**Macroeconomics ECO202 Dr. Mary Habib**

**Notes on**

**Chapter 34: Topics in International Economics**

**Part I- Basic Concepts and International Trade**

International economics is usually taught in two branches: international trade and international finance.

International trade focuses on transactions of real goods and services across nations.

These transactions usually involve a physical movement of goods or a commitment of tangible resources like labor services (e.g. healthcare).

International finance focuses on financial or monetary transactions across nations.

Examples: purchases of US dollars or financial assets by Europeans, loans from one government to another, and bank transfers.

Accordingly, this chapter will explore international economics in two parts.

Let us start with some common concepts relevant to international economics.

*Globalization*

This is broadly defined as the process of increasing interdependence among countries and their citizens. Economic globalization in particular is the process of increasing economic interdependence among countries and their citizens, thru greater trade and investment flows, labor migration, and technology exchanges.

*Multinational Corporations*

Any firm that runs *production* activities in more than one country is classified as an MNC.

Before 1945, multinational corporations played a small role in world trade. Today over one third of all US exports and imports are sales from one division of a multinational corporation to another. For example, a Dell computer mainframe is shipped from the US to China for final assembly by another branch of the same company. The final computer may then be exported back to the US. The majority of everyday goods consumed by people all over the world are produced by MNCs. The annual budgets of some of the larger MNCs could easily exceed the GDP of many small countries.

FYI only:

Here’s a (very) short list of some of the most important MNCs in the world today with their main sectors and headquarters location:

Ford Motor Company – Cars- US

General Electric – Electronics and household appliances – US

General Motors – Cars- US

Siemens – Heavy Equipment – Germany

Exxon Mobil- Energy – US

Toyota- Cars – Japan

Nestle – Food Products – Switzerland

Mitsubishi – Cars – Japan

LG – Electronics – South Korea

Hewelett-Packard- Computer Products – US

Cisco Systems – Networking Equipment - US

Sony – Electronics – Japan

Samsung – Electronics- South Korea

Philips – Electronics – Netherlands

Proctor & Gamble- Household Products – US

Pfizer- Pharmaceuticals- US

Bayer – Pharmaceuticals – Germany

HSBC – Banking – UK

Citibank – Banking – US

Microsoft – IT – US

Apple – IT - US

Intel – Semiconductors - US

L’Oreal – Cosmetics – France

Shell- Energy – Netherlands

Airbus – Civil Aviation (aircraft manufacturing) - France

Ericsson – Telecommunications – Sweden

Volvo - Cars – Sweden

Nokia – Telecommunications - Finland

Kellog’s – Agriculture – US (world’s largest producer of breakfast cereals)

ARAMCO-Petroleum & Energy- Saudi Arabia

CCC (Consolidated Contractors Company) – Largest ME Construction Company

Orascom Telecom – Telecom Services - Egypt

*Developing vs. Developed Nations*

Developing nations have lower per capita incomes and are still backward in several aspects. They may not be as industrialized as developed nations. Developed nations enjoy higher per capita incomes, a larger industrial base, advanced agriculture, advanced financial structures, etc. The term “developing” is relative. Countries are considered to be developing if, relative to the world leaders, they are still catching up with respect to income, industrialization, technology, social structure, and other areas. Developing countries include the majority of countries in the world and are mainly located in Africa, Asia, Latin America, and the Middle East. Examples include Egypt, Syria, India, Bangladesh, Mexico, and Kenya. Developed countries are represented by the U.S., Western Europe, Japan, Canada, Australia, and a few East Asian nations (South Korea, Singapore, Hong Kong, etc.).

**Part One- International Trade and Globalization**

**I. Overview**

Nations now are more closely linked through trade in goods and services than ever before. Most of this trade is in *manufactured products* such as automobiles, computers, clothing, and machinery (61% of total world volume of trade). *Services* such as shipping, insurance, legal fees and spending by tourists account for 20% of the volume of trade. *Mineral products* (e.g., petroleum, coal, copper) and *agricultural products* (wheat, cotton, corn, beef, etc.) together comprise the remaining 19%.

In retrospect, in the past, a much larger fraction of the volume of trade came from agricultural and mineral products.

**II. The Basics of International Trade**

Some common terms:

***Government Trade Policies***

What role does government play in trade?

Policy makers can affect the amount of trade through a number of ways, primary among which are:

* + *tariffs*: a tax on imports,
	+ *quotas:* a quantity restriction on imports,
	+ *export subsidies*: a payment to producers that export,
	+ or through other regulations (e.g., product specifications, sanitary regulations) that exclude foreign products from the market.

The above sorts of policies are collectively known as trade barriers. Under the regulations of the WTO, countries are supposed to avoid or dismantle them. There are agreements between nations that call for the abolition of some forms of trade barriers (e.g. quotas) and the gradual reduction of others (e.g. tariffs).

***Trade Surplus & Deficit.***

These terms denote the situation that results when a country exports more than it imports (surplus) or imports more than it exports (deficit).

***General Agreement on Tariffs and Trade (GATT)* & *World Trade Organization***

Originally, the GATT wasan international agreement signed by the United States and 22 other countries in 1947 to promote the liberalization of foreign trade and reduce trade barriers such as tariffs and quotas. It was prompted by the desire to increase trade flows among nations after the end of the WWII in order to help the world reach peaceful solutions to a number of remaining problems. Over the years almost every newly independent country signed up to become part of GATT (including Lebanon).

In 1995, GATT was replaced by the influential *World Trade Organization (WTO)*, headquartered in Geneva. Lebanon is currently in the process of joining the WTO after it proves that it has met all the conditions for membership (reduction of tariffs, full compliance with intellectual property rights, etc.). Today, the WTO has 157 member countries. Lebanon has a pending application for membership, but currently holds an “observer” status.

***Economic Integration***

Thisoccurs when two or more nations join to form a free-trade zone (i.e. no tariffs).

***European Union (EU)***

The EU is a prime example of economic integration. This trading bloc is composed of most European nations (27 members). Note that 17 countries only use the Euro as currency. [Only those who are members of the *monetary* union may use the Euro.]

**III. The Economic Basis for Trade: Comparative Advantage**

***Why do countries trade?***

When a buyer and a seller engage in a voluntary transaction, both receive something that they want and both can be made better off.

Consumers could buy products through international trade that they otherwise would have a difficult time producing.

Likewise, producers receive income that they can use to buy the things they desire.

This may appear simple enough. However, when we consider trade across countries that are very different in wealth and capabilities, a few questions immediately arise such as the following:

What would a country that is the *most* efficient producer of everything gain from trade? Why would such a country wish to trade? To give these questions a concrete meaning, take a rich country (US) and a poor country (Bangladesh). Why would the US want to import clothes from Bangladesh if it can produce clothes more efficiently itself? [In reality, the US today does import a lot of clothes made in Bangladesh.]

The answer is provided by Ricardo’s theory on comparative advantage. David Ricardo is a famous 19th century economist who developed the classical trade theories. He argued that specialization and free trade will benefit all trading partners, even those that may be absolutely less efficient producers.

First a couple of terms,

***Absolute Advantage* –** For two countries A and B, absolute advantage is the advantage in the production of a good enjoyed by country A over country B when country A uses fewer resources to produce that good than country B.

***Comparative Advantage* –** For two countries A and B, comparative advantage is the advantage in the production of a good enjoyed by country A over country B when that product can be produced in country A at lower cost (*in terms of other goods that are also producible in A)* than in country B. In other words, if a good can be produced at a lower *opportunity cost* in country A than country B, then country A has a comparative advantage in the good*.*

[Recall that the opportunity cost of producing somethingmeasures the cost of not being able to produce something else.]

A country faces opportunity costs *each time* it employs resources to produce goods and services. Employing resources in the production of good X means that these same resources CANNOT be employed in the production of good Y.

Assume two countries, US and Japan, and two goods, wheat and computers. The opportunity cost of producing computers is the amount of wheat *not* produced. Similarly, the opportunity cost of producing wheat is the amount of computers *not* produced.

Suppose that in the US it takes 100 workers to produce one computer and 5 workers to produce one ton of wheat.

Suppose that in Japan, it takes 120 workers to produce one computer and 8 workers to produce one ton of wheat.

It would appear that the US has *absolute* advantage in the production of *both* computers and wheat, so why should it trade with Japan?

However, when measured in terms of opportunity cost, we can see that Japan has a lower opportunity cost in producing computers than the US. The OC of producing 1 computer in Japan is the 15 tons of wheat that could have been produced instead (120/8). By contrast, the OC of producing 1 computer in the US is the 20 tons of wheat that could have been produced instead (100/5). It “costs” less to produce computers in Japan.

Class: As an exercise, put the above figures in a two-by-two matrix, like we did in class, and make sure you know how it works. This will help you answer the relevant essay question on the sample exam.

Therefore, Japan has a *comparative* advantage in computers and the US has a *comparative* advantage in wheat.

 A country with a comparative advantage in producing a good uses its resources most efficiently when it produces that good *compared to producing other goods*. This means that the US uses its resources more efficiently in producing wheat compared to computers. The opposite is true for Japan.

This is the theory of comparative advantage proposed by Ricardo, which became the principal theory of international trade until the 1930’s. This theory basically says that countries must *completely* specialize in the products of their comparative advantage. In more advanced versions of the model, it can be mathematically proven that when two countries specialize and export their comparative advantage product, then both countries will enjoy higher consumption levels than without specialization and trade.

**IV. The Sources of Comparative Advantage: Hecksher-Ohlin Theory of Factor Endowments**

What may give rise to comparative advantage? Why might a certain country enjoy a lower opportunity cost in the production of a certain good than another country?

***Heckscher-Ohlin Theorem*  (also known as the Factor Endowment Model)**

This is a more recent theory than Ricarod’s. It is attributed to two Swedish economists who worked on this model in 1933. It explains the existence of a country’s comparative advantage by its factor endowments.

What is Factor Endowment?

Factor endowment is the quantity and quality of labor, land, and natural resources in a country (or with which it is “endowed”).

According to the Hecksher-Ohlin (HO) theory, a country has a comparative advantage in the production of a good if that country is relatively *well* endowed with inputs used relatively more *intensively* in the production of that product. As an example, a labor-abundant country should specialize in the production and exporting of labor-intensive goods. Similarly, a capital-abundant country should do the same for capital-intensive goods.

As an example, the U.S. which is *relatively* capital abundant should specialize in the production of capital intensive goods such as cars, aircraft, medical equipment, and other high-tech products. Conversely, a country such as Bangladesh, which is *relatively* labor abundant may specialize in the production of labor intensive goods such as clothes, shoes, leather products, etc.

Make sure you understand that the terms “abundant” and “intensive” are relative. A country is said to be “labor-abundant” if it has a higher labor-capital (L/K) ratio than another country. Similarly, a good is said to be labor-intensive if its production requires more labor *relative* to other resources.

**V. Other Explanations for Observed Trade Flows**

The classical comparative advantage theory (in both the Ricardian as well as the HO versions) does *not* explain all international trade. It does *not* explain why many countries both import and export the same kinds of goods. As an example, the US *both* exports and imports automobiles. It *both* exports and imports computer hardware.

The answer for this type of trade lies in different tastes and brand loyalties. Japanese cars are different than American cars. Product differentiation is a natural response to diverse preferences within an economy.

Trade in goods of the *same* industry is called *intra*-industry trade (e.g. US imports cars from Germany and exports cars to Germany). Trade across industries is called *inter*-industry trade (e.g. US exports cars and imports clothing).

Evidence now shows that the significance of intra-industry trade has increased in world trading patterns in the last few decades. Most of the trade that occurs between Europe, Japan, and the US is of this nature.

As a side note: The idea of intra-industry trade is not inconsistent with the theory of comparative advantage. If the Japanese have developed skills and knowledge that gave them an advantage in the production of compact, fuel-efficient cars, that knowledge can be thought of as a very special kind of “capital” not available in other countries. Similarly, the US automotive industry seems to have specialized in large recreational cars (perhaps due to the availability of large space). That knowledge is some special kind of “capital” that they have. In general, around the world today, the US is among the leaders in the production of *human*-capital intensive goods (pharmaceuticals, medical equipment, software, advanced communication technologies, etc.). This is because the US is well endowed with this sort of capital.

We can therefore understand more the wide varieties of trade by expanding our comparative advantage and Hecksher-Ohlin theories to specify what kind of labor we mean when we say “labor-abundant”, or to specify what kind of capital we mean when we say “capital abundant”.