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Hi Kevin,

That's a great question!

If we assume the economy is originally in equilibrium, i.e. supply equals demand, meaning that there should be not change in inventories. Then we can see that both Country A and B are in a disequilibrium as there are changes in their inventories. This disequilibrium can be caused by exogenous or endogenous change (shock vs. long-term change) in supply and demand and in my opinion only endogenous decrease in supply and demand can be categorized as recession.

So, for Country B to be in a recession, there must be a endogenous decrease in supply as the decrease inventory is decreasing. That means, firms are voluntarily decreasing supply, but that cannot explain the increase in capital expenditure (assuming equilibrium level of capital expenditure is 100). Rationally, if firms are already decreasing production, then they should not invest more as the economy is in a bad shape.

So, the more likely answer is that Country B is in a boom where demand is increasing endogenously, causing the inventory to deplete and firms are investing to catch up with that rising demand. Although as Filip pointed out that it might be the case that firms are government-owned and are actively trying to stimulate the economy by investing more, that still means B is in a dip. So B in boom and A in recession is still the likely answer.

Hope this helps!

Best,

Herbert

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So, the more likely answer is that Country B is in a boom where demand is increasing endogenously, causing the inventory to deplete and firms are investing to catch up with that rising demand. Although one student pointed out that it might be the case that firms are government-owned and are actively trying to stimulate the economy by investing more, that still means B is in a dip. So B in boom and A in recession is still the likely answer.

To figure out if Country B is in a recession or not, we have to look at the investment part of the economy, i.e. Capital expenditure and changes in inventories, as they are the source of difference between two countries. Let’s consider few possibilities:

**Inventory decreases as a sign of decrease in production.**

This implies a mismatch between supply and demand, meaning production for some reason decreased, causing the demand to exceed the supply, which leads to the decrease in inventories. If this decrease in supply is exogenous, i.e. caused by shocks like natural disasters, it would not be considered as recession. If the decrease in supply is endogenous, i.e. supplier decreases production in anticipation that the demand is going to decrease in the future. But this conflicts with the increase in capital expenditure. If suppliers anticipate the demand is going to decrease, it would be irrational to increase capital expenditure.