

A stylized yellow 'X' logo composed of four thick, slightly irregular vertical and diagonal bars that intersect in the center. The logo is positioned behind the main title text.

GNG STABLECOIN

**THE
DIGITAL
POUND STRLING**

WHERE ALWAYS 1 GNG = £1 GBP

AGLPAY LIMITED

ABSTRACT

The concept of money has evolved over thousands of years and there is still space for the improvement. In this paper we introduce GNG, a new digital asset that is fully backed by one-to-one by most stable fiat currency British Pound Sterling (symbol £, GBP. Less volatile & lowest inflation rate since 1970. A digital currency backed by fiat currency provides a robust and decentralized method of exchanging value while using a familiar accounting unit. Asset backed token issuers and other market participants can take advantage of blockchain technology, along with embedded consensus systems, to transact in familiar, less volatile currencies and assets.

In order to maintain accountability and to ensure the stability in exchange price, we propose a method to maintain a one-to-one reserve ratio between a cryptocurrency called GNG, and its associated real-world asset, fiat currency (GBP). This method uses the blockchain, Proof of Reserves, and other audit methods to prove that issued coins are fully backed and reserved at all times.

We believe that GNG represents a significant advancement in digital assets, leveraging the infrastructure, oversight and stability of the traditional financial system, while operating at the speed of the Internet.



GNG Stablecoin - The Digital Pound Sterling (£).

Table of Contents

1.0	Abstract	Page 2
2.0	Table of Contents	Page 3
3.0	Introduction	Page 4
4.0	The Opportunity for Stable Cryptocurrencies	Page 4
5.0	Challenges for Stable Cryptocurrencies	Page 5
5.1	Trust	Page 5
5.2	Proof-of-Reserve	Page 5
6.0	Overview of the GNG	Page 6
6.1	Basic Attributes	Page 6
6.2	GNG Key Features and Benefits	Page 6
6.3	Technology Stack and Processes	Page 7
6.4	Flow of Funds Process	Page 8
6.5	Proof of Reserves Process	Page 9
6.6	Maintaining Transparency	Page 10
7.0	Oversight	Page 10
7.1	Early Use Cases	Page 11
7.2	Longer Term Utility	Page 11
7.3	Ecosystem Development	Page 12
7.4	Economic Implications	Page 12
7.5	Common Blockchain-Based Payment System	Page 12
7.6	International Transactions and Remittances	Page 13
7.7	Adoption by Consumers	Page 13
8.0	Disclaimer	Page 14
9.0	References	Page 15

INTRODUCTION

A remarkable number of innovations over the last decade have combined to bring about a sea change in the financial transactions landscape, so much so that the old expression, "cash is king" is no longer true. Cashless payments (433 billion in 2015), smart phones (2.5 billion users by 2018, which is around 36% of the world population), blockchain (\$1.6 billion invested in blockchain start-ups in 2017), crypto-currencies (total market cap up from \$60 billion to \$600 billion in Q4, 2017), NFC for contactless payments (around 1.9 billion smart phones will be NFC-enabled by 2018), mobile payments (over 1 billion users in 2020) and others have all impacted or will impact how we interact with money. A PWC report commented, "For consumers, crypto-currencies offer cheaper and faster peer-to-peer payment options".

However, despite these impacts and the un-deniable advantages of crypto-currencies over fiat currencies, crypto-currencies have enjoyed limited penetration into the way everyday consumers transact their lifestyles. In general, people are not paying for their lattes with Bitcoin. Many people are fascinated by the fluctuations in the value of Bitcoin, which leads them to associate crypto-currencies with speculation or investment.

Some of the primary advantages of cryptocurrencies are: low transaction costs, international borderless transferability and convertibility, trust less ownership and exchange, pseudo anonymity, real-time transparency, and immunity from legacy banking system problems.

The volatility of existing cryptocurrencies significantly reduces their usefulness. A cryptocurrency with stable value would permit much wider usage as a stable store of value, medium of exchange, and standard of deferred payment. To solve the volatility problem of cryptocurrencies there is a new class of digital assets, named 'stable coin'. This is a relatively new category built to hold consistent value over the time. Although stable coins have gained some traction, but this existing model lack one fundamental characteristic that is key to widespread adoption- "trust".

In this white paper we focus on applications wherein the fiat value is stored and transmitted with software that is open-source, cryptographically secure, and uses distributed global ledger (blockchain) technology with trust, i.e. a true cryptocurrency.

THE OPPORTUNITY FOR STABLE CRYPTOCURRENCIES

Cryptocurrencies have the potential to massively upgrade the effectiveness of money worldwide. They can be sent nearly instantly to anyone anywhere in the world, can't be diluted or devalued by irresponsible governments, and can be programmed to operate inside of financial contracts that rely on code instead of law - each of which is independently a major improvement over fiat money. But the volatility of existing cryptocurrencies significantly reduces their usefulness.

Cryptocurrencies like bitcoin and ether have been highly volatile in market valuation. Their volatility discourages merchants and consumers from using them as a medium of exchange or store of value. Generally, nobody wants to spend a currency that may be worth twice as much in a month, and nobody wants to store their retirement savings in a currency that may be worth nothing in a year.

The volatility of cryptocurrencies also prevents them from serving as a standard of deferred payment. Anyone who negotiates rent, wages, or loans in a currency lacking a stable value is unavoidably also speculating on that currency's future purchasing power.

Money is the most basic platform for commerce, and cryptocurrency is poised to be the most functional and least restricted form of money we've ever invented. In our view, a trusted stable-coin has the potential to not only de-risk our ecosystem's primary means of exchange, but to act as a store of value in its own right. Also, a stable-coin will built the trust of the public which is necessary to achieve popular adoption.

CHALLENGES FOR STABLE CRYPTOCURRENCIES

Trust has been designed in the very logic of how blockchain-based digital assets operate. The code is rules-based and very hard to change. All changes to the blockchain are recorded and confirmed in a decentralized way that is created specifically to democratize access. Rather than using a trusted intermediary to facilitate transactions, the blockchain serves as the trusted, consensus-driven protocol.

Yet despite the distribution of trust to the network, digital assets still have not gained the widespread trust of the general public. Most people do not have first-hand experience with the code or understand how it works, so digital assets' trust less nature remains untrusted.

Many people are also confounded by digital assets' lack of physical backing by anything of inherent value or by government fiat. Moreover, the volatility of these assets makes them seem more like investment vehicles than forms of payment.

Trust

Building a viable stable-coin is as much of a trust problem as it is a computer science one. While Bitcoin created a system based on cryptographic proof instead of trust, a fiat-pegged stable coin requires both due to its reliance on a centralized issuer. In the context of a stable coin, we submit that the issuer must be licensed and subject to regulatory supervision. From this, transparency and examination become requirements of the system, ensuring its integrity and engendering market confidence.

We propose Aglpay Limited (an UK based Fund Management Company), as the issuer of the GNG. Aglpay operates under the direct supervision and regulatory authority of the UK Department of Financial Services and is subject to the UK Banking Law and other applicable UK laws and regulations. Aglpay maintains the necessary licenses and registrations to lawfully issue GNG.

Proof-of-Reserve

One desirable outcome of a stable coin is convergence between the tokens issued and the associated fiat currency exchanged for their creation. The number of tokens issued and in circulation can be observed on the blockchain, however, verifying the underlying fiat currency balance to demonstrate proof-of-reserve requires examination by a trusted party. For assurance, we propose that the audit committee of the board of directors of Aglpay engage an independent registered public accounting firm to regularly examine and attest to the underlying fiat currency balance in accordance with the attestation standards established by the United Kingdom Institute of Certified Public Accountants.

OVERVIEW OF THE GNG

In our solution, asset backed cryptocurrency (GNG) is designed to leverage the new innovations of blockchain technology to improve the function of money, while being supported by traditional infrastructure that can insure it is trustworthy. All coins will initially be issued on the Ethereum blockchain network so they exist as a cryptocurrency token. Each coin issued into circulation is backed in a one-to-one ratio (i.e. one GNG Coin is one GBP) by the corresponding fiat currency unit held in deposit by UK based Aglpay Limited.

GNG Coin may be redeemable/exchangeable for the underlying fiat currency pursuant to Aglpay Limited's terms of service or, if the holder prefers, the equivalent spot value in any other cryptocurrency. Once a GNG has been issued, it can be transferred, stored, spent, etc... just like bitcoins or any other cryptocurrency. The fiat currency on reserve has gained the properties of a cryptocurrency and its price is permanently restricted to the price of the fiat currency (GBP).

Basic Attributes

GNG is a token that is backed one-to-one by British Pound Sterling (£) deposits and available through Aglpay Limited. GNG is available one-to-one in exchange for GBP and redeemable one-to-one for GBP. Upon redemption, GNG tokens are immediately removed from the supply; GNGs are only in existence when the corresponding GBPs are in custody.

As a fund management company organized under UK business law and regulated by the UK Department of Financial Services, GNG operates under governing principles of the highest standard. Unlike a bank, which uses client funds for its own benefit and funding, a fund management company acts as a fiduciary that custodies customer deposits and therefore will always keep customer funds completely segregated. All GBPs deposits are held in FDIC-insured U.K. banks or collateralized by U.K. government treasuries, and customer GBPs are all accounted for as customer property.

In other words, Aglpay accepts GBP deposits and issues GNGs which can be traded, transacted and transferred easily and without friction. Currently, the economy of digital assets is fluid, global and fast, yet faces meaningful roadblocks when trading between digital assets and fiat because of the inherent delays in the traditional banking system. GNG gives users the convenience of keeping their liquidity in digital assets while still maintaining stability.

GNG is as good as or better than fiat in each of its functions: it is easier to exchange, maintains the same unit of account, and provides the same store of value. Fully collateralized by GBP and supported by a regulated financial institution, GNG is therefore an improved model for money.

GNG Key Features and Benefits

Each GNG issued into circulation will be backed in a one-to-one ratio with the equivalent amount of corresponding fiat currency held in reserves by United Kingdom based Aglpay Limited. As the custodian of the backing asset we 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 fiat and crypto audits while increasing the security, provability, and transparency of these audits. This enables more efficient operations, including shorter redemption windows (GNG can be redeemed for GBP within one business day) and lower fees.

Our implementation has the following advantages over other fiat-pegged cryptocurrencies:

- GNG exist on the Ethereum blockchain rather than a less developed/tested "altcoin" blockchain nor within closed source software running on centralized, private network. Built on the Ethereum blockchain, GNG is a programmable token that can participate in the larger global community of tokens, helping create a global platform for programmable money with stability.
- GNG can be used just like bitcoins, i.e. in a p2p, pseudo anonymous, decentralized, cryptographically secure environment.
- GNGs can be integrated with merchants, exchanges and wallets just as easily as Bitcoin or any other cryptocurrencies can be integrated.
- Aglpay Limited employs a simple but effective approach for conducting Proof of Reserves which significantly reduces our counterparty risk as the custodian of the reserve assets.
- GNG is available 24/7 to facilitate settlement against any type of asset including crypto, security and asset tokens or for payments. Unlike fiat, which is only available to settle trades during bank business hours, GNG can move anywhere, anytime.
- GNG's one to one backing implementation is easier for non-technical users to understand as opposed to collateralization techniques or derivative strategies.

Technology Stack and Processes

A simple and elegant mechanism for creation and redemption is necessary to promote usability and encourage adoption. We achieve this by allowing our customers to create and redeem GNG on the Aglpay platform. In exchange for £1 GBP, 1 GNG is issued to any Ethereum address they specify. Similarly, on the redemption side, 1 GNG can be redeemed for £1 GBP. The exchange will always be one-to-one. Because of this simplicity, the whole system can be written as a basic smart contract, ensuring that it operates under these rules in a programmed way.

The specifications of the GNG require a network that allows for the development of decentralized applications (including smart contracts) that may be used to store and transfer value according to certain conditions set by the developer. The Ethereum network fulfils these criteria and has a technical standard for tokens, the 'ERC20' standard, which has experienced widespread, global adoption. As a result, there already exists a plethora of software and services that support ERC20 compliant tokens and provide access to and usability for end users. Alternatively, if the GNGs were built as the native token of its own blockchain, it would take time for a similarly vibrant ecosystem of third-party developers and software to emerge. As a result, we have built the GNG as an ERC20 compliant token on the Ethereum network. Consequently, the GNG can be transferred on the Ethereum network and stored in any Ethereum address.

Because GNG follows the standard ERC-20 protocol, most Ethereum-supporting exchanges and wallet applications already have built-in support for viewing and transferring GNG. While the initial issuance of a token and redemption of tokens for GNG occur through Aglpay Limited, any other transactions in GNG follow the smart contract written to the ERC-20 specification, relying on the providence of the network rather than any middleman.

The GNG ERC-20 contract code is available for technical review, currently at <https://github.com/gngcoin/smart-contract>, so anyone can verify the code will operate as GNG has described. Because of the simplicity of the one-to-one model, GNG can be represented in a simple,

readable smart contract. Independent third-party smart contract security audits give assurance that the implementation is sound and secure.

Flow of Funds Process

There are five steps in the lifecycle of a GNG, best understood via a diagram.

Step 1 - User deposits fiat currency into Aglpay Limited's bank account.

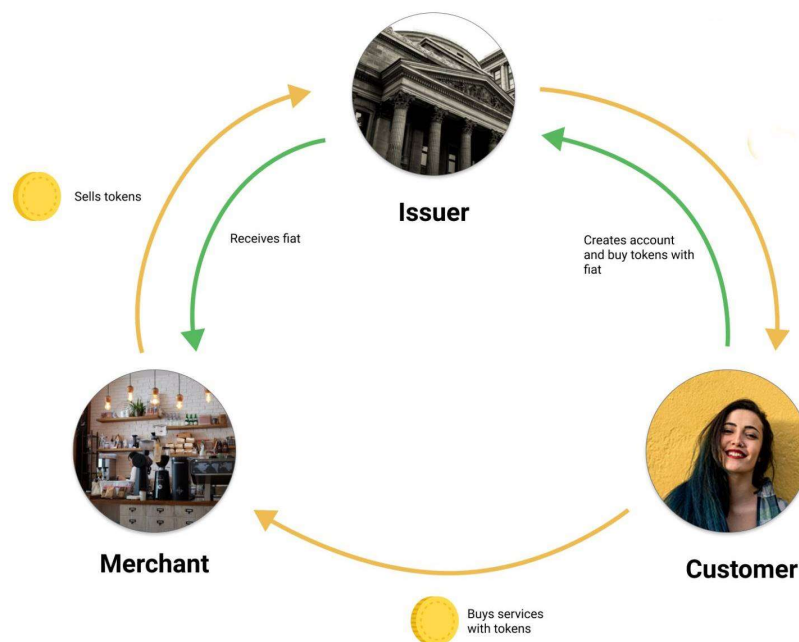
Step 2 - Aglpay Limited generates and credits the user's GNG wallet account then GNG enter in the circulation. Amount of fiat currency deposited by user = amount of GNGs issued to user (i.e. 10k GBP deposited = 10k GNG issued).

Step 3 - Users transact with GNGs. The user can transfer, exchange, and store GNGs via a p2p open-source, pseudo-anonymous, Ethereum based platform and wallets.

Step 4 - The user deposits GNGs with Aglpay Limited for redemption into fiat currency.

Step 5- Aglpay Limited destroys the GNGs and sends fiat currency to the user's bank account. Users can obtain GNGs outside of the aforementioned process via an exchange or another individual. Once a GNG enters circulation it can be traded freely between any business or individual. For example, users can purchase GNG's from current associated exchanges (see list in associates' section), with more exchanges to follow soon.

The main concept to be conveyed by the flow of funds section (see diagram for better understanding). Aglpay Limited is the only party who can issue GNGs into circulation (create them) or take them out of circulation (destroy them). This is the main process by which the system solvency is maintained.



(Flow of Funds Diagram)

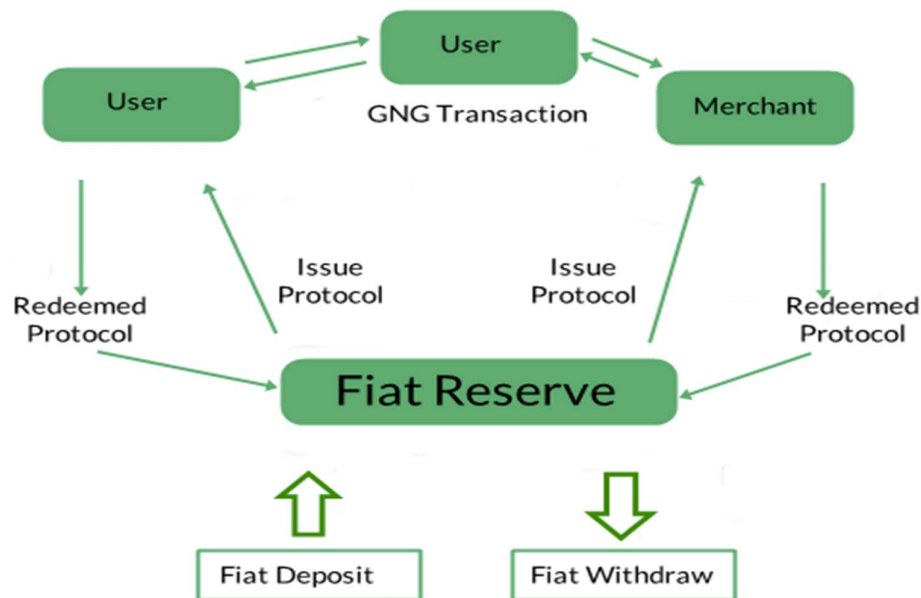
Proof of Reserves Process

Proof of Solvency, Proof of Reserves, Real-Time Transparency, and other similar phrases have been growing and resonating across the cryptocurrency industry. Exchange and wallets audits, in their current form, are very unreliable. Insolvency has occurred numerous times in the Bitcoin ecosystem, either via hacks, mismanagement, or outright fraud. Users must be diligent with their exchange selection and vigilant in their use of exchanges. Even then, a savvy user will not be able to fully eliminate the risks. Further, there are exchange users like traders and businesses who must keep non-trivial fiat balances in exchanges at all times. In financial language, this is known as the "counterparty risk" of storing value with a third party.

We believe it's safe to conclude that exchange and wallet audits in their current form are not very reliable. These processes do not guarantee users that a custodian or exchange is solvent. Although there have been great contributions to improving the exchange audit processes, like the Merkle tree approach, major flaws still remain.

GNG's Proof of Reserves configuration is novel because it simplifies the process of proving that the total number of GNGs in circulation (liabilities) are always fully backed by an equal amount of fiat currency held in reserve (assets). In our configuration, each GNG in circulation represents one GBP held in our reserves (i.e. a one-to-one ratio) which means the system is fully reserved when the sum of all GNGs in existence (at any point in time) is exactly equal to the balance of GBP held in our reserve. Since GNG live on the Ethereum blockchain, the provability and accounting of GNGs at any given point in time is trivial.

Conversely, the corresponding total amount of GBP held in our reserves is proved by publishing the bank balance (through bank API for real time balance) and undergoing periodic audits by third party professionals. Find this implementation further detailed below:



(Proof of Reserve Diagram)

Maintaining 100% Transparency

We believe, a simple and elegant mechanism for creation and redemption is necessary to promote usability and encourage adoption of any stable coin. Aglpay Limited issues all GNGs on Ethereum blockchain network and therefore all issued, redeemed and existing GNGs, including transactional history, are publicly auditable via the tools provided at Ethereum open explorer and related independent third-party tools.

To maintain trust and transparency we build following mechanism:

For technical overview & audit GNG smart contract is available publicly on GitHub public repository – GNG Smart Contract - <https://github.com/gngcoin/smart-contract>

Aglpay Limited will publish the latest collateral deposit balances through real time bank API on its transparency page, where users can review it easily (see link below). Also, the total GNGs in circulation, transaction history, minted and burned token details can be found at following available public address, where any one can visit and check it anytime.

- View latest collateral deposit balance of Aglpay Limited for generated tokens – <https://gngcoin.github.io/resources.html>
- Total generated GNG tokens in supply - <https://etherscan.io/balancecheck-tool>

We're planning the deployment of a PoR-based transparency solution for the GNG wallet. We believe it will be the most advanced PoR system in existence today. It overcomes almost all of the challenges outlined in the appendix on this topic. Mind you, users can always secure GNGs through managing the private keys themselves or through GNG Wallet – that means a fully decentralized stable cryptocurrency.

Oversight

From the start, the Aglpay Limited has always intended to be highly transparent with robust third-party oversight. With this foundation, it has been a leader amongst blockchain-related companies in regulatory compliance. As the trusted regulated fund management company to trade digital assets, GNG continues to work closely with regulators and other parties in the existing financial services ecosystem.

Regulatory Approval

The United Kingdom department of financial services granted Aglpay Limited its fund management charter, and continues to regulate the company as a fund management firm under UK banking law. This includes enforcing many consumer protections including substantial capital reserve requirements, frequent regulatory examinations and monitoring of our operating procedures. The GNG Token was approved by the UKDFS and continues to be overseen by them.

Funds at FDIC-Supervised Banks - Aglpay holds the fiat currency deposits of all customers in segregated accounts at FDIC-insured banks.

Auditing - Aglpay works with a third-party, independent, trusted, nationally top-ranking public accounting firm to monthly review and attest that GNG tokens are fully collateralized 1:1 by GBP.

Additionally, the GNG smart contract has been audited by a leading blockchain auditors to ensure that the code is sound and operates as intended and advertised.

Transaction Monitoring and Surveillance - Third-party blockchain intelligence firm is conducting ongoing transaction monitoring and risk assessments for fraud detection and prevention.

Because GNG is built on the Ethereum blockchain, it is also possible and easy for anyone to review the entire history of transactions on the chain.

Early Use Cases

The digital asset space is still young, so we expect initial use cases for GNG to be quite distinct from future use cases. In the immediate horizon, we expect these applications to be most quickly adopted:

- A means of payment for other blockchain-based assets, including crypto, asset and securities tokens. The most complex and difficult aspect of transacting in blockchain-based assets is the difficulty of moving a payment leg efficiently and with reliable timing.
- Conversion to a stable asset as a hedge during times of volatility. Investors who trade digital assets can hold assets in GNG to limit exposure to digital asset volatility, thereby benefiting from the stability of the UK Pound Sterling (£) without incurring the fees and delays of converting to fiat.
- Execution of more complex, programmable digital asset transactions with less volatility. GNG, built on ERC-20 with Ethereum smart contract support, is designed to handle sophisticated transaction terms and conditions and work within the larger ecosystem of tokens, while mitigating volatility risk.
- Settlement of assets with fiat currency outside of traditional banking hours. Financial institutions and trading firms can use GNG as a proxy to settle the cash component of a trade 24/7.
- An alternative to unregulated or unstable offerings that digital-asset custodians and exchanges can provide to market participations.

Longer Term Utility

Asset Mobility and Settlement A tokenized representation of GBP resolves friction between digital assets and fiat. Because of the restrictions of banks, it costs time and money to convert digital assets into fiat. Aglpay Limited instead creates a "home base" for the GBP in the digital world, with instant settlement when cashing out to GNG rather than GBP.

In other words, GNG will aid the quick and efficient settlement of the cash component of digital asset transactions, and frequent traders will prefer to hold cash in GNG rather than in GBP for its greater utility and liquidity. In the future, Aglpay Limited can aid in the frictionless mobility and fast settlement of any asset not just digital assets but also commodities, securities, real estate and even more esoteric assets like fine art and collectibles.

Ecosystem Development

To start, we expect digital asset exchanges to list GNG and large OTC traders to offer GNG as a cash out option. Both categories will offer GNG in response to likely immediate demand by customers.

Next, interest will likely come from other companies that similarly have high order transactions or high volume of transactions, both of which would be interested in lower fees and instantaneous, low-risk settlement. This could include payments processors, financial institutions, large multinational corporations seeking lower fees on cross-border internal transactions, and large retailers, leading to increased consumer interest.

GNG USE CASES



Performance Measurement



Global Remittance



dApps



Store of Value



Medium of Exchange



Unit of Account



Pegged Lending



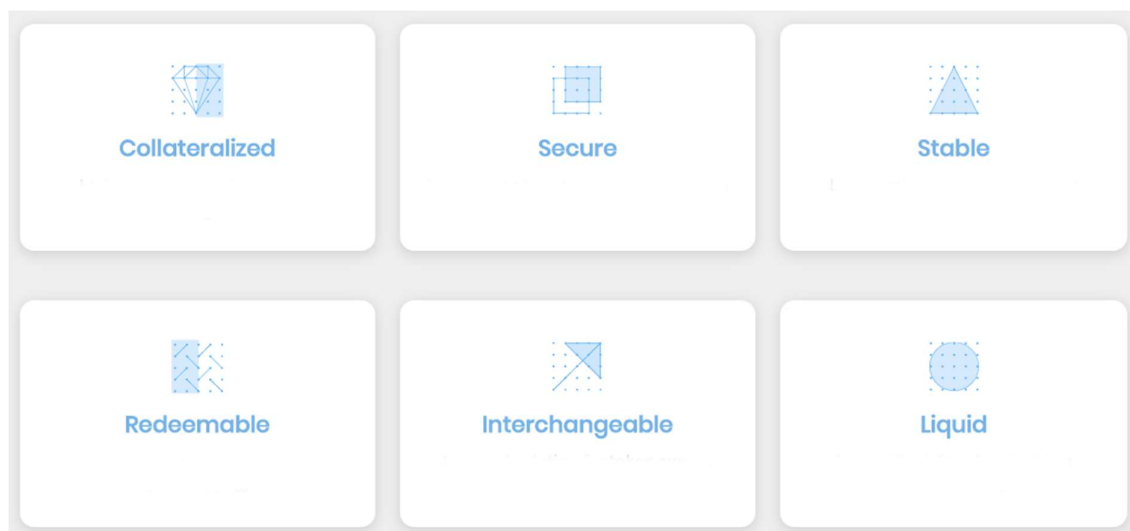
Daily Use Cases

Economic Implications

The potential for GNGs goes much deeper. The promise of the concept is a fluid, digital asset that can easily move anywhere, anytime, in a trustworthy way with the universal understanding of exactly how much value it represents. Given this baseline, there are endless implications for how this new, digital asset can influence trade and commerce globally while enabling access. We visit some of these possibilities here.

Common Blockchain-Based Payment System

GNG can serve as a common blockchain-based payment globally. Built upon the Ethereum blockchain as an ERC-20 token, GNG has utility across a wide range of applications and an immediate potential footprint across the globe. Rather than issuing new money, as past coins have attempted, GNG provides a more stable representation of existing money with accepted and trusted value. GNG aims to make all assets, fiat or digital, more fungible and liquid, providing a common payment for transactions within and across asset classes. Available for listing across global exchanges, GNG is designed to be flexible, fast and global from its outset, and its global utility could enable GBP to essentially become the common currency of the world.



International Transactions and Remittances

GNG can function as a common payment globally, easing the friction of international payments currently found in cross-border remittances and global transactions and trade. GNG essentially could remove cross-border transaction fees, allowing commerce and trade to occur more fluidly. This improvement alone to the current system could unlock billions in foreign exchange fees.

Adoption by Consumers

One day, large populations of consumers may look to GNG to serve as their primary currency. Additionally, many populations deal in currencies with unpredictable volatility that suppresses their ability to create and retain value or plan for the future. GNG could offer economic freedoms that these populations could not otherwise access.

Disclaimer

This document is not an offer of securities or collective investment. Contributors are advised to read this document carefully in full and perform due diligence. Any plans, projections or forecasts mentioned in this paper may not be achieved due to multiple risk factors including, without limitation, defects in technology developments, legal or regulatory exposure, market volatility, sector volatility, corporate actions or the unavailability of complete and accurate information. Planned features may change based on the competitive landscape and go-to-market strategy. The opinions reflected herein may change without notice and Aglpay Limited, does not have an obligation to amend, modify or update this paper or to otherwise notify a reader or recipient thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. This Whitepaper has been developed in collaboration with our currency and financial advisors and has been reviewed by our Legal team.

Copyright Notice

This document is copyrighted by Aglpay Limited. No part of this document may be reproduced, abstracted, backed up, modified, translated into another language or used in whole or in part for any commercial purpose, in any form or by any means, without the prior written consent of Aglpay Limited.

Release Statement

For different versions of the GNG White Paper, the latest version shall prevail.

Right of Interpretation

Aglpay Limited has the final power of interpretation of this White Paper.

Resources:

1. <https://www.in2013dollars.com/uk/inflation/1970?amount=1>
2. <https://en.wikipedia.org/wiki/Stablecoin>
3. https://en.wikipedia.org/wiki/Fiat_money
4. https://en.wikipedia.org/wiki/Pound_sterling
5. <https://www.forbes.com/sites/darrynpollock/2019/04/16/cryptocurrency-volatility-enemy-or-friend-how-can-digital-assets-be-price-secure/>
6. <https://www.investopedia.com/articles/investing/052014/why-bitcoins-value-so-volatile.asp>
7. <https://medium.com/chainrift-research/proof-of-reserves-a-standard-for-enhanced-transparency-38d205712152>
8. <https://github.com/ElementsProject/reserves>
9. <https://www.entrepreneur.com/article/305859>
10. <https://coinsutra.com/cryptocurrencies-practical-usecases/>