

Covid-19 and the public finances: Insights from Post Keynesian economics

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Presentation outline

1. Definitions
2. Public debt dynamics - basic principles
3. Post Keynesian theoretical contributions
4. Forecasts of the impact of Covid-19 on the public finances
5. Policy conclusions
6. References and further reading

The public finances

Government departments and other public sector organisations spend and receive money. Like any other organisation, they are subject to accounting regulations governed by international reporting standards.

Unlike other organisations, the public sector as a whole (and particularly central government) has a large degree of control over its income.

In addition, when the public sector spends more than it receives it either borrows from the private sector or creates new money. This is because part of the public sector liabilities are commercial bank deposits held at the central bank, and another part is legal tender (e.g. banknotes).

Public debt dynamics - principles

Let d denote some measure of the public debt as a % of GDP, s denote the primary surplus as a % of GDP, r denote the effective interest rate, g denote GDP growth, b denote government debt liabilities as a % of GDP, and m denote monetary liabilities as a % of GDP. Then,

$$\dot{d} = -s + (r - g)d$$

$$d = b + m$$

$$r = r_b \left(\frac{b}{d} \right) + r_m \left(\frac{m}{d} \right)$$

Public debt dynamics - principles

The public debt is locally stable around some steady state if,

$$\frac{\partial \dot{d}}{\partial d} < 0 \iff s_d > r - g$$

If $r > g$, this means that the primary surplus has to increase to reduce the public debt (if it gets too high -- we'll come back to the meaning of "too high" later). If $r < g$, this means that the primary surplus doesn't have to respond to the public debt -- it stabilises regardless.

Note that we are holding $r - g$ constant -- we will return to this shortly.

Public debt dynamics - principles

It follows that public sector liabilities as a % of GDP stabilise at d^* ,

$$d^* = \frac{s}{r - g}$$

If $r > g$ then the government has to run a positive primary surplus to ensure a positive finite d^* , but if $r < g$ then the government can run a primary deficit. In the latter case,

"The choice of borrowing versus taxation depends exclusively on distributional criteria and on the relative efficiency costs of debt versus tax financing. In spite of a positive share of public spending in national income, taxes need never be levied and may indeed be negative for ever" (Buiter, 1985, pp. 33).

Post Keynesian Approach(es)

The majority of PK approaches to fiscal policy are based in one way or another on **functional finance**:

"The central idea is that government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money, shall all be undertaken with an eye to the results of these actions on the economy and not to any established traditional doctrine about what is sound or unsound." (Lerner, 1943).

Note that Lerner's definition of fiscal policy here is quite broad, and includes control of the money supply.

Essentially, the government should attempt to achieve full employment by the use of fiscal policy (and/or monetary policy).

Post Keynesian Approach(es)

There are stronger and weaker forms of functional finance. In the strongest forms, the government should not (or never has to) pay attention to the public debt when deciding on its spending levels.

Note that this is strictly independent from the government's borrowing decision, but there exist very strong forms of functional finance in which the primary surplus should not (or never has to) react to the debt.

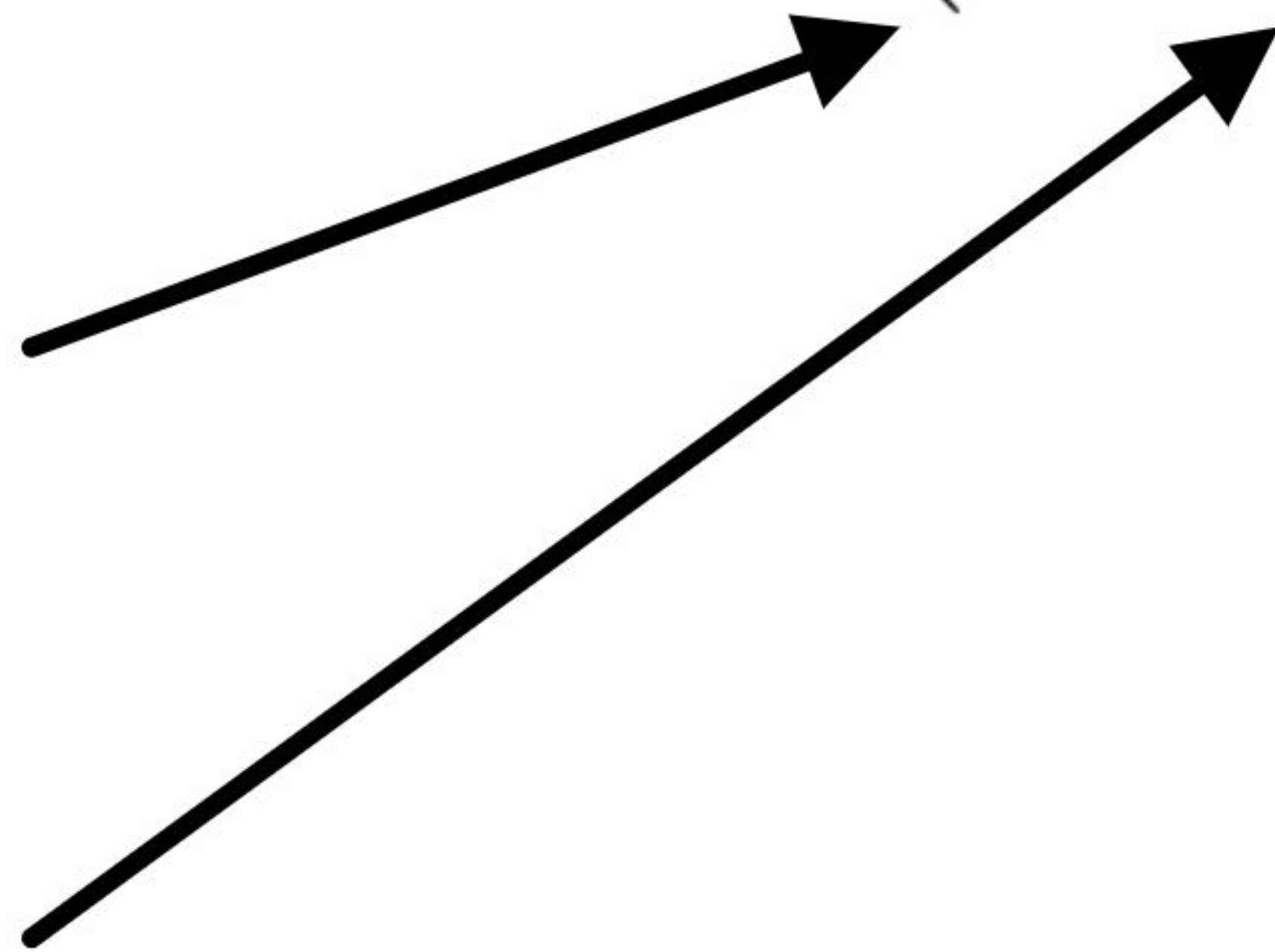
Given this basic approach, Post Keynesian economists have made a number of theoretical propositions concerning the stability of the public finances when the primary surplus does not react to the public debt.

Post Keynesian Approach(es)

Given the basic principles of public debt dynamics, there are essentially two ways in which the public finances can be stable ***even if*** the primary surplus does not react to changes in the public debt:

$$\dot{d} = -s + (r - g)d$$

1. Policy can affect interest rates
2. Policy can affect growth rates



PK Approach(es) - Interest Rates

1. To varying degrees, PK theory considers the (long run, real) interest rate as a policy variable -- or at least more affected by policy than NK theory. This is most obvious in the "strong-form" functional finance literature:

A monetarily sovereign government is able to have perfect control over the interest rate it pays on its debt . . . MMT concludes that, for a monetarily sovereign government, the interest rate on public debt is a policy variable rather than a market-determined variable. (Tymoigne, 2014).

This is disputed by "weaker" approaches to PK macro, e.g. Tom Palley.

PK Approach(es) - Interest Rates

2. Almost universally, PK conclusions regarding financial sector regulation emphasise regulation over liberalisation, sometimes for Minskyan reasons (Loizos, 2018).

Hein and Truger (2012) is a good example of the post-2008 PK approach which emphasises higher capital bases, asset-based regulation, and tax reform for financial sector institutions. All of these things (i.e. "financial repression") will tend to suppress interest rates.

Mainstream authors have also noted the similarities between post-2008 "macroprudential" regulation and "financial repression" (e.g. Reinhart et al., 2011).

PK Approach(es) - Interest Rates

3. Aside from (possible) control over bond rates via monetary policy, or (regaining) control over bond rates via financial repression, it is also possible to reduce the interest rate paid on debt by **monetising** part of it.

Basic Keynesian models involve a liquidity preference / money demand function in which an increase in outside money implies an increase in bond prices (i.e. a fall in interest rates) if agents are happy to hold those money balances *given* stable liquidity preference (see e.g. Wells, 1983).

I.e. monetising the debt leads to a rise in asset prices and fall in interest rates, which then have various secondary effects.

PK Approach(es) - Growth rates

1. Hysteresis in employment / unemployment, and thus to some degree the *level* of economic activity, has been of longstanding interest to PK economists (see e.g. the 1993 special edition in *JPKE*).
2. More recently there has been a lot of interest in super-multiplier models in which the long run output growth rate is determined by the growth of "autonomous demand" (Palley, 2019). Among other things, this can include government expenditure and net exports (Smith 2012).

In principle, this means that a permanently increased primary deficit can increase the growth rate, reducing its impact on public debt. Although presumably there is also a "balanced budget super-multiplier".

PK Approach(es) - Growth rates

A nuanced view of this process is contained in Sardoni (2013), who proposes that GDP growth is a function of the *productive deficit*. So an increase in the deficit *could* generate enough growth to reduce the growth corrected interest rate below zero if it was funding (e.g.) public investment.

However, it is worth noting that this hypothesis is not necessary if we want to ignore borrowing for the purposes of *some types of* public investment.

For example, the rental income from "advance factories" in the UK paid off the debt interest and principle required to build them within about six years - after that they contributed to public income (Prestwyche and Taylor, 1990).

Interim Summary

1. At least some Post Keynesian theory implies that $r - g$ is a policy variable
2. Other parts of Post Keynesian theory are ambivalent on this point
3. Mainstream theory often concludes that $r - g$ is invariant to policy
4. If we are not sure which of these "worlds" we live in, then we ought to worry about the risk that $r > g$ in the LR, and thus sustainable debt ratios

To paraphrase Hilary Mantel, "economics is not the economy - it is the the method we have evolved of organising our ignorance of the economy"

Public sector solvency

Using our formula for the stable ratio of liabilities to GDP, d^* , it follows that the maximum sustainable ratio of liabilities to GDP is given by,

$$d^{\max} = \frac{s^{\max}}{r^e - g^e}$$

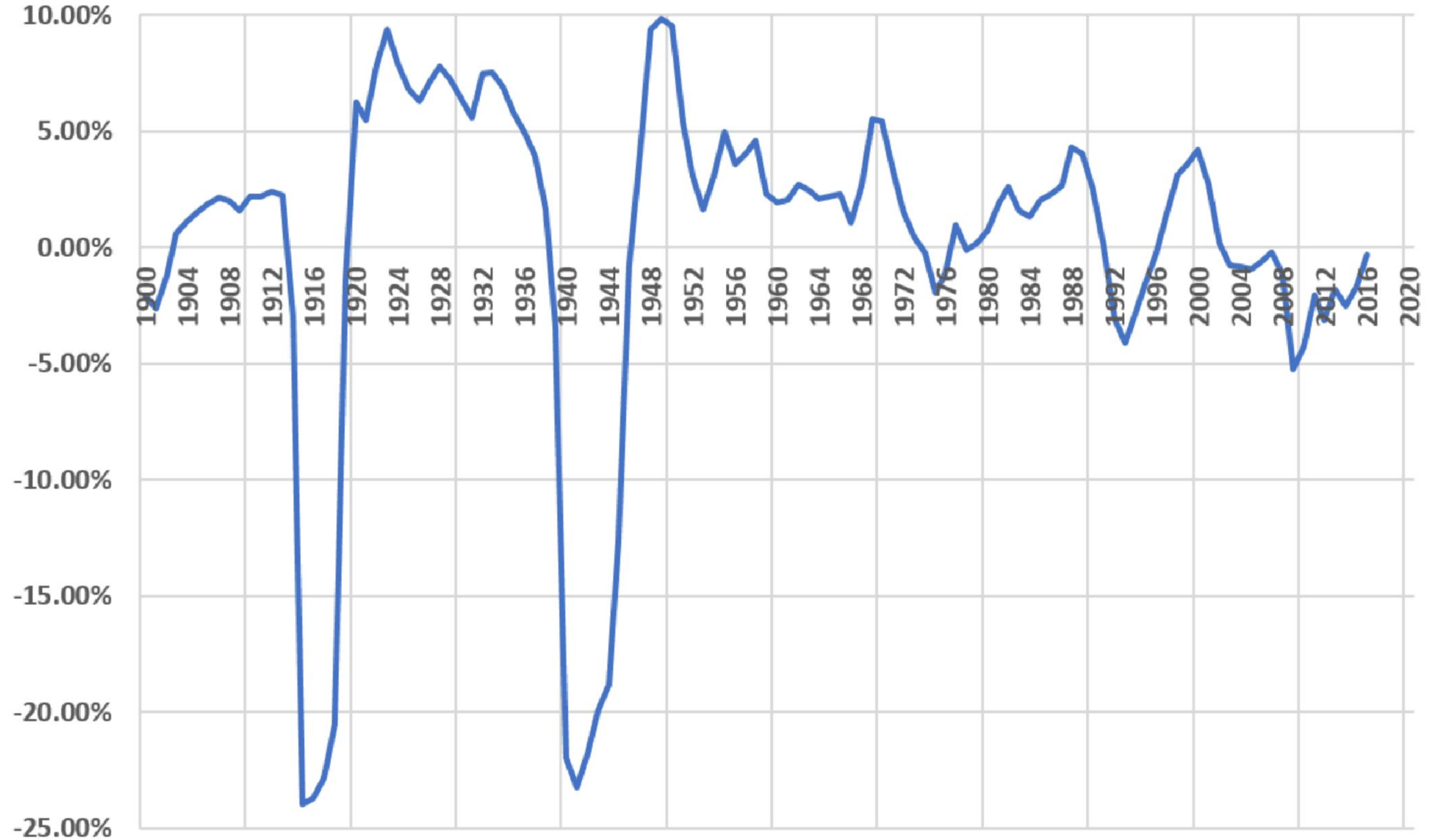
What is a reasonable value for the maximum sustainable primary surplus (in the event that $r > g$ in the long run)?

"All it takes is to consider as credible any public commitment to generate sufficiently high primary surpluses at some point in (and possibly very far into) the future. Hence, the final call on solvency is a mere judgment on a government's credibility." (Debrun et al., 2018, pp. 6).

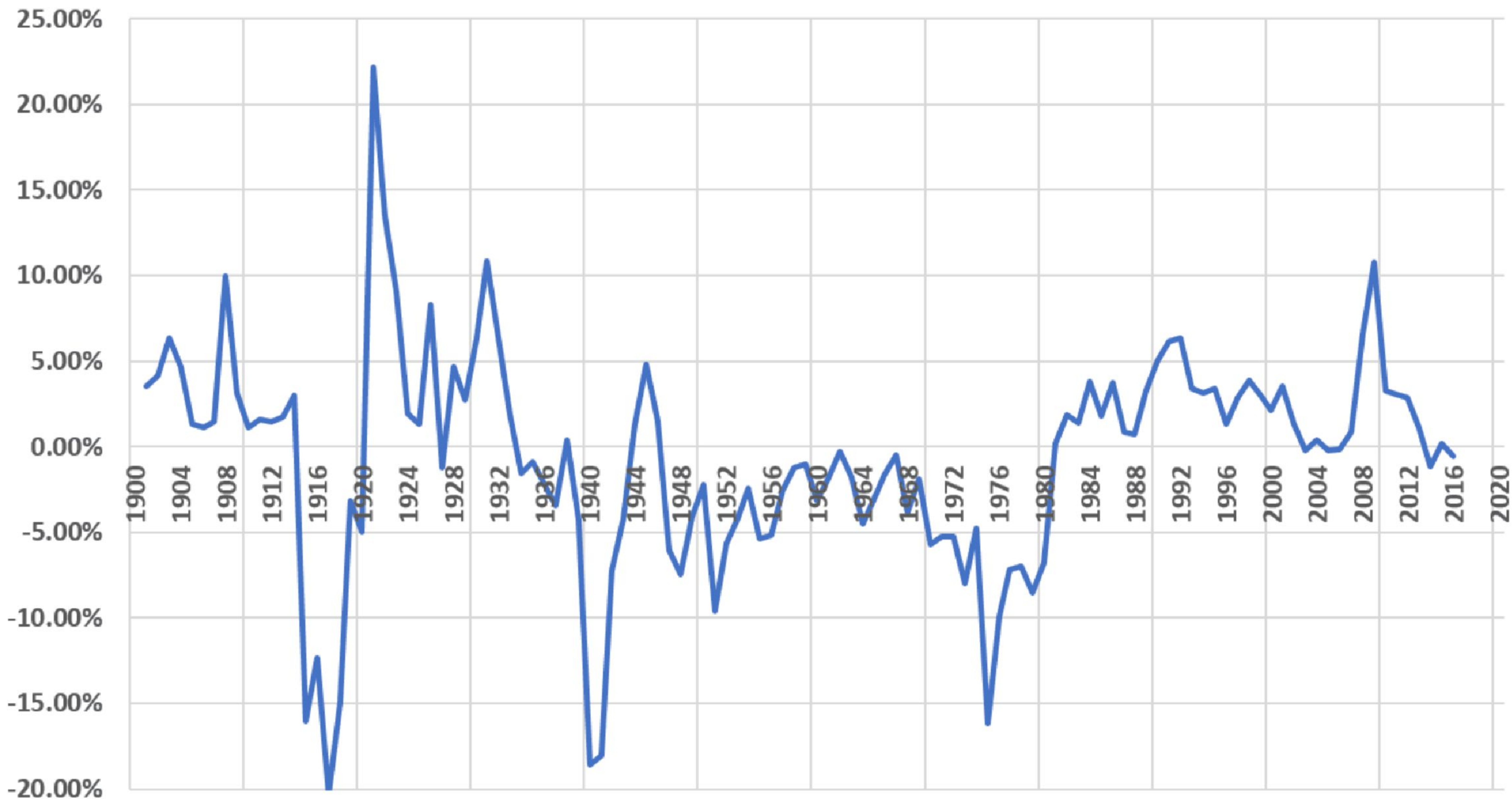
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UK primary surplus, % GDP



Effective interest rate minus GDP growth



Hypothetical sustainable debt ratios

Using our formula for the maximum sustainable debt to GDP ratio, it is possible to calculate approximate sustainable ratios based on hypothetical combinations of the primary surplus and growth-correct interest rate:

		primary surplus				
		1%	2%	3%	4%	5%
<i>r - g</i>	1%	100%	200%	300%	400%	500%
	2%	50%	100%	150%	200%	250%
	3%	33%	67%	100%	133%	167%
	4%	25%	50%	75%	100%	125%
	5%	20%	40%	60%	80%	100%

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Observations on post-crisis solvency

1. The growth-corrected interest rate is likely to be negative for some time
2. Even if it becomes positive, debt ratios of 100% - 150% of GDP do not imply public sector insolvency -- far from it!
3. Given that the UK public debt has exceeded 100% of GDP for sustained periods of time in the past, it stretches credulity to suppose that the government cannot credibly commit to the primary surpluses required to stabilise public debt at $>100\%$ of GDP in the twenty first century
4. Moreover, interest costs are likely to be kept low by quantitative easing

Summary and conclusions

1. PK theory suggests that $r - g$ can, at least in part, be controlled by policy levers of one form or another
2. But we do not know whether or not -- or how far -- this is true. Given this, we should worry about the prospect that $r - g > 0$ in the long run
3. Regardless, the UK government is nowhere near insolvency, even if it (may or may not have) recently experienced illiquidity problems
4. A (small-c) conservative policy option would be to allow the public debt to rise to whatever level is necessary to deal with the crisis, and then allow it to slowly drift down over the next few decades.

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