**Unit 4 – FRQ Practice Assessment**

1. In Country Z, the required reserve ratio is 10 percent. Assume that the central bank sells $50 million in government securities on the open market.

(a) Calculate each of the following.

(i) The total change in reserves in the banking system

(ii) The maximum possible change in the money supply

(b) Using a correctly labeled graph of the money market, show the impact of the central bank’s bond sale on the nominal interest rate.

(c) What is the impact of the central bank’s bond sale on the equilibrium price level in the short run?

(d) As a result of the price level change in part (c), are people with fixed incomes better off, worse off, or unaffected? Explain.

1. Assume that a country’s economy is operating at less than full employment.
2. Draw a correctly labeled graph of aggregate demand and aggregate supply, and show each of the following.
3. Long-run aggregate supply
4. Current output and price level
5. Assume that policy makers take no policy action and that prices and wages are flexible. Explain what will happen to each of the following.
6. Short-run aggregate supply
7. Employment
8. Now assume that instead of taking no policy action, the government implements a special tax incentive to encourage individuals to increase saving for retirement. Draw a correctly labeled graph of the loanable funds market. Show you how the real interest rate is affected.
9. Given your answer in part (c), explain how aggregate supply is affected in the long run.

**Unit 4 – FRQ Group Review Answers**

1. In Country Z, the required reserve ratio is 10 percent. Assume that the central bank sells $50 million in government securities on the open market.

(a) Calculate each of the following.

(i) The total change in reserves in the banking system

**-$50 million in reserves**

(ii) The maximum possible change in the money supply

 **Multiplier= 1/reserve ratio =1/.10= 10**

 **Multiplier x change in excess reserves= change in money supply**

 **10 x -$50 million= -$500 million**

(b) Using a correctly labeled graph of the money market, show the impact of the central bank’s bond sale on the nominal interest rate.

(c) What is the impact of the central bank’s bond sale on the equilibrium price level in the short run?

**This is contractionary so a decrease in AD will occur leading to a decrease in Price Level on the AS/AD model.**

(d) As a result of the price level change in part (c), are people with fixed incomes better off, worse off, or unaffected? Explain.

**Fixed income people are better off with a lower price level. Lower prices makes their fixed paychecks able to purchase more goods and services at the lower prices.**

1. Assume that a country’s economy is operating at less than full employment.

Draw a correctly labeled graph of aggregate demand and aggregate supply, and show each of the following.

1. Long-run aggregate supply
2. Current output and price level

Assume that policy makers take no policy action and that prices and wages are flexible. Explain what will happen to each of the following.

1. Short-run aggregate supply

**SRAS increases, prices fall**

1. Employment

**Increases as we shift back to full employment**

Now assume that instead of taking no policy action, the government implements a special tax incentive to encourage individuals to increase saving for retirement. Draw a correctly labeled graph of the loanable funds market. Show you how the real interest rate is affected.

Given your answer in part (c), explain how aggregate supply is affected in the long run.

**More savings should lead to long run AS increasing or future economic growth because savings spurs future investment.**