Ec 370

Money and Banking

Chapter 3: What is Money

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Today's Content

1. Functions of Money
2. M1 and M2 Money Supply

Functions of Money

Meaning of Money

Money: anything that is generally accepted as payment for goods or services or in the repayment of debts

- Money is also called **money supply**
- Example:
  - currency: dollar bills and coins
  - checking/saving account deposit...
- Are bonds, common stock, art, land, furniture, cars, houses... money?

Functions of Money

(1) Medium of Exchange (Means of Payment)

- barter economy: goods and services are exchanged directly for other goods and services
    - double coincidence of wants
- money being used as a **medium of exchange** promotes economic efficiency
    - minimizes transaction cost: the time spent trying to exchange goods or services
    - allows people to specialize in what they do best

Functions of Money

(2) Unit of Account

in barter economy: if there are N goods in economy, need $\frac{N(N-1)}{2}$ prices to exchange one good for another: $(N-1)+(N-2)+\ldots+1=\frac{N(N-1)}{2}$

- if money is used as **unit of account**:
  - quoting the price of goods in terms of dollar
  - if there are N goods in economy, only need N prices
  - minimizes transaction cost and promotes economic efficiency

Functions of Money

(3) Store of Value

- a **store of value** is used to save purchasing power from the time income is received until the time it is spent
- Other asset can also be used as store of value
  - pros: a higher interest rate (bonds), price appreciation (art), a roof over head (house)...
  - cons: high transaction costs when converting into money (not liquid)
- Money can be used as store of value:
  - pros: money is the **most liquid** asset, because it is the **medium of exchange**

- How good a store of value money is depends on price level
- when price level doubles, value (purchasing power) of money drop by half; when price level drops by half, value of money doubles
- money **loses** value rapidly during times of **inflation** or **hyperinflation** (an extreme inflation in which the inflation rate exceeds 50% per month)
- Example: Germany, post World War II, inflation rate was 1,000% per month
  - no one wants to hold on to money
  - the use of money to carry out transaction fell, while barter exchange increased

Evolution of Payments System

payments system: the method of conducting transactions in the economy

(1) Commodity Money

- money made up of precious metals or another valuable commodity: gold, silver, cigar (prisoner-of-war camp during WWII)
- pros:
  - universally accepted
  - could be made into standardized quantities
  - durable
- cons: heavy to carry

Evolution of Payments System

(2) Fiat Money

Fiat money: paper currency backed by government decree as **legal tender**

- legal tender MUST be accepted as legal payment for debts

- Fiat money can be accepted as legal payment for debts only if: there is some trust in the authorities who issue it. Policymakers must be credibly committed to limiting the volume in circulation

Evolution of Payments System

(2) Fiat Money

- pros: light
- cons: expensive to transport in large amounts

Evolution of Payments System

(3) Checks

An instruction to bank to transfer money from your account to someone else's account

- pros: makes transactions for large amounts easier because they can be written for any amount up to the balance in the account
- cons: paper shuffling and clearing process involves issuer's bank, receiver's bank, and the Fed, which takes days
- Is check is legal tender?

Evolution of Payments System

(4) Electronic Payment and E-money

Electronic funds transfers are movements of funds directly from one account to another

- estimated cost savings when a bill is paid electronically rather than by a check exceed one dollar per transaction
- examples:
  - pay utility bill online
  - debit card
  - stored-value card: UO ID card, Walmart gift card, prepaid phone card (it doesn't bear your name)
  - e-cash: Paypal
- Credit card is not money. It represents access to someone else's money

M1 and M2 Money Supply

Measuring Money: M1

- The Fed has settled on the following measures of the **money**(**money supply**), which are also referred to as **monetary aggregates**
- M1: the **narrowest** measure, including only the **most liquid** assets
- M1 =
  currency
  \+ **traveler's checks**
  \+ **demand deposits**
  \+ **other checkable deposits**

Measuring Money: M2

- The M2 adds to M1 other assets that are **not quite as liquid as** those included in M1

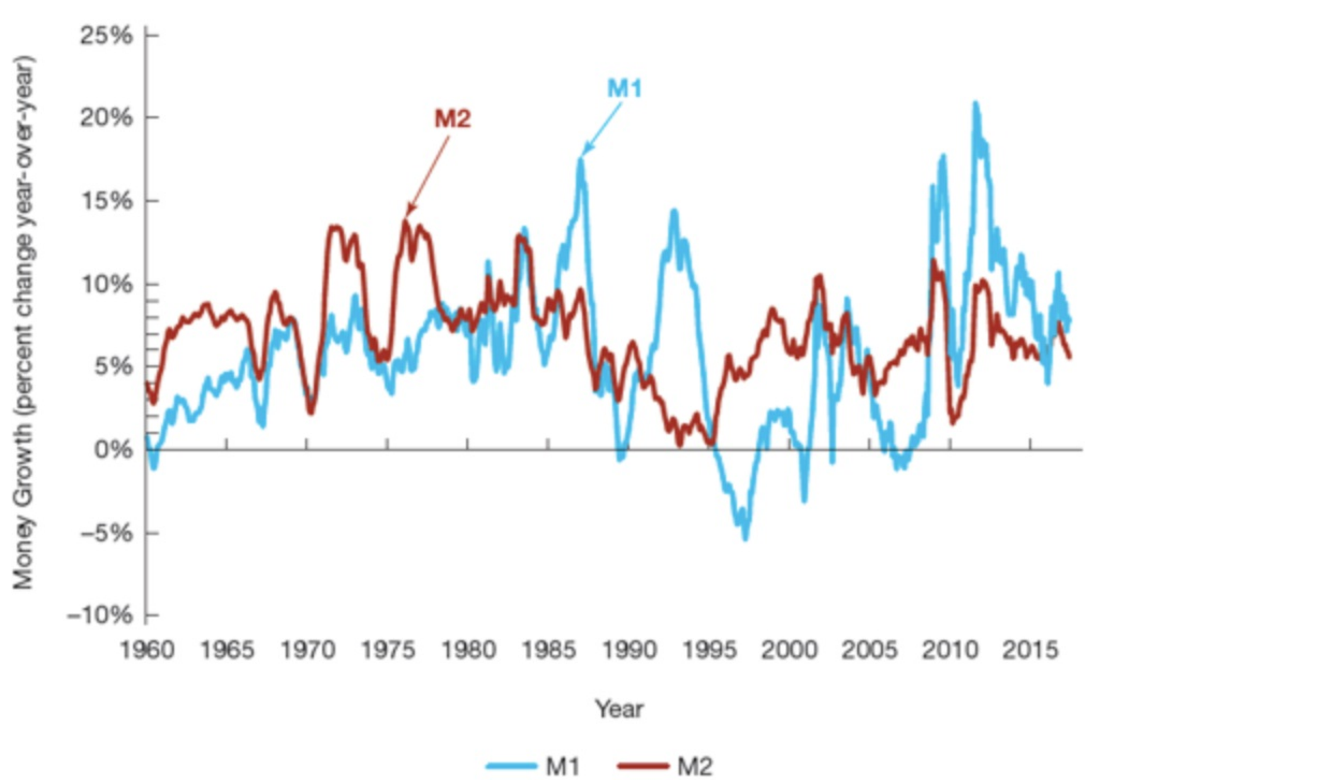
- M2 = **M1**
  \+ **Small-denomination time deposits**
  \+ **Savings deposits**
  \+ **Money market mutual fund shares**
  \+ **money market deposit accounts**

Measuring Money

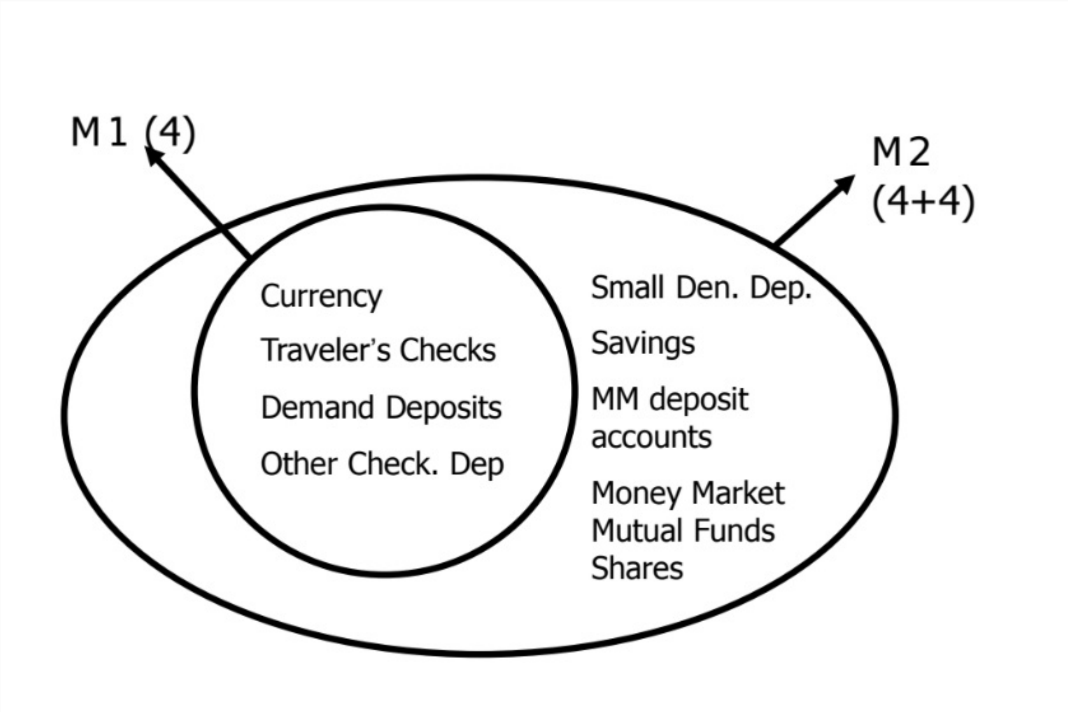
M1 and M2

- Growth rates of M1 and M2 tend to move together
- Growth rates of M1 and M2 can move in different directions in short run
- the choice of monetary aggregate as the best measure of money supply is important for policymakers

Figure 1 Growth Rates of the M1 and M2 Aggregates, 1960–2017

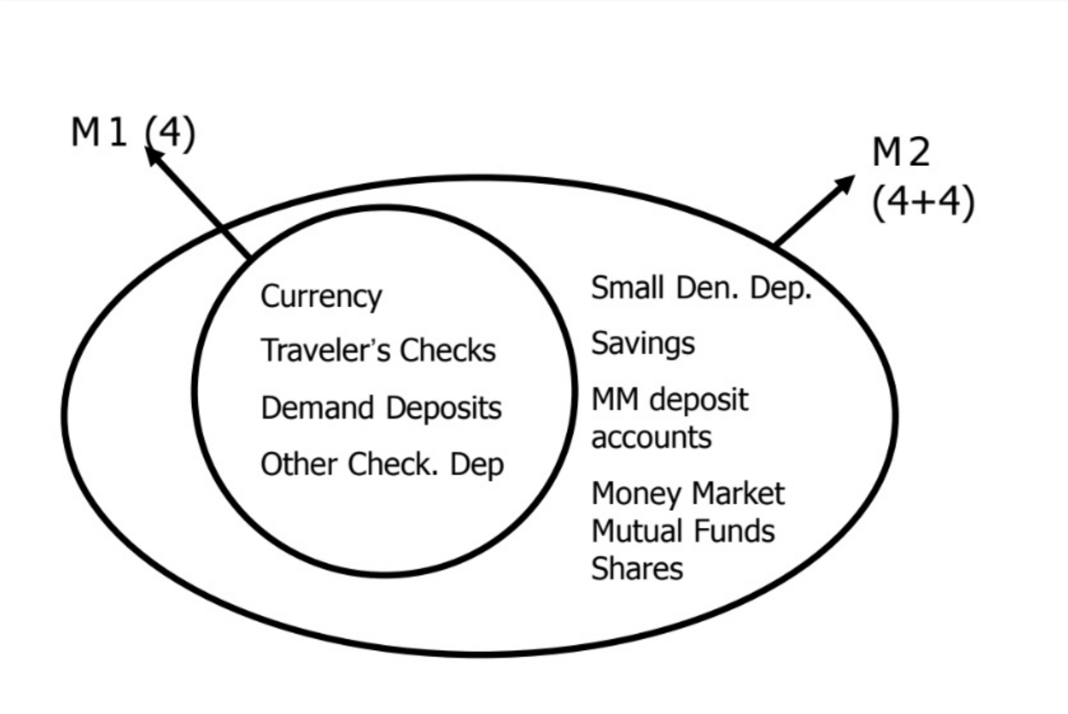


Measuring Money



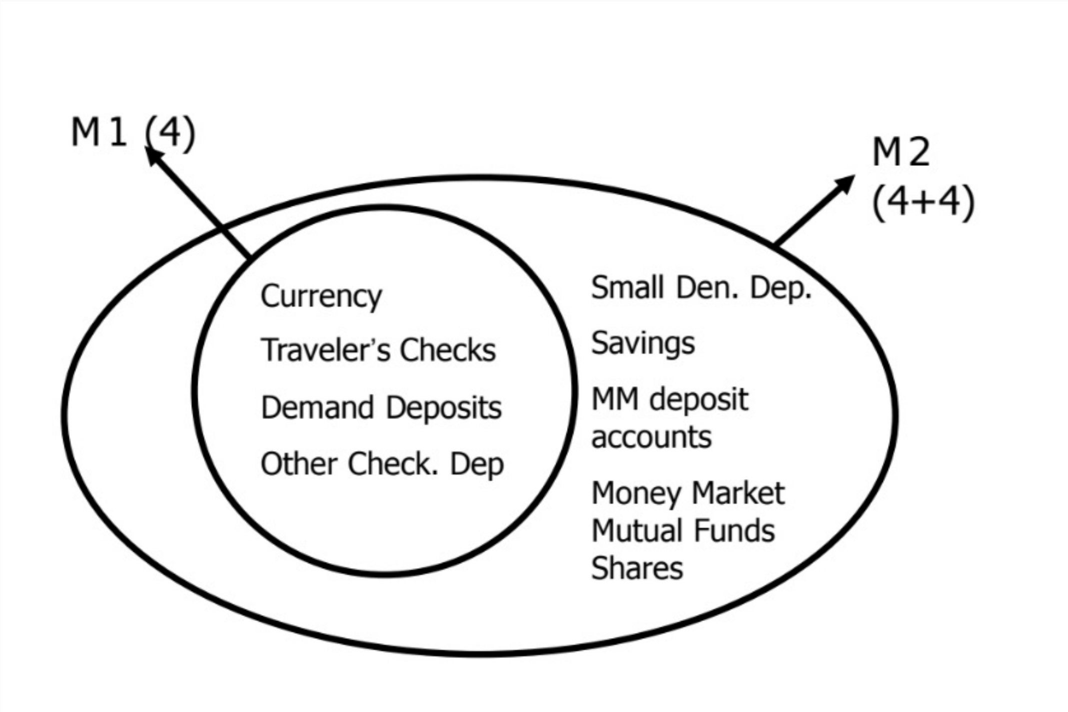
- Q1: which of the following is included in both M1 and M2?
    - a) currency
    - b) savings deposits
    - c) small-denomination time deposits
    - d) money market deposit account

Measuring Money



- Q2: If an individual moves money from a savings deposit account to a money market deposit account
  - a) M1 decreases and M2 stays the same
  - b) M1 stays the same and M2 increases
  - c) M1 stays the same and M2 stays the same
  - d) M1 increases and M2 decreases

Measuring Money



- Q3: If an individual moves money from a small-denomination time deposit to a demand deposit account
    - a) M1 increases and M2 stays the same
    - b) M1 stays the same and M2 increases
    - c) M1 stays the same and M2 stays the same
    - d) M1 increases and M2 decreases

Measuring Money

Answer:

Q1: currency is included in both M1 and M2

Q2: both M1 and M2 stay the same

Q3: M1 increases and M2 stays the same

- This is the end of Chapter 3.
- Practice problem and keys for chapter 3 have been posted on Canvas.
- Problem Set #1 has been posted on Canvas. It is due **11:59pm (PDT), Apr 12, Sunday**.