Extra Questions: Keynesian Models

Intermediate Macroeconomics, Fall 2015
The University of Notre Dame
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Instructions: The following are extra questions for practice and review. The topic covered is Keynesian business cycle models.

1. Write out in words how Keynesian models differ from their neoclassical counterpart. Do the main differences arise on the supply side of the economy or on the demand side of the economy? Do the Keynesian models have different implications for the role of demand shocks in driving business cycles than does the neoclassical model? Explain.

2. Write down the mathematical equations which describe the sticky wage Keynesian model. Explain how these equations differ from the equations which characterize the equilibrium of the neoclassical model (the version of the model with money).

3. Write down the definition of the IS curve and graphically derive it.

4. Write down the definition of the LM curve and graphically derive it.

5. Write down the definition of the AD curve and graphically derive it.

6. Does the IS-LM-AD part of the model differ in any way from the neoclassical model? Explain.

7. Write down the definition of the AS curve. Derive it assuming that both prices and wages are both perfectly flexible (i.e. derive the AS curve in the neoclassical model).

8. Use the IS-LM-AD-AS graphical apparatus to analyze the equilibrium effects of a productivity shock, a labor supply shock, a demand/IS shock, and a monetary shock in the neoclassical model.

9. Assume that nominal wages are sticky. Graphically derive the AS curve.

10. With sticky wages, will the AS curve be flatter or steeper if labor demand is more elastic (i.e. flatter)? Why?

11. Does the elasticity of labor supply (i.e. the steepness of the labor supply curve) impact the slope of the sticky wage AS curve?

12. In the sticky wage Keynesian model, graphically analyze the effects of a monetary shock, a productivity shock, a labor supply shock, and an IS/demand shock.

13. Are the effects of demand shocks on output in the sticky wage Keynesian model larger or smaller than they would be in the neoclassical model?

14. What would have to be true about the slope of the AD curve for the effect of a productivity shock on output in the sticky wage Keynesian model to be bigger than the effect on output in the neoclassical model?
15. Write down the equation for the sticky price AS curve. Briefly explain the logic behind it. Do large or small values of the paper $\gamma$ represent lots of price stickiness?

16. In words, explain how the sticky price and sticky wage models have different implications for the determination of employment.

17. Graphically analyze the effects of a productivity shock, a labor supply shock, a monetary shock, and a demand/IS shock in the sticky price Keynesian model.

18. Conditional on IS/demand shocks, do the sticky price and sticky wage versions of the Keynesian model make different predictions about the cyclicality of the real wage?

19. In the “medium run,” qualitatively discuss how in both the sticky price and sticky wage versions of the Keynesian model forces will naturally cause the economy’s equilibrium to gravitate back toward $Y_f^t$, the flexible price/wage equilibrium level of output. Use this discussion to think about the relationship between the output gap, $Y_t - Y_f^t$, and inflation.