Answer on Question #64983

What is the value of the balanced budget multiplier. IE what multiple of delta does Y increase?

Answer

My approach to this problem is the following:

1. Find quarter data for real GDP and Consumption from the links you have given to define MPC=$\frac{\Delta C}{\Delta Y}$, where C and Y are consumption and real GDP. $\Delta C \; and \; \Delta Y$ are changes of C and Y. For example ΔC is a difference between consumption of 4th quarter of 2016 and the consumption of 4th quarter of 2015.
2. Calculate average MPC for all available years. For instance for our case it will cover from 1951 Q1 to 2016 Q4
3. Define K^G, which is representing government expenditure multiplier: $\Delta Y = \frac{1}{1-MPC}\Delta G$
4. DefineK^T, which is tax multiplier: $\Delta Y = \frac{-MPC}{1-MPC}\Delta T$. Here T is tax and ΔT its change
5. Finally in this point we can assume BBM=$K^G + K^T$

The solutions:

→ $MPC \approx 0.30$. This means that for the quarter period of [1959-2016] the income is divided between 30% consumption and 70% saving.

→ After putting 0.30 into the formula$\Delta Y = \frac{1}{1-MPC}\Delta G$, we will get K^G=1.42. This shows that if expenditures increase the real GDP will go up 1.42 times.

→ K^T will be equal to -0.43, if MPC=0.30. The explanation for this is that increase in taxies will cut GDP by the 0.43 times.

→ Eventually BBM=0.99.