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Can the fiscal authority constrain the central bank?☆

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ABSTRACT

The fiscal theory of the price level (FTPL) suggests, in its extreme form, that the fiscal authority always constrains central bank behavior. A Fisherian model is used to show that fiscal policy can be irrelevant for the central bank, and that a central bank can act independently, even when constrained to monetize the government debt. In a model with secured credit and scarce collateral, which can explain low real interest rates, the valuation of consolidated government debt needs to account for inefficiency and liquidity premia. The fiscal authority may wish to tolerate inefficiency so as to finance public goods provision.

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1. Introduction

The purpose of this paper is to explore ways in which the fiscal authority can impose constraints on the central bank. How can fiscal policy matter for the central bank's ability to achieve a particular path for the price level and inflation? How does the impact of fiscal policy on real allocations matter for the central bank? A focus in the paper is the implications of low real interest rates – resulting from a low supply of government debt – for unconventional monetary policy, and for the financing of government spending. A key result is that the fiscal authority may want to tolerate low real interest rates – a symptom of inefficiency in credit markets – so as to efficiently finance public goods provision.

Early work on the relationship between monetary policy and fiscal policy explored how constraints on central banks could lead to results seemingly at odds with standard monetarist doctrine. For example, in Sargent and Wallace (1981), tight monetary policy could lead to higher future inflation, and possibly higher current inflation. As well, Sargent (1982) studied hyperinflationary regimes in the 1920s in Europe, and argued that these hyperinflations were driven by out-of-control fiscal policy. In the Sargent and Wallace (1981) and Sargent (1982) work, the key idea is that high inflation can be generated by a fiscal authority with large deficits that is unwilling or unable to finance these deficits by issuing government debt. As a result, the central bank is forced to use the inflation tax.

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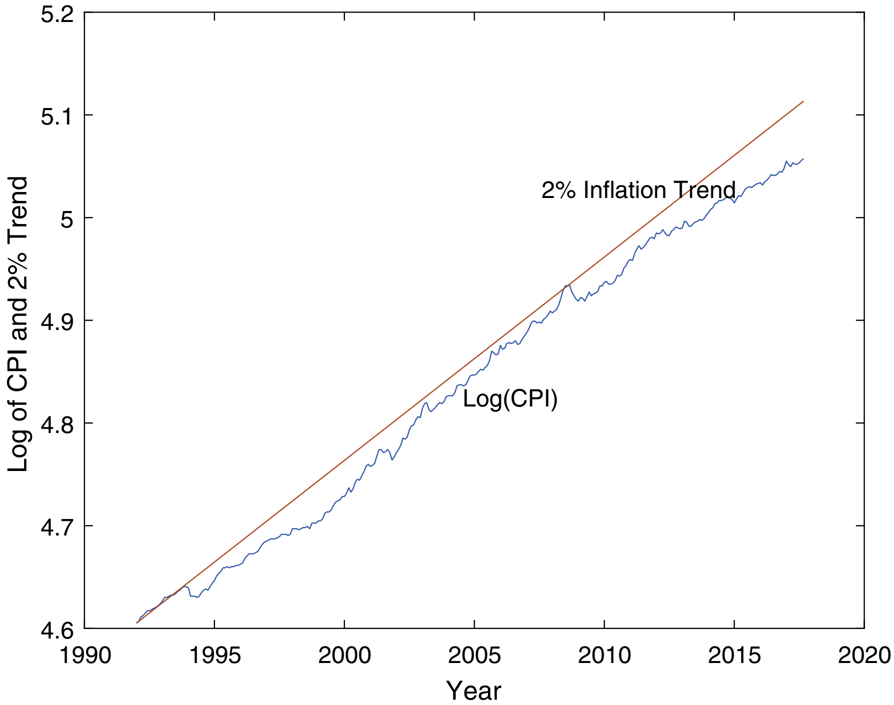

Fig. 1. Log of CPI for Canada and 2% trend.

In the 1990s, the fiscal theory of the price level (FTPL) was developed, principally by Leeper (1991), Sims (1994), and Woodford (1995). The FTPL starts with the observation that, in standard macroeconomic models, the real value of the government debt is equal to the expected discounted value of future primary government surpluses. This is sometimes described as a valuation equation for government debt, and under some assumptions implies that the current nominal government debt determines the current price level. If we take this idea to the extreme, the price level and inflation cannot be controlled by the central bank.

So, while research by Sargent and Wallace (1981) and Sargent (1982) focused on how large government deficits could lead to the capture of the central bank by the fiscal authority, and excessive use of the inflation tax, FTPL ideas might potentially be used to explain low inflation. Perhaps inflation could fall below the central bank's inflation target, but the central bank would be powerless to raise inflation, as it could be constrained by the nominal government debt and the fiscal authority's commitment to future real primary government surpluses.

But, in reality, central banks need not typically be constrained by fiscal policy. First, while Sargent (1982) makes a good case that hyperinflations can result from excessive demands by the fiscal authority on the central bank, it seems difficult to make that case more generally. Disinflationary experience, and the track record of inflation-targeting central banks suggests that fiscal constraints on monetary policy are sometimes not an issue. By the late 1970s, there was a consensus among policymakers in the United States that inflation was too high. Though there was disagreement about the remedy, disinflation was implemented through central bank policy, and is typically acknowledged to have been a success, in retrospect.

The Volcker disinflation helped in achieving a consensus that inflation control should be a job assignment for the central bank, and some central banks, beginning with the Reserve Bank of New Zealand in 1989, established explicit inflation targets. For the most part, these inflation targeting regimes have been successful. For example, the Bank of Canada established an explicit inflation target in 1991. Since then, the Bank has targeted the headline consumer price index at 2%, with a range of 1–3%. Fig. 1 shows the natural log of the CPI for Canada for the period 1992–2017, along with a 2% inflation trend. Even over this 25-year period, the CPI level has tracked the 2% inflation path remarkably closely, though with some persistent undershooting of the target after the 2008–2009 recession. Still, in September 2017, the actual CPI was only 5.5% below the 2% inflation path, representing a very small cumulative deviation from target over the 25-year period. Unless there were some implicit and unannounced commitment of the fiscal authority working in the background, the history of disinflation and inflation control in inflation-targeting countries seems inconsistent with the existence of significant fiscal constraints pushing these countries into high-inflation territory.

But what about the ability of the FTPL to explain the recent persistent undershooting of inflation targets by central banks in the United States, the euro area, Sweden, Japan, and Switzerland, for example? In the FTPL, the central bank appears to be tied to the fiscal authority in ways that some key central banks were not in the past, or even in the present. For example, the Bank of England was, until 1946, a private entity. The Bank was founded in 1694, and by the nineteenth century had been