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Macroeconomics

Short answer questions (1-2 sentences)

Question 1

Neutrality of money states that changes in monetary policy have no effect on real variables. Doubling the amount of money in the economy may lower short term interest rates, but in the long run it amounts to replacing green one dollar bills with red two dollar bills. We would expect prices to double, but no other changes. Alternatively, in the short run firms and households may be confused and interpret the increase in prices as increases in the value of goods. In the long run however, firms and households eventually learn the true value of goods and services.

Question 2

a. A decrease in G financed by lower taxes implies a decrease in spending and therefore a recession. In the long run inflation falls as aggregate demand is less than potential.

b. A increase in government spending also increases total spending, causing a boom.

c. A decrease in G financed by borrowing implies a decrease in spending and therefore a recession. In the long run inflation falls as aggregate demand is less than potential.

d. An increase in the inflation target means the FED decreases r, causing increases in C, I, and $X - M$. Thus we have an increase in total spending and a boom.

So the answer is (a) and (c).

Longer Questions

Question 3.

a. A decrease in the inflation target means the FED raises interest rates, which would reduce C, I, and $X - M$ spending, making the recession worse.

b. Raising taxes would reduce consumption spending and therefore total spending, making the recession worse.

c. Cutting taxes would raise consumption spending, countering the decrease in spending caused by the fall in investment spending.

d. A price shock is not under control of the government (not a policy).

So the government should choose (c) and cut taxes.

The fall in expectations leads to a fall in investment spending, which causes a fall in income, and thus a fall in consumption. Overall, spending and income fall. Firms respond by decreasing capacity and firing workers, leading to higher unemployment (point 2 on the graphs). The economy is in a recession.

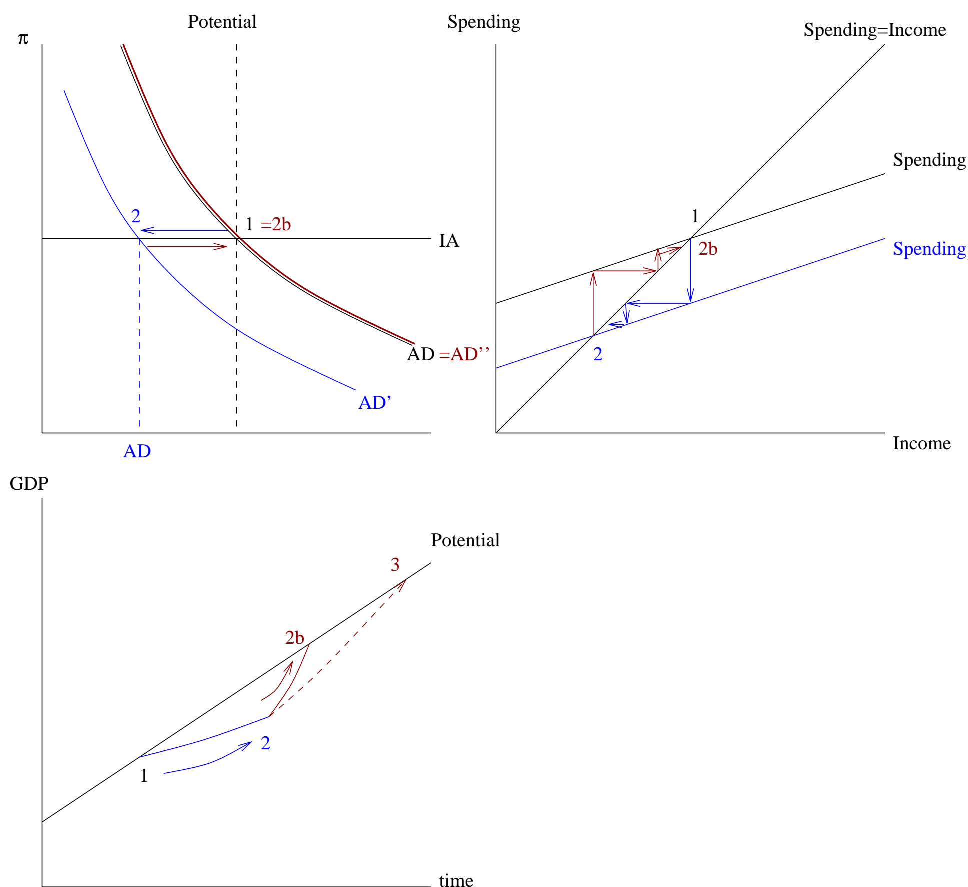

Figure 1: Counter Cyclical Fiscal Policy.

The government now responds in the short run, by decreasing T. Consumers have more income, which they spend, increasing consumption. Therefore, we shift AD to the right. Suppose the government is precise enough to increase Y back to its original level. Then, income rises, causing C to rise again. Capacity and unemployment return to normal (point 2b on the AD-AS graph).

In the long run, $AD = AS$ so no inflation adjustment occurs. The economy pulls out of a recession in the short run rather than the long run. Overall,

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	Y	C	I	G	$X-M$	r	π	cap	u
SR	$\downarrow$	$\downarrow$	$\downarrow$	-	-	-	-	$\downarrow$	$\uparrow$
LR	-	$\uparrow$	$\downarrow$	-	-	-	-	-	-

Table 1: Counter Cyclical Fiscal Policy.

Question 4.

I will do the raise taxes case, but decreasing G (either by decreasing taxes or by less borrowing) or lowering the inflation target also work. From the notes:

The increase in taxes comes from household income, in the form of reduced consumption and savings. The government saves all of the tax increase, thus overall spending falls.

The decrease in spending is not caused by a change in inflation. Therefore, we shift AD to the left (point 2 on the AD-AS graph).

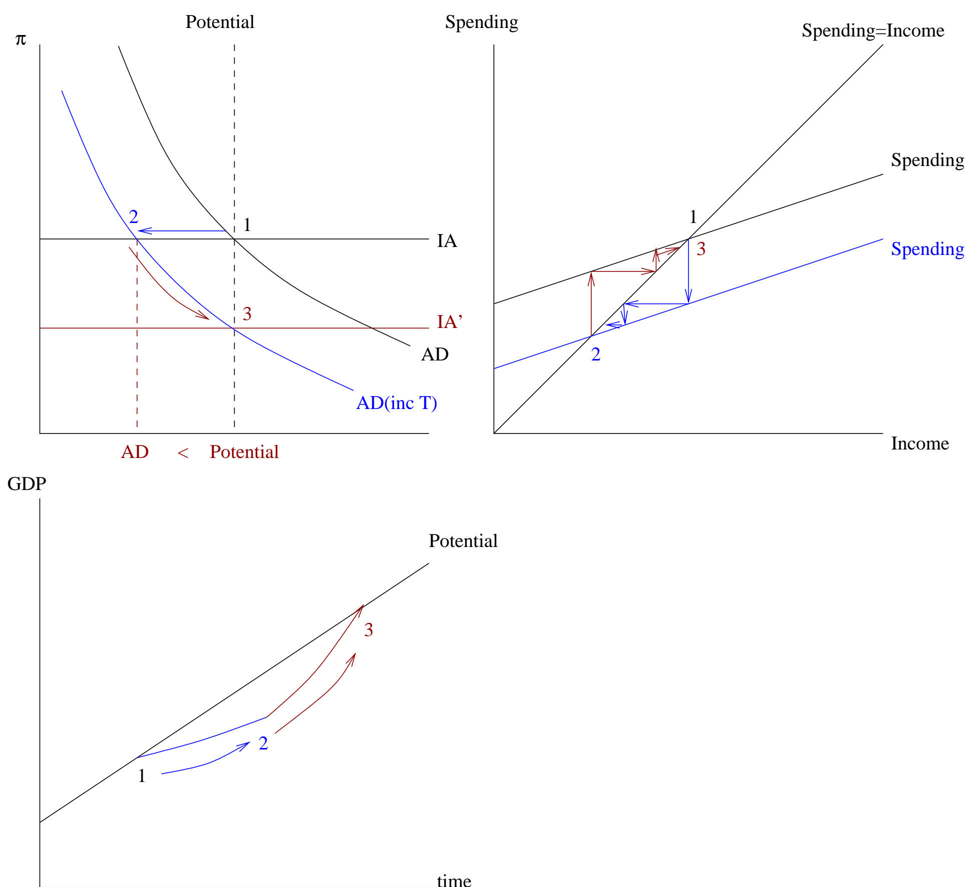

Figure 2: Permanent increase in income taxes, financed by less borrowing.

In the short run, the increase in T causes a decrease in consumption spending, which causes less income for stockholders and workers. This causes a further decrease in C by the store

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owners and workers (point 2 on the Keynes cross diagram). Firms decrease capacity and fire workers, this is a recession and the economy is in a short run equilibrium (point 2 on the AD-AS graph).

In the long run, firms will see costs fall due to low capacity and surplus of workers. Inflation falls. The FED responds by lowering interest rates. Consumption (savings is less attractive), Investment spending (less expensive to borrow for a new house), and Net Export spending (fall in r decreases demand for dollars, decreasing the nominal exchange rate, making US exports less expensive and US imports more expensive, raising net exports) rise in respose. Spending rises, which generates more income, more consumption spending, and so on. Eventually we end up at point 3, and the economy returns to potential after the recession. Overall,

	Y	C	I	G	$X - M$	r	π	cap	u
SR	↓	↓	-	-	-	-	-	↓	↑
LR	-	↓	↑	-	↑	↓	↓	-	-

Table 2: Permanent increase in income taxes, financed by less borrowing.