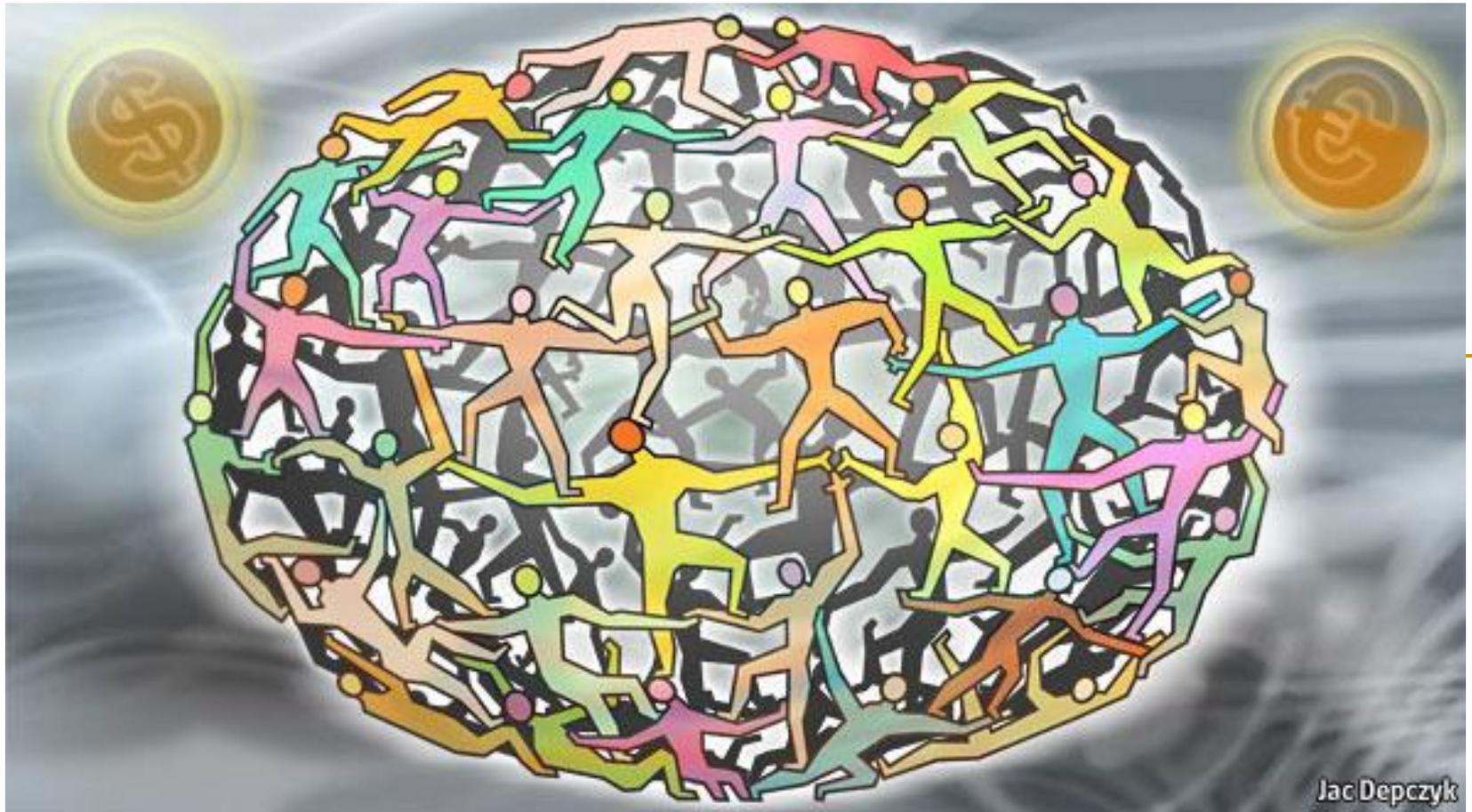


# Unit Three

## International Trade Theories



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# Learning Objectives

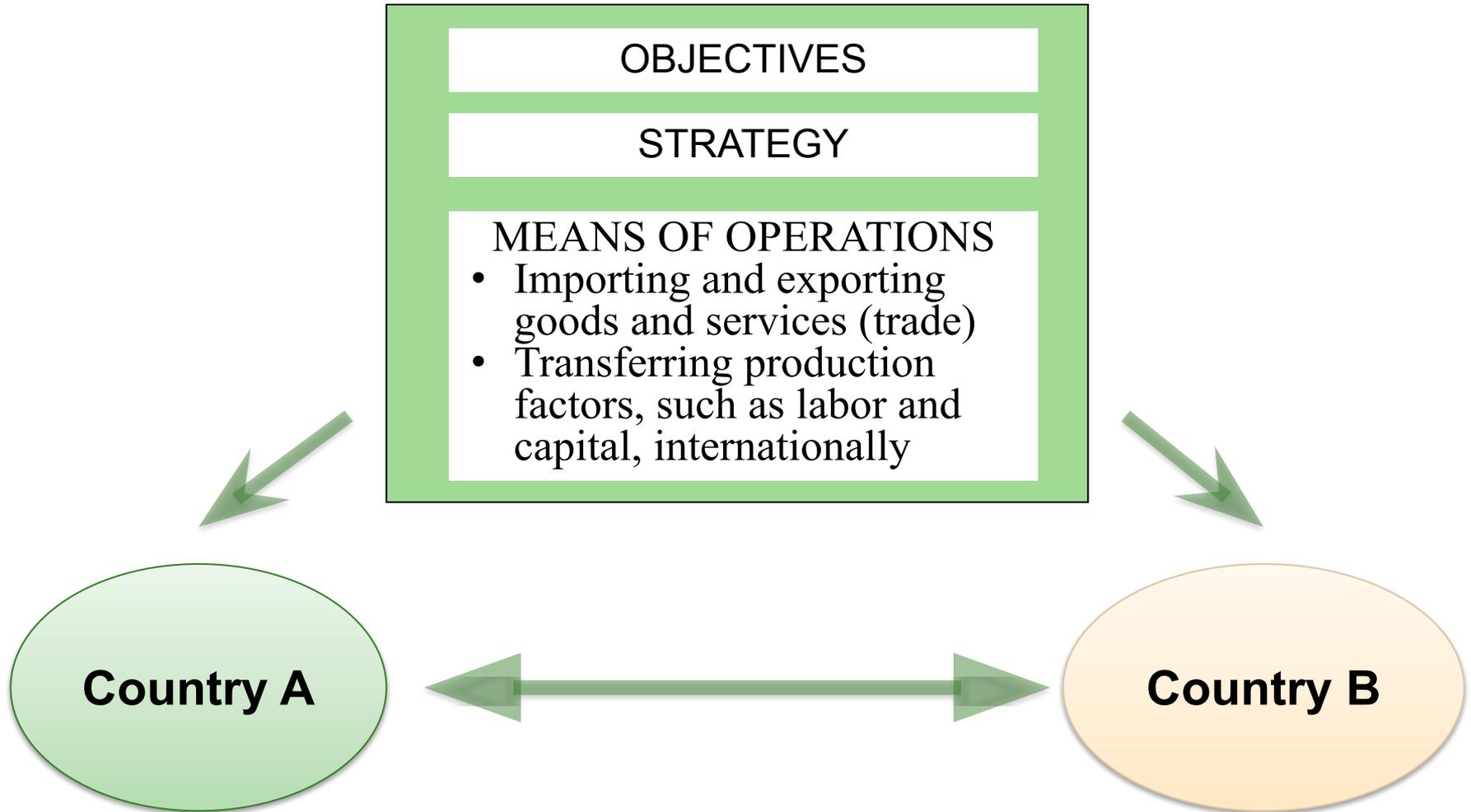
- To understand theories of international trade
  - To explain how free trade improves global efficiency
  - To identify factors affecting national trade patterns
  - To explain why a country's export capabilities are dynamic
  - To understand why production factors, especially labor and capital, move internationally
  - To explain the relationship between foreign trade and international factor mobility
-

# Reference

- **Chapter 6 : International Trade and Factor-Mobility Theory;**
- *by John D. Daniels, Lee H. Radebaugh, and Daniel P. Sullivan, jointly published by China Machine Press and Pearson Education. April 2014.*
- **ISBN: 978-7-111-460992**



# International Operations and Economic Connections



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# Questions international managers are facing

- What products should we import and export?
  - How much should we trade?
  - With whom and with which country should we trade?
  - What can we produce efficiently?
  - How can we improve our competitiveness by increasing the quality and quantity of capital, technical competence, and worker skills?
-

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# Laissez-faire vs. Interventionist Approaches to Exports and Imports

- Some countries take a more laissez-faire approach, one that allows market forces to determine trading relations. *Free-trade theories* (absolute advantage and comparative advantage) take a complete laissez-faire approach because they prescribe that governments should not intervene directly to affect trade.
  - At the other extreme are *mercantilism and neomercantilism*, which prescribe a great deal of government intervention in trade.
  - Whether taking a laissez-faire or interventionist approach, countries rely on trade theories to guide policy development.
-

# What Major Trade Theories Do and Don't Discuss: A checklist

	Description of Natural Trade			Prescription of Trade Relationships			
Theory	How much is traded?	What products are traded?	With whom does trade take place?	Should government control trade?	How much should be traded?	What products should be traded?	With whom should trade take place?
Mercantilism	—	—	—	Yes	√	√	√
Absolute advantage	—	√	—	No	—	√	—
Comparative advantage	—	√	—	No	—	√	—
Country Size	√	√	—	—	—	—	—
Factor proportion	—	√	√	—	—	—	—
Country similarity	—	√	√	—	—	—	—
Product life cycle (PLC)	—	√	√	—	—	—	—
Diamond of national advantage	—	√	—	—	—	—	—

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# Types of International Trade Theories

- Interventionist Theories
    - Mercantilism
  - Free Trade Theories
    - Absolute advantage
    - Comparative advantage
  - Trade Pattern Theories
    - Theory of Country Size
    - Factor-Proportions Theory
    - Country Similarity Theory
  - Trade Dynamics Theories
    - Product Life Cycle Theory
    - Diamond of National Advantage Theory
-

# The Evolution of Trade Theory

**Mercantilism & Neomercantilism**  
1500-1800

**The Theory of Absolute Advantage**  
*Adam Smith, 1776*

**The Theory of Comparative Advantage**  
*David Ricardo, 1819*

**Theory of Country Size**

**The Theory of Factor Proportions**  
*Eli Heckscher and Bertil Ohlin, early 20<sup>th</sup> Century*

**Country Similarity Theory**

**Product Cycle Theory**  
*Raymond Vernon, 1966*

**Diamond of National Advantage**  
*Michael Porter, 1990s*

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# Mercantilism 重商主义

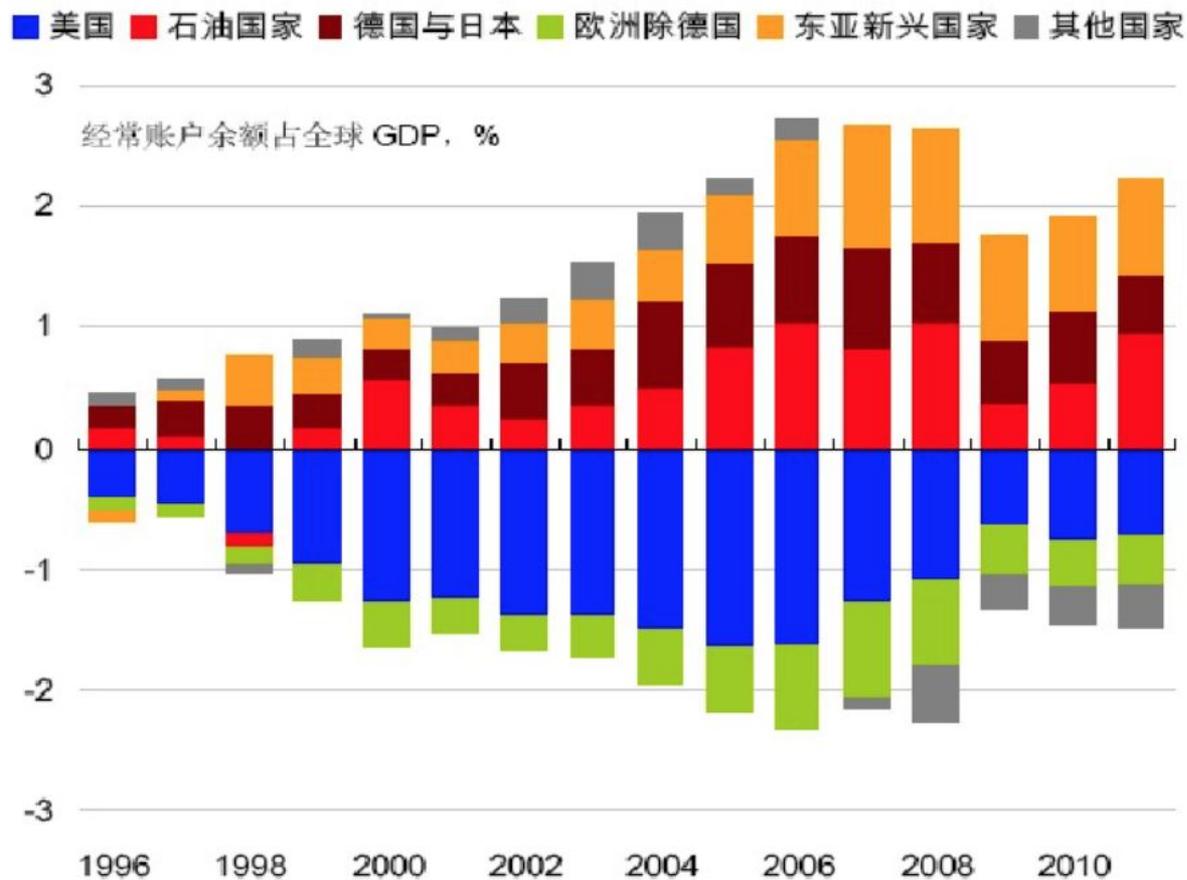
- Mercantilism is a trade theory holding that a country's wealth is measured by its holdings of "treasure", which usually means its gold.
  - Mercantilist theory proposed that a country should try to achieve a favorable balance of trade (exports more than it imports) to receive an influx of gold.
  - To export more than they imported, governments restricted imports and subsidized production that could otherwise not compete in domestic or export markets.
-

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# (Un)favorable Balance of Trade

- Some terminology of the mercantilist era has endured. For example, a favorable balance of trade (also called a trade surplus) still indicates that a country is exporting more than it is importing.
  - An unfavorable balance of trade (also known as a trade deficit) indicates the opposite.
  - In fact, it is not necessarily beneficial to run a trade surplus nor is it necessarily disadvantageous to run a trade deficit.
-

# Current Account



# Early Mercantilism and Late Mercantilism

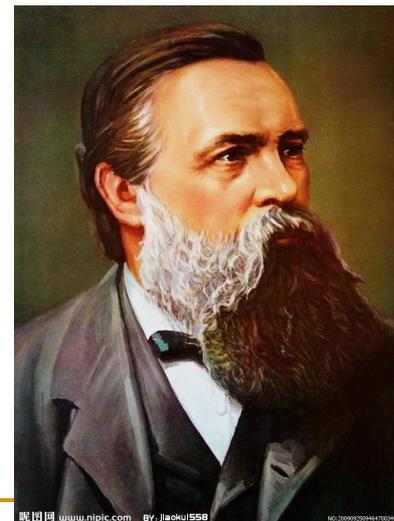
**Early Mercantilism: 15-16century**

**Late Mercantilism: 16-17century**

**Difference?**



- Like a miser, his hands clung to his beloved purse and looked at his neighbor with jealousy and suspicion.—Engles
- 就像守财奴一样,双手抱住他心爱的钱袋,用嫉妒和猜疑的目光打量着自己的邻居。



# Revival of Mercantilism



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# Free Trade Theory

- Absolute Advantage and comparative advantage both hold that nations should neither artificially limit imports nor promote exports.
  - Both theories imply specification. **National specification** means that producing some things for domestic consumption and export while using the export earning to buy imports of products and services produced abroad.
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# Free Trade Theory

## Absolute Advantage (Adam Smith, 1776)

- According to Adam Smith, a country's wealth is based on its available goods and services rather than on gold.
  - The theory of absolute advantage proposes specialization through free trade because consumers will be better off if they can buy foreign-made products that are priced more cheaply than domestic ones.
-

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# Free Trade Theory

## Absolute Advantage (Adam Smith, 1776)

- Through specialization, countries could increase their efficiency because of three reasons:
    - (1) Labor could become more skilled by repeating the same tasks
    - (2) Labor would not lose time in switching from the production of one kind of product to another.
    - (3) Long production runs would provide incentives for the development of more effective working methods.
-

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# Free Trade Theory

## Absolute Advantage (Adam Smith, 1776)

- According to the theory of absolute advantage, a country may produce goods more efficiently because of a natural advantage (e.g. raw materials or climate or labor force availability) or because of an acquired advantage (e.g. technology or skill for a product or process advantage).
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## Key Concepts

~ '*Absolute advantage*' 绝对优势

- An advantage of one nation or area over another in the costs of manufacturing an item in terms of used resources, that is, uses smaller quantity of inputs.
-

# Absolute Advantage

- Example in terms of output

	Wheat	Cloth
USA	6 units/hour	4 units/hour
UK	1 units/hour	5 units/hour

- 思考:
- (1) 绝对比较优势的判断
- (2) 贸易模式
- (3) 贸易利得

# Absolute Advantage

- Example in terms of cost

	布	酒
英国	1小时/码	4小时/桶
西班牙	3小时/码	2小时/桶
合计	2码	2桶

- 思考:
- (1) 绝对比较优势的判断
- (2) 贸易模式

---

## Comparative advantage (David Ricardo, 1817)

- Comparative advantage theory also proposes specialization through free trade because it says that trade can increase total global output even if one country has an absolute advantage in the production of all products.
  - The theory of comparative cost points out that trade between countries can be profitable for all, even if one of the countries can produce every commodity more cheaply.
  - As long as there are minor, relative differences in the efficiency of producing a commodity, even a poor country can have a comparative advantage in producing it.
-

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## Key Concepts

### ~ '*comparative advantage*' 比较优势

- It is a central concept in international trade theory which holds that a country or a region should specialize in the production and export of those goods and services that it can produce relatively more efficiently than other goods and services, and import those goods and services in which it has a comparative disadvantage.
  - If each country specializes in products in which it has a comparative advantage, trade between these countries will be mutually profitable.
-

# Comparative Advantage

- Example in terms of output

	Wheat	Cloth
USA	6 units/hour	4 units/hour
UK	1 units/hour	2 units/hour

- (1) The opportunity cost of Product wheat in terms of cloth
- (2) Trade Pattern
- (3) Trade Benefit

# Comparative Advantage

- Example in terms of cost

劳动力成本	中国	美国
布料(米)	4 小时/米	3小时/米
小麦(千克)	8 小时/千克	1 小时/千克

- (1) The opportunity cost of cloth in terms of wheat
- (2) Trade Pattern

---

# Theories of Specialization: Assumptions and Limitations

- Policymakers have questioned some of the assumptions of the absolute and comparative advantage theories.
  - These assumptions are that full employment exists, output efficiency is always a country's major objective, countries are satisfied with their relative gains, there are no transport costs among countries, advantages appear to be static, and resources move freely within countries but are immobile internationally.
  - Although the theories use a two-country analysis of products, the theories hold for multi-country trade and for services as well.
-

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# Theories of Specialization: Assumptions and Limitations

- full employment
  - economic efficiency
  - division of gains
  - two countries and two commodities
  - transport costs
  - statics and dynamics
  - services
  - production of network
  - mobility
-

# Comparative Advantage Trap



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# Theory of Country Size

## (How much does a country trade?)

- The theory of country size holds that large countries usually depend less on trade than small countries.
  - Countries with **large land areas** are apt to have varied climates and an assortment of natural resources, making them more self-sufficient than smaller countries.
  - Furthermore, **distance** to foreign markets affects large and small countries differently. Normally, the farther the distance, the higher the **transport costs**, the longer the inventory carrying time, and the greater the uncertainty and unreliability of timely product delivery.
  - Nevertheless, although land area is the most obvious way of measuring a country's size, countries can also be compared on the basis of economic size.
-

# Largest countries by total international trade

Rank	Country	International Trade of Goods (Billions of USD)	Date of information	% GDP (nominal)
-	<i>World</i>	37,706.0	2013 est.	50.5%
-	 European Union	4,485.0	2013 est.	25.6%
1	 China	4,150.0	2013 est.	43.8%
2	 United States	3,908.7	2013 est.	23.3%
3	 Germany	2,600.6	2013 est.	71.5%
4	 Japan	1,548.3	2013 est.	31.6%
5	 Netherlands	1,261.6	2013 est.	147.8%
6	 France	1,260.7	2013 est.	44.9%
7	 United Kingdom	1,196.9	2013 est.	47.4%
8	 Hong Kong	1,157.8	2013 est.	422.3%
9	 South Korea	1,075.2	2013 est.	81.1%
10	 Italy	995.1	2013 est.	48.0%
11	 Canada	932.6	2013 est.	51.1%
12	 Belgium	920.1	2013 est.	181.1%
13	 Russia	866.3	2013 est.	41.3%
14	 Singapore	783.3	2013 est.	262.8%
15	 India	779.3	2013 est.	41.5%

# Factor-Proportions Theory 要素禀赋理论

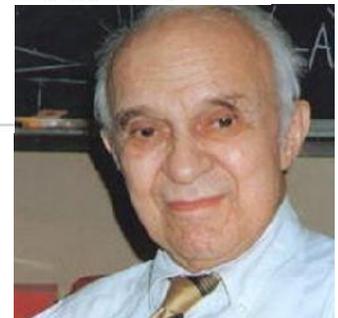
(What types of products does a country trade?)

- The factor-proportions theory holds that a country's relative endowments of land, labor, and capital (funds for investment in plant and equipment) will determine the relative costs of these factors.
- These factor costs, in turn, determine which goods the country can produce most efficiently and would lead countries to excel in the production and export of products that used their abundant and therefore cheaper production factors.

# Leontief Paradox

	Imports	Exports	
Capital per million dollars	\$2,132,000	\$1,876,000	替代品
Labor (person-years) per million dollars	119	131	03 400
Capital labor ratio (dollars per worker)	\$17,916	\$14,321	
Average years of education per worker	9.9	10.1	37.81
Proportion of engineers and scientists in work force	0.0189	0.0255	3 726

Source: Robert Baldwin, "Determinants of the Commodity Structure of U.S. Trade," *American Economic Review* 61 (March 1971), pp. 126–145.



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# Preference Similarity Theory

## (With whom do countries trade?)

- According to the country-similarity theory, most trade today occurs among developed countries because they share similar market characteristics and because they produce and consume so much more than developing economies.
  - Much of the pattern of two-way trading partners may be explained by cultural similarity between the countries, political and economic agreements, and the distance between them.
-

# Intra-industry trade 🗣️



# Product Life Cycle Theory

(How countries develop, maintain, and lose their competitive advantages?)

- The international product life cycle theory of trade states that the location of production of certain manufactured products shifts as they go through their life cycle, which consists of four stages: **introduction, maturation, and standardization.**
- The PLC theory states that companies will manufacture products first in the countries in which they were researched and developed. These are almost always developed countries.
- Over the product's life cycle, production will shift to foreign locations, especially to developing economies as the product reaches the stages of maturity and decline.

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# Stages of the Product cycle

- Stage I: The Phase of Introduction
    - highly skilled labor;
    - non-standardized; high cost; monopolize
    - technology-intensive
-

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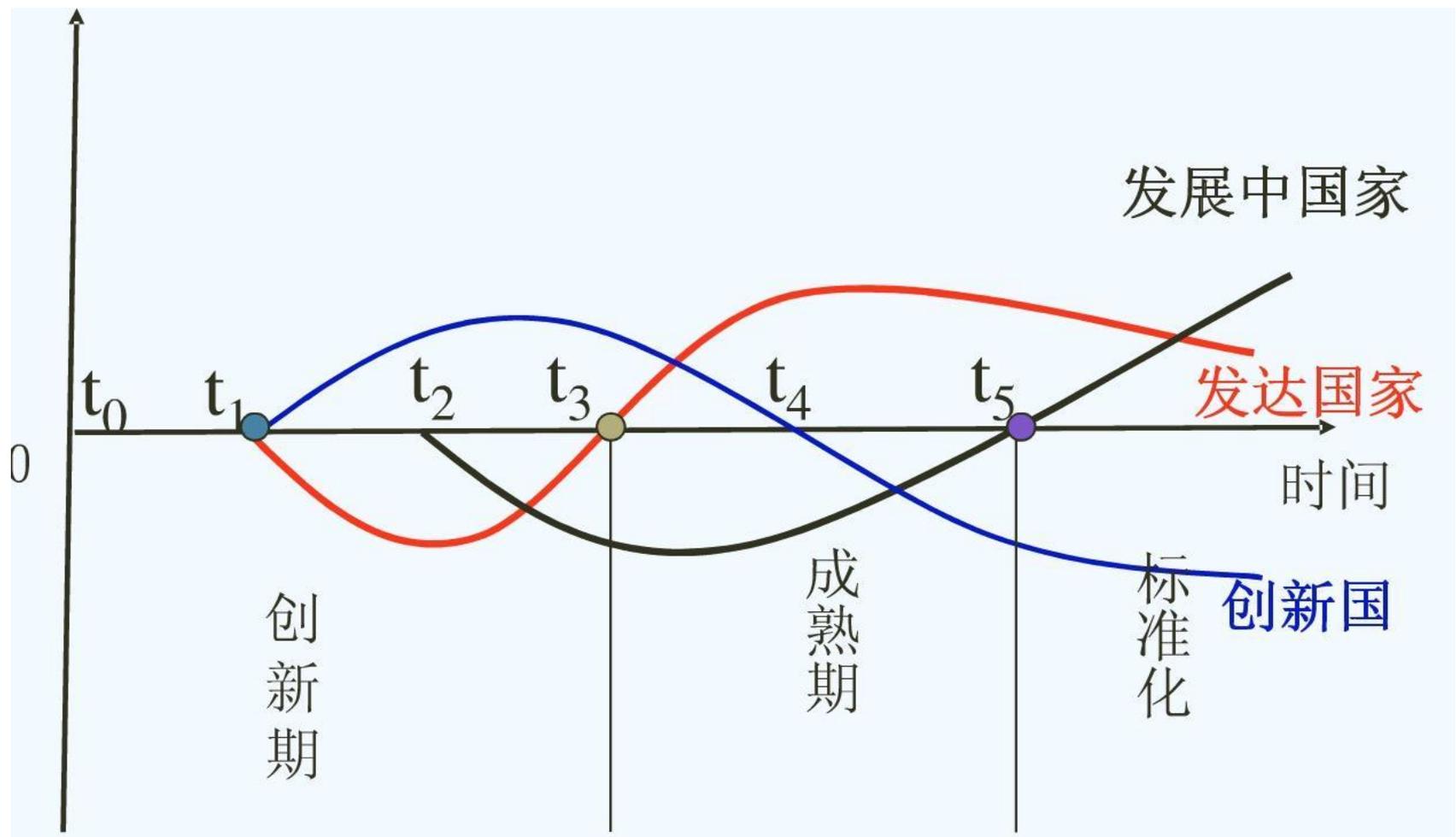
# Stages of the Product cycle

- Stage II: The Phase of Maturation
    - Increasingly standardized
    - flexibility in design; competitors develop
    - invest abroad
    - capital-intensive
-

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# Stages of the Product cycle

- Stage III: The Phase of Standardization
  - completely standardized
  - technology accounts less
  - profit margins are thin, and competition is fierce
  - labor-intensive(unskilled)
-



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# *Limitations of PLC Theory*

- There are many types of products for which shifts in production location do not usually take place. In the following cases, the innovating country may maintain its export ability through the product's life cycle.
  - Products that, because of very rapid innovation, have extremely short life cycles, some fashion and electronic items fit this category;
  - Luxury products for which cost is of little concern to consumer.
  - Products for which a company can use a differentiation strategy, perhaps ads, to maintain demand without price competition
  - Products that require nearby specialized technical labor to evolve into their next generation.
-

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# Diamond of National Advantage

(Why have countries developed and sustained different competitive advantages?)

- The diamond of national advantage theory shows that four conditions are important for gaining and maintaining competitive superiority:
    - ❑ (domestic) **demand conditions**;
    - ❑ **factor conditions** (e.g. labor, natural resources, knowledge, technology, capital, infrastructure);
    - ❑ **related and supporting industries** (e.g. the competitiveness of upstream and downstream industries):
    - ❑ and **firm strategy, structure, and rivalry**.
    - ❑ Usually, but not always, all four conditions need to be favorable for an industry within a country to attain and maintain global supremacy.
-

# Diamond of National Advantage

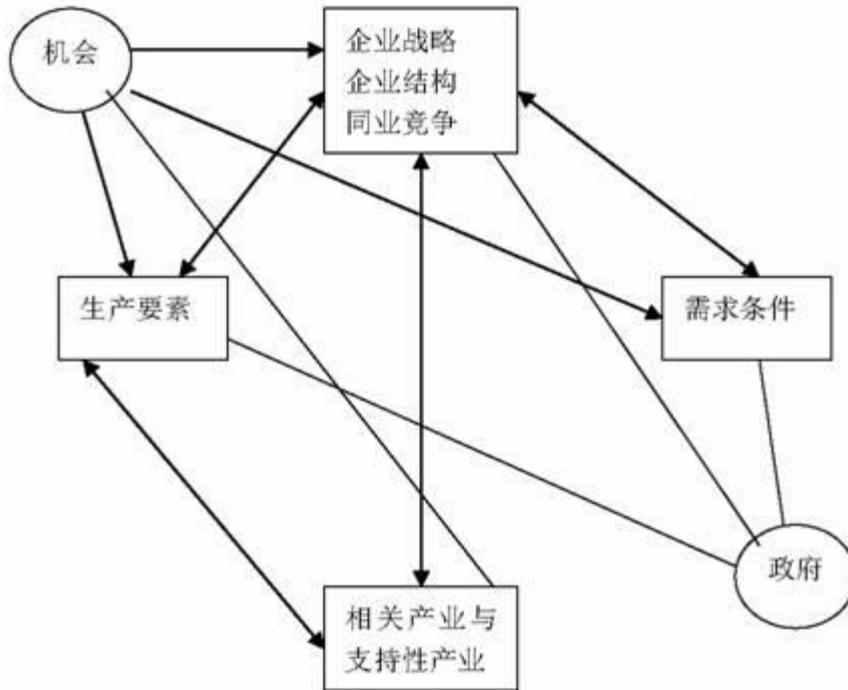
**Firm  
strategy,  
structure,  
and rivalry**

**Factor  
conditions**

**Demand  
conditions**

**Related and  
supporting  
industries**

# Diamond of National Advantage



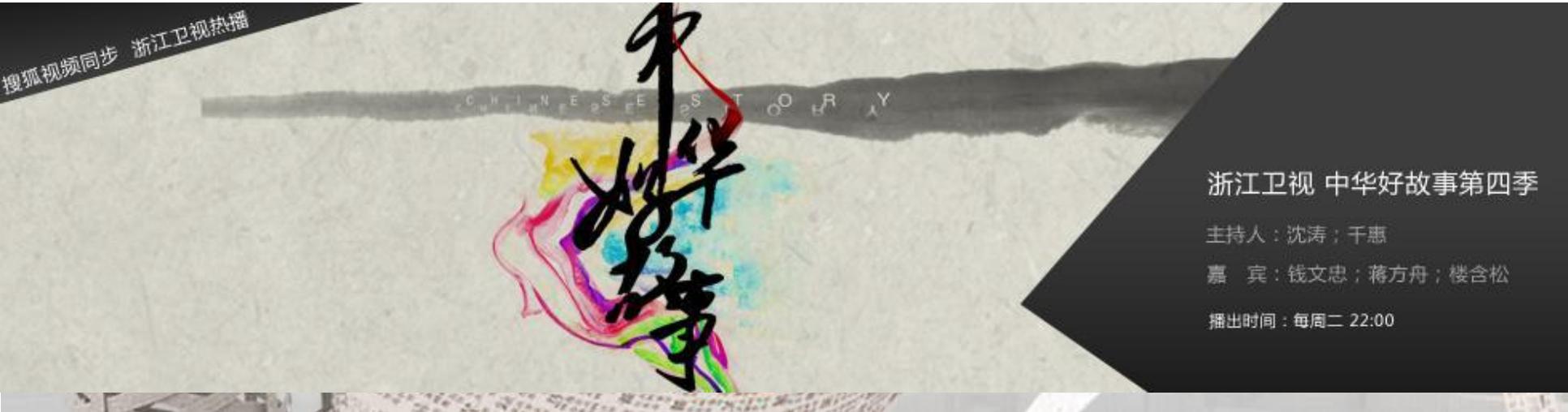
# Chinese Entertainment Industry

- Factor conditions: natural resources



# Chinese Entertainment Industry

- Factor conditions: cultural resources



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# Chinese Entertainment Industry

- Factor conditions: infrastructure resources
  - broadcast television : above 97% by 2013
  - broadcasting program : 2836 by 2013
  - television program : 1336 by 2013



# Chinese Entertainment Industry

- Factor conditions: capital resources

Broadcast television income structure of China

年份	当年总收入	财政拨款	财政拨款所占比重%	广告收入	广告收入占比重%
1982	9.83	几乎全部	近 100%	——	——
2004	824.72	88.58	10.74	414.5	50.26
2006	959.94	未获得此数据	未获得此数据	527.35	54.90
2013	3734.88	未获得此数据	未获得此数据	1387.01	37.13

数据来源 《2014 年中国广播电影电视发展报告》

# Chinese Entertainment Industry

- Demand Condition :
  - scale and consumption level
  - characteristics of demanding

排名	节目	频道
1	极限挑战	东方卫视
2	我们相爱吧	江苏卫视
3	奔跑吧兄弟	浙江卫视
4	跨界歌王	北京卫视
5	快乐大本营	湖南卫视
6	中国新歌声	浙江卫视
7	天天向上	湖南卫视
8	我们来了	湖南卫视
9	我去上学啦	东方卫视、浙江卫视
10	挑战者联盟	浙江卫视

# Chinese Entertainment Industry

- Related and supporting industry
  - information industry
  - advertisement industry
  - industrial chain of derivative product



凉茶领导者 加多宝



# Chinese Entertainment Industry

- **Firm strategy, structure, and rivalry**
  - firm strategy and structure: broadcasting group and TV producers
  - rivalry: horizontal competition/new media competition



# Korea Entertainment Industry



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# Factor-Mobility Theory

- When the quantity and quality of countries' factor conditions change, countries' relative capabilities (comparative advantages) also change.
  - The mobility of capital, technology, and people affects trade and relative competitive positions.
  - The factor-mobility theory focuses on the reasons why production factors move, the effects that such movement has in transforming factor endowments, and the effect of international factor mobility (especially people) on world trade.
-

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# Factor-Mobility Theory

- **People:** people move for economic reasons as well as political reasons. 
  - **Capital:** capital especially short-term capital, is the most internationally mobile production factor.
  - Business do not make all the international capital movements. Governments give foreign aid and loans.
-

# Immigration Waves

- 1<sup>st</sup> Immigration Waves: studying abroad
- 2<sup>nd</sup> Skilled Migration
- 3<sup>rd</sup> Investment immigration



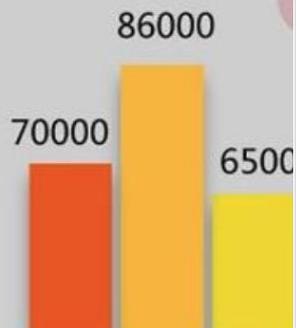
# Asian immigrants in USA

家庭年

( )

两国移民都喜欢住纽约

整体

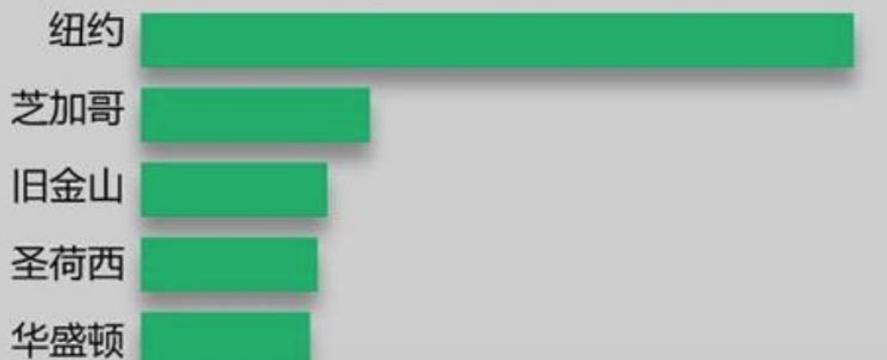


中国移民

中国移民最多的城市 (万人)



印度移民最多的城市 (万人)



15.1



# Capital Movement



# 主要大国/地区对澳直接投资

(单位:百万澳元)



来源: ABS; Deloitte Access Economics

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# The Relationship between Trade and Factor Mobility

- Factor movements alter factor endowments.
  - Capital and labor move internationally to gain more income and flee adverse political situations.
  - Although international mobility of production factors may be a substitute for trade, the mobility may stimulate trade through sales of components, equipment, and complementary products.
-

# Key Business Terms

- Absolute advantage
- Comparative advantage
- Natural advantage
- Acquired advantage
- Division of labor
- Country-similarity theory
- Diamond of national advantage
- Factor-mobility theory
- Factor-proportions theory
- Mercantilism
- Neomercantilism
- Product life cycle theory
- Theory of country size
- Subsidize, subsidy
- Unfavorable balance of trade
- Laissez-faire
- Interventionist
- Favorable balance of trade
- Trade surplus
- Trade deficit
- Specialization
- Specialized production
- Inputs, outputs
- Factors of production
- Self-sufficient
- Product delivery
- Endowments
- Competitive superiority