



开放经济宏观经济学：基本概念

Open-Economy Macroeconomics:
Basic Concepts



开放与封闭经济

Open and Closed Economies

- **封闭经济**是一个与世界上其他经济没有相互往来的经济。

A **closed economy** is one that does not interact with other economies in the world.

- 没有出口、进口，也没有资本流动。

There are no exports, no imports, and no capital flows.



开放与封闭经济

Open and Closed Economies

开放经济是一个与世界上其他经济自由往来的经济。

。 An **open economy** is one that interacts freely with other economies around the world.



开放经济

An Open Economy

- 一个开放经济与其他国家相互往来的方式有两种。

**An
open economy interacts with other
countries in two ways.**

- 它在世界产品市场上买卖物品和服务。
It buys and sells goods and services in
world product markets.
- 它在世界金融市场上买卖资本资产。
It buys and sells capital assets in
world financial markets.



物品的流动：出口、进口与净出口

The Flow of Goods: Exports, Imports, Net Exports

- **出口**是在国内生产并在国外销售的物品与服务。

Exports are domestically produced goods and services that are sold abroad.

- **进口**是在国外生产并在国内销售的物品与服务。

Imports are foreign produced goods and services



物品的流动：出口、进口与净出口

The Flow of Goods: Exports, Imports, Net Exports

- 净出口（ NX ）是一国的出口值减去进口值。

Net exports (NX) are the value of a nation's exports minus the value of its imports.

- 净出口也被称为贸易余额。

Net exports are also called the trade balance.



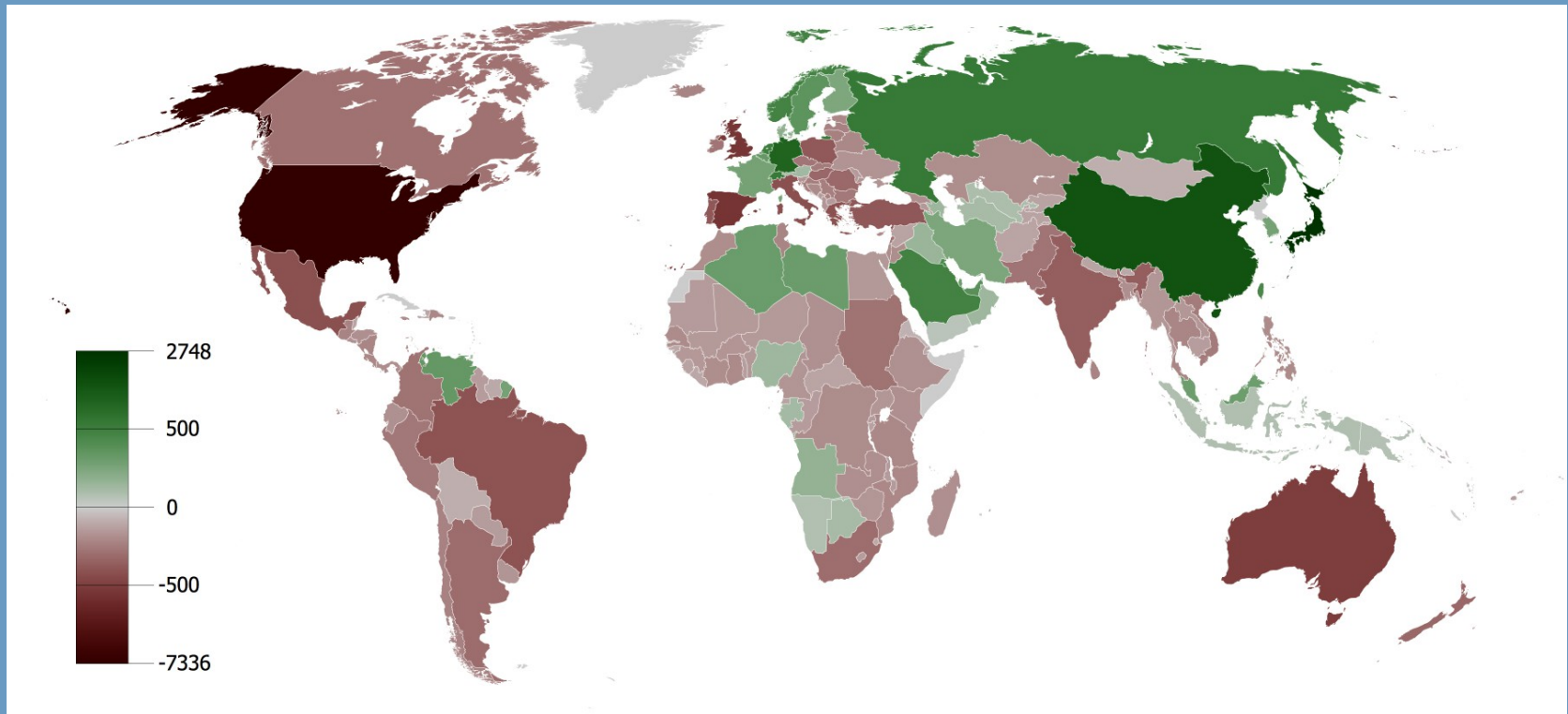
物品的流动：出口、进口与净出口

The Flow of Goods: Exports, Imports, Net Exports

- **贸易赤字**是净出口（ NX ）为负值的情况。
A **trade deficit** is a situation in which net exports (NX) are negative.
进口 > 出口 Imports > Exports
- **贸易盈余**是净出口（ NX ）为正值的情况。
A **trade surplus** is a situation in which net exports (NX) are positive.
出口 > 进口 Exports > Imports
- **贸易平衡**指的是净出口等于零——出口和进口恰好相等。
Balanced trade refers to when net exports are zero – exports and imports are exactly

世界上的贸易平衡

Trade Balance in the World



Cumulative Current Account Balance from 1980 till 2008, in US Billion Dollars



影响净出口的因素

Factors That Affect Net Exports

- **消费者对于国内与国外物品的嗜好。**
The tastes of consumers for domestic and foreign goods.
- **国内与国外物品的价格。**
The prices of goods at home and abroad.
- **人们用国内通货购买国外通货的交换比率——汇率。**
The exchange rates at which people can use domestic currency to buy



影响净出口的因素

Factors That Affect Net Exports

- **国内与国外消费者的收入。**
The incomes of consumers at home and abroad.
- **物品从一国运往另一国的运输成本。**
The costs of transporting goods from country to country.
- **政府对国际贸易的政策。**
The policies of the government toward international trade.

美国经济的国际化

The Internationalization of the U.S. Economy

- 美国经济是一个很大且开放的经济——它进口和出口巨大数量的物品与服务。

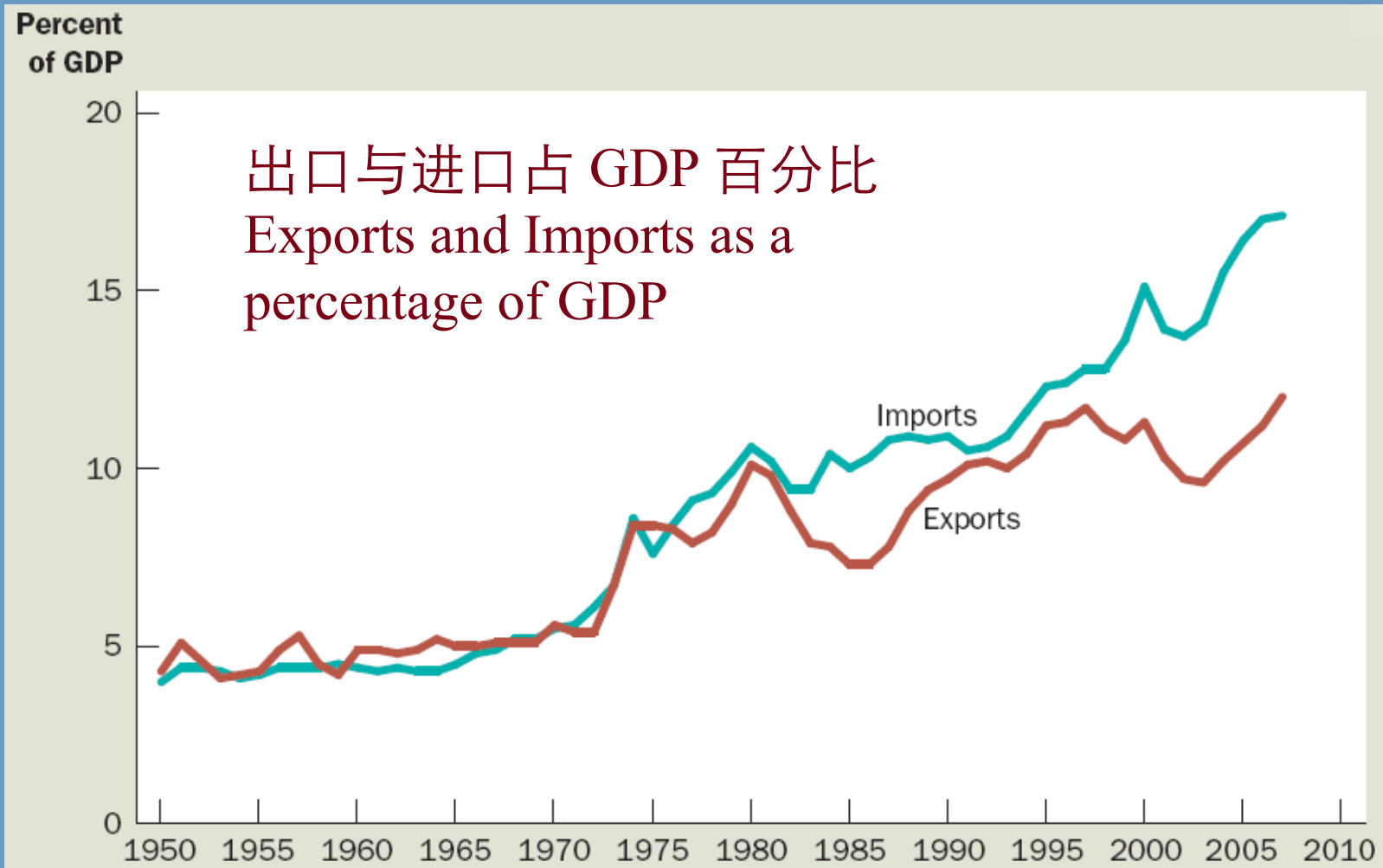
The U.S. is a very large and open economy – it imports and exports huge quantities of goods and services.

- 在过去的 50 年里，国际贸易与金融已变得越来越重要。

Over the past five decades, international trade and finance have become increasingly important.

美国经济的国际化

The Internationalization of the U.S. Economy



美国经济的国际化

The Internationalization of the U.S. Economy

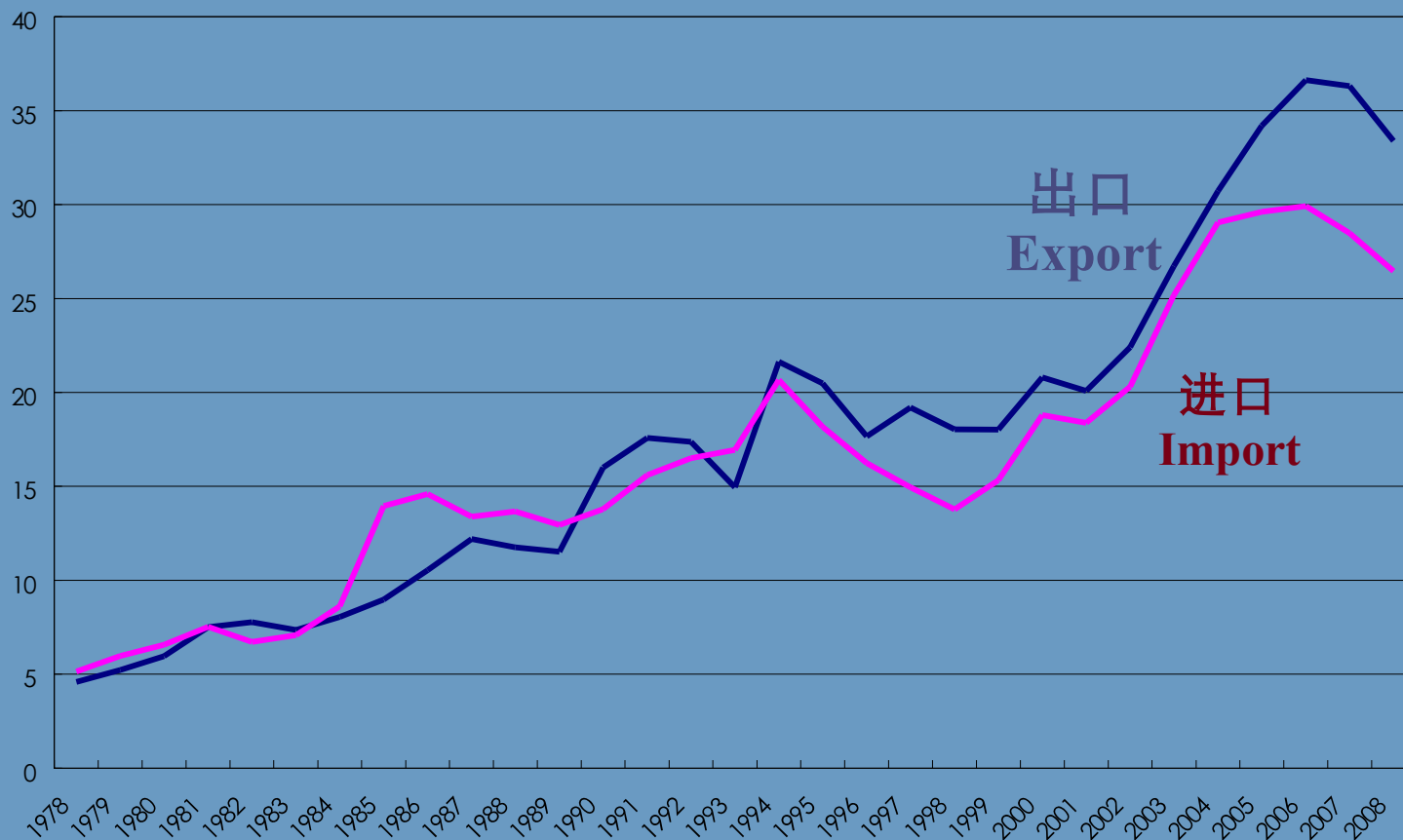
美国的国际贸易为何增长？

Why international trade in the U.S. increases?

- **交通的便捷**
Improvements in Transportation
- **通讯的发达**
Advances in Telecommunications
- **技术的进步**
Technological Progress
- **政府的政策**
Government's Trade Policy

中国经济的国际化

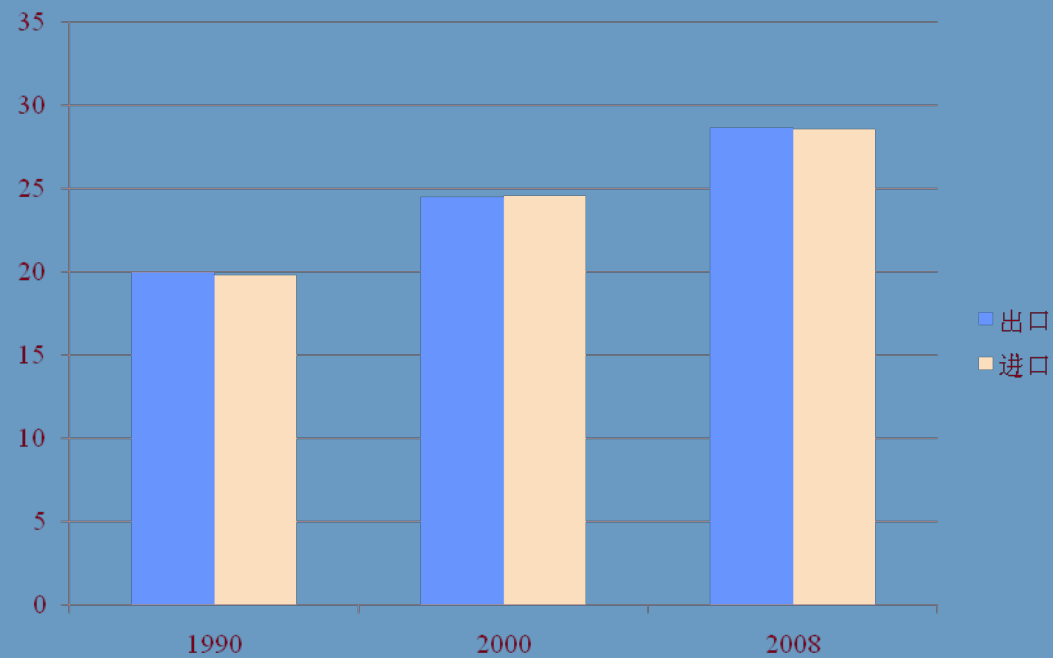
The Internationalization of China Economy



资料来源：《中国统计年鉴
2009》

世界经济的国际化

The Internationalization of the World Economy



资料来源：《国际经济年鉴（历年）》，中国统计出版社。



资本流动：资本净流出

The Flow of Capital: Net Capital Outflow

- **资本净流出**指的是国内居民购买的国外资产减去外国人购买的国内资产。

Net capital outflow refers to the purchase of foreign assets by domestic residents minus the purchase of domestic assets by foreigners.

资本流动：资本净流出

The Flow of Capital: net capital outflow

- 当一个美国居民**购买**了墨西哥电话公司（Telmex）的股票，这一购买**增加**了美国的资本净流出。

When a U.S. resident **buys** stock in Telmex, the Mexican phone company, the purchase **raises** U.S. net capital outflow.

- 当一个日本居民**购买**了美国政府发行的债券，这一购买**减少**了美国的资本净流出。

When a Japanese residents **buys** a bond issued by the U.S. government, the purchase **reduces** the U.S. net capital outflow.



资本净流出的两种形式

Two Forms of net capital outflow

- **对外直接投资 Foreign direct investment**
 - 例如，麦当劳在俄罗斯开一家快餐店。
Example: McDonald's opens up a fast food outlet in Russia.
- **对外间接投资 Foreign portfolio investment**
 - 例如，一个美国人买了一家俄罗斯公司的股票。
Example: an American buys stock in a Russian corporation.



影响资本净流出的因素

Factors that Influence Net Capital Outflow

- **支付给国外资产的实际利率。**
The real interest rates being paid on foreign assets.
- **支付给国内资产的实际利率。**
The real interest rates being paid on domestic assets.
- **持有国外资产所察觉到的经济和政治风险。**
The perceived economic and political risks of holding assets abroad.
- **影响外国人对国内资产所有权的政府政策。**
The government policies that affect foreign ownership of domestic assets.



净出口与资本净流出的相等

The Equality of Net Exports and Net Capital Outflow

- 净出口 (NX) 和资本净流出 (NCO) 是紧密联系的。

Net exports (NX) and net capital outflow (NCO) are closely linked.

- 核算事实表明，对于一个经济整体而言，NX 和 NCO 必须相等。

A fact of accounting states that, for an economy as a whole, NX and NCO must balance each other so that:

资本净流出 = 净出口

$NCO = NX$



净出口与资本净流出的相等

The Equality of Net Exports and Net Capital Outflow

- **这个等式之所以成立，因为每一笔交易，如果影响了等式的一方，必然也以相同的数量影响了另一方。**

This holds true because every transaction that affects one side must also affect the other side by the same amount.

净出口与资本净流出的相等：例子

The Equality of Net Exports and net capital outflow: An Example

- 假设波音飞机公司将一些飞机卖给了日本的航空公司

Suppose that Boeing, the U.S. aircraft maker, sells some planes to a Japanese airline.

- 这增加了美国的净出口。

This sale increases U.S. net exports.

- 此外，美国获得了一些国外资产（日元），这增加了美国的资本净流出。

In addition, the U.S. has acquired some foreign assets (the yen), and this acquisition increases U.S. net capital outflow.

净出口与资本净流出的相等：例子

The Equality of Net Exports and net capital outflow: An Example

- 波音可能将日元与一家美国的共同基金兑换成美元，该基金用日元以购买索尼公司的股票。

Boeing may exchange its yen for dollars with a U.S. mutual fund that wants the yen to buy stock in Sony Corporation., the Japanese maker of consumer electronics.

- 波音公司的净出口等于了共同基金在索尼公司股票上的资本净流出。

In this case, Boeing's net export of planes equals the mutual fund's net capital outflow in Sony stock.

- 要么波音公司将其日元换给一家试图购买东芝公司计算机的美国公司。 Alternatively, Boeing may exchange its yen for dollars with another U.S. company that wants to buy computers from Toshiba, the Japanese computer maker.
- 这样，美国的计算机进口正好弥补了美国的飞机出口。 NX 和 NCO 相对于这些交易发生之前没有任何变化。

In this case, U.S. imports (of computer) exactly offset U.S. exports (of plane). NX and NCO are the same as they were before these transactions took place.



储蓄、投资及其与国际流动的关系

Saving, Investment, and Their Relationship to the International Flows

- 回忆对一个经济整体而言，收入必定等于支出（会计恒等）。而净出口是 GDP 的一个组成部分：
Recall that for an economy as a whole, income must equal expenditure (as accounting identity), and net exports is a component of GDP:

$$Y = C + I + G + NX, \text{ 或 } or$$
$$Y - C - G = I + NX$$

- 国民储蓄是国民收入支付完当前的消费和政府购买后所剩余的部分。

National saving is the income of the nation that is left after paying for current consumption and government purchases:

$$S = Y - C - G$$



储蓄、投资及其与国际流动的关系

Saving, Investment, and Their Relationship to the International Flows

- 于是 so:

$$S = I + NX$$

- 因为净出口等于资本净流出,

Because net export (NX) also equal net capital outflow (NCO),

$$NX = NCO$$

- 最终, Finally,

$$S = I + NCO$$



储蓄、投资及其与国际流动的关系

Saving, Investment, and Their Relationship to the International Flows

- 一国的储蓄必然等于其国内投资加资本净流出：

A nation's saving must equal its domestic investment plus its net capital outflow.

$$S = I + NCO$$

Saving	=	Domestic	+	Net Capital
储蓄		Investment		Outflow
		国内投资		资本净流出



储蓄、投资及其与国际流动的关系

Saving, Investment, and Their Relationship to the International Flows

- **资本净流出**是国民储蓄减去国内投资；即国民储蓄中（直接或间接）用于国外投资的部分。

Net capital outflow is

national saving minus domestic investment, i.e., the part of savings used directly or indirectly for foreign investment.

$NCO = S - I$
资本净流出 = 储蓄 - 国内投资

Net Capital Outflow =

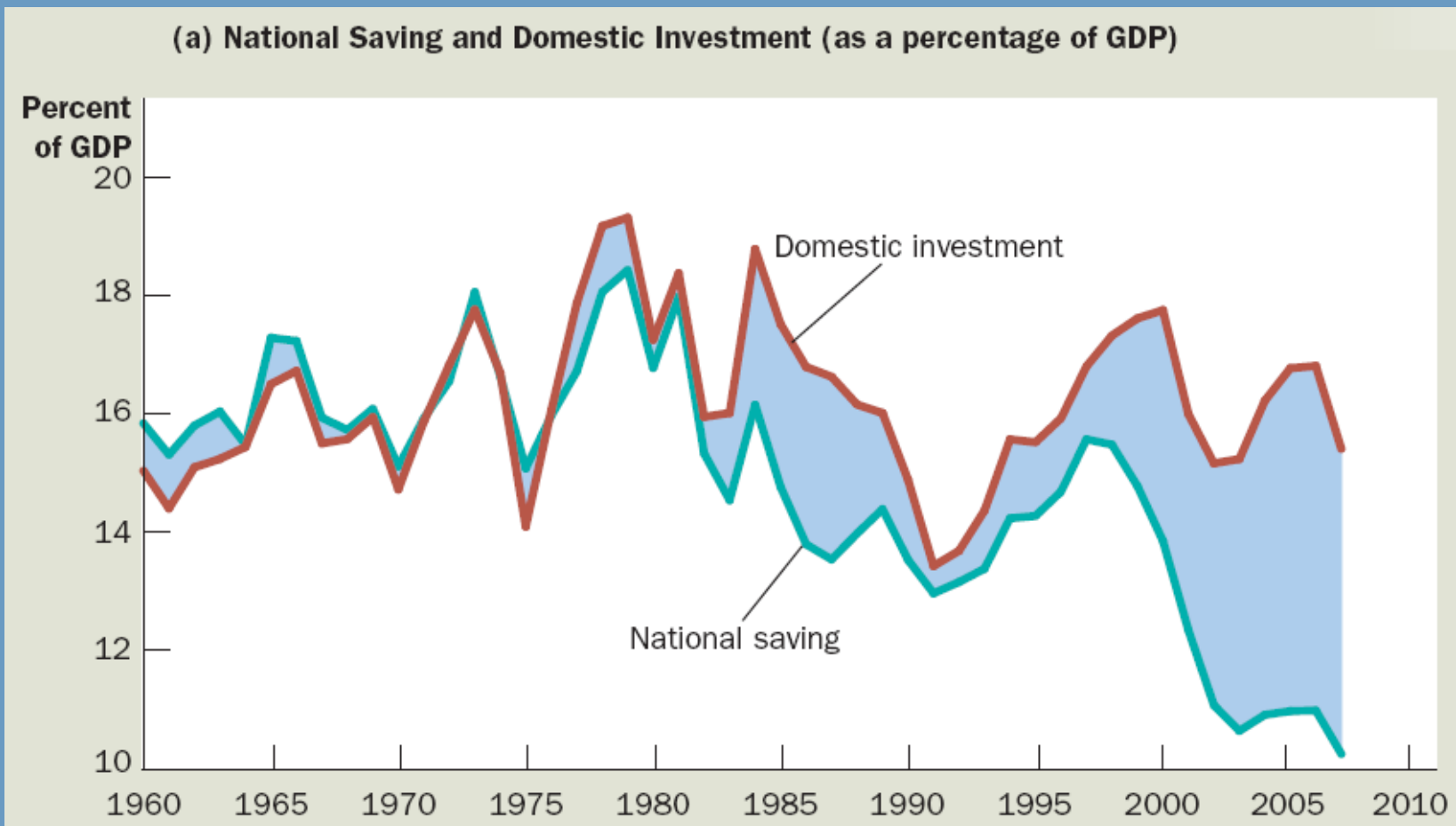
Saving – Domestic Investment

国民储蓄、国内投资与资本净流出

National Saving, Domestic Investment, and net capital outflow

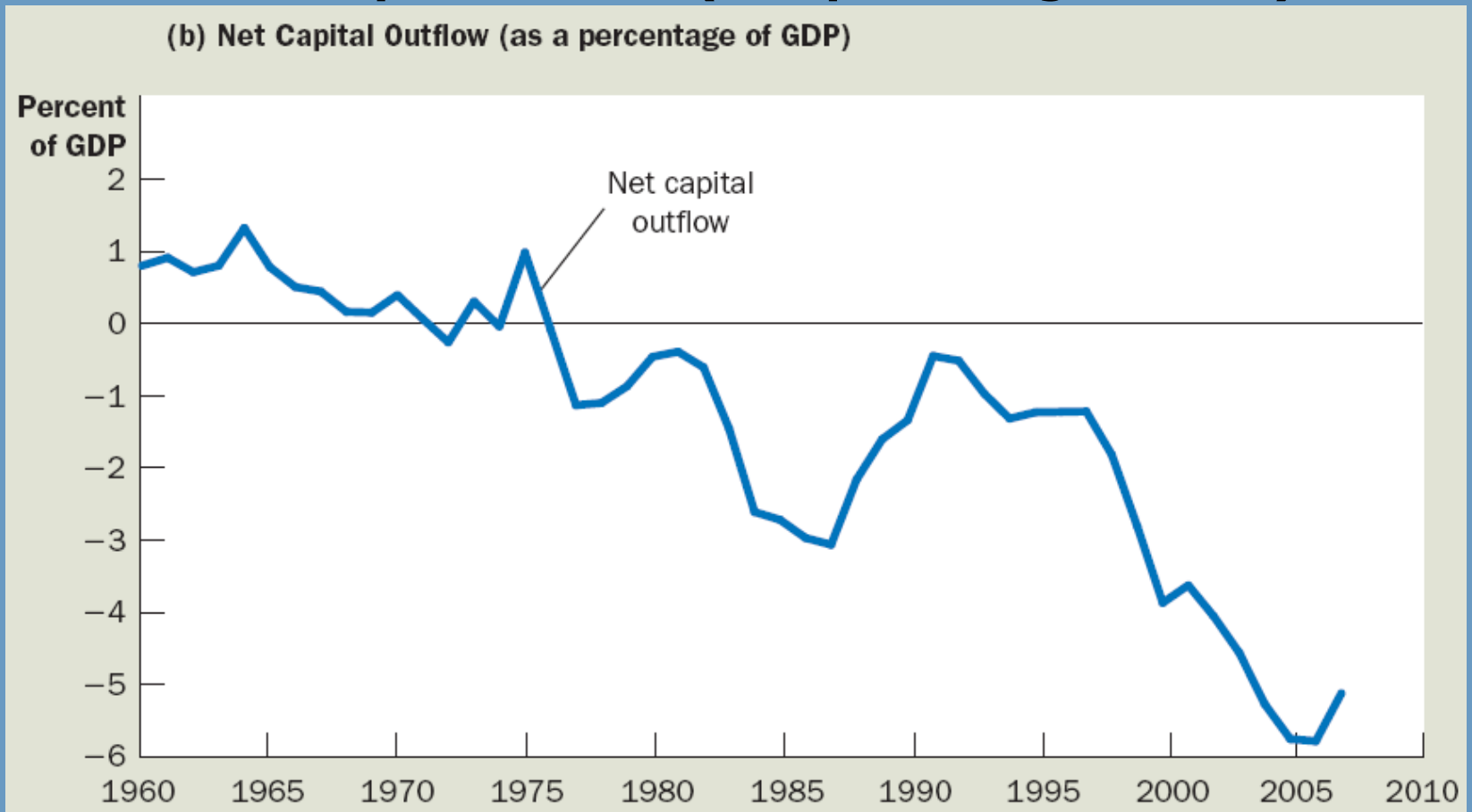
(a) 国民储蓄和国内投资（占 GDP 的百分比）

National Saving and Domestic Investment (as a percentage of GDP)



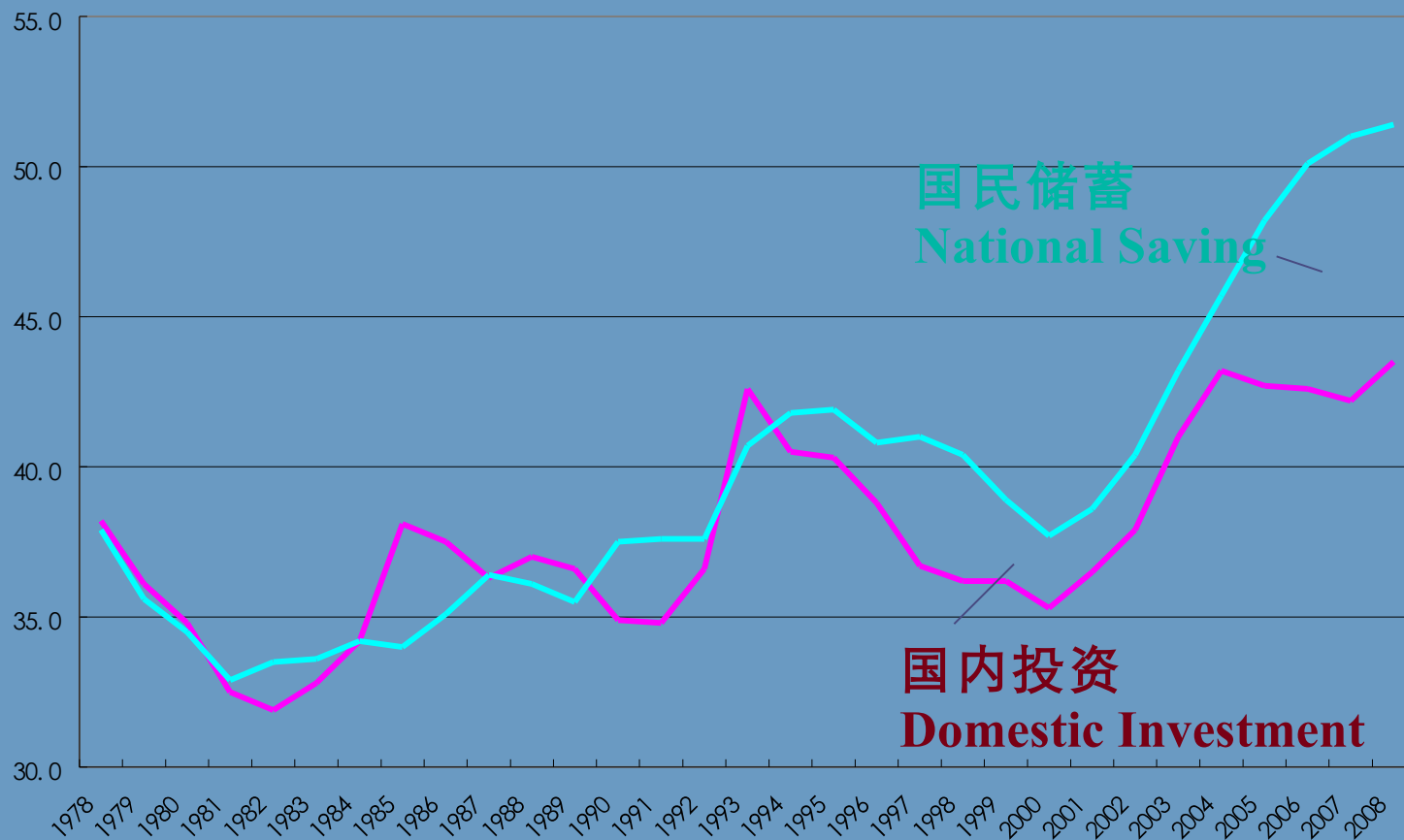
国民储蓄、国内投资与资本净流出 National Saving, Domestic Investment, and net capital outflow

(b) 资本净流出（占 GDP 的百分比）
net capital outflow (as a percentage of GDP)



国民储蓄、国内投资与资本净流出： 中国 National Saving, Domestic Investment, and net capital outflow: China

(a) 国民储蓄和国内投资（占 GDP 的百分比）
National Saving and Domestic Investment
(as a percentage of GDP)



国民储蓄、国内投资与资本净流出：中国

National Saving, Domestic Investment, and net capital outflow: China

(b) 资本净流出（占 GDP 的百分比）
net capital outflow (as a percentage of GDP)



资料来源：《中国统计年鉴 2009》



实际汇率与名义汇率

Real and Nominal Exchange Rates

- 国际交易受到国际价格的影响。
International transactions are influenced by international prices.
- 两个最重要的国际价格就是名义汇率与实际汇率。

The two most important international prices are the nominal exchange rate and the real exchange rate





名义汇率

Nominal Exchange Rates

- **名义汇率**是人们用一国通货交换另一国通货的比率。

The **nominal exchange rate** is the rate at which a person can trade the currency of one country for the currency of another.

名义汇率

Nominal Exchange Rates

- **名义汇率可用两种方法来表示：**
The nominal exchange rate is expressed in two ways:
 - **用每一美元对应的国外通货的单位数。**
In units of foreign currency per one U.S. dollar.
 - **用国外一单位通货对应的美元的单位数。**
And in units of U.S. dollars per one unit of the foreign currency.

名义汇率

Nominal Exchange Rates

- 假定日元与美元之间的汇率是 80 日元对 1 美元 Assume the exchange rate between the Japanese yen and U.S. dollar is 80 yen to one dollar.
 - 一美元换得 80 日元。
One U.S. dollar trades for eighty yen.
 - 一日元换得 $1/80 (=0.0125)$ 美元。
One yen trades for $1/80 (=0.0125)$ of a dollar.

名义汇率

Nominal Exchange Rates

- 如果一美元能够买到更多的国外通货，美元就有一个**升值**。

If a dollar buys more foreign currency, there is an **appreciation** of the dollar.

- 如果买到更少，美元就有一个**贬值**。

If it buys less there is a **depreciation** of the dollar.



实际汇率

Real Exchange Rates

实际汇率是一个人用一国物品与服务交换另一国物品与服务的比率。

The **real exchange rate** is the rate at which a person can trade the goods and services of one country for the goods and services of another.

实际汇率

Real Exchange Rates

- 实际汇率比较了国内物品与在国内经济中的国外物品的价格。

The real exchange rate compares the prices of domestic goods and foreign goods in the domestic economy.

- 如果以美元记价的一箱德国啤酒比美国啤酒贵一倍，实际汇率就是每一箱美国啤酒换 1/2 箱德国啤酒。
If a case of German beer is twice as expensive as American beer in dollars, the real exchange rate is 1/2 case of German beer per case of American beer.

实际汇率

Real Exchange Rates

实际汇率依赖于名义汇率，及在两个国家中以所在国的通货衡量的物品价格。

The real exchange rate depends on the nominal exchange rate and the prices of goods in the two countries measured in local currencies.

实际汇率

Real Exchange Rates

- 假设 1 蒲式耳美国大米卖 100 美元；而 1 蒲式耳日本大米卖 16,000 日元。名义汇率是 1 美元对 80 日元。 Suppose that a bushel of American rice sells for \$100, and a bushel of Japanese rice sells for 16,000 yen. The nominal exchange rate is 80 yen per dollar.
- 问题：每 1 蒲式耳美国大米能够交换多少蒲式耳的日本大米？
Question: How many bushels of Japanese rice can one bushel of American rice exchange for?
- 首先，将 1 蒲式耳美国大米在美国国内卖出，得到 100 美元。
First, sell one bushel of American rice in the domestic U.S. market, and you will get \$100.
- 然后，将所得美元兑换成日元，为 8,000 日元。 Then, exchange them for Japanese yen. You will get 8,000 yen.
- 最后，将这些日元用于在日本购买大米，得到 $8,000/16,000 = 1/2$ 蒲式耳日本大米。
Finally, use these yens to buy Japanese rice in the Japanese market. You will get $1/2$ bushel of Japanese rice.
- 因此实际汇率是每蒲式耳美国大米对 $1/2$ 蒲式耳日本大米。
This imaginary process shows that, the real exchange rate is $1/2$ bushel of Japanese rice per bushel of American rice.



实际汇率

Real Exchange Rates

$$\text{Real Exchange Rate} = \frac{\text{Nominal exchange rate} \times \text{Domestic price}}{\text{Foreign price}}$$

实际汇率 = 名义汇率 × 国内价格 / 国外价格

$$\text{Real exchange rate} = (e \times P) / P^*$$

e – nominal interest rate 名义汇率

P – Domestic Price 国内价格

P^* – Foreign Price 国外价格

实际汇率

Real Exchange Rates

- 实际汇率（而非名义汇率）是决定一国出口和进口多少的关键。

The real exchange rate is a key determinant of how much a country exports and imports.

- 美国实际汇率的贬值（下降）意味着美国物品相对于国外物品变得更便宜。

A depreciation (fall) in the U.S. real exchange rate means that U.S. goods have become cheaper relative to foreign goods.

- 这就同时鼓励了国内和国外的消费者购买更多的美国物品、更少的其他国的物品。

This encourages consumers both at home and abroad to buy more U.S. goods and fewer goods from other countries

实际汇率

Real Exchange Rates

- 结果，美国出口增加，进口下降，这两个变化都会增加美国的净出口。

As a result, U.S. exports rise, and U.S. imports fall, and both of these changes raise U.S. net exports.

- 相反的，美国的实际汇率升值意味着美国物品相对国外的物品变得更加昂贵，于是美国的净出口下降。

Conversely, an appreciation in the U.S. real exchange rate means that U.S. goods have become more expensive compared to foreign goods, so U.S. net exports fall.



购买力平价

Purchasing-Power Parity

- **购买力平价**理论是解释通货的汇率变化的最简单和最广泛接受的理论。

The **purchasing-power parity** theory is the simplest and most widely accepted theory explaining the variation of currency exchange rates.

- 按照购买力平价理论，一单位给定的通货应该能够在所有国家买到同等数量的物品。

According to the purchasing-power parity theory, a unit of any given currency should be able to buy the same quantity of goods in all countries.



购买力平价的基本逻辑

Basic Logic of Purchasing-Power Parity

- 购买力平价理论是基于所谓的一价法则

The theory of purchasing-power parity is based on a principle called the **law of one price**.

- 按照一价法则，一个物品在所有地方都必然卖同一价格。

According to the law of one price, a good must sell for the same price in all locations.

购买力平价的基本逻辑

Basic Logic of Purchasing-Power Parity

- 如果一价法则不成立，就会存在未被利用的获利机会。

If the law of one price were not true, unexploited profit opportunities would exist.

- 从不同市场的不同价格中获利的过程称为**套利**。

The process of taking advantage of differences in prices in different markets is called **arbitrage**.

购买力平价的基本逻辑

Basic Logic of Purchasing-Power Parity

- 如果套利发生，在两国存在差别的价格最终会趋于一致。

If arbitrage occurs, eventually prices that differed in two markets would necessarily converge.

- 按照购买力平价理论，通货必须在所有的国家具有同样的购买力，价格和汇率会调整以保证这一点。

According to the theory of purchasing-power parity, a currency must have the same purchasing power in all countries, and prices

购买力平价的基本逻辑：例子

Basic Logic of Purchasing-Power Parity: An Example

- 在刚才的例子中，1蒲式耳美国大米买100美元；而1蒲式耳日本大米买16,000日元。名义汇率是1美元对80日元。假设两种大米是完全一样的物品。 In the previous example, a bushel of American rice sells for \$100, and a bushel of Japanese rice sells for 16,000 yen. The nominal exchange rate is 80 yen per dollar. Suppose the two types of rice are the same good.
- 则美国农民会把美国大米尽可能卖到日本市场上：每蒲式耳多得 $16,000 \times (1/80) - 100 = 100$ 美元。 Then American farmers will sell American rice in Japanese market, making an extra profit of \$100.
- 这会导致大米在日本国内的以日元表示的价格下降，在美国国内以美元表示的价格上升。 The international trade of rice will drive down the Japanese price of rice and drive up the American price of rice.
- 或者，在日本卖出大米之后，美国农民卖出日元以换回美元，导致日元的汇率下降。 Or, after selling rice in Japan, American farmers sell Japanese yen for U.S. dollars, depreciating Japanese yen.
- 价格和汇率的变化最终使得使得这样的套利行为变得无利可图——美国大米与日本大米的市场价格趋于一致。 In the end, the price of both American and Japanese rice should be the same in each country.



购买力平价的含义

Implications of Purchasing-Power Parity

- 在国内，物价水平是 P ，因此在国内 1 美元的购买力是 $1/P$ 。
At home, the price level is P , so the purchasing power of \$1 at home is $1/P$.
- 在国外，物价水平是 P^* ，因此在国外 1 单位外币的购买力是 $1/P^*$ Abroad, the price level is P^* , so the purchasing power of one unit of foreign currency is $1/P^*$ abroad is $1/P^*$.
- 1 美元可以交换 e 单位外国通货，因此 1 单位美元在国外的购买力是 e/P^* 。

A dollar can be exchanged into e units of foreign currency, which in turn have purchasing power e/P^* .

- 由于在两个国家 1 美元的购买力相同，则有：
For the purchasing power of a dollar to be the same in the two countries, it must be the case that,

$$1/P = e/P^*,$$
$$\text{or } 1 = eP/P^*, \text{ or } e = P^*/P.$$

购买力平价的含义

Implications of Purchasing-Power Parity

- 如果美元的购买力在本国和外国总是一样，那么实际汇率就不会改变。

If the purchasing power of the dollar is always the same at home and abroad, then the real exchange rate cannot change.

- 两国通货之间的名义汇率必然反映这些国家不同的价格水平。

The nominal exchange rate between the currencies of two countries must reflect the different price levels in those countries.

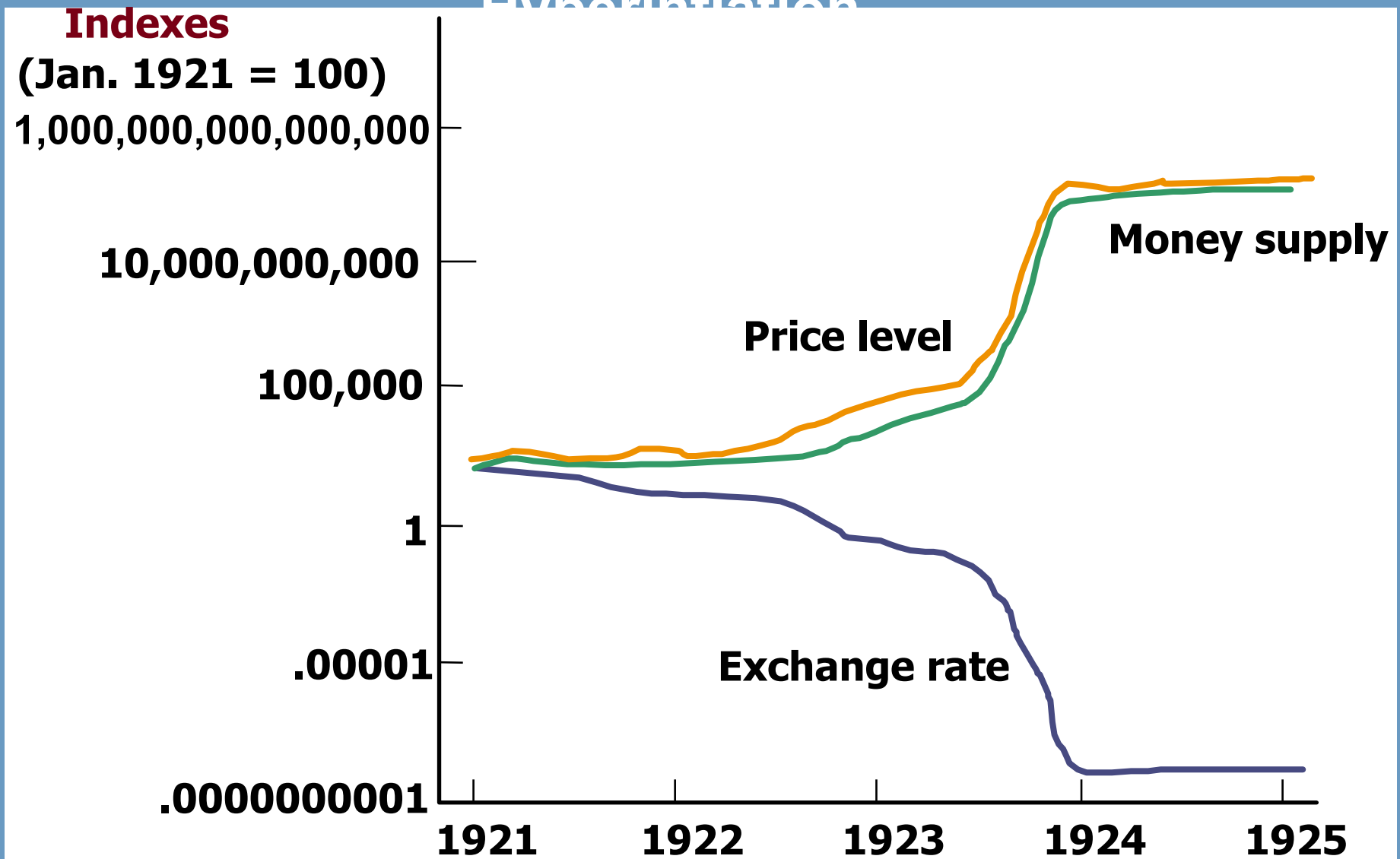
购买力平价的含义

Implications of Purchasing-Power Parity

- 当中央银行印刷了大量货币，货币的贬值就不仅体现在（购买的）物品和服务上，而且体现在它能够购买的其他通货的数量上。

When the central bank prints large quantities of money, the money loses value both in terms of the goods and services it can buy and in terms of the amount of other currencies it can buy.

德国超速通货膨胀时期的货币、价格与名义 汇率 Money, Prices, and the Nominal Exchange Rate During the German Hyperinflation





购买力平价的局限性

Limitations of Purchasing-Power Parity

- **许多物品都不太容易从一国卖到或运到另一国。**

Many goods are not easily traded or shipped from one country to another.

- **在不同国家生产的可贸易物品不总是完全替代品。**

Tradable goods are not always perfect substitutes when they are produced in different countries.



购买力平价的局限性

Limitations of Purchasing-Power Parity

- **即使购买力平价的力量不能完全固定实际汇率，它也使我们有理由预期，实际汇率的变动通常是小的或暂时的。**

Even if the forces of purchasing-power parity do not completely fix the real exchange rate, they provide a reason to expect that changes in the real exchange rate are most often small or temporary.

- **因此，大而持久的名义汇率变动通常反映了国内外物价水平的变动。**

As a result, large and persistent movements in nominal exchange rates typically

购买力平价应用：比较各国的收入差别

- 2006 年美国的人均 GDP 为 \$44,000，中国的人均 GDP 为 ¥ 16,000。名义汇率为 1 美元对 8 元人民币。中国的人均收入是美国的几分之一？
- 一种回答：中国的人均收入等于 $\$(16,000/8) = \$2,000$ ，是美国人的 $1/22$ 。（2006 年汇率：1 美元 = 8 人民币）
- 按照名义汇率调整的人均收入反映了两国真实的收入差别，如果购买力平价理论成立。
- 按照购买力平价，1 单位货币在各国的购买力相同：一个典型中国人将其收入兑换成美元后在美国的购买力，等于其原来在中国的购买力。

购买力平价应用：比较各国的收入差别

- 假定中国的人均收入以中国的货币单位衡量为 y^* ；美国的人均收入以美国的货币单位衡量为 y 。
- 中国的物价水平为 P^* ，美国的物价水平为 P 。
- 则中国以物品为单位衡量的人均实际收入（购买力）为 y^*/P^* ；美国的人均实际收入为 y/P 。
- 人均实际收入都是以物品为单位的，可以直接比较，则中美人均收入之比等于：

$$(y^*/P^*)/(y/P) = (y^*/e)/y$$

- 其中 e 表示（以美元为单位）名义汇率，这里

购买力平价应用：比较各国的收入差别

- 如果购买力平价不成立： $e \neq P^*/P$ ，则通过名义汇率调整的收入不是各国收入差别的真实反映。
- 要知道典型的中国居民在美国拥有与在中国相同购买力所需的收入，需要调查他在中国用其收入所购买的物品和服务，在美国的支出是多少： $(y^*/P^*) \times P$ 。
- 这一支出与美国人均收入（支出）之比反映了真实的收入差别：
$$[(y^*/P^*) \times P]/y = (y^*/P^*)/(y/P)。$$
- 按照这一方法可以算出，中国人均收入约为美国的 $1/5.7$ ，即 \$7,800。称为**基于购买力平价（PPP）**的人均 GDP。
- 从这一计算结果倒推，使得购买力平价成立的名义汇率 (P^*/P) 为： $16,000/7,800 = 2$ 。

购买力平价应用：比较各国的收入差别

- 为什么人民币和美元之间的汇率不满足购买力平价理论？
- 如果调整名义汇率使购买力平价趋于成立（即使人民币大幅升值）会发生什么？



总结

Summary

- 净出口是国内生产而在国外销售的物品与服务价值，减去在国外生产而在国内销售的物品与服务价值。

Net exports are the value of domestic goods and services sold abroad minus the value of foreign goods and services sold domestically.

- 资本净流出是国内居民获得的国外资产，减去国外居民获得的国内资产。

net capital outflow is the acquisition of foreign assets by domestic residents minus the acquisition of domestic assets by foreigners.



总结

Summary

- 一个经济的资本净流出总是等于其净出口

An economy's net capital outflow always equals its net exports.

- 一个经济的储蓄既可以用来为国内投资提供资金，也可以购买国外资产。

An economy's saving can be used to either finance investment at home or to buy assets abroad.



总结

Summary

- **名义汇率是两个国家通货的相对价格。**
The nominal exchange rate is the relative price of the currency of two countries.
- **实际汇率是两个国家物品与服务的相对价格。**

The real exchange rate is the relative price of the goods and services of two countries.



总结

Summary

- 当名义汇率改变以致每一美元可以购买更多外国通货时，就称美元升值了或坚挺了。
When the nominal exchange rate changes so that each dollar buys more foreign currency, the dollar is said to appreciate or strengthen.
- 当名义汇率改变以致每一美元购买的国外通货更少了，就称美元贬值了或疲软了。
When the nominal exchange rate changes so that each dollar buys less foreign currency, the dollar is said to depreciate or



总结

Summary

- 按照购买力平价理论，一单位通货应该在所有国家购买到同等数量的物品。

According to the theory of purchasing-power parity, a unit of currency should buy the same quantity of goods in all countries.

- 在两国通货之间名义汇率应该反映它们的价格水平。

The nominal exchange rate between the currencies of two countries should reflect the countries' price levels in those countries.