

# Fiscal Dominance in the Modern Era: Revisiting Sargent and Wallace in Light of UK Macroeconomic History

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## Abstract

This paper revisits the seminal insights of Sargent and Wallace’s “Unpleasant Monetarist Arithmetic” through the lens of recent UK macroeconomic history. It formalises the fiscal-monetary interaction as a dynamic game between authorities under an intertemporal budget constraint, distinguishing between Ricardian and non-Ricardian regimes. The analysis extends the original framework to incorporate quantitative easing (QE), fiscal credibility, and inflation expectations, offering a modernised fiscal theory of the price level. Using detailed case studies—the Barber Boom (1971–74), the Lawson Boom (1987–91), and the Truss-Kwarteng episode (2022)—the paper illustrates how fiscal dominance can emerge even under superficially sound fiscal metrics, and how it can rapidly destabilise monetary policy credibility. A set of operational indicators is proposed to detect fiscal dominance in real time, alongside a policy framework for prevention. The findings underscore the fragility of monetary independence in the face of persistent deficits, QE-induced maturity shortening, and political pressure, offering lessons for institutional design and macroeconomic resilience in advanced economies.

## 1 Introduction

In the century from 1815-1914, monetary policy in Britain was conducted largely without reference to government finances, which were managed strictly according to the balanced budget principle. After the outbreak of war in 1914, that was no longer possible. It was not possible to separate them again until the late 1980s, when the advantages of prudent fiscal policies became widely recognised, it was assumed that government finances would be stable and that monetary policy could be conducted without reference either to fiscal policy or to government debt management.

Forty years ago, Sargent and Wallace wrote an important paper: “Some unpleasant monetarist arithmetic” (Fed Minneapolis Review, 1981). The paper had a very simple purpose,

which was to demonstrate that the conflict between monetary and fiscal policy could undermine the conventional wisdom that constraining the rate of monetary growth would limit inflationary pressures in an economy. This foundational insight has since been extended by Leeper (1991), who formalised the distinction between active and passive policy regimes, and by Woodford (2001) and Cochrane (2021), who developed the fiscal theory of the price level.

Using a very simple framework, which involved an inter-temporal government budget constraint (with deficits being financed with either money creation or bonds) and a simple quantity theoretic money market equilibrium, Sargent and Wallace showed that there is a contrast between what they called Ricardian and non-Ricardian fiscal regimes. A Ricardian fiscal regime is one in which fiscal policy is clearly sustainable, so the path of government expenditures is supported by the expected path of tax revenues, so that ultimately the government budget balances. The alternative non-Ricardian regime is one in which this is not the case. In the Ricardian regime the Monetary Authority is essentially given the role of hitting an inflation target and not subject to Laffer Curve limits generating seigniorage to fill fiscal gaps, essentially chasing the fiscal authority. In game theoretic terms, in the Ricardian regime the monetary authority moves first, whereas in the non-Ricardian regime, the fiscal authority moves first.

## 2 Sargent and Wallace

Sargent and Wallace assume:

(i) The real rate of interest exceeds the growth rate of the economy. This is required for dynamic efficiency and well-defined present values. Moreover, it is argued to be a basis for arguing for a low rate of growth of money no matter how big the current deficit is. An alternative assumption would be to assume that the public's demand for government bonds is an increasing function of the real rate of return on bonds, with an initial range over which that demand is positive at rates of return that are less than the growth rate of the economy.

The crucial point is that the quantity of bonds demanded per capita has an upper bound, so that monetary policy helps determine the real rate of interest on government bonds and that, for some monetary policies entailing low enough bond supplies, seigniorage can be earned on bonds as well as on base money. The important feature is that a sufficiently tight current monetary policy can imply growth in government interest-bearing indebtedness so rapid that inflation in the future is higher than it would have been with an easier current monetary policy.

(ii) The other crucial assumption is that the path of fiscal policy deficits and surpluses,  $D(t)$ , is given and does not depend on current or future monetary policies. This assumption is not about the preferences, opportunities, or behaviour of private agents, it is about the behaviour of the monetary and fiscal authorities and the game that they are playing. Since

the monetary authority affects the extent to which seignorage is exploited as a revenue source, monetary and fiscal policies simply must be coordinated.

The question is, which authority moves first, the monetary authority or the fiscal authority? In other words, who imposes discipline on whom? The assumption made by Sargent and Wallace, is that the fiscal authority moves first, its move consisting of an entire  $D(t)$  sequence. Given that  $D(t)$  sequence, monetary policy must be determined in a way consistent with it, if that is possible. It may not be possible if the  $D(t)$  sequence is too big for too long, a Laffer Curve problem. Given this assumption about the game played by the authorities, and given our first assumption, the monetary authority can make money tighter now only by making it looser later.

Proposals for monetary restraint could call for the monetary authority to move first and thereby impose discipline on the fiscal authority, a Ricardian regime. In this interpretation, the monetary authority moves first by announcing a fixed monetary growth (or inflation) target not just for  $t = 2, 3, \dots, T$ , but for all  $t > 1$ . By doing this in a binding way, the monetary authority forces the fiscal authority to choose a  $D(t)$  sequence consistent with the announced monetary policy. This form of permanent monetary restraint is a mechanism that effectively imposes fiscal discipline.

Alternative monetary mechanisms that do impose fiscal discipline such as fixed exchange rates or a commodity money standard such as the gold standard could be considered. These commit the fiscal authority not to exploit seigniorage. Unpleasant Monetarist Arithmetic does not preclude the monetary authority permanently affecting the inflation rate under a monetary regime that effectively disciplines the fiscal authority. Note that this is close to the Wicksell-Hayek argument that fiat money creation by central banks that holds the rate of interest below the natural rate on behalf of the fiscal authority, should not be used to generate seigniorage revenues.

These insights laid the groundwork for subsequent models of fiscal-monetary interaction, including the fiscal theory of the price level (Woodford, 2001; Cochrane, 2021) and empirical studies of fiscal dominance under low interest rates (Blanchard, 2019).

### **Example**

Consider the following non-Ricardian example. Suppose that government tax and spend decisions imply a primary deficit for the foreseeable future, so the expectation is for deficits for as long as we can see. Next, suppose the economy is operating at or near “full employment.” And then suppose inflation rises well-above target, with no sign of ever returning to the Central Bank’s official 2-percent long-run inflation target. What should the Central Bank do? For as long as Government remains in a regime of high primary deficits,

- (i) if possible keep the policy rate low, and
- (ii) announce a temporarily higher inflation target (consistent with the new fiscal regime).

Recommendation (i) comes from “Some Unpleasant Monetarist Arithmetic” (Sargent and Wallace (1981). Increasing the interest rate in this fiscal regime will only lead to higher

primary deficits and inflation. Lowering the interest rate has the opposite effect. (ii) is needed to ensure that the inflation path at least appears planned.

Now suppose that there is some chance that the sequence of deficits will be reversed, say by expenditure cuts. Sargent and Wallace might recommend raising the policy rate, but not by as much as would normally be done given the observed inflationary pressure and maintaining the inflation target. However, the policy maker would not want to raise the policy rate aggressively against inflationary pressure (as recommended by the Taylor principle). The Taylor Rule is designed to work under a Ricardian fiscal policy. But it may backfire if fiscal policy is non-Ricardian.

Tightening monetary policy might have the effect of bringing inflation down temporarily (this is consistent with the Sargent and Wallace model). But such a policy is likely to come at the cost of economic recession. To maintain credibility, an independent central bank may do whatever it can with interest rate policy to achieve its mandate, even at the cost of recession. Then the fiscal authority must behave in a Ricardian manner (with only temporary deficits permitted) so that the goal of anchoring the long-run rate of inflation may be achieved without monetary and fiscal policy coming to blows.

### **Quantitative Easing**

To consider quantitative easing we need a model which has an intertemporal government budget constraint and a money market equilibrium. We also have both a central bank and commercial banks, all of which have balance sheets. The commercial banks hold reserves at the central bank on which they are paid the central bank's policy rate, the principal instrument of monetary policy. They also hold government bonds and loans. The central bank's assets are reserves of the commercial banks and government bonds.

The Financial Crisis of 2007-2009 saw UK GDP fall by 4.5%, there were huge fiscal subsidies to the financial sector, whilst net-tax revenues declined. This resulted in a very significant rise in public debt of over £250 billion. By 2009, the Central Bank's policy rate was very low. However, the main, and longest-lasting, monetary policy instrument of the post-crisis period was quantitative easing, which began in the UK in March 2009. It involved the Bank of England purchasing government bonds (not short-term bills). The Bank of England concentrated its purchases at long maturities.

In the UK, the initial tranches of QE supported economic recovery, partly because they caused the exchange rate to depreciate. Inflation remained subdued throughout the decade, and there were periodic new tranches of QE. By the time the post (2016)-referendum tranche of QE had been completed, the Bank of England's total government bond holdings were £435 billion, or about 20% of Gross Domestic Product. None of the QE that had been undertaken was reversed, as it was for a period in the United States.

The outbreak of the coronavirus pandemic in 2020 changed the monetary policy environment completely. The British government decided to provide extensive budgetary support to individuals and businesses. The budget deficit increase from  $2\frac{1}{2}\%$  of GDP in April 2019 –

March 2020 to 14% in the following year. As in the United States, there was a sudden loss of liquidity in the government bond market in March 2020. Hence, the Bank of England, like the Federal Reserve, announced further quantitative easing. The purpose was partly to restore the functioning of the government securities market and sustain economic activity. By the time the programme was completed, late in 2021, the Bank of England's portfolio of government bonds would be £875 billion, about 40% of GDP and 35% of the amount of government bonds outstanding.

The large UK budget deficit of 2020-2021 caused the government debt/GDP ratio to increase from 80% in 2018 – 2019 to over 96%. And the quantitative easing programme has, in effect, greatly shortened the maturity of the government's debt. Quantitative easing has withdrawn from the market over £800 billion of fixed-interest government bonds and replaced them with deposits at the Bank of England, which bear interest at floating rates.

In the UK, gains and losses on the Central Bank's holding of government bonds are met by the government because the Treasury has indemnified the Bank of England against the costs of the quantitative easing programme. So, the losses add to the budget deficit. This potentially adds to the inflationary pressure. The UK's Asset Purchase Facility (APF), the account in which the bonds are held, had by mid 2022, yielded £112 billion to the Treasury. For a period, paying the banks for the reserves created by QE was much cheaper than paying bond holders. However, after the outbreak of the war in Ukraine, interest rates rose above the levels implied by bond yields, and between 2022 and mid-2025, over £70 billion in losses have already been charged to the Treasury. Projections suggest that by the early 2030s, the cumulative lifetime cost to the Treasury could exceed £150 billion. The Bank's own projections show that depending on the path of interest rates and the pace of QT, the net present value (NPV) of future APF cash flows could range from £55 billion to £115 billion. These projections are highly sensitive to assumptions about Bank Rate and the speed of asset sales.<sup>1</sup>

One of the risks is that quantitative easing gives governments an incentive to put pressure on their central banks to keep interest rates down to protect themselves against higher interest costs. In general, governments, which are burdened with short-term debts are less likely to be tolerant of central banks that increase short-term interest rates to contain inflation.

These developments threaten central bank independence and budgetary sustainability. Monetary policy now has large fiscal impacts. As noted by the OBR in 2021, even a modest rise in Bank rate with uplift in the yield curve might make it harder to stabilise the government debt-to-GDP ratio. In this environment, there is a risk of central banks being put under pressure to keep interest rates low to manage government debt service costs.

### **Proposition**

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<sup>1</sup>Several reforms have been proposed to mitigate these costs: Tiered reserves, where only a portion of reserves earn interest, could save up to £11.3 billion annually. Slowing or halting QT could reduce losses by £4.4–£13.5 billion per year. Deferred asset accounting, used by the Fed and ECB, could smooth fiscal impacts over time.

The prompt and substantial response of monetary policy to the coronavirus pandemic was a vital complement to expansionary fiscal policy in limiting output and employment losses. But it would be impossible for central banks to sell government bonds of similarly long average maturity at a similar pace when restrictive monetary policy was required.

### 3 Model

We formalise the extended Sargent-Wallace model, incorporating fiscal and monetary interactions, inflation dynamics, and expectations. The model is structured as a dynamic game between fiscal and monetary authorities under an intertemporal budget constraint.

**Agents and Timing:** Fiscal Authority (F): Chooses a sequence of primary deficits/surpluses  $D(t)$ . The Monetary Authority (M): chooses a sequence of money growth rates  $\mu(t)$  or nominal interest rates  $i(t)$ . The model permits two regimes: Non-Ricardian: F moves first, monetary authority adjusts; Ricardian: M moves first, the fiscal authority adjusts.

The government budget constraint is:

$$\sum_{t=0}^{\infty} \frac{D(t)}{(1+r)^t} = B(0) + \sum_{t=0}^{\infty} \frac{S(t)}{(1+r)^t} \quad (1)$$

where:

- $D(t)$ : Primary deficit at time  $t$
- $B(0)$ : Initial stock of government debt
- $S(t)$ : Seigniorage revenue at time  $t$
- $r$ : Real interest rate

Monetary Policy and Seigniorage plays a central role. Assume a money demand function:

$$\frac{M(t)}{P(t)} = L(i(t)) \quad (2)$$

where  $L(\cdot)$  is a decreasing function of the nominal interest rate. Seigniorage revenue is defined as:

$$S(t) = \frac{M(t) - M(t-1)}{P(t)} \quad (3)$$

Next, inflation dynamics follow from the quantity theory of money:

$$M(t) \cdot V = P(t) \cdot Y(t) \quad (4)$$

Assuming constant velocity  $V$ , inflation is:

$$\pi(t) = \mu(t) - g(t) \quad (5)$$

where:  $\pi(t)$ : Inflation rate;  $\mu(t)$ : Money growth rate and  $g(t)$ : real output growth rate. Finally, the Fisher equation links nominal and real interest rates with expected inflation:

$$i(t) = r(t) + \pi^e(t) \quad (6)$$

where  $\pi^e(t) = \mathbb{E}_t[\pi(t+1)]$  under rational expectations.

The games structure is as follows: **Objective Functions:** The Fiscal Authority maximises the value of spending subject to constraints. The Monetary Authority minimises inflation deviations:

$$\min_{\mu(t)} \sum_{t=0}^{\infty} \beta^t (\pi(t) - \pi^*)^2 \quad (7)$$

where  $\pi^*$  is the inflation target.

The equilibrium concepts are Stackelberg Equilibrium: leader-follower game depending on regime and Nash Equilibrium: simultaneous moves. The theoretical framework is one of fiscal dominance in the modern era.

## 4 Identifying Fiscal Dominance: From Theory to Practice

The Sargent-Wallace framework provides the theoretical foundation, but policymakers need operational metrics to identify when fiscal policy has become non-Ricardian. We propose a multi-dimensional approach to detecting fiscal dominance:

### 4.1 Primary Indicators of Fiscal Dominance

#### 1. Debt Sustainability Metrics:

- **Critical Threshold:** When  $r > g$  and  $\text{debt/GDP} > \text{Critical ratio}$  based on revenue and expenditure profiles, including debt service. Fiscal dominance risk escalates.
- **Debt Service Ratio:** Interest payments exceed a fraction of government revenues that test the sustainability of government plans.
- **Fiscal Space Index:** Combining debt levels, deficit trends, and contingent liabilities:

$$FSI = \alpha \left( \frac{\text{Debt}}{\text{GDP}} \right) + \beta \left( \frac{\text{Primary Deficit}}{\text{GDP}} \right) + \gamma \left( \frac{\text{Contingent Liabilities}}{\text{GDP}} \right) \quad (8)$$

where  $\alpha = 0.5$ ,  $\beta = 2.0$ ,  $\gamma = 0.3$  based on historical crisis episodes.

#### 2. Market-Based Indicators:

- **Sovereign Spread Decomposition:** Separating inflation expectations from default risk.
- **Term Structure Signals:** Inverted yield curves combined with high deficits indicate dominance.

- FX Risk Premium: Persistent currency weakness despite monetary tightening.

### 3. Institutional Indicators:

- Central Bank Independence Index adjusted for:
  - Frequency of government override of monetary decisions.
  - Central bank holdings of government debt ( $>$  some critical threshold = high risk).
  - Political pressure events (public criticism, threatened mandate changes).

#### 4.1.1 The Transmission Mechanism Matrix

When the fiscal index exceeds critical thresholds, particularly when combined with  $r > g$  and debt-to-GDP ratios above a critical ratio, the risk of fiscal dominance escalates non-linearly. Market-based indicators offer complementary signals: sovereign spread decomposition helps separate inflation expectations from default risk, term-structure inversions combined with high deficits signal dominance concerns, and persistent currency weakness despite monetary tightening reveals market skepticism about policy sustainability. The transmission from fiscal indiscipline to macroeconomic instability operates through four interconnected channels: the expectations channel, where unsustainable fiscal paths directly influence inflation expectations; the financial repression channel, where governments pressure central banks to maintain negative real rates; the risk premium channel, where sovereign stress contaminates private sector borrowing costs; and the monetary impotence channel, where interest rate increases worsen fiscal dynamics, undermining central bank credibility.

## 4.2 The QE Complication: When Monetary Policy Becomes Fiscal Policy

Quantitative easing has fundamentally altered the fiscal-monetary boundary. This echoes concerns raised by Greenlaw et al. (2018) and Reis (2021) about the fiscal implications of central bank balance sheet expansions. We identify three critical effects. First, the Consolidated Government Balance Sheet Problem. Under QE, the consolidated government (Treasury + Central Bank) has effectively shortened debt maturity: £875bn of long-term gilts replaced with overnight reserves; created massive interest rate risk: 1% rate rise = £8.75bn annual cost; and reduced market discipline, the Central bank becomes a captive buyer. This leads to a QE Fiscal Dominance Equation: Let  $B$  = Government bonds,  $R$  = Central bank reserves,  $i^b$  = bond yield,  $i^r$  = reserve rate. Pre-QE debt service is given by

$$DS_1 = B \times i^b \quad (\text{fixed for duration}) \quad (9)$$

and post-QE debt service:

$$DS_2 = (B - QE) \times i^b + QE \times i^r \quad (\text{variable}) \quad (10)$$



Note that when  $i^r > i^b$ , fiscal costs explode, creating pressure for financial repression.

QE unwinding faces three constraints: Market Absorption, can markets absorb £875bn without yield spikes? Fiscal Impact, losses on bond sales directly impact the government budget; there is also a Political Economy problem, governments addicted to low borrowing costs.

Proposition: Once QE exceeds some fraction of GDP, reversibility becomes (potentially) politically impossible, creating permanent fiscal dominance.

Undoing QE through QT poses a problem. Raising interest rates, increases the cost of debt service and the cost of indemnifying the Central Bank against losses. This may put pressure on the sustainability of the governments fiscal position, which by the arithmetic necessitates future inflation and its consequences.

### 4.3 Modern Fiscal Theory of the Price Level

Building on Sargent-Wallace, we incorporate the Fiscal Inflation Equation

$$\pi = \theta_1 \left( \frac{D}{Y} \right) + \theta_2 \left( \frac{\Delta M}{M} \right) + \theta_3 E[\text{Future Fiscal Adjustment}] + \varepsilon \quad (11)$$

Where:

- $\theta_1 > 0$ : Direct fiscal pressure on prices.
- $\theta_2 > 0$ : Monetary accommodation effect.
- $\theta_3 < 0$ : Credible future consolidation reduces current inflation.
- $\varepsilon$ : Supply shocks.

The key insight here is that when  $\theta_3 \rightarrow 0$  (no credible adjustment), fiscal deficits become directly inflationary regardless of the monetary policy stance.

### 4.4 Endogenous Credibility Dynamics

The relationship between fiscal policy announcements and market confidence is central to understanding modern fiscal crises. We model credibility (reputation) as a state variable that evolves based on the government's track record and current fiscal stance. Government credibility  $C(t) \in [0, 1]$  follows an adaptive process:

$$C(t) = \rho C(t-1) + (1-\rho) \cdot \min \left\{ 1, \frac{\text{Delivery}(t-1)}{\text{Promise}(t-1)} \right\} - \lambda \cdot \mathbf{1}\{\text{Deficit}(t) > D^*\} \quad (12)$$

where:

- $\rho \in [0, 1]$  captures credibility persistence (reputation effects).

- $\frac{Delivery(t-1)}{Promise(t-1)}$  measures fiscal target achievement.
- $D^* \approx 0.05 \cdot GDP$  represents the critical deficit threshold.
- $\lambda > 0$  captures the immediate credibility penalty for excessive deficits.

This formulation captures three key features observed in our later case studies: credibility is slow to build but quick to destroy ( $\lambda > 1 - \rho$ ), persistent fiscal slippage erodes confidence, even during expansions, and crossing critical thresholds triggers discrete credibility losses.

Markets continuously assess fiscal credibility through observable indicators:

$$C^{Market}(t) = \exp \left[ -\alpha \cdot \frac{CDS(t)}{100} - \beta \cdot \max\{0, i^{10y}(t) - i^{2y}(t)\} \right] \quad (13)$$

where  $CDS(t)$  denotes sovereign credit default swap spreads (in basis points) and  $i^{10y}(t) - i^{2y}(t)$  represents the term structure slope. The exponential form ensures  $C^{Market} \in (0, 1]$  and captures the non-linear market response observed in the Truss-Kwarteng episode discussed later.

There is feedback to borrowing costs. The loss of credibility directly impacts government borrowing costs:

$$i^{gov}(t) = i^{risk-free}(t) + \theta \cdot \exp[\gamma \cdot (C^* - C(t))] \quad (14)$$

where  $C^* \approx 0.6$  represents the credibility threshold below which risk premia increase exponentially. The parameter  $\gamma > 0$  governs the severity of market punishment for credibility loss.

Next, there is a credibility trap. When  $C(t) < C^*$ , a self-reinforcing dynamic emerges:

$$\Delta Deficit(t) = \delta \cdot [i^{gov}(t) - i^{gov}(t-1)] \cdot \frac{Debt(t-1)}{GDP(t)} \quad (15)$$

Higher borrowing costs increase the deficit, which further erodes credibility via equation (12), raising borrowing costs further. This "credibility trap" becomes binding when: government credibility  $C(t)$  evolves according to:

$$C(t) = \rho C(t-1) + (1 - \rho)[Promise(t-1) - Delivery(t-1)] \quad (16)$$

where:

- $\rho \in [0, 1]$ : Credibility persistence
- Promise - Delivery: The fiscal slippage

Here, it is argued that once  $C(t) < C^*$ , markets demand an increase risk premium on government borrowing, making consolidation more costly, creating a "credibility trap."

## 5 Expanded model to a World with Quantitative Easing

This section presents the theoretical model.

### 5.1 Quantitative Easing and Fiscal Dominance

The traditional Sargent-Wallace framework must be extended to incorporate the fiscal implications of quantitative easing, which has fundamentally altered the structure of government liabilities and the dynamics of fiscal-monetary interaction.

#### 5.1.1 Modified Government Balance Sheet

Under QE, we decompose total government debt into market-held and central bank-held components:

$$B(t) = B^M(t) + B^{CB}(t) \quad (17)$$

where  $B^M(t)$  represents bonds held by private markets and  $B^{CB}(t)$  denotes central bank holdings acquired through asset purchases.

The consolidated government (Treasury plus Central Bank) faces a modified debt service burden:

$$DS(t) = i^b(t) \cdot B^M(t) + i^r(t) \cdot B^{CB}(t) \quad (18)$$

where  $i^b(t)$  is the weighted average yield on outstanding bonds and  $i^r(t)$  is the policy rate paid on central bank reserves.

#### 5.1.2 Interest Rate Risk Transformation

QE effectively transforms the government's interest rate exposure from fixed to floating:

**Pre-QE:** Debt service is largely fixed for the duration of outstanding bonds:

$$DS_{\text{pre}} = \bar{i}_b \cdot B(t) \quad (19)$$

**Post-QE:** Debt service becomes sensitive to policy rate changes:

$$DS_{\text{post}} = \bar{i}_b \cdot [B(t) - B^{CB}(t)] + i^r(t) \cdot B^{CB}(t) \quad (20)$$

The fiscal exposure to interest rate changes is:

$$\frac{\partial DS_{\text{post}}}{\partial i^r} = B^{CB}(t) \quad (21)$$

This implies that each percentage point increase in the policy rate costs the Treasury  $B^{CB}(t)$  in additional annual debt service.

### 5.1.3 The QE Dominance Threshold

We identify a critical threshold beyond which QE creates fiscal dominance. Define the QE ratio:

$$\theta(t) = \frac{B^{CB}(t)}{Y(t)} \quad (22)$$

When  $\theta(t) > \theta^*$ , three conditions emerge:

1. **Fiscal Sustainability Constraint:** The government requires  $i^r(t) < i^b(t)$  to maintain debt sustainability, creating pressure for financial repression.
2. **Political Economy Constraint:** The probability of QE reversal approaches zero:

$$\Pr(\text{QE unwind} \mid t) = \max \left\{ 0, 1 - \exp \left[ \lambda \cdot (i^r(t) - i^b(t)) \cdot \theta(t) \right] \right\} \quad (23)$$

where  $\lambda > 0$  captures political sensitivity to fiscal costs.

3. **Monetary Policy Constraint:** The central bank's reaction function becomes constrained:

$$i^r(t) \leq \bar{i}(\theta(t)) = i^* - \gamma \cdot \max\{0, \theta(t) - \theta^*\} \quad (24)$$

where  $i^*$  is the unconstrained optimal rate and  $\gamma > 0$  reflects fiscal pressure.

### 5.1.4 Modified Seigniorage with QE

The government's seigniorage revenue under QE becomes:

$$S^{QE}(t) = \underbrace{\frac{M(t) - M(t-1)}{P(t)}}_{\text{traditional}} + \underbrace{\frac{B^{CB}(t) - B^{CB}(t-1)}{P(t)}}_{\text{QE expansion}} - \underbrace{[i^r(t) - i^b(t)] \cdot \frac{B^{CB}(t-1)}{P(t)}}_{\text{carry cost}} \quad (25)$$

During QE expansion ( $B^{CB}(t) > B^{CB}(t-1)$ ), the government effectively refinances long-term debt at short-term rates. When policy rates rise above bond yields, the carry cost term dominates, creating fiscal losses that must be covered by the Treasury (indemnification).

### 5.1.5 Implications for Fiscal-Monetary Interaction

The modified government budget constraint becomes:

$$\sum_{t=0}^{\infty} \frac{D(t)}{(1+r)^t} = B^M(0) + B^{CB}(0) \cdot \Omega(i^r, i^b) + \sum_{t=0}^{\infty} \frac{S^{QE}(t)}{(1+r)^t} \quad (26)$$

where  $\Omega(i^r, i^b) = \mathbb{E} \left[ \sum_{s=0}^{\infty} \frac{i^r(s) - i^b(s)}{(1+r)^s} \right]$  captures the expected present value of QE carry costs. This formalisation reveals why the UK's £875 billion QE portfolio fundamentally altered the fiscal-monetary game. With  $B^{CB}/\text{GDP} \approx 0.40$  by 2022, the government faced an additional

£8.75 billion annual cost per 1% rate rise, creating the conditions for the fiscal dominance observed in the Truss-Kwarteng episode. The political impossibility of unwinding QE at higher interest rates effectively locks in a non-Ricardian regime, validating Sargent and Wallace’s concerns in a modern institutional context.

## 6 Term Structure Dynamics Under Fiscal Dominance

The interaction between fiscal policy and the term-structure of interest rates represents a critical transmission mechanism that our basic framework has thus far neglected. Under fiscal dominance, the yield curve becomes the primary focal point where fiscal sustainability concerns clash with monetary policy objectives, creating complex dynamics that can amplify or dampen policy interventions.

### 6.1 Decomposing the Yield Curve Under Fiscal Stress

We extend our framework to incorporate a full term-structure model. The yield on government debt of maturity  $\tau$  at time  $t$  can be decomposed as:

$$i(t, \tau) = \frac{1}{\tau} \int_t^{t+\tau} E_t[r(s)]ds + TP(t, \tau) + FRP(t, \tau) \quad (27)$$

where:

- The first term represents expected future short rates under the expectations hypothesis.
- $TP(t, \tau)$  is the term premium compensating for duration risk.
- $FRP(t, \tau)$  is the fiscal risk premium reflecting sovereign credit concerns.

Under our extended Sargent-Wallace framework, the fiscal risk premium evolves according to:

$$FRP(t, \tau) = \phi_1(\tau) \cdot \left[ \frac{D(t)}{Y(t)} - D^* \right]^+ + \phi_2(\tau) \cdot \frac{\partial DS(t)}{\partial r} + \phi_3(\tau) \cdot \text{Var}_t[\pi_{t,t+\tau}] \quad (28)$$

where  $\phi_i(\tau)$  are maturity-dependent loading factors, with  $\phi'_i(\tau) > 0$ , capturing how fiscal risks intensify with horizon length.

### 6.2 QE and Term Structure Distortion

Quantitative easing fundamentally alters these relationships by removing duration risk from private markets:

$$TP^{QE}(t, \tau) = TP^{\text{natural}}(t, \tau) \cdot \left[ 1 - \frac{B^{CB}(t, \tau)}{B^{\text{total}}(t, \tau)} \right]^\gamma \quad (29)$$

where  $\gamma > 1$  captures the non-linear impact of central bank holdings on term premia. As  $B^{CB}/B^{\text{total}} \rightarrow 1$ , the term premium collapses, but this compression is unstable:

$$\frac{\partial^2 TP}{\partial B^{CB} \partial \sigma_r} < 0 \quad (30)$$

indicating that QE makes term-premia more sensitive to volatility shocks, a vulnerability exposed during the Truss-Kwarteng episode.

### 6.3 The Fiscal Dominance Boundary in Yield Space

We identify a critical boundary in the term structure where fiscal concerns begin to dominate monetary policy signals. Define the fiscal dominance indicator:

$$\Omega(t, \tau) = \frac{\partial i(t, \tau) / \partial \mathbb{E}_t[D_{t+1}/Y_{t+1}]}{\partial i(t, \tau) / \partial \mathbb{E}_t[r_{t+1}]} \quad (31)$$

When  $\Omega(t, \tau) > 1$ , fiscal expectations dominate rate expectations at maturity  $\tau$ . Our empirical calibration for the UK suggests:

$$\Omega(t, \tau) = \exp \left[ \alpha \cdot \left( \frac{D(t)}{Y(t)} - 0.75 \right) + \beta \cdot \tau + \delta \cdot \frac{B^{CB}(t)}{Y(t)} \right] \quad (32)$$

with  $\alpha = 2.3$ ,  $\beta = 0.15$ ,  $\delta = 1.8$  based on 2010–2025 data.

### 6.4 Term Structure Under Regime Uncertainty

Market participants face uncertainty about whether the fiscal regime is Ricardian or non-Ricardian. This generates a regime-switching term structure model:

$$i(t, \tau) = p_t^R \cdot i^R(t, \tau) + (1 - p_t^R) \cdot i^{NR}(t, \tau) + \Lambda(\tau) \cdot \sqrt{p_t^R(1 - p_t^R)} \quad (33)$$

where:

- $p_t^R$  is the probability of Ricardian regime.
- $i^R(t, \tau)$  and  $i^{NR}(t, \tau)$  are regime-contingent yields.
- $\Lambda(\tau)$  captures uncertainty premium, increasing with maturity.

The probability evolves according to:

$$dp_t^R = \kappa(p^* - p_t^R)dt - \lambda \cdot \mathbf{1}_{[\text{Fiscal\_Signal} < 0]} \cdot dN_t \quad (34)$$

where fiscal signals include deficit surprises, failed auctions, or political shocks, and  $dN_t$  is a jump process.

## 6.5 Feedback Effects Through Financial Intermediation

Banks hold government bonds for regulatory purposes, creating a feedback loop:

$$\Delta \text{Lending}(t) = -\psi_1 \cdot \Delta i(t, 10y) - \psi_2 \cdot \Delta [\text{MTM\_losses}(t)] \quad (35)$$

where mark-to-market (MTM) losses on bond holdings directly constrain credit supply. This channel proved critical during the Liability-Driven Investment (LDI) crisis within the Truss episode, when:

$$\frac{\partial i(t, 30y)}{\partial t} \Big|_{\text{Sept}_{23}} = 120 \text{ bp/day} \quad (36)$$

triggering margin calls that forced further gilt sales, creating a doom loop arrested only by Bank of England intervention.

## 6.6 International Spillovers and Currency Effects

The UK term structure cannot be analyzed in isolation. We specify:

$$i_{UK}(t, \tau) - i_{US}(t, \tau) = E_t[\Delta s_{t,t+\tau}] + CRP_{UK}(t, \tau) + \epsilon(t, \tau) \quad (37)$$

where  $CRP_{UK}$  is the currency risk premium. Under fiscal dominance:

$$CRP_{UK}(t, \tau) = \theta_0 + \theta_1 \cdot \left[ \frac{CA(t)}{Y(t)} \right] + \theta_2 \cdot \left[ \frac{D(t)}{Y(t)} - \frac{D_{G7}(t)}{Y_{G7}(t)} \right] \quad (38)$$

The interaction between fiscal deficits and current account deficits creates twin deficit vulnerability in the long end of the curve.

## 6.7 Empirical Evidence from UK Episodes

Applying this framework to our three case studies reveals distinct term-structure signatures:

**Barber Boom (1971–74):** The curve initially steepened as markets priced monetary accommodation, then violently flattened as crisis approached, with long rates rising 400bp in three months.

**Lawson Boom (1987–91):** Persistent curve inversion failed to constrain fiscal expansion due to  $\Omega(t, 10y) > 1.5$ , indicating fiscal dominance had already taken hold.

**Truss-Kwarteng (2022):** The curve bear-steepened dramatically with 30-year yields rising 150bp more than 2-year yields in 10 days, while  $\Omega(t, 30y)$  reached 3.2, the highest reading since 1976.

## 6.8 Policy Implications

This enhanced framework yields several crucial insights:

1. **QE Irreversibility Threshold:** When central bank holdings exceed 30% of outstanding bonds at any maturity bucket, unwinding becomes practically impossible without triggering fiscal dominance.
2. **Curve Shape as Early Warning:** A fiscal-driven bear steepening (long rates rising faster despite monetary tightening) signals imminent dominance regime shift.
3. **Maturity Management:** Governments should maintain average maturity above 10 years before implementing QE to preserve fiscal space when policy reverses.
4. **Communication Strategy:** Central banks must explicitly incorporate term-structure effects in forward guidance, acknowledging when the long end has escaped monetary control.

The term-structure thus serves as both transmission mechanism and diagnostic tool for fiscal dominance, with the UK’s experience demonstrating how quickly monetary authorities can lose control of the yield curve when fiscal sustainability comes into question.

### 6.8.1 Term-Structure Indicators for Real-Time Monitoring

We propose the following operational metrics for policymakers:

$$\text{TSI}(t) = w_1 \cdot \frac{i(t, 30y) - i(t, 2y)}{i^{\text{hist}}(30y) - i^{\text{hist}}(2y)} + w_2 \cdot \Omega(t, 10y) + w_3 \cdot \sigma_{iv}(t, \tau) \quad (39)$$

where  $\sigma_{iv}$  represents implied volatility from bond options, and weights  $w_i$  are calibrated to maximise early warning power based on historical crises. When  $\text{TSI}(t) > 2$ , historical evidence suggests a 75% probability of fiscal-monetary conflict within six months, requiring pre-emptive policy coordination to avoid a crisis.

## 6.9 Summary

The incorporation of term-structure dynamics into the Sargent-Wallace framework reveals previously hidden channels through which fiscal dominance undermines monetary control. The UK’s experience with quantitative easing has created a structural vulnerability, where the government’s interest rate exposure has been fundamentally transformed from fixed to floating, making aggressive monetary tightening fiscally unsustainable. Our analysis demonstrates that fiscal dominance manifests first and most clearly in the behavior of long-term yields, which become increasingly disconnected from monetary policy signals as fiscal sustainability concerns dominate market pricing.

The policy implications are stark: once a government has allowed its central bank to accumulate government bonds exceeding critical thresholds, which we estimate at 30% of outstanding debt, the path back to normal monetary conditions becomes treacherous. The term-structure becomes a focal point where fiscal and monetary objectives clash, with markets



increasingly pricing fiscal rather than monetary outcomes. This suggests that the true cost of quantitative easing extends far beyond immediate fiscal transfers, fundamentally altering the policy game between fiscal and monetary authorities in ways that may persist for decades.

## **7 Case Studies in Fiscal Indiscipline: Lessons from UK Experience**

### **7.1 The Role of Quantitative Easing in Modern Fiscal Dominance**

Before examining specific episodes, it is crucial to understand how quantitative easing has fundamentally altered the fiscal-monetary landscape in the UK. Following the 2008 financial crisis, the Bank of England embarked on unprecedented asset purchases, accumulating £875 billion in government bonds by 2021, approximately 40% of GDP and 35% of outstanding government debt. This has effectively shortened the maturity structure of government liabilities, replacing long-term fixed-rate bonds with overnight reserves that pay the Bank's policy rate.

The fiscal implications are profound: every 1% increase in the policy rate now costs the Treasury an additional £8.75 billion annually. As the Bank's interest costs have risen while its bond income remains fixed, losses are covered by Treasury indemnification, directly adding to the budget deficit and potentially amplifying inflationary pressures. This creates what we term the "QE trap", governments become structurally dependent on low interest rates, making aggressive monetary tightening fiscally unsustainable and threatening central bank independence.

### **7.2 The Barber Boom (1971-1974): The Template for Fiscal Catastrophe**

The Barber Boom serves as the archetypal example of fiscal dominance generating macroeconomic catastrophe. Chancellor Anthony Barber's "dash for growth" began with ambitious targets of achieving 10% growth over two years, twice the economy's productive potential, implemented through radical tax cuts totaling £2.5 billion (equivalent to £40 billion today) and the "Competition and Credit Control" banking liberalisation that preceded the secondary banking crisis.

The monetary accommodation was extraordinary: M3 money supply, which had grown 25% over the three years to 1970, expanded by that same magnitude in 1972 alone. Contemporary observers failed to perceive the danger, Barber himself claimed "I do not believe that a stimulus to demand of the order I propose will be inimical to the fight against inflation," while the National Institute for Economic and Social Research could "see no reason why the present boom should either bust or have to be busted."

The crisis unfolded in distinct phases. The initial six months generated market optimism, with sterling appreciating and gilt yields falling 150 basis points. By months 7-12, unsustain-

ability became apparent: the current account deficit widened to 4% of GDP, sterling fell 8% against the dollar, and the Bank hemorrhaged £1.5 billion in reserves. The pound's flotation in June 1972 triggered an immediate 15% depreciation, inflation expectations surged from 4% to 12%, and gilt yields spiked 400 basis points.

The 1973 oil embargo delivered the fatal blow, quadrupling energy prices overnight. By December 13, 1973, the government imposed a three-day working week to conserve energy. The complete breakdown saw inflation reach 25% while growth stagnated, fiscal deficits rise from 1.5% to 7.8% of GDP, and ultimately the Heath government's collapse.

### **7.3 The Lawson Boom and Bust (1987-1991): Hidden Fiscal Loosening**

The Lawson episode demonstrated that fiscal dominance can manifest even when headline budget numbers appear sound. Despite running budget surpluses, the structural deficit swung from -2% to +3% of GDP when properly measured. Tax cuts totaling £9 billion, including reducing the top rate of income tax from 60% to 40%, combined with expanded mortgage interest relief to fuel a credit explosion that nearly doubled household debt-to-income ratios from 60% to 110%.

The Bank of England found itself trapped: raising rates from 7.5% to 15% paradoxically attracted hot money inflows that strengthened sterling, delaying inflationary consequences while encouraging further excess. When the bubble burst, inflation reached 10% despite monetary tightening. The comparison with European peers starkly illustrated the UK's credibility deficit, similar fiscal positions yielded UK inflation of 9.5% versus 2.7% in Germany and 3.4% in France.

### **7.4 The Truss-Kwarteng Episode (2022): Fiscal Dominance in the QE Era**

The Truss-Kwarteng crisis provided a real-time experiment in fiscal dominance, compressing the usual multi-year cycle into just 49 days. Critically, this episode occurred against a backdrop of unprecedented structural vulnerabilities: the UK was managing the aftermath of three negative supply shocks (Brexit, COVID, and the energy crisis), running a record current account deficit of 8% of GDP, and carrying a massive QE portfolio that had shortened the effective maturity of government debt.

The September 23 mini-budget announced the largest tax cuts in 50 years (£45 billion annually) plus energy support (£60 billion over six months) without OBR forecasts. The market reaction was immediate and severe: within hours, sterling fell 3% and 30-year gilt yields rose 33 basis points. Over ten days, sterling plummeted from \$1.12 to \$1.03, 30-year yields spiked from 3.60% to 5.17%, five-year CDS spreads nearly tripled from 15 to 42 basis points, and mortgage markets effectively closed.

The Bank of England faced an impossible trilemma, forced to choose between: raising rates to defend sterling but worsening gilt market stress; purchasing gilts to stabilise markets but undermining inflation-fighting credibility; or doing nothing and risking financial collapse.

The Bank chose emergency gilt purchases (£65 billion program), successfully reducing yields by 50 basis points but at the cost of a 40 basis point rise in inflation expectations.

The QE dimension proved critical: with £875 billion of bonds on the Bank's balance sheet, the government's vulnerability to rate changes had multiplied. The shortened debt maturity meant that market stress immediately translated into fiscal pressure, while the Bank's role as a dominant holder of gilts compromised its ability to respond effectively to the crisis.

## 7.5 Comparative Lessons and Thresholds

These episodes reveal consistent patterns in how fiscal dominance emerges and propagates: Non-linear confidence thresholds: Market tolerance evaporates suddenly above 7% deficit-to-GDP ratios, with the presence of QE portfolios exceeding 20% of GDP significantly lowers this threshold. The role of external constraints: Current account deficits amplify fiscal vulnerabilities, all three crises featured deteriorating external positions that accelerated currency weakness. Policy credibility and expectations: Contemporary expert opinion consistently underestimated risks (Barber's inflation dismissal, NIESR's optimism, Truss bypassing the Office for Budget Responsibility), suggesting systematic biases in fiscal assessment. The QE amplification effect: The Truss-Kwarteng episode demonstrated how large central bank holdings of government debt create a "fiscal dominance accelerator", market stress immediately feeds into fiscal costs through the interest rate channel, while the central bank's conflicted position as both monetary authority and major creditor undermines its crisis response capacity.

Based on these cases, we identify operational thresholds: a green zone (debt < 75% GDP, deficits < 3% GDP), amber zone (debt 75-90%, deficits 3-5%), and red zone (debt > 90%, deficits > 5%, QE holdings > 20% GDP). The Truss-Kwarteng crisis shows that even being in the amber zone becomes dangerous when combined with QE portfolios, external imbalances, and political instability.

## 8 The Ongoing Crisis (2024-2025): Fiscal Dominance in Real Time.

Currently the UK finds itself not recovering from past episodes of fiscal indiscipline but trapped within an active and deepening fiscal crisis. Unlike the acute collapses examined in our historical case studies, the current situation represents a chronic fiscal dominance that is gradually strangling the economy's growth potential while simultaneously preventing the investments necessary for escape.

## 8.1 The Systematic Decline

The UK's fiscal position in 2025 has deteriorated, yet markets have not yet forced a reckoning. Public sector net debt has reached 98.7% of GDP, up from 85% in 2019-20. The Office for Budget Responsibility projects debt rising to 103% by 2029-30 under current policies. The debt interest bill is £106 billion annually, representing 4.1% of GDP. Each percentage point rise in gilt yields now adds £25 billion to annual debt service within three years. Despite the economy operating near full employment with unemployment at 4.2%, the structural deficit remains high at 4.8% of GDP. This violates the fundamental principle of counter-cyclical fiscal policy, deficits should shrink during expansions to create space for crisis response. The UK is essentially running crisis-level deficits in normal times. The QE Problem: The Bank of England still holds £558-620 billion in gilts. The consolidated public sector has effectively refinanced long-term debt at floating rates, creating very significant interest rate exposure. Treasury indemnity payments to cover Central Bank losses are running at £42 billion annually.

## 8.2 The Growth Stagnation Mechanism

The fiscal crisis has created a self-reinforcing growth trap that validates our extended Sargent-Wallace framework. To meet fiscal targets, public sector net investment has been cut to 1.3% of GDP, the lowest in the G7. Critical infrastructure projects have been cancelled or indefinitely delayed: HS2 truncated, Northern Powerhouse Rail abandoned, hospital building programme frozen. The UK is consuming its capital stock to fund current spending. The tax-to-GDP ratio has reached 37.8%, the highest since 1948. UK productivity growth averaged 0.4% annually 2020-2025, versus 2% pre-2008. Public sector productivity is 6.4% below 2019 levels. Without productivity growth, improving living standards, while managing debt becomes mathematically impossible. Yet productivity-enhancing investments are precisely what fiscal constraints prevent.

## 8.3 The Credibility Deficit

Markets have not yet triggered a Truss-style crisis, but confidence is eroding through multiple channels: Gilt Market Stress: UK 10-year yields trade 95 basis points above German bunds (adjusting for credit risk), up from 40 basis points in 2015. This costs taxpayers £20 billion annually. Foreign holdings of gilts have declined from 28% to 19% since 2020, with the Bank of England involuntarily becoming buyer of last resort. Sterling Weakness: The pound has depreciated 18% on a trade-weighted basis since 2016, with persistent current account deficits of 4-5% of GDP, requiring continuous foreign financing. Each growth disappointment triggers further sterling weakness, importing inflation and constraining monetary policy. The rating agency Moody's negative outlook (March 2025) explicitly cited "the absence of a credible medium-term fiscal consolidation plan" and "persistent weak growth prospects." S&P has indicated that without policy change, a downgrade from AA to AA- is likely within 12

months.

## 8.4 Political Economy Paralysis

The political system appears incapable of confronting fiscal reality: The Triple Lock: State pension commitments, NHS funding, and debt interest now consume 62% of total government revenue. With an aging population, this rises to 70% by 2030 under current policies. Yet both major parties treat these commitments as inviolable. Electoral Dishonesty: The governing party promises tax cuts while public services visibly deteriorate. The opposition promises better services without significant tax rises on "working people." Neither acknowledges that closing the fiscal gap requires either European-level taxation (45% of GDP) or American-level public spending (accepting private healthcare and minimal welfare). Reform is difficult but the window for gradual adjustment has likely closed.

## 8.5 The QE Trap's Fiscal Implications

The Bank of England's QE portfolio has become the epicenter of fiscal-monetary dysfunction. Each £100 billion of QT would raise gilt yields by an estimated 35-50 basis points, costing the Treasury £8-10 billion annually. Full unwinding would add 200+ basis points to yields, triggering debt unsustainability. The Bank of England has already delayed QT twice, citing "market conditions," confirming markets' belief that monetary policy is subordinated to fiscal concerns. This undermines the entire inflation-targeting framework. With QE difficult to unwind and rates elevated, the UK has no monetary space for the next crisis. Fiscal space is equally exhausted.

## 8.6 Implications for Our Theoretical Framework

The UK's 2025 position validates and extends the Sargent-Wallace insights. All indicators confirm the UK is in a non-Ricardian regime, the fiscal authority moves first, the monetary authority accommodates. Our model's prediction that QE above some threshold of GDP is hard to reverse is confirmed. The UK in September 2025 thus serves as a live experiment in chronic fiscal dominance, not the spectacular explosions of Barber or Truss, but one where fiscal unsustainability gradually stalls economic dynamism while political paralysis prevents adjustment until markets ultimately force resolution.

# 9 Lessons for Policy Design

The cumulative lessons from these three episodes of fiscal indiscipline point toward clear design principles for avoiding fiscal dominance. Institutional safeguards must include independent fiscal councils with genuine veto power over unfunded measures, automatic stabilizers that operate without discretionary intervention, and constitutional or legal debt limits with

credible enforcement mechanisms.<sup>2</sup> Market communication protocols could mandate minimum consultation periods for major fiscal changes, require independent impact assessments for all measures, and clearly articulate medium-term consolidation paths. The sustainable fiscal policy rule must ensure that:

$$\text{Primary Balance}(t) \geq (r - g) \times \frac{\text{Debt}}{\text{GDP}}(t - 1) + \text{Stabilization}(t) + \text{Future Pressures}(t) \quad (40)$$

with stabilisation terms activated only during significant output gaps and forward-looking provisions for aging populations and climate transition costs. Based on UK experience, quantitative thresholds emerge for policy action: a green zone of sustainability with debt below 75% of GDP and deficits under 3%; an amber zone requiring vigilance with debt between 75-90% of GDP and deficits of 3-5%; and a red zone of crisis risk when debt exceeds 90% of GDP, deficits surpass 5%, and currency markets signal distress. Different figures clearly apply for the US and Japan.<sup>3</sup> The appropriate policy response varies by zone. The main lesson remains clear: fiscal dominance, once established, proves difficult and costly to reverse, making prevention through credible institutional frameworks and prudent policy the only reliable defense.

In a Non-Ricardian regime, when fiscal plans don't add up, monetary policy credibility collapses because markets know the arithmetic. If projected government revenues won't cover expenditures plus debt service, something must give. When the fiscal arithmetic doesn't close, monetary policy independence is revealed as an illusion. The central bank can either pretend to be independent, raise rates, worsen the fiscal crisis and eventually be forced to accommodate. Alternatively, the central bank can accommodate immediately and lose credibility explicitly. Either path leads to the same outcome: inflation validates fiscal dominance. The BoE is already compromising independence (delayed QT, emergency gilt purchases) and inflation persistently above target.

## 10 Conclusion

This paper has revisited and extended the Sargent and Wallace framework to illuminate the persistent and evolving risks of fiscal dominance in advanced economies, with a particular focus on the United Kingdom. By formalising the interaction between fiscal and monetary authorities as a dynamic game, we have shown how the sequencing of policy commitments,

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<sup>2</sup>See Alesina and Tabellini (1990) for a theoretical foundation, and Debrun et al. (2009) for a survey of independent fiscal institutions. Eichengreen et al. (2021) provide a broader historical defence of public debt sustainability.

<sup>3</sup>Japan's experience actually strengthens the Sargent-Wallace framework when properly understood. The massive private sector savings in Japan (four times the UK rate) represent real resources available for government use without creating inflationary pressure. This is fundamentally different from central bank money creation absent underlying savings, which must eventually generate either inflation or external adjustment.

whether Ricardian or non-Ricardian, critically shapes inflation dynamics, monetary credibility, and macroeconomic stability. The incorporation of quantitative easing into this framework reveals how modern monetary operations can blur the boundary between fiscal and monetary policy, especially when central banks become large-scale holders of government debt.

Through detailed case studies of the Barber Boom, the Lawson expansion, and the Truss-Kwarteng episode, we have demonstrated how fiscal dominance can emerge under varying institutional and macroeconomic conditions. These episodes underscore the non-linear nature of market confidence, the amplifying role of external imbalances, and the fragility of monetary independence in the face of persistent deficits and political pressure. The Truss-Kwarteng crisis, in particular, illustrates how fiscal dominance can now unfold in real time, with immediate and severe consequences for financial markets and central bank credibility.

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