# TRADE IN THE GLOBAL ECONOMY

# Learning Objectives

- Understand basic terms and concepts as applied to international trade.
- Understand basic ideas of why countries trade.
- Understand basic facts for trade
- Understand facts using theory

# Roadmap for the Course

- Introduction, main definitions and facts
- Gains from trade in an exchange economy
- Technology differences and Comparative advant.
- Endowment differences and specialization
- Increasing returns
- The Gravity model
- Trade policy
- Firms international trade
- Gains from trade revisited

# Trade in the Global Economy

- **Imports** are the purchase of goods or services from another country.

- **Exports** are the sale of goods or services to other countries.
  - Germany had the largest exports of *goods* in 2005 with China and the U.S. coming in second and third.

# Trade in the Global Economy

- **Merchandise goods:** includes manufacturing, mining, and agricultural products.

- **Service exports:** includes business services like eBay, travel, insurance, and transportation.
  - In combining all goods and services, the U.S. is the world's largest exporter followed by Germany and China.

# Trade in the Global Economy

- **Migration** is the flow of people across borders as they move from one country to another.

- **Foreign Direct Investment** is the flow of capital across borders when a firm owns a company in another country.

# Trade in a Global Economy

- Why do countries trade?
  - They can get products from abroad cheaper or of higher-quality than those obtained domestically.
    - The fact that Germany was the largest exporter of goods in 2005 shows its technology for producing high-quality manufactured goods.
    - China produces goods more cheaply than most industrialized countries.

# International Trade

- The Basics of World Trade
  - Not all trade consists of goods shipped between countries.
  - Certain services are provided—services like travel and tourism occur in the domestic country for foreign consumers.

# The Basics of World Trade

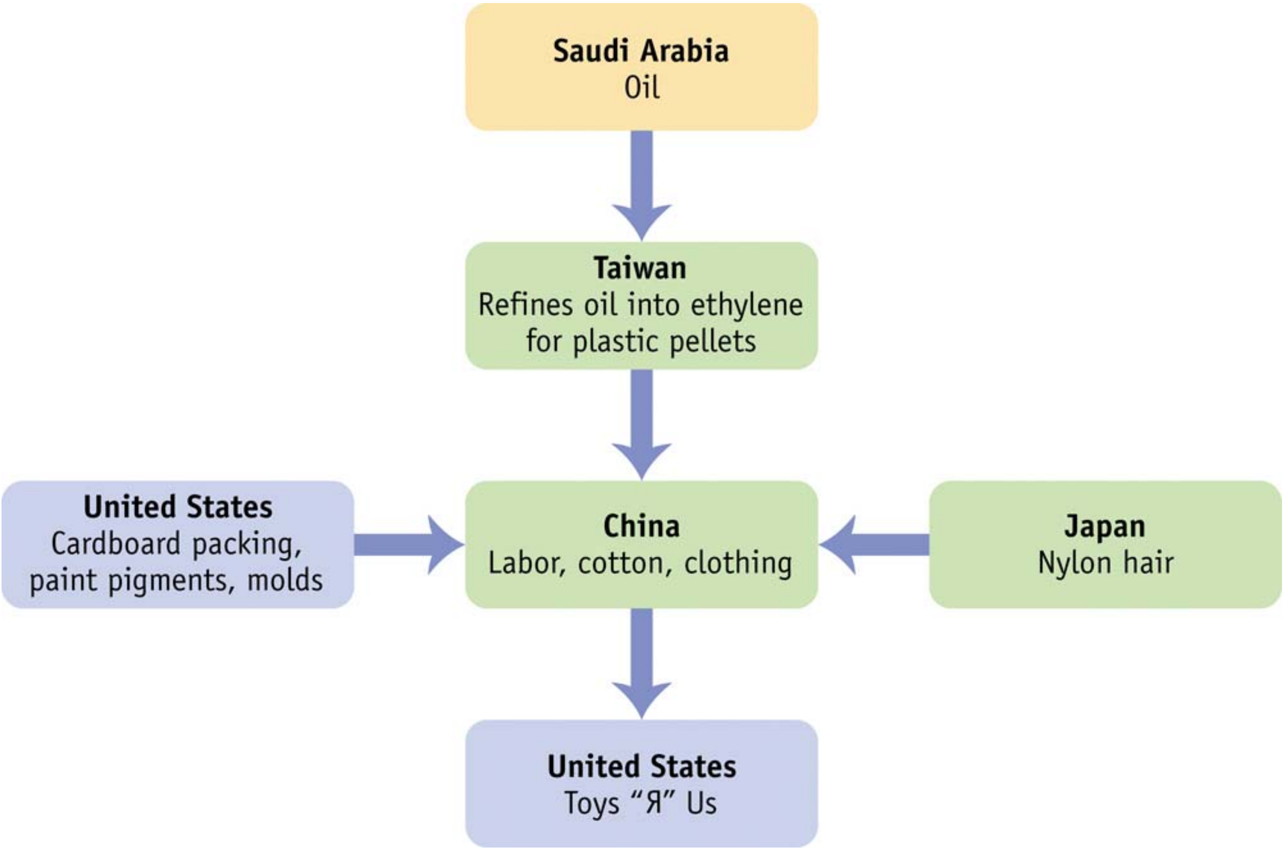
- The **Trade Balance** of a country is the difference between the total value of exports and the total value of imports.
  - Usually includes both goods and services
  - We will not be concerned with trade balances—we will assume imports equal exports.
- A **Trade Surplus** exists when a country exports more than it imports.
- A **Trade Deficit** exists when a country imports more than it exports.

# The Basics of World Trade

- What are the problems with bilateral trade data?
  - If some of the inputs are imported into the country, then the value-added is less than the value of exports.
  - Barbie is made with oil from Saudi Arabia, plastic from Taiwan, hair from Japan, and is assembled in China.
  - Doll is valued at $2 when it leaves China but only 35 cents is value-added from Chinese labor.

# Barbie in World Trade

**Figure 1.1** Barbie Doll



# The Basics of World Trade

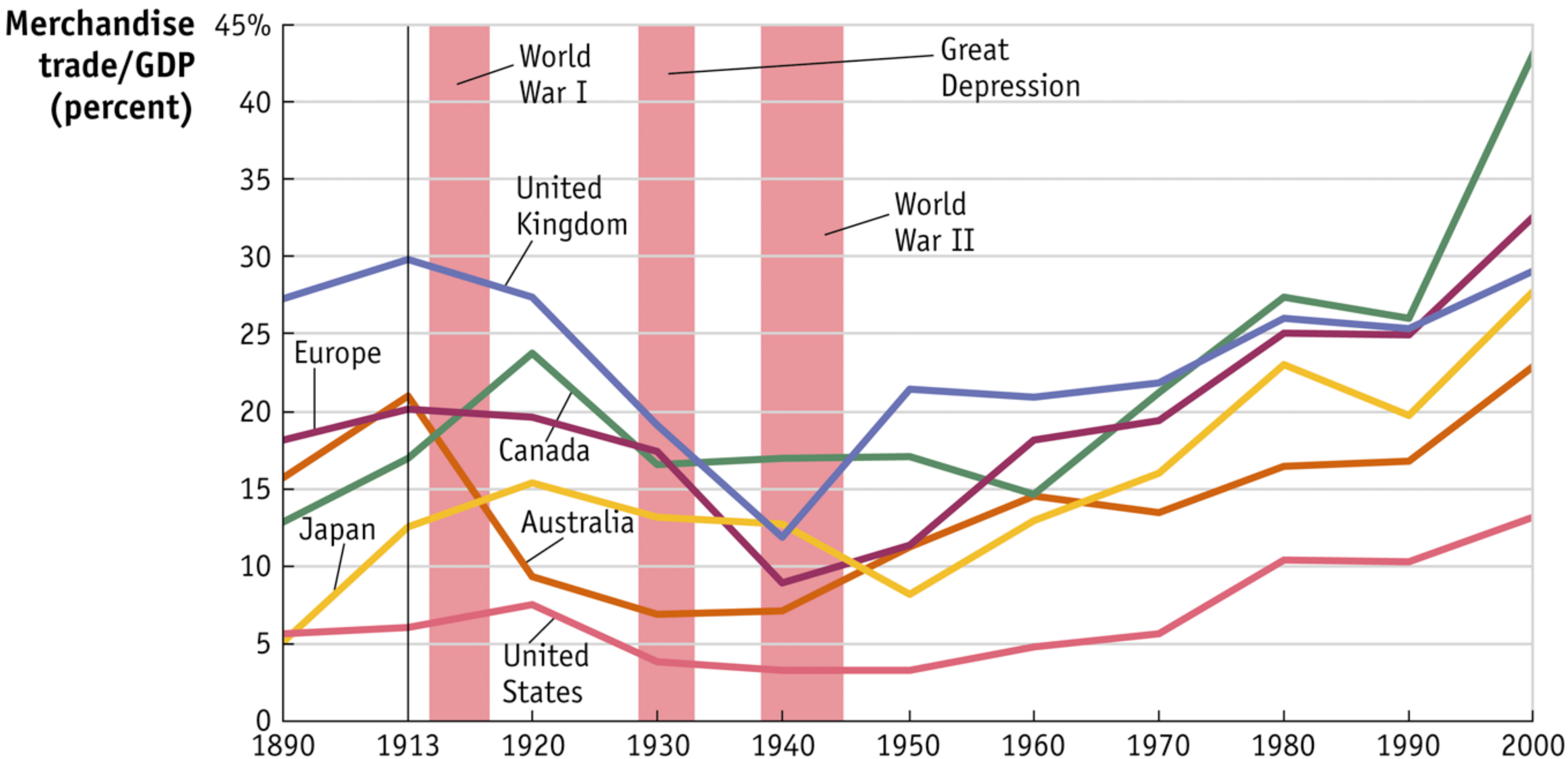
- What are the problems with bilateral trade data?
  - The whole $2 is counted as an export from China to the U.S. even though only 35 cents of it really comes from China through their labor contribution.
  - This shows the bilateral trade deficit or surplus is not as clear as you might think.
    - This is a short-coming of the official statistics.

# The Basics of World Trade

- So why is this a big deal?
  - In 1995, toys imported from China totaled $5.4 billion.
  - As trade with China continues to grow, China's apparent trade advantage begins to worry many in the U.S.
  - When the trade statistics are misleading, it can cause undue controversy.

# Trade Growth

- Fact: tremendous growth of trade post-WWII



# Composition of Trade

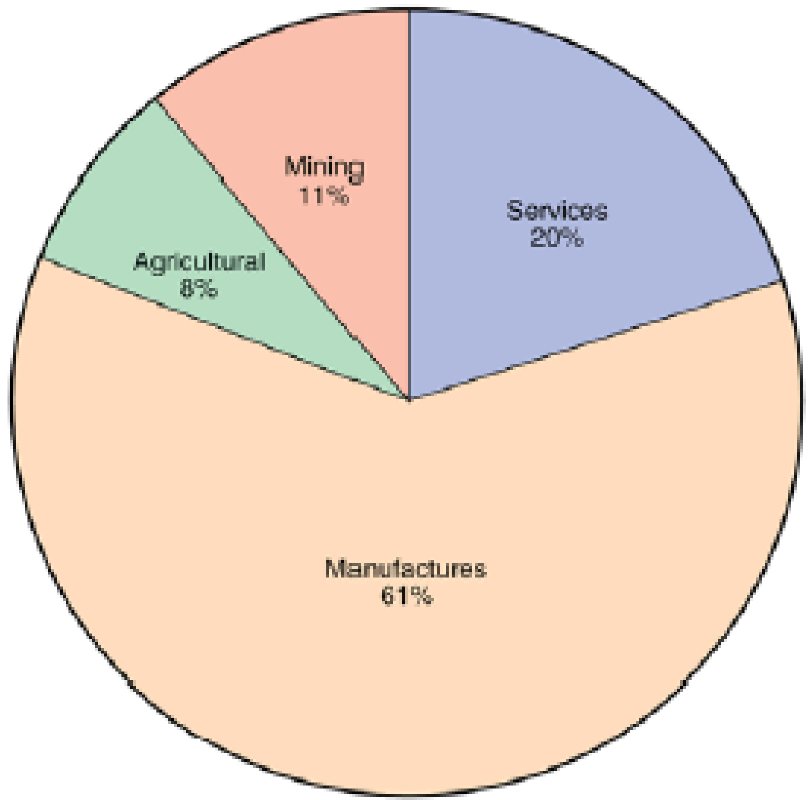
- Most trade is in Manufactures

**Figure 2-6**

**The Composition of World Trade, 2003**

Most world trade is in manufactured goods, but minerals—mainly oil—remain important.

**Source:** World Trade Organization.

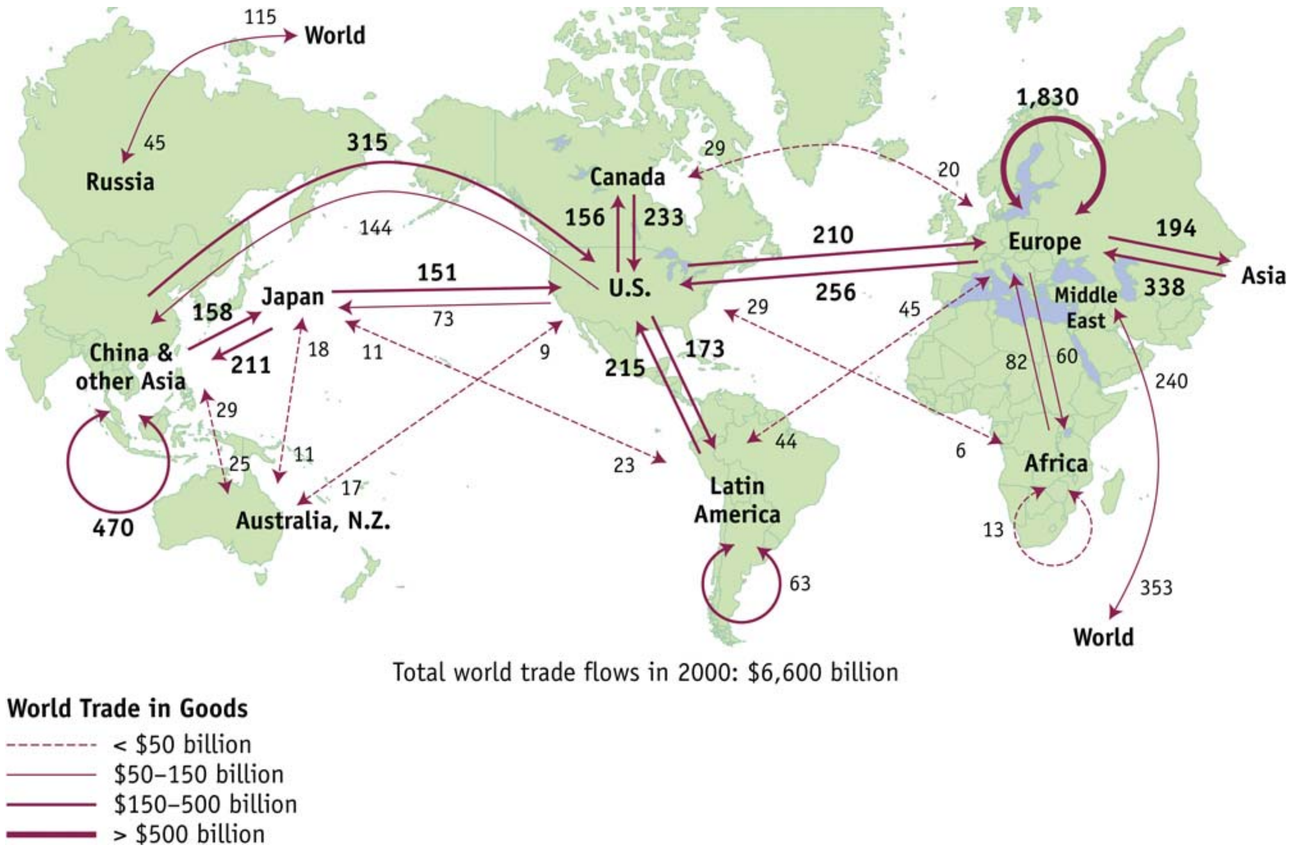


# Map of World Trade

- In 2000, about $6.6 trillion in *goods* crossed international borders.
  - In figure 1.2, the width of lines measures trade—the wider the line, the more trade.
  - We will discuss the larger trading groups and how trade is affected in those areas.

# Map of World Trade

**Figure 1.2** World Trade in Goods, 2000 ($ billions)



# Map of World Trade: Gravity

- European and U.S. Trade
  - Trade within Europe is the largest, about 28% of world trade.
    - Many countries
    - Easy to ship between countries because import tariffs are low
    - European Union (EU) countries have zero tariffs on imports from each other.
    - EU has 25 members with two more joining in 2007.
    - Both Europe and the US are rich: Gravity!!

# Map of World Trade: Gravity

- European and U.S. Trade
  - Europe and the U.S. together account for 35% of world trade flows.
  - Differences among these countries explain some of the trade between them.
  - Despite this, industrialized countries like the U.K. and U.S. have many similarities.
  - We will examine in chapter 6 why “similar” countries trade so much.

# Map of World Trade

- Trade in the Americas
  - Trade between North, Central, and South America and the Caribbean totals 13% of all world trade.
  - Most of this is within the North American Free Trade Area which consists of Canada, the U.S. and Mexico.

# Map of World Trade

- Trade with Asia
  - All exports from Asia total 28% of all world trade.
    - Exports from China alone doubled from 2000 to 2005.
  - Many reasons why Asia trades so much
    - China’s labor is cheap.
    - Japan can produce high quality goods efficiently.

# Map of World Trade

- Other Regions
  - Oil and natural gas are exported from the Middle East and Russia.
    - Exports from these two areas totaled another 10% of world trade.
  - Africa accounts for only 2.5% of world trade.
    - Very small given its size and population
    - Many believe getting Africa out of poverty will require better linkages with the world through trade.

# Map of World Trade

**Table 1.1:** Shares of World Trade, Accounted for by Selected Regions, 2000

| | Share of World Trade | | Share of World Trade |
|---|---|---|---|
| Europe (internal trade) | 28% | Asia (exports) | 28% |
| Europe (internal) plus trade with United States | 35% | Middle East and Russia (exports) | 10% |
| Americas (internal trade) | 13% | Africa (exports) | 2.5% |
| Europe and the Americas (exports) | 58% | Australia and New Zealand (exports) | 1.5% |

# Trade Compared to GDP

- Another way to measure trade is by looking at its ratio to GDP.
- In 2005 trade relative to GDP for the U.S. was 13%.
- Most other countries have a higher ratio.
- Countries that are important shipping and processing centers are much higher.
  - Hong Kong, Malaysia, and Singapore

# Trade Compared to GDP

- As we saw with the Barbie example, the value-added can be much less than the total value of exports.
  - This is why trade can be greater than GDP.
- The countries with the lowest ratio are those with large economic values or those that have just started trading.
- Although the U.S. was the world’s largest trader in 2005, it had a small trade/GDP ratio.

# Trade Compared to GDP

**Table 1.2** Trade/GDP Ratio in 2005

| Country | Trade/GDP (%) | GDP ($ billions) |
|---|---|---|
| Hong Kong (China) | 192% | $178 |
| Malaysia | 111 | 130 |
| Thailand | 75 | 177 |
| Hungary | 68 | 109 |
| Switzerland | 49 | 366 |
| Sweden | 42 | 354 |
| South Korea | 42 | 788 |
| Denmark | 41 | 254 |
| Germany | 38 | 2,782 |
| Norway | 38 | 284 |
| Canada | 36 | 1,115 |
| Indonesia | 35 | 287 |
| China | 33 | 2,229 |
| Venezuela | 31 | 139 |
| Mexico | 31 | 768 |
| Turkey | 31 | 363 |
| Russian Federation | 28 | 764 |
| Spain | 28 | 1,124 |
| United Kingdom | 28 | 2,193 |
| Greece | 28 | 214 |
| Italy | 27 | 1,723 |
| France | 27 | 2,110 |
| South Africa | 24 | 240 |
| Argentina | 22 | 183 |
| Australia | 20 | 701 |
| India | 20 | 785 |
| Brazil | 19 | 794 |
| Pakistan | 18 | 111 |
| Japan | 14 | 4,506 |
| United States | 13 | 12,455 |

# Barriers to Trade

- In Table 1.2 we saw the differences in the amount of trade.
- Why does this occur?
  - Import tariffs—the taxes that countries charge on imported goods
  - Transportation costs of shipping between countries
  - Other events such as wars, etc.

# Barriers to Trade

- **Trade barriers** refer to all factors that influence the amount of goods and services shipped across international borders.
- Barriers to trade change over time as policies, technology, etc. change.
- Figure 1.3 shows the ratio of trade in goods and services to GDP for a selection of countries over time.
- We can look at important events that have affected trade.

# Barriers to Trade

- The First “Golden Age” of Trade
  - 1890–1913
  - Ended with the beginning of WWI
  - Significant improvements in transportation
    - Steamship and railroad
  - U.K. had highest ratio of trade to GDP at 30%

# Barriers to Trade

- Inter-War Period
  - 1913–1920 showed decreases in trade for Europe and Australia due to WWI and aftermath.
  - After 1920 the ratio fell in all other countries and was made worse by the Great Depression which began in 1929.
  - U.S. adopted high tariffs—Smoot-Hawley tariffs—in June 1930, some as high as 60%.

# Barriers to Trade

- Inter-War Period
  - Tariffs backfired as other countries retaliated—the average world-wide tariff rate rose to 25% by 1933.
  - **Import quotas**—limitations on the quantity of an imported good—were also instituted during this time.
  - High tariffs and restrictions lead to a dramatic fall in world trade with large costs to the U.S. and the world economy.

# Barriers to Trade

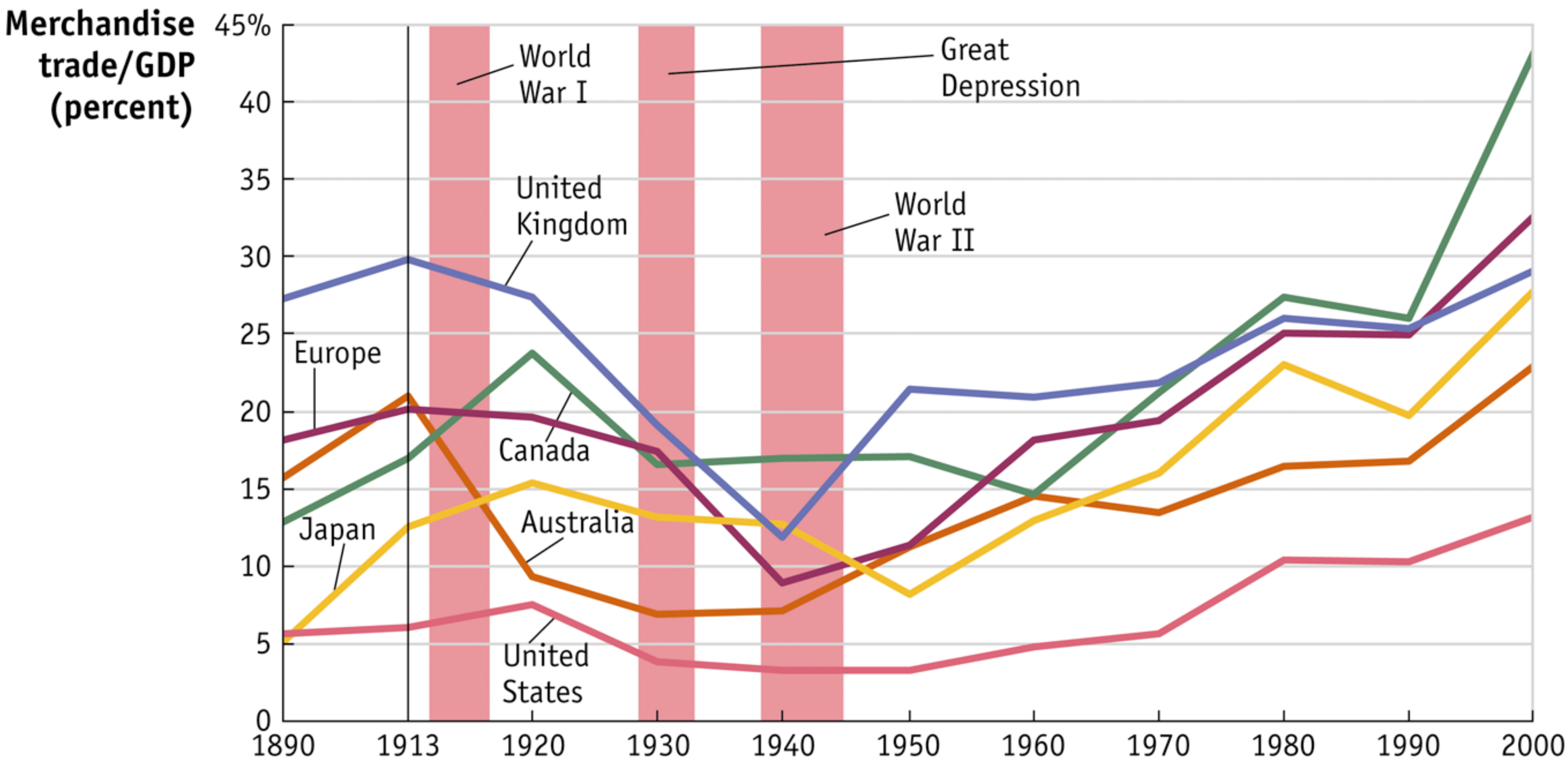
- Inter-War Period
  - This decline in the world economy lead the Allied countries to meet after WWII to develop policies to keep tariffs low.
    - General Agreement on Tariffs and Trade (GATT) which became the World Trade Organization (WTO)
  - Chapters 8–11 look at trade policies and the international institutions that govern their use.
  - Conclusion—high tariffs reduce the amount of trade and impose large costs on countries involved.

# Barriers to Trade

- Second “Golden Age” of Trade
  - After WWII, some countries were able to increase trade back to WWI levels quickly.
  - The end of WWII, the reduction of tariffs from GATT, and improved transportation contributed to the increase in trade.
    - Shipping container was invented in 1956.
  - World trade grew steadily after 1950 with many countries exceeding their pre-WWI trade peak.

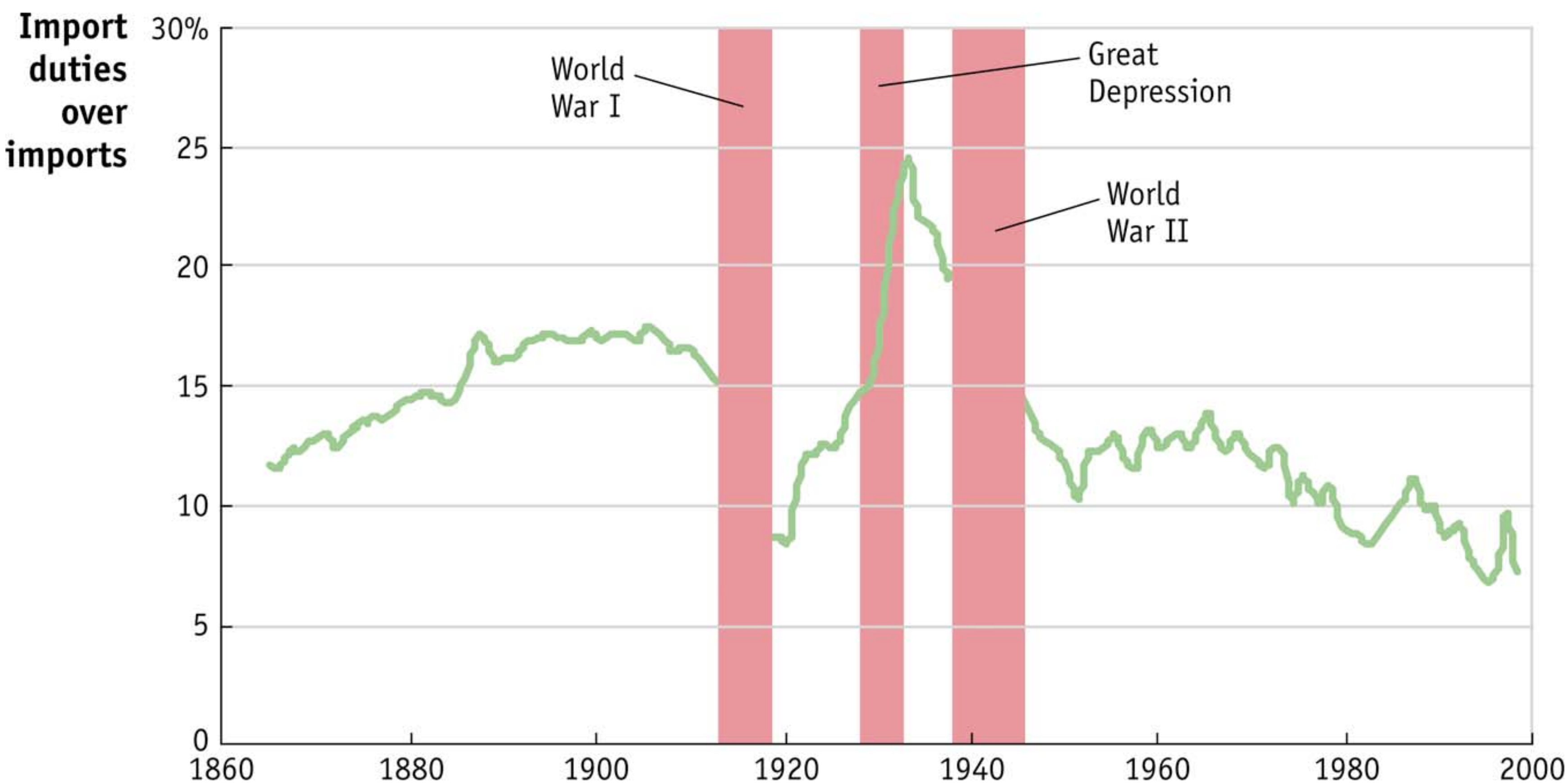
# Barriers to Trade

**Figure 1.3** Trade in Goods and Services Relative to GDP



# Barriers to Trade

**Figure 1.4** Average Worldwide Tariffs, 1860–2000



# Migration and Foreign Direct Investment

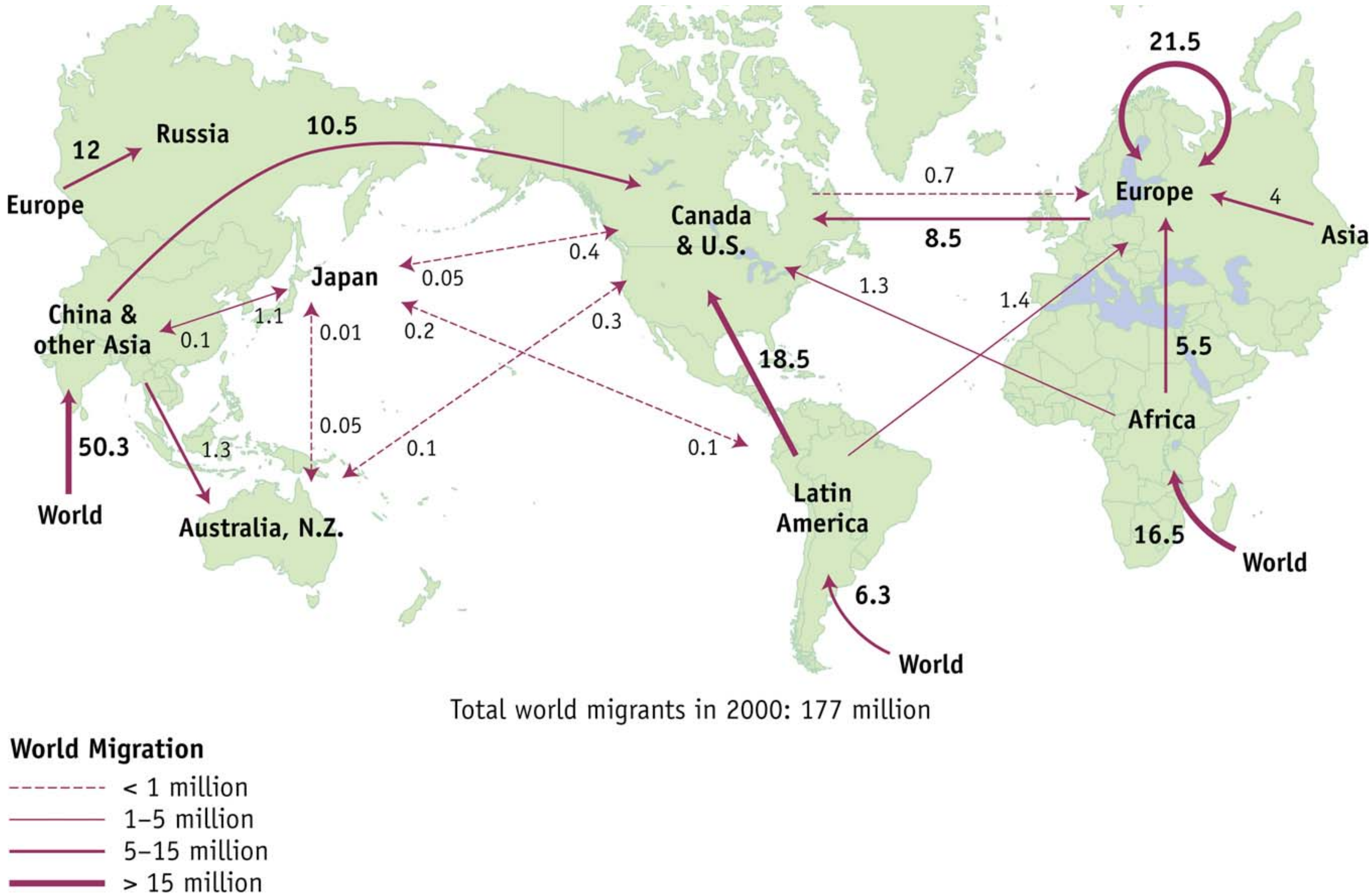
- International trade, migration, and foreign direct investment (FDI) all affect the economy of a nation that opens its borders to interact with other nations.
- Now that we have introduced international trade, we need to introduce migration and FDI.

# Map of Migration

- Figure 1.5 shows a map of the number of migrants around the world.
- Values shown are number of persons in 2000 who were living (legally or illegally) in a country different from where they were born.
- Two sources of data are used
- The bolder the line, the more migrants

# Map of Migration

**Figure 1.5** Foreign-Born Migrants, 2000 (millions)



# Map of Migration

- Unlike trade, the majority of migration occurs outside the OECD between countries that are less wealthy.
- Many immigrants come from same continent but move countries for employment or other reasons.
- Given a choice, migrants would like to move to a higher-wage country.

# Map of Migration

- Unlike trade, there are much more significant regulations on migration.
  - Flow of people between countries is *much less* free than the flow of goods.
- Policy makers fear that immigrants from low-wage countries will drive down wages for a country’s own lower-skilled workers.

# Map of Migration

- However, international trade can act as a substitute for movements of capital and labor across borders.
  - Trade can raise the living standard of workers in the same way that moving to a higher-wage country can.
  - As trade has increased worldwide, more workers are able to work in export industries.
    - This allows them to benefit from trade without moving to another country.

# Map of Migration

- European and U.S. Immigration
  - Wealthier countries typically have greater immigration restrictions.
  - The EU, up to 2004, had an open migration policy between member countries.
  - In 2004, ten more countries joined; these countries had incomes significantly less than the existing members.
    - Fears of labor inflow led to significant policy disagreements.

# Map of Migration

- European and U.S. Immigration
  - In January 2007, two more countries joined.
  - This led Britain to announce it would not immediately accept those workers.
  - As less wealthy countries have been joining the EU, the wealthier countries are having many more issues with free migration.

# Balkans Need Not Apply

- Britain was one of three EU countries that opened its jobs to all nationals from the 10 states that joined in 2004.
- Given that policy, Britain stated that it will not fully open its labor market to Romanians and Bulgarians who joined in January of 2007.
- Bulgaria threatened “reciprocal measures” given their belief the decision is unfair.

# Map of Migration

- European and U.S. Immigration
  - In 2005 it was estimated that 12 million Mexicans were living in the U.S..
    - This is more than 10 percent of Mexico's population.
  - The concern of wages being driven down is amplified by the exceptionally high number of illegal immigrants.
  - Policy makers in the U.S. seem to all believe that the current immigration system is not working.

# Low-Wage Workers from Mexico Dominate Latest Great Wave of Immigrants

- Since the 1990’s the U.S. has seen the greatest wave of immigration in its history.
- Of 300 million people in the U.S., about 37 million were born in another country.
- The current wave has been greatly dominated by immigrants from Mexico:  one-third of those foreign born are from Mexico.

# Low-Wage Workers from Mexico Dominate Latest Great Wave of Immigrants

- There have been many proposals from both political parties to “fix” a supposedly dysfunctional system.
- The largest sign of dysfunction is that illegal immigrants outnumber legal ones and about 56 percent of those come from Mexico.
- The system was set up to favor family connections, not labor market demands.

# Low-Wage Workers from Mexico Dominate Latest Great Wave of Immigrants

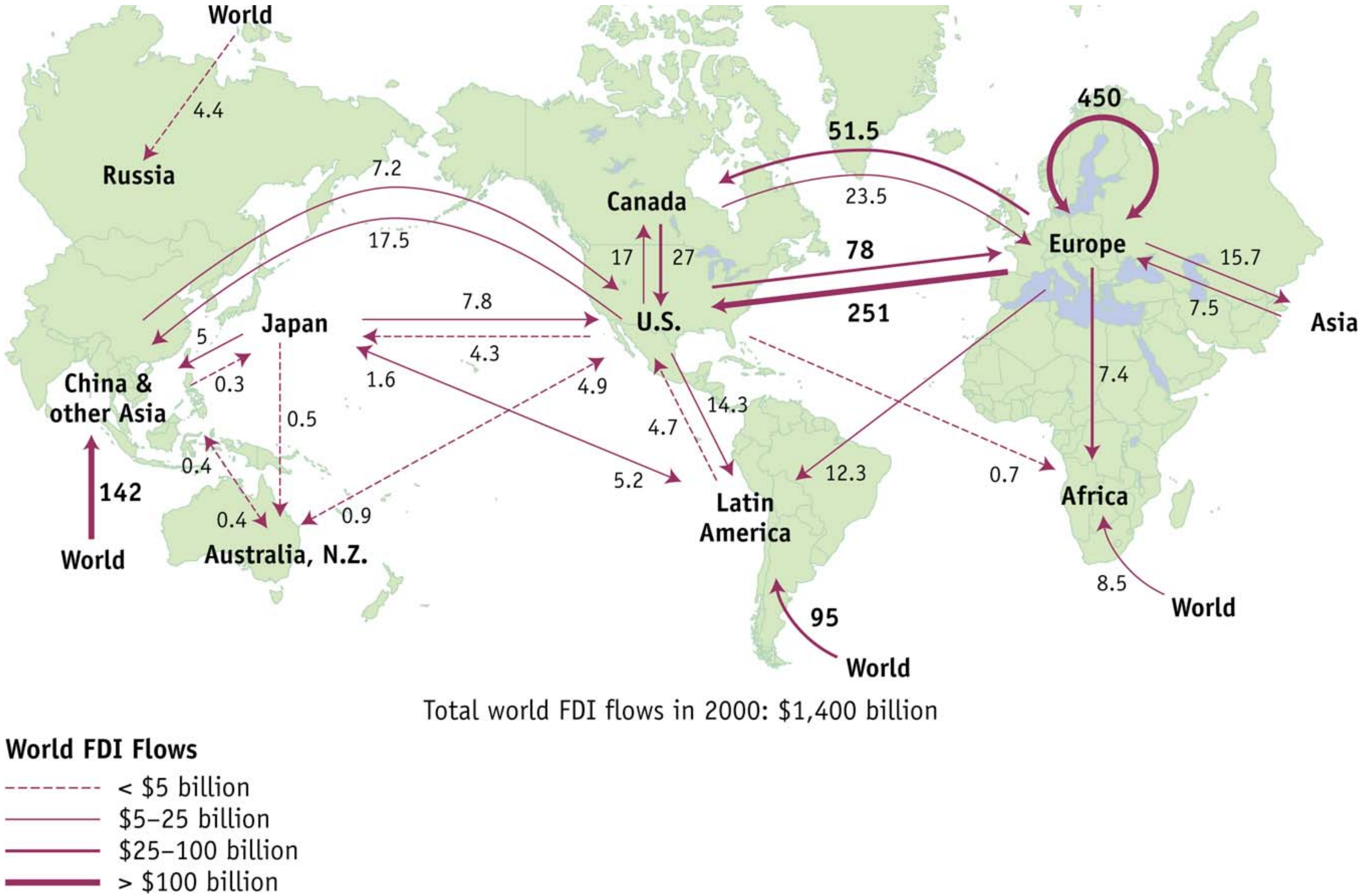
- A legal immigrant could petition for a family member to be brought over, but visa categories have numerical caps.
- The backlog of applications has become so large the system can't function.
- An American citizen wanting to bring a sibling from Mexico has a wait time of 13 years.

# Map of Foreign Direct Investment

- FDI occurs when a firm in one country owns a company in another country.
- Figure 1.6 shows the principal flows of FDI in 2000.
  - Again, thicker lines indicate higher levels of FDI.
- In 2000 there were FDI flows of $1.3 trillion into or out of OEDC countries.
- This value is more than 90% of total world FDI.

# Map of Foreign Direct Investment

**Figure 1.6** Flows of Foreign Direct Investment, 2000



# Map of Foreign Direct Investment

- Unlike migration, most FDI occurs between OECD countries.
- Two ways FDI can occur
  - Horizontal FDI occurs when a firm from one country owns a company in another country that undertakes the same production activity as the domestic.

# Map of Foreign Direct Investment

- Reasons for Horizontal FDI
  - Having a plant abroad allows the parent firm to avoid any tariffs or quotas from exporting to a foreign market since it produces locally.
  - Having a foreign subsidiary abroad also provides improved access to that economy because the local firms will have better facilities and information for marketing products.
  - An alliance between the production divisions of firms allows technical expertise to be shared.

# Map of Foreign Direct Investment

- Vertical FDI occurs when a firm from an industrial country owns a plant in a developing country that operates a different stage of the production activity.
  - This usually occurs to take advantage of lower wages in the developing country.
  - Firms have moved to China to avoid tariffs and acquire local partners to sell there.
  - China joined the WTO in 2001 and has reduced tariffs, but firms have remained, and autos are now being exported from China.

# Map of Foreign Direct Investment

- European and U.S. FDI
  - The largest flows of FDI are in Europe, amounting to about $450 billion in 2000.
    - Merger of Daimler-Benz
  - Flows within Europe and between Europe and the U.S. add up to 55% of the world total.
  - The greatest amount of FDI is between industrialized countries; thus, the greatest amount is horizontal FDI.

# Map of Foreign Direct Investment

- FDI in the Americas
  - Brazil and Mexico are two of the largest recipients of FDI among developing countries after China.
  - Inflows to Brazil and Mexico accounted for about one-half of the total FDI inflows to Latin America.
  - These are examples of Vertical FDI prompted by the opportunity for lower production wages.

# Map of Foreign Direct Investment

- FDI with Asia
  - FDI between the U.S. and Japan and between Europe and Japan is horizontal.
  - The rest of Asia shows fairly large flows of FDI and these flows are examples of vertical FDI to take advantage of low wages.
  - China is the largest recipient country for FDI in Asia, the third largest recipient of FDI in the world.

# Chinese Buyer of PC Unit is Moving to IBM's Hometown

- Lenovo purchased IBM's personal computer business as part of the process of becoming a multinational corporation.
- It will move its headquarters to NY where IBM is based and hand over management to a group of senior IBM executives.
- They know they don't have the necessary global experience to run the new company and are investing in IBM's experience.

# Conclusions

- Although is seems that globalization is new, international trade and integration of financial markets were also strong before WWI.
- After WWII, world trade has grown rapidly again, and the ratio of trade to world GDP has risen steadily.
- Migration across countries is not as free as international trade and countries fear the effect of immigration on domestic labor markets.

# Conclusions

- FDI is largely unrestricted in industrial countries but faces some restrictions in developing countries.
- Typically firms invest in developing countries to take advantage of lower wages.

# Key Points

1. A large portion of international trade is between industrial countries.
2. It is possible to explain trade between countries that are similar as well as between those that are different.
3. The majority of world flows of FDI occurs between industrial countries