THE BALANCED BUDGET MULTIPLIER

Two types of fiscal policy to combat a recession are increased government spending (holding taxes constant) and cutting taxes (holding government spending constant). In both cases, such a policy approach entails running a budget deficit (or decreasing the budget surplus). There is a third type of fiscal policy that can eliminate a recessionary gap without an increased budget deficit (or decreased surplus). This is due to what is called the balanced budget multiplier (BBM). To use the BBM, government would increase spending (G) by the difference between the full employment level of output and income (Yf) and the equilibrium level of output and income (Ye). At the same time, taxes (T) would be increased by exactly the same amount, so that there is no increase in the budget deficit (or decrease in the surplus).

To see how this would work, suppose the following values ($ in billions):

Yf = $2000  Ye = $1600  mpc = .75

Increase both G and T by $400 (Yf – Ye). The increase in G would have a multiplier effect of $400 ( = 1/(1-b) = 1/(1-.75) = 1/.25 = 4). 4 x $400 means an increase of $1600 due to the increase in G and the multiplier effect. But the increase in T by $400 will decrease disposable income (Yd) by $400. Why won’t this entirely offset the increase in G? Because consumption (C) will decrease not by $400 but by .75 x 400 = $300, since some of the decreased disposable income was not being consumed, but rather saved (mps = .25; .25 x 400 = 100). So, accounting for the negative multiplier effects, the decrease in spending due to the tax cut will be 4 x 300 = $1200. So we have:
G increases by 400  multiplier effect x 4  =  1600 (increase)

T increases by 400  \( \rightarrow \) Yd decreases by 400  \( \rightarrow \)
C decreases by 0.75 x 400 = 300  
multiplier effect x 4 = 1200 (decrease)

Net change (1600 – 1200) = 400 (increase)

Net increase of 400 takes the economy from 1600 (Ye) to 2000 (Yf). No change in deficit (or surplus) since the spending has been entirely offset by a tax increase.

We could have also shown it by first taking the net change and then accounting for the multiplier effects. In other words:

G increases by 400  400 (increase)

T increases by 400  \( \rightarrow \) Yd decreases by 400  \( \rightarrow \)
C decreases by 0.75 x 400 = 300  300 (decrease)

Net change (400 - 300 = 100)  100 (increase)

Multiplier effect x 4 = 100 x 4 = 400 = 400 (increase)

Economy moves from 1600 (Ye) to 2000 (Yf). So we can either account for the multiplier in the first stage (before we calculate the net change) or at the second stage (after we calculate the net change), but not at both stages (and not at neither!).

Actually, the value of the mpc (b) is irrelevant, because the value of the BBM is always equal to 1. This is because another way of formulating the equation calculating the total change is:

\[
\frac{1}{1-b} \times (1-b) \times (Yf - Ye) = \text{net change}
\]

Since (1-b) is the same thing as (1-b)/1 (anything over 1 is itself), the (1-b)s cancel out and the total change due to an increase of G and T by the same amount is equal to that amount, or the balanced budget multiplier is equal to one (BBM = 1).

The net stimulative effect is due to that part of disposable income that was being saved being turned into spending. The rest (increased G and decreased C) is a washout.