

**Economics 212**  
**Principles of Macroeconomics**  
**Some Business Cycle Graphs**

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First Version: Spring, 2006  
Current Version: Spring 2006

Here is a subset of the possible business cycle graphs. I may ask for the reverse of the cases below, or use other counter cyclical policies. Any policy can overshoot. Your best bet is to practice all conceivable cases until it becomes natural.

## I Application: Fiscal Policy

### A Increase in Government Spending, financed by borrowing

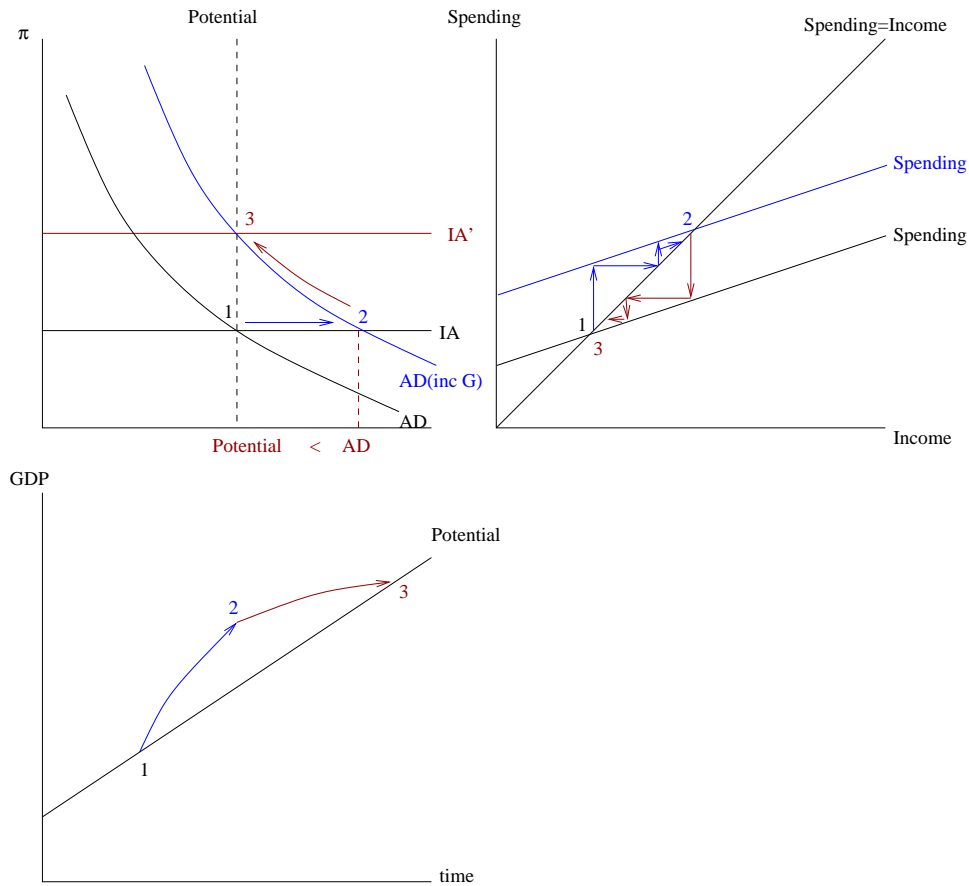


Figure 1: Increase in government spending, financed by borrowing.

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

Table 1: An increase in government spending, financed by borrowing

## B Permanent increase in income taxes, financed by less borrowing

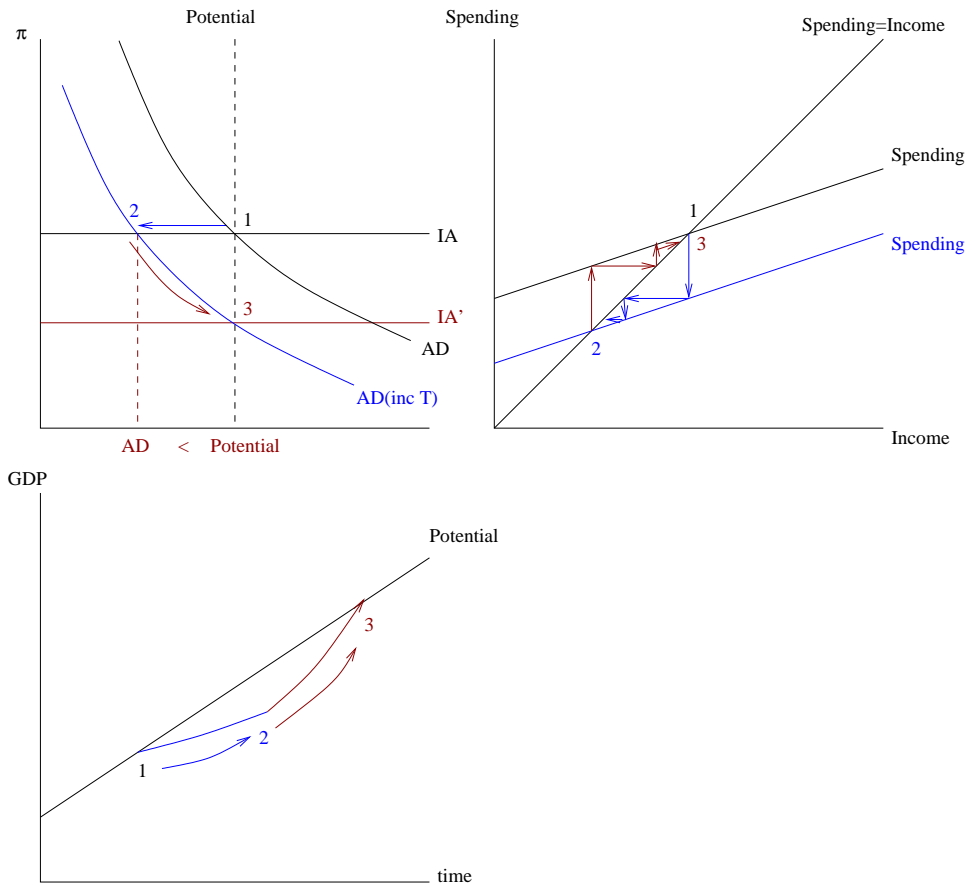


Figure 2: Permanent increase in income taxes, financed by less borrowing.

Overall,

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

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

### C Increase in Government Spending, financed by an increase in taxes

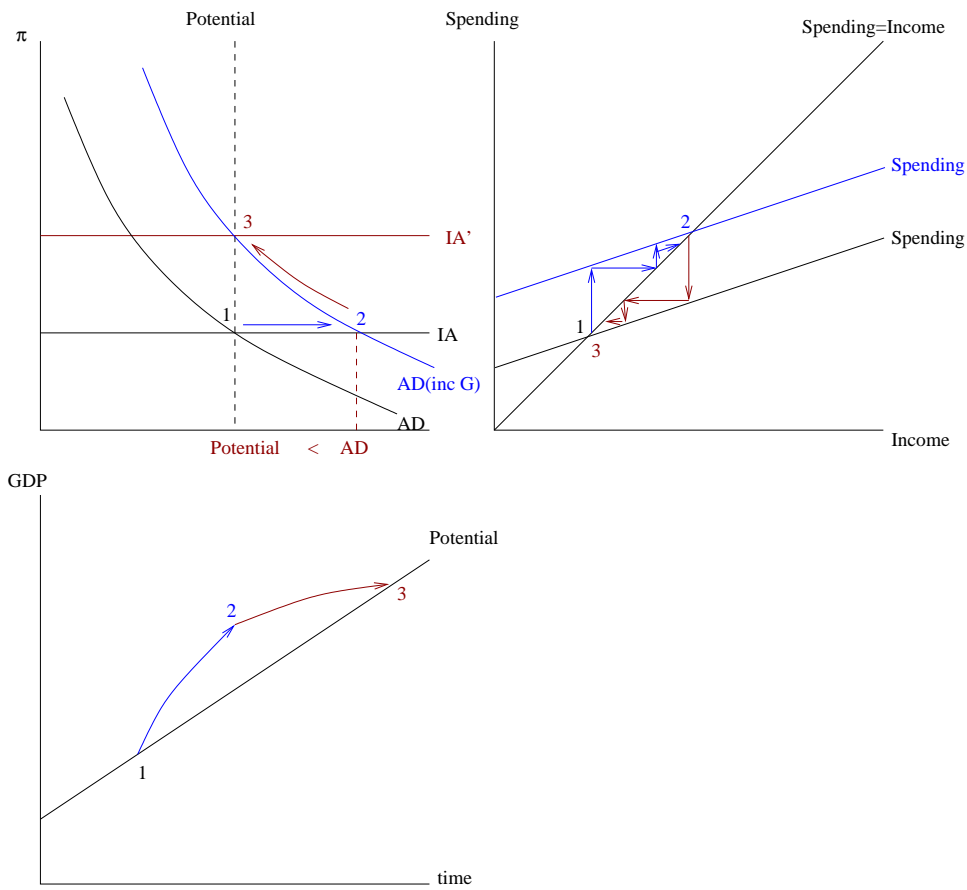


Figure 3: Increase in government spending, financed by higher taxes.

Overall,

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

Table 3: An increase in government spending, financed by borrowing

## II Application: Monetary Policy

### A Increase Inflation Target

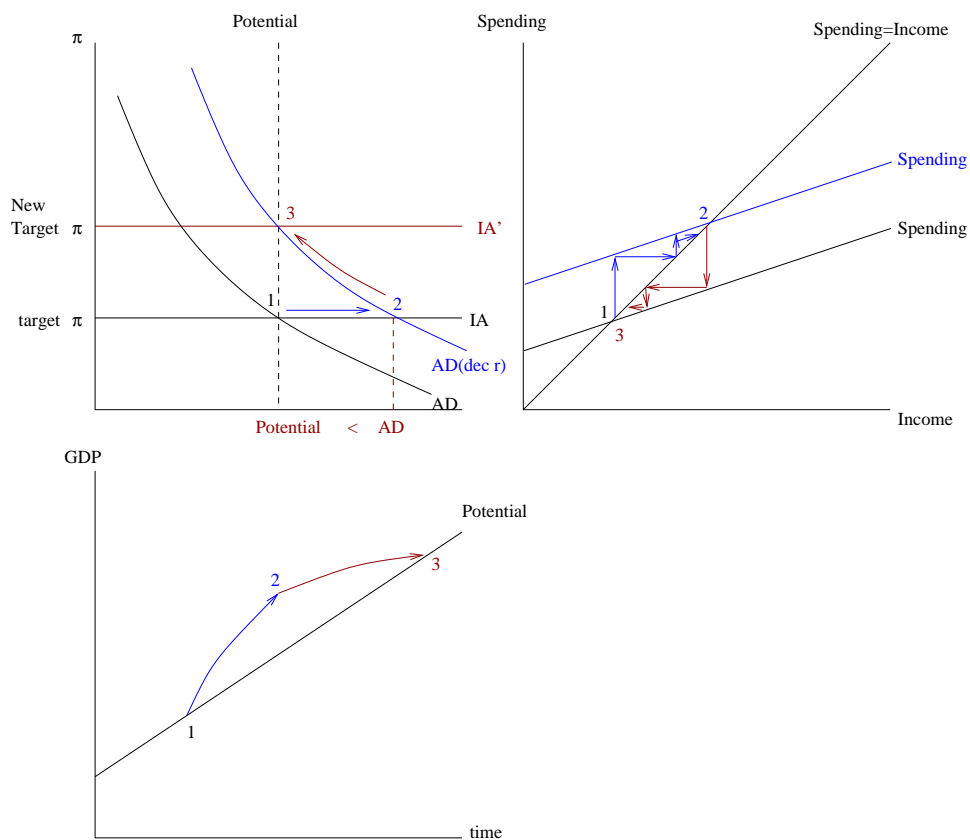


Figure 4: Increase in the FED's inflation target.

Overall,

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

Table 4: An increase in the inflation target.

### III Application: Price Shock

#### A Positive Price Shock

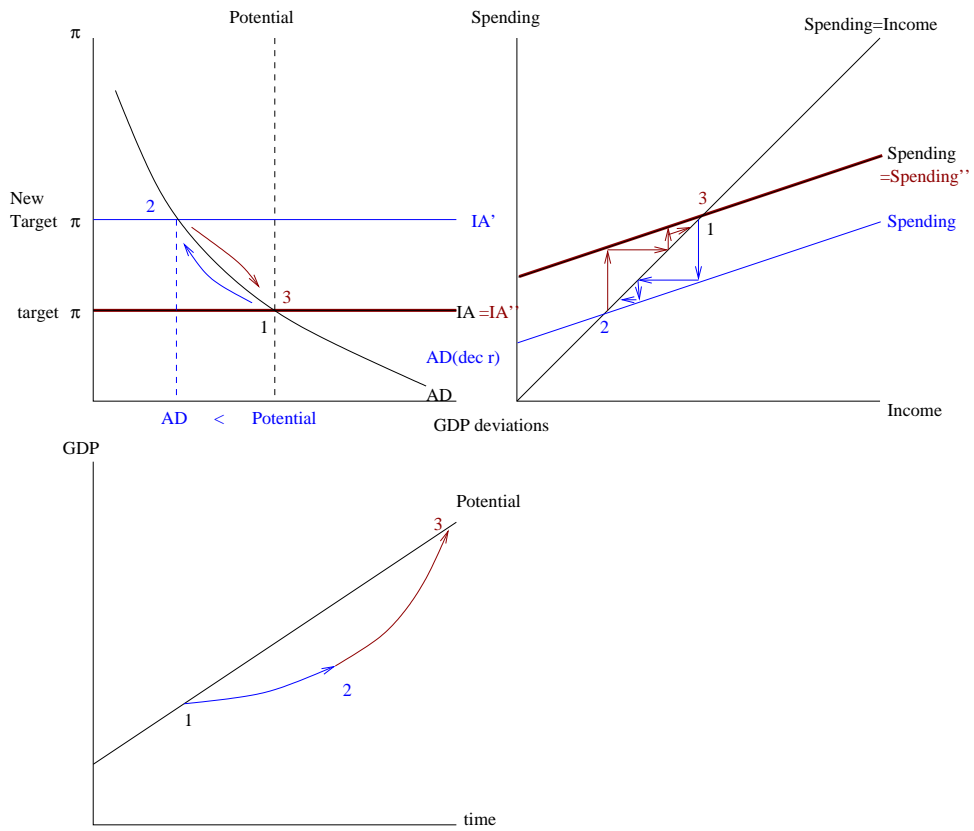


Figure 5: An oil price shock.

Overall,

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

Table 5: A price shock.

# IV Application: Counter-Cyclical Policy

## A Counter-Cyclical Monetary Policy

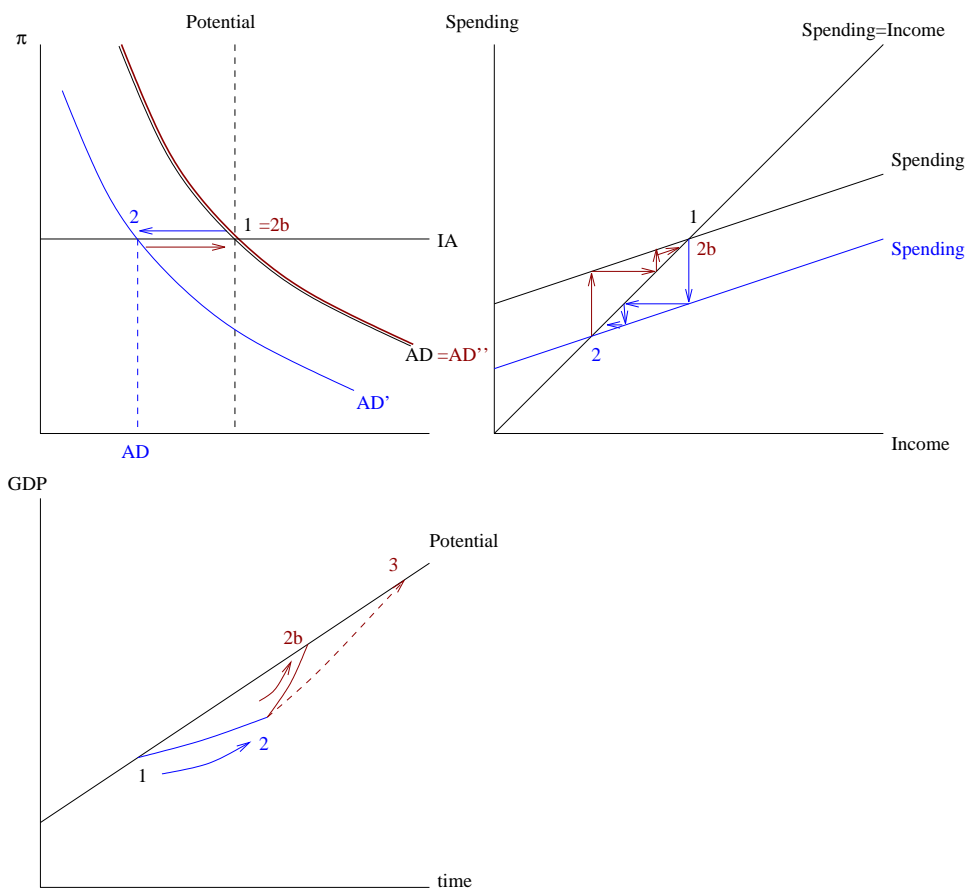


Figure 6: Counter Cyclical Monetary Policy.

	$Y$	$C$	$I$	$G$	$X - M$	$r$	$\pi$	cap	$u$
SR	↓	↓	↓	-	-	-	-	↓	↑
SR'	-	↑	↓	-	↑	↓	-	-	-

Table 6: Counter Cyclical Monetary Policy.

## B Counter Cyclical Fiscal Policy

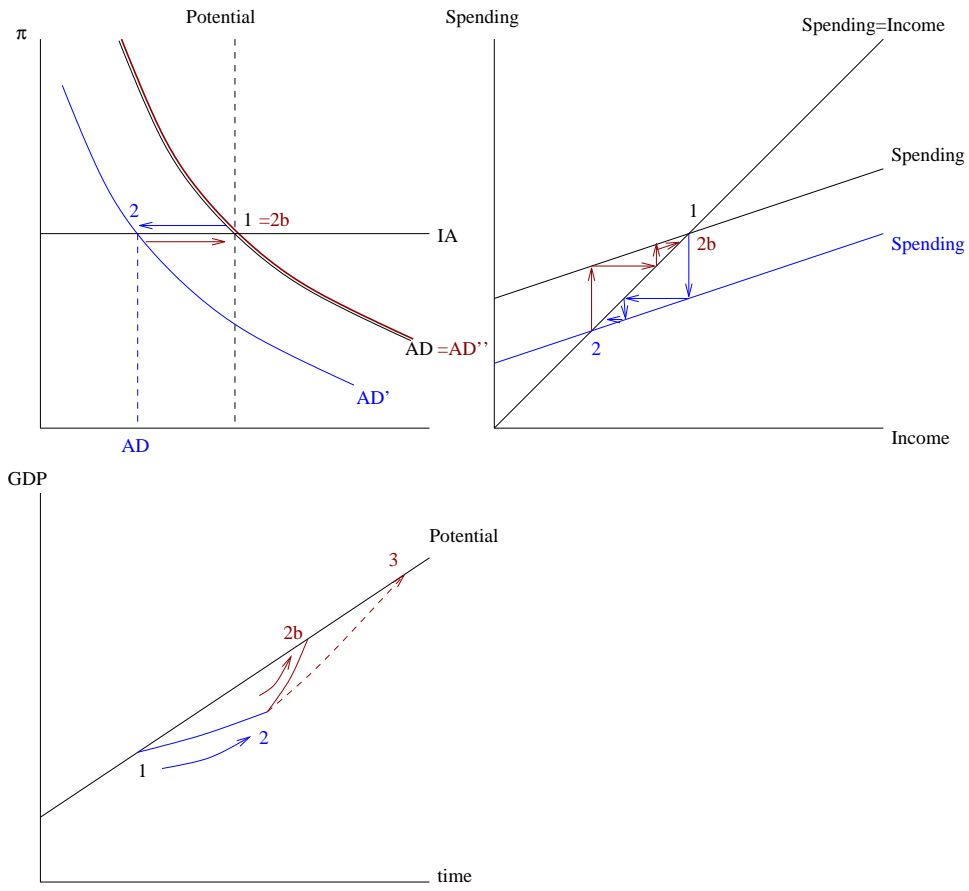


Figure 7: Counter Cyclical Fiscal Policy.

Overall,

	$Y$	$C$	$I$	$G$	$X - M$	$r$	$\pi$	cap	$u$
SR	↓	↓	↓	-	-	-	-	↓	↑
SR'	-	-	↓	↑	-	-	-	-	-

Table 7: Counter Cyclical Fiscal Policy.



### C Overshooting in a Counter Cyclical Fiscal Policy (government spending)

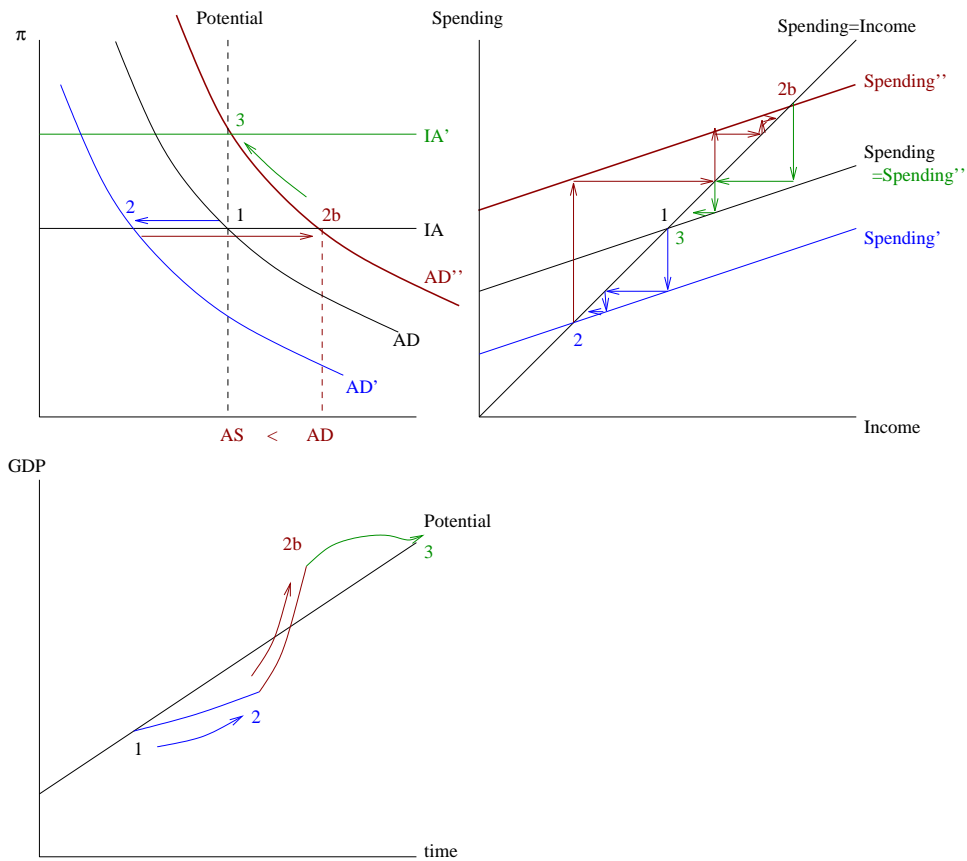


Figure 8: Counter Cyclical Fiscal Policy.

Overall,

	$Y$	$C$	$I$	$G$	$X - M$	$r$	$\pi$	cap	$u$
SR	↓	↓	↓	-	-	-	-	↓	↑
SR'	↑	↑	↓	↑	-	-	-	↑	↓
LR	-	↓	↓	↑	↓	↑	↑	-	-

Table 8: Counter Cyclical Fiscal Policy which overshoots the Long Run Equilibrium.