Public Project Token (PPT) White Paper

A New Model for Funding National Infrastructure While Easing Upfront Borrowing Requirements

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Disclaimer

This paper presents a conceptual framework for discussion and does not constitute legal, financial, or policy advice.

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Executive Summary

Governments worldwide face an unprecedented infrastructure challenge across energy transition, transport, healthcare, defence, and digital systems. Yet fiscal space is constrained, public debt is already high, and political appetite for higher taxation is limited. Traditional funding tools are reaching their limits: issuing more sovereign debt worsens headline metrics, tax rises suppress growth, and public-private partnerships remain unsuitable for most non-revenue public goods.

This paper introduces the Public Project Token (PPT) — a tokenised, project-labelled, retail-accessible digital government security designed to broaden and stabilise the funding base for national infrastructure. PPTs mobilise domestic and global capital through a simple, transparent instrument that strengthens the quality, resilience, and public acceptability of government financing.

PPTs are structured as straightforward sovereign securities that:

- Pay a predictable baseline yield benchmarked to prevailing gilt/Treasury rates;
- Offer a transparent efficiency bonus when projects are delivered on or under budget;
- Include an optional, rule-based pro-rata adjustment mechanism for material overruns;
- Provide institutional-grade secondary-market liquidity and fractional participation from £50;
- Can be made tax-advantaged or ISA/pension-eligible to unlock large pools of idle domestic savings;
- Deliver project-level transparency through distributed-ledger tracking of commitments and expenditures.

PPTs preserve full public ownership and control while turning abstract government borrowing into tangible citizen participation in visible national priorities — the hospital being upgraded, the rail line being modernised, or the grid infrastructure being strengthened.

PPTs should be expected to be classified as conventional sovereign debt. Their value does not come from alternative accounting treatment, but from structure: broader and more resilient domestic participation, stronger incentives for efficient delivery, and transparent reporting that enhances public trust. These features improve the quality and stability of public financing without increasing the tax burden or introducing new fiscal risks.

In essence, PPTs transform necessary borrowing from a politically costly obligation into a voluntary, transparent national endeavour. Even within standard debt classification, they represent a material upgrade over the status quo — reducing political resistance, widening the investor base, improving delivery discipline, and strengthening citizen engagement.

The technology is already proven through multiple G10 tokenised-security pilots and aligns with the UK DMO's Digital Gilt Instrument (DIGIT) programme. Governments that move early will secure a strategic advantage in funding the infrastructure their economies urgently need.

1. The Global Infrastructure Funding Crisis

1.1 The Fiscal Constraint Problem

Governments worldwide face tightening fiscal constraints driven by:

- Rising debt-to-GDP ratios and ageing infrastructure;
- Increased demand for public services and slowing productivity growth;
- Post-pandemic fiscal legacies and political pressure for austerity.

Yet infrastructure investment remains the strongest predictor of long-term economic performance.

The paradox is clear:
Governments must invest to drive growth,
but are increasingly unable to invest because budgets are constrained.

This mismatch has produced a slow economic choke — visible across the UK and Europe, where growth has lagged behind the US after years of chronic underinvestment. The Public Project Token (PPT) is designed to address this structural imbalance between investment need and fiscal capacity.

1.2 Why Existing Financing Models Fail

Existing public-finance tools each carry structural limitations:

Traditional sovereign bonds

- Increase headline debt metrics
- Create future tax burdens
- Reduce fiscal flexibility

Tax increases

- Politically difficult
- Reduce household disposable income
- Risk slowing economic growth

Privatisation of public asset

- Publicly unpopular

- Often increases long-term costs

PPP (Public-Private Partnerships)

- Only viable for projects with clear, dedicated revenue streams
- Not applicable to hospitals, schools, digital networks, or rail modernisation

Domestic stablecoins

- Not designed for public-investment financing
- Do not mobilise large domestic savings or broaden the investor base
- Add no transparency or incentive benefits

Governments therefore require a new instrument that mobilises private capital while improving the quality, stability, and transparency of public financing.

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2. Introducing the Public Project Token (PPT)

A Public Project Token (PPT) is a tokenised, government-issued claim on the capital allocation of a specific public project. It is not linked to project revenue and does not confer ownership or control over public assets. PPTs combine the stability of sovereign securities with the transparency and accountability enabled by modern digital infrastructure.

2.1 Key Principles

- Government retains full ownership and control of all public assets.
- PPTs are issued as standard sovereign securities within existing debt-management frameworks.
- Investors receive a predictable baseline yield benchmarked to government bond rates.
- Efficient delivery can be rewarded through an optional performance bonus.
- Cost overruns can trigger a predefined, rule-based adjustment mechanism.
- Tokens are tradable on regulated venues, providing genuine liquidity.
- All project-level financial activity can be published on-chain, enhancing transparency.
- Participation is voluntary and accessible, with fractional investment from around £50.

2.2 Why PPTs Work Even for Non-Revenue Projects

Most essential public goods — hospitals, schools, rail upgrades, defence and digital infrastructure — do not generate direct revenue. PPTs remain viable for these projects because:

- Coupons are paid from the project's approved capital budget; no new revenue stream is required.
- Baseline yields follow sovereign rates, providing predictable, low-risk returns.
- Efficiency bonuses allow verified under-budget savings to be shared with investors.
- Cost-overrun adjustments create transparent accountability without higher taxes or additional borrowing.
- Optional tax incentives (e.g., ISA/pension eligibility) can mobilise large domestic household savings.

These features allow governments to co-finance projects without changing ownership structures, imposing new taxes, or relying on user fees.

2.3 Simple Analogy — How PPTs Work (House Extension Example)

Imagine a household planning a £100,000 home extension. A family member provides £40,000 upfront. The total project cost remains £100,000, but borrowing is smoother: the homeowner repays the £40,000 at completion, reducing short-term financing pressure without changing total expenditure.

PPTs operate similarly at national scale:

- A project has a fixed approved budget (e.g., £100 billion).
- PPT investors temporarily finance a portion of that budget (e.g., £40 billion).
- Government borrowing is smoothed and diversified across time and investor types.
- Repayment occurs from the project's capital allocation once delivery is complete.

Key insight:
Temporary private co-funding improves the timing and composition of public financing without altering total planned expenditure, enabling more infrastructure to be delivered within existing budgets.

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3. How PPTs Reduce Government Budget Pressure

Illustrative example
Consider a £100 billion infrastructure programme. If £40 billion is temporarily co-funded by PPT investors, the government only needs to issue £60 billion of conventional gilts upfront. The project's total cost remains unchanged; what improves is the timing and composition of financing.

What actually improves — through structure, not accounting treatment
PPTs enhance the quality and stability of public financing in several ways:

Smoother borrowing profile
PPT participation reduces the need to issue the full financing requirement at once, lowering refinancing and duration risk.

Broader and more resilient investor base
Domestic households, pension funds, and resident non-dom investors participate alongside institutions, reducing reliance on volatile international capital flows.

Lower political cost of funding essential projects
Voluntary, project-linked participation reframes borrowing as a citizen-supported national investment rather than a contentious fiscal expansion.

Stronger delivery discipline
The bonus/adjustment structure increases visibility and scrutiny, reducing overspend risk and improving long-term fiscal outcomes.

Faster mobilisation of infrastructure investment
Temporary private co-funding allows governments to advance projects within the existing capital envelope, without waiting for multi-year budget reallocations.

Strengthened medium-term tax base
Earlier delivery of growth-enhancing infrastructure raises productivity and competitiveness, supporting stronger fiscal revenues over time.

Why this matters particularly for the UK
These effects speak directly to the UK's structural constraints: slow productivity growth, limited fiscal headroom, and high dependence on foreign gilt buyers. By shifting more funding toward a stable domestic investor base and accelerating essential public investment, PPTs support fiscal resilience and long-term economic growth.

4. Token Mechanics

4.1 Fixed Yield Component (Bond Benchmark)

Each PPT pays a fixed baseline coupon linked to the prevailing 10-year government bond yield at issuance.
This provides:

- predictable, low-risk income for investors,
- alignment with sovereign borrowing costs, and
- fiscal stability for government.

Secondary-market prices adjust to yield changes; the government's coupon obligation does not. This mirrors the behaviour of a conventional gilt.

4.2 Optional Efficiency Bonus

Governments may include a performance-based bonus to strengthen delivery discipline.

Illustrative Example
Approved budget: £100B
Actual spend: £95B
Verified savings: £5B
A predefined share (e.g., 20–30%) is distributed to PPT holders; the remainder reverts to the government.

Benefits

- Encourages efficient, on-time, on-budget delivery
- Aligns public, political, and investor interests
- Makes efficiency visible and publicly credible
- Improves market pricing by reflecting expected performance

Configuration Options
Governments may vary bonus levels by project type, cap bonuses for routine works, or remove bonuses entirely for megaprojects where efficiency measurement is complex.

4.3 Optional Adjustment Mechanism for Cost Overruns

Where chosen, PPTs may include a rule-based mechanism for managing cost overruns.

Governments can apply:

- full dilution,
- partial dilution,
- capped dilution, or
- no dilution (using reduced bonuses instead).

This flexibility allows policymakers to balance accountability, investor protection, and project-specific delivery risk.

Mechanism: Pro-Rata Adjustment
If a project exceeds its approved budget, the smart contract may issue a limited number of additional tokens corresponding to the size of the overrun. These tokens represent additional participation in the updated project cost.

Effects

- **Proportional adjustment:** existing holders' allocation adjusts smoothly
- **Real-time market feedback:** prices reflect emerging performance concerns
- **Enhanced accountability:** overruns become visible, measurable, and priced

Investor Safeguards
Governments may apply dilution caps, thresholds (e.g., only above 5–7%), parliamentary approval for issuance beyond caps, or substitute dilution reductions for adjustments to bonuses.

4.4 Secondary Market Trading

PPTs trade on regulated exchanges or approved digital-securities platforms, enabling:

- early exit for investors
- continuous price discovery
- improved capital allocation
- real-time public sentiment monitoring

4.5 Redemption

PPTs mature at project completion and are redeemed at face value plus accrued coupon. Redemption is funded from the project's capital allocation or normal refinancing, consistent with established public-finance practice.

PPTs carry no perpetual liability and do not create new long-term obligations.

4.6 Project Cancellation

Cancellation follows standard public-sector capital-project procedures:

(A) Cancelled early with unspent budget:
PPT holders are redeemed at par from the remaining authorised capital.

(B) Cancelled late with insufficient budget:
Government resolves repayment via normal capital-budget adjustments or refinancing, as occurs for all cancelled public works.

4.7 Issuance Architecture

4.7.1 Primary Issuer: HM Treasury / Debt Management Office (DMO)

PPTs are issued directly by HM Treasury via the DMO, using existing government-debt infrastructure.

The DMO's Digital Gilt Instrument (DIGIT) pilot is developing tokenised sovereign-debt settlement and custody. PPTs naturally complement this by providing the **project-linked, retail-accessible product layer** atop the emerging tokenised settlement architecture.

Retail allocations would be issued within the existing DMO borrowing remit. In the event retail demand is lower than expected, the remaining portion is absorbed by the government at par — exactly as with standard gilt issuance. This ensures issuance certainty without creating any additional fiscal exposure.

Benefits

- maximum market credibility
- seamless regulatory treatment
- identical settlement, custody, and reporting mechanics to tokenised gilts
- no PPP-style complexity or asset transfer

4.7.2 Project-Linked Capital Flow (How Funds Move)

1. Government approves a project and allocates a capital-budget envelope.
2. Treasury authorises PPT issuance aligned with the project's drawdown profile.
3. The DMO issues PPTs via auction or syndication.
4. Proceeds flow into a project-specific Treasury account.
5. Expenditure is published through the PPT transparency framework.
6. At completion, PPTs are redeemed or refinanced through normal gilt issuance.

4.7.3 No Use of SPVs or PPP Structures

PPTs do not use concession companies or SPVs; all infrastructure remains fully public and sovereign-backed.

4.7.4 Differences from Conventional Gilts

PPTs differ only in three respects:

- named project label
- transparent on-chain reporting
- optional incentive mechanisms

All other aspects—issuance, settlement, custody, trading—follow the digital-gilt model.

4.7.5 Trading, Settlement, and Custody

PPTs are:

- eligible for institutional custody,
- tradeable on regulated MTF/ATS venues,
- compatible with ISA/SIPP wrappers if designated,
- settled through approved tokenised-securities infrastructure

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4.7.6 Summary

The PPT architecture is intentionally conservative:

- **Issuer:** HM Treasury / DMO
- **Structure:** Digital sovereign security with project-linked transparency
- **Ownership:** 100% public
- **Custody & Trading:** Digital-gilt infrastructure

- **Redemption:** Project capital budget

This makes PPTs immediately implementable, regulator-compatible, and aligned with the DMO's ongoing DIGIT tokenised-gilt programme.

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5. Why PPTs Succeed Where Other Instruments Fail

PPTs succeed because they combine the stability of sovereign debt with project-specific transparency, automated incentive mechanisms, and broad domestic participation — capabilities unavailable in traditional gilts, PPPs, infrastructure bonds, or payment tokens. They give citizens and institutions a regulated, low-risk way to participate directly in essential national infrastructure, while providing government with a more resilient investor base, stronger delivery discipline, and real-time accountability. By improving the quality, timing, and public acceptability of sovereign financing, PPTs mobilise domestic capital for high-priority projects in a way that conventional borrowing tools cannot achieve.

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6. Economic Benefits

With PPTs established as a sovereign instrument that broadens participation, strengthens accountability, and improves delivery incentives, the next question is their macro-level impact. The benefits arise not from alternative accounting treatment but from higher-quality public financing: deeper domestic ownership, smoother funding profiles, stronger delivery discipline, and greater public trust. Together, these effects enhance fiscal stability while accelerating the delivery of essential national infrastructure.

6.1 For Governments

- Improved timing and composition of public financing.
- Broader and more resilient investor base, reducing concentration risk and reliance on foreign buyers of sovereign debt.
- Faster initiation of capital projects within existing budget envelopes.
- Increased public trust through real-time transparency on spending and progress.
- Market-based feedback on delivery performance, strengthening incentives for efficiency.
- Voluntary participation levels also provide a transparent, non-binding indication of public interest across project types

Clear communication can reinforce that PPTs preserve full public ownership, require no tax increases, and do not create new unconditional liabilities.

6.2 For Investors

- Stable, predictable income anchored to sovereign financing conditions.
- Liquidity through regulated secondary markets.
- Transparent, on-chain visibility into project execution.
- Optional participation in national infrastructure development.
- Opportunity for efficiency-linked upside via predefined incentive mechanisms.

6.3 For Citizens

- Voluntary participation in major national projects from low entry amounts.
- Clear, real-time visibility into how public money is being used.
- Enhanced accountability in infrastructure delivery.
- No new taxes or compulsory charges; participation is entirely opt-in.
- Ability to support specific projects they value — such as renewable energy, hospitals, transport or local regeneration

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7. Geopolitical and Competitiveness Angle

The United States enjoys a unique structural advantage in global capital markets through the dominance of the USD, U.S. Treasuries, and USD-backed stablecoins. Most other advanced economies — including the UK, EU members, and many Asian nations — cannot compete at this reserve-currency level.

PPTs do not attempt to replicate or challenge reserve-currency dynamics. Instead, they provide an alternative channel for attracting long-term international capital: a shift from **currency-based attraction to project-based attraction**. This allows governments to draw global investors into high-quality, nationally important infrastructure without engaging in currency competition.

Illustrative Use Cases

- **United Kingdom:** NHS modernisation, transport upgrades, digital infrastructure.
- **United Arab Emirates:** smart-city systems, climate-resilient utilities, logistics corridors.
- **South Korea:** semiconductor supply-chain infrastructure, energy-security projects.
- **India:** metro expansion, urban-transit upgrades, digital public-infrastructure systems.

Why This Matters

- Investors gain **transparent, project-linked sovereign exposure** in a regulated format that complements traditional bonds.
- Governments broaden their investor base beyond conventional debt markets and beyond USD-centric funding channels.
- Participation occurs at the **project level under domestic regulatory control**, rather than via currency instruments or reserve-currency competition.

PPTs therefore offer a pragmatic, geopolitically neutral mechanism for attracting steady, long-term international capital by leveraging national infrastructure rather than currency dominance.

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8. Implementation Roadmap

1. **Establish a cross-departmental taskforce**
   Coordinate policy, technical design, and public communication across HM Treasury, the DMO, Infrastructure Ministry, procurement authorities, the digital-assets unit, and relevant regulators.
2. **Confirm regulatory and statistical treatment early**
   Engage the FCA, Bank of England, ONS/Eurostat, and HMRC to validate:
   - debt classification,
   - investor-protection requirements,
   - reporting standards, and
   - how PPTs integrate into existing sovereign-debt frameworks.
3. **Develop the national transparency dashboard**
   Build a public-facing platform showing real-time project spending, milestones, budget adherence, and the operation of any incentive features. This is central to political credibility and public trust.
4. **Select high-trust, non-revenue pilot projects**
   Prioritise hospitals, rail upgrades, digital networks, and other essential, widely supported projects to demonstrate universal public benefit and minimise political risk.
5. **Utilise the FCA / Bank of England Digital Securities Sandbox**
   Test PPT issuance, custody, settlement, secondary trading, and automated smart-contract behaviour within the regulated environment — using the same pathways created for digital gilts.
6. **Evaluate optional tax and participation incentives**
   Assess the suitability of:
   - CGT exemptions,
   - tax-advantaged yield treatment,
   - ISA/pension eligibility,
   - priority retail allocations.
     These can unlock large pools of domestic capital without changing the debt's classification.

7. **Finalise issuance, settlement, and trading architecture**
   Define token structure, KYC/AML rules, exchange integrations, custodial arrangements, investor disclosures, and communication strategy — all modelled on the digital-gilt infrastructure.

Implementation Timeline

These steps can be completed **within 12–18 months**, enabling a credible pilot issuance and establishing the foundation for national-scale rollout.

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9. Key Risks and Mitigations

Risk 1 — Investor Misunderstanding of Structure

PPTs include features not present in conventional gilts, so misunderstandings could affect adoption or suitability.
Mitigation:
Issue PPTs exclusively through FCA/MiFID-compliant platforms using simplified term sheets, clear explanations of incentive or adjustment features, appropriate risk labels, and a public transparency dashboard that shows real-time spend, milestones, and budget adherence.

Risk 2 — Extreme Cost Overruns or Significant Budget Deviations

Large overruns could affect expected returns where optional incentive or adjustment mechanisms apply.
Mitigation:
Adopt predefined, rule-based adjustment structures; set optional dilution caps; require independent cost auditing; and use parliamentary or ministerial review triggers for major variances. Real-time disclosure via the transparency dashboard strengthens public scrutiny and deters unmanaged overruns.

Risk 3 — Political Misinterpretation or Mis framing

New financial instruments risk being misunderstood as privatisation, off-balance-sheet borrowing, or new fiscal liabilities.
Mitigation:
Communicate clearly that PPTs preserve full public ownership, create no concession rights, and sit fully within existing sovereign-debt and capital-budget frameworks. Early engagement with ONS/Eurostat ensures correct classification and avoids misinterpretation during launch.

Risk 4 — Secondary-Market Price Volatility

Secondary-market prices may move for reasons unrelated to project performance.
Mitigation:
Volatility is naturally limited by fixed baseline coupons, redemption at par, a rules-based adjustment formula, and trading only on regulated digital-securities venues. Prices therefore tend to reflect project-specific expectations rather than speculative market behaviour.

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10. What Government Must Do Next

1. **Evaluate PPTs as a complementary sovereign-financing instrument**
   Assess the PPT framework within the national capital-investment strategy, focusing on its ability to broaden the investor base, strengthen transparency, and accelerate delivery without altering ownership or accounting treatment.
2. **Establish a clear transparency and reporting standard**
   Develop a real-time project dashboard showing spend, milestones, progress, and any incentive adjustments to demonstrate institutional commitment to open, accountable delivery.
3. **Launch an initial pilot programme**
   Begin with a low multi-billion-pound pilot across high-trust, high-visibility public-goods projects — such as hospitals, rail upgrades, or digital public-infrastructure — where public benefit is clear and delivery progress is easy to communicate.
4. **Prioritise projects with broad public support**
   Focus early issuance on projects with strong social legitimacy to build confidence, encourage participation, and reduce the risk of political misinterpretation.
5. **Develop a coordinated regulatory and communications plan**
   Align issuance with FCA/Bank of England digital-securities guidance and ensure clear public messaging that PPTs maintain full public ownership, are voluntary, and operate entirely within sovereign-debt frameworks.
6. **Scale based on pilot outcomes**
   If the pilot demonstrates successful uptake, delivery discipline, and transparent reporting, integrate PPTs as a recurring component of long-term public-investment policy, complementing conventional gilts and enabling faster deployment of national infrastructure.

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11. Regulatory and Accounting Treatment Considerations

The long-term viability of Public Project Tokens (PPTs) depends on full compatibility with national accounting standards (ONS/Eurostat), financial regulation (FCA/MiFID II),

sovereign-debt frameworks, and established public-sector governance. PPTs are intentionally designed to operate *within* these existing structures while introducing greater transparency, optional incentive mechanisms, and broader participation.

11.1 National Accounting: PPTs as Conventional Government Debt

PPTs should be expected to be classified as standard sovereign debt under:

- **ONS Public Sector Finances (UK)**
- **Eurostat ESA 2010**
- **IFRS/IPSAS public-sector obligation standards**
- **Sovereign credit-rating methodologies**

This classification provides regulatory certainty, preserves full sovereign backing, and aligns PPTs with existing capital-budget and debt-management practices.

The innovation is structural — **transparency, participation, and incentive alignment** — not alternative accounting treatment.

Key design features fully consistent with debt classification:

(A) Standard sovereign liability
Repayment occurs through the project's approved capital budget or via conventional refinancing at completion.

(B) Coupons aligned with gilt yields
Baseline yield is treated identically to other government borrowing.

(C) Project participation, not ownership
No transfer of asset rights, operational rights, governance, or revenue.

(D) Ring-fenced transparency
Each PPT maps to a named capital project, enhancing auditability while staying within established statistical-reporting rules.

11.2 Regulatory Classification Under Financial Services Law

PPTs fit cleanly within existing UK regulation for **tokenised debt instruments**. They are expected to be classified as:

> **Tokenised government securities with project-linked incentive features**, consistent with FCA/MiFID II treatment of digital gilts or structured notes.

Required investor protections (standard in UK markets):

- FCA-regulated issuance
- Prospectus / Key Information Document (KID)
- Clear disclosure of incentive and adjustment mechanics
- Retail suitability checks where applicable
- Trading on FCA-regulated MTF/ATS digital-securities venues

No new regulatory category is required.

11.3 Managing the Adjustment Mechanism (Optional Dilution Feature)

Where used, the dilution/adjustment mechanism must remain **predictable, bounded, and transparent**.

Key safeguards include:

- **Dilution caps** (e.g., 5–7%)
- **Predefined, audited formulas**
- **Independent cost auditing**
- **Institutional-first issuance** before retail rollout

These measures ensure clarity for investors and full compliance with FCA expectations on structured instruments.

11.4 Yield, Tax Incentives, and Market Attractiveness

(A) Yield Peg
Coupons are fixed at issuance and benchmarked to the 10-year gilt yield.

(B) Efficiency Bonus
A share of verified under-budget savings may be distributed — without creating long-run fiscal commitments.

(C) Optional Tax Incentives
Governments may apply:

- ISA/SIPP eligibility
- capital-gains exemptions
- favourable yield treatment

These enhance adoption but **do not affect debt classification or create off-balance-sheet effects**.

11.5 Digital Infrastructure & Settlement Layer

A permissioned DLT platform, operated by HM Treasury, the Bank of England, or an authorised provider, enables:

- tamper-evident audit trails,
- real-time reporting of expenditure and milestones,
- secure, regulated digital-security architecture,
- interoperability for public auditability.

This builds directly on the **DMO's Digital Gilt Instrument (DIGIT) pilot**, ensuring PPT settlement is fully aligned with emerging UK tokenised-sovereign infrastructure.

11.6 Summary of Compliance Position

With appropriate structuring, PPTs offer:

- Full alignment with ONS/Eurostat sovereign-debt classification
- Full FCA/MiFID II compliance as tokenised government securities
- Strong investor protections with clear disclosure and regulated trading
- Political acceptability through transparency and bounded risk
- Straightforward integration with existing debt-management systems
- Seamless fit with the UK's evolving digital-gilt infrastructure (DIGIT)

PPTs therefore provide a credible, compliant, and scalable mechanism for mobilising private capital into national infrastructure — entirely within the existing sovereign-debt architecture.

12. Fiscal Value Even If Classified as Debt

PPTs should be expected to be classified as conventional sovereign debt. Their fiscal value does not depend on alternative accounting treatment, but on improving the *quality* of public debt: broadening the investor base, increasing domestic ownership, enhancing transparency, and strengthening delivery discipline. These structural improvements can materially enhance fiscal resilience even without changing headline debt levels.

12.1 Improved Debt Quality Through Domestic Ownership

The UK relies heavily on foreign investors to absorb gilt issuance, exposing public finances to global sentiment and capital-flow volatility.

PPTs broaden domestic participation by attracting households, pension funds, corporates, and resident high-net-worth individuals — creating a more stable, “sticky” investor base similar to Japan’s.

Stronger domestic anchoring increases fiscal sovereignty and reduces vulnerability to external shocks.

12.2 Reduced Refinancing and Rollover Risk

Higher domestic ownership lowers refinancing risk during periods of market stress.

UK households currently hold **£760bn+ in excess cash savings**. PPTs redirect a portion of this idle liquidity into productive, long-term national investment — providing a natural buffer against sudden foreign outflows and supporting gilt-market stability.

12.3 Potential for Lower Long-Term Borrowing Costs

By opening a new segment of investor demand beyond traditional gilt buyers, PPTs increase structural demand for government-linked securities.

Combined with greater transparency and stronger accountability, this broader demand base can reduce lifecycle borrowing costs — even after accounting for distribution and issuance expenses.

12.4 Productive Debt That Improves Debt-to-GDP Dynamics

Traditional borrowing often finances operating deficits, which have limited economic multiplier effects.

PPTs finance high-impact infrastructure — transport, energy, health, digital capacity — which raises productivity, competitiveness, and long-run tax receipts.

This strengthens the **GDP denominator**, improving medium-term debt sustainability even if headline debt levels remain unchanged.

12.5 Transparency and Efficiency Incentives Reduce Fiscal Waste

Conventional gilts carry no link between financing and project performance.
PPTs introduce:

- **real-time on-chain transparency**,
- **optional efficiency bonuses**, and
- **rule-based adjustment mechanisms for cost overruns**,
  all of which strengthen delivery discipline and reduce long-term overspend.
  These mechanisms create fiscal value by improving execution, not by shifting risk to citizens.

12.6 Re-shoring Capital and Strengthening Financial Sovereignty

Large portions of UK household wealth are invested in global equities, funds, or USD assets.

PPTs offer a regulated, sovereign-backed instrument that keeps more capital within the UK and directs it toward nationally important infrastructure — supporting sterling liquidity and strengthening the domestic financial base.

12.7 Public Acceptability Through Project-Specific Contribution

Citizens are more willing to support investment when they can see where their contribution goes.

PPTs create visible, project-linked participation that builds a **"trust premium"** absent in general taxation or undifferentiated borrowing, making essential public investment more politically acceptable.

12.8 Debt Quality Comparison

Category	Traditional Gilts	PPT (Project-Linked Government Security)
Ownership Profile	High foreign ownership (“hot money”)	Higher domestic ownership (“sticky money”)
Refinancing Risk	Higher rollover vulnerability	Lower risk through domestic investor base
Transparency	Minimal	Full on-chain expenditure & progress tracking
Incentives	None	Efficiency bonuses & dilution penalties
Economic Impact	May fund operating deficits (low multiplier)	Funds infrastructure (high multiplier)
Political Acceptability	Low	High through visible, hypothecated contribution
Capital Flight Risk	High	Reduced (capital retained domestically)
Debt Quality	Undifferentiated	Productivity-linked, transparency-enhanced

13. Frequently Asked Questions (FAQ)

1. Is a PPT a form of government debt?

Yes. PPTs are sovereign obligations and follow the same repayment principles as conventional gilts. Their value comes from transparency, incentive alignment, and broader participation—not from alternative accounting treatment.

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2. Do PPTs have a maturity date?

Yes. PPTs mature at project completion. They pay coupons throughout the project and are redeemed at par when delivery is finalised. Investors may exit earlier via regulated secondary markets.

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3. What happens if a project is delayed or rescheduled?

The PPT maturity adjusts to the updated delivery timeline. Coupon payments continue, and all changes are published transparently through the project dashboard.

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4. What happens if a project is cancelled?

PPTs are redeemed at par, with coupon accruing to the cancellation date. Funding comes from unspent capital allocations or standard cancellation procedures used for public capital works today.

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5. How are cost overruns handled?

A predefined mechanism—such as dilution within capped limits or reduced bonus payments—may apply. Investor protections include dilution caps, independent auditing, and parliamentary oversight for exceptional cases.

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6. Who bears project risk?

PPT holders bear limited exposure to delivery timing and bonus eligibility, but do not bear sovereign default risk, operational risk, or revenue risk. The underlying obligation remains a standard sovereign liability.

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7. Why use tokenisation?

Tokenisation enables real-time transparency, fractional participation, automated incentive mechanisms, and regulated secondary-market liquidity. It also supports stronger governance by allowing project-linked funds to be ring-fenced, usage to be visible on an ongoing basis, and capital flows to follow predefined, rule-based conditions. These capabilities are difficult to replicate reliably using conventional bond/cash structures alone.

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8. Are PPTs suitable for retail investors?

Yes, subject to FCA-regulated issuance, KYC/AML standards, suitable disclosures, and—optionally—principal-protected retail tranches.

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9. Do PPTs crowd out conventional gilt issuance?

No. PPTs complement the gilt programme by diversifying the investor base and increasing domestic participation. They support smoother funding patterns without displacing traditional issuance.

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10. Who controls the project?

The government retains 100% ownership, procurement authority, and operational responsibility. PPTs do not grant governance, revenue participation, or concession rights.

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11. Can local or devolved authorities use PPTs?

Yes. The structure is adaptable for national, regional, or city-level capital projects within existing public-finance frameworks.

Appendix A — Classification and Comparison of PPT vs Traditional Instruments

The Public Project Token (PPT) is best understood as a **project-linked form of sovereign debt**.

Its distinctiveness comes from transparency, incentive alignment, and investor composition — not from accounting treatment.

The table below compares PPTs with traditional government debt in a manner consistent with ONS/Eurostat rules.

Feature Comparison

Feature	Traditional Government Debt	PPT (Public Project Token)	Explanation
Repayment obligation	Unconditional sovereign liability funded from general resources	Sovereign liability redeemed through the project's capital budget or normal refinancing	PPTs are debt, but repayment is aligned with project close-out and improves traceability
If project is cancelled	Debt remains payable in full	Redeemed at par from unspent capital allocations or standard cancellation procedures	Mirrors existing treatment of mobilisation payments and cancelled capital works
Legal form	Sovereign bond or loan	Tokenised government security with project-linked features	Fits within existing frameworks for government securities
Repayment timing	Fixed maturity requiring refinancing or repayment	Maturity adjusts with project timelines; redeemed at completion	Aligns financing with actual delivery schedules
Statistical treatment (ONS/Eurostat)	Classified as public-sector debt	Expected to be classified as public-sector debt	PPTs operate fully within standard sovereign-debt frameworks

Impact on fiscal aggregates	Adds to headline debt and borrowing	Adds to debt but with enhanced transparency, broader investor base, and delivery incentives	Fiscal value comes from improved debt *quality*, not alternative accounting
Precedents	Traditional gilts, government loans	Digital gilts, tokenised government bonds, project-linked securities under DMO/G7 pilots	PPTs extend existing tokenisation work by adding project specificity

Appendix B — Optional Design Enhancements for Policymakers

These enhancements are optional levers that strengthen the Public Project Token (PPT) framework.

They are not required for implementation but can materially improve investor confidence, political appeal, and fiscal impact.

B1. Tax-Exempt Coupon or ISA/Pension Eligibility

UK households and companies hold more than £760bn in low-interest deposits.
Making PPT coupons tax-exempt — or eligible for ISAs and pension wrappers — can unlock substantial voluntary participation at minimal fiscal cost.

Rationale:

- Most deposit interest generates negligible tax revenue today.
- A tax-exempt PPT coupon raises after-tax returns without increasing the government's pre-tax cost.
- Mobilises domestic savings into productive national investment.

B2. Limited Issuance & Fixed Maturity

To avoid perceptions of continuous "top-up" issuance and preserve investor confidence:

- Each project has a single primary issuance;
- Maturity is fixed to project completion.

This removes moral-hazard concerns and reinforces disciplined project budgeting.

B3. Dual-Tranche Structure to Protect Retail Investors

A two-class structure mirrors familiar project-finance models while preserving public trust.

Retail (Senior) Tranche

- Fixed, tax-efficient coupon
- No dilution or adjustment risk
- Full principal protection at maturity

Institutional (Junior) Tranche

- Accepts dilution risk if cost overruns occur
- Receives larger efficiency bonuses
- Attracts sophisticated investors
- Adds genuine market scrutiny

This structure protects households while allowing institutions to take performance-linked exposure.

B4. Why PPTs Are Valuable Even as Government Debt

PPTs should be expected to be classified as sovereign debt.
Their advantage lies not in accounting treatment but in **debt quality**.

Benefits vs traditional gilts:

- Broader domestic investor base
- Reduced reliance on foreign capital
- Lower refinancing and rollover risk
- Productive capital allocation (infrastructure)
- Embedded efficiency incentives
- Real-time transparency and accountability

Even as standard sovereign obligations, PPTs represent a structurally superior financing instrument.

B5. Mobilising Idle Domestic Cash (“Dead Money”)

Large pools of UK household and corporate savings sit in bank accounts earning little or nothing.
PPTs provide a patriotic, transparent, and productive alternative.

Benefits:

- Anchors capital within the UK
- Reduces exposure to international bond markets
- Limits capital flight into USD assets or global ETFs
- Strengthens financial sovereignty

This mirrors the success of Japan's retail-bond ecosystem.

B6. Public Trust Through Transparency and Hypothecation

Citizens strongly support mechanisms where they can see how funds are used.
PPTs offer:

- Real-time, on-chain reporting
- Public progress dashboards
- Immutable records of spend, overruns, and savings

This creates a **trust premium**, making voluntary participation more likely.

Summary of Advantages of the Enhanced PPT Model

Feature	Benefit
Tax-exempt coupons / ISA eligibility	High retail demand with minimal fiscal cost
Limited issuance	Prevents moral hazard; supports disciplined budgeting
Dual-tranche structure	Protects households; enables institutional oversight
Superior debt quality	Strong incentives, transparency, domestic ownership
Mobilisation of domestic savings	Reduces reliance on foreign capital; boosts resilience
Transparency & hypothecation	Higher public trust and visible use of funds

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Conclusion

These enhancements maintain the simplicity of the core PPT model while significantly increasing its market appeal and political viability.
They operate fully within existing sovereign-debt frameworks and strengthen fiscal resilience by combining:

- transparency,
- participation,
- delivery discipline, and
- mobilisation of domestic capital.

The enhanced PPT framework turns necessary public borrowing into a visible, accountable, and widely supported national investment effort.

Appendix C: Interaction with Non-Domiciled Investors & Capital Repatriation Strategy

High-net-worth internationally mobile individuals (“non-doms”) hold significant offshore cash and assets. Conventional approaches have struggled to attract this capital into UK productive investment without creating unintended tax consequences or encouraging capital flight.

A well-designed PPT structure provides a voluntary, non-punitive, and politically acceptable channel for repatriating capital from resident non-doms into UK infrastructure. This appendix outlines why PPTs can be attractive and how participation can be structured without compromising tax integrity.

C.1 Why Non-Doms Would Consider PPT Participation

1. Attractive after-tax yield

If coupons are tax-exempt, ISA/pension-eligible, or treated similarly to Premium Bond prizes, PPTs offer one of the strongest after-tax returns available to UK residents — often outperforming offshore cash yields even at modest coupon levels.

2. No impact on wider UK tax liability

PPTs can be structured so that:

- ownership does **not** trigger UK taxation of unrelated offshore wealth,
- the token is treated independently of other assets,
- only the coupon is taxed (or exempted) according to PPT-specific rules.

This addresses the main reason non-doms avoid onshore financial assets.

3. Reputational and social-value alignment

PPTs offer visible participation in nationally important infrastructure (NHS facilities, schools, digital networks), meeting rising expectations of social contribution from globally mobile professionals.

4. Low-risk instrument profile

Senior PPT tranches can offer:

- principal protection,
- sovereign-benchmarked yield,
- clearly bounded adjustment risk.

This profile compares favourably to many offshore structures.

C.2 How PPTs Encourage Voluntary Capital Repatriation

PPTs provide a tax-aware, low-risk onshore alternative to passive offshore cash.

Mechanisms enabling repatriation:

- higher after-tax yield than offshore cash deposits,
- no broader tax exposure,
- liquidity through secondary trading,
- no political or regulatory sensitivities associated with property or business investment,
- completely voluntary participation.

C.3 Macroeconomic Benefits to the UK

Greater participation from resident non-doms can:

- reduce reliance on foreign sovereign-debt buyers,
- increase the “stickiness” of the domestic funding base,
- boost resilience during global rate volatility,
- strengthen sterling demand,
- enhance financial sovereignty.

C.4 Protective Features for Non-Dom Participants

A dual-tranche structure aligns risk with investor sophistication.

Senior Tranche (Suitable for Households & Resident HNW Individuals)

- principal protection,
- tax-efficient coupon,
- no dilution exposure,
- optional early-exit windows.

Junior Tranche (Institutions)

- accepts bounded dilution/adjustment risk,
- receives higher efficiency-bonus upside.

This model protects households and resident HNW investors while enabling institutions to provide genuine market oversight.

C.5 Policy Considerations

Non-dom participation does **not** require changes to UK tax rules. Clear guidelines ensure:

- PPT ownership does not trigger worldwide taxation,
- only coupon income is taxed or exempted per PPT rules,
- participation remains voluntary,
- full KYC/AML compliance is maintained.

This avoids the pitfalls of past non-dom reforms while encouraging constructive capital inflow.

C.6 Optional "UK Growth Incentive" Class (PPT-G)

Governments may adopt a targeted variant — **PPT-G** — designed for internationally mobile residents.

Key features:

- coupon paid in GBP to a UK account,
- optional tax-efficient treatment if voluntary conditions are met (e.g., retaining proceeds in UK markets),
- restricted to socially important, non-revenue projects (hospitals, schools, digital public infrastructure).

PPT-G allows wealthy residents to visibly support UK infrastructure while earning a fair, low-risk return.

C.6.1 Illustrative Example (Simplified)

A resident HNW individual with significant offshore wealth invests a portion into PPT-G:

- receives a 3–4% GBP coupon,
- covers UK living costs from PPT income,
- avoids remitting offshore income,
- keeps offshore assets outside UK tax scope under residence-based rules,
- channels capital into UK infrastructure.

This converts passive offshore wealth into active domestic investment and consumption.

C.6.2 Benefits for HM Treasury

- no loss of tax revenue (offshore income was untaxed),
- stronger sterling liquidity,
- reduced reliance on foreign buyers of gilts,
- improved attractiveness of the UK for globally mobile talent,
- scalable new funding channel for hospitals, schools, and digital infrastructure.

C.6.3 Public Perception and Fairness

PPT-G is *not* a preferential tax break.

Returns are modest and benchmarked to government borrowing costs.

In exchange for a fair, low-risk coupon, wealthy residents contribute directly to essential public goods.

This is politically defensible and socially constructive.

Summary

PPT-G offers a voluntary, non-intrusive mechanism for repatriating offshore capital without compromising tax integrity. By combining:

- tax-efficient yield,
- principal protection,
- transparency and social alignment,
- no broader tax exposure,
- liquidity and regulatory oversight,

PPT-G creates a credible channel for resident non-doms to support UK infrastructure while strengthening domestic financial resilience and broadening the investor base for essential public projects.

About the Author

Che is a seasoned financial markets professional specialising in hedge fund execution, electronic trading, market microstructure, and risk management. He has led major financial technology initiatives, overseen the development of pricing engines, systematic models, and large-scale trading infrastructure, and has extensive experience integrating advanced data and automation into institutional workflows.

Drawing on his background in both market structure and public-sector finance challenges, Che developed the **Public Project Token (PPT)** framework as a new mechanism to modernise government funding, improve project efficiency, and attract long-term private capital to public infrastructure.