Macroeconomics A: EI056

Quizz

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1 Roles of government

Question: What are the roles of government in the economy?

Answer: The first role is to provide public goods and services. Such goods cannot efficiently be provided by the private sector because they cannot be appropriated (for instance the police cannot make the streets safe only for people who pay), or because they entail an externality (building roads raises the profits of firms that are located next to them).

The second role is to deliver an equitable income distribution by transferring resources from the rich to the poor. This is mainly done through the progressive income tax. Redistribution can come at a cost in terms of efficiency because it discourages high earnings.

Finally government can smooth economic activity through the business cycle. This can be done through automatic stabilizers, with tax revenue dropping in a recession (at unchanged tax rates) and spending on unemployment insurance rising. It can also be achieve through "discretionary" spending when the government undertakes a stimulus by lowering tax rates or raising its purchases of goods and services.

2 Measures of deficits

Question: What are the "general" fiscal deficit, the "primary" deficit and the "structural" deficit? What are they useful for?

Answer: The general deficit is the difference between government's receipts and expenditures during a given period. It indicates by how much government goes into debt, and by how much it stimulates activity through deficit spending. The primary deficit is equal to the general deficit without interest paid on the government debt. It is a better measure of sustainability of public debt: a government that is indebted and wants to stabilize its debt can run a general deficit, but shouldn't run a primary deficit (unless it is lucky to have high growth).

The structural deficit is the deficit that would be reached if the economy was operating at potential, i.e. being neither in recession nor in overheating. It indicates the long run deficit, and measures whether the government is just facing a recession, or whether it faces a deeply rooted imbalance between receipts and earnings.

3 Debt revenue

Question: What is the "debt revenue" discussion about?

Answer: The discussion is about the sustainability of debt.

A first step is to notice that the debt-to-GDP ratio, which is the relevant measure, can be stabilized if we run primary surpluses in the future, assuming that the interest rate on debt is higher than the GDP growth rate (as we saw in the Ramsey model).

We are however talking about the interest rate on public debt, not the interest rate faced by private agents (which is the one used in the Ramsey model). As government bonds offer a liquidity and safety that can be stronger than private assets, the interest rate on them can be lower than the GDP growth rate ($i < g$). In that case, the debt-to-GDP ratio can be kept constant even with a small primary deficit. This is the point by Blanchard (2019).

Note however that intertemporal budget constraints include the transversality condition, which shows that is it OK for debt-to-GDP to grow, as long as it is not too fast so the net present value of debt far in the future is zero. Reis (2022) shows that iterating the budget constraint with the government interest rate i is problematic. But this is not the proper way, and he shows that we should iterate the flow constraint by using the interest rate faced by private agents (m), that is use the same discounting rate for the private sector and the government. As $m > g$ the transversality condition is fine. The computation shows that the government has an additional source of revenue which is the spread $m - i$ on its debt. In other words, the government earns the difference between the two interest rates (or more exactly pays an interest rate on its debt lower than the one private agents have to pay). This source of revenue is the "debt revenue". It comes alongside the primary balance, and therefore we can have a current debt along with a small primary surplus (or even a deficit) if the debt revenue is large enough.

One can read this as a source of revenue that is larger when we have a large debt, as $m - i$ multiplies the debt. This sounds nice, but bear in mind that i is likely increasing with debt. In addition, there is a demand for debt, and thus the government shouldn't treat the debt revenue as a source that it can draws on without limit. You can make a parallel with money which is issued by the government and costs no interest (for money $i = 0$). We have seen in previous classes that there is a demand for real money balances, so printing more money does not automatically raise the seignorage (the "debt revenue" of money) even though $m - i = m > 0$, because one cannot force private agents to hold money.

4 Political economy of deficits

Question: How do conflicting preferences lead to persistent fiscal deficits?

Answer: Agents with different preferences over what the government should purchase can use deficits and debt as a way to constrain future agents. Consider that one agent cares about roads and the other about education. The agent caring about roads is in charge today. If she was sure to also take the decisions tomorrow, she would spend on role now and in the future and would not need to borrow today.

There is however a probability that the agent caring about education will be in charge tomorrow, and spend little (or nothing) on roads. The agent in charge today is thus not sure that she will be able to spend on roads tomorrow, and thus decides to spend now while she can. The resulting debt limits the ability of the future decision maker to spend on education tomorrow.

This conflict does not necessarily lead to a deficit. If the agent who prefers spending on roads also cares to some extent about education, she faces a trade-off. One the one hand she wants to increase spending on roads today and run a debt to limit spending on education today. On the other hand, the resulting constraint will lead the future decision maker to reduce spending not only on education, but also on roads. If the second dimension dominates, increasing the debt is not optimal.

5 Fiscal multiplier

Question: Is a fiscal stimulus effective at raising GDP?

Answer: The empirical research has shown that in normal times the fiscal stimulus is not effective. Higher government spending tends to raise inflation, and the central bank then adopts a tight monetary policy that offset the fiscal stimulus. In addition, Ricardian Equivalence implies that the stimulus is offset by higher savings by private agents in order to pay for the future taxes.

Fiscal policy is more effective in crisis times. First, Ricardian Equivalence is weaker. Agents that have a low income in a recession and cannot borrow will consume any tax rebate instead of saving it. A stimulus of lower tax today paid for by higher taxes tomorrow effectively transfers agents' income from the future to the present, and so acts as a form of private borrowing. Second, the monetary policy may be stuck at the zero lower bound (ZLB) of interest rates. The central bank may want to set the interest rate at -5 % based on growth and inflation, but is stuck at zero. A fiscal stimulus generates some inflation, and thus the central bank would like to raise the interest rate from -5 to -3 percent. As this is still below zero, the central bank does not change its actual interest rate. The fiscal stimulus is not offset by a monetary tightening and is thus more effective.

Stimulus is also more effective when the taxes that will ultimately be raised to finance it are not distortionnary. Otherwise the incentive to invest can be sharply reduced, leading to a reduction in GDP.

Finally, stimulus is more effective when spent in a way to boost the productivity of private investment. For instance building or upgrading infrastructure can improve conditions for firms and support private investment.

6 Debt reduction

Question: Is a deficit reduction enough to lower the debt / GDP ratio?

Answer: No. The IMF study (WEO April 2023) shows than only half of the episodes of fiscal consolidation are successful in lowering the debt ratio.

The main reason is that fiscal consolidation is contractionnary, and therefore limiting the reduction in GDP (which raises the debt / GDP) ratio is central. This can be done by choosing the timing of the consolidation (don't wait for a recession), doing the consolidation through measures that have a more limited contractionary impact (lower spending tends to lead to a smaller recession than higher taxes, especially if taxes are already high), doing consolidation as part of a broad policy package, including some structural reforms that support growth.

In addition to consolidation, countries in a particularly delicate position can do a debt restructuring, which is a default (full or partial). This can be a literal default (reduction in the face value of the debt) or work through lower interest rates or longer maturity. Debt restructuring works in lowering the debt / GDP ratio, especially if done alongside consolidation, if included a reduction of face value, and if done as part of broad package (though policies of debt restructuring done across many countries are not so common).