

## Homework Set Four

1. (5%) Explain whether you agree or disagree with the following statement:  
Anything we can do to reduce the unemployment rate is desirable.
2. (5%) Explain whether you agree or disagree with the following statement:  
If the demand for workers increases, people will work longer.
3. (5%) Explain whether you agree or disagree with the following statement:  
By 2000, it had been many years since we had seen a recession in the United States. Thus it was quite likely that one would occur that year.
4. (5%) Explain whether you agree or disagree with the following statement:  
If GDP declines for two consecutive quarters, we are in a recession.
5. (5%) Explain whether you agree or disagree with the following statement:  
If we required firms to give 180 days notice before firing any workers, we would give people plenty of time to find new jobs and we would reduce unemployment rate.
6. (5%) Explain whether you agree or disagree with the following statement:  
Normally unemployed individuals get unemployment benefits for 26 weeks, but it is customary to extend the period of benefits when unemployment is high. Because the extension means unemployed people have more money to spend during recessions, we tend to make recessions shorter.

**In questions 7-11, well-labeled and well explained graphs would appear an integral part of the answer. The grader is unlikely to give credit unless both the graph and an explanation appear.**

7. (10%) To answer this question, think in terms of our basic demand and supply of labor. Suppose initially the demand curve for labor intersects the long run supply curve of labor just where the short run labor supply curve intersects the long run supply curve. Suppose now that the demand curve for labor shifts to the right; suppose also that the public perceives this as a permanent shift in the demand curve. What would happen to the wage rate, the total amount of labor working and GDP?
8. (10%) To answer this question, think in terms of our basic demand and supply of labor. Suppose initially the demand curve for labor intersects the long run supply curve of labor just where the short run labor supply curve intersects the long run supply curve. Suppose now that the demand curve for labor shifts to the right; suppose also that the public perceives this as a temporary shift in the demand curve. What would happen to the wage rate, the total amount of labor working and GDP?

9. (10%) To answer this question, think in terms of our basic demand and supply of labor. Suppose initially the demand curve for labor intersects the long run supply curve of labor just where the short run labor supply curve intersects the long run supply curve. Suppose now that the demand curve for labor shifts to the right; suppose also that the public initially perceives this as a temporary shift in the demand curve, and only over time understands this as a permanent shift in the demand curve. What would happen to the wage rate, the total amount of labor working and GDP?
10. (5%) To answer this question, think in terms of our basic demand and supply of labor. Suppose initially the demand curve for labor intersects the long run supply curve of labor just where the short run labor supply curve intersects the long run supply curve. Suppose now that the government increases expenditures by \$100 billion per year, financed by a one time tax bill of \$100 billion of \$333 per capita. (Never mind whether this is constitutional or how it is legislatively feasible). Suppose also that the public initially perceives this as a temporary shift. What would happen to the wage rate, the total amount of labor working and GDP?
11. (5%) Now suppose the expenditure becomes permanent, as does the tax. A panel of eminent economists concludes that the impact of the tax bills will be to depress consumption expenditure by \$100 billion per capita. Assuming they are correct, what would happen to the wage rate, the total amount of labor working and GDP?
12. (2%) John expects to live for four time periods. John expects income of \$0, \$200,000, \$400,000 and \$200,000 in periods 1, 2, 3 and 4. The interest rate is 50%. Compute John's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
13. (2%) Bill expects to live for four time periods. Bill expects income of \$0, \$200,000, \$400,000 and \$200,000 in periods 1, 2, 3 and 4. The interest rate is 100%. Compute Bill's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
14. (2%) Sally expects to live for four time periods. Sally expects income of \$0, \$200,000, \$400,000 and \$200,000 in periods 1, 2, 3 and 4. The interest rate is 75%. Compute Sally's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
15. (2%) Beth expects to live for four time periods. Beth expects income of \$100,000, \$600,000, \$300,000 and \$0 in periods 1, 2, 3 and 4. The interest rate is 50%. Compute Beth's consumption over his life cycle.

(Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)

16. (2%) Frank expects to live for four time periods. Frank expects income of \$0, \$600,000, \$900,000 and \$800,000 in periods 1, 2, 3 and 4 in periods 1, 2, 3 and 4. The interest rate is 100%. Compute Frank's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
17. (2%) Will expects to live for four time periods. Will never expects to work but is guaranteed an inheritance of \$2,400,000 from his beloved Aunt Sally in period 2 of life. The interest rate is 50%. Compute Will's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
18. (2%) Alice expects to live for four time periods. Alice expects income of \$0, \$0, \$400,000 and \$1,200,000 in periods 1, 2, 3 and 4. The interest rate is 50%. Compute Alice's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
19. (2%) Nancy expects to live for four time periods. Nancy expects income of \$0, \$200,000, \$400,000 and \$200,000 in periods 1, 2, 3 and 4. Nancy knows she must pay out \$300,000 from her income in period 3. (Never mind why). The interest rate is 50%. Compute Nancy's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
20. (2%) George expects to live for four time periods. George expects income of \$0, \$100,000, \$600,000 and \$200,000 in periods 1, 2, 3 and 4. The interest rate is 33%. Compute George's consumption over his life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
21. (2%) Esther expects to live for four time periods. She expects income of \$300,000 and \$630,000 in periods two and three of life, and zero the other periods. But Esther received an inheritance of \$160,000 at birth. Compute Esther's consumption over her life cycle. (Sorry, I made these questions up quickly so the numbers may not have round numbers as answers.)
22. (10%) Explain whether you agree or disagree with the following statement (overheard at a restaurant): If all manufacturing jobs were to leave the United States, there would be nothing for us produce.