

## Unit 3 Packet Macroeconomics

### Calendar

Monday	Tuesday	Wednesday	Thursday	Friday
<b>2/10</b> <b>Unit 2 Test</b>  Stock Market Game		<b>2/12</b>  AD/AS		<b>2/14</b>  No School
2/17  No School	<b>2/18</b> Classical v Keynes & Phillips Curve		<b>2/20</b> <b>AD/AS Quiz</b>  Fiscal Policy	
<b>2/24</b> Problems with Fiscal  Fiscal Policy FRQ's		<b>2/26</b> <b>Phillips and Fiscal Quiz</b>  Financial Assets		<b>2/28</b> Bank Balance Sheets

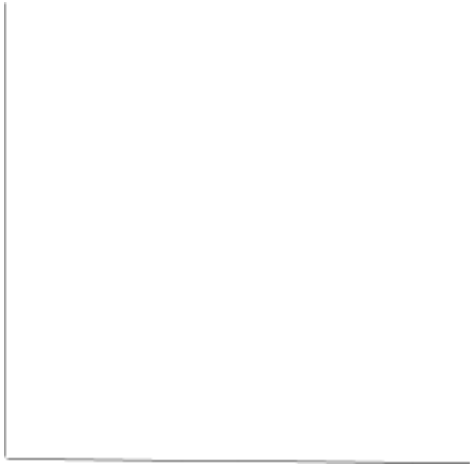
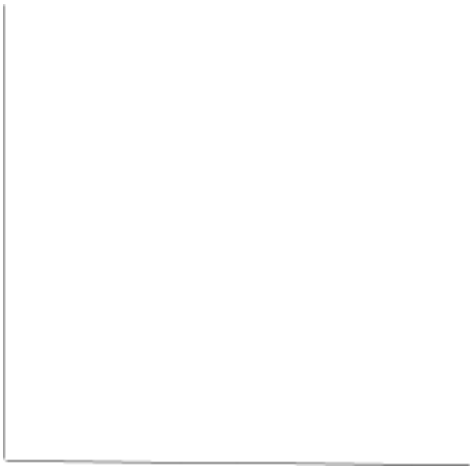
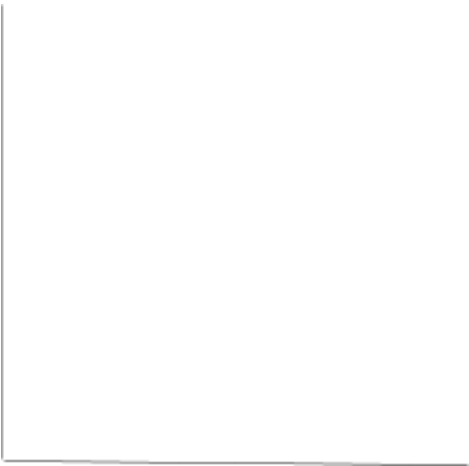
### March

	<b>3/3</b>  Loanable Funds		<b>3/5</b> <b>Finance and Banks Quiz</b>  Loanable Funds FRQ's	
<b>3/9</b> <b>Unit 3 FRQ Test</b>  Unit 3 Review		<b>3/11</b> <b>Unit 3 Test</b>		<b>3/13</b>

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Aggregate Demand and Aggregate Supply Notes

Notes and Graphs	
<p>Graph AD/AS</p>  <p>1. In the short run, wages and resource prices will _____ as price level increases.</p> <p>2. In the Long run, wages and resource prices will _____ as price level increases.</p>	<p>Shifters</p> <p><b><u>Demand (C+I+G+Xn)</u></b></p> <p>1.</p> <p>2.</p> <p>3.</p> <p>4.</p> <p><b><u>Supply (R.A.P)</u></b></p> <p>1.</p> <p>2.</p> <p>3.</p> <p><b><u>Key Terms</u></b></p> <p><b>Stagflation:</b></p> <p><b>Disposable Income:</b></p>
Recessionary Gaps	Inflationary Gap
	

Aggregate Demand and Aggregate Supply Practice Problems


The Change	AD/AS Graph	The Result
<p><b>1. Calvin, and other children, convince their parents to purchase more “big ticket” items for the Holidays.</b></p>		<p>Shifter:  Gap:</p>
<p><b>2. The effect on production when a 5% excise tax is placed on several resources.</b></p>		<p>Shifter:  Gap:</p>
<p><b>3. A large purchase of U.S. wheat by Russia</b></p>		<p>Shifter:  Gap:</p>
<p><b>4. A cut in Federal spending for Health Care</b></p>		<p>Shifter:  Gap:</p>
<p><b>5. The complete disintegration of OPEC causing oil prices to fall</b></p>		<p>Shifter:  Gap:</p>
<p><b>6. A 10% decrease in personal income tax rates</b></p>		<p>Shifter:  Gap:</p>

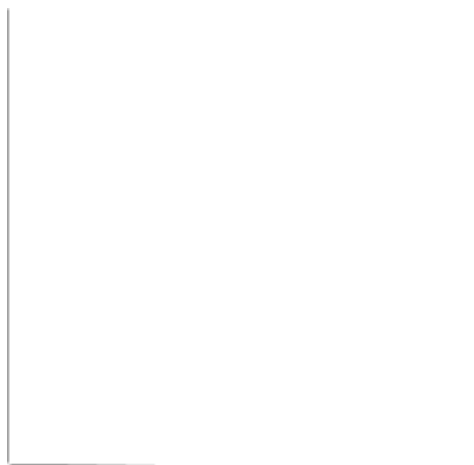
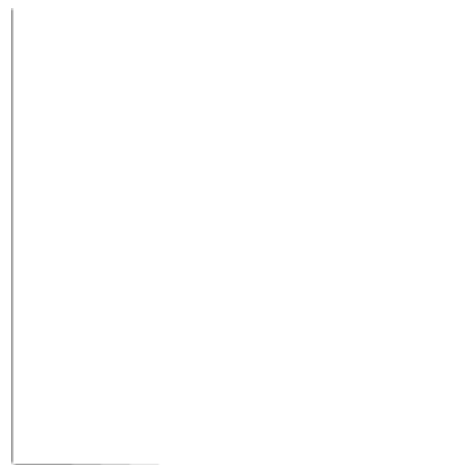
<p><b>7. A significant increase in labor productivity</b></p>		<p>Shifter: Gap:</p>
<p><b>8. A severe recession in a country that imports many U.S. products.</b></p>		<p>Shifter: Gap:</p>
<p><b>9. The effect on investment when the government increases the money supply causing interest rates to fall.</b></p>		<p>Shifter: Gap:</p>
<p><b>10. Widespread fear of depression on the part of consumers</b></p>		<p>Shifter: Gap:</p>
<p><b>11. To stimulate the economy, the government increases spending on public works programs.</b></p>		<p>Shifter: Gap:</p>
<p><b>12. A 12% decrease in nominal wages.</b></p>		<p>Shifter: Gap:</p>

## **Classical v. Keynesian Homework**

Watch Keynesian Economics and Deficit Spending and answer the following questions below.

1. Who Was John Maynard Keynes?
2. What Classical Economic theories did he challenge in his book?
3. If consumer Spending falls, what should the Government do? Why?
4. What is the Broken Window Fallacy? Why does it imply?
5. What is the issue when the Government borrows money?

Ranges of Aggregate Supply Curve	Theory
	<ol style="list-style-type: none"> <li>1. What is classical economic theory?</li>   <li>2. What is Keynesian economic theory?</li>   <li>3. When should you apply classical theory?</li>   <li>4. When should you apply Keynesian Theory?</li> </ol>

Phillips Curve	
<p data-bbox="207 1163 750 1192">Draw the AD/AS and LRAS in Equilibrium</p> 	<p data-bbox="828 1163 1312 1192">Draw the Phillips Curve in Equilibrium</p> 

The Phillips curve represents the relationship between what two things:

## Phillips Curve Practice

Assume that the United States economy is currently in a recession in a short-run equilibrium.

- (a) Draw a correctly labeled graph of the short-run and long-run Phillips curves. Use the letter A to label a point that could represent the current state of the economy in recession.
- (b) Draw a correctly labeled graph of aggregate demand and aggregate supply in the recession and show each of the following.
  - (i) The long-run equilibrium output, labeled  $Y_f$
  - (ii) The current equilibrium output and price levels, labeled  $Y_e$  and  $PL_e$ , respectively
- (c) To balance the federal budget, suppose that the government decides to raise income taxes while maintaining the current level of government spending. On the graph drawn in part (b), show the effect of the increase in taxes. Label the new equilibrium output and price levels  $Y_2$  and  $PL_2$ , respectively.

### 3. Inflation and expected inflation are important determinants of economic activity.

- (a) Draw a correctly labeled graph of a short-run Phillips curve.
- (b) Using your graph in part (a), show the effect of an increase in the expected rate of inflation.
- (c) What is the effect of the increase in the expected rate of inflation on the long-run Phillips curve?
- (d) Given the increase in the expected rate of inflation from part (b),
  - (i) will the nominal interest rate on new loans increase, decrease, or remain unchanged?
  - (ii) will the real interest rate on new loans increase, decrease, or remain unchanged?
- (e) Assume that the nominal interest rate is 8 percent. Borrowers and lenders expect the rate of inflation to be 3 percent, and the growth rate of real gross domestic product is 4 percent. Calculate the real interest rate.

<b>Fiscal Policy</b>	
<b>Fiscal Policy</b>	Government Spending and Taxation
Discretionary Fiscal Policy:	Expansionary Fiscal Policy:
Non Discretionary Fiscal Policy:	Contractionary Fiscal Policy:
<b>The Multiplier</b>	
What is the Multiplier Effect	<b>Spending Multiplier</b>
What is the Marginal Propensity to Consume (MPC)	<b>Tax Multiplier</b>
What is the Marginal Propensity to Save (MPC)	
<b>Problems with Fiscal Policy</b>	
<ol style="list-style-type: none"> <li>1. Deficit Spending</li>   <li>2. Time Lags</li>   <li>3. Crowding Out</li> </ol>	





Fiscal Policy FRQ's  
2015 #1

1. Assume that the United States economy is operating below full employment.
  - (a) Draw a correctly labeled graph of long-run aggregate supply, short-run aggregate supply, and aggregate demand, and show each of the following.
    - (i) Current equilibrium output and price level, labeled as  $Y_1$  and  $PL_1$
    - (ii) Full-employment output, labeled as  $Y_f$
  - (d) The policy makers pursue a fiscal policy rather than the monetary policy in part (b). Assume that the marginal propensity to consume is 0.8 and the value of the recessionary gap is \$300 billion.
    - (i) If the government changes its spending without changing taxes to eliminate the recessionary gap, calculate the minimum required change in government spending.
    - (ii) If the government changes taxes without changing government spending to eliminate the recessionary gap, will the minimum required change in taxes be greater than, smaller than, or equal to the minimum required change in government spending in part (d)(i) ? Explain.
  - (e) Assume the government lowers income tax rates to eliminate the recessionary gap. Will each of the following increase, decrease, or stay the same?
    - (i) Aggregate demand. Explain.
    - (ii) Long-run aggregate supply. Explain.

## 2014 #1

1. Assume that the United States economy is currently operating below the full-employment level of real gross domestic product with a balanced budget.
  - (a) Draw a correctly labeled graph of aggregate demand, short-run aggregate supply, and long-run aggregate supply, and show each of the following in the United States.
    - (i) Current output and price level, labeled as  $Y_1$  and  $PL_1$ , respectively
    - (ii) Full-employment output, labeled as  $Y_f$
  - (b) The United States government increases spending on goods and services by \$100 billion, which is financed by borrowing. How will the increase in government spending affect each of the following?
    - (i) Cyclical unemployment
    - (ii) The natural rate of unemployment
  - (c) If the marginal propensity to consume is equal to 0.75, calculate the maximum possible change in real gross domestic product that could result from the \$100 billion increase in government spending.
- (f) Now assume that instead of financing the \$100 billion increase in government spending by borrowing, the United States government increases taxes by \$100 billion. With this equal increase in government spending and taxes, will the real gross domestic product increase, decrease, or remain the same? Explain.

1. A country's economy is in a short-run equilibrium with an output level less than the full-employment output level. Assume an upward-sloping aggregate supply curve.
  - (a) Using a correctly labeled aggregate demand and aggregate supply graph, show the following.
    - (i) Full-employment output, labeled as  $Y_F$
    - (ii) Equilibrium real output and price level, labeled as  $Y_E$  and  $PL_E$ , respectively
  - (b) Assume that the country's government increases domestic military expenditures. On the graph from part (a), show how the increased military expenditures affect the following in the short run.
    - (i) Aggregate demand
    - (ii) Equilibrium real output and price level, labeled as  $Y_2$  and  $PL_2$ , respectively
  - (c) Using a correctly labeled graph of the short-run Phillips curve, show the effect of the increased military expenditures in the short run, labeling the initial point as A and the new point as B.
- (e) Assume that the economy produces only two goods: military goods and civilian goods. Using a correctly labeled production possibilities curve, show the effect of the increase in military expenditures from part (b), labeling the initial point as C and the new point as D.

**Financial Sector**

<p><b><u>Key Terms:</u></b></p> <ol style="list-style-type: none"> <li>1. Financial Sector:</li>   <li>2. Asset:</li>   <li>3. Liability:</li>   <li>4. Liquidity:</li> </ol> <p>Bond:</p> <p>Stock:</p>	<p><b><u>Functions of Money:</u></b></p> <ol style="list-style-type: none"> <li>1.</li>   <li>2.</li>   <li>3.</li> </ol> <p><b><u>Types of Money:</u></b></p> <p>Commodity Money:</p> <p>Fiat Money:</p>
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**Bank Balance Sheets**

<p><b><u>Key Terms</u></b></p> <p><b>Demand Deposit:</b></p> <p><b>Required Reserve:</b></p> <p><b>Excess Reserve:</b></p> <p><b>Bank Balance Sheet:</b></p>	<p><b>Fractional Reserve Banking:</b></p> <p><b>Money Multiplier Equation:</b></p>
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3. Sewell Bank has the simplified balance sheet below.

Assets		Liabilities	
Required reserves	\$2,000	Demand deposits	\$10,000
Excess reserves	\$0	Owner's equity	\$10,000
Customer loans	\$8,000		
Government securities (bonds)	\$7,000		
Building and fixtures	\$3,000		

- (a) Based on Sewell Bank's balance sheet, calculate the required reserve ratio.
- (b) Suppose that the Federal Reserve purchases \$5,000 worth of bonds from Sewell Bank. What will be the change in the dollar value of each of the following immediately after the purchase?
  - (i) Excess reserves
  - (ii) Demand deposit
- (c) Calculate the maximum amount that the money supply can change as a result of the \$5,000 purchase of bonds by the Federal Reserve.
- (d) When the Federal Reserve purchases bonds, what will happen to the price of bonds in the open market? Explain.
- (e) Suppose that instead of the purchase of bonds by the Federal Reserve, an individual deposits \$5,000 in cash into her checking (demand deposit) account. What is the immediate effect of the cash deposit on the M1 measure of the money supply?

2. The following is a simplified balance sheet for Mi Tierra Bank in the United States.

Mi Tierra Bank

Assets		Liabilities	
Required reserves	\$10,000	Demand deposits	\$100,000
Excess reserves	\$5,000		
Loans	\$85,000	Owner's equity	\$ 0

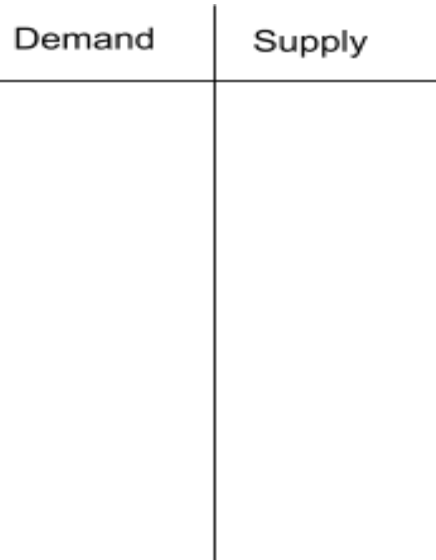
- (a) What is the reserve requirement?
- (b) Assume that Luis withdraws \$5,000 in cash from his checking account at Mi Tierra Bank.
  - (i) By how much will Mi Tierra Bank's reserves change based on Luis' withdrawal?
  - (ii) What is the initial effect of the withdrawal on the M1 measure of money supply? Explain.
  - (iii) As a result of the withdrawal, what is the new value of excess reserves on the balance sheet of Mi Tierra Bank based on the reserve requirement from part (a) ?
- (c) Assume that the next day John withdraws from Mi Tierra Bank an amount that exceeds the bank's excess reserves. Assuming that no loans are called in, how can Mi Tierra Bank cover its required reserves?

Loanable Funds

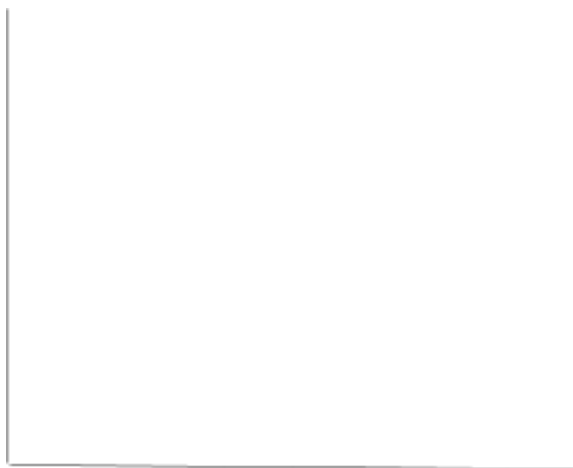
Nominal Interest Rate:

Real Interest Rate:

Loanable Funds Market:



Loanable Funds Graph



Loanable Funds Practice Problems



2018 #2

2. Assume the economy of Ucheland is currently at full employment. The government of Ucheland reduces the tax rate on household interest earnings.
  - (a) What will happen to private savings in Ucheland?
  - (b) Draw a correctly labeled graph of the loanable funds market, and show the effect of the change in private savings identified in part (a) on the equilibrium real interest rate.
  - (c) Given the real interest rate change identified in part (b), answer the following questions.
    - (i) What is the short-run effect on aggregate demand? Explain.
    - (ii) What is the long-run effect on potential real gross domestic product in Ucheland? Explain.

1. Assume that the United States economy is operating at full employment.
  - (a) Using a correctly labeled graph of the long-run aggregate supply, short-run aggregate supply, and aggregate demand, show each of the following.
    - (i) Current price level, labeled  $PL_1$
    - (ii) Current output level, labeled  $Y_1$
  - (b) Assume that personal savings in the United States increase. Using a correctly labeled graph of the loanable funds market, show the impact of the increase in personal savings on the real interest rate.
  - (c) Based on the real interest rate change identified in part (b),
    - (i) will interest-sensitive expenditures increase, decrease, or remain unchanged?
    - (ii) what will happen to the rate of economic growth? Explain.