Issues in the Design of Fiscal Policy Rules

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Discussion paper: http://niesr.ac.uk/publications/issues-design-fiscal-policy-rules or http://www.economics.ox.ac.uk/Department-of-Economics-Discussion-Paper-Series/issues-in-the-design-of-fiscal-policy-rules

Structure

- Why we need fiscal rules
- The little we know about optimal debt targets
  - And why we can still devise rules
- The conflict between optimality and effectiveness at preventing deficit bias
- What happens when monetary policy is absent or is constrained
- An application to the UK post 2015

Do we need a Taylor rule for fiscal policy?

- Coen Teulings, Director, Dutch Fiscal Council
  - Why do politicians ignore majority opinion on the issue of austerity?
  - One reason: Lack of the equivalent of a Taylor rule for fiscal policy.
- Possible irony
  - Tons of papers looking at alternative monetary policy rules, but no central bank commits itself to such a rule.
  - Much less academic work on fiscal rules, but fiscal rules are widely used by governments.

With the growing popularity of fiscal councils, do we need rules at all?

ECONOMIC POLICY

Issue 68, October 2011

What should fiscal councils do?

Lars Calmfors

Simon Wren-Lewis

- Of the 11 fiscal councils we analysed, 9 operated in economies where there were also fiscal rules.
- The original idea of some (myself included) that fiscal councils might negate the need for fiscal rules does not seem hold in practice.

Abstract

Fiscal watchdogs, so-called fiscal councils, have been proposed as a method to counter deficit bias of fiscal policy. The paper analyses theoretically what role fiscal councils could play and surveys empirically the activities of existing councils. Case studies of the Swedish Fiscal Policy Council and the UK Office for Budget Responsibility are done. It is concluded that fiscal councils should be advisory, rather than decision-making, and work as complements, rather than substitutes, to fiscal rules. Although no panacea, fiscal councils could play a useful role by at the same time strengthening fiscal discipline and allowing rules-based fiscal policy to be more flexible. A key issue is their political fragility and how their long-run viability should be secured. Three ways of guaranteeing their independence are suggested: (1) reputation-building; (2) formal national rules; and (3) international monitoring.

The most embarrassing economics question I have ever been asked

- Most fiscal rules have some (perhaps implicit) concept of a target for government debt.
- So what does macroeconomic theory tell us is the optimal level of government debt?
- Policy makers are desperate for guidance on this (such that what evidence there is gets too much attention e.g. R&Rs 90%), but most macroeconomists offer very little help.

Basic theory – tax smoothing – appears to be no help at all

- Assume taxes are distortionary, and G is fixed, so the government minimises

$$\sum_{t=0}^{\infty} \beta^t [\tau_t^2 + 2\mu_t(d_t - (1+r)d_{t-1} - g + \tau_t)]$$

- This implies

$$\tau_t = \beta(1+r)\,\tau_{t+1}$$

- If the real rate of interest is equal to the rate of time preference, then this implies keeping taxes constant. If debt is not to explode (or implode), this implies setting taxes to keep debt constant at its historic level.
- This is the “random walk steady state debt” result

A misleading, knife edge result?

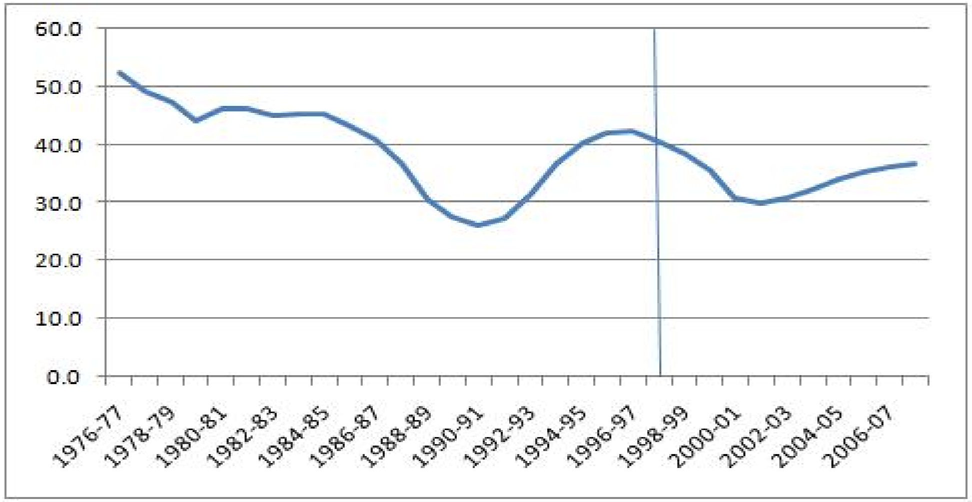
- If the real interest rate only just exceeds the rate of time preference, the same exercise implies gradually diminishing taxes, which eventually go to zero.
- That in turn implies debt in the long run should be negative, such that the interest on government assets pays for G
- What this result really tells us is that changes in taxes designed to reduce debt should be gradual.
  - The random walk steady state debt result is just the limit of this idea, where adjustment is 'infinitely slow '.
  - Debt, and budget deficits, are an import 'shock absorber ' that allow governments to avoid sharp movements in taxes or spending
  - Any Keynesian reasons for allowing deficits to vary over the cycle are in addition.
- Even if $\beta(1+r)=1$, the random walk steady state debt result will fail if we allow for
  - Default
  - Negative shocks are larger than positive shocks (Richard Mash)
  - Need to allow for fiscal support at the zero lower bound (Wren-Lewis, OXREP, 2010)

Other factors that might determine a long run debt target

- A negative target, in order to
  - Eliminate distortionary taxes
  - Correct for too low a capital stock because intergenerational transfers are incomplete
- Alternative considerations
  - Need for safe assets
- Provisional conclusion
  - Optimal debt target is likely to be (well) below current levels for most countries, so underlying goal should be slow, state contingent reduction in debt.

A Digression on Fiscal Policy under Labour

- Although debt to GDP in 2007 was below that in 1997, the UK would have been in a better position to respond to the financial crisis had policy not allowed debt to rise from its low point of 30% of GDP. In this respect, the debt target of 40% of GDP was not helpful.
- Wren-Lewis, S (2013) Aggregate fiscal policy under the Labour government, 1997–2010, Oxford Review of Economic Policy 29 (1): 25-46
- Passing note – neither debt nor deficits in 2007 were in any way culpable for any current debt crisis.



UK debt to GDP ratio before the 2008 crisis

A tension between optimal rules and effective rules: an example

- The current UK government has a target for the cyclically adjusted current balance, always five years ahead (rolling window).
- Using a rolling window makes sense in terms of optimal policy, as it allows deficits in the short term to absorb shocks
- Yet it would also allow a non-benevolent government to continually put off fiscal adjustment. There is no *implementation incentive*.
- A more effective rule for such a government would be a fixed window (e.g. achieve balance by 2015)
- However this would clearly not be optimal if shocks occur near the end-date, as it becomes equivalent to a annual deficit target.

Why might governments not be benevolent – reasons for deficit bias

- With monetary policy, a strong motivation for inflation targeting (as opposed to a dual mandate) was the inflation bias idea.
- So the reasons for deficit bias might be important in formulating fiscal rules.
- Reasons for deficit bias (from Calmfors and Wren-Lewis)
  - Informational problems
    - Over optimistic forecasts
    - Deception, like PFI.
  - Impatience
  - Electoral competition
  - Common pool issues
  - Time inconsistency issues (although not all lead to deficit bias: Leith & Wren-Lewis, 2013. "Fiscal Sustainability in a New Keynesian Model," Journal of Money, Credit and Banking, vol. 45(8), pages 1477-1516)
- For some of these (e.g. forecasts) a fiscal council, or other institutional reform, may be a more appropriate response than a fiscal rule

The optimality/effectiveness trade-off

Rule/Policy maker	Benevolent	Prone to Deficit Bias
Optimal rule	Policy is optimal, but discretionary action might achieve the same outcome	Leaves scope for deficit bias e.g. complexity can be exploited (cyclical adjustment)
Rule designed to prevent deficit bias	Sub-optimal policy, but no deficit bias. Sub-optimality may compromise political durability.	

A fiscal council may help reduce the ability of a non-benevolent government to exploit optimal but complex rules, or it could sanction a benevolent government to deviate from a simple but sub-optimal rule (e.g. Sweden 2009, but it may not work – Netherlands 2012)

Academic literature using fiscal rules

- A number of studies have found that simple feedback rules are a close approximation to optimal policy.

$$g_t - g^* = -a(d_{t-1} - d^*)$$

$$or$$

$$\tau_t - \tau^* = c(d_{t-1} - d^*)$$

- Close to optimal if parameters are small because mimics smoothing.
- Problems:
  - No *realisable target* (d* achieved in decades)
  - No *implementation incentive* (failure to move towards d* justified by shocks, but shocks difficult to verify)

Realisable target problem implies deficit targets

- Politicians need something to aim for within five years at most.
- This could be some point on a long term adjustment path for debt
- But debt targets are less robust to shocks than a deficit target.
  - Suppose there is a one-off adverse shock within a five year period. Trying to achieve the original debt target will be more suboptimal than its equivalent in terms of the deficit.

Fixed date or rolling deficit targets?

- The advantage of a deficit target to be achieved by a fixed date is that there is a clear implementation incentive.
- The disadvantage is that they can result in suboptimal policy, particular when shocks occur near that date.
- A fiscal council like the OBR can help provide an implementation incentive.
- UK: we judge that, given a history without sustained deficit bias, and with an enhanced OBR, a rolling target like the current fiscal mandate is feasible

Conditionality

- If monetary policy is unconstrained and effective, the expected output gap in five years time will be zero
- As a result, a rolling five year deficit target does not need to be cyclically adjusted (unlike the current UK fiscal mandate)
- In contrast fixed date deficit targets should be cyclically adjusted, and in principle subject to other forms of conditionality. However the more complex a rule becomes, the more open it is to manipulation.

Public investment

- Analogies with business investment are false
- Intergenerational incidence
  - In practice impossible to assign
  - Official split between consumption and investment does not correspond with generational incidence
- However a non-benevolent government may be tempted to skew cuts towards investment
- Suggests separate public investment targets

Conditioning on monetary policy

- So far we have largely ignored any stabilisation role for fiscal policy, which in effect assumes this is entirely a monetary policy task
  - e.g. Kirsanova et al (EJ, 2009) ‘consensus assignment’
- Clearly (?!) not appropriate for members of a monetary union
- Clearly (?!) not appropriate when monetary policy hits the zero lower bound

Monetary union fiscal rules

- Stability and growth pact/fiscal compact
  - Attempt to formulate rules that ignored the importance of macroeconomic stabilisation
  - Allowed overheating in periphery countries from 2000 to 2007, with disastrous results
- Optimal rules would build in stabilisation role.
  - Zero lower bound aside, this could focus on relative measures (e.g. inflation relative to zone average, terms of trade): Kirsanova et al (JMCB 2007)
  - Was this point ignored by Eurozone policymakers because they were concerned this role would be abused by non-benevolent governments, or because they did not believe in Keynesian economics?
  - Former is now much less of a concern

Policy at the Zero Lower Bound (ZLB)

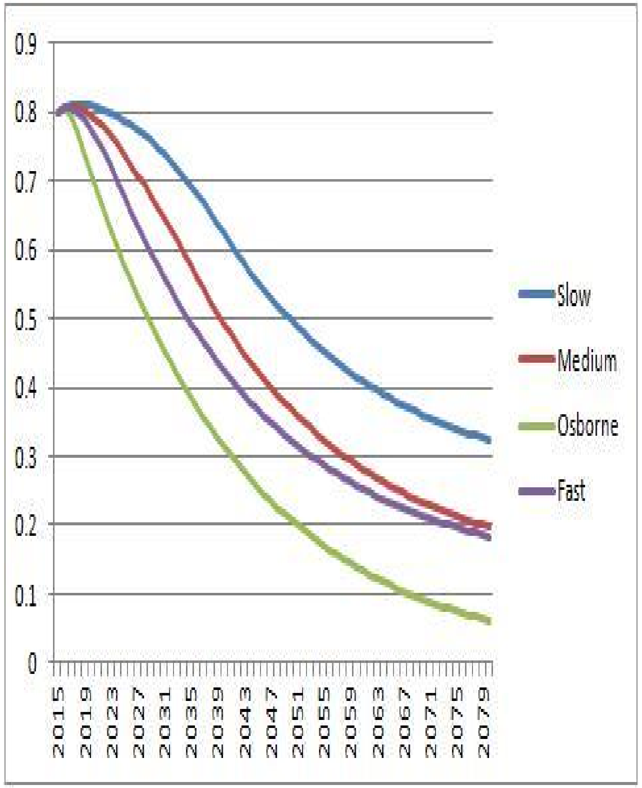
- Using a mixed macro/debt stabilisation rule for a flexible exchange rate economy is inappropriate, because most of the time (hopefully) the consensus assignment does apply.
  - Although we need to allow for the probability of hitting the ZLB
- It seems reasonable (although controversial) to assume that the logic of the consensus assignment does not apply to unconventional monetary policy
  - For example, promising higher future inflation (Krugman/Woodford – ‘forward commitment’) has clear costs.
  - Level NGDP targets only avoid these costs if they are never missed!
  - Optimal policy involves mix of fiscal stimulus, QE and forward commitment (e.g. Werning 2012)
- It also seems reasonable (although controversial) that at the ZLB, the need to stabilise the economy should take priority over debt concerns
  - A balance sheet type recession involves an increased private sector desire for (often safe) saving, so government needs to provide that.
  - Recent debt financing crises are a Eurozone problem, and as OMT shows, can be resolved by a conditional sovereign lender of last resort role from the ECB.

How does a fiscal rule handle the ZLB problem?

- Treat it as an exceptional footnote?
  - Problem is that either wisdom is forgotten, or past experience is thought to be no longer relevant
  - In 2008 too many economists had to reread the General Theory.
- Portes and Wren-Lewis: If central bank thinks that there is a 50+% chance that interest rates will hit the ZLB, then
  - Fiscal rule suspended
  - Central bank and fiscal council cooperate to propose to government a stimulus package designed to get interest rates off the ZLB
  - The fiscal council also proposes how the fiscal rule should be adapted when this has been achieved.

UK 2015

Year	Slow	Medium	Fast	Osborne
2015/16	0.038	0.038	0.038	0.038
2016/17	0.036	0.034	0.032	0.022
2017/18	0.034	0.03	0.027	0.009
2018/19	0.032	0.028	0.022	0
2019/20	0.031	0.026	0.018	0
2020/21	0.03	0.024	0.015	0
2025/26	0.025	0.015	0.005	0
2030/31	0.02	0.01	0.005	0
2040/41	0.01	0.005	0.005	0
Long run D/Y %	25%	12.5%	12.5%	0%



http://mainlymacro.blogspot.co.uk/2014/06/uk-fiscal-policy-from-2015.html

2010 deja vu: http://mainlymacro.blogspot.co.uk/2014/08/uk-2015-2010-deja-vu-but-without-excuses.html

Summary of key points

- Macroeconomists should do much more work on fiscal rules, and on what determines the optimal level of long run debt
- Although assessment of optimal rules is important, it is also important to specify the causes of deficit bias, and whether rules are effective in constraining non-benevolent behaviour
- For the UK, the form of the current fiscal mandate seems appropriate (with minor modifications)
- Rules have to be conditional on the position of monetary policy
  - Rules for monetary union members need to embody a countercyclical role
  - A rule at the zero lower bound should be very different