

MONEY AND BANKING

LECTURE 4: MONEY AND MONEY DEMAND

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- History of Money: Payment System

2 CATEGORIZATION OF MONEY

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- You are tired and irritated. You tell you Randy that you just need "money".
- Why aren't the tickets money? Why aren't they as good as money?

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- Without it, all goods were exchanged or traded by **barter** - by trading goods for goods.
- Suppose you were working for a computer store, you might be paid in keyboards, which would not only be difficult to exchange for other goods and services, but also rather cumbersome to carry around.

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- Barter system is costly in terms of *search time* - the time spent looking for someone who has groceries and wants computer keyboards.
- Something that becomes generally acceptable as a means of payment in exchange for goods and services will necessarily also function as a **store of value**.

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 - There is a difference between the time people receive money and the time they spend it.
 - However, money is not the only financial assets or goods in the economy serving the store of value function.
 - Paintings, diamonds, stocks and bonds also store the value.
- What makes money so special?

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- In order to exchange, we need some method of specifying the amount of money required to pay for a given quantity of a particular good, i.e., **unit of account**.
- Suppose there were three goods in the economy, without unit of account, each good has two prices in terms of other two goods.

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- Yet, it does not mean that bonds ARE money.

HISTORY OF MONEY: PAYMENT SYSTEM

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- For example, in China, tax were paid in silver whereas small transactions were conducted in copper coins.

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- First, you will take copper coins (e.g., 10,000) to convert them into silver coins (e.g., 100) at the official price.
- Second, you will go to the market to convert silver coins with copper coins at market price, say, 1 : 150. In your case, you can get 15,000. Without any hardworking, you profit with 5,000 copper coins.

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- Either in China or in international payment system (e.g., Bretton Woods System) suffers Gresham's law.

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- Because fiat money is not linked to physical reserves, it risks becoming worthless due to **hyperinflation**.

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- It gives central banks the power to manage economic variables such as credit supply, liquidity, interest rates and money velocity.

MONETARY AGGREGATES

HOW MONEY IS MEASURED ?

- ① The definition of money does not tell us anything about how money is measured.

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- ③ The Fed publishes M1 and M2 (though it has M3 from 2006, however, it contains little economic meaning more than M2).

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 - *demand deposit at commercial banks, bearing no interest.*

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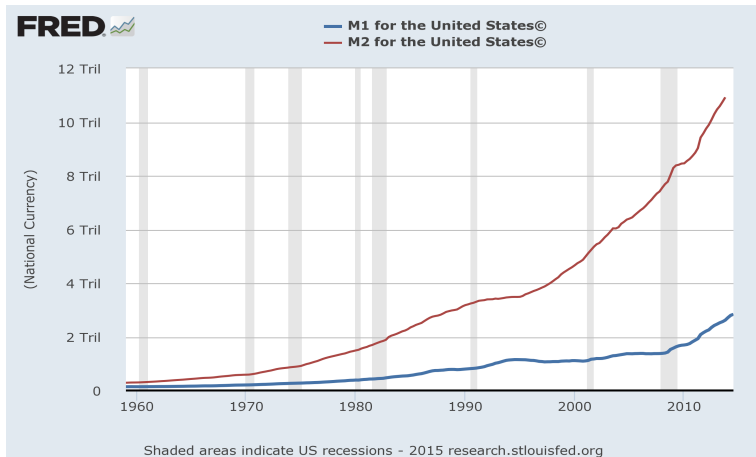
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 - *saving deposits*, including *money-market deposit accounts*, which pay interest and offer limited check-writing privileges;
 - *retail money-market mutual fund shares carrying check-writing privileges as well.*

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- ③ **Money and Quasi Money**: sum of money and quasi money.

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- On the other hand, value paid for goods and services equal to the value of money flow used for buying goods and services.
- The money flow is equal to the nominal quantity of money supply M_t multiplied by the average number of times the quantity of money in circulation, i.e., V_t .

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- Based on those assumptions, we have

$$M_t^d = \frac{1}{V} P_t \bar{Y}, \quad (2)$$

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- It places emphasis on the **store of value** function of money rather than a medium of exchange.
- Marshall and Pigou focused on the factors that determine individual demand for holding cash balances.
- Even though interest rate was recognized as a factor, they still believe individual's demand for cash balances is proportional to the nominal income.

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- P_tY_t is the nominal income. It is a behavioral description of holding money while Fisher's approach is more mechanical.
- However, it is incomplete, because it ignores many other factors.

KEYNES' THEORY

- Three motives of holding money proposed by Keynes.

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- He treats money as one type of asset in which wealth holders can keep a part of their wealth.
- Friedman considers the demand for money merely as an application of a general theory of demand for capital assets.

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- So the Friedman's nominal demand function for money can be written as

$$M_t^d = f(W_t, h_t, r_t^m, r_t^b, r_t^e, P_t, \pi_{t+1}^e, U_t), \quad (4)$$

where W_t is wealth, h_t proportion of human wealth, r_t^m money return, r_t^b bond return, r_t^e equity return, P_t price level, π_{t+1}^e expected inflation, and U_t institutional factor.

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- The total wealth of an individual represents an upper limit of holding money.