Economics 2B
Suggested Solutions - Tutorial 3

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Abstract

This guide is supposed to be complementary to the official solutions supplied by the lecturer. All errors are my own.

Question 1

This tutorial has actually fairly detailed solutions, so I will just provide a little bit of commentary here and there.

a)

When a question asks you for a relation, they want you to write output as a function of the exogenous variables, i.e. $Y = F(G, T, i)$. I know it's tempting to just substitute in the values you get above, but more often than not it's actually better to retain a flexible form, so that you can easily plug in different values for G, T and i. Generally, the process of plugging in different values for the exogenous variables is called "comparative statics" - i.e. we compare the properties of different hypothetical economies. The process of adjustment form one state of the economy to another is called "dynamics" and will be part of future tutorials.

c)

Just to clarify, when the solutions say, that "output is determined by IS" it means "output is determined by IS **in conjunction with the LM curve**". Essentially, by substituting $G\&T$ we fix the specific IS curve, and by substituting i, we find the intersection of the two curves.

Question 2

a)

It can sometimes be confusing, trying to describe the effect of a change in a certain variable on the state of the complete equilibrium system. This is, I think, because we are mostly accustomed to thinking about pretty "linear" causal relationships (foot kicks ball...). In Macroeconomics we often deal with very complex webs and circles of causal relationships, which tests our reasoning ability. My advice here would be to try to think about the respective end states (comparative statics / counterfactuals) rather than trying to figure out the sequential change (dynamics). Think "if G was higher, then Y would be higher and C and I would also be higher."

Question 3

a)

Maybe it's a good idea to remind ourselves where the savings identity comes from. Remember that all output is equal to:

$$Y = C + G + I \tag{1}$$

but similarly, all Income in the economy is:

$$Y = C + S + T \tag{2}$$

combining leads to:

$$\begin{aligned} C + G + I &= C + S + T & (3)\\ S &= I + (T - G) & (4) \end{aligned}$$

In general this result is less surprising, when you realize that all saving is a form of debt. This is more obvious when you consider saving in stocks and bonds, and less obvious when you think about your savings account - but true nonetheless, when you recall, what we learned in Tutorial 2.

Figure 1: Source: www.cartoonstock.com