



货币体系

The Monetary System



货币的含义

The Meaning of Money

货币是经济中人们经常性地用来从其他人那里购买物品与服务的一组资产。

Money is the set of assets in the economy that people regularly use to buy goods and services from other people.



货币的三种职能

Three Functions of Money

- 货币在经济当中具有三种职能 Money has three functions in the economy:
 - 交换媒介 Medium of exchange
 - 记帐单位 Unit of account
 - 价值储藏 Store of value

货币就是货币所做的事情。
Money is what money does.



交换媒介

Medium of Exchange

交换媒介是作为支付手段
易于被接受的任何东西。

A **medium
of exchange** is anything that
is readily acceptable as
payment.

交换媒介

Medium of Exchange

- 没有货币，人们将不得不依靠**物物交换**——一种物品或服务交换另一种物品或服务——来得到他们所需要的东西。

Without money, people would have to rely on **barter** – the exchange of one good or service for another – to obtain the things they need.

- 在这种经济中，贸易要求欲望的双重一致性——一种不大可能的偶然巧合，即双方都有对方想要的物品或服务。

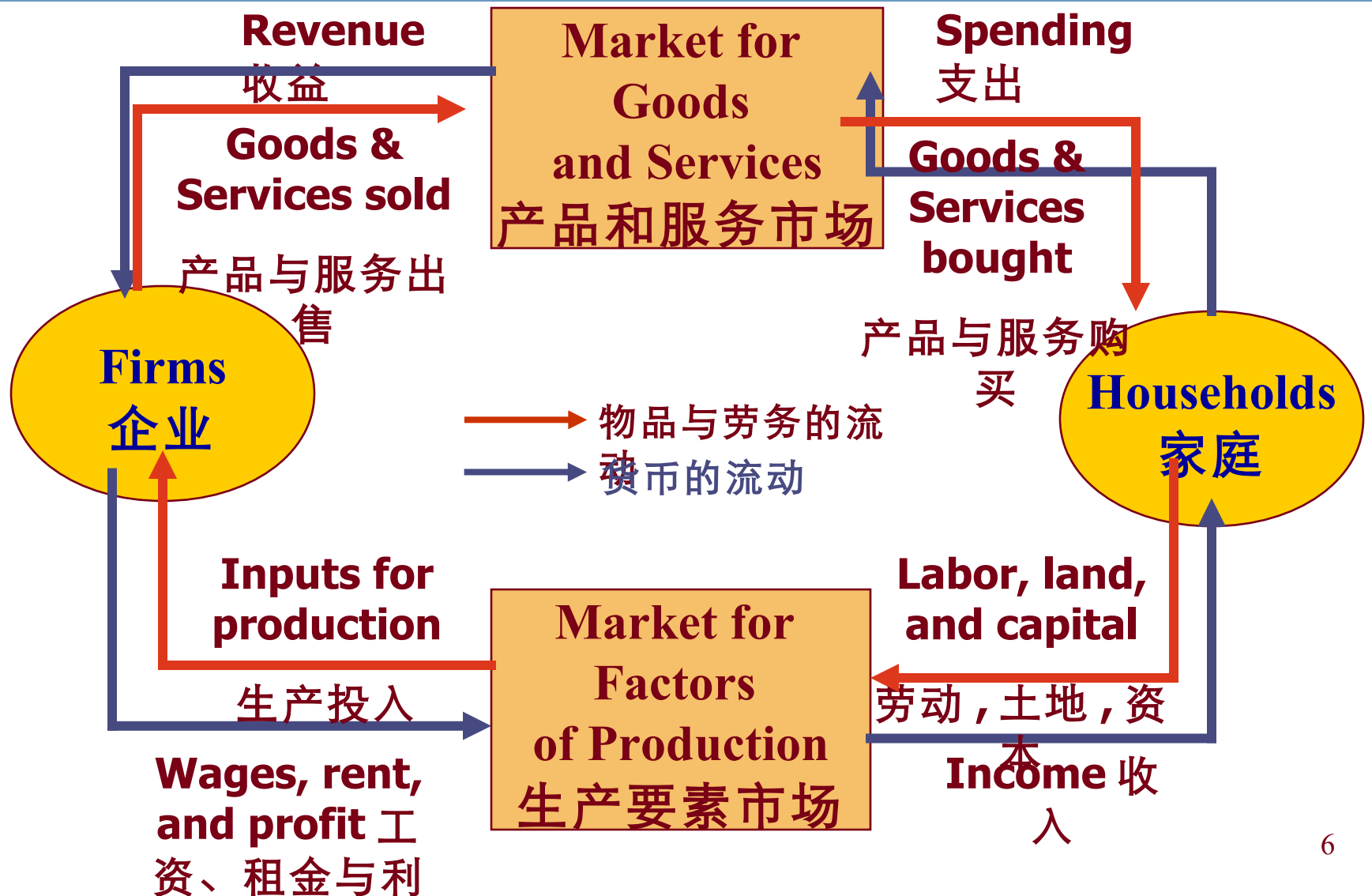
In such an economy, trade requires the *double coincidence of wants* – the unlikely occurrence that two people each have a good or service that the other wants.

- 货币的存在使得贸易变得容易（尽管也变得迂回了），从而便利了生产与消费。

The existence of money makes trade easier (although more roundabout), thus facilitates production and consumption.

循环流向图

The Circular-Flow Diagram





记帐单位

Unit of Account

记帐单位是人们用来标明价格和记录债务的尺度。

A **unit of account** is the yardstick people use to post prices and record debts.



价值储藏

Store of Value

价值储藏是人们能用来将购买力从现在转移到将来的一种东西。

A **store of value** is an item that people can use to transfer purchasing power from the present to the future.

财富指所有价值储藏的总量，包括货币和非货币资产。

Wealth is the total of all stores of value, including both money and nonmonetary assets

资产的例子

Examples of Assets

- 货币 *Money*
- 股票和债券 *Stocks and Bonds*
- 房子 *Houses*
- 油画 *Paintings*





流动性

Liquidity

- 当人们决定以哪种形式持有自己的财富时，他们必须使每种可能的资产的流动性与资产作为价值储藏的有用性（或收益性）相平衡。

When people decide in what form to hold their wealth, they have to balance the *liquidity* of each possible asset against the asset's *usefulness* or *profitability* as a store of value.

- **流动性**是一种资产能够转换成经济中的交换媒介的容易程度。

Liquidity is the ease with which an asset can be converted into ¹⁰



流动性 Liquidity

- 货币是最具流动性的资产，但带给人们的收益比其他许多资产要少。

Money is the most liquid asset, but it offers lower rates of return than many other assets.



货币的种类

The Kinds of Money

- **商品货币**采用具有内在价值的商品为其形式。 **Commodity money** takes the form of a commodity with intrinsic value.

- 例子：黄金、白银、香烟。

Examples: Gold, silver, cigarettes.

- 当一个经济用黄金作为货币（或者用可以随时兑换为黄金的纸币）时，可以说这个经济是在金本位下运行。

When an economy uses gold as money (or uses paper money that is convertible into gold on demand), it is said to be operating under a *gold standard*.



货币的种类

The Kinds of Money

- **法定货币**是由于政府的法令而被使用的货币。

Fiat money is used as money because of government decree.

- 它不具有内在价值。

It does not have
intrinsic value.

- 例子：硬币、纸币、支票存款。

Examples:

Coins, currency, check deposits

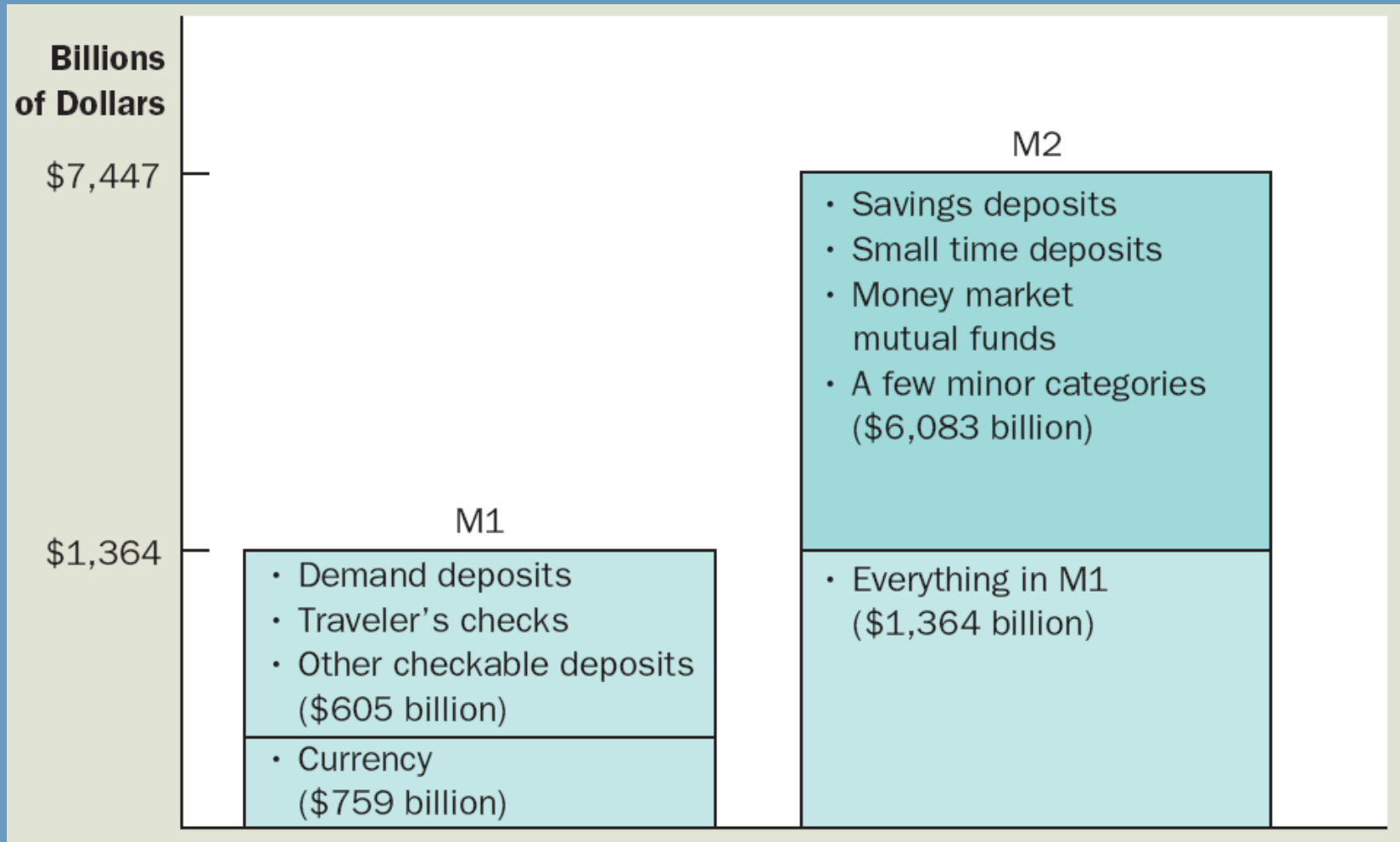


货币存量 Money Stock

- 在经济中流动着的货币量称为**货币存量** The quantity of money circulating in the economy is called the **money stock**.
- 划分货币资产与非货币资产并不容易。
It is not easy to draw a line between monetary and nonmonetary assets.

美国经济中的货币

Money in the U.S. Economy



The two most widely followed measures of the money stock are M1 and M2. This figure shows the size of each measure in 2007.



美国经济中的货币

Money in the U.S. Economy

- **通货（现金）**是公众手中持有的纸币和硬币。

Currency is the paper bills and coins in the hands of the public.

- **活期存款**是储蓄者**通过写支票的方式**发出请求就可以使用的银行帐户余额。

Demand deposits are balances in bank accounts that depositors can access on demand **by writing a check.**





借记卡、信用卡与货币

Debit Cards, Credit Cards and Money

- **借记卡** 帐上的余额包括在货币量的衡量中。

The account balance that lie behind **debit cards** are included in measures of the quantity of money.

- 借记卡自动地从银行帐户提取资金为所买的東西付帳——类似于支票。

Debit cards automatically withdraw funds from a bank account to pay for items bought, which



借记卡、信用卡与货币

Debit Cards, Credit Cards and Money

- **信用卡**并不包括在货币的所有衡量当中。

Credit cards are excluded from all measures of the quantity of money.

- 信用卡不是一种支付方式，而是一种延期支付方式（赊账）。

Credit cards are not a method of payment but a method of deferring payment.

- 但信用卡的引入减少了人们选择持有的货币量。

However the introduction of credit cards

所有的通货都在哪里？

Where Is All the Currency?

- **2007 年美国流通中的通货为 7,590 亿美元**
In 2007 there was about \$759 billion of U.S. currency outstanding.
 - **也就是说，每个成年人手中有 3,272 美元的通货。**
That is \$3,134 in currency per adult.
- **谁持有所有这些通货？**
Who is holding all this currency?
 - **由国外持有的通货** **Currency held abroad**
 - **由非法组织持有的通货** **Currency held by illegal entities**

中国经济中的货币

Money in China Economy

指 标	金 额 (2007.12)	包括的项目
M0	30,375.2 亿元 (人均 2,800 元)	流通中现金
M1 (货币)	152,560.1 亿元 (人均 14,064 元)	M0 活期存款
M2 (货币与准货币)	403,442.2 亿元 (人均 37,193 元)	M1 定期存款 储蓄存款 其他存款

* 人均货币量 = 货币总量 / 15 岁以上成年人口数
资料来源：中国人民银行统计季报。



联邦储备

The Federal Reserve



- **联邦储备**履行中央银行的职能。

The Federal Reserve (Fed) serves as the nation's central bank.

- 旨在监督银行体系。

It is designed to oversee the banking system.

- 调节经济中的货币数量。

It regulates the quantity of money in the economy.

联邦储备

The Federal Reserve

- **Fed 创立于 1914 年，恰在一系列银行倒闭之后，这使得国会相信，美国需要一个中央银行以确保国家银行体系的健康 The Fed was created in 1914 after a series of bank failures convinced Congress that the U.S. needed a central bank to ensure the health of the nation's banking system.**

联邦储备体系

The Federal Reserve System

- 联邦储备体系的构成

The Structure of the Federal Reserve System:

- 联邦储备体系的基本要素是

The primary elements in the Federal Reserve System are:

1) 理事会（委员会）

Governors

The Board of

2) 各地区联邦储备银行

Federal Reserve Banks

The Regional

美联储的结构：理事会

The Fed's Organization: The Board of Governors

- Fed 由**理事会**管理，理事会由总统任命并经参议院批准的 7 名成员组成。

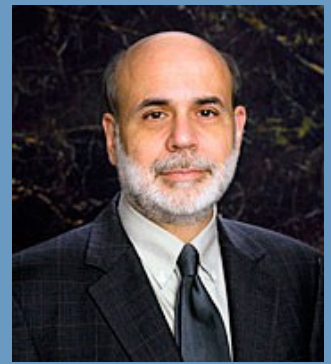
The Fed is run by a **Board of Governors**, which has seven members appointed by the President and confirmed by the Senate.

- 在 7 名成员中，最重要的是主席。主席领导 Fed 的全体职员，主持理事会会议，在国会各委员会前就 Fed 的政策作证。

Among the seven members, the most important is the chairman. The chairman directs the Fed staff, presides over board meetings, and testifies about Fed policy in front of Congressional Committees.

理事会

The Board of Governors



Ben S. Bernanke

- **理事会 The Board of Governors**
 - **7 名成员 Seven members**
 - **由总统任命 Appointed by the President**
 - **由参议院批准 Confirmed by the Senate**
 - **任期 14 年，任期交叉，每两年换一人。**

Serve staggered 14-year terms so that one comes vacant every two years.
 - **总统任命委员中一人为主席，任期 4 年。**

President appoints a member as chairman to serve a four-year term.

美联储的结构： 联邦储备银行

The Fed's Organization: The Federal Reserve Banks

联邦储备体系由位于华盛顿的联邦储备理事会和 12 个地区性联邦储备银行组成。

The Federal Reserve System is made up of the Federal Reserve Board in Washington, D.C., and twelve regional Federal Reserve Banks.

联邦储备银行

The Federal Reserve Banks

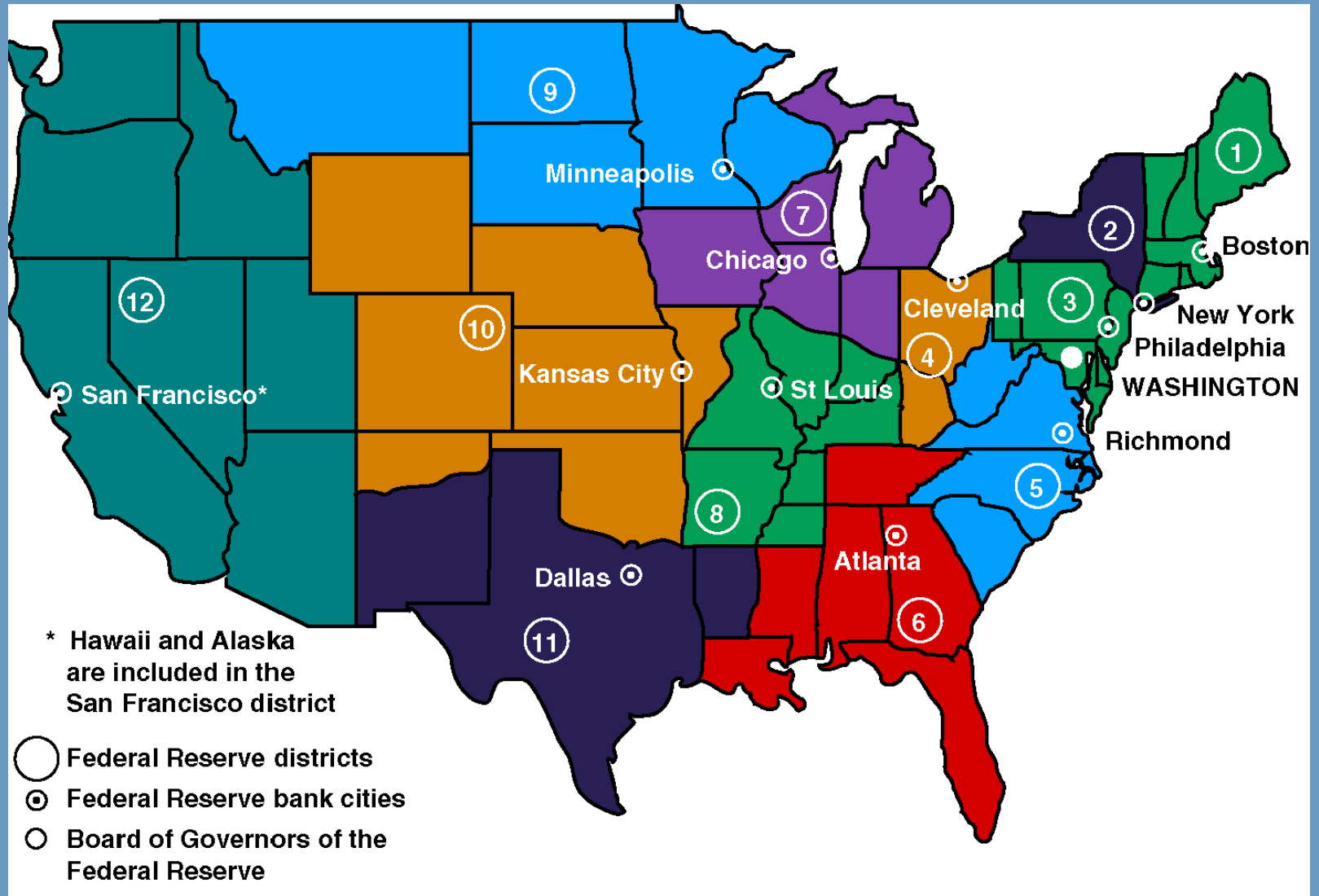
联邦储备银行 The Federal Reserve Banks

- 12 个地区性银行 12 District banks
- （每个地区性银行的） 9 个理事 Nine directors
 - 3 个由美联储理事会任命。
Three appointed by the Board of Governors.
 - 6 个由所在区域的商业银行选举。
Six are elected by the commercial banks in the district.
- 理事们任命地区的行长，任命需经美联储理事会批准。

The directors appoint the district president which is approved by the

联邦储备银行

The Federal Reserve Banks



联邦储备银行

The Federal Reserve Banks

联邦储备银行

The Federal Reserve

Banks

- 纽约 Fed 执行 Fed 某些最为重要的政策决议。

The New
York Fed implements some of the
Fed's most important policy decisions.

美联储的结构：联邦公开市场委员会

The Fed's Organization: The Federal Open Market Committee

- **联邦公开市场委员会**
The Federal Open Market Committee (FOMC)
 - **是联邦储备体系主要的政策制定机关**
Serves as the main policy-making organ of the Federal Reserve System.
 - **大约每 6 周召开一次会议以讨论经济形势。** **Meets approximately every six weeks to review the economy.**

联邦公开市场委员会

The Federal Open Market Committee

- 联邦公开市场委员会由以下拥有投票权的成员组成：

The Federal Open Market Committee (FOMC) is made up of the following voting members:

- 美联储理事会的主席和其他 6 名成员。

The chairman and the other six members of the Board of Governors.

- 纽约联邦储备银行的行长。

The president of the Federal Reserve Bank of New York.

- 其他地区性联邦储备银行的行长（4 票，每年轮换）

The presidents of the other

联邦公开市场委员会

The Federal Open Market Committ ee

货币政策是由联邦公开市场委员会来实施的。

Monetary policy is conducted by the Federal Open Market Committee.



美联储的三个主要职能

Three Primary Functions of the Fed

- 管理银行，以保证他们遵守旨在促进安全和稳健的银行业务的联邦法律。

Regulates banks to ensure they follow federal laws intended to promote safe and sound banking practices.

- 作为银行的银行，向银行发放贷款并作为最终的贷款人。

Acts as a banker's bank, making loans to banks and as a lender of last resort.

- 通过控制货币供给以实施**货币**政策。

Conducts **monetary policy** by controlling the money supply.



公开市场运作

Open-Market Operations

- **货币供给**是经济中可得的货币数量。
The **money supply** is the quantity of money available in the economy.
- Fed 改变经济中货币供给的主要方式是通过**公开市场运作**。

The primary way in which the Fed changes the money supply is through **open-market operations**.

- Fed 购买和销售美国政府债券。

The Fed purchases

公开市场运作

Open-Market Operations

- 为了**增加货币的供给**， Fed 从公众手中**购买**政府债券。

To **increase the money supply**, the Fed **buys** government bonds from the public.

- 为了**减少货币的供给**， Fed 向公众**出售**政府债券。

To **decrease the money supply**, the Fed **sells** government bonds to the public.

中国的中央银行

Central Bank in China



- 中国的中央银行是**中国人民银行**（ The People's Bank of China, PBOC ） 。
 - 1948 年 12 月 1 日在华北银行、北海银行、西北农民银行的基础上合并组成的。
 - 1983 年 9 月， 国务院决定中国人民银行专门行使国家**中央银行**职能。
 - 1995 年 3 月， 八届人大三次会议通过了《人民银行法》， 至此， 中国人民银行作为中央银行以法律形式被确定下来。
 - 2003 年 4 月， 根据十届人大审议通过的国务院机构改革方案， 将中国人民银行对银行、 金融资产管理公司、 信托投资公司及其他存款类金融机构的监管职能分离出来， 并和中央金融工委的相关职能进行整合， 成立**中国银行业监督管理委员会**（银监会）。

中国的中央银行

Central Bank in China

- 中国人民银行的主要职责是：
 - 制定和执行货币政策
 - 发行人民币
 - 管理人民币流通
 - 经理国库
 - 维护金融稳定
 - 防范和化解金融风险
 - 制定和实施外汇管理政策
 - 持有、管理、经营国家外汇储备
 - 持有、管理、经营黄金储备
 - 代表中国参加国际金融组织
 - 代表中国政府向外国政府提供贷款
 - 代表中国政府向外国政府提供担保
 - 代表中国政府向外国政府提供援助
 - 代表中国政府向外国政府提供贷款
 - 代表中国政府向外国政府提供担保
 - 代表中国政府向外国政府提供援助

中国人民银行的组织机构

The Organization of PBOC

- 中国人民银行有 18 个内设机构和 11 个分支（地区）机构。
 - **内设机构**包括条法司、货币政策司、金融市场司和金融稳定司等分别履行中央银行各项职责的部门。
 - **分支机构**包括分管全国 31 个地区的 9 个分行和北京、重庆 2 个营业部。

中国人民银行的组织机构

The Organization of PBOC



数字代表分行辖区
圆圈代表分行所在城市

中国人民银行的组织机构

The Organization of PBOC

与货币政策制定相关的组织机构是**货币政策司**和**货币政策委员会**。

有关年度货币供应量、利率、汇率或者其他货币政策重要事项的决定方案由中国人民银行报请**国务院**批准后执行

。

货币政策司

- 中国人民银行货币政策司的主要职能是：
 - 研究、拟订货币政策中介目标并组织执行
 - 研究提出各种货币政策工具选择建议并组织实施
 - 研究拟订本外币利率政策、管理办法及人民币汇率政策
 - 提出并组织实施利率调整方案、汇率改革方案
 - 拟订中央银行公开市场政策和业务操作规程并组织实施
 - 承办中国人民银行货币政策委员会秘书处的日常工作

货币政策委员会



周小川

- **中国人民银行货币政策委员会**是中国人民银行制定货币政策的咨询议事机构。其职责是，在综合分析宏观经济形势的基础上，依据国家的宏观经济调控目标，讨论货币政策有关事项，并提出建议。
- 每季度召开一次例会。
- 当前的货币政策委员会由以下 15 人组成：

主席：周小川 人民银行行长

委员：

尤 权 国务院副秘书长

胡晓炼 中国人民银行副行长

李 勇 财政部副部长

马建堂 国家统计局局长

主席

郭树清 中国证券监督管理委员会主席

姜建清 中国银行业协会会长

授

陈雨露 中国人民大学校长、教授

教授

杜金富 中国人民银行副行长

朱之鑫 国家发展改革委员会副主任

易 纲 国家外汇管理局局长

尚福林 中国银行业监督管理委员会

项俊波 中国保险监督管理委员会主席

宋国青 北京大学国家发展研究院教

钱颖一 清华大学经济管理学院院长、

中国人民银行的公开市场业务

包括三种交易：

- **回购交易：**中国人民银行向一级交易商（40家商业银行）卖出或买入有价证券，并约定在未来特定日期买回或卖出有价证券。
- **现券交易：**央行直接从二级市场买入或卖出债券。
- **发行中央银行票据：**即中国人民银行发行的短期债券。央行通过发行央行票据可以回笼货币，央行票据到期则体现为投放货币。

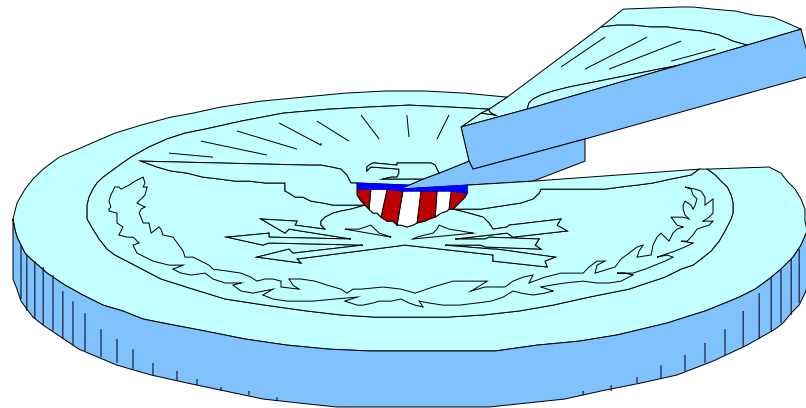


银行与货币供给

Banks and The Money Supply

银行可以影响经济中活期储蓄的数量和货币供给。

Banks can influence the quantity of demand deposits in the economy and the money supply.





银行与货币供给

Banks and The Money Supply

- 如果银行以全额准备金持有所有存款，银行就不影响货币供给。

If banks hold all deposits in reserve, banks do not influence the supply of money.

- **准备金**是银行吸收但没有贷出的存款。

Reserves are deposits that banks have received but have not loaned out.



银行与货币供给

Banks and The Money Supply

- 我们用 T 型帐户 表示一个银行的财务状况。
We can express the financial position of the bank with a *T-account*.
- 放入银行的存款作为银行的 负债 记录。
Deposits into a bank are recorded as its *liabilities*.
- 银行再把存款作为准备金持有，记做 资产。
The bank then keeps the deposits as reserves, which are recorded as *assets*.

银行与货币供给

Banks and The Money Supply

- 这个 T 帐户表示一个银行

This T-Account shows a bank that...

- ...接受存款
accepts deposits,
- ...并将其全部作为准备金

keeps all of them as reserves.

第一国民银行 First National Bank			
资产 Assets		负债 Liabilities	
准备金 Reserves	\$100.00	储蓄 Deposits	\$100.00
总资产 Total Assets		总负债 Total Liabilities	
\$100.00		\$100.00	



银行与货币供给

Banks and The Money Supply

- 在一个**部分准备金的银行体系**里，银行只保留部分的存款货币作为准备金而将余下的贷出。

In a **fractional reserve banking system**, banks hold a fraction of the money deposited as reserves and lend out the rest.

- 存款总额当中银行必须留作准备金的部分被称为准备金率。

The fraction of total deposits that a bank has to keep as reserves is called the *reserve ratio*.

- 贷款成为银行的资产。

Loans become an asset to the bank.

货币创造 Money Creation

- 这个 T 帐户表示一个银行

This T-Account shows a bank that...

- ...接受存款
accepts deposits,
- ...将其中一部分作为准备金
keeps a portion as reserves,
- ...并将其余贷出
and lends out the rest.

- 假定准备金率为 10 %

It assumes a reserve ratio of 10%

第一国民银行 First National Bank			
资产 Assets		负债 Liabilities	
准备金 Reserves	\$10.00	储蓄 Deposits	\$100.00
贷款 Loans	\$90.00		
总资产 Total Assets	\$100.00	总负债 Total Liabilities	\$100.00

货币创造

Money Creation

- 当一个银行贷出货币时，那些货币通常存入另一家银行。

When one bank loans money, that money is generally deposited into another bank.

- 这就创造了更多的存款和更多的准备金以供贷出。

This creates *more* deposits and more reserves to be lent out.

货币创造

Money Creation

当银行从其准备金中发放贷款时，货币供给增加了。

When a bank makes a loan from its reserves, the money supply increases.

货币创造 Money Creation

第一国民银行

First National Bank

资产 Assets 负债 Liabilities

准备金 Reserves \$10.00 存款 Deposits **\$100.00**

贷款 Loans \$90.00

总资产 Total Assets \$100.00 总负债 Total Liabilities \$100.00

第二国民银行

Second National Bank

资产 Assets 负债 Liabilities

准备金 Reserves \$9.00 存款 Deposits **\$90.00**

贷款 Loans \$81.00

总资产 Total Assets \$90.00 总负债 Total Liabilities \$90.00

货币供给 = \$190.00!
Money Supply = \$190.00!

货币创造

Money Creation

经济当中最终创造的货币是多少？

**How much money is eventually
created in this economy?**



货币创造

Money Creation

经济当中最终创造的货币是多少？

How much money is eventually created in this economy?

初始存款 Original deposit	= \$ 100.00
第一国民银行贷款 First National lending	= \$ 90.00 [=0.9 x \$100.00]
第二国民银行贷款 Second National lending	= \$ 81.00 [=0.9 x \$90.00]
第三国民银行贷款 Third National lending	= \$ 72.90 [=0.9 x \$81.00]
<div>↓</div> <div>↓</div>	
Total money supply	= \$1,000



货币乘数

The Money Multiplier

货币乘数是银行系统相对于每 1 美元的央行发行货币（此处等于银行准备金）所创造的货币数量。

The **money multiplier** is the amount of money the banking system generates with each dollar of money issued by the central bank (equal to bank reserves here).

$$\text{货币乘数} = \text{货币总量} / \text{准备金} = \$1,000 / \$100 = 1$$



货币乘数

The Money Multiplier

货币乘数是准备金率的倒数

The money multiplier is the reciprocal of the reserve ratio:

$$\text{Multiplier} = 1/R$$

- 中国目前的准备金率为 20.5% 。

With a reserve requirement $R = 20.5\%$

- 则乘数为 4.9

The multiplier is 4.9.



货币创造

Money Creation

在货币创造过程结束时，从有了更多交换媒介的意义上说，经济更有流动性，但经济并没有比以前更富有。

At the end of the process of money creation, the economy is more liquid in the sense that there is more of the medium of exchange, but the economy is no wealthier than before.



中央银行控制货币的工具

Fed's Tools of Monetary Control

- Fed 在其货币（政策）工具箱中有三种工具

The Fed has three tools in its monetary toolbox:

- 公开市场运作 Open-market operations
- 改变法定准备金 Changing the reserve requirement
- 改变贴现率 Changing the discount rate



公开市场运作

Open-Market Operations

- 当 Fed 从公众购买或向公众出售政府债券时，它就进行了**公开市场运作**。

The Fed conducts **open-market operations** when it buys government bonds from or sells government bonds to the public:

- 当 Fed **购买**政府债券时，货币供给**增加**。

When the Fed **buys** government bonds, the money supply **increases**.

- 当 Fed **卖出**政府债券时，货币供给**减少**。

The money supply **decreases** when the Fed **sells** government bonds.



改变法定准备金

Changing the Reserve Requirement

- **法定准备金**是银行总的准备金中不能贷出的数量（%）。

The **reserve requirement** is the amount (%) of a bank's total reserves that may not be loaned out.

- **提高**法定准备金**减少**了货币供给。
Increasing the reserve requirement **decreases** the money supply.
- **降低**法定准备金**增加**了货币供给。
Decreasing the reserve requirement **increases** the money supply.



改变贴现率

Changing the Discount Rate

- **贴现率**是 Fed 向银行发放贷款的利率 The **discount rate** is the interest rate the Fed charges banks for loans.
 - **提高**贴现率**减少**了货币供给。
Increasing the discount rate decreases the money supply.
 - **降低**贴现率**增加**了货币供给。
Decreasing the discount rate increases the money supply.



中国人民银行的货币政策

- 公开市场业务
- 存款准备金率
- 中央银行贷款（再贷款、再贴现）
- 利率政策（包括央行基准利率、金融机构法定存贷款利率等）



控制货币供给中的问题

Problems in Controlling the Money Supply

- Fed 对货币供给的控制不是精确的。

The Fed's control of the money supply is not precise.

- Fed 必须应对两个问题，它们是由于部分准备的银行制度导致的。

The Fed must wrestle with two problems that arise due to fractional-reserve banking.

- Fed 不能控制家庭选择作为银行存款持有的货币。

The Fed does not control the amount of money that households choose to hold as deposits in banks.

- Fed 不能控制银行选择贷出的货币数量。

The Fed does not control the amount of money that bankers choose to lend.



银行挤兑和货币供给

Bank Runs and the Money Supply

- 由于银行只以准备金持有部分存款，因此它不可能满足所有储户提款的要求，即使银行实际上有偿付能力（资产大于负债）。

Because a bank holds only a fraction of its deposits in reserve, it cannot satisfy withdrawal request from all depositor even if it is in fact solvent (meaning that its assets exceed its liabilities).

- 银行挤兑使货币创造的过程反方向起作用，从而减少了货币供给。

Bank runs reverse the process of money creation, thus reduce the money supply.



总结

Summary

- 货币在经济中发挥三种职能：作为交换媒介、记帐单位和价值储藏。

Money serves three functions in an economy: as a medium of exchange, a unit of account, and a store of value.

- 商品货币是具有内在价值的货币。 **Commodity money is money that has intrinsic value.**

- 法定货币是没有内在价值的货币。

Fiat money is money without intrinsic value.



总结

Summary

- **联邦储备——美国的中央银行——管理美国的货币体系。**

The Federal Reserve, the central bank of the United States, regulates the U.S. monetary system.

- **它通过公开市场运作、改变法定准备金率或贴现率来控制货币供给。**

It controls the money supply through open-market operations or by changing reserve requirements or the discount rate.



总结

Summary

- 当银行贷出其存款时，他们增加了经济当中的货币数量。

When banks loan out their deposits, they increase the quantity of money in the economy.

- 因为 Fed 不能控制银行选择贷出的数量或家庭选择存入银行的数量，Fed 对货币供给的控制是不完全的。

Because the Fed cannot control the amount bankers choose to lend or the amount households choose to deposit in banks, the Fed's control of the money supply is imperfect.