

# Monetary Theory and Policy

## Chapter 3: What Is Money?

# Meaning of Money

- What is it?
- Money: anything that is generally accepted in payment for goods or services or in the repayment of debts.
- A rather broad definition

# Meaning of Money

- Money (a stock concept) is different from:
- Wealth: the total collection of pieces of property that serve to store value
- Income: flow of earnings per unit of time (a flow concept)

# Functions of Money

- Medium of Exchange:
  - Eliminates the trouble of finding a double coincidence of needs (reduces transaction costs)
  - Promotes specialization
- A medium of exchange must
  - be easily standardized
  - be widely accepted
  - be divisible
  - be easy to carry
  - not deteriorate quickly

# Functions of Money

- Unit of Account:

- used to measure value in the economy
- reduces transaction costs

- Store of Value:

- used to save purchasing power over time.
- other assets also serve this function
- Money is the most liquid of all assets but loses value during inflation

# Evolution of the Payments System

- Commodity Money: valuable, easily standardized and divisible commodities (e.g. precious metals, cigarettes).
- Fiat Money: paper money decreed by governments as legal tender.

# Evolution of the Payments System

- Checks: an instruction to your bank to transfer money from your account
- Electronic Payment (e.g. online bill pay).
- E-Money (electronic money):
  - Debit card
  - Stored-value card (e.g., ETC)
  - E-cash
  - AliPay, Wechat Pay

# Are We Headed for a Cashless Society?

- Predictions of a cashless society have been around for decades, but they have not come to fruition.
- Although e-money might be more convenient and efficient than a payments system based on paper, several factors work against the disappearance of the paper system.
- However, the use of e-money will likely still increase in the future.



# Will Bitcoin Become the Money of the Future?

- Bitcoin is type of electronic money created in 2009.
- By “mining,” Bitcoin is created by decentralized users when they use their computing power to verify and process transactions.
- Although Bitcoin functions as a medium of exchange it is unlikely to become the money of the future because it performs less well as a unit of account and a store of value.

# Measuring Money

- How do we measure money? Which particular assets can be called “money”?
- Construct monetary aggregates using the concept of liquidity:
- M1 (most liquid assets) = currency + traveler’s checks + demand deposits + other checkable deposits.

# Measuring Money

- M2 (adds to M1 other assets that are not so liquid) =  
M1 + small denomination time deposits + savings deposits and money market deposit accounts + money market mutual fund shares.

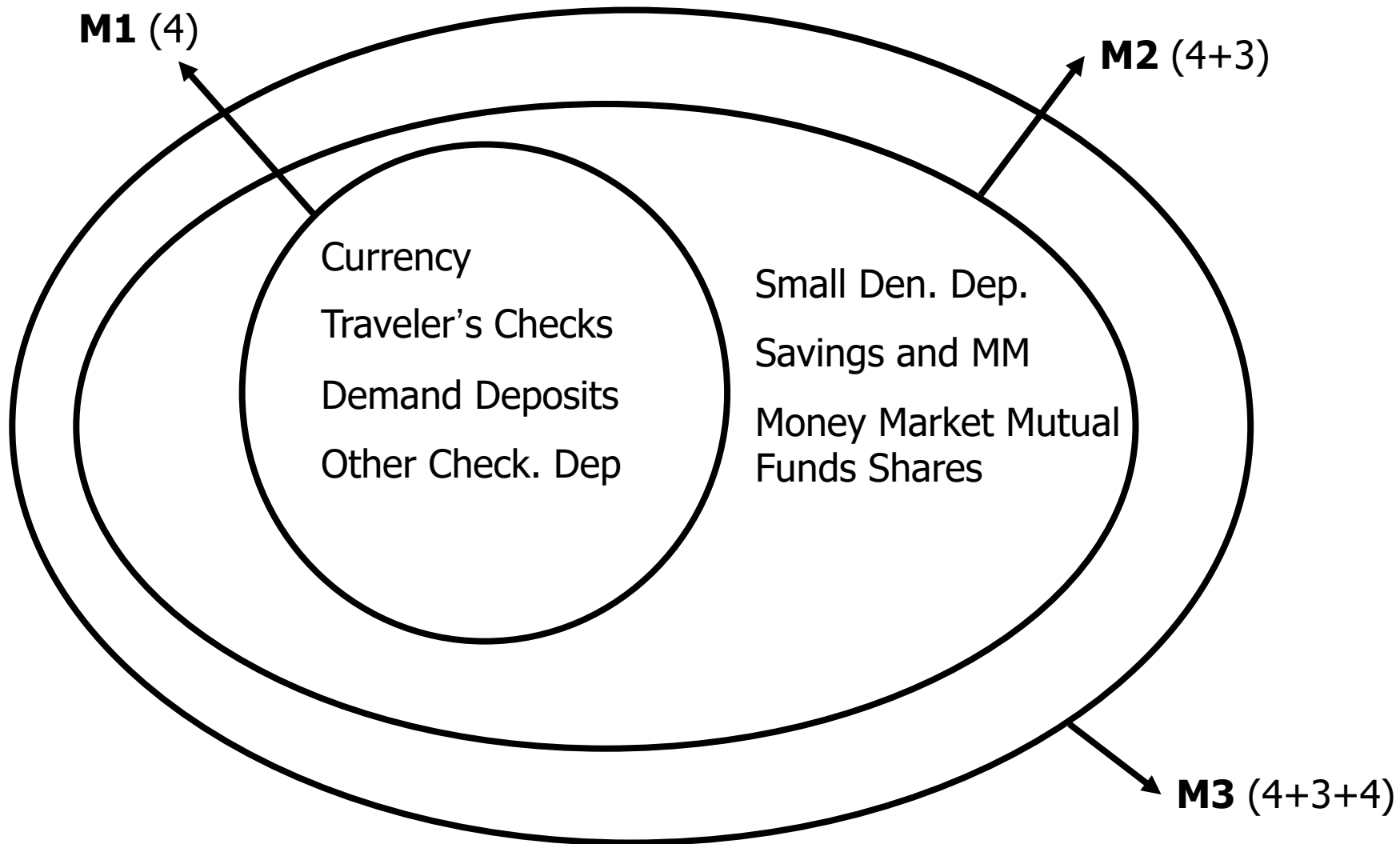
# Table 1 Measures of the Monetary Aggregates

**TABLE 1** Measures of the Monetary Aggregates

	<u>Value as of August 18, 2014, (\$ billions)</u>
M1 = Currency	1,206.1
+ Traveler's checks	3.3
+ Demand deposits	1,089.9
+ Other checkable deposits	<u>477.4</u>
Total M1	2,776.7
M2 = M1	
+ Small-denomination time deposits	533.0
+ Savings deposits and money market deposit accounts	7,338.2
+ Money market mutual fund shares (retail)	<u>642.5</u>
Total M2	11,290.4

Source: <http://www.federalreserve.gov/releases/h6/hist>.

# Figure 1 The Federal Reserve's Monetary Aggregates



# M1 vs. M2

- Does it matter which measure of money is considered?
- M1 and M2 can move in different directions in the short run (see figure).
- Conclusion: the choice of monetary aggregate is important for policymakers.

# 中国人民银行

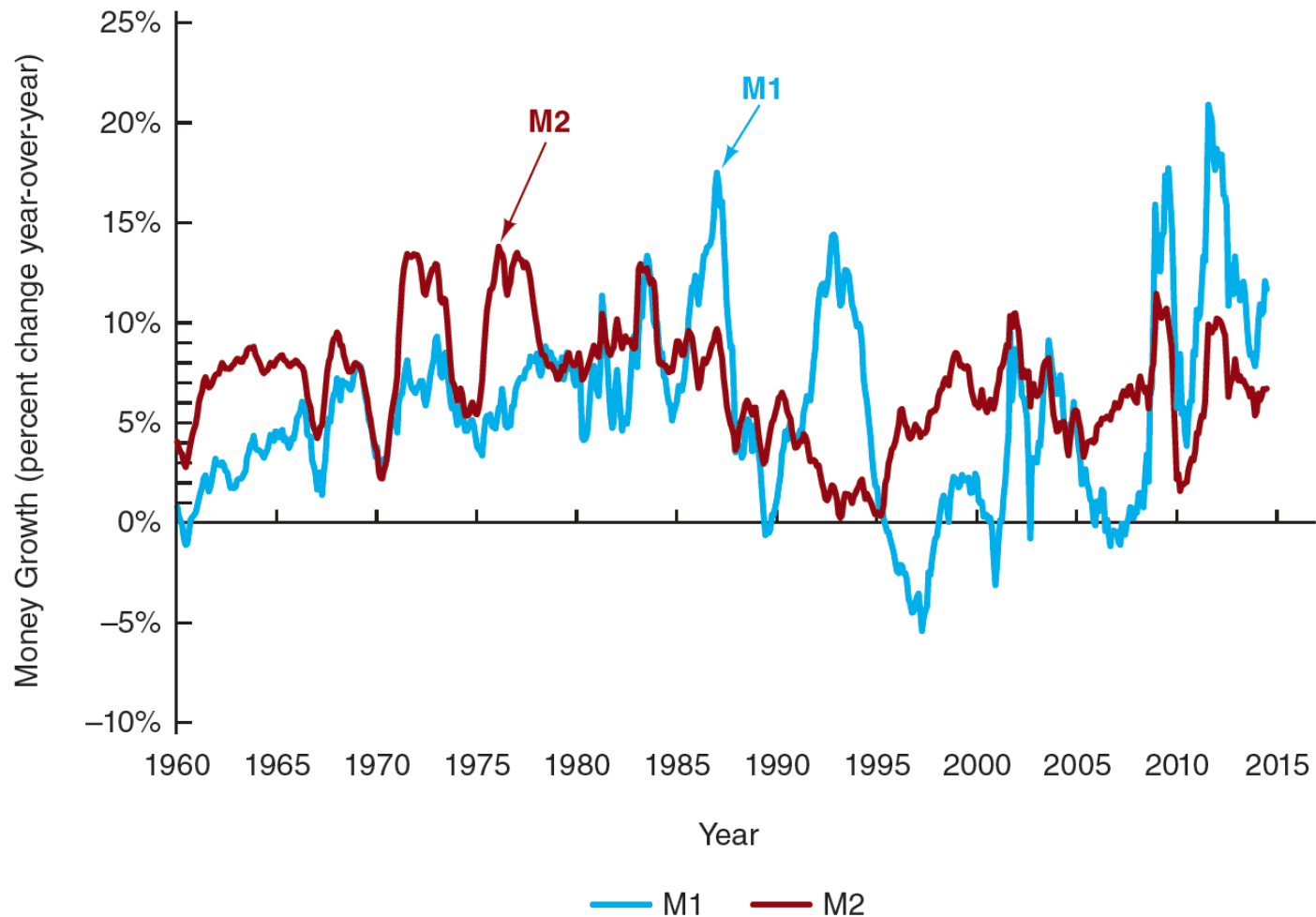
- 1994年10月28日，央行印发《中国人民银行货币供应量统计和公布暂行办法》
- M0：流通中现金
- M1：M0 + 企业存款 + 机关团体部队存款 + 农村存款 + 信用卡类存款（个人持有）
- M2：M1 + 城乡居民储蓄存款 + 企业存款中具有定期性质的存款 + 外币存款 + 信托类存款
- M3：M2 + 金融债券 + 商业票据 + 大额可转让定期存单等
- M3出于金融创新不断出现的现状考虑而设，目前暂不编制这一层次货币供应量。

# 中国人民银行

- 央行已经先后对货币供应量统计口径进行了四次修订
  1. 2001年6月，由于股票市场发展，央行将证券公司客户保证金计入M2
  2. 2002年，WTO后央行将在中国的外资、合资金融机构的人民币存款，分别计入不同层次货币供应量
  3. 2011年10月，鉴于非存款类金融机构在存款类金融机构的存款和住房公积金存款规模较大并已对货币供应量造成影响，央行将上述两类存款纳入M2的统计范围
  4. 2018年1月，央行完善货币供应量中货币市场基金部分的统计方法，用非存款机构部门持有的货币市场基金取代货币市场基金存款（含存单）



## FIGURE 2 Growth Rates of the M1 and M2 Aggregates, 1960–2014



- Source: Federal Reserve Bank of St. Louis, FRED database: <http://research.stlouisfed.org/fred2>

# How Reliable are the Money Data?

- Revisions are issued because:
  - Small depository institutions report infrequently
  - Adjustments must be made for seasonal variation
- We probably should not pay much attention to short-run movements in the money supply numbers, but should be concerned only with longer-run movements

## Table 2 Growth Rate of M2: Initial and Revised Series, 2008 (percent, compounded annual rate)

Period		Initial Rate	Revised Rate	Difference Revised Rate – Initial Rate
July	2007	4.1	4	-0.1
August	2007	10.6	8.2	-2.4
September	2007	5.2	6.2	1
October	2007	4.4	4	-0.4
November	2007	5.4	6.4	1
December	2007	5.9	5.9	0
January	2008	9.6	9.6	0
February	2008	19.9	19.7	-0.2
March	2008	14.7	13.4	-1.3
April	2008	3.7	3.3	-0.4
May	2008	2.3	2.4	0.1
June	2008	-3.7	-3.9	-0.2
Average		6.8	6.6	-0.2

Source: Federal Reserve Bulletin, various issues, Table 1.1 line 6: [www.federalreserve.gov/pubs/supplement/default.htm](http://www.federalreserve.gov/pubs/supplement/default.htm).