Comments on Buiter and Sibert

Willem Buiter and Anne Sibert's paper (WBAS) on the FTPL is a theoretical tour de force.

One can also much agree with their point that it is a bad idea for a government to adopt the fiscal theory in its policy-making.

However, sometimes governments do seem to act as if there is no binding inter-temporal budget constraint. The example that I am familiar with is the UK government of Edward Heath in the early 1970s. It 'panicked' in the face of rising unemployment during 1971 and embarked simultaneously on the following policies during the next couple of years

--tax cuts

--expenditure rises

--holding interest rates at a low level to achieve 'monetary stimulus'

--an incomes and prices policy to hold down inflation, together with a policy of indexing wages to prices

Of these policies the incomes and prices policy was widely considered ineffective and fairly rapidly broke down for prices with wages growing in line due to the indexation.

Here we have no monetary rule that could achieve price determinacy and no fiscal plans satisfying the government IBC. Enter the FTPL. We assume people understand this situation, expect resulting inflation and impose FTPL, forcing the IBC to hold via a rise in inflation and nominal long run interest rates. Hence the IBC holds and the private sector maximises under the assumption that it holds and its own IBC reflects it. The government IBC is only 'used' once, just as it is in a 'normal' setup.

There is an analogy to the way in which uncovered interest parity (UIP) 'solves' for the equilibrium exchange rate in the face of a current account trade shock. Here too people see the shock and realise that to restore equilibrium the long run exchange rate must fall, while at the same time, given the interest rate, the short run exchange rate must combine with it to satisfy UIP. All agents are assumed also to understand what UIP and the exchange rate must be and take their maximising decisions accordingly.

What are the objections WBAS have to this equilibrium?

Perhaps they would say that 'out of equilibrium' (i.e. before the inflation expectation takes hold) the government is doing something impossible, viz intending to violate its IBC. But in our model here with rational expectations we are bound to assume that the government knows this equilibrium will result. Knowing this, it knows its plans will not violate its IBC! So under rational expectations all agents, including the government, know what will result from the government's policies: high inflation and interest rates, and rapidly rising money supply to accommodate these. (I will talk about the money supply as the monetary choice variable but I mean by this also any equivalent interest-rate- setting choice.)

What WBAS might reasonably say is that in effect the government have 'as if' merely decided to 'generate an inflation via money supply expansion' that will ensure its IBC is satisfied via inflation and nominal interest rates. In this case we could describe this equilibrium as 'Ricardian': its money expansion will 'determine' inflation, while if it chooses a path for spending, it must then via the IBC choose the consistent path for tax. In fact, under their totally deterministic assumptions for policy, the two cases are strictly indistinguishable. Thus under 'FTPL' the government will know it must

provide the extra money supply; while under the Ricardian it will know that it must set the requisite tax rates. In effect all these variables, money, spending and tax will be projected at the same future values under both FTPL and Ricardian. Thus WBAS are saying, if I have understood correctly, that nothing is added by calling this FTPL, as it is simply the standard Ricardian policy set-up de facto; also in no sense is the government knowingly 'violating its IBC' which is plainly impossible.

Formally, even in this deterministic set-up, we could describe the FTPL as one where the government chooses spending and tax, and 'implies' money supply growth; Ricardian as one where the government chooses spending and money growth, and 'implies' tax. We know that for each set of choices made under FTPL there is an equivalent set of choices that will give the same results under Ricardian. Hence our UK government 'knew' that its fiscal choices would trigger money and inflation consequences; it 'looked as if' it was unaware of these but we could say that in effect it did not care about them, perhaps because they would come after an election.

Furthermore and trivially, the government by choosing these particular fiscal choices and the implied particular money policy, could be choosing something different from a particular choice of spending and monetary policy, with its implied tax profile. Policy choices are made by a process, and if one uses the FTPL process, one may choose something different in detail from what one chooses if one follows the Ricardian process. Nevertheless a rational government in a deterministic world would presumably choose just one set of policies to maximise its objective function; so whichever way it sequenced the choice, it would be the same set of policies. Hence in a deterministic world it is hard to resist WBAS' conclusion that the FTPL adds nothing to the Ricardian description of policy; and indeed in saying the government 'violates its IBC out of equilibrium' FTPL is grammatically wrong because the government knows its IBC must be satisfied and via rational expectations (perfect foresight in a deterministic world) it knows exactly how.

Empirically, however, in a stochastic world, we can say a bit more. The difference between the Ricardian and the FTPL descriptions is a difference in what processes are 'exogenous'. Under FTPL both fiscal variables- spending and tax- are exogenous stochastic processes, while money is endogenous; whereas under the 'Ricardian' description the monetary process is exogenous and only one fiscal variable, say spending, can be exogenous.

So the two set-ups are empirically distinct via these exogeneity assumptions. This is what Jingwen Fan, Zhirong Ou and I exploited in doing our tests of the two models for this UK episode (The role of fiscal policy in Britain's Great Inflation, Economic Modelling, 2016, 58(C), 203-218).

If so, do FTPL and Ricardian meaningfully differ for say this UK episode?

a) In FTPL the government decides on an exogenous path for its two fiscal variables knowing this will generate inflation and monetary accommodation
b) In Ricardian the government decides on an exogenous path for money and spending knowing this will generate inflation and tax accommodation

In empirical modelling terms the two can generate different detailed outcomes, even if qualitatively the two outcomes will generate similar outcomes. So one could carry out a test of a world under a) where we focus on how the exogenous processes recovered from the data for the two fiscal variables generate macroeconomic behaviour; and do the same for a world under b) where the exogenous processes recovered from spending and money generate different economic behaviour. We can then ask which matches the actual data behaviour most closely.

We could describe a) as a world where fiscal decisions alone drive the economy; b) as one where money supply and fiscal decisions drive it.

These are distinct stochastic worlds. By this I mean that we can ask what histories they might have produced had the innovations been randomly redrawn; the histories produced by the FTPL world will differ from those produced by the Ricardian world.

Fan, Ou and I found that the world of the 1980s matched the Ricardian world more closely than the FTPL world whereas the opposite was true in the 1970s; we used a New Keynesian Phillips Curve in both cases but we found essentially the same results if we assumed price flexibility under FTPL. That conclusion is in line with what the Thatcher governments of the 1980s were aiming to achieve by bringing down fiscal deficits rapidly and setting explicit targets for reducing money supply growth.

Conclusion

In a deterministic world FTPL cannot be any different from a standard Ricardian set-up yielding the same results. That is, we can read off from the deterministic path of spending and tax to the implied deterministic path for money. The FTPL policy simply means that in some sense the government choose both fiscal variables, knowing the implication for money, while the Ricardian policy means it chooses spending and money, knowing the implication for tax. Hence if a government is pursuing some objective function that is maximised by the FTPL policy, this would also be maximised by the equivalent Ricardian policy; so whether it chooses one or the other is mere semantics- they are not distinct. Nor does it make any sense to talk of a government 'violating its IBC'; it cannot and knows it cannot. This I take to be WBAS's point, and it is well taken.

In a stochastic world FTPL differs from Ricardian according to which fiscal and money supply processes are exogenous. Here we are provided with data on what the government actually did and of course we do not know whether it successfully maximised some objective function. We can then ask meaningfully which exogeneity assumptions generate the better match to the actual behaviour of the economy. The difference matters because governments acting indirectly on money via aggressive fiscal policies typically produce a lot of inflation about which implicitly they do not care; this indeed happened in the UK in the 1970s. Here I find myself in agreement with WBAS that governments should certainly be warned away from such policies which are extremely dangerous.

Patrick Minford, November 2017