

**Finance 30220**  
**Problem Set #9**

- 1) Suppose that the cash to deposits ratio is .2 and the reserve to deposits ratio is .10.
  - a) What would be the impact on M1 of a purchase of \$100 million dollars in securities by the Federal Reserve Bank?
  - b) How would your answer change if the cash to deposits ratio fell to .05?
- 2) The great depression was a very troubling time for the Federal Reserve Bank. During the 1930's, they consistently increased the monetary base. However, rather than rising (what we would expect) prices consistently fell. How can we explain this? (Hint: in 1928, 2224 banks closed!)
- 3) Suppose that the Federal Reserve is following a policy of interest rate targeting. How would the fed respond to the following events?
  - a) A negative supply shock (this affects the FE curve)
  - b) An increase in consumer confidence (this affects the IS curve)
  - c) A drop in the currency to deposit ratio. (this affects the LM curve)
- 4) Suppose that the Fed strictly follows a rule of keeping the fed funds rate constant at at 4% per year.
  - a) If the economy is hit by money demand shocks only, how will money supply respond to money demand shocks? Will the rule make output more or less stable than if money supply were constant? Will the central bank be able to follow its rule in the long run?
  - b) Assume the country is hit by preference shocks (i.e. shocks to the IS curve) only. How will the money supply behave? Will output be more or less stable with a constant interest rate target?
  - c) Assume the county is only hit by supply shocks. Repeat part (b).
- 5) Suppose that the Fed has a policy in place to increase money supply growth whenever unemployment rises to 5%.
  - a) What would you expect to happen to money demand and the price level when unemployment approaches 5%?
  - b) Given the answer to (a) what would happen when the Fed actually increases money growth? What would happen if the Fed did nothing?