Economics 442
Spring 2018
University of Wisconsin-Madison

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Social Sciences 7418

Problem Set 2 (rev'd)

Due ***in lecture*** on Wednesday, February 21. Be sure to put your name on your problem set. Put "boxes" around your answers to the algebraic questions.

1. Consider the Aggregate Demand-Aggregate Supply framework. Suppose lump sum taxes are decreased when the economy is at full employment, and the Fed does ***NOT*** target the interest rate. You can assume for simplicity expected inflation is always zero.

1.1 Show what happens in an IS-LM and AD-AS graph in the period lump sum tax decrease occurs.

1.2 Show what happens over time to output, the price level, and the interest rate.

2. Consider the Aggregate Demand-Aggregate Supply framework. Suppose lump sum taxes are decreased when we are at full employment and not in a liquidity trap (and do not end up in a liquidity trap), and the Fed does ***NOT*** target the interest rate. However, now assume:

$$P^e = (P_{-1} + P_{-1} \times \pi_{-1})$$

2.1 Show what happens in an IS-LM and AD-AS graph in the period lump sum tax decrease occurs.

2.2 Show what happens over time to output, the price level, and the interest rate.

3. Use the same AD-AS model as in Problem 1, consider what happens if the government implements entrepreneur and business friendly measures that increase the natural level of output (also known as potential GDP). Answer using AD-AS graphs (in 3.1, 3.2)

3.1 Show what happens in the period in which potential GDP changes.

3.2 Show what happens over time, including the final equilibrium.

3.3 Would decreasing unemployment benefits increase or decrease potential GDP in this model? Explain your answer.

4. Consider the impact of an oil price decrease.

4.1 Show the impact in the period in which oil prices decrease, using an AD-AS diagram.

4.2 Show the impact over time, using an AD-AS diagram. Be sure to indicate the final equilibrium.

E442ps2_s18
13.2.2018 rev 16.2.2018