

## Chapter 3: Money

What is money?

- Not currency
- Not income
- Not wealth

Money is anything that is generally accepted in payment for goods & services, or repayment of a debt

Functions performed by money:

- Medium of exchange
- Unit of account
- Store of value

### Medium of exchange

Eliminates the need for barter

(Solves the “double coincidence of wants” problem)

To serve as a medium exchange, certain properties are necessary:

- Standardizable
- Easily divisible
- Portable
- Durable

Examples: tobacco, rice, precious metals, buckskins, cigarettes

### Unit of Account

Value of goods and services are measured in terms of the units of money

This lowers the transactions costs by reducing the number of relative prices in the economy

Ex:

2 goods ==> 1 relative price

3 goods ==> 3 relative prices [1/2, 1/3, 2/3]

...

5 goods ==> 10 relative prices [1/2, 1/3, 1/4, 1/5, 2/3, 2/4, 2/5, 3/4, 3/5, 4/5]

...

N goods ==> sum(1, N-1)

100 goods ==> 4950 relative prices

But w/money, 100 goods ==> 100 prices (save 3950 pieces of information)

Note: sometimes in hyperinflation, unit of account becomes foreign currency

## Store of Value

A repository of purchasing power

Enables asynchronous earning & spending

Note: in hyperinflation, store of value feature breaks down. This is extremely inconvenient

Note: Money is only one of several possible stores of value (and not even the best)

- Others:
- Stocks
- Bonds
- Houses
- Land
- Famous Paintings
- Collectibles
- ...

Many of these have higher rates of return than money.

So why do people hold money (a zero, or possible negative return asset)?

Properties of assets

- Risk (bad)
- Return (good)
- Liquidity (good)

Liquidity is the ease with which an asset can be exchanged for goods or other assets. Money is the most liquid of all assets, and that's a positive attribute

## Kinds of Money

### Commodity money

Has a use value of its own

Ex: Gold, whiskey, tobacco, etc.

### Fiat Money

Has value b/c the law says it is legal tender for debts and taxes

Ex: Federal Reserve Notes

### Credit Money:

A paper claim to either a fiat or a commodity money

Ex: Paper reading: “Redeemable at Wells Fargo for 1 oz. Gold”

Read: “A short history of moolah” from textbook

Short version:

- Commodity monies reigned in European kingdoms (necessary for mercenary armies)
- Businesses emerged to “store” the gold safely for different merchants
- Gradually, these “depositors” discovered it was easier to trade with each other using paper claims on deposits, rather than actual physical gold
- Gradually, the gold storage businesses realized that most gold sat idle, and that on average deposits = withdrawals
- Thus, the gold storage businesses (“banks”) realized they could lend out some of the gold, and charge interest, without really risking that depositors would be hung out to dry. How profitable!
- Credit money: “Bank” issues a paper claim on gold to a borrower, who then pays back gold plus interest. Money created “inside” the banking system. Volume of credit in the economy expanded. Economic activity expanded accordingly

## Commodity & Credit Monies

Self-regulating commodity monies:

If it is costly to produce the money in question (e.g. tobacco, gold, etc.), and this cost is fairly stable, then the value of the money can remain relatively constant (i.e. no inflation or deflation), despite demand shocks.

Ex: (from W&Q)

Let the money be “Clams” (shells)

Let the cost of finding clams be 1/10th of an hour per (i.e. 10 clams per hour)

Let the other goods be “Bows” and “Arrows” and “Dead Rabbits”

Cost of a bow: 2 hours

Cost of an arrow: 1 hour

Cost of a dead rabbit: 3 hours

Therefore:

Bows cost 20 clams

Arrows cost 10 clams

Dead Rabbits cost 30 clams

At these prices, producers are exactly indifferent between producing clams, bows, arrows, or dead rabbits.

If it suddenly became easier to find clams (say: 20/hr instead of 10/hr), it would be more profitable for producers to produce clams than to produce the others. The presence of more clams in circulation (but no more of the other goods) causes the other prices to rise, until, when they have doubled, the producers are now indifferent.

If demand for clams went up, because they were suddenly prized as jewelry, then there would be an increase in the incentive to produce more clams, and relative prices could remain the same.

## Measuring Money

Statistical definitions of the “money supply”

### M1

Currency

+Travelers Checks

+Demand Deposits

+Other Checkable Dep’s.

### M2

M1

+small (<100K) time dep’s.

+savings deposits

+Money Market Dep’s.

### M3

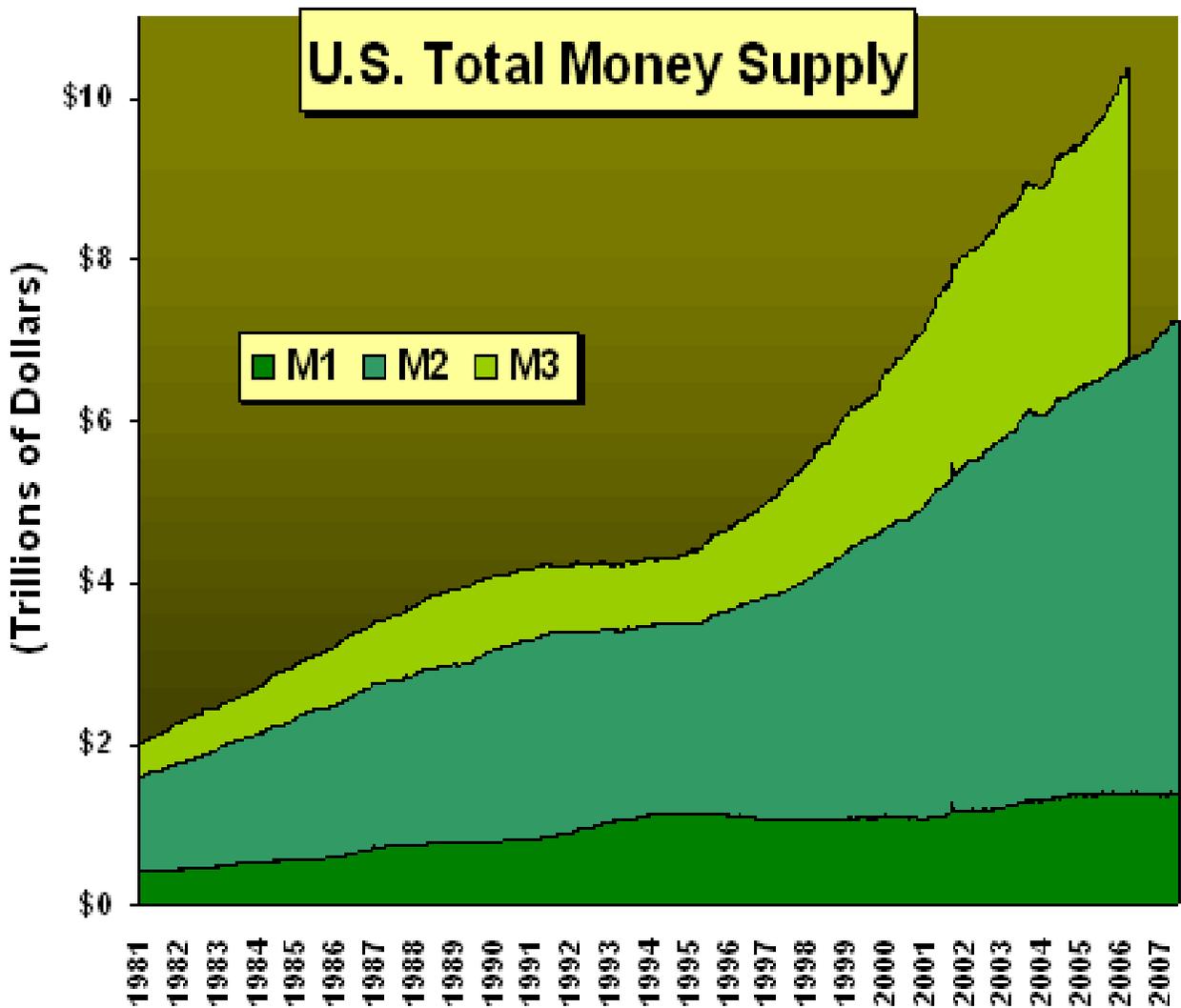
M2

+large time dep’s.

+MMMFs

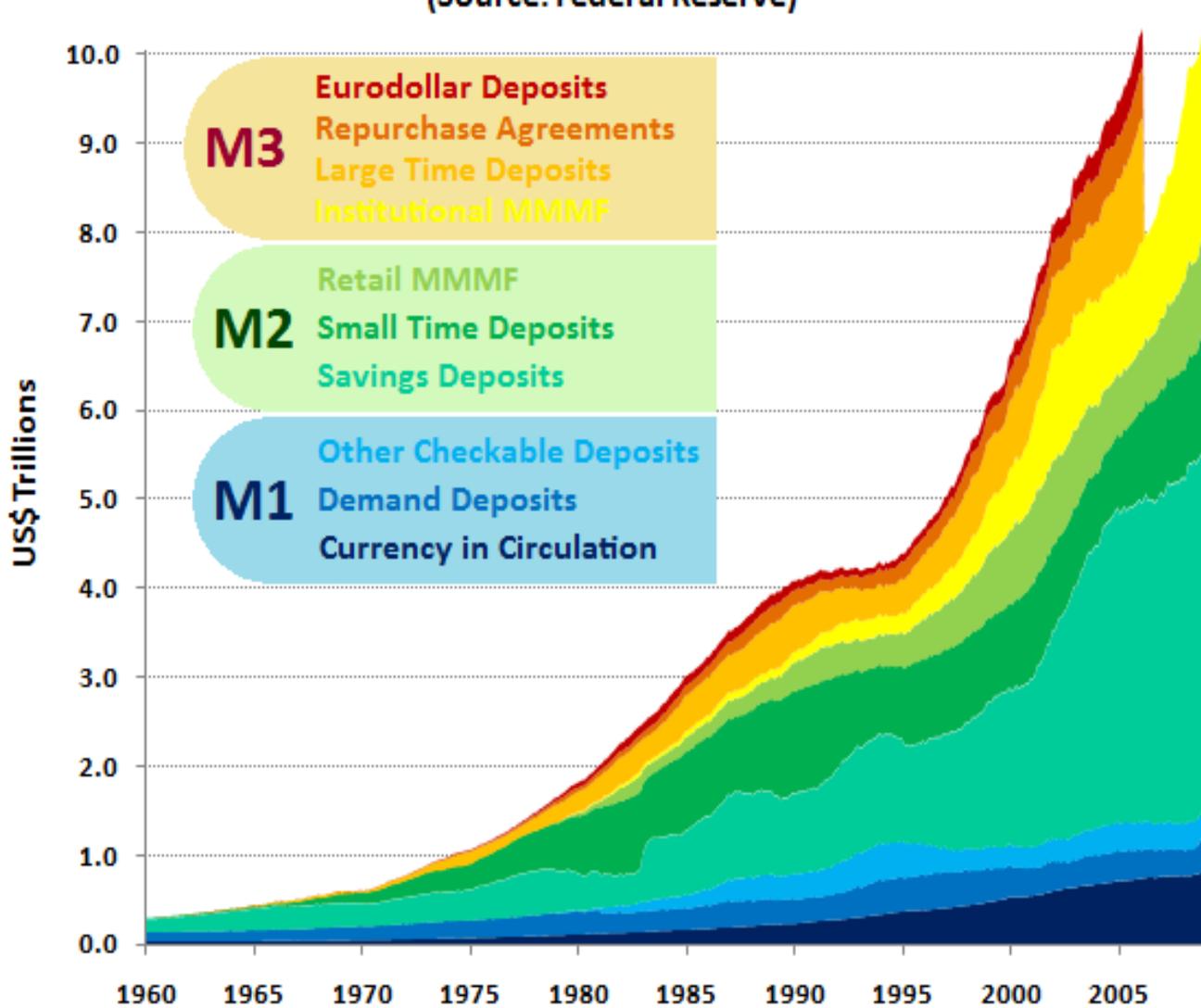
+Term Repo agreements

+ Term Eurodollar dep’s.



# Components of U.S. Monetary Aggregates

(Source: Federal Reserve)



Note: M3 includes all components of M2  
M2 includes all components of M1

[www.DollarDaze.org](http://www.DollarDaze.org)