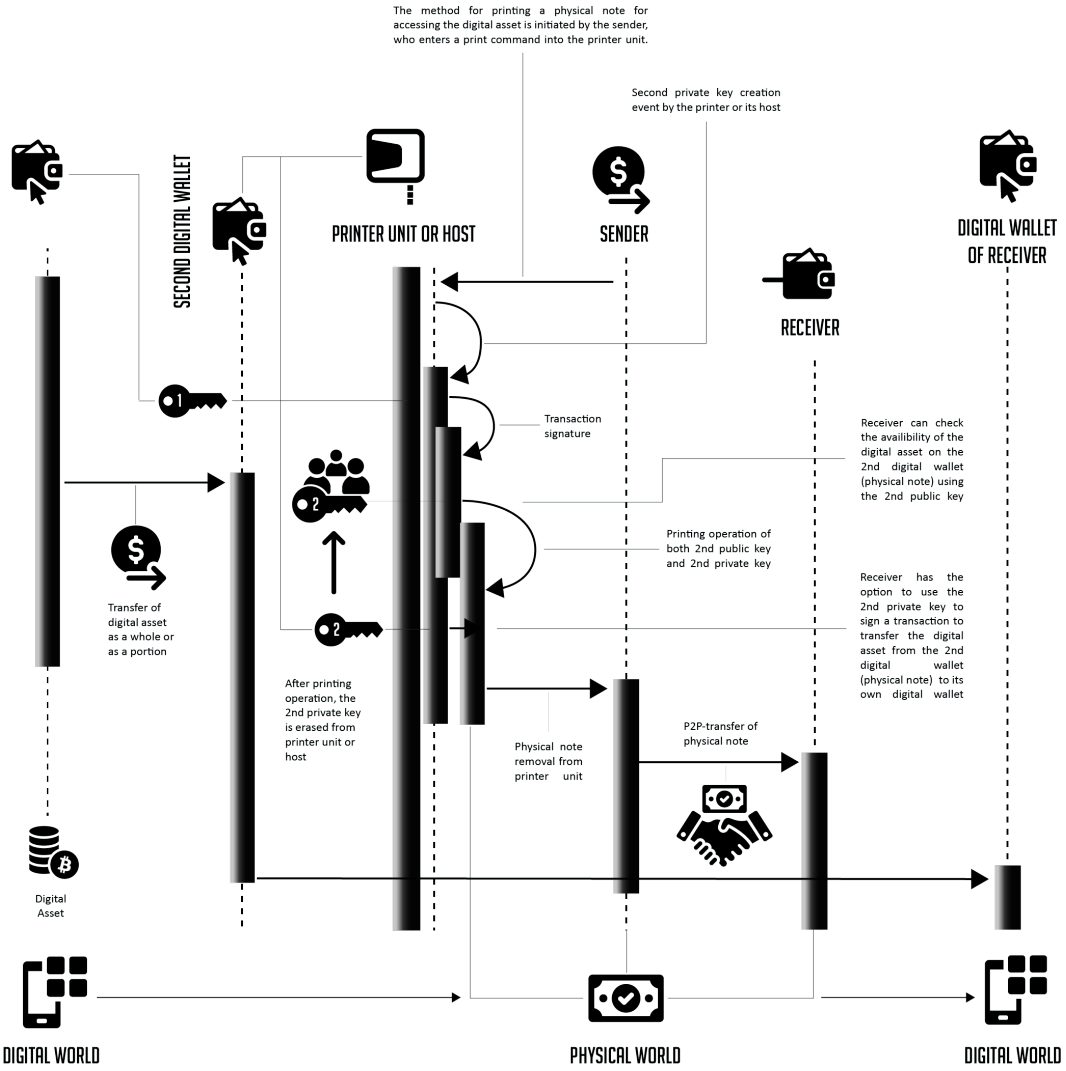

Fig. 3 Swimlane flowchart showing the conversion of digital assets to physical notes and then back to digital

5.2. Detailed Process of Digital Asset Creation and Custody

Cryptocash ATM follows a high-security process to generate wallets, transfer assets to those wallets, and print them out as physical certificates. The purposes are either self-custody or further transfer. The private keys of the printed certificates are never stored anywhere else but in the printed medium.

5.2.1 Creation of the First Digital Wallet

This is a master wallet created and residing on the Cryptocash ATM device. It is controlled from a smartphone device where transactions are prepared and signed.

1. Generating Key Pair:
    - The first wallet is generated using a high-entropy random key creation algorithm.
    - A first private key is securely stored in the Cryptocash ATM's hardware module (e.g., Secure Element).
    - A first public key is derived and assigned to the first digital wallet.
2. Blockchain Address Creation:
    - The Cryptocash ATM device requests a valid DLT (Distributed Ledger Technology) address and verifies the balance of the first wallet.

5.2.2 Creation of the Second Digital Wallet and Asset Transfer

1. **Generating a Second Wallet**:
   A new second wallet is generated using another set of high-entropy keys.
   The private key of this wallet is designed to be transferred to an air-gapped Stablenote by means of printing out a scannable QR-code.

2. **Executing a Secure Transfer**:
   The first wallet signs a transaction transferring digital assets to the newly created second wallet.
   The smart contract algorithm computes the second wallet address as a hash function of the contract's code and data.

3. **Printing the Stablenote**:
   The ATM prints the private key of the second wallet as a QR-code onto a secure, durable, unique, tamper-resistant note that looks and feels as a regular banknote. It also has the size of a typical banknote.

   The note may include:
    - A blockchain-verifiable QR code
    - A public key for verification
    - A unique serial number
    - Encrypted or hidden but verifiable security elements
    - Visible security elements like the ones found in regular banknotes
    - A security sticker with an obfuscation pattern to protect the private key

4. **Deleting Private Key from Memory**:

Once the Stablenote is printed, the Cryptocash ATM device immediately erases the private key from its memory, ensuring that the only copy exists in physical form and that a portion of it is embedded in a secret layer of its public key QR-code such as both keys become interdependent and interconnected with each other and with the serial number of the Stablenote.

5.2.3 Authentication and Execution of Transactions

- The user or recipient of a Stablenote can scan the public key QR code to verify the asset balance.
- If the owner wants to transfer the asset back to the digital domain, he/she needs to remove the security sticker protecting the private key QR code and scan it, triggering the execution of the smart contract and the deployment of the transaction.
- The system supports self-destructive wallets through the smart contract, meaning that after redemption, the second wallet ceases to exist, preventing unauthorized reuse.

5.3. Advanced Security in Asset Custody

The Cryptocash ATM security model ensures that assets printed out onto Stablenotes are protected from online theft, hacking, and unauthorized duplication. All main elements of the Stablenote, including the key pair and the unique serial number are intrinsically connected to one another. Any attempt to tamper with the process could result in permanent loss of assets for the nefarious user.

True Entropy Key Generation:
Uses cryptographically secure random number generators (hardware-based entropy).
Enhances security with optional biometric input or motion-sensor randomness.

Non-Stored Private Keys:
Once printed and imprint confirmed as good, private keys are permanently erased from the system.

Anti-Counterfeiting Protection and High-Value Indicators:
UV/IR-sensitive inks, iridescent inks, optical variable inks, elaborated errors, holograms, microtext, watermarks, intaglio and unique serial numbers and QR encryption layers prevent duplication.
Blockchain validation ensures that only one note per every secondary digital wallet exists.

Offline Operation Mode:
The Cryptocash ATM device functions without a direct internet connection, preventing online hacking attempts. Instead, it connects over Wi-Fi to a host device (smartphone) via a specialized and well-defined secure protocol. The host device connects then to the internet to carry out on-chain transactions (send, receive, swap, buy, sell, etc.) using the Cryptocash Wallet application.

Tamper-Resistant Hardware:
Uses a Secure Element such as Trusted Platform Module (TPM) for key storage and signing operations[7]. The master private key never leaves the secure element and is never compromised.

AI-based protection check
The system utilizes state-of-the-art Visual Transformers and Machine Learning to identify the authenticity of the Stablenotes both during creation and verification. All main elements of a Stablenote—private key, public key, and substrate—are tightly interconnected to one another and cannot work in a separate fashion.

Human-operation verification
The Cryptocash ATM has navigation sensors and accelerometers that are used to gather motion data during operation. AI is used to verify that the motion signature corresponds to that of a human, making it virtually impossible for a bot or a software to mimic such signature.

5.4. Smart Contract Integration

Stablenotes integrates the usage of programmable smart contracts that ensure asset validation, secure conversion back to digital and flexible functionality.

5.4.1 Temporary Wallet Creation

- The generated second wallet can be considered a temporary wallet that holds the asset until it is redeemed.
- The private key of this wallet is embedded in the air-gapped physical Stablenote and is required for access. Ownership of the note means sole ownership of the private key.

5.4.2 Fund Verification and Asset Validation

- Potential recipients of the Stablenote can scan the public key QR code to verify the balance in real time before acceptance.
- The system ensures that assets remain intact and verifiable until the private key is used by means of removing the tamper-proof security sticker.

5.4.3 Smart Contract Execution Algorithm

1. The printed note is scanned, and the system extracts the wallet address.
2. A transaction is initiated from the second temporary wallet to the recipient's digital wallet.
3. The smart contract deploys the transaction, executes the transfer, and the second wallet self-destructs.

[7] Intended for the 2nd generation of Cryptocash ATM devices.

5.5. Conclusion: A New Standard for Digital Asset Self-Custody

The Cryptocash ATM introduces a groundbreaking model for air-gapped offline tokenized asset storage and transfer, addressing critical gaps in custody, security, and accessibility.

Key benefits include:

- 100% Offline Air-gapped Self-Custody: Eliminates risks from hacks, breaches, and regulatory seizures.
- Affordability and Longevity: Low cost of physical notes allows spreading risks into multiple temporary wallets. The selected combination of ink and substrate is designed to last for a very long term (100 years minimum).
- Tamper-Proof Physical notes: Prevents unauthorized duplication with advanced security printing.
- Blockchain Verification Without Digital Exposure: Allows instant validation without revealing private keys.
- Elimination of Private Key Risks: Users are not troubled with the management of passwords, pin codes or recovery phrases (except for the master software wallet).
- Smart Contract Automation: Ensures seamless and secure asset conversion back to the digital domain.
- Universal Tokenization Solution: Supports multiple blockchains and asset classes (CBDCs, crypto, securities, commodities, NFTs).

By bridging the gap between digital tokenization and physical custody, Stablenotes establishes a new paradigm for secure and universally accessible digital asset storage and transactability.

6. Roadmap and Implementation Strategy

Stablenotes has a strategic multi-phase implementation plan aimed at ensuring secure deployment, adoption, and expansion across global markets. This roadmap details the key milestones in the launch and growth of Cryptocash ATM and the Stablenotes, from the initial rollout to full-scale global adoption.

Phase 1 (Q3 2025): Cryptocash Wallet Apps and ATM device Launch

Key Objectives:

- Launch of Cryptocash wallet applications for iOS and Android
- Integration with TON as CCH's native blockchain and supported tokens (TON, USDt trc-20, USDt on TRON, etc) and some tokenized commodities such as gold (XAUt).
- Implementation of ambassador program using physical- and virtual vouchers.

- Manufacturing of initial batches of Stablenotes and Cryptocash ATM devices
- Private Early Access to CCH Tokens via a whitelist-only pre-sale.

Phase 2 (Q4 2025): Initial Community building

Key Objectives:

- Cooperation with TON Foundation and Telegram to grow the TON Ecosystem by tapping into the USPs of the Stablenotes project.
- Orchestrating the first real airdrops in the world by releasing physical notes containing TON, USDt and CCH from the air in locations in emerging markets around the world but with initial focus in LATAM.
- Initiating the establishment of a network of Cryptocash ATM operators which will allow common people to get their stablecoins and crypto transformed into physical notes for a small commission.
- Cryptocash ATM Crowdfunding campaign in Kickstarter.
- Official Public Sale of the CCH Token Pre-Sale.

Phase 3 (Q1 2026): Token listing

Key Objectives:

- Set up the Stablenotes Foundation.
- Gradual implementation of governance mechanisms in three phases.

- Build a solid utility model around the CCH Token based on sales of hardware, and consumables (ink and Stablenotes).
- Prepare a strong liquidity pool for the CCH Token by pairing it with TON and locking the LP tokens for at least 12 months using a smart contract.
- Establish collaboration with a Market Maker having a robust track record on the TON network.
- List the CCH Token in well-known Decentralized Exchanges (DEX) and then into the largest Centralized Exchanges (Binance, Bybit, Kucoin, Kraken, etc.).
- Integrate with other major blockchains (ETH, XRP, Solana, Cardano)

Phase 4 (Q2 2026): Expansion to Tokenized Securities

Key Objectives:

- Collaboration with tokenized securities- and tokenization platforms.
- Integration with tokenized bonds and stocks.
- Development of an API for integration with digital asset exchanges.
- Expansion into tokenized commodities.
- Integration with traditional financial institutions.

- Launch of certification services for real-world asset (RWA) tokenization.

Phase 5 (Q3-Q4 2026): Global Adoption

Key Objectives:

- Run a pilot in a selected geography using the Stablenotes solution along with a stablecoin (i.e., USDt) to study potential hurdles for adoption as means of transactional day-to-day payments.
- Initiate collaboration with at least one central bank currently running a CBDC pilot to allow the Stablenotes solution to become part of their CBDC project.
- Integration with the world's largest blockchain: Bitcoin.
- Gain traction for the Stablenotes by tightening collaboration with additional leading blockchains.

Phase 6 (2027): Incursion into additional Markets

Key Objectives:

- Expand into Africa and Southeast Asia riding the Stablecoin wave as this year the amount of Stablecoins in circulation will be in the trillion of dollars.

- Proof that the Stablenotes solution addresses the main concerns of some governments regarding traceability of assets which has resulted in bans to cryptocurrencies.
- Launch next generation of Cryptocash ATM devices featuring high-security inks and additives, auditable secure element, super high resolution print engine.

7. Tokenomics

Stablenotes Tokenomics has been constructed by Altlift s.r.o. a Czech company with more than 8 years of experience in the Crypto industry, consisting of a team of experts in the field with Ph.D. degrees of the University of Prague in Economics. They have considered a large number of parameters including production costs for both Stablenotes and ATM devices, production capacity, revenue streams, equity, adopters, operators, market cycles, bear market drawback, innovation effect, imitators, expenses, buy pressure, reward program, print volumes and many more.

The Tokenomics model has been crafted without any influence from the Stablenotes team. The model was designed with a very conservative approach in relation to the vast market potential for the Stablenotes solution. Globally, it is estimated that physical cash—primarily banknotes—makes up approximately up to **35%** of the total money issued by central banks worldwide. This figure, while an

approximation, highlights the continued significance of tangible currency in an increasingly digital world.

Our assumption is that this significance will continue as fiat money becomes tokenized into stablecoins. Perhaps with even a stronger justification because the highest security at the lowest possible cost can only be offered by paper: offline, air-gapped, resilient to obsolesce, etc.

A World Awash in Cash: Approaching a Trillion Banknotes in Circulation

The current **$8.27 trillion** in cash worldwide is circulating in **900 billion** banknotes. The main driving force in banknote volume are the Asian giants. While the figures for the US dollar, euro, and yen are substantial, they are dwarfed by the volume of banknotes in circulation in the world's two most populous nations: China and India.

Although precise, regularly updated figures for the number of individual notes from their central banks are not as readily available as in other major economies, industry analysis from "Cash Essentials" provides crucial estimates. Their research suggests that the combined number of banknotes in circulation for the Chinese Yuan and Indian Rupee is in the hundreds of billions, significantly contributing to the global total.

Despite these limitations, the available data and expert analysis strongly indicate that the total number of banknotes in circulation worldwide is a figure of immense proportions. The continued high demand for physical cash across diverse economies highlights its enduring role in the global financial landscape.

A natural market demand already exists

Taking the current Stablecoins market cap hovering around $260 billion puts the current vacuum of the equivalent of banknotes for stablecoins (Stablenotes) in the range of **9.3 billion** pieces. Assuming one Cryptocash ATM device for every 315 Stablenotes leads to a figure of approximately **30 million** devices.

By 2030, if the growth predictions for Stablecoins land at a figure of $3 trillion, then the demand for Stablenotes will grow to a staggering **108 billion** and the ATM devices to **343 million** pieces. This is without considering the $10 trillion prediction for tokenized assets alone. Also not considering CBDCs, nor other cryptocurrencies.

In the model’s most optimistic scenario, it is being predicted that only **1.1 billion** Stablenotes and **3.5 million** ATM devices will be sold by 2030, which is an extremely conservative figure given the attainable size of the market.

7.1 Token distribution

The entirety of the 8 billion of Cryptocash tokens were minted in 14 of May 2025 (TGE date) directly into 1000 offline printed wallets with 8 million CCH each. They are located on a high-security location which will be upgraded as token value grows

over time. These wallets will be brought online only as needed and they will be perfectly organized to support the defined token allocations. Their public addresses will be published for full transparency so that the community can monitor all wallet activities. The token distribution has been determined and nailed down as follows:

- Community 60% (600 wallets)
- Treasury & Ecosystem 7% (70 wallets)
- Liquidity Pool 10% (100 wallets)
- Development 8% (80 wallets)
- Private Investors 4 % (50% discount on launch pricing) (40 wallets)
- Public presale 4% (25-50% discount Dutch auction) (40 wallets)
- Team 4% (40 wallets)
- Marketing 3% (30 wallets)

Cliffs for Treasury & Ecosystem, Private Investors and Team are set to 8 months and monthly unlocks over a 2-year linear vesting schedule (See token launch details). Development and Marketing have no cliff, but they have a 3-year linear vesting schedule.

All cliffs, vesting schedules and token locks for liquidity pool will be automated by audited smart contracts.

Participants on the public presale are excluded from any kind of locks to avoid reduced demand during the presale event and because the primary goal of the public presale is to achieve wide distribution from day one.

7.2 Airdrop strategy

Stablenotes airdrop strategy will utilize the uniqueness of the solution by organizing the first of its kind real airdrops in the crypto industry—literally speaking. Physical vouchers, Stablenotes featuring USDt blended with few fiat banknotes will be dropped from the skies (using drones where possible or balloons, airplanes, or skyscrapers) in many locations around the world. The idea is to create a sort of “wildfires” or geographical spots where the airdrops start spreading further by means of a smart referral program that the Stablenotes teams has created. This referral program is based on an ”Airdrop Dispenser” smart contract and a sophisticated backend service in interaction with the Cryptocash wallet app.

Such referral program consists of two methods: One is a web-based voucher which first-time visitors to the Stablenotes web page can redeem. These visitors have heard or seen Stablenotes in the news, in social media and have made their way to the website. The second method is a mobile-based voucher dynamically reflected in the Cryptocash wallet app of an existing CCH token holder (called ambassador) which is then shown or sent to friends & family. Rewards are then distributed in up to three levels.

In the beginning of the referral program, larger amounts of tokens will be airdropped to make it more appealing to initial users. As the community grows, the amounts will be reduced according to the next table:

	Up to 200 000 users	**200 000 - 1 000 000 users**	**1 000 000+ users**
Tier 1	**500 CCH**	**250 CCH**	**125 CCH**
Tier 2	**300 CCH**	**150 CCH**	**75 CCH**
Tier 3	**100 CCH**	**50 CCH**	**25 CCH**

Top-performing ambassadors can be given access to physical vouchers to help them speed up their user acquisition.

Another important ingredient in the airdrop strategy is the build-up of a network of operators of Cryptocash ATM devices. Operators can be any kind of small business (such as mobile phone shops, cafés, tobacco kiosks, etc). The first 10 000 operators will get airdrops that compensate the acquisition cost of an ATM device (150 USD = 18 750 CCH). They will also get 5% of their monthly turnover volume and the possibility to print their own physical ambassador vouchers which they can gift to customers as a token of appreciation for their purchases or for their sole visits to their businesses.

The build-up of the network of operators is planned to start already during an upcoming Kickstarter crowdfunding campaign that will take place during Q3 2025. PrintDreams International AB, the company behind Stablenotes project, has already a solid track-record with a previous Kickstarter campaign back in 2019 that successfully closed at half a million USD.

With the above strategy in place, it is planned that all community tokens will be given out within 60 months.

7.3 Token utility as the main tool to attract and retain holders

Very few Web3- blockchain projects and tokens can crow about their ability to grow a substantial bedrock of physical infrastructure as the Stablenotes can do. Supplying such tangible infrastructure (mobile ATM devices and paper Stablenotes) justifies charges to end users in a way that is more difficult to achieve when offering a pure online-based service or a software.

PrintDreams International AB will implement a profit sharing for the CCH token based on 10% of the post-tax revenue of the company. Daily snapshots of all wallets holding the CCH token will be taken (on a weight time average) and quarterly airdrops in USDt will be carried out. The details of the utility will be later adjusted by a DAO governance mechanism defined in the following point.

The company has the know-how and skills to implement an auditable activation system for mobile ATM devices and batches of Stablenotes so that they get anonymously registered in the TON blockchain via public addresses of dedicated

wallets that token holders can always monitor. This will incentivize the holder community to further engagement and to remain as CCH token holders.

The token utility is the main tool to generate a sustainable value growth for the CCH token. The goal is to make it so attractive to hold CCH that sell pressure should always be kept to a minimum.

7.4 Governance strategy

It makes a great deal of sense to implement a governance mechanism for the CCH token, and in fact, it creates a powerful synergy with our profit-sharing, utility model. The objective with the governance strategy is to create a robust, engaged, and loyal community.

However, it's crucial to understand that this combination comes with significant strategic and regulatory implications, especially in Europe under the current MiCA (Markets in Crypto-Assets) regulation, which is now in full effect as of the time of writing of this Whitepaper (August 2025).

Given the complexities, we have chosen to go for a phased rollout of our governance mechanism:

Phase 1: Advisory Governance (Signaling): We will start with off-chain voting using platforms like Snapshot. These polls are non-binding but will allow us to gauge community sentiment on key decisions. The Stablenotes core team still makes the final choice, which minimizes risk initially.

Phase 2: Limited On-Chain Governance: We will introduce binding, on-chain voting for specific, non-critical parameters. This will allow us to test our systems and community engagement in a controlled environment.

Phase 3: Progressive Decentralization: As the Stablenotes project matures and legal clarity is fully established, gradually we will hand over more significant decisions to the token holders, potentially including control over the community treasury (7% of token allocation).

7.5 Token launch details

The launch date for the CCH token is set to March 30th, 2026, at a launch price of **$0.008** per CCH. This results on **$6.4M USD** as initial Market Capitalization and with **$64M USD** in fully diluted value. The liquidity collateral is planned to a minimum of **$640k USD** in TON.

The cliff for the team and private investors is set to 8 months until **November 30th, 2026**. The primary purpose of this cliff is to prevent immediate selling pressure from the private investors, and the team members, who receive a significant portion (8%) of the total token supply at a discounted price. By implementing a cliff, the Stablenotes project aim to stabilize the CCH token price by preventing a massive influx of tokens into the market shortly after launch, which could lead to a sharp decline in the CCH token's price.

The cliff will also help to align long-term interests: It ensures that stakeholders are committed to the project's development and success beyond its initial launch phase. Finally, it will help to build community trust: A well-defined cliff demonstrates a commitment from the core team and early backers, fostering confidence within the broader community.

Following the cliff, a linear vesting schedule of two years (until November 30th, 2028) will come into play to help mitigate market volatility. This is a pre-determined timeline that dictates the gradual release of the locked CCH tokens to their owners. Instead of receiving the entire allocation at once after the cliff, recipients gain access to their tokens in increments over every month.

Both the cliff and the linear vesting schedule are fully automated and regulated via public smart contracts which will be audited by some of the most reputable third-party auditing firms that specialize in or have significant experience with TON smart contracts.

7.6 Token presales

The Stablenotes project aim to carry out two presale events: One is a private token presale by invitation only and the second one is a presale open to the public. The private token presale is organized so that the minimum investment is **$50 000 USD** which entitles the investor to **12.5M CCH** tokens. The total amount of tokens dedicated for each one of the presale events is equal to **320M CCH** tokens. At a 50% discounted sales price of **$0.004 USD**, the potential raise amount in the private presale and the cap is set to **$1 280 000 USD.**

The bulk part of the raised amount from private presales will be used to build the liquidity pool of the CCH token as a pair with TON with a minimum target of **$640 000 USD.** As mentioned previously, tokens in the private presale are subject to an 8-month cliff and a linear vesting schedule over two years.

The public presale, assuming a 25% discounted sales price of $0.006 USD, will make the potential raise amount to a **$1 920 00 USD**. The public presale will be carried out at the end of the crowdfunding campaign on Kickstarter to maximize the attention and interest for the project. Tokens in the public presale have no cliff and are completely unlocked at token listing.

7.7 Project growth forecasts

Three different scenarios have been constructed by Altlift where the main difference between them is set by the user acquisition speed. In the pessimistic scenario the speed is lower while in the optimistic scenario, the speed is faster.

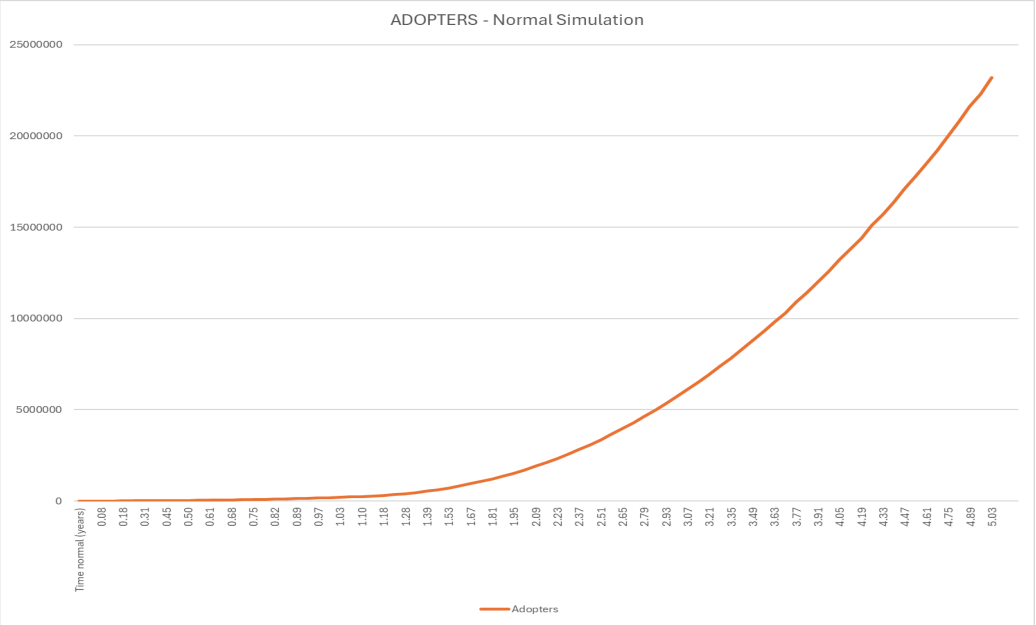

Fig. 4 Growth of adopters (token holders) over a period of five years from listing

The neutral scenario for the growth analysis forecast is taken as reference. It is evident that the value growth of the token is correlated with the growth of the user base (adopters). The first two years the growth will be somewhat slow while in the third year the growth will start to become substantial reaching over 23 million adopters in year 5.

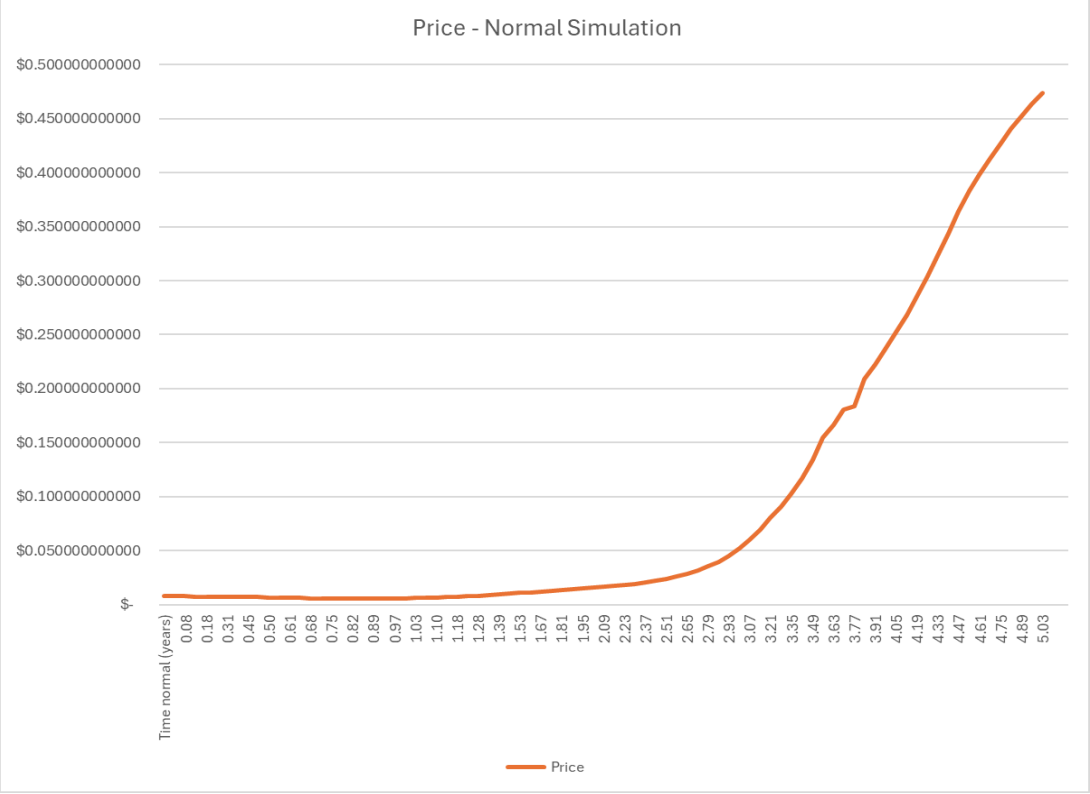

Fig. 5 Growth of token price (neutral forecast) over a period of five years from listing

The forecast for the growth of the CCH token value in the neutral scenario by the time of the initial token unlock (8 months) goes somewhat down to $0.0054 USD which is still around 136% of the discounted price. 2 years down the line the price is forecasted to reach $0.017 USD which makes a 430% increase from the discounted price.

Only in year 3, when all tokens have been unlocked, we start to see some very decent growth at $0.069 USD which is a 1725% increase. For year 5, the growth curve prediction starts to reach outstanding performance hitting a price tag of **$0.45 USD** or a **11 320%** increase.

Conclusion

Stablenotes is set to redefine the landscape of tokenized asset custody and transfer by combining blockchain immutability with tangible, secure physical representation. Through air-gapped Stablenotes and the novel personal Cryptocash ATM device, the platform enables a cold-storage solution for tokenized assets, cryptocurrencies and CBDCs with a very high portability and transactability factor.

This whitepaper has outlined:

- The current market demand (growing rapidly) for at least 9 billion Stablenotes
- The technological foundation of the Stablenotes solution.
- Its key applications in tokenization and custody.
- Its potential to enable easier and faster peer-to-peer transactions
- The highly secure architecture that ensures asset protection.
- The roadmap for gradual and scalable implementation.

As global adoption of tokenization, stablecoins and crypto accelerates, Stablenotes is positioned to bridge the gap between digital- and physical finance, offering an unparalleled solution for regular individuals, investors, businesses, governments, and financial institutions worldwide.

Stablenotes has also the potential to empower poor nations, common people, and unbanked individuals to participate in the new digital economy, strengthening financial inclusion and lowering the entry barriers by giving them a solution that resembles something they already are very familiar with: Cash money.

With the recent entry of several global financial actors such as MasterCard and Visa, into the crypto industry, hundreds of millions of people and businesses will have stablecoins in their digital wallets and accounts. These people will exert pressure on those actors and demand to be able to receive physical cash from their stablecoin balance just as they are able to do from their balance in fiat. It will be a natural course of development.

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