

CHAPTER 13

C Level Questions

1. In the sticky-price model, describe the aggregate supply curve in the following special cases. How do these cases compare to the short-run aggregate supply curve discussed in Chapter 9?

a. No firms have flexible prices ($s = 1$).

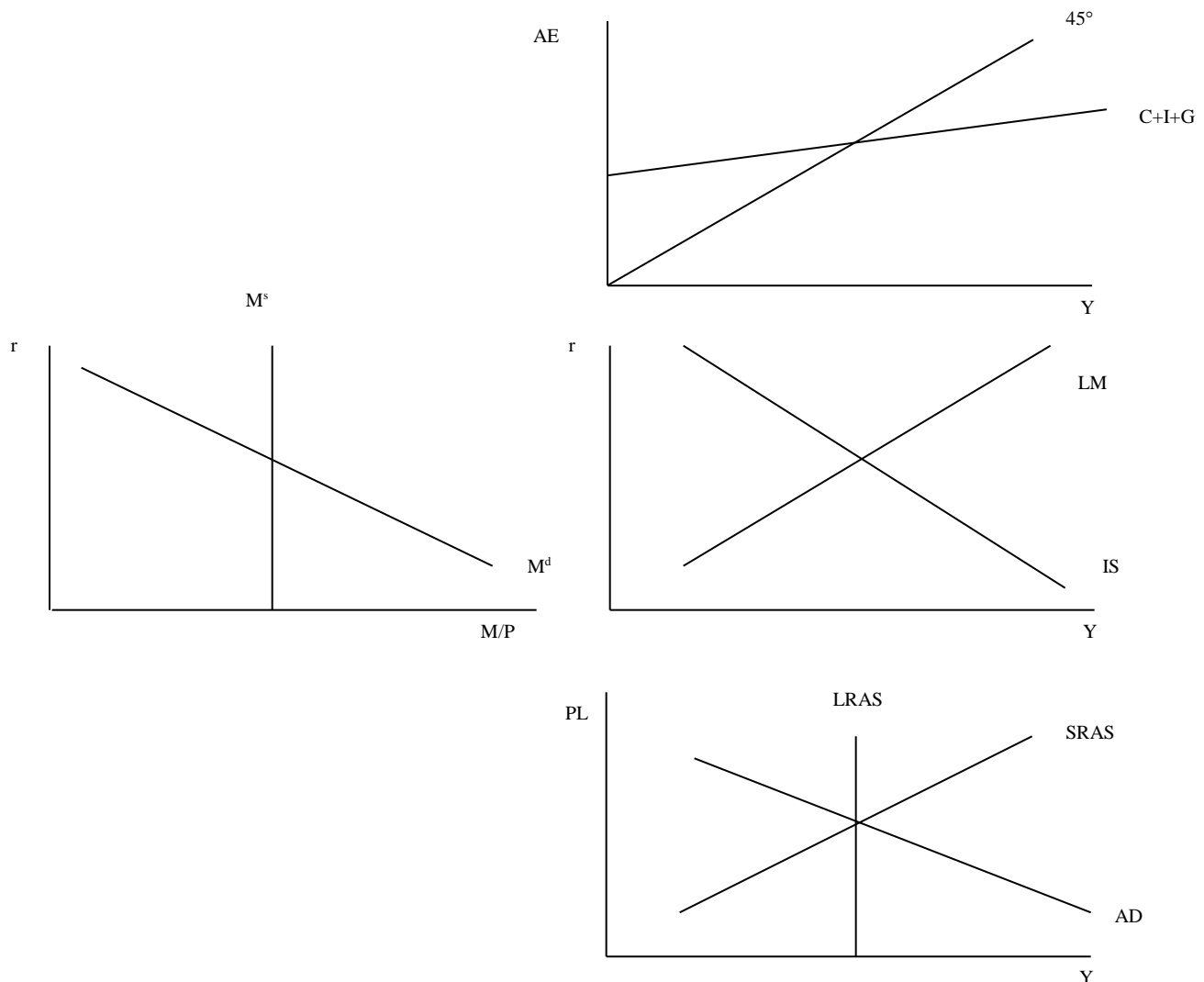
The equation of the SRAS curve is given by $P = P^e + \frac{a(1-s)}{s}(Y - \bar{Y})$. When there are no firms with flexible prices, this equation becomes $P = P^e$. Since P^e is a constant, this represents a horizontal supply curve.

b. The desired price does not depend on aggregate output ($a = 0$).

When firms do not respond to increases in demand, they choose to not change prices when demand changes. Thus, even flexible firms act in a “sticky” manner. The aggregate supply curve again has the equation $P = P^e$ and is horizontal.

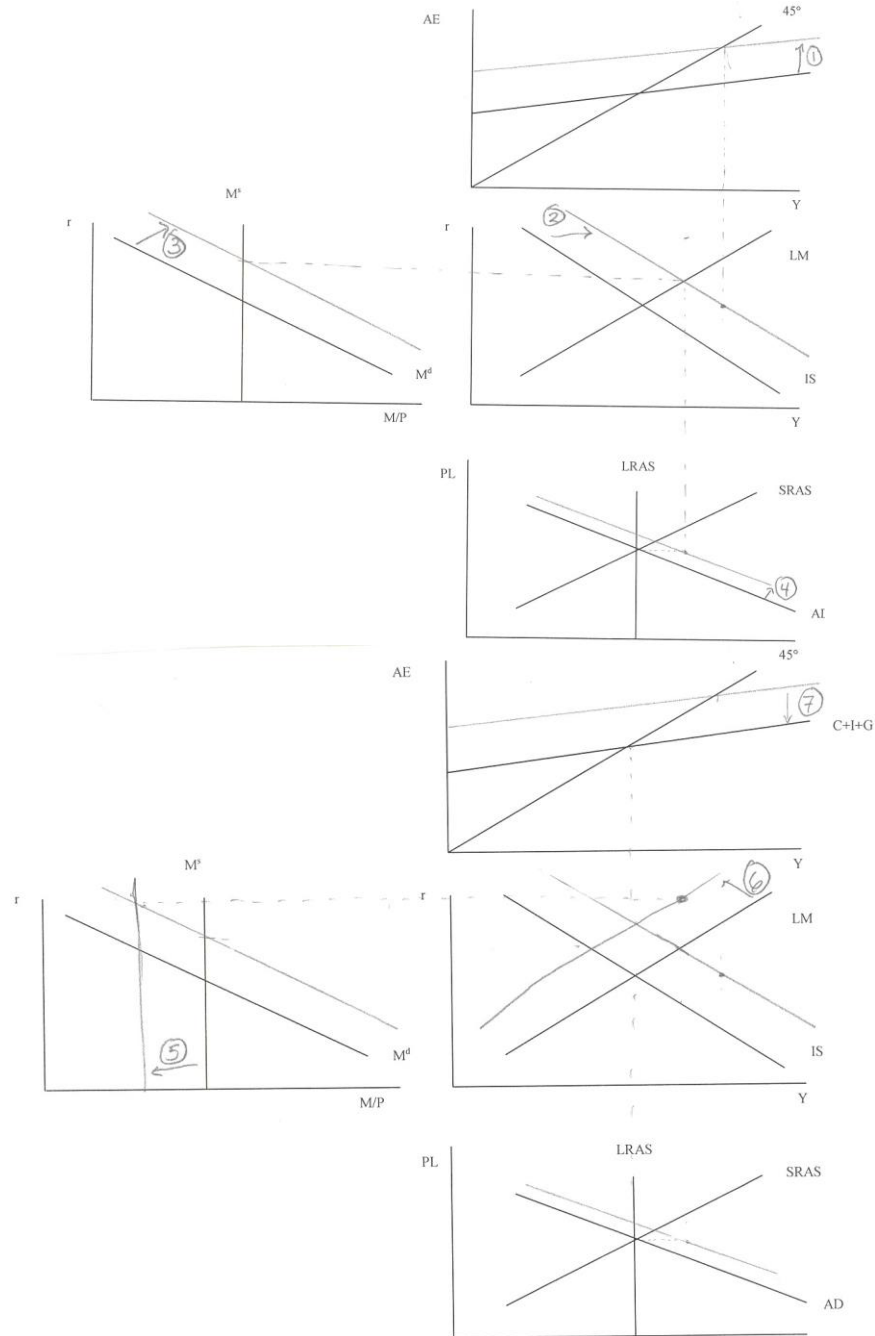
B Level Questions

2. None of the curves below are labeled. Label them.

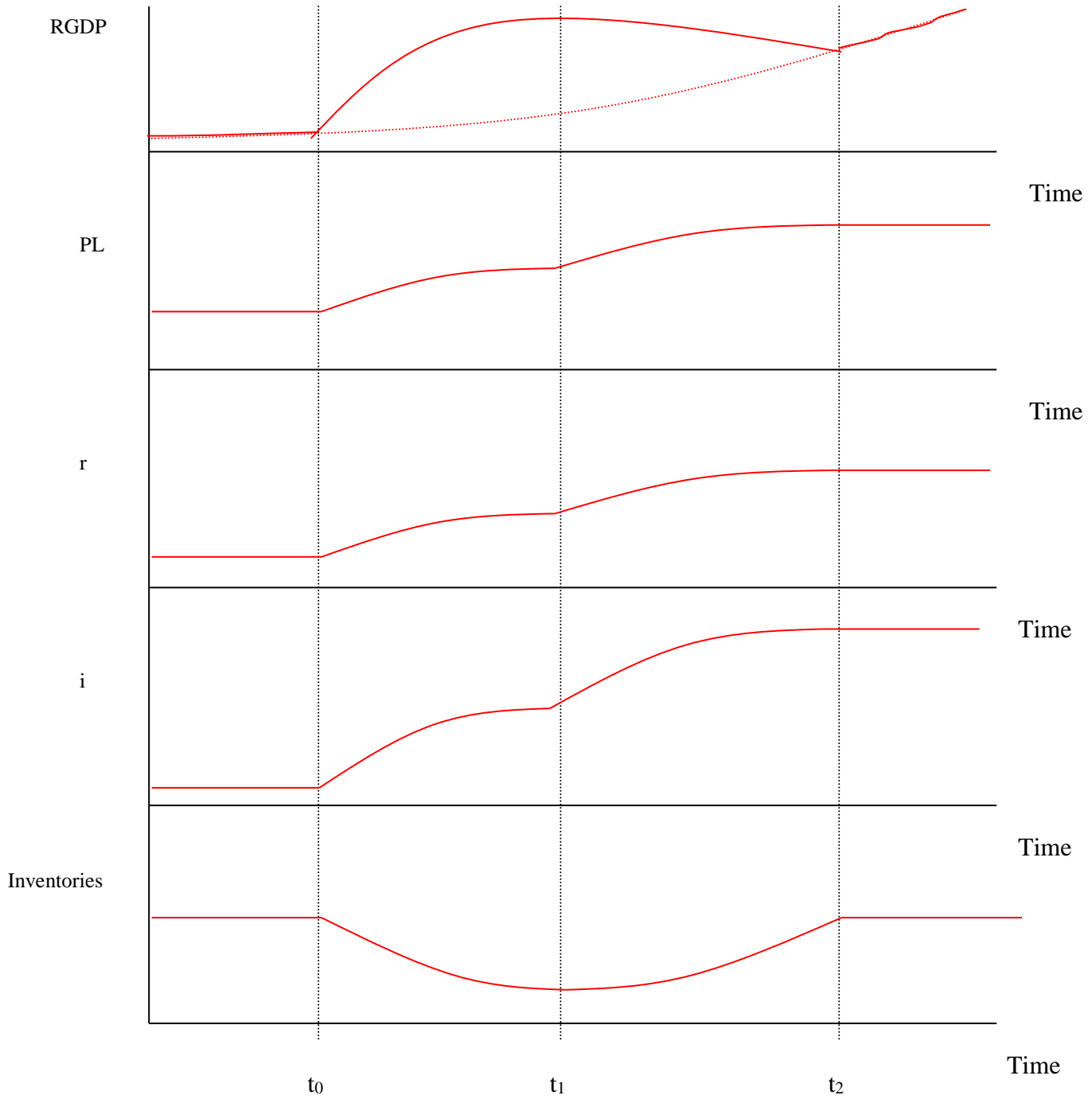


b. Since George Bush has taken office, government expenditures on goods and services has increased at a rapid pace. On the above diagrams, demonstrate the impact of this increase in government spending. In order from the beginning of the short run to the end of the long run, number the changes to your diagram (1 is the first change, 2 the next, etc.).

Because it is difficult to fit all changes on one graph, I have reproduced two graphs. The first shows the transition to the short run equilibrium and the second demonstrates the transition from the short-run to the long-run equilibrium.



c. Assume that this economy has population growth of 2% per year and technological growth of 1% per year. On the plots below, draw the impact of the increased government expenditures over time. Be sure to indicate what was happening in the economy before the change in expenditures (which occurred at time t_0), in the short run (which ends at time t_1), in the long run (which ends at time t_2), and then after the long run equilibrium has been achieved. (20)



d. Imagine that the short run aggregate supply curve is upward sloping because firm owners cannot perfectly identify a relative versus absolute change in demand. Given this setup, list, in order, the chain of events in the economy given the higher amounts of government spending. Continue your chain of events to include both the short and the long runs (you can use symbols instead of sentences). I'll be happy to help you out by starting:

SR: $G \uparrow \rightarrow AE \uparrow \rightarrow Y^d \uparrow \rightarrow IS \uparrow \rightarrow M^d \uparrow \rightarrow r \uparrow \rightarrow AD \uparrow \rightarrow P \uparrow \rightarrow W \uparrow \rightarrow L \uparrow \rightarrow RGDP \uparrow$
LR: $W \downarrow \rightarrow L \downarrow \rightarrow RGDP \downarrow \rightarrow P \uparrow \rightarrow M^s \downarrow \rightarrow r \uparrow \rightarrow I \downarrow \rightarrow AE \downarrow \rightarrow Y^d \downarrow$

e. Upon examining your answers to parts a-d of this question, it should become apparent that, given a change in government spending, that RGDP changes by a different amount in the short run. For a given change in government spending, what factors influence the amount of change in RGDP?

The slopes of the SRAS, the LM, and the AE curves.

A Level Questions

3. a. Suppose that the short run aggregate supply curve is upward sloping because of sticky wages. Suppose further that labor contracts specify that the nominal wage be fully indexed for inflation as measured by the CPI. That is, the nominal wage is to be adjusted to fully compensate for changes in the consumer price index. How does this indexation alter the short run aggregate supply curve?

The SRAS curve becomes perfectly vertical (thus, it becomes the LRAS).

b. Over the last 10 years, a number of economists have pointed out that, because of the way it is measured, the CPI actually overstates the level of inflation that an economy experiences. If this is the case and wages are indexed by the CPI, what shape/slope would the short run aggregate supply curve have?

The SRAS has a negative slope.