



Macroeconomics Unit 4 Study Guide

Financial Sector

Topic 4.1- Financial Assets ▶		Topic 4.2- Nominal v. Real Interest Rates ▶																					
1. What is the financial sector? 2. Define liquidity. 3. What is a bond? 4. Why are interest rates and bond prices inversely related?		1. Equation for the nominal interest rate. 2. Equation for the real interest rate. Fill in the chart: <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>Nominal interest rate</th> <th>Real interest rate</th> <th>Actual inflation</th> </tr> </thead> <tbody> <tr> <td>7%</td> <td>4%</td> <td></td> </tr> <tr> <td>4%</td> <td>-1%</td> <td></td> </tr> <tr> <td>6%</td> <td></td> <td>-2%</td> </tr> <tr> <td></td> <td>-3%</td> <td>5%</td> </tr> </tbody> </table> 3. Will the real interest rate increase, decrease, or stay the same when actual inflation is greater than expected inflation?		Nominal interest rate	Real interest rate	Actual inflation	7%	4%		4%	-1%		6%		-2%		-3%	5%					
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Topic 4.3- Definition, Measurement, and Functions of Money ▶																							
1. What are the three functions of money?		2. Why are assets like cash and checkable deposits considered money but bonds and real estate are not? 3. What is the M1 money supply and M2 money supply?																					
Topic 4.4- Banking and the Expansion of the Money Supply ▶																							
1. What is the difference between assets and liabilities? 2. Define demand deposits. 3. Define required reserves. 4. Define fractional reserve banking. 5. What is the equation for the money multiplier?		Use the bank balance sheet to answer the questions: <table border="1" style="margin: 10px auto;"> <thead> <tr> <th colspan="2">Assets</th> <th colspan="2">Liabilities</th> </tr> </thead> <tbody> <tr> <td>Total Reserves</td> <td>\$5,000</td> <td>Demand Deposits</td> <td>\$20,000</td> </tr> <tr> <td>Loans</td> <td>\$15,000</td> <td>Owner's Equity</td> <td>\$10,000</td> </tr> <tr> <td>Treasury Bonds</td> <td>\$10,000</td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>\$30,000</td> <td>Total</td> <td>\$30,000</td> </tr> </tbody> </table> 6. If the reserve requirement is 10%, how much is this bank's required reserves and excess reserves? 7. What is the maximum possible increase in the money supply if the bank loans out all their excess reserves? 8. Assume a customer deposits \$5,000 in this bank, would the money supply initially increase, decrease, or stay the same? Explain. 9. After the \$5,000 deposit, calculate the new demand deposits and excess reserves? 10. What is the maximum possible increase in the money supply from the \$5000 deposit?		Assets		Liabilities		Total Reserves	\$5,000	Demand Deposits	\$20,000	Loans	\$15,000	Owner's Equity	\$10,000	Treasury Bonds	\$10,000			Total	\$30,000	Total	\$30,000
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Topic 4.5- The Money Market ▶

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|---|---|
| <p>1. What is the transaction demand for money?</p> <p>2. What is the asset demand for money?</p> <p>3. Why is the demand for money downward-sloping?</p> <p>4. Why is the supply for money vertical?</p> | <p>5. Draw the demand and supply of money and label the equilibrium nominal interest rate i_1.</p> |
| <p>6. What are the shifters of money demand (MD)?</p> | <p>7. What are the shifters of money supply (MS)?</p> |

Topic 4.6- Monetary Policy ▶

1. What is monetary policy?
2. An increase in the reserve requirement causes the money supply to ____ and interest rates to ____.
3. If the central bank sells bonds, the money supply will ____, interest rates ____, and investment ____.
4. If the reserve requirement decreases, the money supply will ____ and interest rates ____.
5. If the central bank decreases the discount rate, the money supply will ____ and interest rates ____.
6. If the central bank buys bonds the money supply will ____, interest rates ____, and investment ____.

7. Fill in the blanks below:

Monetary Policy	Initial Change	Res. Req	Maximum Change in M_s
Fed Buys Bonds	\$10 billion		↑\$50 billion
Fed Sells Bonds	\$30 billion	.5	
↓ Res. Req.		.1	↑\$100 billion
↑ Res. Req.	\$6 billion	.2	
↑ Dis. Rate	\$20 billion		↓\$80 billion
↓ Dis. Rate	\$4 billion	.1	

- | | |
|--|--|
| <p>8. What is the difference between the discount rate and the federal funds rate?</p> | <p>9. What is the difference between the money supply and the monetary base?</p> <p>10. Does open market operations initially change the money supply, the monetary base, or both?</p> |
|--|--|

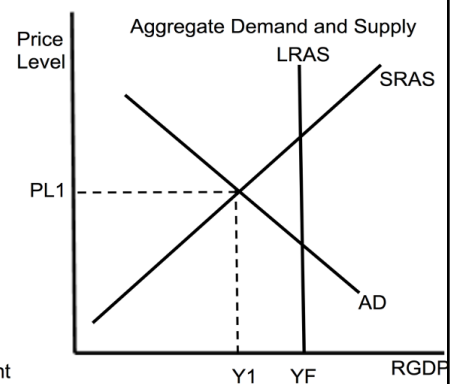
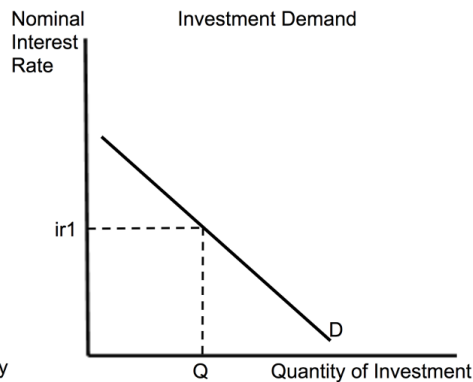
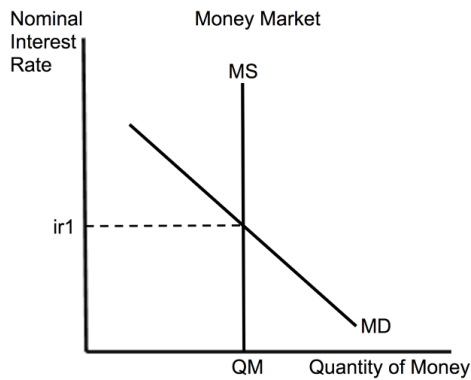


Macroeconomics Unit 4 Study Guide

Financial Sector

Topic 4.6- Monetary Policy (continued) ▶

11. Show what happens on each graph when the central bank uses monetary policy to close the gap



12. Add arrows to explain the process: $SM \rightarrow ir \rightarrow I$ and $C \rightarrow AD \rightarrow$ Full Employment

13. Draw the reserve market showing ample reserves

14. What is Interest on reserves (IOR)?

15. Explain why open market operations are ineffective when there are ample reserves.

16. Show what happens on the graph when the central bank decreases the interest on reserves.

17. How will the change on the graph affect aggregate demand?

Topic 4.7- The Loanable Funds Market ▶

1. Draw the loanable funds market and label the equilibrium real interest rate R_1

2. What shifts the demand for loanable funds?

3. What shifts the supply for loanable funds?

4. Why does the loanable funds market involve real interest rates rather than nominal interest rates?

5. If the government increases borrowing, will the real interest rate increase or decrease?

6. A decrease in business investment would ___ real interest rates and ___ the quantity of loans

7. An increase in private savings would ___ real interest rates and ___ the amount of physical capital