## Mortimer Monday, February 4 Tranquilla Tuesday, February 5

- HW4-1 due NOW, please have it out for me to check + John Oliver permission slip.
- Learning target: I can describe the functions and characteristics of money. I can define M1 and M2 as
- Warm up: Who has more money--a person with $\$ 1000$ cash or a person with an original Picasso painting?


## Need to take Unit 3 Test:

- Nadia
- Kaitlin
- Kai
- Ansley
- Sam

Phones!

## 2012 Audit Exam

1. A country's government runs a budget deficit when which of the following occurs in
a given year?
(A) The amount of new loans to developing nations exceeds the amount of loans paid off by developing nations.
(B) Government spending exceeds tax revenues.
(C) The debt owed to foreigners exceeds the debt owed to the country's citizens.
(D) The amount borrowed exceeds the interest payment on the national debt.
(E) Interest payments on the national debt exceed spending on goods and services.

## Unit 4:

## Money and <br> Monetary Policy

2. $\$ 50$ Bill
3. $\$ 20$ Bill
4. $\$ 10$ Bill
5. $\$ 5$ Bill
6. $\$ 2$ Bill
7. 50 Cent
8. Dime
9. $\$ 1000$ Bill
10. $\$ 100,000$ Bill 10. Wilson
11. FDR
12. Cleveland

## Bonus:

"E Pluribus Unum" means....
"Out of Many, One"

Why do we use money?
What would happen if we didn't have money? The Barter System: goods and services are traded directly. There is no money exchanged.

## Problems:

1. Before trade could occur, each trader had to have something the other wanted. ("Double coincidence of wants")
2. Some goods cannot be split. If 1 goat is worth five chickens, how do you exchange if you only want 1 chicken?

## What is Money?

Money is anything that is generally accepted in payment for goods and services.

Money is NOT the same as wealth or income Wealth is the total collection of assets that store value Income is a flow of earnings per unit of time

## What is Money?

Commodity Money- Something that performs the function of money and has alternative uses. - Examples: Gold, silver, cigarettes, etc.

Fiat Money- Something that serves as money but has no other important uses.

- Examples: Paper Money, Coins, digital currency


## 3 Functions of Money

1. A Medium of Exchange

- Money can easily be used to buy goods and services with no complications of barter system.

2. A Unit of Account

- Money measures the value of all goods and services. Money acts as a measurement of value.
- 1 goat $=\$ 50=5$ chickens OR 1 chicken $=\$ 10$

3. A Store of Value

- Money allows you to store purchasing power for the future.
- Money doesn't die or spoil.

Weird Money


Giant stone disks were used as money on the Yap Islands. Some disks were 12 ft wide.

How well would each of these items perform the three functions of money today?

1. Salt
2. Cattle
3. Gold
4. Copper coins
5. Beaver pelts
6. Personal checks
7. Savings account passbook

How well would each of these items perform the three functions of money today?

1. Prepaid phone card
2. Debit card
3. Credit card
4. Bushels of wheat
5. $\$ 1$ bill
6. $\$ 100$ bill

## 2008 Audit Exam

49. Which of the following is NOT a function of fiat money?
(A) A standard of deferred payment
(B) A unit of account
(C) A source of intrinsic value
(D) A store of value
(E) A medium of exchange

## 2012 Audit Exam

42. A barter economy is different from a money economy in that a barter economy
(A) encourages specialization and division of labor
(B) involves higher costs for each transaction
(C) eliminates the need for a double coincidence of wants
(D) has only a few assets that serve as a medium of exchange
(E) promotes market exchanges

## What backs the money supply?

There is no gold standard. Money is just an I.O.U. from the government "for all debts, public and private." What makes money effective?

1. Generally Accepted-Buyers and sellers have confidence that it IS legal tender.
2. Scarce - Money must not be easily reproduced.
3. Portable and Dividable - Money must be easily transported and divided.

## What backs the money supply?

## The Purchasing Power of money is the amount of goods and services an unit of money can buy.

Inflation (increases decreases) purchasing power. Rapid inflation (increases decreases) acceptability.

## Why does our money have value?



## Wishful Wednesday, February 6 Threefold Thursday, February 7

- Current events due NOW; new USATP posted
- Learning target: I can define M1 and M2 as descriptions of the money supply and its liquidity. I can draw and explain the graph of the market for money.
- Warm up: Create an index card for commodity money and fiat money.


## Need to take Unit 3 Test:

- Nadia
- Kaitlin
- Kai
- Ansley


## Current Events

## Classifying Money

Liquidity- ease with which an asset can be accessed and used as a medium of exchange. M1 (Highest Liquidity)-
1.Currency in circulation.
2.Checkable bank deposits (checking accounts). 3.Traveler's checks.

## Classifying Money

Liquidity- ease with which an asset can be accessed and used as a medium of exchange.
M2 (Near-Money)- M1 plus the following: 1.Savings deposits (money market accounts). 2.Time deposits (CDs = certificates of deposit). 3.Money market funds.

M1 and M2 money often earn little to no interest so the opportunity cost of holding liquid money is the interest you could be earning.

## 2012 Audit Exam

56. In the narrowest definition of money, M1, savings accounts are excluded because they are
A) not a medium of exchange
(B) not insured by federal deposit insurance
(C) available from financial institutions other than banks
(D) a store of purchasing power
(E) interest-paying accounts

Order the following from most liquid (1) to least liquid (5):

- A house
- Traveler's check
- A car
- \$10 bill
- A money market share


## The Financial Sector

Individuals, businesses, and governments borrow and save so they need institutions to help.
-Financial Sector- Network of institutions that link borrowers and lenders. Includes banks, mutual funds, pension funds, and other financial intermediaries.

- Assets- Anything tangible or intangible that is owned. - Liability- Anything that is owed.
-Loan- An agreement between a lender and a borrower, usually at a fee called the interest rate.

A loan is an asset for the lender and a liability for the borrower.

# Personal Finance and Investment 

 Personal finance refers to the way individuals and families budget, save, and spend.In a personal finance class you learn about checking and savings accounts, credit cards, loans, the stock market,
retirement plans, and how to manage your assets. The word "INVESTMENT" in Econ will always refer to business spending on tools and machinery. A low interest rate will increase investment.

## The Demand for Money

At any given time, people demand a certain amount of liquid assets (money) for two different reasons:
1.Transaction Demand for Money- People hold money for everyday transactions.
2.Asset Demand for Money - People hold money since it is less risky than other assets.
What is the opportunity cost of holding money in your pocket or checking account?
The interest you could be earning from other financial assets like stocks, bonds, and real estate.

## The Demand for Money

1. What happens to the quantity demanded of money when interest rates increase?

Quantity demanded falls because individuals would
prefer to have interest earning assets instead.
2. What happens to the quantity demanded when interest rates decrease?
Quantity demanded increases. There is no incentive to convert cash into interest earning assets.
There is a inverse relationship between the interest rate and the quantity of money demanded.

## Frenzied Friday, February 8 Manic Monday, February 11

- New USATP due Monday! HW4-2 + 4-3 posted!
- Learning target: I can define M1 and M2 as descriptions of the money supply and its liquidity. I can draw and explain the graph of the market for money.
- Warm up: Create an index card for the market for money (include a description and a graph!).


## Need to take Unit 3 Test:

- Nadia
- Kaitlin
- Kai
- Ansley



## The Demand for Money

 There is an inverse relationship between interest rates and the quantity of money demanded.Nominal 20\%

Interest Rate
(r)

As interest rates decrease, there is a lower opportunity cost associated with holding money in your pocket or checking account.


Quantity of Money (billions of dollars)

## The Demand for Money What happens if price level increases?

Nominal 20\% Interest Rate
(r)

## The Supply for Money

The U.S. Money Supply is set by the Board of Governors of the Federal Reserve System (The Fed). Interest Rate (r)


The Fed is a nonpartisan government office that sets and adjusts the money supply to influence the economy. This is called Monetary

MD
Policy.


## Interest Increasing the Money Supply

 Rate (r) MS MS ${ }_{1}$ If the Fed increases the money supply, a temporary surplus of money will occur at $5 \%$ interest. The surplus will cause the interest rate to fall to $2 \%$.
## How does this affect AD?

200250 Quantity of Money (billions of dollars)
Increase $\rightarrow$ Decreases $\rightarrow$ Increases $\rightarrow$ Increases money supply interest rate investment $\quad$ AD

The shortage will cause the interest rate to rise to $\mathbf{1 0 \%}$.

## How does this affect AD?

150200
Quantity of Money
(billions of dollars)
Decrease $\rightarrow$ Increase $\rightarrow$ Decrease $\rightarrow$ Decrease money supply interest rate investment

AD

# The Money Market (Supply and Demand for Money) 



## Problem Set 4.2

## 2012 Audit Exam

3. The transaction demand for money is very closely associated with money's use as a
(A) store of value
(B) standard unit of account
(C) measure of value
(D) medium of exchange
(E) standard of deferred payment

## 2012 Audit Exam

12. The amount of money that the public wants to hold in the form of cash will
(A) be unaffected by any change in interest rates or the price level
(B) increase if interest rates increase (C) decrease if interest rates increase
(D) increase if the price level decreases
(E) decrease if the price level remains constant
13. With a constant money supply, if the demand for money decreases, the equilibrium interest rate and quantity of money will change in which of the following ways?

Interest Rate
(A) Increase
(B) Increase
(C) Decrease
(D) Decrease
(E) Decrease

## Quantity of Money

Decrease
Not change
Decrease
Increase
Not change



## FRQs:

Create a poster as if you were answering on a test; remember, this is econ, not art!

## 2007B Practice FRQ

1. Assume that Australia and New Zealand are trading partners. Australia's economy is currently in recession.
(a) Now assume that Australia begins to recover from its recession. Using a correctly labeled graph of aggregate demand and aggregate supply for New Zealand, show the impact of Australia's rising income on each of the following in the short run.
(i) Aggregate demand in New Zealand. Explain.
(ii) Output in New Zealand
(b) Using a correctly labeled graph of the money market for New Zealand, show the effect of the output change in part (a)(ii) on the following.
(i) Demand for money. Explain.
(ii) The nominal interest rate

## 2007B Practice FRQ


(a) 4 points:

One point is earned for a correctly labeled graph.
One point is earned for showing a rightward shift in New Zealand's AD curve.
One point is earned for the explanation that New Zealand's exports to Australia increase.
One point is earned for concluding that New Zealand's output increases.

## 2007B Practice FRQ


(b) 4 points:

One point is earned for a correctly labeled graph of the money market. One point is earned for showing a rightward shift of the money demand curve. One point is earned for the explanation that higher income means more volume of transactions.
One point is earned for concluding that the nominal interest rate increases.

## 2017 AP $^{\circledR}$ MACROECONOMICS FREE-RESPONSE OUESTIONS

2. Assume that an economy is in long-run equilibrium. Assume that consumers wish to hold less money because they use credit cards more frequently to purchase goods and services than cash.
(a) Draw a correctly labeled graph of the money market and show the effect of the reduced holdings of money on the equilibrium nominal interest rate in the short run.
(b) Based on the change in the interest rate in part (a), what will happen to each of the following in the short run?
(i) Prices of previously issued bonds
(ii) The price level and real income. Explain.
(c) With a constant money supply, based on your answer to part b(ii), will the velocity of money increase, decrease, or remain the same, or is the change indeterminate?
(d) If the central bank wishes to reverse the change in the interest rate identified in part (a), what open market operation would it use?

## AP ${ }^{\oplus}$ M Open with - NOMICS <br> 2017 SCORING GUIDELINES

## Question 2

6 points $(2+2+1+1)$

(a) 2 points:

- One point is earned for drawing a correctly labeled graph of the money market.
- One point is earned for showing a leftward shift in the money demand curve, resulting in a lower nominal interest rate
(b) 2 points:
- One point is earned for stating that the price of previously issued bonds will increase
- One point is earned for stating that both the price level and real income will increase and for explaining that the lower interest rate will increase consumption, investment, and/or net exports (interest-sensitive spending), which increases aggregate demand.
(c) 1 point:
- One point is earned for stating that the velocity of money will increase.
(d) 1 point:
- One point is earned for stating that the central bank would sell bonds.


## 2007 AP ${ }^{\oplus}$ MACROECONOMICS FREE-RESPONSE QUESTIONS

## MACROECONOMICS

Section II<br>Planning Time- $\mathbf{1 0}$ minutes<br>Writing Time- $\mathbf{5 0}$ minutes

Directions: You have 50 minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. Use a pen with black or dark blue ink.

1. Assume that declining stock market prices in the United States cause many United States financial investors to sell their stocks and increase their money holdings.
(a) Draw a correctly labeled graph of the money market and show the impact of the financial investors' actions on each of the following.
(i) Demand for money
(ii) Nominal interest rate

## AP ${ }^{\circledR}$ MACROECONOMICS

## 2007 SCORING GUIDELINES

## Question 1

12 Points $(3+3+2+3+1)$

(a) 3 points:

- One point is earned for a correctly labeled graph of the money market.
- One point is earned for showing a rightward shift of the money demand curve.
- One point is earned for the conclusion that the interest rate rises

