

THE PIRATE SPACE AGENCY

# A COOPERATIVE MONETARY SYSTEM

## Physical Currency, Digital Trust, Democratic Governance

Defines the monetary layer that flows through the Script payment rail: gold and silver coins with cryptographic provenance, plastic denomination tags for everyday use, and a cooperative issuance model that renders central bank monopoly on currency unnecessary.

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## PART I

# THE MONOPOLY ON MONEY

Central banks derive their authority from a monopoly on currency issuance. The Bank of England is the sole legal issuer of banknotes in England and Wales. The Royal Mint produces coins on behalf of the Crown. This monopoly is enforced by legal tender laws and by the institutional architecture of the banking system, in which all commercial banks ultimately settle through the central bank.

This monopoly is relatively recent. For most of human history, money was issued by a plurality of actors: city-states, merchant banks, goldsmiths, colonial companies, and cooperatives. The Bank of England itself began as a private corporation in 1694, lending to the Crown in exchange for the right to issue notes. The nationalisation of currency issuance is a 20th-century phenomenon, not a natural law.

The monopoly was justified by stability: a single issuer prevents the chaos of competing currencies. But that stability has come at a cost. Central banks serve state interests, not citizen interests. Inflation erodes purchasing power at a rate determined by unelected officials. Monetary policy is set behind closed doors. Quantitative easing transfers wealth from savers to asset holders. The citizen has no vote, no appeal, and no alternative.

The Pirate Space Agency proposes an alternative: a cooperative currency, issued by a democratic institution, backed by physical precious metal, verified by cryptography, and governed by its users. Not as a protest. As an improvement.

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**PART II****THE TRI-LAYER CURRENCY**

The PSA monetary system operates across three layers. All three reference the same Script UTXO set. All three are governed by the same cooperative structure. A user may hold value in any combination of layers and move between them freely.

**Layer 1: Script Digital**

Digital tokens on the Script blockchain. Used for online transactions, agent commerce, smart contracts, and programmatic payments. This is the layer described in the Payment Infrastructure Scoping Document. It is fast, programmable, and invisible to the end user when bridged through conventional banking.

Digital Script has no physical form. It exists as UTXOs in wallets. Its value derives from the cooperative's commitment to redeem it for GBP (or goods and services) and from the network of merchants and members who accept it.

**Layer 2: Script Metal**

Physical coins minted in gold and silver by the CBS. Each coin has a defined weight, purity, and denomination. Each coin carries a Script address — either stamped, engraved, or embedded via NFC tag — linked to a UTXO that records the coin's provenance: minting date, metal content, batch number, and denomination.

**Gold coins**

One-gram gold coins. At current prices, the metal content is approximately £85. The coin's denomination in Script units is pegged to the gold content, not to a fiat value. This means the coin's purchasing power tracks gold, not sterling. If sterling inflates, the coin's value in sterling rises. The holder is protected from monetary policy they did not vote for.

**Silver coins**

One-ounce silver rounds. Metal content approximately £25. Silver provides a more accessible entry point than gold. Silver coins serve as the everyday high-denomination physical currency of the PSA system.

**Provenance and anti-counterfeiting**

The Script UTXO linked to each coin is the provenance record. Anyone can verify a coin's authenticity by checking the UTXO: is it unspent? Does the metadata match the physical coin's stamped serial? Was it minted by the CBS? A counterfeit coin would have no corresponding UTXO, or a UTXO with mismatched metadata. The blockchain is the assay office.

**Redemption**

A metal coin can be redeemed with the CBS in two ways. Physical redemption: return the coin, the CBS marks the UTXO as spent and reissues the metal value as digital Script or GBP. Digital redemption: if the coin carries an NFC tag with a private key, the holder can spend the UTXO digitally without returning the physical coin. The coin then circulates as a collectible or bullion without the digital backing — its value reverts to metal content alone.

**Layer 3: Script Tags**

Plastic denomination tags for small everyday transactions. Each tag contains an NFC chip holding the private key for a Script UTXO of a defined value. The tag is the money. Tap it to a phone to verify. Hand it to someone to pay.

**Denominations**

Tags are issued in fixed denominations: 1, 5, 10, 25, 50, 100 Script units. The physical tag costs pence to manufacture. The value is entirely in the UTXO it represents.

### **Reloadable vs single-use**

Single-use tags: the private key is bonded inside the tag. Spending the UTXO exhausts the tag. The tag can be returned to the CBS for recycling and reissuance. Reloadable tags: the tag holds an address, not a private key. The holder loads value onto the tag by sending Script to its address. The tag functions like a prepaid card but without Visa, Mastercard, or any intermediary.

### **Mesh compatibility**

Tags work on mesh networks. Two NFC-equipped phones with Meshtastic radios can transfer value via tag: tap to read the tag's UTXO, construct a spending transaction, broadcast over mesh. No internet required. Settlement finality arrives when the transaction reaches the main Script network, but the cryptographic commitment is immediate.

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**PART III****ISSUANCE AND SUPPLY**

Central banks control monetary policy through issuance: they decide how much money exists. This power has been used to inflate away debt, to fund wars, and to bail out financial institutions at the expense of savers. The PSA system constrains issuance through three mechanisms.

**Metal-backed issuance**

Script Metal coins can only be issued when the CBS holds the corresponding physical metal. One gram of gold in the vault, one gold coin in circulation. The supply of metal-backed Script is limited by the CBS's bullion reserves. This is not a gold standard in the classical sense — digital Script is not required to be metal-backed. But the metal layer provides a hard floor: there will always be at least as much value in the system as there is metal in the vault.

**Algorithmic digital supply**

Digital Script follows the supply schedule inherited from Bitcoin via Novo: 210,000-block halving interval, starting from a 2,000,000-coin genesis reward. The total supply is mathematically bounded. No CBS board resolution, no central bank committee, no act of parliament can increase it. The supply curve is in the source code, and the source code is public.

**Democratic override**

The CBS membership can, by special resolution (75% majority), vote to alter the supply parameters of digital Script. This is the democratic safety valve that pure cryptocurrency lacks. If the community determines that the supply schedule is harmful — too deflationary, too inflationary, misaligned with the real economy — they can change it. But they must do so openly, democratically, and with a supermajority. This is more accountable than any central bank.

**The balance**

Metal-backed supply provides stability. Algorithmic supply provides predictability. Democratic override provides adaptability. No single mechanism dominates. The interplay between the three is the monetary policy of the Pirate Space Agency.

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**PART IV****WHY PHYSICAL CURRENCY MATTERS**

The trajectory of modern banking is toward the elimination of physical cash. Central banks and commercial banks both benefit from a cashless society: every transaction is visible, taxable, and subject to fees. The citizen loses the ability to transact privately, to hold value outside the banking system, and to participate in the economy without permission from a financial institution.

The PSA system moves in the opposite direction. It creates new physical currency at a time when existing physical currency is being withdrawn. This is a deliberate political act.

**Privacy**

A physical coin or tag can change hands without any digital record. The holder is not required to identify themselves. This is the same property that cash has always had and that digital payment systems systematically destroy. The PSA preserves the option of private exchange while providing the option of cryptographic verification for those who want it.

**Resilience**

Physical currency works when the power is off. When the internet is down. When the banking system is in crisis. When the government has frozen accounts. A gold coin in your hand is not subject to bail-in, bank holiday, capital control, or sanctions. It is yours. The PSA system ensures that the cooperative's members always have access to a form of money that cannot be turned off.

**Inclusion**

Not everyone has a smartphone. Not everyone has a bank account. Not everyone can pass KYC. Physical currency includes everyone by default. A child can use a plastic tag. A person without identification can hold a silver coin. The PSA system does not require permission to participate.

**Tangibility**

There is a psychological and cultural dimension to physical money that digital systems cannot replicate. A gold coin minted by a cooperative that builds spaceplanes is an object with meaning. It tells a story. It represents a community. It is a thing you can hold, give, inherit. Digital tokens lack this quality. The PSA's physical currency is not a relic — it is a deliberate design choice that serves the mission of making the abstract concrete and the cooperative tangible.

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**PART V****LEGAL AND REGULATORY LANDSCAPE**

Issuing a cooperative physical currency in the UK engages several regulatory frameworks. This section surveys the landscape without providing legal advice.

**Legal tender**

Legal tender in England and Wales means Bank of England notes and Royal Mint coins. PSA coins and tags would not be legal tender. This does not prevent their use. Legal tender is a narrow concept: it means a creditor must accept it to settle a court-ordered debt. Shops, merchants, and individuals can accept any form of payment they choose. Visa is not legal tender. Gift vouchers are not legal tender. Both circulate freely.

**E-money regulations**

The NFC tags, if they represent a claim on electronic value held by the CBS, may fall within the definition of electronic money under the Electronic Money Regulations 2011. This would require the CBS to be authorised as an EMI or to operate under a limited network exemption. The limited network exemption applies to payment instruments that can only be used within a limited network of service providers or for a limited range of goods and services. A CBS community currency accepted by member merchants may qualify.

**Community currency precedent**

The Bristol Pound, Brixton Pound, Totnes Pound, and others operated as local community currencies in the UK. Some operated under e-money exemptions; others were structured to avoid the regulatory perimeter entirely. The Bristol Pound was backed one-to-one by sterling held in a credit union account. The PSA system differs in that it is backed by precious metal and cryptographic proof rather than fiat reserves, but the community currency framing is relevant.

**Precious metal coins**

Gold and silver coins are not regulated as financial instruments if they are sold as bullion or collectibles. The PSA gold and silver coins, if marketed as collectible coins with embedded digital provenance, sit in a different regulatory category than if they are marketed as currency. The line between “collectible with embedded utility” and “currency” is not bright, and legal counsel should be obtained before any public issuance.

**Crypto-asset regulation**

The Financial Services and Markets Act 2023 gives HM Treasury power to bring crypto-assets within the regulatory perimeter. The FCA’s current approach focuses on crypto-asset promotions and stablecoins. If Script tokens are treated as crypto-assets, their promotion to UK consumers would need to comply with financial promotion rules. The CBS community shares exemption does not extend to a currency issued by the CBS.

**Recommended approach**

Phase the regulatory engagement. Start with precious metal coins as collectibles with digital provenance (no financial promotion issues). Introduce plastic tags under a limited network exemption for CBS member merchants. Seek formal legal advice before any public issuance that could be characterised as e-money or a crypto-asset.

## PART VI

## MINTING AND PRODUCTION

## Gold coins

Specification	Detail
Metal	999.9 fine gold
Weight	1 gram
Diameter	~8mm (comparable to existing 1g bullion rounds)
Obverse	PSA emblem, weight, purity
Reverse	Serial number, Script address (truncated), NFC zone
NFC	Bonded NFC tag with UTXO reference
Metal cost (approx)	£85 per coin at May 2026 gold price
Minting cost (approx)	£10–20 per coin at small batch scale
Minimum batch	50–100 coins (dependent on mint)

## Silver coins

Specification	Detail
Metal	999 fine silver
Weight	1 troy ounce (31.1g)
Diameter	~39mm (standard silver round)
Obverse	PSA emblem, weight, purity, denomination
Reverse	Serial number, Script address (truncated), NFC zone
NFC	Bonded NFC tag with UTXO reference
Metal cost (approx)	£25 per coin at May 2026 silver price
Minting cost (approx)	£5–10 per coin at small batch scale
Minimum batch	100–250 coins (dependent on mint)

## Plastic denomination tags

Specification	Detail
Material	Recycled PET or bioplastic
Size	Credit card format or coin-sized disc
NFC chip	NTAG 215/216 or equivalent
Data	Script address, denomination, batch, CBS signature
Denominations	1, 5, 10, 25, 50, 100 Script units
Manufacturing cost	£0.20–£0.50 per tag at volume

Security	Tamper-evident seal over NFC chip, UV-reactive ink
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### UK minting options

The CBS does not need the Royal Mint. Custom precious metal coin minting is available from several UK-based operations. Initial research should focus on firms specialising in bullion rounds and commemorative medallions. The NFC bonding is a separate process — the NFC tag is affixed to or embedded in the coin after minting, with tamper-evident sealing to prevent removal.

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**PART VII****MONETARY POLICY GOVERNANCE**

The monetary policy of the Pirate Space Agency is not set by a committee of unelected officials behind closed doors. It is set by the membership, openly, democratically, and subject to the Hippocratic Licence.

**The monetary policy board**

The CBS board appoints a monetary policy subcommittee from among its elected trustees. This subcommittee is responsible for: managing the bullion reserve, authorising coin minting batches, setting the Script-to-GBP redemption rate (if applicable), reporting on supply metrics to the membership, and recommending changes to supply parameters for membership vote.

**Transparency**

The bullion reserve is auditable. The Script blockchain is public. The number of coins minted, the metal held, the digital supply — all are verifiable by any member at any time. No central bank on earth provides this level of transparency. The Bank of England publishes aggregate statistics. The PSA publishes the ledger.

**The Hippocratic constraint**

All monetary policy decisions are subject to the Hippocratic Licence. The CBS cannot adopt a monetary policy that causes harm: hyperinflationary issuance, predatory lending (the CBS cannot lend at all as an EMI-partnered entity), or policies that systematically disadvantage any group of members. This is not a voluntary ethical commitment. It is a licence condition on the use of Script itself.

**Relationship to sterling**

The PSA system does not fix a peg to sterling. Script's value floats against sterling based on supply, demand, and the metal backing of the physical layer. The CBS treasury maintains a GBP reserve sufficient to honour redemption requests, but does not guarantee a fixed exchange rate. This insulates the system from Bank of England monetary policy decisions while maintaining practical interoperability with the sterling economy.

**Relationship to gold**

The metal-backed layer tracks gold and silver prices. This provides a natural inflation hedge that sterling does not offer. Over the past 25 years, gold has risen from approximately £170 per ounce to over £2,500 per ounce. A saver who held gold rather than sterling has preserved and increased their purchasing power. A PSA gold coin provides this same protection in a form that is cooperative, verifiable, and beautiful.

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**PART VIII****THE PATH TO OBSOLESCENCE**

Central banks become obsolete not through revolution but through irrelevance. The PSA does not need to defeat the Bank of England. It needs to provide a better service.

**What central banks provide**

Currency issuance, monetary policy, payment system oversight, lender of last resort, financial stability. Of these, the PSA system addresses the first three directly. Currency issuance: the CBS issues cooperative currency backed by metal and cryptography. Monetary policy: set democratically by the membership. Payment system oversight: the Script network is transparent and auditable by all participants.

**What central banks cannot provide**

Privacy in transactions. Resilience when the internet is down. Payments on mesh networks. Democratic governance of monetary policy. Intrinsic material value in the currency. Programmable money governed by its users rather than the state. Freedom from private intermediary rent extraction. The PSA provides all of these.

**The adoption curve**

The PSA does not need mass adoption to be useful. It needs to serve its members. A CBS with 1,000 members, 50 merchant partners, and a functioning QR payment network in Manchester is a success. If it works, it grows. If it grows, it demonstrates that cooperative currency is viable. If it demonstrates viability, others copy it. The Bristol Pound showed that community currencies generate enormous goodwill and media interest. The PSA adds gold coins, cryptographic trust, mesh network resilience, and a mission to reach orbit. That is a story people will tell.

**The network effect**

Every member who joins the CBS strengthens the currency. Every merchant who accepts Script expands its utility. Every gold coin minted increases the metal backing. Every node on the network increases its resilience. Every agent operating on Script demonstrates that autonomous commerce is possible without Visa, Mastercard, or central bank permission. The network effect that made Visa dominant can work in reverse, for a system that is cheaper, more transparent, and more democratic.

**What happens when it works**

If the PSA demonstrates that a cooperative can issue sound money, process payments without intermediaries, and govern monetary policy democratically — the question stops being “why would anyone use this instead of sterling” and becomes “why does the Bank of England still have a monopoly.”

That question does not require the PSA to answer it. It just requires the PSA to exist, visibly, and to work.

**PART IX**

## **CLOSING**

Money is a technology. Like all technologies, it can be owned by the few or shared by the many. For three centuries, the technology of money has been owned by central banks, and for five decades, the transmission of money has been owned by private card networks. Both have served their purposes. Both have extracted their rents. Both have exercised powers that no democratic process granted them.

The Pirate Space Agency does not ask permission to build a better system. It builds one. Gold coins with cryptographic souls. Plastic tags that work on mesh networks. A blockchain governed by a cooperative. A currency that cannot be weaponised because the licence forbids it.

This is not a white paper for investors. It is not a pitch for venture capital. It is a design document for a monetary system that belongs to its users. The work starts with a single coin, a single node, and a single community that believes money should serve people, not the other way around.

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### **The Pirate Space Agency**

A Community Benefit Society (in formation)

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