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Review paper

Stepping on a rake: The role of fiscal policy in the inflation of the 1970s ☆

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ABSTRACT

The inflation of the 1970s in the US is often discussed as if the only type of policy action that could have prevented the inflation were monetary policy actions and the only type of policy errors that might have induced the inflation were monetary policy errors. Yet fiscal policy underwent dramatic shifts in the 1970s and economic theory makes clear that in an environment of uncertainty about future fiscal policy, monetary policy instruments may lose potency or have perverse effects. This paper documents the vagaries of fiscal policy in this period and argues that people at the time must have been uncertain about fiscal policy's future course. It also lays out a theoretical framework for understanding the effects of fiscal uncertainties on monetary policy and shows that fiscal variables have predictive value in dynamic models, even if traditional monetary policy indicators are included in the system.

1. The theory of fiscal and monetary policy interaction

It is a standard result in equilibrium models that recognize the government budget constraint as part of the model (sometimes called "fiscal theory of the price level" or "FTPL" models) that when rational, forward-looking agents believe that newly issued nominal government debt is only partially backed by future taxes, debt issue is inflationary. Furthermore, in such models, with such beliefs about future policy, policy-generated increases in the interest rate *increase*, rather than reduce, the inflation rate. The behavioral mechanisms underlying these results are fairly easy to understand. Increases in nominal debt in the hands of the public that are not accompanied by any increase in expected future tax liabilities or by any increase in the price level leave the public with apparently increased wealth, which they will try to spend, until price increases erode their wealth or expectations about future taxes or economic growth make them scale back spending. In these circumstances, an increased nominal interest rate flows directly through to increased nominal government spending. In a flexible price model, the monetary authority loses any ability to affect the price level, as interest rate increases raise the rate of expansion of nominal government debt without any restrictive effect on spending plans.

There are some high-inflation countries and time periods in which simple flex-price models like these capture much of what goes on in monetary–fiscal interactions. Interest rates are high, interest expense is a major part of the government budget, and monetary policy-makers are acutely aware that increases in interest rates are likely to increase the rate of issue of nominal debt. However, in the US in the 1970s these effects were smaller and more indirect. The paper lays out the simple flex-price models that already exist in the literature and includes a model with stickiness in which the monetary authority retains the ability to generate recession or accelerate recovery even though it loses control of trend inflation.

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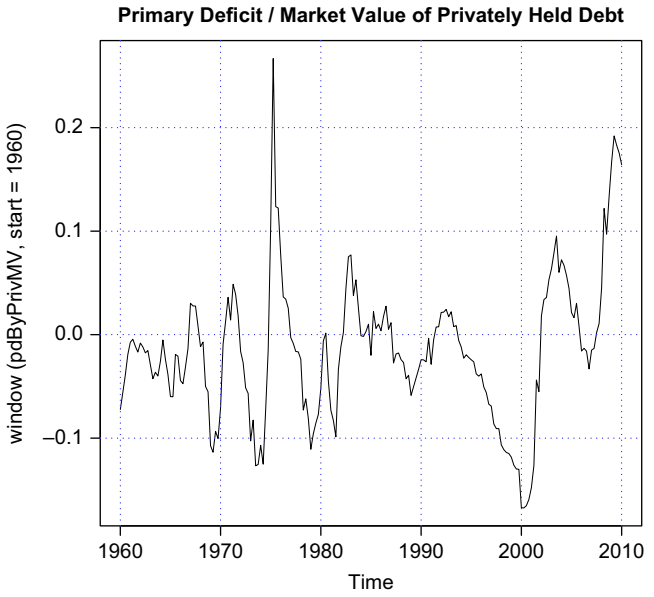

Fig. 1.

2. Fiscal policy in the 1970s

From the point of view of FTPL models the most natural single measure of fiscal stance is the primary surplus[1] as a proportion of the total outstanding debt. It must over time approximately average out to the real rate of return on other investments.[2] Fig. 1 shows this ratio. Note that most of the time the US has run primary surpluses, as expected, with the first period of large, sustained primary deficits beginning in 1975. This was the Ford tax cut and tax rebate. For one quarter, the primary deficit was at an annual rate of 20% of the outstanding market value of debt — a level not approached before or since in the period since 1950 — and the deficit persisted at high levels for a couple of years thereafter. The Reagan deficits of the early 1980s also correspond to a period of sustained primary deficits, though the rate never reached that of the Ford tax rebates.

People acquiring the debt that was being issued in this period had to be expecting that primary surpluses would eventually again become the norm, but it seems farfetched to suppose that they would have thought there was some simple rule, based on historical behavior patterns, that would allow prediction of when and how primary surpluses would re-emerge.

As remarkable as the huge spike in the primary deficit in 1975 is the period of sustained and growing primary surpluses in the latter part of the 1990s during the Clinton administration, and of course now the large deficits under both Bush and Obama. How do we account for these swings in fiscal stance? I am not sure there is any simple model that explains these swings, but it is interesting to look at Fig. 2.

Fig. 2 shows interest expense as a fraction of the total expenditures for the US. Until the early 1980s, interest expense was a small fraction of the budget, generally well under 8%. But in the early 1980s it shot up to over 14% of the budget and stayed there for several years. It seems plausible that the fiscal discipline of the early Clinton years may have been engendered in part by these budget realities having forced Congress to recognize that its ability to tax and spend was increasingly limited by rising interest costs.

3. Models

3.1. A globally soluble model

The first model is a simple flex-price model of an endowment economy, with functional forms chosen for convenience. It can be solved analytically, which allows us to see how explosive time paths for prices or money may, or may not, be excludable as competitive equilibria. Its purpose here is to illustrate how in principle such existence and uniqueness issues

[1] The primary surplus is revenues minus expenditures *other than interest payments*. It represents the net payments to holders of bonds, both through interest and retirement of outstanding debt.

[2] Strictly speaking, a weighted average of future primary surpluses divided by the current debt must match the discount rate, so that if primary surpluses are growing, the ratio of current primary surplus to current debt could be below the discount rate. But if primary surpluses and real investment returns grow at the same rate, it will remain true that the primary surplus over debt must on average match the ratio of current earnings to investment values.