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LEVEL 1: ECONOMICS

Reading 13 (6th out of 7): INTERNATIONAL TRADE & CAPITAL FLOWS

Difficulty: **medium**

Benchmark Study Time: **3h**

2022

THIS E-BOOK:

- is a selective summary of the corresponding Reading in your CFA® Program Curriculum,
- provides place for your own notes,
- helps you structure your study and revision time!

How to use this e-book to maximize your knowledge retention:

1. **Print** the e-book in duplex and bind it to keep all important info for this Reading **in one place.**
2. **Read** this e-book, best twice, to grasp the idea of what this Reading is about.
3. **Study** the Reading from your curriculum. **Here add** your notes, examples, formulas, definitions, etc.
4. **Review** the Reading using this e-book, e.g. write your summary of key concepts or revise the formulas at the end of this e-book (if applicable).
5. **Done?** Go to your study plan and change the Reading's status to **green**:
   (it will make your Chance-to-Pass-Score™ grow ☺).
6. **Come back** to this e-book from time to time to **regularly review for knowledge retention!**

NOTE: While studying or reviewing this Reading, you can use the tables at the end of this e-book and mark your study/review sessions to hold yourself accountable.

BASIC DEFINITIONS, BENEFITS & COSTS OF INTERNATIONAL TRADE

Definitions

Gross national product (**GNP**) is a category similar to that of **GDP** or **gross domestic product**. While GDP measures the value of goods and services produced in a given country, GNP is the measure of the value of goods and services produced by this country's citizens. Thus, GNP doesn't account for the income of the foreigners living in the country. However, it does take into account the income of its citizens who live abroad.

imports (M) = the value of goods and services that are bought by a country from other countries

exports (X) = the value of goods and services that are sold by a country to other countries

terms of trade = the ratio of the prices of exports (measured by some price index) to the prices of imports (measured by some price index); usually normalized to 100 for the base year; if for a given year the ratio is greater than 100, it means that for this year terms of trade are better than in the case of the base year

net exports = exports – imports

autarky (closed economy) = if a country doesn't trade with other countries

autarkic price = a price for a good or service in a closed economy

open economy = if a country trades with other countries

free trade = if there are no restrictions on trade imposed by countries

foreign direct investments = direct investment by a company from one country in productive assets (e.g. plant) in another country

Benefits & costs of international trade

The benefits of international trade include:

- exchange resulting from trade and advantages resulting from specialization,
- economies of scale, which generally means that the market is getting larger,
- greater variety of products and services,
- stronger competition and more efficient allocation of resources.

As far as the costs of international trade are concerned, they are mainly borne by domestic industries that have to compete with producers from abroad.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

THEORIES OF TRADE

Comparative advantage vs Absolute advantage

Absolute advantage – a country's ability to produce a particular good at a lower cost or use fewer resources in its production as compared with another country.

Comparative advantage – when the opportunity cost of production of a good in a country is lower than the opportunity cost of production of the same good in another country.

The table provides information about the maximum production capacity of two European countries – Spain and Poland. Two goods can be produced in both these countries: wine and bread.

	Spain	Poland
Wine (bottles)	2000	900
Bread (loaves)	1000	900

The table shows maximum values, so:

- if Poland focused only on producing wine, it could produce 900 bottles,
- if Poland focused only on producing bread, it could produce 900 loaves,
- if Poland decided to produce e.g. 450 loaves of bread, it means that it could produce only 450 bottles of wine,
- if Spain focused only on producing wine, it could produce 2000 bottles,
- if Spain focused only on producing bread, it could produce 1000 loaves,
- if Spain decided to produce e.g. 1000 bottles of wine, it means that it could produce only 500 loaves of bread.

Spain has an **absolute advantage** in the production of wine and bread:

2000 (Spain, wine) > 900 (Poland, wine)

1000 (Spain, bread) > 900 (Poland, bread)

Poland has a **comparative advantage** in the production of bread:

Poland: costs of producing 1 loaf of bread = costs of producing 1 bottle of wine

Spain: costs of producing 1 loaf of bread = costs of producing 2 bottles of wine

Because Poland has a comparative advantage in the production of bread, Spain will have a **comparative advantage** in the production of wine:

Spain: costs of producing 1 bottle of wine = costs of producing 1/2 loaf of bread

Poland: costs of producing 1 bottle of wine = costs of producing 1 loaf of bread

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

In the context of international trade and according to models such as the Ricardian model and Heckscher–Ohlin model (discussed below), both countries should specialize in the production of goods that are cheaper to produce in a given country. Therefore, Poland should produce bread and Spain should produce wine. Then, Poland should import wine from Spain and export bread to Spain, and vice versa Spain should export wine to Poland and import bread from Poland. **Thanks to that both countries would benefit from specialization and international exchange**.

Adam Smith vs David Ricardo

Adam Smith's theory of absolute advantage:

Trading with another country can be beneficial if our country has an absolute advantage in the production of a certain good.

David Ricardo's theory of comparative advantage:

Trade between countries can be beneficial if a given country has a comparative advantage in the production of a certain good (so, no absolute advantage is required to gain from specialization and international trade).

Comparing Ricardian and Heckscher-Ohlin models

Ricardian model – there is only one factor of production, i.e. labor. Differences in labor productivity (thanks to technology level) are the main source of comparative advantage.

Heckscher-Ohlin model – there are two factors of production, i.e. labor and capital. A country's comparative advantage depends on relative differences in the quantity of these factors. A country with a relatively big ratio of labor to capital will export labor-intensive goods and import capital-intensive goods, and a country with a relatively big ratio of capital to labor will export capital-intensive goods and import labor-intensive goods.

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TRADE RESTRICTIONS & TRADE PROTECTION

Trade restrictions

tariffs = taxes on imported goods

quotas = quantitative limits on imports of goods

voluntary export restraints (VER) = voluntary decision of an exporting country concerning the quantity of a good that the exporting country is allowed to export to another country

export subsidy = money paid by a country to a company when the company exports goods that are subsidized

domestic content provisions = requirements concerning product components → a part of it should come from the domestic country

Generally, trade restrictions lead to higher prices and a decline in the volume of imports, which results in higher demand for domestic goods. As a consequence, producer surplus increases and consumer surplus decreases.

Tariffs

If the country imposing a tariff is a price taker, then the imposition of the tariff will result in a deadweight loss for that country (the increase in producer surplus and government tariff revenue will be lower than the decrease in consumer surplus).

However, if the country imposing a tariff can influence the price, the imposition of the tariff may even increase the country's welfare (because the foreign exporter may decide to lower the price to meet expectations and demand of domestic consumers) but with an even larger loss for its trading partner.

Quotas

In the case of quotas, as compared to tariffs, the deadweight loss is usually even greater for the imposing country because the government will not get any tariff revenue → instead the foreign exporter will obtain additional **quota rent** thanks to increasing the price of its product. However, the importing country can capture the quota rent for example by auctioning import licenses for a fee.

Voluntary export restraints (VER)

Contrary to quotas, in the case of voluntary export restraints, the whole quota rent is always captured by the exporting country.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Export subsidy

As a result of subsidizing export, the exporter will shift some of its sales from domestic to foreign countries:

→ **if the domestic country is a small country (price taker)**: the domestic price will increase by the amount of subsidy per product.

→ **if the domestic country is a large country (can influence price)**: the price of the product on the global market will decrease.

In both cases, the net welfare effect is negative (more for the large country).

Restrictions on the movement of capital:

- regulations prohibiting foreigners from investing in a country,
- regulations prohibiting citizens from investing abroad,
- regulations prohibiting foreign investments in selected sectors of an economy and strategic industries like defense or telecommunication,
- restrictions on the repatriation of profits generated by foreign entities,
- taxes on foreign investments.

Restriction on capital flows:

- gives the country control over its external balance,
- when imposed on capital outflows, the restrictions will most likely result in lower interest rates in the country and lower costs of debt for the government.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

TRADING BLOCKS

The basic motivation for creating trading blocs is to eliminate barriers to trade and barriers to movement of factors of production among the members of the block. Trading blocs may take many forms.

free trade area (FTA) = all trade barriers between partners are eliminated but each country has its own policy against non-members

customs union = all trade barriers between partners are eliminated and all countries have the same policy against non-members

common market = customs union + free movement of labor and capital (factors of production) among members

economic union = common market + common economic institutions + coordination of economic policies among members

monetary union = economic union + all members have a common currency

Usually, trading blocks are created by countries from the same region, for example: Europe → European Union, North America → NAFTA, etc. That's because it's easier and faster to negotiate regional trading agreements than negotiate multilateral trade deals covering a vast number of countries.

Results of customs union:

- trade creation, when higher-cost domestic production is replaced by lower-cost imports from member countries,
- trade diversion, when lower-cost imports from non-members are replaced by higher-cost imports from member countries.

The benefits of trading blocs:

- greater specialization as a result of comparative advantage,
- economies of scale because the overall market is larger,
- reduction in monopoly thanks to greater competition,
- technology transfer,
- greater foreign investments,
- the greater the interdependence between countries → the lower the probability of a potential conflict between them,
- greater bargaining power against non-member countries.

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BALANCE OF PAYMENTS

A balance of payments is made up of the following components:

- a **current account** that covers trade in goods and services, foreign income from dividends, interest on debt, and cash transfers from people working abroad, foreign direct aid & gifts.
- a **capital account** that covers capital flows such as debt relief, transfers of fixed assets and funds for the purchase/sale of fixed assets, as well as purchase/sale of non-financial assets (like rights, patents, trademarks, etc.),
- a **financial account** that includes flows arising from the purchase and sale of financial assets abroad and in a domestic country by foreigners.

current balance (X-M) = private savings + government savings - national investments

note: *We can derive the above formula using the formula: $Y = C + G + I + X - M$ and formulas for disposable income*

All the decisions made by consumers, businesses, and governments affect the balance of payments:

- low private savings and high investments translate into a current account deficit that must be financed by net imports,
- all else equal, a government deficit produces a current account deficit and a government surplus leads to a current account surplus,
- a sustained current account deficit contributes to a rise in the risk premium for financial assets of the deficit country.
- low private and government savings relative to domestic investments requires foreign capital investment.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

INTERNATIONAL ORGANIZATIONS SUPPORTING TRADE

The World Bank helps to create basic economic infrastructure. This economic infrastructure is the basis for domestic financial markets and the financial industry in developing countries.

The International Monetary Fund ensures the stability of the international monetary system, the system of foreign exchange, and the payment system. The IMF monitors the market risk of a given country and global systematic risk.

The World Trade Organization supports free trade by providing an institutional and regulatory framework, which is particularly important in the context of the activities of multinational corporations.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

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Summarizing key concepts:

☐ Definitions

My summary:

☐ Benefits & costs of international trade

My summary:

☐ Comparative advantage vs Absolute advantage

My summary:

☐ Comparing Ricardian & Heckscher-Ohlin models

My summary:

☐ Trade restrictions & Trade protection

My summary:

☐ Trading blocks

My summary:

☐ Balance of payments

My summary:

☐ International organizations supporting trade

My summary:

Keeping myself accountable:

TABLE 1 | STUDY

When you sit down to study, you may want to **try the Pomodoro Technique** to handle your study sessions: study for 25 minutes, then take a 5-minute break. Repeat this 25+5 study-break sequence all throughout your daily study session.

✓ Tick off as you proceed.

POMODORO TIMETABLE: study-break sequences (25' + 5')													
date		date		date		date		date		date		date	
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TABLE 2 | REVIEW

Never ever neglect revision! Though it's not the most popular thing among CFA candidates, regular revision is what makes the difference. If you want to pass your exam, **schedule & do your review sessions.**

REVIEW TIMETABLE: When did I review this Reading?													
date		date		date		date		date		date		date	
date		date		date		date		date		date		date	