Chapter 20
International Trade, Comparative Advantage, and Protectionism

Kazu Matsuda

IBEC 203

Macroeconomics

INTERNATIONAL TRADE, COMPARATIVE ADVANTAGE, AND PROTECTIONISM

✓ The “internationalization” or “globalization” of the U.S. economy has occurred in the private and public sectors, in input and output markets, and in business firms and households.

▪ All economies, regardless of their size, depend to some extent on other economies and are affected by events outside their borders.

TRADE SURPLUSES AND DEFICITS

- U.S. is the world's ? largest importer. Link.
- U.S. is the world's ? largest exporter. Link.

- ? = The situation when a country exports more than it imports.

➢ ? = The situation when a country imports more than it exports.

• U.S. has the world's ? largest trade deficit. Link.

TABLE 20.1 U.S. Balance of Trade (Exports Minus Imports), 1929–2004 (Billions of Dollars)

	EXPORTS MINUS IMPORTS		EXPORTS MINUS IMPORTS
1929	+ 0.4	1986	– 132.7
1933	+ 0.1	1987	– 148.2
1945	– 0.8	1988	– 110.4
1955	+ 0.5	1989	– 88.2
1960	+ 4.2	1990	– 78.0
1965	+ 5.6	1991	– 27.5
1970	+ 4.0	1992	– 33.2
1975	+ 16.0	1993	– 65.0
1976	– 1.6	1994	– 93.6
1977	– 23.1	1995	– 91.4
1978	– 25.4	1996	– 96.2
1979	– 22.5	1997	– 101.6
1980	– 13.1	1998	– 159.9
1981	– 12.5	1999	– 260.5
1982	– 20.0	2000	– 379.5
1983	– 51.7	2001	– 367.0
1984	– 102.7	2002	– 424.4
1985	– 115.2	2003	– 500.9
		2004	– 624.4

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

✓ Less expensive foreign goods began driving U.S. manufacturers out of business, and thousands of jobs were lost in important industries. Cities such as Pittsburgh, Youngstown, and Detroit had major unemployment problems.

THE ECONOMIC BASIS FOR TRADE: COMPARATIVE ADVANTAGE

- **Corn Laws =** The tariffs, subsidies, and restrictions enacted by the British Parliament in the early nineteenth century to discourage imports and encourage exports of grain.

➢ **Theory of comparative advantage =** Ricardo's theory that specialization and free trade will benefit all trading partners (real wages will rise), even those that may be absolutely less efficient producers.

ABSOLUTE ADVANTAGE VERSUS COMPARATIVE ADVANTAGE

- = The advantage in the production of a product enjoyed by one country over another when it uses fewer resources to produce that product than the other country does.

- = The advantage in the production of a product enjoyed by one country over another when that product can be produced at lower cost in terms of other goods than it could be in the other country.

Gains from Mutual Absolute Advantage

• Suppose U.S. and China each have fixed amount of labor force and do not trade with the rest of the world.

• There are only two goods – cars and sneakers.

• Preferences for cars and sneakers are such that both countries consume equal amounts of cars and sneakers.

• We assume that each country has only 100 labor force.

Gains from Mutual Absolute Advantage

TABLE Yield Per Worker of Car and Sneaker

	U.S.	China
Car	6 cars	2 cars
Sneaker	2 sneakers	6 sneakers

TABLE Total Production of Car and Sneaker Assuming No Trade, Mutual Absolute Advantage, and 100 Available Workers

	U.S.	China
Car	25 workers x 6 cars/worker 150 cars	75 workers x 2 cars/worker 150 cars
Sneaker	75 workers x 2 sneakers/worker 150 sneakers	25 workers x 6 sneakers/worker 150 sneakers

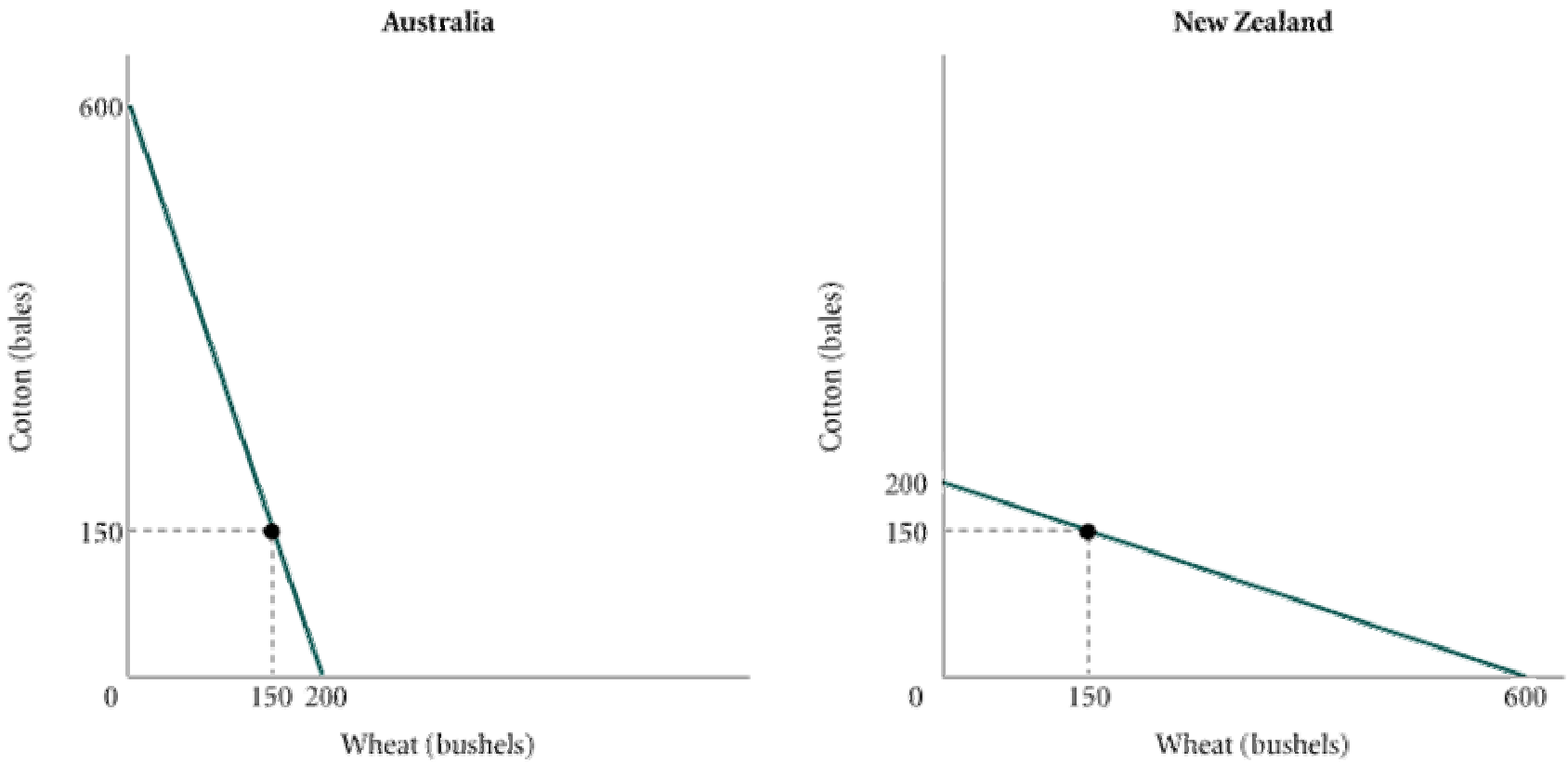


FIGURE **Production Possibility Frontiers for U.S. and China before Trade**

TABLE **Production and Consumption of Car and Sneaker after Specialization**

	PRODUCTION		CONSUMPTION	
	U.S.	China	U.S.	China
Car				
Sneaker				

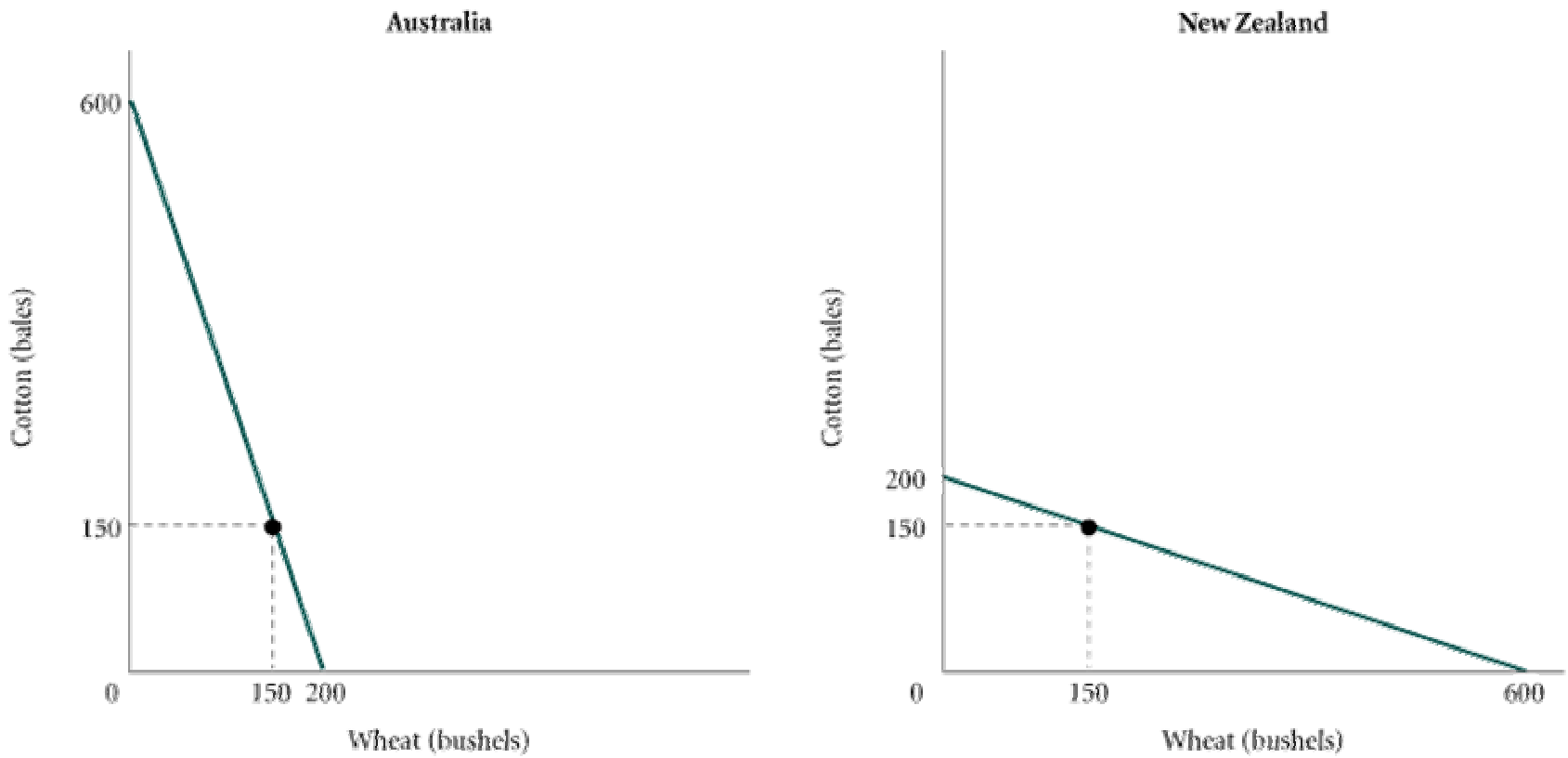


FIGURE Expanded Possibilities after Trade

Gains from Comparative Advantage

TABLE Yield Per Worker of Car and Sneaker

	U.S.	China
Car	6 cars	1 car
Sneaker	6 sneakers	3 sneakers

TABLE Total Production of Car and Sneaker Assuming No Trade and 100 Available Workers

	U.S.	China
Car		
Sneaker		

TABLE **Realizing a Gain from Trade When One Country Has a Double Absolute Advantage**

	STAGE 1		STAGE 2	
	U.S.	**China**	**U.S.**	**China**
Car	50 workers x 6 cars/worker 300 cars			0 workers 0
Sneaker	50 workers x 6 sneakers/worker 300 sneakers			100 workers x 3 sneakers/worker 300 sneakers

STAGE 3

	U.S.	China
	? cars (trade) →	
Car	? cars	? cars
	(after trade)	
	? sneakers (trade)	
Sneaker	? sneakers	? sneakers
	(after trade)	

Graphic Solution

Why Does Ricardo's Plan Work?

- The real cost of something is what you must give up to get it.

TABLE Yield Per Worker of Car and Sneaker

	U.S.	China
Car	6 cars	1 car
Sneaker	6 sneakers	3 sneakers

	USA	China
Car		
Sneakers		

TERMS OF TRADE

Terms of trade = The ratio at which a country can trade domestic products for imported products.

TABLE Yield Per Worker of Car and Sneaker

	U.S.	China
Car	6 cars	1 car
Sneaker	6 sneakers	3 sneakers

EXCHANGE RATES

✓ When trade is free—unimpeded by government-instituted barriers—patterns of trade and trade flows result from the independent decisions of thousands of importers and exporters and millions of private households and firms.

✓Toyota JP

¥2,438,095

$25,975

Exchange rate = The ratio at which two currencies are traded.

Trade and Exchange Rates in a Two-Country/Two-Good World

- ✓ Suppose both the U.S. and Brazil produce only two goods – hotdogs and rice & beans.

TABLE Domestic Prices of Rice & Beans and Hot Dog in the United States and Brazil

	UNITED STATES	BRAZIL
Hot Dog	$1	3 Reals
Rice & Beans	$2	4 Reals

TABLE Domestic Prices of Rice & Beans and Hot Dog in the United States and Brazil

	UNITED STATES	BRAZIL
Hot Dog	$1	3 Reals
Rice & Beans	$2	4 Reals

TABLE Trade Flows Determined by Exchange Rates

EXCHANGE RATE	PRICE OF REAL	RESULT		
$1 = 1 R	$1.00	imports		
$1 = 2 R	.50	imports		
$1 = 2.1 R	.48	imports	;	imports
$1 = 2.9 R	.34	imports	;	imports
$1 = 3 R	.33	imports		
$1 = 4 R	.25	imports		

Exchange Rates and Comparative Advantage

- If the foreign exchange market drives the exchange rate to anywhere between ? and ? per dollar, the countries will automatically adjust and comparative advantage will be realized.

- U.S. buyers begin buying all their ? from Brazil. The U.S. ? industry finds itself in trouble. Plants close, and U.S. workers begin to lobby for tariff protection against Brazilian ? .

✓ At the same time, the U.S. ? industry does well, fueled by strong import demand from Brazil. The hotdog producing sector expands. Resources, including capital and labor, are attracted into ? production.

Exchange Rates and Comparative Advantage

- If exchange rates end up in the right ranges, the free market will drive each country to shift resources into those sectors in which it enjoys a comparative advantage.

- Only those products in which a country has a comparative advantage will be competitive in world markets.

TABLE Domestic Prices of Rice & Beans and Hot Dog in the United States and Brazil

	UNITED STATES	BRAZIL
Hot Dog	$1	3 Reals
Rice & Beans	$2	4 Reals

USA BRZ

Hot Dog

R&B

THE SOURCES OF COMPARATIVE ADVANTAGE

✓What determines whether a country has a comparative advantage in automobiles or in oils or in sushi or in diamonds?

✓What explains the actual trade flows observed around the world?

THE HECKSCHER-OHLIN THEOREM

➢A theory that explains the existence of a country's comparative advantage by its factor endowments: A country has a comparative advantage in the production of a product if that country is relatively well endowed with inputs used intensively in the production of that product.

➢A country with a lot of good fertile land is likely to have a comparative advantage in ? .

➢A country with a lot of human capital is likely to have a comparative advantage in ? .



OTHER EXPLANATIONS FOR OBSERVED TRADE FLOWS

- Some theories argue that comparative advantage can be acquired. Just as industries within a country differentiate their products to capture a domestic market, so too do they differentiate their products to please the wide variety of tastes that exists worldwide.

Japan








TRADE BARRIERS

protection = The practice of shielding a sector of the economy from foreign competition.

[1] Tariff =

✓The average tariff on imports into the U.S. is less than 5%.
✓Certain protected items have much higher tariffs.
✓Tariffs on rubber footwear ranged from 20% to 48%.
✓Tariffs on canned tuna = 35%.

TRADE BARRIERS

[2] Export subsidies =

Dumping = A firm's sale of products on the world market at prices **?**

TRADE BARRIERS

[3] Quota =

- ✓ The best-known voluntary quota was negotiated with the Japanese government in 1981. Japan agreed to reduce its automobile exports to the U.S. by 7.7%, from the 1980 level of 1.82 million units to 1.68 million units.
- ✓ The best-known recent case is the textile quota imposed by the EU on imports of textiles from China in August 2005. Because China had exceeded quotas that had been agreed to earlier in the year, the EU blocked the entry of Chinese-produced textiles into Europe, and more than 100 million garments piled up in European ports.

U.S. Trade Policies and GATT

Smoot-Hawley tariff = The U.S. tariff law of the 1930s, which set the highest tariffs in U.S. history (60 percent). It set off an international trade war and caused the decline in trade that is often considered a cause of the worldwide depression of the 1930s.

General Agreement on Tariffs and Trade (GATT) = An international agreement signed by the United States and 22 other countries in 1947 to promote the liberalization of foreign trade.

Economic Integration

economic integration = Occurs when two or more nations join to form a free-trade zone.

European Union (EU) = The European trading bloc composed of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. Link.

Economic Integration

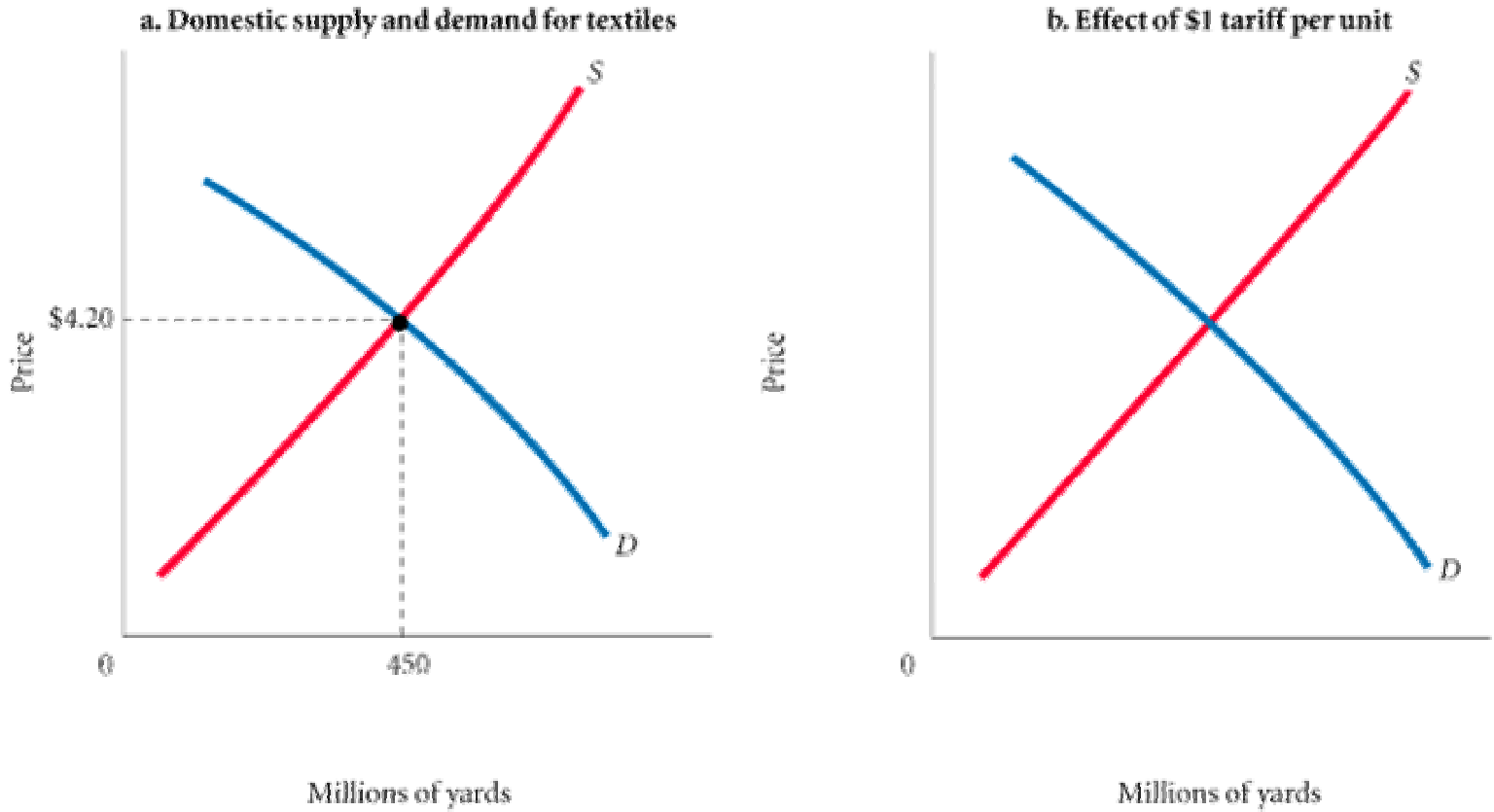
U.S.-Canadian Free Trade Agreement = An agreement in which the United States and Canada agreed to eliminate all barriers to trade between the two countries by 1998.

North American Free Trade Agreement (NAFTA) = An agreement signed by the United States, Mexico, and Canada in which the three countries agreed to establish all North America as a free-trade zone. Link.

List of the largest trading partners of the United States

FREE TRADE OR PROTECTION?

THE CASE FOR FREE TRADE: [1] Textiles are available at a world price of $2.



[2] A tariff of $1 per yard is imposed.

- ✓ Trade barriers prevent a nation from reaping the benefits of specialization, push it to adopt relatively inefficient production techniques, and force consumers to pay higher prices for protected products than they would otherwise pay.

THE CASE FOR PROTECTION

[1] Protection Saves Jobs

- ✓ There is no reason to believe that the workers laid off in the contracting sectors will not be ultimately reemployed in other expanding sectors.

[2] Some Countries Engage in Unfair Trade Practices

[3] Cheap Foreign Labor Makes Competition Unfair

[4] Protection Safeguards National Security

[5] Protection Safeguards Infant Industries

- ▪ A young industry that may need temporary protection from competition from the established industries of other countries to develop an acquired comparative advantage.