Chapter 11: The open economy

Autarky vs openness

Autarky is referred to as the situation in which a country does not interact economically at all with the rest of the world.

When we move to the situation of interaction with other countries we distinguish between two forms of economic integration:

1. Trade; the exchange of *goods and services*.
2. The flow of *factors of production* across borders

Even though countries are open, this does not mean that goods and factors of production flow between the countries. The **law of one price** must hold; the same good will sell for the same price in both markets. When this holds then two countries will trade with each other. However, the law of one price does not hold perfectly due to transport costs.

Economists point out that we are currently in the second wage of globalization. The first wage began in the middle of the 19th century. Globalization peaked just before World War I and then slowed during the Great Depression. Since 1950 globalization accelerated and let to higher world exports as a percentage of world GDP.

There are two major forces that have driven globalization:

1. **Transport costs;** changes in economic policies have lowered barriers to trade leading to lower transport costs. The reduction in the transport costs led to a decline in price differentials between countries leading to increased economic integration. Countries started to focus on goods that had low transport costs which made transportation easier.

2. **Transmission of information**; due to technological advances, the movement of goods and information has become easier. Better transmission of information leads to both trade and capital investment. The technological advances reduced the cost of transmitting information which led to the development of new types of trade. More and more information based services were subject to trade.

Transport cost barriers are not the only barriers. There are also trade restrictions such as tariffs and quotas. Several nontariff barriers are:

- **Voluntary export restraints (VERs):** arrangements in which one country agrees to put limit on exports to another country.
- **Anti-dumping duties**: when products are dumped into a market, the country is allowed to impose import duties.
- **Excessive standards:** governments can put standards on all kind of goods that are sold in their countries to protect public health.
- **Bureaucratic creativity**

The effect of openness on economic growth

Research has shown that there is a positive relationship between openness to growth and average GDP per capita. Countries that are always open have a significantly higher average GDP per capita. The average GDP per capita is lowest in countries which are always closed.

The average growth rate of income in countries that are always closed is significantly lower than the growth rate in open economies. However, when we look at countries that were

closed for some, but not all the time, we do not find a relationship between GDP level and the growth rate.

We can also look at how changes in a country's degree of openness affect growth rates of that country. Many of the data led to the fact that increased openness led to higher growth. In countries where openness decreased, there was evidence of lower growth.

Openness to trade can be influenced by geography. The volume of trade between countries is affected by:

- How far the countries are apart
- Whether the countries were landlocked
- How large the countries were.

However, how can trade changes be explained when the distance between countries never changes. James Feyrer argued that instead we have to look at the effective trade distance. He found that there was a significant reduction in the trade volume when the effective trade distance of two countries decreased.

He also found that as a result of the change in trade, income also changes. When trade rose, income rose as well which means that there is a positive relationship between trade and income.

Factor accumulation

The question is through which channel openness affects growth; through the channel of factor accumulation or through the channel of productivity? In this section the channel of factor accumulation will be examined.

Physical capital flows across borders through two main cannels:

1. **Foreign direct investment (FDI)**; a foreign firm buys or builds a factory in another country.
2. **Portfolio investment;** investors from a foreign country purchase stocks or bonds.

We will use the Solow model to examine the effect of capital mobility on economic growth. The production function in per worker terms is:
$y = Ak^{\alpha}$

Firms maximize their profits by setting the marginal product of capital equal to the rental rate of capital:
$r = MPK = \alpha A k^{\alpha-1}$

Perfect openness to trade implies that the law of one price holds. So the rental rate of capital equals the world rental rate of capital.
$r = r_w \rightarrow r_w = \alpha A k^{\alpha-1}$

Rearranging this formula leads to the level of capital per worker, k:
$k = (\alpha A / r_w)^{1/(1-\alpha)}$

From this we can conclude that with perfect capital mobility, the capital labor ratio depends on the world rental rate of capital. The capital/labor ratio and thus the level of GDP per capita depend on the savings rate.

A country with higher savings will have a higher income per capita in the steady state. When a country has a high savings rate, openness to capital flows will lower the level of GDP per worker.

We must also examine the possible relationship between savings and investment. Charles Horioka examined this relationship and found that saving and investment are highly

correlated. He argues that this means that the presumption of free capital movement is inappropriate.

The degree of capital market openness can be calculated with the **savings retention coefficient**. It measures what fraction of every dollar of additional saving ends up as additional domestic investment.

The coefficient is 1 in an economy with closed capital flows. In a perfectly open economy, the coefficient is 0. Horioka found in his data a coefficient of 0.89 indicating that the countries were almost perfectly closed.

The world has moved towards capital market openness in the past few years but economies remain closer to being closed to capital flows that to being perfectly open.

Productivity

Openness should lead to an improvement of productivity. Productivity consists of two components; technology and efficiency.

Trade allows a country to focus on good in which it is good in producing and then selling it to countries in return for goods in which it is less good at producing. This enhances the overall productivity of the country.

Economic openness leads to a higher level of technology through two ways:

- Countries that are open to trade are able to import already existing technologies from abroad. A country is able to purchase key inputs or capital goods from abroad.
- Openness to trade increases incentives for the creation of new technologies.

However, research has shown that differences in productivity are not the result of differences in technology but rather the result of differences in efficiency.

Trade leads to a weaker position of the monopoly. A monopoly leads to misallocation of factors of production. When monopoly power is reduced, efficiency will increase.

Openness to trade may also lead to firms taking advantage of economies of scale. This increases the market output and efficiency.

There is also evidence that foreign competition has an effect on efficiency. Firms that are exposed to competition from abroad are raising their efficiency in production.

Opponents of openness

Even though there is evidence that openness to trade makes a country richer, there are still many that are against it.

The introduction of a new technology may harm some. Those who are harmed will try to block the new technology. Workers and firms in the sectors where the country has a comparative disadvantage will be against openness to trade. They will be supporters of trade protection.

The country as a whole may be benefited by the openness to trade, but particular groups may be hurt. History has shown that many supporters of trade have generally been acting in their self-interest.

There are nongovernmental organizations (NGOs) that are against globalization. Some of their concerns regarding globalization are:

- Exploitation of workers

- Inability of poor countries to compete
- Environmental exploitation
- Loss of national sovereignty
- The hidden price of foreign capital
- Hypocrisy on the part of rich countries