



ECO 1311, University of Dallas
AD-AS Model-- Practice Problems

1. Why did the Federal Reserve offer loans to businesses as a part of monetary policy in response to the 2020 COVID-19 economic recession? Why instead did they not simply increase the money supply through open market operations? Include in your answer a discussion of why increasing the money supply was a key goal and how the policy move affected aggregate demand, long-run aggregate supply and short-run aggregate supply curves.
2. What is the equation for AD? What do its component parts represent? Define each one.
3. Using the AD-AS model, explain why a change in government expenditure is likely to have a stronger impact on GDP than a change in taxation?
4. Using the AD/AS model, a) illustrate an economy that is at full employment; (b) illustrate an economy in a recession; c) suggest a fiscal policy aimed at ameliorating the recession and illustrate the impact using the AD-AS model d) suggest a monetary policy aimed at ameliorating the recession and illustrate the impact using the AD-AS model.
5. Under what circumstances would a central bank enact a monetary policy to a) sell bonds? c) buy bonds? Illustrate the impact that each policy would have on the AD/AS model and provide a written explanation as to how the policy would accomplish the changes illustrated.
6. Illustrate the market for money. If interest rates in this market are 6% but the Federal Reserve would prefer they were 4%, a) what has to happen to the money supply to bring about this lowered interest rate? b) describe what policy the Federal Open Market Committee could enact to try to bring about this shift of the money supply curve to generate an interest rate of 4%. Your answer must fully trace through the process from policy change to the shift of curve.
7. Use the AD/AS model to answer the following:
 - a. Suppose that average household incomes rise. What impact will this have on AD and why? Explain in words and also draw a graph illustrating how this will, ceteris paribus, affect the three macro variables.
 - b. Suppose that a new microchip is produced that increases computer processing speeds by over 100%. What impact will this have on AS, ceteris paribus? What impact will that have on the three macro variables?

Some problems have been extracted and/or adapted from:

- Cowen, Tyler, and Alex Tabarrok. *Modern principles of microeconomics*. Macmillan International Higher Education, 2015.
- Acemoglu, Daron, David Laibson, and John List. *Economics, global edition*. Pearson, 2015.
- Miller, Roger LeRoy. *Economics Today: The Micro View*. Pearson, 2018.

- c. Suppose that a new strain of flu virus breaks out in the US. How will this impact our LRAS? What implications does this have for the country's potential economic output?
8. Suppose economists believe the US economy is growing too quickly and wish to slow down growth to a more steady level.
 - a) What should the central bank do to the reserve requirement in order to alleviate this situation?
 - b) What should the central bank do to the discount rate to alleviate this situation?
 - c) What open market operations should the central bank perform to alleviate this situation?

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