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INTERNATIONAL ECONOMICS

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„Inovace studijních programů na Slezské univerzitě,
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Subject: Economics

Anotation: The aim of this study material is to provide a comprehensive view on issue of international economics at its theoretical level. The attention is paid to the theory of international trade, international trade policy and to instruments of trade policy. This study material also introduces the issue of balance of payments, the area of exchange rates and their relationship to money and prices. Furthermore, it deals with international macroeconomic policy through the development of international monetary relations and the part of this text is devoted to the issue of global capital markets, macroeconomic stability and financial crises. This publication is also dedicated to the issue of developing economies as a substantial majority of contemporary world. This part focuses on analysis of external economic relations of developing economies and particularly on the analysis of their business policies and the issue of debt.

Key words: International Economics, International trade, Theory of International trade, International trade policy, International monetary policy

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CONTENT

INTRODUCTION

Dear students,

this study text International Economics is addressed to all of you who are interested to obtain basic information about the issue of international economics at its theoretical level. The publication is divided into thirteen separate chapters.

The first four chapters are devoted to the theory of international trade and they gradually map the development of the above-mentioned theoretical approaches to the issues of international economics from its beginnings to the modern theories or alternative ones. There is mentioned both the beginnings of the theory of international trade and the classical approaches, as well as modern approaches in the form of alternative and integrative theories.

The fifth chapter is dedicated to international trade policy and to autonomous trade policy instruments. The sixth chapter is closely related to the fifth chapter and describes contractual trade policy instruments, which are agreements and contracts.

The seventh to ninth chapter introduce the issue of balance of payments, theoretical approaches to it, its structure and issue of the model in an open economy. Attention is also paid to the area of exchange rates and their relationship to money and price, and macroeconomic equilibrium in the model of an open economy.

The tenth chapter deals with the international macroeconomic policy through the development of the global monetary relations and the eleventh chapter is devoted to the issues of global capital markets, macroeconomic stability and financial crises.

In last two chapters – the twelfth and thirteenth chapters – are dedicated to the issue of developing economies as the substantial part of the contemporary world. Those chapters are focused on the analysis of external economic relations of developing economies, especially on the analysis of their trade policies and the issue of debt.

In the individual chapters, graphs and tables could be found and those graphs and tables complement their theoretical parts. At the end of this publication is a list of literature and Internet sources which were used while writing this study material.

Karviná, June 2014

Author

1 PURE THEORY OF TRADE

Before we start with the analysis of theories dealing with international trade, we will clarify what the international economics is, what is the object of its interest, what it is based on and why we use this term within the area of international trade.

1.1 CHARACTERISTIC OF INTERNATIONAL TRADE

International economics uses basic methods of economic analysis as well as other fields of economics, because motives and behaviour of economic subjects are the same, whether they are domestic or foreign transaction (Krugman and Obsfeld, 2003, p. 3). International economics analyse both the flows of goods and services and transactions among the economies and furthermore it analyse policies designed for the regulations of those flows and their effects on the wealth of economies.

International economics can be divided into two sub-areas: the area of international trade and area of international flow of money. Analysis of international trade deals with transactions of international economics such as movements of goods or allocations of economic resources. Analysis of flow of international flow of money deals with the monetary side of international economics and these are financial transactions. In essence, both of these areas cannot be separated since one cannot function with the other. The most of international trade requires financial operations and on the other side, many financial transactions play an important role for trade. Above-mentioned links between trade and cash transactions affect the level of interdependency among individual countries.

The aim of the investigation of international economics is revenues from trade, trade restrictions, foreign exchange markets, balance of payments and its adjustment and international capital markets. Pure theory of trade deals with revenues from trade and basic premises for them and the results of this theory will be analysed in this and other three chapters. The results and effects of trade restrictions on individual economies are being explored in the theory of trade policy as the part of international trade policy. A relatively new area of international economics is the investigation of the basic framework of an "exchange" one currency for another and their often rapidly changing relative values, a thus the area of foreign exchange markets, since before the World War I were all currencies pegged to gold and after the World War II (till 70s of last century) they were pegged to dollar.

The balance of payments measures total payments and receipts of the resident of the country in their transactions with the rest of the world. Its analysis has to be made in a context of other subjects of international economics – international movement of capital, international transactions in the account of national income or aspects of international monetary policy. Balance of payments adjustment is associated with the mechanism of correction of the external imbalance in case of difference international exchange system and their effects on the wealth of individual economies. **International capital market** is developing together with the development of international trade by combining the individual capital markets of national economies and an analysis of its functioning after the series of debt and financial crisis in Latin America acquired a great importance.

The first two objectives of the exploration of the international economics, the pure trade of international trade and theory of trade policy, are the *microeconomic aspect* of international economics, because they discuss about individual national economies as separate entities as well as the relative prices of commodities. *Macroeconomic aspect* of international economics

are represented by the follow-named objectives – the foreign exchange markets, the issue of balance of payments and its adjustments, since they discuss about the total flows and affect the national income. It means that the theory of international economics with its microeconomic concept will lead us to an understanding of the functioning of the economy as a whole (whether national or international), i.e. to understanding of entire macroeconomics.

The most important objective and theoretical concept of international economics on the basis of past experience seems to be the first objective, and that is the revenues from trade. Since the rise of modern statecraft in the 16th century is the one of the most important and the most common political issues is the effect of the international competition in the prosperity of the domestic industry and its protection against this competition. In last twenty years, the international trade goes in the other direction – except restrictions and export promotion makes an effort to liberalize international trade, whether through integration groupings or activities of the World Trade Organization. **International trade**, ***representing the exchange of goods of one country with other countries***, expands consumer potential of economies and there are several reasons, which despite all above-mentioned negatives contribute to the ongoing development:

- ***The diversity of production conditions and technology between economies*** – south will specialize in the development of coastal tourism and the cultivation of citrus, north in salmon farming and development of ski resorts
- ***The increasing returns to scale –*** or economies of scale, when average cost of production decreases with the increase in production
- ***Differences in consumer tastes*** and therefore in demand – e.g. in Sweden and Norway is the production of reindeer meat and salmon the same, Swedes love to eat meat and Norwegians love to eat fishes – the reciprocal export of meat and fish would be beneficial to both countries and would increase the wealth
- ***The existence of government economic policy*** – tax and subsidy measures may change the price of goods and services that can create advantages while producing
- And ***conflict between production and consumption*** – based on the fact that no country in the role of producer of goods and services is able to satisfy all requirements of its consumers[1].

For understanding of the functioning of international trade, we must build on theoretical assumptions involved in so-called **the theory of international trade**. This theory has gone through historical development and we will devote to this development in the first three chapters.

1.2 THE DEVELOPMENT OF THE THEORY OF INTERNATIONAL TRADE TO THE 18TH CENTURY

International economics underwent during several centuries a long continuous path of development supported by many renowned economist such as were David Hume, Adam Smith, David Ricardo, John Stuart Mill, Alfred Marshall, Paul Samuelson and many others.

In this section of this text we will analyse the findings of their theories and we will begin with the first of opinion groups – mercantilists.

[1] In case of the closed economy, its consumer and production capabilities are the same. Such a situation when the country is relatively self-sufficient and the country consumers everything that is produced, it called **autarchy**.

1.2.1 MERCANTILISM

Mercantilists did not form a coherent group of theoretic. It was a rather different opinion group of merchants (came from Greek *Mercator* – merchant, mercantilisms is derived from this word). This group was dealing with the economic conditions of the mid 14th to mid 18th century. The expression of the nation's wealth was the amount of gold and silver and other means of payment at that time. Increasing wealth could occur in three ways: (1) domestic extraction of precious metals, (2) in case of their lack by the use of the resources of colonies or (3) active trade balance (more exports than exports). In other words, it meant to promote export and restrict imports through tariffs, export subsidies, tax favouring domestic producers, etc.. Nowadays, it still belongs to frequently used tools of support of domestic economy.

Mercantilism itself is divided into two development phases – **early mercantilism**, also known as bullionism (mid 14th – mid 16th century)[2] and **developed mercantilism** (mid 16th – mid 18th century). Although early mercantilism absolutely refused to export money from the country, what should serve as a means of accumulation money in the economy (thus increasing its wealth) and promoted active trade balance with each country separately, the both phases show some common features, which are seen from the point of view of the international economy in:

- ***Restriction of imports***, especially of luxury consumer goods
- ***The prevention*** of exports and import ***promotion*** of raw materials
- ***The favouring and export promotion*** of industrial consumer goods and agricultural products
- ***A support the development of domestic industry***
- And ***reduction of consumption*** (weakening incentives to import and the chance to export more)

International trade was at that time considered to be disadvantageous when each country participating to foreign trade earns and automatically the other lose, and therefore it was always more beneficial to export than import (a thus have active trade balance). The first, who used a term balance of foreign trade, was mercantilist *Edward Misselden*[3]. He argued that the state should rather focus on the monitoring of trade, i.e. monitoring the trade balance, than focusing on the application of restrictions.

On the base of the above-mentioned principles of mercantilism was the target of criticism its most known representative, *Thomas Mun*[4], since the British East India Company precious metals exported from the country. Mun's argument that for these exported precious metals can be imported goods, which are further processed and exported, that ultimately the precious metals flowing back into the economy. Another point of criticism was the passive trade balance of Company with India. However, Mun argued that there is no need to have an active balance with each country, but it is enough to have active only overall trade balance, which enriches the state. He also knew that the active trade balance increases the amount of money (precious metals) in the economy and this leads to an increase in the price level and reducing the price competitiveness of domestic producers (due to rising prices of goods). That is the principle of price compensatory mechanism of balance of payments, which is based on **the quantity theory of money**.

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[2] The most known mercantilist was *Gerard de Malynes* (1586-1641), which recommended the state regulatory measures in foreign trade.
[3] English businessman (1608-1654), who combined his trade activities with the Dutch East India Company.
[4] English businessman and board member of the British East India Company (1571-1641).

1.2.2 CAMERALISM

At the turn of the 18th and 19th century the central European mercantilism (German and Austrian) so-called **cameralism** (name derived from the Latin word *camera*) is formed. More than mercantilists they focused on matters related to the administration (finance, accounting, administrative law etc.) and they place more emphasis on population growth. In addition, they not consider precious metals for the country's wealth. The country's wealth was manufacturing and agriculture. They saw the active trade balance as a means of increasing employment in the economy. They explained that export increases domestic demand for goods and thus the labour demand and that import of foreign goods displaces domestic goods and reduces the labour demand and employment.

Otherwise, their thoughts meet mercantilism:

- They forbid export of precious metals and raw materials
- They negatively perceive import of luxury goods and consumer goods that could compete with domestic producers
- And they promote stagnation of consumption

1.2.3 DAVID HUME

David Hume[5] is the most prominent representative of the so-called **formative economics**, which became the basis of classical economics. This economist was a strong critic of mercantilism, particularly in the determination of the country's wealth, which is according him determinate by the amount of labour in the country. He refused active trade balance through the mentioned quantity theory of money, whose main essence was formulated by Thomas Mun. According Hume, the achieving of an active trade balance does not make a sense, since it accumulated the amount of precious metals increases the price level and reduces the international competitiveness of the economy. The result of this is lower export of country and higher import. Trade balances are again equalized or get into deficit[6]. To avoid the increasing price level in the economy caused by the increasing amount of precious metals is necessary to increase production in the economy. Hume also argues that country that prevents foreign trade mainly harms itself. He also understood the significance of the international division of labour and indirectly formulated the theory of absolute advantages, for whose author is considered *Adam Smith*.

1.3 PURE THEORY OF INTERNATIONAL TRADE – CLASSICAL ECONOMICS APPROACH

The basis for trading in the pure theory of international trade (whether classic or neoclassic which is analysed in next chapter) is technological differences between countries in terms of cost and productivity. We can define two different ways how to describe these differences: the first way is absolute advantage described by *Adam Smith*[7] and the second method is comparative advantage whose author is considered *David Ricardo*[8].

[5] A Scottish philosopher, historian and economist (1711-1776) and close friend of Adam Smith.

[6] The quantity theory of money interpreted by Hume had some shortcomings, which were based on the economic conditions of that time: he assumed fixed Exchange rates, since value of money was determined by the amount of value of precious metals contained in them and he did not expect that amount of money can increase domestic production.

[7] A Scottish philosopher and economist (1723-1790), which is considered the founder of classical economic theory.

[8] An English merchant and politician (1772-1823), who was follower of Adam Smith and supporter of the labour theory of value.

The pure theory of international trade tried to uncover the causes of trade seen in the benefits deriving form it and to determine the nature of these benefits. In practical testing was found that only applies to the interdisciplinary area and that means for trade with non-substitutes[9].

The classical approach is based on an analysis of the supply side and the following assumptions:

- Economic subjects are behave rationally and make decisions based on real relative prices
- The market is perfectly competitive and thus there are no trade barriers, externalities, transaction costs and information is perfect
- There are only two economies, two goods and two factors of production
- Factors of production are limited, fully utilized and there is a mobility between sectors, but not between individual economies
- Production technologies exhibit constant returns to scale (PPF is a straight line)
- A workforce determines the cost and productivity
- Consumer preferences are the same, as well as their indifference curves
- And balanced foreign trade balance.

1.3.1 ADAM SMITH AND THE THEORY OF ABSOLUTE ADVANTAGE

The most important contribution of Smith to the issue of international trade was his **theory of absolute advantages**. It assumes that ***country should specialize in the production of those commodities that are able to produce more cheaply, respectively lower cost or higher labour productivity***. We did mention that in this model the workforce determines the labour cost and that means that it is based on the labour theory of value, which argue the value of a commodity is given by the amount of labour expended on its production. Absolute advantage has that economy whose cost per unit of goods are lower than those in other economy (1.1) or which has the higher labour productivity (1.2.)

$$c_{DC} \langle c_{FC} \qquad (1.1)$$

where: c_{DC} – labour cost expended on domestic production of good

c_{FC} – labour cost expended on the production of foreign good

or

$$\frac{1}{c_{DC}} \rangle \frac{1}{c_{FC}} \qquad (1.2)$$

where: $1/c_{DC}$ – labour productivity in the production of domestic good

$1/c_{FC}$ – labour productivity in the production of foreign good

To sum up, the thoery of absolute advantages says that the international trade is a source of growth in wealth, since it allows more efficient use of factors of production on a global scale and thus allows the growth of production, which is a source of growing wealth.

[9] International interdisciplinary trade is being explored by the modern trade theory.

However, the theory of absolute advantatges do explain only a small part of the principles of world trade such as inteantional trade between developed and developing countries. The majority of current global trade (especially between developed countries) is ongoing on the principle of comparative advantages.

1.3.2 DAVID RICARDO AND THE THEORY OF COMPARATIVE ADVANTAGES

The theory of comparative advantages, also known as a **single-factor model**, is the most important concept of the theory of international trade. The first, who described the principle of this theory, was *Robert Torrens*[10], who uses the example of trade between England and Poland with wheat and denied the correctness of the theory of absolute advantages[11]. Two years later, David Ricardo formalized the principle of the theory of comparative advantage while using mathematical apparatus and he was recognized as its author. He showed that not only countries that have an absolute advantage could enter the international markets. This theory is based on the premise of mutual trade between the countries while comparing the opportunity cost (an opportunity cost theory itself was developed by G. Haberler, see chapter 2.1.1), furthermore the labour productivity or benefits derived from mutual convertibility.

Before we explain the principle of comparative advantage, we will take a look at how to set up **the opportunity cost**. The opportunity costs are generally defined as *the value of the second earliest opportunity*. For example, the economy Alpha has the ability to produce beer and cheese. If economy Alpha would like to produce more cheese, the labour would have to be – due to their rarity and take full advantage – move from beer production into cheese production. The loss in production of beer means for the economy the opportunity cost.

The opportunity cost is expressed by the amount of beer production that the economy must give up to produce one kilogram of cheese. Concretely, this relationship can be mathematically expressed by equation (1.3) and generally by equation (1.4).

$$ac = \frac{-X}{1} \qquad (1.3)$$

$$\frac{kg}{l} = \frac{-ac_S}{ac_P} \qquad (1.4)$$

where: ac – the opportunity cost

ac_S – the opportunity cost of producing cheese

ac_p – the opportunity cost of producing beer

The country has a comparative advantage in the production of such a good, in which has the lower opportunity cost than the other economy. In our case, the economy Beta has a comparative advantage in cheese production against economy Aplha, because it has to give up the less beer production towards the production of cheese than economy Alpha. That means that Alpha economy can produce beer at a lower opportunity cost than Beta. In other words, Alpha economy has a comparative advantage in production of beer. It also means that if Alpha has a comparative advantage in production of one from two goods, Beta has a

[10] A British army officer and political economist (1780-1864), who in addition of describing the principal of comparative advantage (1815) was the first who described the principle of optimal duty.

[11] See Suranovic, Chapter 2, Section 12: Appendix.

comparative advantage in the production of the second good. Within the international trade, it is impossible to have a comparative advantage in production of both goods. Mathematically principle of comparative advantage in international trade is expressed by equation (1.5).

$$\frac{c_{DS}}{c_{DP}} < \frac{c_{FS}}{c_{FP}} \Rightarrow \frac{c_{FP}}{c_{FS}} < \frac{c_{DP}}{c_{DS}} \qquad (1.5)$$

where: c_{DS} – the cost in production of cheese in domestic economy

c_{DP} – the cost of beer production in the domestic economy

c_{FS} – the cost of producing cheese in the foreign economy

c_{FP} – the cost of producing beer in the foreign economy

The country has a comparative advantage in production of such a good in which it has the greatest absolute advantage (economy Alpha in beer production) or the smallest absolute disadvantage (economy Beta in production of cheese). We could also say that if the more developed country having the largest absolute advantage in production of certain good will specialise in this good and the other one leave to the less developed trade partner, it can reached the larger world production of other commodity, even though its production is shifted to less favourable conditions.

In practice, this theory has shown as disadvantageous for developing countries in a long-term perspective, since it can bring only short-term effect. Specialisation in manufacture and export of "comparative advantageous" goods does not allow developing of such industrial branches, which are necessary for the development of economy a thus deepen their economic backwardness.

1.3.3 JOHN STUART MILL AND THE THEORY OF RECIPROCAL DEMAND

The last representative of the English classical school was *John Stuart Mill*[12], whose father was a close friend and supporter of economic D. Ricardo. While Ricardo settled for determining mutual benefits of international trade, Mill led his theory further and dealt with the issue of determining the exchange ratio between countries (i.e. setting the world price) and then how to share the benefits of international trade. He created the theory of international value, or **the theory of reciprocal demand**.

Mill found out that international value of goods is moving within the boundaries of national labour costs and specific numeric value of goods is determined by the two countries' mutual demand for the offered goods. He indirectly defined the international value of the goods, which is determined by the costs (supply) and by demand. This value is expressed in international exchange ratio and borders are the national exchange ratios. However, the question arises, where exactly in this interval will be the international exchange ratio. The answer is **the law of reciprocal demand**, which says that ***the international exchange ratio is fixed at a level at which the supply and demand for both products will be balanced***[13].

Based on the above findings, we can describe the overall benefits of international trade, which derives from Mill's theory of reciprocal demand:

[12] A British philosopher, politician and economist (1806-1873).

[13] That was the way he differed from the classic theory, which assumed that the Exchange value (ratio) affect costs. In this theory, the above-mentioned demand affects this value.

- The economy gaining a larger share of international trade, if the international exchange ratio is approaching the national exchange ratio of its trade partner
- And if there are two countries trading with each other – one large (meaning economically) and the other small, the small one always appropriates a larger share of the benefits from international trade. In economical terminology: if the economy Alpha has a large demand for goods of economy Beta and Beta has a little demand for goods of economy Alpha, the international exchange ratio approaching the national ratio of economy Alpha.

2 NEO-CLASSICAL AND STANDARD THEORY OF INTERNATIONAL TRADE

2.1 NEOCLASSICAL THEORIES OF INTERNATIONAL TRADE

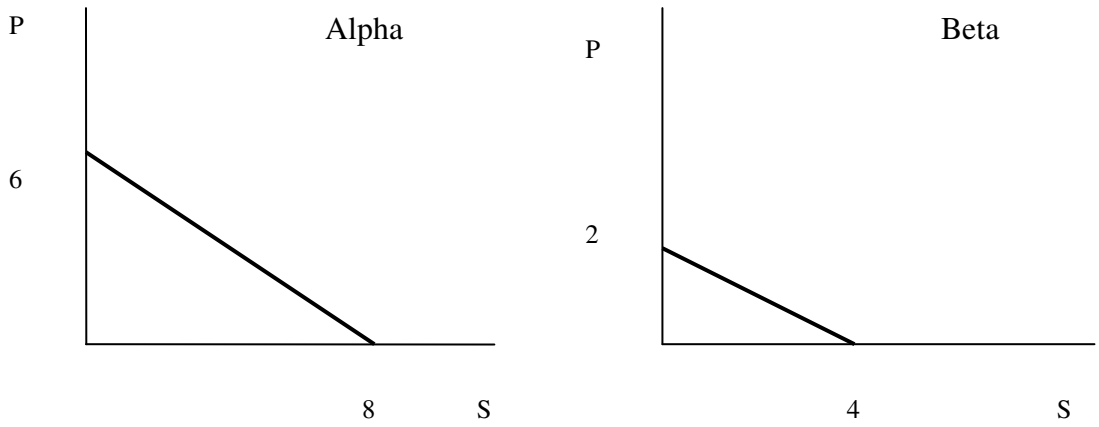
Neoclassical economists, except that they focuse on the demand side, differs from its predecessors mainly in the refusing of the theory of labour value as the essence of the price of goods. The fundamental argument is a fact that goods are not produced only while using labour but also by other factors of production such as capital or land[14]. Hence the name **multi-factor model**.

2.1.1 THE THEORY OF OPPORTUNITY COST

The price of good in the neoclassical approach is given by the opportunity cost. The author of the theory of opportunity cost is *Gottfried Haberler*[15], which introduced a graphical representation of this theory while using curves of the production possibility frontier (PPF). You already know from microeconomics, what these curves represent and what shape they have. In terms of international economics and our example of the opportunity cost of beer represent the amount of cheese that economy Alpha has to give up to produce additional litres of beer, as we have already described in the previous section 1.3.1.

Now we are going to analyse these curves in different situations - at constant or increasing costs, particularly in individual economies and then while engaging in the international trade. First, let's take a look at how the PPF looks like in the case of constant costs for individual economies. If we stay with our example and in the economy Alpha will produce six litres of beer with the same cost (P) and 8 kg of cheese (S), and in the economy Beta 2 litres of beer and 4 kg of cheese (see figure 2-1).

Figure 2-1 PPF at the constant costs

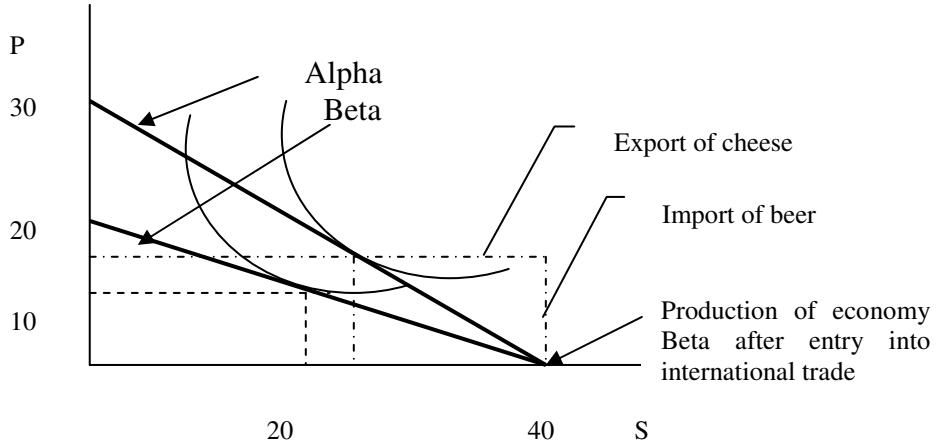


[14] We will use in our analysis two factors of production – labour and capital.

[15] Gottfried von Haberler (1900-1995) was an American economist of Austrian origin dealing with international economics.

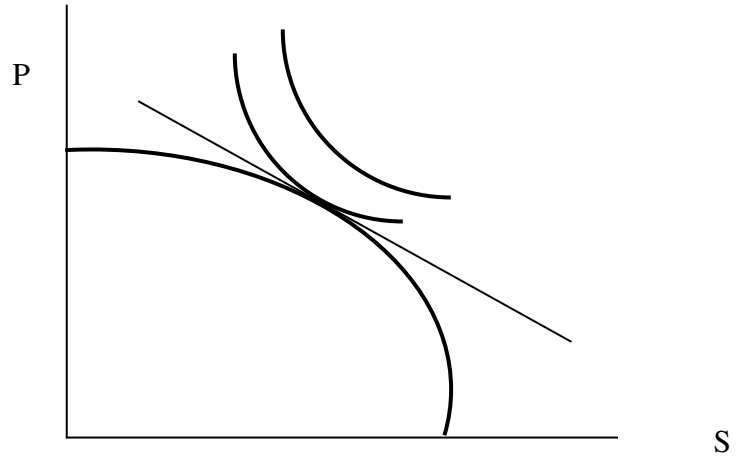
What happens when those two countries engaged in international trade? We construct a PPF in one graph on a larger scale with the involving of indifference curves. These indifference curves are in our case **social indifferent curves** expressing ***consumer preferences and demands of the population of the economy*** that are analogous to individual indifferent curves. In economy Alpha will be for 40 kg of cheese bartering 30 l of beer and in the economy Beta for 40 kg of cheese 20 l of beer. In case that Beta will be autarkic economy, its production and consumption possibilities would reach 20 kg of cheese and 10 l of beer (E). In the case of participation in international trade and specialization, according to the theory of comparative advantage, its production and consumption possibilities grew to E' (due to the production of 40 kg of cheese), and thus the economy Beta would export larger quantities of cheese and import larger quantities of beer, which is shown in Figure 2-2.

Figure 2-2 PPF curve and participation of countries in international trade



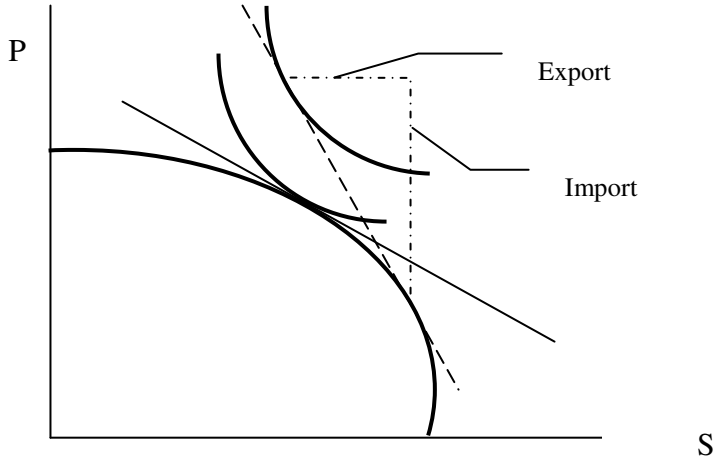
If we leave this model situation, because specialization leads to the reallocation of factors of production and thus increasing costs, we construct a PPF corresponding to this situation. The case of a closed economy is shown by the curve on Figure 2-3. E represents equilibrium in an economy that is in a situation of maximum efficiency, since the slope of the tangent of the international exchange ratio, the marginal rate of transformation of product (PPF) and the marginal rate of substitution (IC) are equal.

Figure 2-3 PPF curve in case of inreasing costs



If the economy enters into international trade, due to the situation which it occurs, the new equilibrium would be as follows: If a country has entered into international trade, shifts the equilibrium to F (see Figure 2-4). How big will be this shift depends primarily on the terms of trade, whose balance shows a dashed line. With this trade, the economy consumes such a quantity of goods corresponding to G.

Figure 2-4 PPF curve and participation of countries in international trade



The above figure graphically shows the effects and implications of the participation of economies in international trade, which are:

- An increase of consumption possibilities of the given economy
- The reallocation of factors of production in the given economy
- New markets
- An expansion of production
- The increase the standard of living economies entering into international trade
- And last but not least, the dynamic changes such as increasing productivity, increasing economies of scale and market power

2.1.2 THE FACTOR-PROPORTIONS THEORY

The most significant contribution to the definition of two-factor model of the theory of international trade was **the factor-proportions theory** created by economists *Eli Heckscher*[16] and *Bertil Ohlin*[17]. To understand this theory, we need to know the following assumptions:

- The existence of perfect competition, free trade and the same consumer preferences, the absence of transaction costs and factor mobility between economies
- The existence of two economies with two goods and two factors of production (labour and capital)
- Economies have different resource endowments of factors of production, in our case it means that economy Alpha has a relatively capital-intensive and Beta is labour-intensive ($K/L_A > K/L_B$)

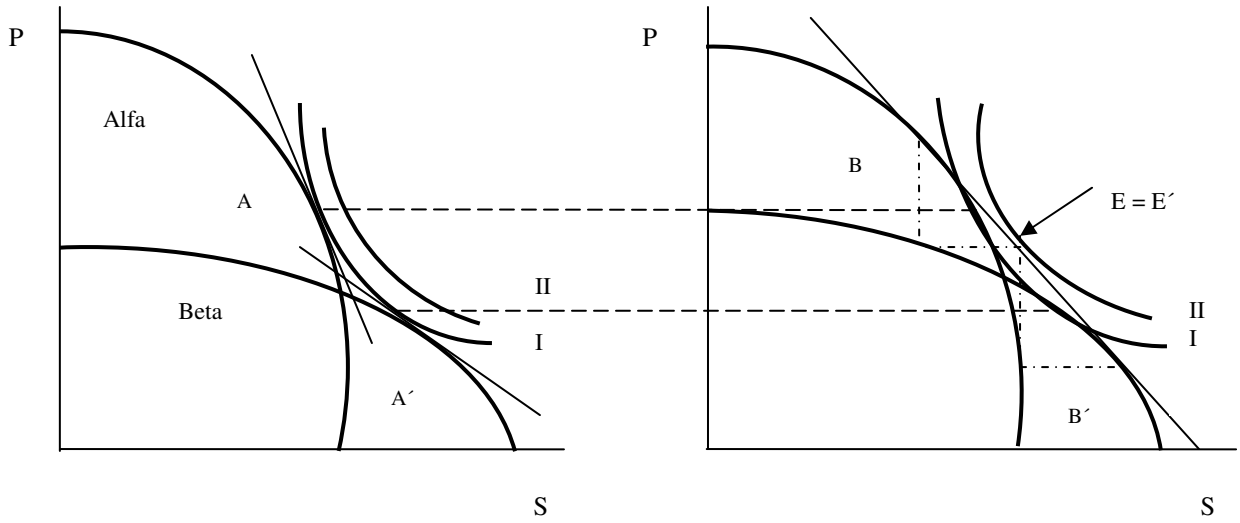
[16] Eli Filip Heckscher (1879-1952) was a Swedish politician economist and economic historian.
[17] Bertil Gotthard Ohlin (1899-1979) was a Swedish economist and politician, Nobel laureate in economics.

- Productions are differently intensive on factor-proportion and the use of factors of production, in our case, beer is more difficult to capital and cheese to work
- The both economies use the same production technologies, and thus factors of production can not be replaced (e.g. replace labour to capital or vice versa and)
- The existence of decreasing returns to scale.

Heckscher and Ohlin came out from the presumption that the price of factor of production depends on the relative supply, i.e. on the relative sufficiency and insufficiency. If enough is its price is low and vice versa. This means that ***the country will specialize in the production and export of such a good that use relatively intensively its relatively plentiful factor of production and import will be focused on goods that use relatively intensively the factor of production that the given country has a less***. This is the essence of **Heckscher-Ohlin theorem**. In other words, the classical theory of international trade see the causes of trade in the existence of comparative advantages and costs, while the neoclassical theory extending comparative advantage of differences of countries in the endowments of factors of production.

Assuming the above mentioned, we can convert this verbal explanations in graphic form (see Figure 2-5). On the left side of the graph we can see autarchic economies and on the right side we can see economies involved in international trade. ICs are equal by assuming the same preferences. These IC intersect PPF at A and A', what means that just as many will be produced and consumed in each country for the relative price given by the tangents of individual PPFs. From this graph it is clear that the economy Alpha will have a comparative advantage in the production of beer (production is a capital-intensive) and the economy Beta in the production of cheese (production is labour-intensive). If both economies enter into mutual trade, the situation is changing. The economy Alpha producing at B due to exchange of beer for cheese reaches E as well as Beta, which produces at B' and by the exchange of cheese for a beer will gain a consumer equilibrium at E'. Both economies therefore benefit from international trade, since they consume at a higher level of indifferent curve.

Figure 2-5 Heckscher-Ohlin Theorem



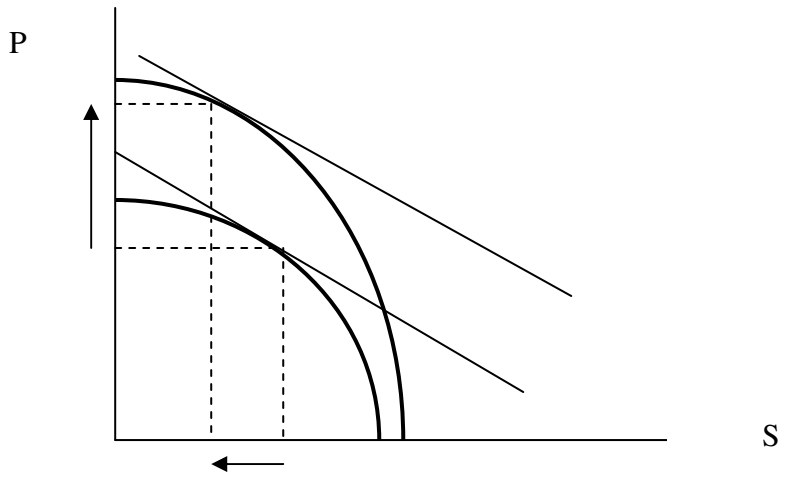
2.1.3 CRITICISM OF THE HECKSCHER-OHLIN THEOREM

First, we will deal with the criticism of some of the underlying assumptions of the factor proportion theory. Leaving aside the controversy of traditional assumption of perfect competition, free trade and the absence of transaction costs, **the assumption of lack of mobility of factors of production** (especially capital) is also unrealistic, because the economy where is the fewer of capital there is no problem to bring into the economy and focus on the capital-intensive production despite the fact that the country is better endowed with labour. Another controversy is **the impossibility of replacing the factors of production**. It is possible that a certain good can be produced in the country that is relatively better endowed with capital of in larger quantities, while in the country endowed with labour not, which means that the same product can be capital-intensive in the first country, while in the second country can be labour-intensive. As was already mentioned, Heckscher and Ohlin also rely on the assumption of **dependence of the price of the factor of on relative supply**. On the other hand, we also must take into account the demand for factors of production, since for instance, if the supply of labour is high in the given economy, it does not automatically mean that this factor of production is cheap. If there is a high demand for labor, its price may be high, even if there is a relative insufficiency.

Another criticism of the stable economy endowment of factors of production was carried out by the English economist *Tadeusz Rybczynski*[18], whose conclusions are summarized in **the Rybczynski theorem**, which says that in the economy may occur the situation where the above-mentioned rule does not apply and there will be a change, for example, due to an epidemy or, conversely, the population explosion or inflow of capital into the economy. For instance, if there will be an increase in the economy's endowment of capital (where the labour endowment stay at the same level), it will be reflected in a shift of the PPF, but disproportionately from higher degree of capital-intensive (rotation curves). In layman's terms the production should increase in both of goods – in beer and in cheese as well. The opposite is true, while in beer production there is a large increase, in the production of cheese is on decline corresponding E' (see Figure 2-6). The conclusion of this theorem states that ***if there is a rise in the endowment of one factor, production of good that uses relatively intensively this factor of production increases, but at the same time the production of good that uses relatively intensively the factor of production, whose endowment stay the same, will decrease.***

[18] Tadeusz Rybczynski (1923-1998) was an English economist of Polish origin.

Figure 2-6 International trade and Rybczynski theorem



2.1.4 THE THEORY OF FACTOR PRICE EQUALIZATION

This theory is sometimes placed among the criticism of the Heckscher-Ohlin theorem, since the authors drew on constant prices of factors of production. In our opinion, it is better to consider this theory as an extension of the theory of the factor-proportions theory. The conclusion of this theory is the **Stolper-Samuelson theorem**[19]. And it is the assumption of the change of price of factor of production and then the change of a (world) price of a good while involving of the economy in international trade.

If the economy is well endowed with capital, labour is scarce and therefore there is a low price of capital *r* and high price of labour *w*. If the countries are involved in international trade, expand the production (and export) of beer, and since the beer is capital-intensive, the demand for capital will increase as well as profits. Conversely, cheeses (as labour-intensive products) will begin to import, the demand for labour decrease as well as nominal wages.

This means that ***the involvement of the economy in international trade leads to an increase of the price of that factor of production on which its production is relatively intensive and reduces the price of the factor of production on which the production is less intensive.*** After opening the economy, the price and profitability of the good with a comparative advantage (production intensive on abundant factor of production, the cheap one) increase and the price of good intensive on a less abundant factor of production – scarce source – decreases. ***This leads to a reduction (balancing) the differences in prices of factors of production between countries with different endowment of these factors***.

Stolper a Samuelson drew a conclusion that ***the increase of the world price of the good leads to an increase of the price of that factor on which its production is relatively intensive and reduces the price of the factors on which the production is less intensive.*** **Other two conclusion** derive from this theorem:

- Not all economic entities benefit from international trade. Taking into account our example, these entities that own capital will be in profit, while the owners of the labour will be worse off. Economically speaking, the entry of economy into the

[19] This theorem is named after its authors – an American economist of Austrian origin Wolfgang Friedrich Stolper (1912-2002) and American economist and Nobel laureate in economics Paul Anthonyho Samuelson (1915-2009).

international economy implies a *change in the structure of the national income distribution.*

- After opening the economy, the price and profitability of a good with a comparative advantage (with production intensive on abundant factor – the cheap one) increases and the price of good intensive on less abundant-factor – the precious resource – decreases. This leads to *a reduction of differences in prices of factors between countries with their different endowment*.

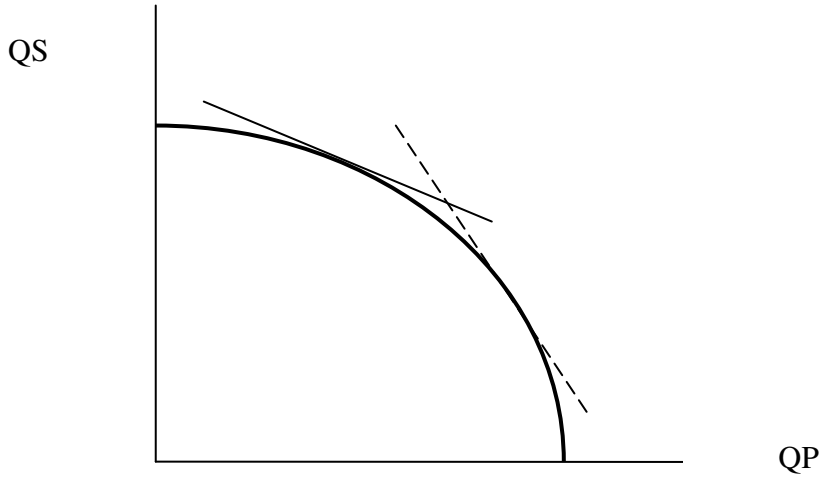
2.2 THE STANDARD THEORY OF INTERNATIONAL TRADE

Based on the findings resulting from the above described theories and the subsequent changes in the world economy, e.g. the Japan's huge export growth or expansion of the group of newly industrialized countries, economist *Paul Krugman*[20] performed the generalization of all hitherto existing theories of international trade. He did that in terms of the analysis of the supply and demand curves, which we refer to as **the standard theory of international trade**. This theory analyses the model of two economies that produce two goods, and based on the following key relationships:

- there is a correlation between the PPF and relative supply curve (RS)
- there is a correlation between relative prices and relative demand (RD)
- a world equilibrium is determined by means of RS and RD,
- the impact of terms of trade (TT) on nation's welfare.

If we analyse the first relationship, with regard to our example, we can say that RS of beer increases if the relative price of beer (and its relative quantity) is increasing. Production possibility frontier is the same as the term of terms of trade (TT) and tangents represent the relative prices of P_P/P_S, whose slope depends on the preferences of consumers. Graphically speaking, if relative prices are rising (dashed tangent PPF), the volume of beer will increase from Q_1 to Q_2, while reducing supply and price of cheese (see Figure 2-7).

Figure 2-7 The relative supply and PPF curve

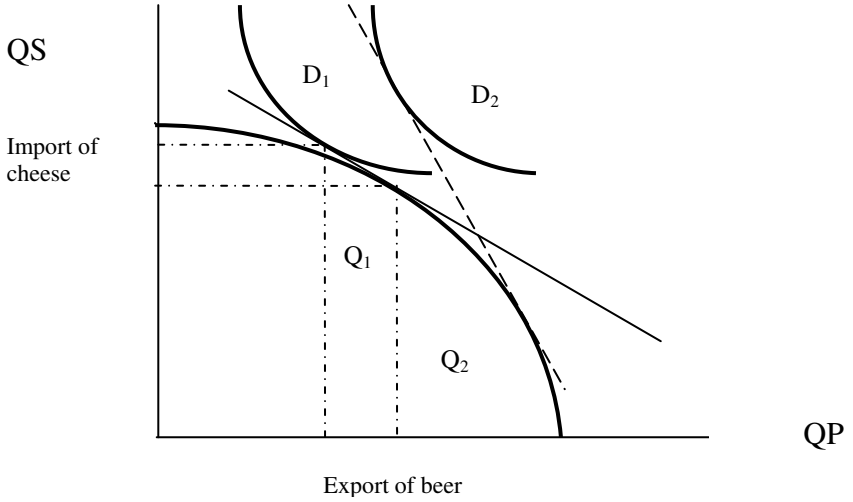


If we analyse the second assumption, we can build on what we already know from the previous chapter. In Figure 2-8, the preferences of consumers are graphically expressed through indifference curves. Initially, the economy Alpha produces at Q_1 and demand is at D_1. The difference between demand and production will be balanced by foreign trade, as is shown

[20] Paul Robin Krugman (1953) is an American economist and Nobel laureate in economics.

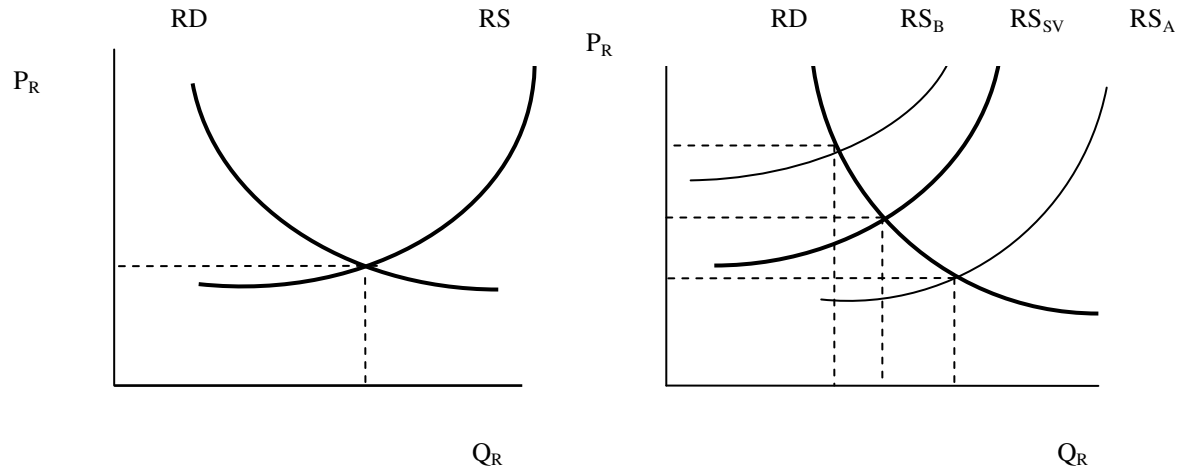
in Fig 2-8. In case that the relative price of beer increases in this economy (e.g., because of the entry into the international trade), produced quantity is shifted to Q_2 and the demand from D_1 to D_2. The effect of an increase in the relative price is such that it increases the well being of the economy, but if there will be a decline, the economic welfare would also decline.

Figure 2-8 The effect of an increase in the relative price in relation to the relative demand



To derive the third assumption and its analysis, the second economy Beta must enter "into the game". As with the previous examples, this economy exports cheese, while the economy Alpha is dedicated to export of beer. The following figure 2-9 shows the situation before and after the entry of economies into international trade. On the left side of the chart is shown the derivation of the relative supply and demand curves of Alpha autarkic economy. P_R and Q_R represent relative prices and relative quantities of beer. RS is increasing since the higher relative prices of beer leads to an increase in the production of beer in relation to cheese, RD is declining due to increasing relative demand in case of an increase of the relative price of beer.

Figure 2-9 Relative demand and supply curves

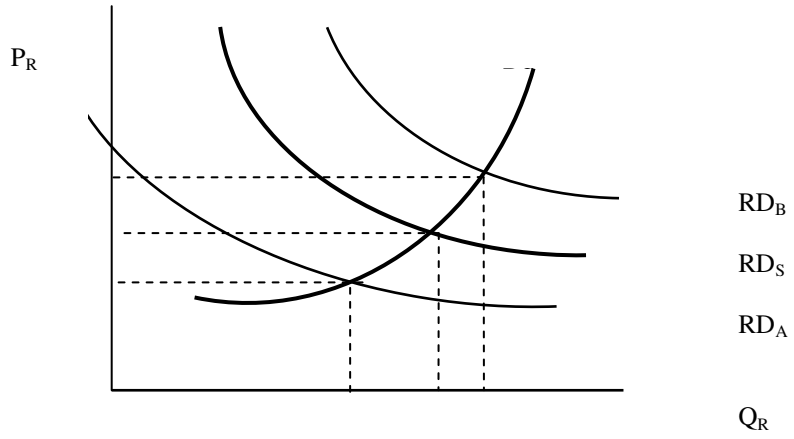


On the right side of the graph, we can see changes after the entry of economies into the international trade. RD remains the same due to identically consumer preferences, but only the supply differs. Why? Economies have different technologies and different endowment of production factors. While the economy Alpha is well-endowed with capital and is "poor" with

labour, the economy Beta is doing the opposite. Therefore, relative supply of Alpha is on the right side of the relative supply of Beta (her P_R of beer is lower). When these two countries enter into international trade, brewing and cheese production is the sum of these productions in individual countries, and therefore the world's RS is between RS of individual countries (as well as the world P_R). This means that international trade increases the prices of beer in the economy Alpha and reduces in the economy Beta. In other words, ***it improves the terms of trade in the economy Alpha and worsens in the economy Beta***. This improvement or deterioration has an impact on the well-being of individual economies. Whereas the well-being in the economy Alpha is increased, the economy Beta records a decline.

So far we have assumed that the relative demand for beer remains the same (i.e. consumer preferences are the same in both economies), what may not be true in a particular case. When does the RD change? The answer is simple – in case of changes in consumer preferences in individual economies. Imagine that consumers in the economy Alpha begin to prefer greater consumption of cheese and consumers of economy Beta begin to prefer greater consumption of beer. This is reflected in the relative demand shifts, as is shown in figure 2-10. While the relative supply remains the same, the national relative prices differ. Different preferences lead to different demand for goods of the other economy, which means that the given countries benefit from participation in international trade, since the prices of the exported goods are increasing (for the economy Alpha the terms of trade of beer and economy Beta has an improving terms of trade of cheese).

Figure 2-10 Shifts in the relative demand curve



In this subsection, we analysed the basic assumptions of the standard theory of international trade and we showed how to create the relative supply and relative demand as well as the influence of factors of production and preferences and how they affect the shifts of the curves. Author of this theory also analysed the effects on the shifts of curves, for instance the economic growth (taking into account the growth in the production of one or other goods), income transfers, reparations, foreign aid or protectionist measures. Given the limited scope of this chapter the author of this textbook did not make a deeper analysis of these effects and she refers avid readers to the author's book[21].

[21] Krugman P. R. and M. Obsfeld, 2003. International Economics: Theory an Policy. 6th ed. Addison-Wesley. ISBN 0-321-11639-9.

3 ALTERNATIVE AND INTEGRATIVE THEORIES OF TRADE

3.1 THE ALTERNATIVE THEORIES OF INTERNATIONAL TRADE

In previous chapters, we have analysed the pure theory of trade, which is the main essence of examining of the comparative advantage and factor endowment. Now, we are going to focus on the analysis of theories, which are from the point of view of the international economics considered for alternative theories. These theories are – according to chronology – the theory of the infant industry, the theory of international value, the theory of the second best, the theory of peripheral economies, the dependency theory, the theory of immiserizing growth, overlapping demand theory and the technological gap theory.

3.1.1 THE THEORY OF THE INFANT INDUSTRY

The theory of the infant industry is one of the oldest alternative theories. *Friedrich List*[22] is considered as the author of this theory. Although List formulated his thoughts into the form of theory, this theory is not his own. The first who dealt with this issue was *Alexander Hamilton*[23], who initiated the debate on industrialization through protectionist of infant industry in 1791 (he promoted the protectionist measures of the United States on products imported from the UK). His follower was *Henry Ch. Carey*[24] advocating protectionist measures necessary to removing barriers to the development of young companies that are created by activities older and richer nations.

This theory is based on the idea that an economy whose production is in its initial (infant) stage, cannot operate on the basis of free trade with countries that are already mature, because of the absence of competitiveness of their products (see chapter 4.1.3). Industrial production of this economy would not develop and would be driven out by stronger competitors. The essence of this theory is not in direct conflict with the classic "laisses-faire", since Smith and Mill do not condemn protectionist measures in the case of the young or established industries, however, they are uncompromising and require a free trade policy. In connection with this theory, the problem raises with defining and identifying the various stages of "immaturity" and "maturity" that are not actually measurable.

Despite the constant efforts to liberalize international trade, the protectionist arguments of the theory of the infant industry are still relevant, since with the new arrangement of post-war world economy and the emergence of a group of developing economies, raised the problem of whether they are able to be involved in liberalized trade. The fact that businesses from the developed economies operate in international trade for a longer time and over time were able to increase their production, they have better information and knowledge about the production process, about the characteristic of market (as well as about the labour market) and in consequences of that they are able to offer their production on the international market at lower prices (and because of economies of scale also with higher profits), that is the reason enough to apply the theory of infant industry in practice of developed economies (and the

[22] A German economist, the founder of German economist, founder of the German historical school that significantly contributed to the formation of a customs union between the German states (1789-1846).
[23] An American lawyer, financier and political economist (1755-1804).
[24] Henry Charles Carey was an American economist and representative of American School of capitalism (1793-1870).

least developed ones[25] in particular). This theory, in accordance with the above-mentioned conclusions of the pure trade theory does not assume that the protectionist measures could be limited. On the other hand, domestic firms, protected by e.g. import tariffs, would be able to cover the increased costs of production and began to profit from higher prices of products and, over time, because of the experience and knowledge reduce costs of production and the degree of protectionism then could be continuously reduced.

In connection with this theory, raises the question of why does it imply into the international trade and why complicates international trade relations, if each country based on the comparative advantages should specialize in the production, which has a lower costs and other less productive and less effective production leave to the others. But the problem is hidden in the resolution of static and dynamic comparative advantages. While pure theory of international trade is based on **static comparative advantages** (the most efficient allocation at one point in time), the theory of infant industry is based on **dynamic comparative advantages** (the most efficient allocation in the long term).

The conclusion is as follows: The positive effect in the long term (dynamic model) eliminates the negative effects of short-term (static model), and therefore the application of the theory of infant industry for emerging industries is (in our case the beer production in the economy Beta) justified.

The above-stated analysis is a simplified model that is subjected to criticism with arguments against the introduction of the theory of infant industry. These arguments include:

- *A possible emergence of externalities*, when in this case is this theory only the second-best choice (for the theory see the chapter 3.1.3) and there is other, more efficient, method, and that is production subsidy, which does not cause the shift of supply curve (that remains at S, the difference is equalized by subsidies so that the final prices P_1), therefore no losses of consumer and surplus of producer – the cost of introduction of subsidies are thus smaller than in the theory of infant industry (which moreover causes the loss of consumer), which means that even though it is beneficial for the economy, it does not necessarily be the best.
- *The problem of providing protectionist measures* that may be in the long term counterproductive (bring more costs than profit from protectionism and bring even to inefficient firms profits)
- *A removal of impulses to the development of firms themselves*
- *A lack of awareness in the implementation of protectionist measures* – the government have to know the potential of each sector, as these sectors (and their support) will affect the others, etc.
- And last but not least, *a complicated estimate of the correct settings* of the above measures for the right sector and for the right time.

3.1.2 THE THEORY OF INTERNATIONAL VALUE[26]

In the context of the theory of value was proposed by *Karl Marx*[27], based on the classical theories of international trade while he also criticize them, **the theory of international value**. In his conclusions, he tried to prove the erroneousness of the theory of

[25] These less developed countries or developing countries are abbreviated as LDC – Least Developing Countries.

[26] As a basis for writing of this subchapter was not only Marx's Capital, but especially textbook of prof. Robert Holman, PhD. From 1991 (see bibliography) that very closely and thoroughly summarized the conclusions of Marx's most comprehensive work.

[27] Karl Heinrich Marx (1818-1883) was a German philosopher, publicist and economic theorist and co-founder of the communist movement.

reciprocal demand. He argued that reciprocal demand cannot affect the international exchange ratios (relative price changes), but the change of demand in one economy for the products of second economy (price increase) will cause a change in supply of demanded product (and return to the original value of production). International exchange ratios and according Marx, these international exchange ratios are not determined by relative prices, but by the value of the international exchange.

Since Marx, as well as his classical predecessors, was based on the labour theory of value, the conclusions of his theory were also related to this theory. **The international value** was determined on the basis of the international division of labour by social relation between producers of different countries, which was shown by exchanging their products. The size of this international value was determined by the **socially necessary labour** or labour expended by the largest suppliers of products on international market. This means that international trade is not a mere exchange of use value of goods for goods, but also by the exchange of national labour, which is included in this goods. But there is a fundamental contradiction in this theory: If the products are exchanged in international trade, it means as mentioned above that there is exchanged the same amount of socially necessary labour, but since in individual economies, there are different initial conditions and thus different costs of production, the amount of national work is differ.

Marx assumed that firms in less developed countries produce their products at higher national costs (on labour) and if they are not the largest suppliers, then they trade on international markets at lower price than their national ones and vice versa (the developed economies have lower costs and sell at higher value than is their national one). Thus, international trade expresses the economic inequality and its removal at the international level is not possible in most cases due to limiting factors such as less skilled labour force or less access to modern technologies.

Despite the above-mentioned shortcomings and inequalities Marx recommend international trade, since on the base of comparative advantages the less developed economy obtains more use value than if would produce the product by itself. And that is because of the imported product would – said in modern technology when import substitution – expends more national labour then before. According Marx, the economic inequality can be removed by accelerating economic development and reducing national costs of less developed countries and international trade on the classic "laisses faire" can only work when advanced economies cease to promote the principles of profit.

3.1.3 THE THEORY OF THE SECOND BEST

In 1956, *Richard G. Lipsey*[28] and *Kelvin J. Lancaster*[29] formulated **the theory of the second best,** which is focused on exploring *what happens in the economic model, if the optimum conditions are not meet*. The conclusions of the theory are applicable to all government policies. We will deal with the impact of its use in international trade and it can be generally said that this theory is among the group of "protectionist" theories.

To analyse the theory of the second best, we have to realize the basic principle of all economic models and that is the achieving **economic equilibrium**. A perfectly competitive market includes:

- Prices of firms' output are equal to marginal cost
- The ratio of the prices of two products are equal to the ratio of substitution of these two products

[28] Richard George Lipsey (1928) is a Canadian economist.
[29] Kelvin John Lancaster (1924-1999) was an American economist.

- In the long run, the economic profit of firms is equal to zero
- The supply of products are equal to demand for them.

But what happens if one of the above-mentioned conditions is not met for any reason? What happens if the market does not reach equilibrium and demand will not match the supply? Will firms set prices based on marginal rates and consumers their optimum comparing prices and marginal rates of substitution or will market operate on different principles? The conclusion of the theory of the second best is that if one of the conditions of equilibrium will not be met, it will change the other conditions (i.e. firms will not set their prices based on marginal costs and consumers will set their optimum based on above mentioned ratio).

Now let's look at how we apply this theory to international trade. If an open economy is in equilibrium, it follows from the fact that the optimal government policy is a free trade policy and each protectionist intervention reduces economic efficiency and national wealth. In this case, we can name the free trade policy as **the first best choice** and such a situation when economic efficiency cannot increase, we call **economic nirvana**. However, the real economy does not reach this situation, there are plenty of distortions and imperfections (externalities, government intervention, firms are price makers, imperfect information, etc.). If there are these imperfections, it reduces economic efficiency and national wealth. We can call the optimum achieved in such a situation as **the second-best optimum**. The policy – in our case – trade policy through action (protectionist measures) will lead the economy to the second best optimum, and this optimum, which is at a lower level than the best optimum, is called **the second best option**[30].

3.1.4 THE DEPENDENCY THEORY

At the end of the 50s of the last century, independently on each other, *Raúl Prebisch*[31] and *Hans W. Singer*[32] formulated conclusions known as the **Singer-Prebisch thesis** (also known as Prebisch-Singer thesis or Prebisch-Singer hypothesis) and this is the underlying concept of dependency theory. Their researches showed that economic activity in the developed countries, which they called "centres" (they were OECD member countries) often caused economic problems of poorer countries, called "periphery" (they considered for them countries of Latin America, Africa and Asia, and countries with a low GNP per residents and single-commodity export specialization). The above-mentioned thesis is based on the fact that "primary production is located in the periphery and the other degrees of sophistication and spending in centres" (Prebisch, 2006, p. 90) and they exchange this production between each other. All incomes from international trade flowed into the centre, since they processed industrial products from primary commodities and sold them back to peripherals, which creates value added. This was an obstacle to the development of peripheral economies, which was recommended to remove by focusing on industrialization through the form of import substitution (see chapter 17).

Prebish and Singer came in their thesis to the conclusion that over time the terms of trade worsen between primary products and manufactured goods, which mean that peripherals are able to import still smaller quantities of industrial products at the same – unchanging volume of foreign trade. As one of the reasons for this deterioration they stated that the

[30] However, there is an exception and that is the „big" open economy that can influence world prices and because of optimal duties, quotas and other measures may be this policy the first-best choice.
[31] Raúl Prebisch (1901-1986) was an Argentine economist, director of ECLAC and co-founder UNCTAD.
[32] Hans Wolfgang Singer (1910-2006) was a German economist dealing with the issue of development.

income elasticity of demand for industrial goods is greater than the income elasticity of demand for primary products. As income grows, so the demand for industrial goods is growing faster than the demand for primary commodities. Over time, the technology is also improving, which means that wages are increasing and profits of firms and centre are able to accumulate savings, but in the peripheral economies, where is not so noticeable technological progress is not achieved high profits and wages and savings are "dissolved" in lower prices.

In the 70s and 80s of the last century, the theory was very popular, which corresponds to the trend in the development of economic theories, but we have to say that from current perspective, the conclusions of this theory have several shortcomings. If we omit the impossibility of the existence of economies of scale, little political will or degree of control of exported primary production, we can find several contentious issues:

- The distinction of the concept of *backwardness and underdevelopment* – while the backwardness reflects the use of available resources in a peripheral economy, but in favour of centres, underdevelopment means unused resources
- Peripheral economies in terms of historical context are not poor because they lagged behind the scientific or enlightened development of centres, but because of they were relegated by these centres to the role of supplier of cheap agricultural products, raw materials and cheap labour force and thus were deprived of the opportunity to trade their resources to compete with centres
- The definition of term *national interest*, which is identified with meeting the needs of the poor people from peripheries and is neglect of meeting the needs of companies or government needs
- A *misuse of resources* over time, which is maintained not only through the power of dominant states (centre), but also through the power of elites in the dependent states (peripheries), whose interests are the same, since these elites were educated in the centres.

3.1.5 THE THEORY OF IMMISERIZING GROWTH

Jagdish Bhagwati[33] formulated **the theory of immiserizing growth** based upon the assumptions of pure theory of international trade, a world economy consisting of two countries that produce two commodities. By his examining he tried "to formulate the conditions under which occurs the immiserizing growth" (Bhagwati, 1958, pp. 201-202). While using the graphical model he argued that economic growth might lead to a decline in economic welfare. Although he did not define that these economies may be developing countries, this theory was accepted by many advocates of protectionism, especially in less developed economies, "in whose exports dominate simple primary products" (Pryor, 2007, p. 211).

The theory of immiserizing growth is based on the analysis of the impact of deteriorating terms of trade. However, the possibility that immiserizing growth occurs is conditioned by the inelastic demand of the rest of the world (in our model, i.e. the second economy) and growth reducing the domestic production of the exported goods. Other conditions of immiserizing growth include low ratio of export to domestic production (GDP) and low elasticity of demand for exported goods, due to their changing prices.

[33] Jagdish Natwarlal Bhagwati (1934) was an Indian economist working in the United States of America.

3.1.6 OVERLAPPING DEMAND THEORY

In 1961, *H. M. S. Burenstam Linder*[34] published a hypothesis later called **Linder hypothesis**, in which is the theory of trade based on demand unlike the theory factor-proportion theory that are focused on the supply side. This hypothesis assumes, that economies with the similar demand will develop a similar industry, hence the name **the overlapping demand theory**. Then these economies will trade with each other with a similar, but differentiated product.

This theory is based on the fact that the main determinant of trade flows between the two economies is *the structure of preferences* and the effect of the domestic market in the selection of exported products. In other words, this means that the economy should export those goods for which they have a large domestic market[35]. On the other hand, with increasing distance the trade between economies is increasing, while it cannot be understood only as the geographic remoteness, but rather as **the economic distance**. The structure of preferences can also be assigned to the economic distance as well as institutions and language understanding. The way to reduce the cost of export is through exports to countries that have a similar structure of preferences as the domestic market.

But how do we find that the markets are similar in demand (preferences)? One way is to compare the average income of each economy: the smaller the difference between the average income of each country, the greater the mutual trade. This approach has the advantage of easy estimablity, but on the other hand it says nothing about how income is distributed in the given economies. It may therefore happen that in two similar income economies the structure of preferences is different, if there is different income distribution. Another shortcoming of this theory is that it analyses international trade in industrial products and it does not deal with the export of primary commodities. And last but not least, we can consider as a controversial the conclusion of this theory based on the fact that the products will be more mutually marketable, the more they will be similar to each other and their properties will overlap.

3.1.7 THE TECHNOLOGICAL GAP THEORY

In the same year, as Burenstam Linder published his hypothesis, a British economist *M. V. Posner* formulated the contradictory theory – **the technological gap theory**. This theory "assumes that trade can be caused by technological changes and development that affect certain sectors and not the others" (Posner, 1961, p 323).

Based on these changes, which are actually **innovations**, arise comparative advantages accompanied by increased exports of these goods (and increased income). However, over time this advantage is losing, since the rest of the world begins to imitate innovation. In this situation, the original innovator economy try to "come into the market" with another innovation that should lead and then repeats the above-described mechanism. If follows that innovations cause the constant time-limited **technological gaps** of innovator and imitators.

3.2 INTEGRATIVE THEORIES OF INTERNATIONAL TRADE

In previous subsections, we have discussed the theory of international economics based (more or less) on the comparative advantages of pure theory of international trade. Since there is in the current global economy a growing interdependence of economies and their integration into international trade, these countries tried to deepen benefits resulting from the

[34] Hans Martin Staffan Burenstam Linder (1931 – 2000) was a Swedish economist and conservative politician.

[35] P. Krugman, who included in this model transaction costs and decreasing returns of scale, developed this thought in 80s of last century.

international trade through the integration process. In this chapter we will analyse the impact of these processes on the international trade in terms of economic theories. First, we examine the theory of customs union and then we describe the theory of optimum currency areas.

3.2.1 THE THEORY OF CUSTOMS UNION

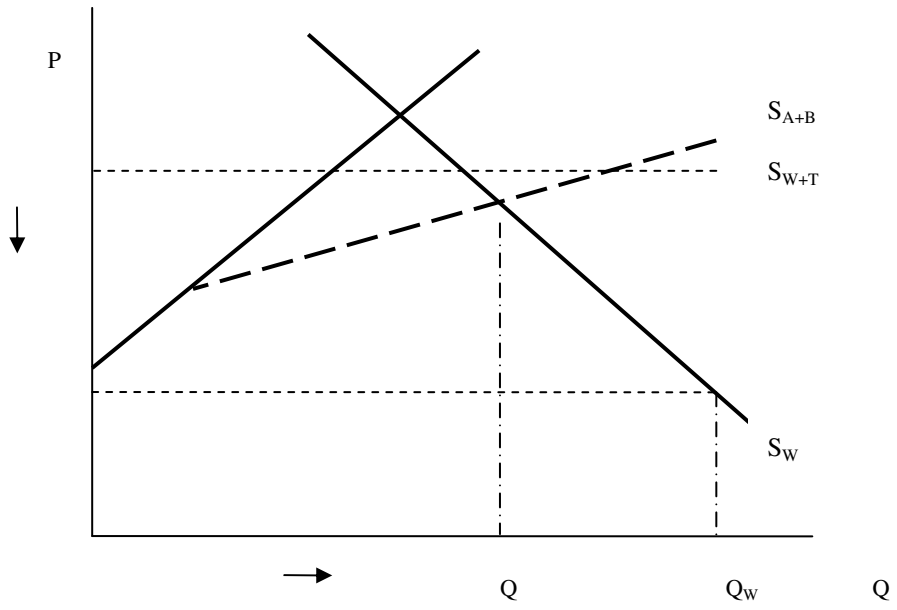
In 1950, *Jacob Viner*[36] described the static and dynamic effects of the lower forms of integration along with its effects on international trade, which he called the creation, transfer and deflection of trade, in the theory called **the theory of customs union. Trade creation** is the process by which the result of the establishment of the custom union the international trade increases. The reason for such a growth is:

- *A **consumption effect***, which is reflected in a decline in domestic prices of the imported product, when consumers increase purchases of goods
- *A **production effect***, which does not have such a positive effect on domestic economy, because the elimination of tariffs can cause that foreign production crowd out the domestic production.

Transfer of trade will occur when imports from third countries are substitute of import of another member state of the union on the basis of the abolition of tariff barriers. To the **reduction of the trade** occurs when they are imposed higher duties on imports from non-member countries than were before the creation of the customs union, which leads to a reduction in imported products.

Our analysis will be further developed in two directions – we will try to summarize the short-term reactions (static effects) and long-term reactions (dynamic effects) on the establishment of a customs union. **Static effects** can be expressed best by using the graphical model of a customs union in trade with one product between two economies (Alpha and Beta) with a common customs policy against the economy Gama (see figure 3-1).

Figure 3-1 Static effect of the customs union

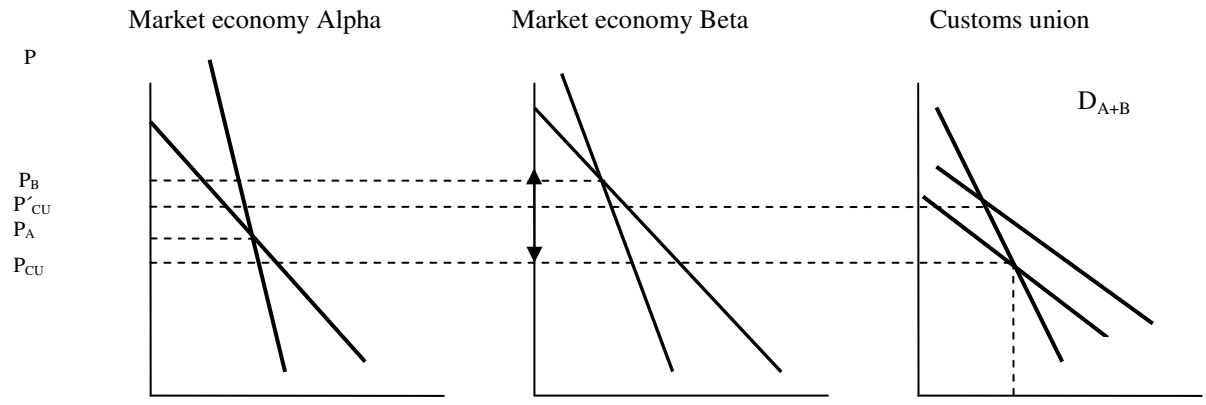


[36] Jacob Viner (1892-1970) is an American economist of Canadian origin who deals with the international trade and the theory of firm (he introduced the curves of short-term and long-term costs).

Consider that the supply of the economy Alpha is at S_A and demand is at D_A. This economy has no tariff barriers with the outside world. Price of product corresponds to the price P_W while consumption Q_W. If this economy imposes duties on other economies, the supply of the rest of the world moves to a higher level at S_{W+T} (an increase of customs duties), prices will increase and the amount of consumed goods reduces (these effects will be discussed in chapter 10). Equilibrium point is now at F. If this economy creates a customs union with Beta and the economy Gama becomes the third economy, the supply curve shifts to S_{A+B} as a common supply of domestic producers and equilibrium is reached at E, what means the reduction of prices and increase of consumption (but also reduction of customs revenues to the state budget). If economy Gama also joins the customs union, international trade would be settled at the position corresponding to the initial level P_W and S_W. The introduction of the customs union has a static positive effect in the short term.

If we interpret the impact of the customs union from the long-term dynamic perspective, conclusions will be different and that because of the changed initial conditions. In the long run, companies in the customs union may as a result of the increased market more efficient use of their resources achieve economies of scale and thereby reduce costs and prices. This will be reflected in the shape of the supply curve, which has a **decreasing** trend (see Figure 3-2). The graph shows the situation in the economies Alpha (larger economy with heavier sales) and Beta (smaller economy with small market) before and after the introduction of the customs union. Economy Beta has higher production costs before entering the customs union, but after the entry, due to a larger increase of sales than at economy Alpha and thus greater economies of scale, we can see that the supply curve of the economy Beta gets under the curve of economy Alpha. There is **an optimal impact of the customs union** because of the economies reach the maximum volume of consumption with minimal cost. However, it can also occur the situation, which we call **sub-optimal impact**. This occurs when firms in the economy Beta will not adjust to the new conditions and products from economy Alpha flow (through lower prices) into the economy Beta. This causes a further decline in demand for goods from economy Beta, which are ultimately crowded out and the price will appoint at P'_{CU} and the consumed amount will reduce. To avoid that those not very optimal conditions are not met, the state interventions through appropriate economic policy are necessary.

Figure 3-2 Dynamic effects of the custom union



Although the effects of the customs union on international trade seem to be for a free trade generally positive, there are obstacles that prevent the unlimited mobility – these include physical, fiscal and technical barriers:

- ***Physical barriers*** in the form of physical checks at national borders (for example EC quotas on Japanese products, which were broken down between the Member States, the license check against international transport or subsidies under the common agricultural policy, when he had to control the movement of agricultural commodities)
- ***Fiscal barriers*** through various indirect and direct taxes (value added tax, consumption tax)
- And ***technological barriers*** in the form of non-uniform technical, sanitary and environmental standards that are the most difficult to remove from these three types of barriers and there are the subject of lawsuits (see Example 3-3).

3.2.2 THE THEORY OF OPTIMUM CURRENCY AREA

In 1961, *Robert Mundell*[37] published his **theory of optimum currency areas** and defined the **optimum currency area (OCA)** as ***the geographical area with internal mobility and external factor immobility, where should maximize its economic efficiency based on the single currency***. Although Mundell is officially considered as the author of this theory, many people consider as the author of this thoughts *Abba P. Lerner*[38].

The theory describes the optimum conditions for the unification of currencies, or to create a new currency, and often is used for affirmative or disapproving justification, whether one or other economy is ready to enter into the higher forms of integration[39]. Meeting these conditions guarantees a good balance between the costs and benefits of monetary union, and if these conditions are not met, they lead to the opposite situation. These conditions include:

- The sufficient level of labour mobility between different parts of the monetary union
- The lowest possible degree of wage and price fixation within the individual economies
- Similar endowments of natural resources
- The synchronization of the business cycle
- The high degree of diversification of foreign trade and homogeneous structure of production
- A symmetry of positive and negative external shocks
- The existence of an adequate mechanism of fiscal compensation.

In the OCA theory, the exchange rate of the national economy is considered as an important tool for economic policy to adapt to an **asymmetric shock**. Asymmetric shock refers to ***a situation, which affects only a particular national economy and causes in various economies differentiated impacts, especially on economic growth and employment***. M. Friedman has already formulated the assumption, based on the fact that if there is an external factor immobility, prices and wages are fixed and if there are supply or demand shocks (asymmetric shocks) is better when the economy has a floating exchange rate. Thanks

[37] Robert Mundell (1932) is a Canadian economist and Nobel laureate in economics for this issue.
[38] Abba Ptachya Lerner (1903-1982) was an American economist, author of NAIRU a co-author of Marshall-Lerner condition.
[39] For instance, in case of the European Union, individual economies do not have the form of OCA, but Europe as the whole shows this characteristic.

to this exchange regime, the economy can adjust these shocks. However, if economy fixe an exchange rate, it results in negative changes in the price level and unemployment.

As we have already noticed, the later concept of the theory of optimum currency area places emphasis on analysing the benefits and costs of the creation of OCA. Impacts are significantly different in the case of fixed and floating exchange rates. **Benefits of monetary efficiency** belong to the positive effects and there are expressed:

- Elimination of transaction costs in the form of e.g. the abolition of bank charges for foreign transactions (it is estimated that banks in the EU have lost half their income – see Krugman, Obsfeld, 2003, p. 620)
- For small open economies, reducing the impact of changes of exchange rate on the price level and real growth.

The benefits of OCA in international trade include a reduction in the uncertainty of financial investment[40] by increasing the stability of the exchange rate and reduction of the risk of currency crises and especially by the expansion of foreign trade and increase of mobility of capital between member states of monetary union (due to lower transaction costs and risks).

In addition to the positive impact, the currency area also has its negatives or cost. This negative can be **the loss of economic stability** that arises from the inability to use exchange rates and monetary policy to stabilize output and employment. There are also some unclear impacts and these can be the impact of the fiscal policy of nation-states, since the centralization of the policy can eliminate the asymmetric shocks and on the other hand, leads to higher costs of it, and further it is a loss of so-called seigniorage (revenue that government obtained by financing the budget deficit by changing the monetary base) and its distribution among the participating economies.

[40] However, this impact can be positive or negative, since risk reduction brings lower profitability of investments, which has an impact on product and thus on the functioning of the economy.

4 MODERN THEORIES OF INTERNATIONAL TRADE AND MOVEMENT OF FACTORS OF PRODUCTION

So far we have dealt with the analysis of international economics from the perspective of perfect competition in the absence of market power (sellers were only "price takers" and the demand for their products was perfectly elastic), when the assumption of constant, respectively increasing costs of scale or different endowment of factors of production was met. Currently, the substantial part of international trade is among advanced economies that have similar technologies, similar factors endowment and just a little different preferences. According above-mentioned models (classical single factor model or neoclassical Heckscher-Ohlin one) these economies would not have many reasons to trade with each other. Mutual trade is made on the basis of other then so far discussed conditions.

4.1 MODERN THEORIES OF TRADE – MODELS OF ECONOMIES OF SCALE

The different conditions include **economies of scale** or otherwise increasing **returns to scale**. In the 80s of the last century, P. Krugman worked in the pure theory of international trade also economies of scale. Economies of scale mean that ***with a lower cost can be achieved a higher production output***. If production shows such a characteristic, then specialization and mutual trade can lead to an improvement in global production and to increase the welfare of all participating economies. Modern theories of trade deal with these economies of scale and they analyse the effect of internal economies, dumping and external economies to the national economy.

To analyse the effect of international trade between the two economies Alpha and Beta, we used the PPF curve and a map of indifference curves. PPF curve has a convex shape, since there are increasing returns to scale and economies trading with each other in two different commodities – beer and cheese, when this type of trade is called an **interdisciplinary trade**.

However, generally the trade of interdisciplinary product (in this case, beer and cheese) does not match the current international trade, on which the theory of comparative advantage can be applied. In recent decades dominate the trade with diversified products, so-called **intra-industry trade**, which cannot be explained by using classical and neoclassical apparatus. Many countries export and import similar products. For example, the Czech Republic imports and export almost in identical ratio of transport equipment, manufactured goods and raw materials.

To some extent there is intra-industry trade because one category includes many different types of products. For example, the largest commodity items of Czech foreign trade are road vehicles, electrical equipment and appliances and office equipment. It may therefore happen that production of road vehicles requires different technology and different range of resources than the production of office machines, in which the second economy may have a comparative advantage. But since all machine types are included in one category, it may seem that the economy imports and exports the same products, although the economy exports, for instance, more road vehicles and imports more office equipment.

From the above-mentioned it follows that a country that uses intra-industry trade, benefits from a larger market by reducing the number of manufactured goods in favour of their diversity, and that is based on demand and also on efforts to satisfy domestic consumers. From a mathematical point of view, the degree of intra-union trade shows **Grubel-Lloyd index (**Grubel and Lloyd, 1975), whose notation can be expressed by using equation (4.1) or (4.2). In the formula (4.2) the numerator expresses the absolute value of trade balance of the

economy and the denominator is the value of trade turnover. GL_i has a value in the interval {0,1}, where 0 means complete inter-branch specialization (international trade in a model of comparative advantage) and 1 means total inter-branch specialization of the economy.

$$GL_i = \frac{(Ex + \mathrm{Im}) - |Ex - \mathrm{Im}|}{(Ex + \mathrm{Im})} \qquad (4.1)$$

or more often

$$GL_i = 1 - \frac{|Ex - \mathrm{Im}|}{(Ex + \mathrm{Im})} \qquad (4.2)$$

where: Ex – export

Im – import

As we have already mentioned, the pure and standard theories of international trade analyse interdisciplinary trade (on the basis of comparative advantages) in perfect competition where there are no economies of scale and firms are price takers. However, in the real world, this assumption is almost impossible to meet, because firms that are mainly engaged in international trade, profit from increasing economies and they are price makers. It is clear that they operate in conditions of **imperfect competition**. You have already been familiar with the forms of imperfect competition in the study of microeconomics (more Tuleja, Majerová and Nezval, 2005). However, since the analysis of behaviour in monopoly and oligopoly in relation to international trade is complicated, only the analysis of the last type of imperfect competition – monopolistic competition – will be performed, because its behaviour that is closest to the perfect competition and it is also the most common type of competition in economies. On the basis of this type of competition was created a model of internal economies. In addition to this model, we will further analyse the model of external economies and model of dumping.

4.1.1 MODEL OF INTERNAL ECONOMIES – THE MODEL OF MONOPOLISTIC COMPETITION

Before we will talk about the principles of the functioning of the model itself, remind the conditions for the functioning of **monopolistic competition**. It is a type of imperfect competition, which is based on the following assumptions:

- Existence of many companies in the industry (corresponding the assumption of perfect competition)
- Each firm produces a differentiated product (i.e. the product of a different nature) – one produces a black beer, another one low alcohol, third economy produces light highly alcoholic beer and the fourth economy focuses on the production of non-alcoholic beer (assumption corresponding the monopoly)
- Differentiated products are imperfect substitutes in consumption, which means that if a price increase, consumers will move to the consumption of another product – a function of demand has a declining shape, but its slope will depend on the type and price of the substituted product (corresponding the assumption of monopoly)
- The possibility of free entry and exit of firms to and from the sector – economic profit attracts new firms to the industry and a large number of firms will lead in the

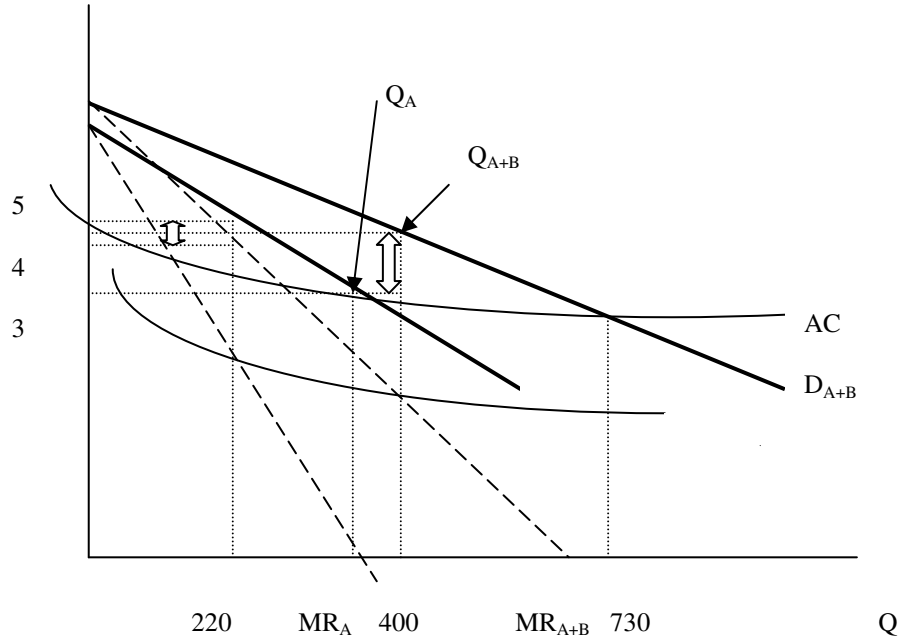
long term to zero economic profit (corresponding to the assumption of perfect competition)

- The existence of internal economies of scale, which are expressed by decreasing average cost curve – with increasing production the costs per unit of production are decreasing (assumption correspond to monopoly).

Model of internal economies also known as a **model of monopolistic competition** is a model which can be explained by intra-industry trade, even though in individual economies are no differences in resources or in technologies. Its emphasis is placed on consumer demand for different qualities of goods sold in the same product category.

Take a closer look at the functioning of the model of internal economies. We explain this on the graphical model. We stay in our example – in the economy Alpha there is a plenty of firms producing an excellent beer (differentiated products). Firms are price makers (the effort to maximize profits MR=MC) and there are economies of scale (internal economies). In the diagram (see Figure 4-1), the amount of beer produced in thousand litres is applied to the axis x amount and prices for one litre are applied to the axis y. Initially, assume that entry into the international is disabled because of restrictive measures of the rest of the world (i.e. the second economy Beta). The profit that is created by production is not large (the field shown by the little arrow), and given the deadweight loss it could increase (by increasing production), which is not possible because of low demand. The only way to do that is to expand into foreign markets.

Figure 4-1 Model of internal economies



Now suppose that due to political negotiations with the economy Beta, the restrictive measures were successfully cancelled. Since the beer production in the economy Beta is not able to compete with the production of beer in economy Alpha, demand for beer of economy Alpha shifts to a higher position, what results in a shift in the marginal revenue (MR) and increase in profit (the field with the larger arrows). The volume of beer production in the economy Alpha can theoretically go up to level 730, but only under the assumption of perfect competition, in this situation, it is preferable to produce at 400 and "collect" the highest possible profit.

From the above-described functioning of internal economics can be concluded that on the one hand, the expansion of trade brings an increase in living standards and on the other hand, it raises enormous pressure on the competitiveness of individual producers. Fight for consumers will result in the need to constantly offer new and better products, what leads to their differentiation. That means limiting the substitutability resulting in gaining more market power and manipulation with consumer preferences. Success can be provided in many sectors only by access to international markets.

Impacts of international trade

We have already mentioned that the emphasis in this model is placed on consumer demand for different qualities of goods sold in the same product category and we add that the expansion of trade should also lead to **an increase in their standard of living**. This growth is based on three main determinants:

- An increase of diversity of demanded products, which is caused by product differentiation within a certain group
- A reduction of the price of each differentiated product through a shift in AC curve and increase in supply of products to other markets and reduction of their prices due to the transfer of free resources from existing production.

In the model of internal economies, we can distinguish two negative impacts of international trade – those are the potential **costs of adapting production** and the risk associated with the increasing diversity of products and that the increasing **transaction costs**:

- The growth of output is accompanied by growth in productivity of factors of production, what could mean that each firm would be forced to reduce the use of factors of production and in the long term it could lead to the firm closure. This closure is associated with the alternative cost of closed production, with the costs associated with the growth of unemployment, the costs associated with searching for a new job, further with moving costs, etc.
- And furthermore, assuming the preference of the extension of product diversity preferred by consumers, we must take into account the associated costs – for instance, when the demand for beer consumers must test each beer, finding information about the content of hops, alcohol, etc., which are called in sum transaction costs.

4.1.2 MODEL OF EXTERNAL ECONOMIES

Models of internal economies and dumping analysed the involvement in international trade and the consequent effects on the firms level. However, since we examine international trade in particular on the level of economies, in terms of economies of scale, we must also accede to the analysis of this phenomenon on a higher level than firm level. To do this, we used a **model of external economies**, when external (industrial) economies are such economies, which we ***analyse on the level of sector, not on the level of individual firms***. They mainly occur due to the geographical concentration of production of one sector that is on the local market either because of the provision of specialized services supporting this production or because of the larger flexibility of specialized workforce (a typical example is the Silicon Valley).

We might ask ourselves, what is a difference between those two models – model of internal economies and model of external economies? Are not their impacts on involved economies the same? We will try to find an answer while using a graphical apparatus. Consider our classic example – the economy Alpha and economy Beta. We know that each

economy specializes in the production of something else. Alpha specializes in beer production and Beta in production of cheese since they are traditional producers of these goods and they have some comparative advantages. But what would happen, if the economy Beta also wants to export beer, for example, because the price of inputs is lower and therefore Beta is able to produce at lower average costs? Could we conclude that the global price of beer of the economy Beta will be lower and so the demand for the beer will be bigger?

The conclusion is clear: Countries that started out as large producers of goods in certain sectors, probably still remain their major producers, even if some other country can potentially produce the same goods more cheaply (Soukup, 2009). External economies of scale play an important role in international trade, but their effect is different from those internal ones:

- External economies does not have to lead (in the existence of many small firms in the industry) to imperfect competition
- And international trade in their existence does not bring benefits to all participating countries.

4.2 THE INTERNATIONAL FACTOR MOVEMENTS

The subjects of so far analysed theories of international trade were only goods, eventually services and their "movements" between economies. Over time, because of the growing involvement of economies into the world economy, this analysis has ceased to be enough, since in contemporary world economy, the real economic processes in the areas of specialization, concentration, spatial distribution of production capacities and flows of goods and services between each other cannot be interpreted without the exploring of flows of capital and labour (Cihelková a kol., 2008).

The international movement of production results (goods and services) is not the only form of international trade. The another form is an **international factor movements**, which is further divided into:

- International labour movement
- And international capital movement

Although the international movement of labour is less mobile and less frequent than the international movement of capital, the analysis of both are based on the following assumptions:

- The world economy consists of two countries Alpha and Beta
- The both economies use factors of production – labour (L) and capital (K), which are free to "spill over" from one economy to another
- The economy Alpha is technologically advanced, that there is a better valuation of the work (higher wage rate *w*) and capital (higher profits *r*)
- The marginal products of labour and capital in both economies have decreasing trend.

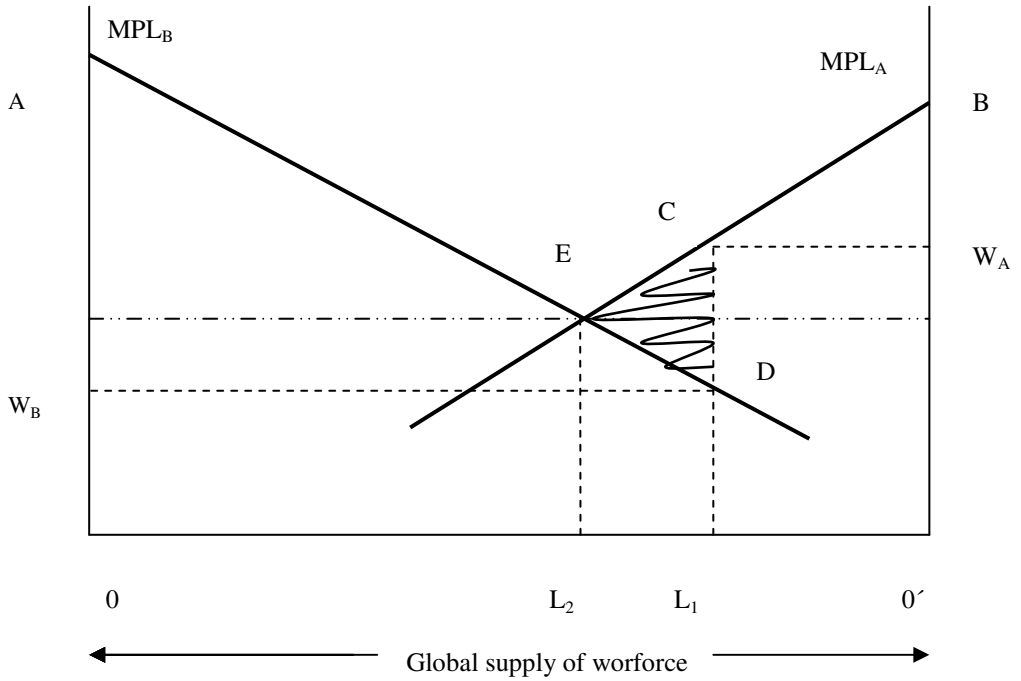
4.2.1 INTERNATIONAL LABOUR MOVEMENT

Except that the **labour force** (L) is generally considered as the less mobile factor than the capital, another difference is that the only one who "moves" makes the movement of labour unlike capital. Based on the above-mentioned assumptions, we must also take into account that we analyse a model that is a static model and therefore, it does not reflect

population changes or technological advances and differences in labour productivity (having a relationship with the price of the work).

This **international labour movement** has both economic and non-economic motives. In the past, the *economic motives* were the finding new experiences and possibility of livelihood and currently it is the prospect of higher wages and pensions. Among the *non-economic motives* are political, racial, national and religious repression or military and political situation in emigration economy. In our analyses, we will discuss the economic aspects of the movement of labour force. For a better understanding we provide a graphic example to our well-known economies – economy Alpha and Beta (Figure 4-2).

Figure 4-2 International labour movement and its impacts



Before we analyse the international mobility of labour based on the graphical model, we have to first make a connection between two economies to draw the consequences of this movement and that by the mirror image of the situation in the economy Alpha and its "insertion" into the graph of economy Beta. This creates mutual crossing curves of marginal product of labour, which is shown by the graphical representation of the real wage *w*. Before the labour force will start to migrate, the supply of labour in the economy Beta is $0L_1$ and in the economy Alpha $0'L_1$. The level of wages in the economy Beta corresponds to $0W_B$ and a total amount of product is $0ADL_1$. On the other hand, the level of wages in the economy Alpha is at $0W_A$ a total output is given by the area $0BCL_1$. Since wages in the economy Alpha are higher than in the economy Beta, these wages attract the labour force from the economy Beta and thus causing its move from L_1 to L_2 (from economy Beta to economy Alpha).

As a result of the international labour movement there is **the equalization of wage level** in both economies, when the total production of the economy Beta decrease from $0ADL_1$ at $0AEL_2$ and the economy Alpha increase from $0BCL_1$ at $0BEL_2$. This will lead to a net increase in world output, which is shown by the area ECD. Except that it will cause to damage of some group of population in the emigration economy (owners of capital and land

are disadvantaged by the smaller supply of labour) and in immigration economy to the pressure on real wages.

Impacts of the international labour movement

Decisions of economic entities regarding the migration of the labour are based on the same stimulus as every other investment decisions and bring both relative costs and benefits – in other words both positive and negative economic and non-economic impact.

The positive effects of international labour mobility are:

- An increasing of economic efficiency in global scale
- A reduction of the level of unemployment in less developed countries
- An increasing of incomes of immigrants
- A higher possibility of education and job opportunity
- An increasing of income from trade in the recipient country
- And inflow of highly qualified labour force (***brain-gain***)

The negative effects (costs) of international labour movement are:

- „Immigration" costs in the host country (administrative costs)
- The issue of adaptation in a new country (separation, culture, language, racial and criminal problems)
- Costs associated with the relocation and temporary loss of employment
- The increasing of the level of unemployment in the recipient country
- A loss of labour productivity in the emigration policy due to loss of workforce
- A brain drain from less developed economies (**brain-drain**)

4.2.2 INTERNATIONAL CAPITAL MOVEMENT

The next (and also the last) of the factors of production, which will be analysed from the point of view of its movement, is the **capital**. Capital is both the financial instruments (securities, loans, business loans) and non-financial assets (stocks of grain, machinery and equipment) and last but not least, there are intangible assets (patents, copyrights). However, we have to realize that **the international movement of capital** does not involve the physical movement of machinery and equipment, but "only" their movements through the financial flows (purchases and sales of securities and loans).

We analyse the international capital movements from several perspectives. The first of all is *the viewpoint of stakeholders* (capital transactions of central banks, governments, commercial banks and other entities), the another one is the *aspect of ownership* (private capital, public capital or capital of international institutions), in *terms of time* (short, medium and long-term capital) and *the viewpoint of its function*. The last aspect is the most important for the analysis of international capital movements and from this point of view we divide capital into:

- ***Foreign direct investment (FDI)*** which are transactions between direct investors and companies in which investments flows to acquire a significant share of the management company, where the major holders are mainly multinational companies (this includes a stock capital, reinvested incomes and other capital) and they are the most important item of capital flows to all regions of the world (see table 4-2)
- ***Portfolio investments***, which are transactions in shares and bonds, etc.
- ***Other investments*** in which we classify business loans (the largest part), loans, deposits, loans from the International Monetary Fund, etc.

- ***Reserves*** or foreign assets of the central bank (monetary gold, special drawing rights, assets in foreign currency)
- And ***capital transfers***, i.e. transactions without countervalue and a specific type of international capital movements, which are divided into government (forgiveness of debt, investment grants) and other (capital transfers related to migration, forgiveness of private debts, transfers of copyrights and patents, etc.).

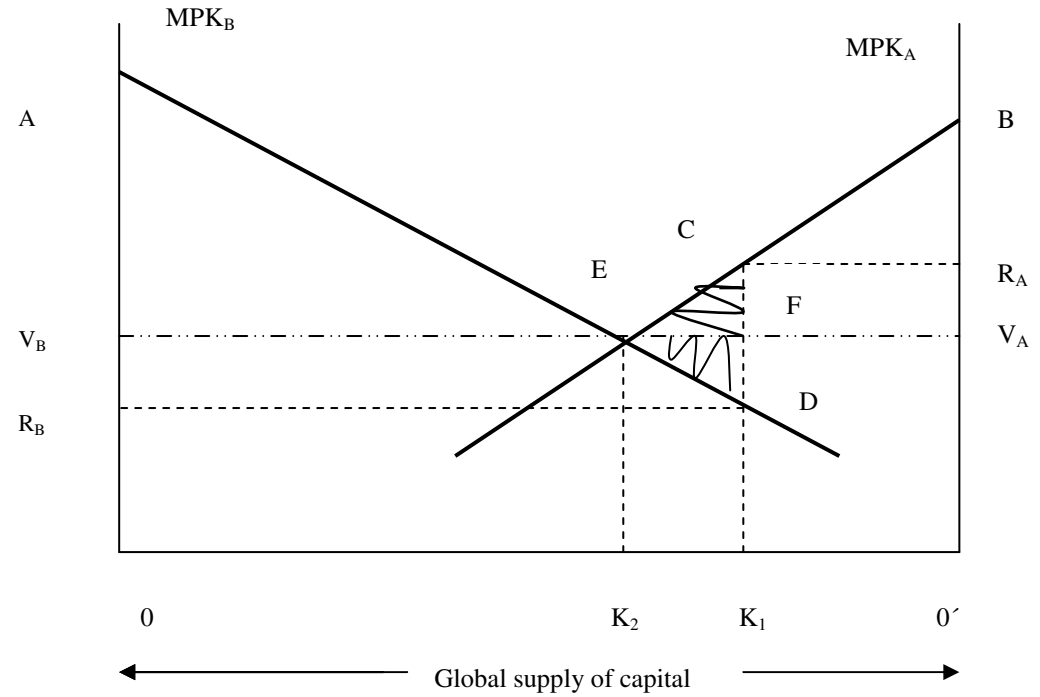
If we will take a look at the **motives of the international capital movement**, we conclude that the main motive is to achieve higher profits. Another motive is the distribution of portfolio and diversification of risk in the case of portfolio investment. In the case of FDI it is a searching of sales markets, favourable economic conditions (lower taxes, lower wage costs, higher qualification, infrastructure, fiscal policy, market size, inflation rate, the possibility of spillover profit, etc.), or overcoming barriers to international trade (protectionist barriers) or the use of preferential position of the developing countries (some have lower, respectively. no customs).

The economic analysis of the impact of international capital movement is similar to international labour movement and it is shown in Figure 4-7. First, we have to connect two economies to draw the consequences of this movement by the mirror image of the situation in the economy Alpha and its "insertion" into the graph of economy Beta. This creates mutual crossing curves of marginal product of capital, which are the graphical representation of the returns on capital *r*. If the economy Beta would be autarkic, it would invest its total stock of capital $0K_1$ at its price level $0R_B$ and its total product would be at $0ADK_1$[41]. Likewise, in the autarkic economy Alpha is invested $0´K_1$ at the price $0´R_A$ and the output is at $0´BCK_1$[42].

If there is the international capital movement, the part of the capital stocks will move from the economy Beta into the economy Alpha (because there are higher returns on capital), and thus a movement from K_1 to K_2. This rate of return on capital in both countries equals. Total *domestic product* of the economy Beta is now at $0EK_2$, to which must be added the area K_2EFK_1, as income from investment abroad. This means that the overall *national product* will be at $0AEFK_1$. The overall *domestic product* of the economy Alpha rose to the level of $0'BEK_2$.

[41] $0RDK_1$ will belongs to the owners of capital and the rest to the other owners of labour and capital.
[42] $0´RCK_1$ will belongs to the owners of capital and the rest to the other owners of labour and capital.

Figure 4-3 International capital movement and its impacts



The above-described movement caused **a net increase in world output** at CDE, where CEF is for the economy Alpha and EDF for the economy Beta. Moreover, in case of the economy Alpha earnings from the international capital movement will distribute among the economy Alpha (area CEF) and the economy Beta (area K_2EFK_1). And although there has been a growth of the production in the individual economies, the effects on the distribution of income will be different in both economies:

- In the economy Beta, there will be an increase in returns of capital of owners of capital (from $0R_BDK_1$ at $0V_BFK_1$) and then the incomes of owners of factors of production will decrease (from R_BAD at V_BAE)
- And vice versa, in the economy Alpha, there will be a decrease in profits of owners of capital and increase in incomes of other factors of productions

Impacts on international capital movement

The international capital movement leads to the increase of the total volume of production, but also to income redistribution and then to the pressures on the (un)employment. Whereas in the investing economy (Beta) the foreign investments reduce incomes of owner of other factors of productions and increase unemployment, in the host economy (Alpha) it is opposite – foreign investments increase employment. Another **economic impacts** are:

- An equalization of returns of capital
- An increasing of the efficient allocation of resources
- An impact on the balance of payments (short term), when the investing country has a deterioration in the balance of payments by higher foreign expenditures (imports) and the receiving country contrary shows the improvement
- Impacts on tax revenues when firms investing abroad does not pay in most of the countries double taxes and state will loses tax revenue (for example, if a firm from the economy Alpha invest into the economy Beta, where taxes are lower and where

exist agreements on avoidance of double-taxation between states, the economy Alpha will pay to Beta e.g. 20 % tax and in the economy Alpha will pay the rest – let say 8 %, what means the state Alpha "lost" 20 percent of taxes)

- The impact on terms of trade, technological progress and independent economic policy.

4.2.3 MULTINATIONAL COMPANIES AND THEIR ROLE IN THE INTERNATIONAL MOVEMENT OF FACTORS OF PRODUCTION

In current globalized world economy, the holders of the international movement of factors of production (especially the capital) are multinational companies. **Multinational company** is ***a company, which has its headquarters in one country and develops a permanent activity under its supervision at least in two other countries, where has at least ten percent of its turnover***. There are two types of multinational companies. The first is **multinational corporation**, which was formed as a result of the merger of two or more firms from different countries and the other type is **transnational corporation** that arises by the allocation of a company's capital into the other countries. These companies with their incomes and number of employees dominate in international trade and they indicate the growth rate of not only their home economies.

The national firm may become a multinational company by several ways, namely merger, acquisition, consolidation or join venture. Merger is the situation when two companies will merge in one company, where the first company (acquiring) absorbs another company that after this merger ceases to exist (Lebiedzik, Majerová, Nezval, 2007).

An **acquisition** means that one company join to another one (taking over all or at least a majority of the stocks) without their cessation. A **consolidation** occurs when two companies combines together to form a new company, which assumes the rights and obligations of consolidated companies. A **joint venture** is an association of two or more companies that carry out the single business with the participation of domestic and foreign capital in various fields of economic activity.

The main reason of the existence of multinational firms is a competitive advantage of the globalization of production and distribution. This advantage arose partly from the horizontal and partly from the vertical integration of foreign subsidiaries. Striving for the better protection of society, the use of monopoly power and quality improvement of production as well as distribution networks has led these companies to **horizontal integration**. This is based on controlling the various phases of the industry, from acquisition of raw material through production and their subsequent sale. Currently, vertical integration is increasingly promoted in order to diversify risks, better supply of goods, their better distribution and service network, and therefore there is a merger of companies on the customer-supplier level through the **conglomerate structure**. This is such a merger of companies that control the production of many unrelated industries (Lebiedzik, Majerová and Nezval, 2007).

The above-mentioned competitive advantages are based on economies of scale, funding opportunities for research and development and better marketing. If we classify the advantages of multinational companies, we can divided into three areas:

- The ***advantage of ownership***, when multinational firms own special kind of capital called "knowledge capital" (in the Czech Republic it is intangible property), consisting of human capital, patents, know-how, trademarks, etc. whose shifts between branch offices of company are almost cost-free
- The ***location advantage***, which means that the appropriate location of production of multinational company saves transport costs and company pay less for certain

factors of production and also bypasses tariff barriers (i.e. so-called ***tariff-jump argument***)

- And ***internalisation advantage*** related to the technologies, patents, etc. They are based on two assumptions. If there is an absence of multinational companies that "wrap-up" these technologies and try to avoid a leakage and dispersion of important knowledge and also if one company produces products for the other one and both of them are monopoly it may lead to price conflicts, which are eliminated due to the existence of multinational companies.

Although multinational companies increase the world wealth and output, the impacts of their operation on the national economy may be full of contradiction. We have to distinguish impacts of the parent and the host country, which are considerably different. *In the case of the parent country*, the substantial problem could be the increasing unemployment, especially the less qualified workforce, which may be damaged due to the operation of the company abroad (on the other hand, the activities of multinational company may cause the increase in employment in high-skilled labor). The problem may be worsening of balance of payment because of the deterioration in the trade balance by import of their own production and the deterioration of the financial account by the export of capital. Another negative effect is that these companies reduce tax revenues and distort the tax base in its country, if we ignore the illegal tax evasion. Last but not least, multinational companies may because of their approaches to international capital markets bypass monetary policy and thus hinder the control of government over the economy. We have to also conclude that despite these negatives, there are some also some positive effects of multinational companies. For instance, they create modern values through the development of advanced technologies based on research and development where these companies due to their financial position can finance this development.

In case of the host country, the impacts of activities of multinational companies are much more problematic. One of the arguments "against" is the dominance over the economies. It is based not only on concern about the political, but especially the economic influence. Except the control of the most of the capital in the country, there is an argument of foreign loans, which bypass the credit terms set by the host country, while lending funds to foreign debtors on more accommodating terms. Also significant is the "attack" on national habits through massive advertising and last but not least, the technological dependence of the host economy on multinational companies. However, this argument can be very positive, since these companies bring new technologies, modern organization and management, reduce unemployment and have at least partly effect on the economic growth of the given country.

5 THE THEORY OF FOREIGN TRADE POLICY

The involvement of individual countries into the world economy, in this case in world trade in goods and services, affects the state. This affecting takes a place in trade policy of the state.

5.1 FOREIGN TRADE POLICY AND ITS INSTRUMENTS

Foreign trade policy of the state *represents the behaviour of the state against foreign trade*. This is a set of objectives and instruments, which the government uses in order to directly or indirectly regulate the scope and structure of foreign trade. Foreign trade policy of the state is a part of economic policy as well as its foreign policy. This double bond of trade policy can become a source of some tension when the needs of the economic policy may come into conflict with the foreign policy orientation of the country. Contradictions may also relate to more prosaic things such as competence and management of commercial representation of the Czech Republic abroad.

The general long-term objective of trade policy is to increase the well-being of the country and therefore the effective participation into the international division of labour. The short-term objectives are usually attempts to remove undesirable developments of balance of payments or the balance of trade, or the protection of the weak domestic producers against foreign competition. To meet these objectives can be applied two different approaches, namely the principle of protectionism or free trade (see above).

The state uses to promote its objectives **instruments of trade policy**. In their application applies the complex of principles, including the principle of reciprocity, the principle of national equality and the principle of equality of provided benefits. Trade policy instruments can be divided into two groups: **contractual instruments**, which country can apply by agreement with another country (or group of countries), which we will discuss in the next chapter and then **autonomous instruments**. These can country apply in its sole discretion, if it is not bound by commitments from multilateral agreements such as GATT.

Autonomous instruments of foreign trade policy are different measures of the government unilaterally applied in order to regulate the import or export. They consist of **tariff instruments** (application of customs) and **non-tariff instruments**. Given that the issue of tariffs has extensive theoretical background and customs themselves belong to the oldest instruments of foreign trade policy, there will be a chapter 2.5 devoted to them as well as it will be devoted to other autonomous instruments.

5.2 CHARACTERISTICS OF AUTONOMOUS INSTRUMENT FOR EXTERNAL TRADE POLICY

As was already mentioned, the autonomous instruments are measures of government, which government use in order to influence export from the country or the import into the country, their size and structure to meet the established economic and political goals. These instruments are mostly defensive in nature and designed to prevent unfair foreign competition and protect domestic consumers. On the other hand, it is important to realize that they can be used as protection of domestic less-competitive producers. The use of these instruments has a long history. In international economics, **the theory of trade policy** deals with them.

Although autonomous measures are one-sided in nature, indeed unilaterally may be used only by this country that is not a signatory to the multilateral trade agreements. WTO members can use them for short periods and only with the consent of the WTO, otherwise the country exposes the legal action of WTO brought by the affected country and eventual sanctions. Autonomous instruments are divided into two groups – into the tariff instruments i.e. customs duties and non-tariff instruments.

Tariff instruments are *customs duties*, which are *fees charged for goods when crossing the customs border*. Customs duties have a relatively long history and they have evolved from various trade and transport charges levied for the use of roads, bridges, ports and markets but also to protect buyers. Customs duty as a single dose charged only when crossing the borders of the country began to collect in the United Kingdom in the mid-17th century, in France after the revolution in 1790. The first single tariffs were introduced in Germany in Prussia (1818) and in 1834 were enforced by the founding of the German Customs Union (1834). In the USA were introduced in 1789.

Customs duties are differentiated instruments of foreign trade policy, which is due to its rich history further divided into groups according to various criteria. For guidance, the following survey of these aspects:

- ***According to the direction of transport:***
  - *Export duties*, their purpose is to prevent undesirable export of certain commodities (usually for political reasons)
  - *Import duties*, their purpose is to regulate the import of goods into the country, there are imposed on imported goods, their purpose is protectionist
  - *Transit duties,* their purpose is fiscal and the other purpose is to charge the transit countries, nowadays is replace by other forms of transit charges
- ***According to the calculation:***
  - *Ad valorem duties*, which are determined as a percentage of the invoiced valued of goods (the customs value)
  - *Specific duties* are determined from the unit quantity of goods (weight, volume, pieces) and is taken as the basis for the gross weight of goods (gross)
  - *Compound duties* are determined as a combination of specific and ad valorem duty (e.g. 10 % of the customs value, but not less than 1 USD per 100 kg)
  - *Differential duties* are determined on the basis of graded tariff rates depending on the height of the prices of goods
  - *Sliding-scale duties* are determined in relation to the prices of the commodity in the domestic market
- ***According to the purpose of the duty***
  - **Revenue duties**, i.e. whose main purpose is to obtain customs revenue, when these duties are used primarily in developing countries
  - **Protective duties** represents a classical instrument of protectionist policy and they can be divided into:
    - *Educational duties* which serves as the protection of young emerging industries against advanced foreign competition
    - *Negotiation duties* are set to provide the opportunity to achieve concessions in trade negotiations
    - *Differential duties* represents the implementation of a variety of duties for the given commodity depending on the direction or type of transportation, the objective is to prefer some ways of transportation or means of transport of some countries

- *Contingent duties* should eliminate the disadvantages of domestic producer caused by the subsidization of production in the country of importer
- *Anti-dumping duties* are introduced in the case of proven dumping, they should not be higher than the so-called dumping margin
- *Compensating tariffs* should eliminate the disadvantages of domestic goods given by the higher taxation than is the customs duty for the same, but imported goods, it is so-called import duty
- *Retaliation duties* are levied as a reprisal for an increase of tariffs by any country, what can lead to the phenomena referred to as the **tariff war**
- *Customs-contingent duties* are levied for the customs contingents down in trade agreements, the importing country sets differentiated tariffs by the imported quantities – the minimum is sets at an agreed quantity, while imports over this amount of customs tariff increases
- *Prohibitive duties* are used to the complete prevent of import of a certain commodity
- *Preferential duties* are customs duties, which are provided on the basis of an international agreement on preferential trade such as the Customs Union. There are also customs duties provided to the developing countries based on Generalized System of Preferences (GSP)

- ***According to the scope of validity***:
  - *Autonomous duties* (also known as general customs duties) are custom duties unilaterally announced by the state and are valid against all countries where is not applied the most-favoured nation clause and customs duty may be high enough to prevent import
  - *Contractual duties* are used against countries with which it concluded bilateral or multilateral trade agreement.

In addition to the tariff instruments in international trade relations, there is used a wide range of non-tariff instruments. They often create deliberate obstacles to trade. **Non-tariff instruments** can also be divided according to various criteria into.

- ***Paratariff barriers*** are duties related to customs procedures. They are applied primarily in developing countries, which procure by that way funds to cover the costs of customs procedures. These are especially duties for customs procedure:

  - Fiscal tax levied in addition to the custom duties (for selected commodities)
  - Statistical duties (1 % of the payment of customs for customs statistics)
  - Charges for stamps
  - A tax on imports (transaction fee)
  - Transport and port duties (e.g., $ 5 per truck)
  - A tax on the development of foreign trade
  - Fees for consular formalities.

- **Quantitative restrictions** of export or import are determined by the quantity of product that can be exported or imported in a certain period (e.g. in a given year). Upon exhaustion of the agreed quotas is another import or export is prohibited. Quantitative restrictions are connected with the granting of import or

export licenses and they are negotiated in the so-called sensitive items within the annual bilateral trade agreements.

- **Technical Barriers of Trade** include a variety of measures that try to set technical and other characteristics of imported goods and the obligation of their proof (examination). On the one hand, these should protect domestic consumers, but on the other hand they can significantly hamper imports. Technical barriers are divided into **natural technical barriers** that are given by the different historical and cultural level of consumption (e.g. steering wheel on the right, voltage, etc.) and **artificial technical barriers** given by domestic technical, sanitary, veterinary and other regulations. They are related to the mandatory checking of the functionality of a harmlessness of product and it is obligated to grant the relevant certificate. Technical barriers and their application are governed by the *Agreement on Technical Barriers to Trade* (1979), which was updated in 1994. Guiding principle of the agreement is to ensure that technical regulations and standards do not become obstacles to international trade. For this reason, member states should be based on the existing international standards while developing standards. If there are not exist and countries develop their own standards, the must to provide an explanation to the standard if is requested by another member state. In addition, each member state shall ensure that its normalization body proceeded in its activity in accordance with the **Code of Good Practice for the Preparation, Adoption and Application of Standards**, which are annexed to the Agreement. If the confirmation concerned the issue if product meets the international standard and regulation is required, the member states grant to the foreign products the same conditions. Each member state shall ensure the establishment of an information centre that will answer answers of other member countries, provide a documentation of all received or preparing regulations and technical standards for the conformity assessment. Member states shall take measures to ensure that governmental and non-governmental institutions act in conformity with the Agreement.

- To the **other non-tariff barriers** we can assign the following actions:

  • *An import charge* – the amount levied on imports of goods and set as a percentage of the customs value

  • *An import deposit* – the amount paid in interest-free import of a specified amount for a specified period, after its expiration is returned

  • *The monitoring of imports or exports* – keeping the volume of trade if there are available information about the possibility of damage of the given industry and therefore it is necessary to monitor the situation on the market, or if it is required by the international agreement

  • *A minimum price* – a measure which determines the lower limit of exported product the to foreign exporter, in the case of non-compliance can be imposed sanctions in the form of additional duties or quantitative restrictions

- ***Support instruments of export*** are the base of **pro-export policy** that can be characterized as the *objectives that should be reached by the export and set of instruments and measures to their ensuring*. The part of the pro-export policy is also the activity of supporting governmental and non-governmental institutions to assist the activities of exporting companies.

5.3 THE EFFECT OF CUSTOMS DUTIES ON SMALL AND LARGE ECONOMIES

As was already mentioned, the duties are the oldest instruments of foreign trade policy.

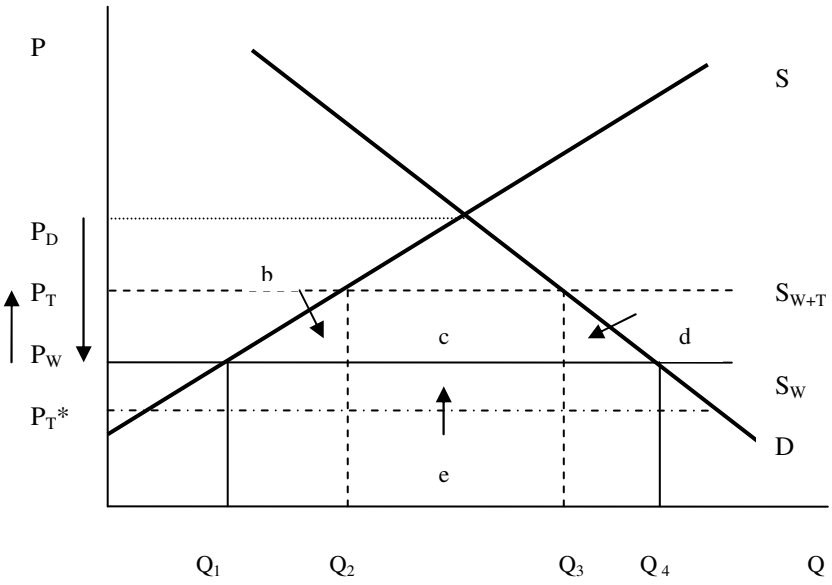
The considerable attention of the economic theory – the theory of international trade – is devoted to these instruments. The significant part of this theory considers customs duty for the basic barrier to international trade and tries to prove their versatility harmfulness. On the other hand, there is also the theory of optimal duty that shows also advantages that the customs duties may bring to the economy.

The **effects of customs duties** are multifaceted and interrelated. They have an significant impact on a small open economy where the price at which it sells production on its markets is affected by foreign importers. **A small economy** is in this case in the position of price taker. The effects of tariffs on the economy are as follows:

- ***Protectionist*** – an increasing price of imported products protects domestic industry, but the economy as a whole loses, because it expend more social costs (factors) on the production that could be used somewhere else
- ***An effect on consumption*** – there is the increase in prices for consumer and reduction of consumption
- ***An effect on the state budget*** – tariffs represents customs revenues, however their imposition on imports must be chosen in order to do not worsen the conditions of consumption (from this point of view, the duties should be imposed on avoidable, luxury and in the goods that is not produced in the country)
- ***A redistributive effect*** – the imposition of duty leads to the transfer of consumer surplus (through increase of price) in favour of the protected producers
- And ***effect on competition*** – the imposition of duties at the same time eliminates foreign competition, thus creating a domestic producer of greenhouse conditions that lead to long-term decline in the efficiency of the national economy, and therefore it is possible to proceed with this step only if it is for the protection of the young industries that need protection for the period before they will be able to produce under conditions comparable with global competitors.

Above-mentioned effects can be illustrated graphically on our well-known case of the economy Beta that produces cheese (see Figure 5-1). The price of production in a closed economy is to at equilibrium level P_D and domestic producers provide all demand for production. After opening the economy to foreign production, the price of goods stabilizes at P_W. However, at this price, they sell only the production of Q_1, but domestic consumers are willing to buy the amount of Q_4. The gap between the supplied and demanded quantity is filled by import (supply S_W). This development has a negative impact on domestic producers and they are lobbying for their own benefit and the government to protect them, imposes a duty on imports of production. The price of cheese rises to the level of P_T, where domestic producers are able to offer quantity Q_2, but buyers are at this price able to buy only the quantity Q_3 and the supply of foreign manufacturers fall to S_{W+T}.

Figure 5-1 The effect of customs duty on the small economy



The customs duties are the following effects:

- There will be a decrease of consumption, which is shown be the decrease from Q_1Q_4 at Q_2Q_3, the area *d* expresses the limit of consumer possibilities due to the limitation of supply possibilities Q_3Q_4
- The area b express the inefficiency associated with shifting of resources into the supported production, it is the loss of other sectors
- The area *a* represents additional income of supported producers at the expense of consumer surplus
- The area *c* represents the customs revenues into the state budget
- And the area c represents the revenue to the state budget associated with a change of terms of trade due to the imposition of customs duty.

However, customs duties may have other effects since they can be used to influence the macroeconomic aggregates, namely:

- ***Income and inflation*** – the imposition of customs duty decrease the supply for foreign goods, thus there is a saving of resources that can be used for the mobilization of available factors of production at home, which will lead to the growth of income. However, if there are not enough free factors, the resulting savings may have inflationary consequences and increasing of duties leads to inflation. This effect can be used in the opposite situation – by the reduction of tariffs eliminates inflation, e.g. in the overheated boom (demand for factors outstrips supply of factors) the reduction of tariffs may lead to increased inflow of foreign factors and deceleration of inflation (e.g. this policy applied by the German government in the 50s of the 20th century).
- *A* ***balance of payments*** – a limitation of expenditures abroad currently means decline in imports, which in the case of passive trade balance that may lead and thus to the improvement and thus to improvement of the balance of payments.

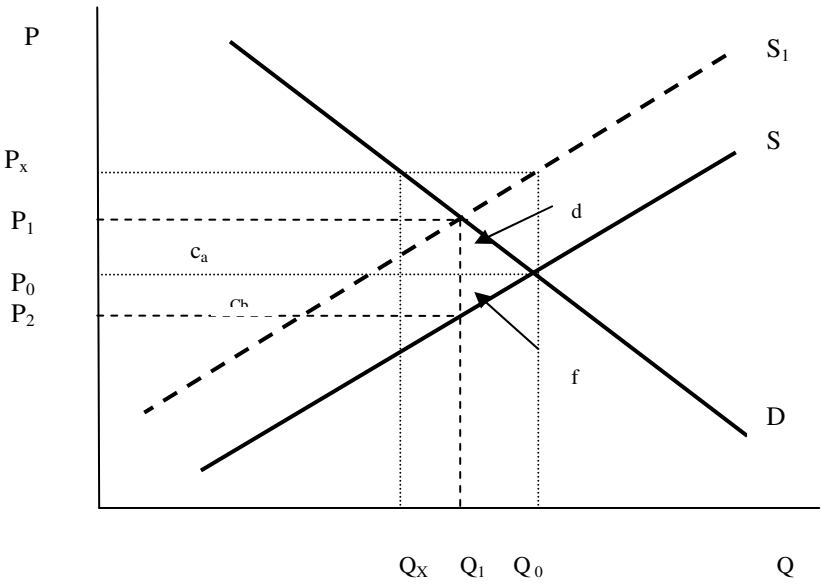
- ***Terms of trade*** – customs duty increases the price of imported goods and relatively reduces the cost of domestic production, which can be simultaneously exported what results in relative improvement of terms of trade.

As can be seen, customs duties represent an instrument of economic policy. However, is shown that their use as a tool for improvement, e.g. the balance of payments, is time-limited and does not solve the problems that are the cause of the given development. The main use of tariffs is to protect domestic industry. But it is need to take into account their negative effects on other sectors and populations.

The mentioned effects of the imposition of duties are related to small economies. But what are the effects of introduction of customs duties if they will be imposed in a **large economy**, i.e. the economy, where the consumption of the given commodity is globally very important? Such an economy can acquire so-called the **market power**, when introducing of customs duties may get the economy into the position of worldwide oligopoly, respectively oligopsony, and it becomes a price maker. Country may affect the terms of trade through tariffs to its advantage. This is illustrated in the following Figure 5-2.

The demand for the given commodity in a large economy is given by the line D, initial supply of world exporters by line S line and it is buying the Q_o units at a price P_0. The introduction of duties means a shift in the global supply position at S_1. In this situation, the price would rise to P_X and demanded quantity would fall at Q_X. This would mean serious problems for manufacturers in the world (unutilized capacity), and therefore the price drops to a level P_2. Taking into account the duty, the final selling price is P_1. At this price, the demanded quantity falls at Q_1 and equilibrium will establish at E_1. If there will be no duty, the price would equalize at E_y (it would be inefficient situation and manufacturers would not be able to supply on the given market). Rectangles c_a and c_b represent the total amount of customs revenue of the state budget and on the other hand, they show that domestic consumers do not pay duties, but importers on whose goods the duty was imposed as well as it was enforced the price reduction pay. Triangle *d* expresse s the loss of consumers in the large economy and triangle *f* expresses the loss of manufacturers because of the unutilized capacity. As is evident, the large economy obtains a net income.

Figure 5-2 The impact of custom duty on a large economy



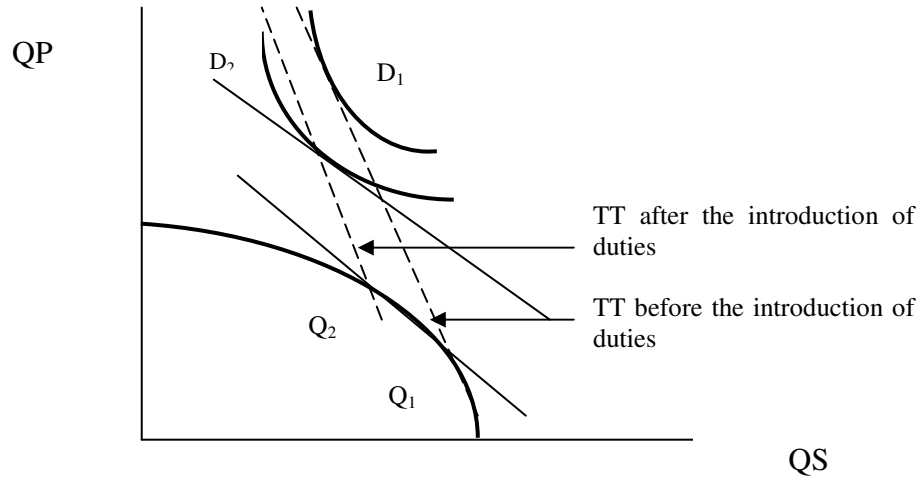
Other problems with the imposition of duties in a large economy are revealed in chapter 2.1.4 by the analysed **Stolper-Samuelson theorem**. Suppose that a country is abundant in capital-intensive goods, it specialized in their production and import the labour-intensive goods. However, the imposition of duties on imported goods, which are labour-intensive, changing conditions on the domestic market. The increasing price of the production is a stimulus to produce it in the inland. There is a pressure on increasing of wages and it reduces the price of capital. The opposite process occurs in the rest of the world. Stolper-Samuelson theorem demonstrates the ***fundamentally anti-market nature of the duties***. This can significantly affect the distribution of income and economic activity related to the factors of production. There is a distortion of the basic rules under which the international division of labour and optimal allocation of resources run:

- Instead the prices converge to a single world price, they diverge
- Similarly should evolve price factors, but they are developing in the opposite direction
- Two previous trends give wrong signals for resource allocation
- Increasing of transaction costs associated with trade (costs of overcoming tariff barriers, negotiation, but also by the customs agenda grows)
- And the imposition of duties has dangerous political implications not only outside economies (the threat of customs war), but also within the economy, where are built groups of people against each other (trade unions are pushing for the introduction of custom duties and forcing wage policy to the outside world).

5.3.1 IMPACTS OF CUSTOMS DUTIES FROM THE PERSPECTIVE OF GENERAL EQUILIBRIUM

So far we have dealt with the effects of the imposition of duties in terms of partial equilibrium. However, the international economics also analyses their impacts in terms of general equilibrium. We also have to distinguish the impact on small and large economies. If we stay with our example, Slovakia will be considered as the small economy (therefore it can not influence its terms of trade), it will export cheese and import beer. The impacts of the duty are shown in Figure 5-3.

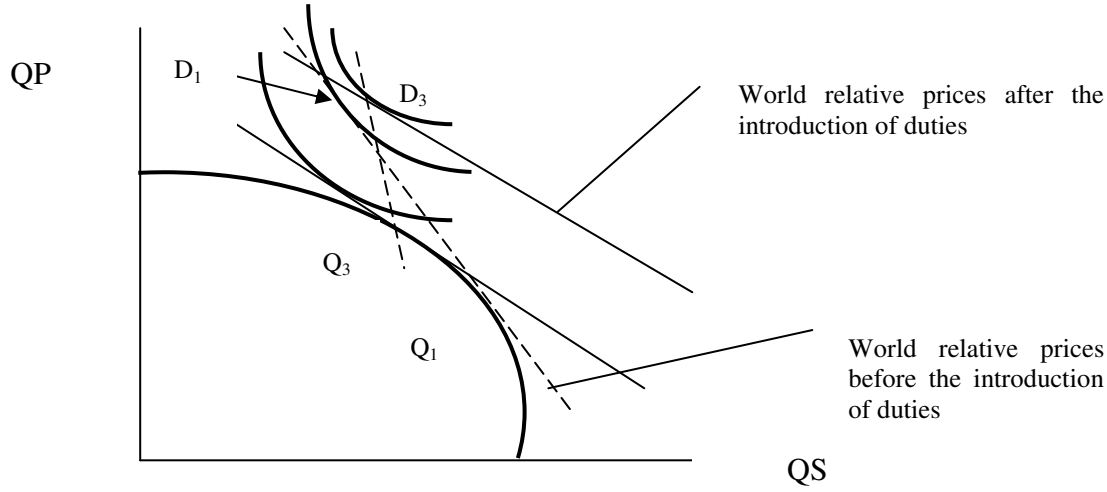
Figure 5-3 The impact of duty on small economy



Solid lines represent the domestic terms of trade and dashed lines indicate the foreign terms of trade. You can see that before the introduction of tariffs, the economy "operates" on the level of production Q_1 and consumption D_1. Within the application of protectionist policy, the production of beer increased, but the level of exported production decreased to Q_2 and also consumption decreased to a lower IC at D_2.

This was the case of the impact of customs duties on a small economy, but what happens if the economy, which has the ability to influence world prices and is a large economy? The large economy exports beer and import cheeses (see Figure 5-4). This graph is very similar to the previous one, except that there is an improvement of the economic situation after the imposition of duties because of the improvement in their terms of trade and deterioration of trade of trade of the rest of the world. The country raised its beer production from Q_1 at Q_3 and consumption from D_1 at D_3.

Figure 5-4 The impact of customs duty on large economy

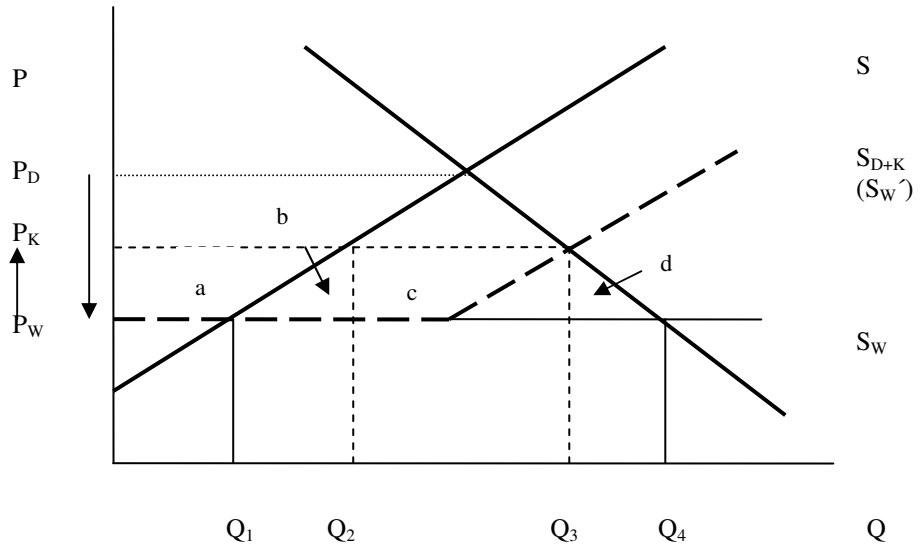


Cheese (Slovakia export)

5.4 THE EFFECT OF QUANTITATIVE RESTRICTION ON THE ECONOMY

To protect the economy can be used also a **quantitative restrictions** that mean the limits of the quantity of production by setting of **quotas,** which happens at the concluding annual trade agreements. On the given quota is granted an import licence and import over this licence is prohibited.

Figure 5-5 Quantitative restrictions and their impacts on the economy



The impact has much more harder impact on the economy that negative effects of the imposition of customs duties (see Figure 5-7). P_D represents the equilibrium price in a situation where only domestic producers provide all the demand for the production of cheese and the economy is closed. The price dropped at P_W when the economy has opened to foreign production. Domestic producers are calling for protection and thus a quota on imports of the given commodity is established while its price rose up from the level P_W at P_K and total supply changes from level to level S_W at S_{D+K} (S_W'). Supply curve has a cranked shape because the demand is in its horizontal part is hedged by imports and its growing part is hedged by domestic production. Imports will fall from Q_1Q_4 at Q_2Q_3 and the sum of the areas a+b+c+d expresses the loss of consumer surplus (due to increasing of prices). The area *c* will not accrue to the state budget, as is the case of the imposition of custom duty, but to the domestic importers or foreign companies that received the import license. This area is referred to as a **pure monopoly rent**.

By the introducing of quotas the economy looses the state budget revenue and eventual production of public goods, while this loss increases the net monopoly rent, that accrue to foreign importers and domestic producers. The consumer loses as in the case of the custom duty.

6 INTERNATIONAL TRADE AGREEMENTS AND COMMERCIAL TREATIES

In the previous chapter, we have analysed the autonomous trade policies. Now we will discuss the second type of instruments – the contractual instruments. Contractual instruments are further divided into bilateral and multilateral instruments. Bilateral instruments are trade agreements, commercial treaties and payment agreements.

6.1 CONTRACTUAL INSTRUMENTS

A **commercial treaty** is a framework agreement between the two states, which contains the general principles of mutual handling of the parties in the field of economic relations. These treaties are concluded at the highest level (head of state) and they are long-term. They contain provisions on conditions of import and export of goods and customs, tax and fee issues. Using the clause sets these provisions, where the most important clauses are:

- *A **reciprocal clause*** that commits the partners to provide to each other the same or equivalent benefits. This is a direct contractual arrangement because the scope of the rights and obligations arises directly from the agreement. These rights and obligations are interconnected so that the parties are deemed to be equivalent and mutually conditional. Reciprocity may refer to the same thing (both sides are agreed to the same process) and the various things that the parties are stipulating.
- *A **parity clause*** (equal treatment or national treatment), which expresses the same commitment to the treat the people and goods in the other country as in own country. This clause eliminates discrimination in the treatment of foreign persons and things in comparison to national. GATT governs by this clause in Article III of the Treaty.
- *The **most-favoured-nation clause*** (equal treatment or national treatment), which commit the country to provide each other with all the benefits, which were provided or will be provided in a future to the third country. This clause can be defined positively or negatively. In the first case, countries undertake to provide all the benefits granted to third parties, in the second case, undertake to not treat the goods and persons worse than in the third countries. This is the most important clause in international trade. Its application has contributed significantly to the liberalization of world trade. The use of this clause is binding on all member countries of GATT.

A **trade agreement** is also bilateral in nature and is based on commercial treaty. Trade agreements specify the commercial treaties for a given period (usually one year). They adjust the trade relations, set the scope and commodity structure of the exchange of goods. Annexes contain lists of traded commodities, which are either contingent (includes fixed amount of each commodity) or non-contingent that have only indicative nature with showing such commodities can be traded. A contingent agreement sets only the commitment that state will not prevent the imports or exports as well as it issue an import license.

Payment agreements are concluded if the issue of payments is not addressed in the payments commercial treaty. It is an agreement between states or central banks about ways of settlement of claims and liabilities arising from mutual relations. The agreement specifies the currency in which it will be charged, the number of accounts, payment titles, interest yield, credit limit, etc. There are two types of credit agreements: a payment agreement in free convertible currency or agreement of payments in clearing currency. The clearing is the situation that is used if the currency of one or both countries is not freely convertible. In clearing payments, the settlements do not pass the state borders. Importers of participating countries refer their salaries to the clearing bank of their country and exporters getting paid from the same bank in terms of national currency. After a certain period of time (usually at the end of the year) the balance between authorized banks is just adjusted by the agreed way.

6.2 A BRIEF HISTORY OF INTERNATIONAL AGREEMENTS AND COMMERCIAL TREATIES

International trade is the oldest form of external economic relations. At the dawn of modern history, the long-distance trade was linked at that time known civilizations. Silk Road linked China and the Middle East, which was the trade that connected the Mediterranean region and Europe. The successful development of this trade required stable conditions and rules under which it could take place. These should be ensured by contracts concluded between parties concerned – states (in the Middle Ages they were also various port cities and their groupings, such as "Hansa") – to the ensuring these conditions. In these contracts were reflected both the approaches of the concerned parties to the trade as a source of wealth and their power-political interests. A huge impetus to the further development of international trade was represented by overseas voyages of discovery.

The approach of individual countries to the international trade was given by the prevailing economic doctrine. The oldest one is mercantilism, whose antipode is the doctrine of free trade (lazess faire).

As you already know from Chapter 1.2.1, representatives of **mercantilism** considered trade as the source of the country's wealth, whose source is the inflow of gold into the country. Its increasing can be achieved by limiting imports, by protecting of their own manufacturers and export support. They promoted a principle of protectionism and required the state to intervene in external economic relations to decelerate the "negative tendency for the national economy" and strengthen the positive one. This approach is characterized by both tariff protection and by promoting unequal treaties. The extreme form of this doctrine was expressed by the slogan "Enrich yourself at the expense of their neighbours."

In contrast, as we explained in section 1.3, supporters of the **principles of free trade** are based on the principles of classical economics, where is considered as the resource of wealth the efficient production and trade that enables the efficient allocation of resources with regard to comparative advantages. They required free conditions for trade, while refusing the state intervention in foreign trade by letting the space for free market forces since only by this way could be achieved an optimal integration of each country into the international division of labour. A state shall keep only records of statistics of goods and services flows and the necessity of intervene came only in cases that threaten health.

These doctrines were also reflected in the concluded bilateral trade agreements. An example of mercantile treaty is called **Treaty of Tordesillas** concluded in 1494 between Portugal and Spain. In this treaty, they defined spheres of influence in the Western Hemisphere. Another agreement of a similar sense was the **Methuen Treaty** concluded between England and Portugal in 1703. In this treaty, England enforced the increase of its exports to Portugal in exchange for a reduction in customs duties on imports of Portuguese

wine. This treaty basically meant a partial economic subordination of Portugal by England. An example of liberal agreements is an agreement on the establishment of the German Customs Union in 1850 or **Cobden-Chevalier Treaty** concluded in 1860 between France and England, which removed all tariffs between these countries.

In the history of the world economy prevailed, with the exception of the second half of the 14th century, protectionist approaches to foreign trade. It is a paradox that at the time when the most developed countries were concluding liberal commercial treaties, in other countries came a new wave of protectionism, which is known as economic nationalism. Many German economists claim allegiance to the mercantilism (F. List, W. Sombart) for those the mercantilism meant the state-building policy. The newly united Germany entered the path of catching-up advanced countries (England and France) and it just took advantage of protectionism in international trade. However, this policy resulted in a power conflict caused by the effort of redistribution of colonies, which were seen as a source of wealth.

The protectionism was very massive applied mainly between the two world wars, when it was one of the causes of slow economic recovery of economies from the crisis in 30s of the last century. The impulse for introduction of general tariff war was the adoption of **Smooth-Hawley Tariff Act** in 1930, which introduced the highest tarrifs in their previous history in the U.S.

International trade policy at the time represented a summary of the **foreign trade policies of states** that sought to subordinate the interests of foreign trade to the domestic economy. From this to some extent resulted confrontational nature of foreign trade policy, which culminated in the tariff war in the 30s of the 20th century.

Only after the World War 2 can again experienced the attempts to limit the regimentation of foreign trade and its release, since the level of tariffs became the obstacle of mutual trade and hence the economic growth of individual countries. This activity is associated with the signing of the General Agreement on Tariffs and Trade (GATT) and the attempt to create the **International Trade Organization** (ITO International Trade Organization). Only in this context we can talk about the emergence of **international trade policy** as such, since only GATT brought rules and principles, which signatory countries committed to follow in their trade policies. Its guarantor should be an organization that should solve all problems connected to the international trade. However, this was created much later and also other international organizations that dealt with the international trade had effects on the formation of international trade policy. There were primarily organizations that were created under the auspices of the United Nations (UN), but also non-governmental international organizations such as the International Chamber of Commerce (see below).

Although, the negotiations under the GATT helped to significantly reduce the level of tariffs in international trade, there is no unambiguous victory of the principles of free trade. Problems of protection of domestic production are transferred to another position and discrimination took the form of the application of technical obstacles. Even thought these problems have been resolved on the ground of GATT, a fundamental problem of international trade remained unsolved and that is the problem of integration of less developed economies into world trade.

Developing countries consider the current trade liberalization and its form as unacceptable for themselves. They crave entry on the markets of the developed countries for those products, which can compete, with low level of wages (e.g. textiles and clothing, agricultural production). Is obvious, that economically developed countries prevent to that from the internally political reasons, but on the other side they try to enforce the principles of fight against so-called **social dumping**. It appears that further liberalization of international trade has encountered an obstacle, which will be very difficult to remove and probably it is also the cause of unfinished Doha round of negotiations, which should lead to a further deepening of multilateral agreements that are so far concluded.

6.3 THE GENERAL AGREEMENT ON TARIFFS AND TRADE

High level of tariffs from the years between two World Wars and post-war difficulties with the achieving of economic development led to the efforts to liberalize the mutual trade between countries. The expression of these efforts was the signing of the **General Agreement on Tariffs and Trade – GATT** (General Agreement on Tariffs and Trade) in a September 23, 1947. This is a multilateral trade agreement containing a set of rules to be followed by the concerned parties in the modification and implementation of foreign trade relations. The original GATT was signed by 23 countries, including the Czechoslovakia and in 1992, the GATT had 116 countries, which accounted 90 % of world trade. GATT is the basis of international trade policy.

A significant benefit of this agreement for liberalization of world trade was achieved mainly due to the fact that all signatory countries committed themselves by signing to the unconditional observance of the main articles of agreement. It was an international legal norm, which included the possibility of sanctions. To check the implementation of the agreements and organizing other meetings has been established the GATT secretariat, which was settled in Geneva. GATT principles were based on neo-liberalistic ideas of the benefits of liberalized world trade for all countries that have sought to eliminate all barriers to international trade. From the beginnings, the general agreement advocated the following basic principles:

- International trade should be pursued without discrimination, what should be ensured by the granting of most-favoured-nation clause
- Domestic industry may be protected only by tariffs and use of quantitative restrictions should be exceptional
- Controversial issues should be solved through consultations between the concerned parties.

Integral parts of the GATT agreement are so-called **schedules of concessions**. These are documents in which the specific commitments of countries are listed. These documents contain mainly import tariffs of each member country, which this country has undertaken to apply to imports of products originating in any other member country of GATT. Unification of these multilateral concessions was a difficult process, based on reciprocity. Therefore, the

schedule of concession of each member country is relatively stable and cannot be modified on the basis of the requirements of importers or manufacturers.

The process of reducing tariffs and removing obstacles was carried out through the **GATT negotiating rounds** (tariff conferences). Only a few of the largest producers of the given commodity was attended these meetings. The meeting was led on the basis of reciprocity and results of arrangements – a reduction of duties to other participants in GATT – were transmitted through the most-favoured-nation clause.

There is a possibility to provide some exceptions either one-time or permanent from the GATT. For instance, the most-favoured-nation clause is not applied to advantages granted to the countries that provided them under other contracts. These are the following cases:

- An agreement on free trade zone
- An agreement on customs union
- Tariff preferences among former metropolises and colonies
- A movement of workers in the local border traffic
- Tariff references in cabotage transport
- The generalized system of preferences.

GATT has played in the post-war world a positive role because this agreement has prevented further tariff increases, ensured a gradual reduction of tariff barriers and it made through the most-favoured-nation clause and organizing of special tariff conferences. Their purpose was to negotiate on the basis of bilateral negotiations the tariff concessions between the major suppliers, which were automatically extended to the other contracting countries of GATT. From 1947 to 1960, the fourth tariff conferences took place. Further negotiations took longer time than one year and for this reason they were marked as GATT negotiation rounds.

The first was the **Dillon Round**, which took place in the years 1960-61 and aims to reduce tariffs. Negotiations in this round were carried out by representatives of producers, who accounted for 80 % of world production of the given commodity and they agreed with major customers to reduce tariffs. The other round was the **Kennedy Round** took place from 3 May 1964 to mid-May 1967. During the negotiation round, the gradually reduction of tariffs by an average of 50 % was achieved. In addition, this round also dealt with the issue of anti-dumping measures.

The great importance in world trade liberalization has the **Tokyo Round** (1973-1979), where in addition to the reduction of tariffs, non-tariff measures and framework trade agreements were discussed. Tariffs were reduced by another 20 %. However, the Tokyo round had to deal with a new phenomenon – the rise of the use of technical barriers to trade, which often had more restrictively effect than custom duties.

The **Agreement on Technical Barriers** (TBT), which aimed to eliminate confusion of technical law, was adopted. In the agreement, there was enshrined an obligation of notification, i.e. the obligation of country to provide the prepared technical standard or regulation for comment and assessment to other member states. Furthermore, there was also emphasized the requirement to base on the existing international standards adopted by the ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) while when formation of the national standards and regulations. Due to the increased transparency of technical law, entities that are interested in a particular market or are established on it, are in time informed about the technical terms and their changes, what reduces their costs and increase their competitiveness. The drawback of the Tokyo round was a lack of institutional ensuring of agreement and thus the possibility of continuing discrimination.

The last GATT round of negotiation was the **Uruguay Round**, which took place from 1986 to 1992. This round was focused on the conclusion of the most comprehensive

agreement on intellectual property and trade in services and furthermore on enforcement of proposal for further reduction of tariffs by one-third, but also reduction of government subsidies on agricultural production and the liberalization of agricultural trade. Negotiations came to a dispute between the USA and the EU. The essence of this problem is evident from the contents or round negotiations, and especially from the Blair House agreement. The content of the Uruguay Round constituted the following problems:

- The reduction of tariffs by 30%
- The liberalization of trade in tropical plants
- The liberalization of trade in fish, wood, non-ferrous metals and minerals
- The reduction in subsidies, tariff reduction and reducing of the impacts of sanitary standards in agricultural production
- The change the trading rules of intellectual property
- The development of a framework of rules for trade liberalization in services and audio-visual equipment
- A simplification of procedural forms in resolving disputes
- And institutional reorganization of GATT with the aim to establishing the World Trade Organisation, which should replace GATT.

The **Uruguay round** was completed on April 15, 1994 in Marrakesh (Morocco), where was signed the **Marrakesh Declaration** appreciating the results of the Uruguay Round and also signed the Final Act summarizing the results of the negotiations. They are covered in the **Agreement establishing the World Trade Organization** and its attachments are all accepted multilateral agreements. These include:

- The Marrakesh Protocol to the GATT 1994 confirming the attached Schedule of concessions and commitments resulting from agreements on industrial products, textiles and clothing and agriculture and includes measures to eliminate tariffs and non-tariff barriers in these areas
- Update of the interpretation and application of certain articles of GATT 1994 and the provisions of the new trade rules, which should lead to improvement of trade rules when it had the following agreements:

  - The Agreement on the Application of Sanitary and Phytosanitary Measures (the new agreement preventing the conversion of measures in trade barrier)
  - The Agreement on Technical Barriers to Trade (clarifies the provisions of the Agreement on Technical Barriers 1979)
  - The Agreement on Trade-Related Investment measures relating to trade Trims, which was the first attempt to unify the international approach to foreign investment
  - The Agreement on the application of anti-dumping code (revision of 1979)
  - The Agreement on Customs Valuation (revision of 1979)
  - The Agreement on Preshipment Inspection (new agreements aimed at the unification of all activities associated with the inspection before shipment)
  - The Agreement on Rules of Origin (new agreement to harmonize the rules on determining the origin of goods)
  - The Agreement on Import Licensing Procedures (revision of 1979)
  - The Agreement on Subsidies and Countervailing Measures (revision of 1979, introducing the concept of specific subsidies and subsidies)
  - The Agreement on Safeguards (revision of the agreement, based on a desire to eliminate discriminatory measures)

- The conclusion of the General Agreement on Trade in Services GATS (General Agreement on Trade in Services)
- The conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights, including trade in counterfeit goods
- The conclusion of the Agreement establishing the World Trade Organization WTO (World Trade Organisation).

The successful conclusion of the Uruguay Round and the signature of other major contracts and in particular the creation of the World Trade Organization may conclude an important stage in the formation of international trade policy. Nevertheless, as is pointed out by other developments in the negotiations organized under the auspices of WTO, the Uruguay Round did not solve the problem that shown as fundamental for the functioning of world trade and that is the issue of protectionism of agriculture production from the EU and the USA. They will be outlined in the chapter dealing with the WTO.

6.4 THE WORLD TRADE ORGANIZATION

GATT negotiations were marked by that it was initially created as a temporary business arrangement. Leaving the intention to create ITO, the contracting parties faced the task if deal with a considerable number of legal and institutional issues in a pragmatic way – case-by-case. And this rooted the pragmatism in the function and application of GATT. Various subsidiary bodies were created as well as the rules of negotiations were set. These facts gave to GATT the character of an international organization. This situation did not complicate the GATT activities, if only a few countries signed the agreement. In the 60s of the last century, a significant number of countries – especially developing countries – acceded to an agreement and they have brought their economic problems, but also customs and traditions.

As a critical was shown the situation during the Tokyo Round, when the contracting parties stood in front of virtually insurmountable procedural problems especially in non-tariff area was adopted a number of side agreements and arrangements. Each of the agreements of Tokyo Round was signed by only part of the members of the GATT, which in later years led to conflicts and disputes between member countries. GATT has become complex and difficult to manage. Therefore, there were made proposals to establish an umbrella organization. These proposals were supported especially by the EC, Canada and Switzerland. USA held the reticent attitude to the establishment of an organization.

In December 1995, in Marrakech held 51st meeting of the GATT member countries that decided to terminate the activities of the secretariat and the replacement of the activities of the **World Trade Organisation (WTO)**. It commenced operations on 1 January 1995[43]. WTO is a new entity in the world economy and has a role to play third pillar affecting world trade and the world economy along with the IMF and the IBRD. WTO is a full-fledged organization, while the GATT was the only intergovernmental agreement. The core of the WTO action is the issue groomed by GATT, but expanded to all changes and arrangements that were added to the original agreement during its existence. WTO unlike GATT has a wider scope, brings to the regulation of international trade in services, intellectual property and investment issues.

The agreement establishes a common institutional framework for trade relations of member countries to all agreements that annexed to the agreement. This is the current GATT adjusted in the Uruguay Round. WTO has legal personality and it is built on the approach of

[43] To this date, the WTO had 125 members and 28 countries applied for admission (among them China and Russia). In 2008 there were already 153 member countries, including China, which joined the WTO in 2001. Russia has joined in 2012. Currently, WTO has 159 members.

the single commitment, where WTO members must adopt a set of commitments. This principle allows avoiding the free-riding of some members on the benefits without providing appropriate reciprocity. A membership is conditioned by participation in the four multilateral agreements (Agreement on Trade in Civil Aircraft, Agreement on Government Procurement, Agreement on meat and Agreement on dairy products).

The activities of the WTO are based on the following principles:

- *The principle of liberalization* – the effort of permanent removal of tariff and non-tariff barriers to trade)
- *The principle of multilateralism* – it expresses the situation when the discussion of problems involving more participants
- *The principle of consolidation* – it lays in the fixation of the existing tariff level, the signatory countries can not arbitrarily change their amount
- *The principle of non-discrimination* – lays in the providing of the same treatment in comparison with other entities and is promoted through the most-favoured-nation clause
- *The principle of parity* – the same treatment to foreign goods and persons as with the domestic from the moment they cross the country's borders.

The supreme body of the WTO is **Ministerial Conference**, which addresses the issues of paramount importance, meets at least once a year. The first meeting was held in 1996 in Singapore. Individual countries then represent permanent representatives at the WTO. The General Council is highest-level decision-making body, which carry out the functions of the WTO. There are other permanent bodies subordinated to the General Council – the Council for Trade in Goods, the Council for Trade in Services and the Council for Trade-Related Aspects of Intellectual Property Rights.

When deciding is proceeding by consensus and if consensus is not attained it is proceed to the vote. At meetings of the Ministerial Conference and the General Council, each country has one vote and decisions are taken by majority of votes with the exception of decisions on the release of liabilities and interpretation of agreements, when is requiring a three-quarters majority. Ministerial Conference and the General Council have the exclusive right to make the interpretation of the WTO Agreement and all multilateral agreements. Regarding the amendments to agreements and then such actions lead Ministerial Conference and decides by consensus. With certain exceptions they become mandatory for every member state of the WTO after the adoption of amendments by two-thirds of the members. The agreement also makes the provision on the non-multilateral agreements between some members.

6.4.1 THE DOHA DEVELOPMENT ROUND

The World Trade Organization, which was launched January 1, 1995, undertook not only the agenda of GATT and GATS, but also its methods of work. However, WTO also enriched them by other important elements such as the introduction of monitoring the development of the trade policies of member countries and the dispute settlement system.

The basic element of the WTO remained regular conferences of trade ministers of member countries and negotiation rounds. Since the birth of WTO was held by seven conferences. The first conference was held in Singapore (9 to 16 December 1996), the second one in Geneva (18 to 20 May 1998), the third one in Seattle (30 November to 3 December 1999) and fourth in Doha, Qatar (9 to 13 November 2001). The fifth conference was held in Cancun, Mexico (10 to 15 September 2003). The sixth conference was held in Hong Kong (December 2005) and seventh in Geneva (30 November to 2 December 2009).

Conference in Doha Qatar has launched the so-called the **Doha Development Round**, which should be completed on 1 January 2005. Fundamental text that was adopted at the meeting in Doha, is so-called the **Doha Development Agenda**, which represents the first working program of multilateral trade liberalization and the adoption of new rules since the establishment of WTO. Previous negotiations were still in progress under the GATT. The Doha Development Round has chosen an ambitious goal to resolve the most contentious area of protection of agricultural markets, namely the reduction of subsidies to farmers that distort the free market, reduction of import duties on agricultural production and the reduction of the export subsidies, both on the side of economically developed countries and in developing countries.

In addition, the service market should be released, the competitive environment for foreign investment should be strengthened and there should be an increase in transparency of government procurement and non-tariff barriers to trade should be disposed, the so-called **Singapore issues**. They are mainly related to:

- The guaranteeing the rights of foreign investors in the host country
- The ensuring of equal conditions of free competition for domestic and foreign firms
- The simplification of procedures when moving goods across borders and reducing the cost of customs procedures
- And ensuring of possibilities allowing foreign companies to bid for government contracts.

Negotiations of the fifth Ministerial Conference in Cancun, Mexico should summarize the results already achieved in the agricultural area. The proposed compromise text should be the basis for further negotiations and the issue of agricultural subsidies should not be closed. However, negotiations ended in failure and did not achieve neither its minimum objective and a dispute that occurred between economically developed countries and developing countries was such a nature that questioned the functioning of the WTO. The essence of the problem is evident from the following brief summary of the progress of the negotiations. A key milestone in the negotiations was an agreement the U.S. and the EU in June 2003, when they agreed on a common approaches certain issues. They committed themselves in Doha to substantially reduce subsidies to farmers, which reach 300 billion USD per year, what is six times more than the economic aid to developing countries. Developed countries did not want to abandon them before developing countries accept their proposals of broad legal and business reforms and thus they will be willing to offer something (Pospíchalová, 2004).

Developing countries, in their effort to enforce the U.S., EU and Japan to make concessions, formed a pressure group known as the G21[44] and they categorically rejected the conditional reduction of agricultural subsidies by concessions on Singapore issues from their side. Although the EU has offered a compromise and excluded the issues of investments and competition from negotiations, the agreement was not reached because Japan and South Korea protested and conference was ended.

The **Geneva Compromise** overcame the crisis of WTO, when the agreement between the group of economically developed countries and the G21 was concluded in the night of 31 June to 1 August 2008. This agreement should allow further negotiations so that Doha Round could be concluded at the meeting in Hong Kong in late 2005 or during the following year.

[44] The members of the G21 were the following countries: Argentina, Bolivia, Brazil, Chile, Ecuador, Egypt, the Philippines, Guatemala, India, Indonesia, South Africa, Cuba, Costa Rica, Colombia, Mexico, Nigeria, Pakistan, Paraguay, Peru, Thailand, Venezuela. These countries represented in 2002 8.1% of world exports.

The essence of this compromise is that the economically developed countries agreed with the gradual elimination of agricultural subsidiarity as a forward-looking objective, with a few particularly sensitive commodities while Singapore issues were pushed aside. The main argument of the G21 was the fact that they cannot introduce the necessary standards in business because they do not have the necessary infrastructure since they have no money.

Nevertheless, the lack of compromise is the fact that it does not contain specific dates or borders for allowable tariffs and quotas. They should be negotiated under a for-last WTO Director-General, who became Pascal Lamy from September 1, 2005[45] (former EU Trade Commissioner and a representative of the EU at the WTO). The Doha Round negotiations have not been completed neither during 2009 at a conference in Geneva. The meeting was designed as an exchange of views on the future direction of the WTO, with the political support was expressed for further negotiations in the Doha Development Agenda.

[45] The last - sixth Director-General of the WTO is nowadays Roberto Azevêdo. His appointment took effect on 1 September 2013 for a four-year term.

7 OPEN ECONOMY MACROECONOMICS

Adam Smith and David Ricardo developed the classical theory of trade and they proved the advantageousness of international trade for all countries involved, but with no matter of different level of their development. In less developed countries, which could not export their goods, arose fears of difficulties with their balance of payments, if they open up their markets to cheaper foreign goods. There was a threat that money (gold) flow out of the economy and the debt rises up as well as the external economic imbalances of country. The answer to this question was the classical theory of the balance of payments, which proved that there are mechanisms, which eliminate the imbalances in the balance of payments. This theory was later developed by both the Keynesian and monetary economics.

7.1 THE THEORY OF BALANCE OF PAYMENTS

The Theory of balance of payments defines mechanisms that in the absence of trade barriers should lead to the elimination of external economic imbalances, which are caused by different flows of money due to the specific form of integration of country into the global economy. In the following text, we discuss three approaches to the given issue, which are:

- The classical theory of balance of payments and the price-specie flow mechanism
- The Keynesian model and the income adjustment mechanism
- The monetarist approach and monetary mechanism of adjustment.

7.1.1 THE CLASSICAL THEORY OF BALANCE OF PAYMENTS

David Hume formulated the **classical theory of balance of payments** (in the work Political Discourses, 1752). The assumptions on which David Hume built up were a quantitative theory of money, the existing gold-coin standard and thus fixed exchange rates that prevailed in international monetary relations. Another important moment was the fact that the demand for foreign currencies resulted primarily as a result of foreign trade and international capital movements played only a minor role. Therefore, it was possible to identify the balance of payments with the balance of trade.

The exchange rate was given by the gold parity and money used for cash payments were fully fledged. The resulting imbalances did not have an affect on the movement of exchange rates, which remained stable. However, there were international movements of gold.

The quantity theory of money showed that the growth of money in circulation in the country (for example, due to growing exports) reduces the purchasing power of money (there is an internal devaluation), thus increasing the price level in the country. The decrease of money in circulation has the opposite effect. On this basis, D. Hume clarified the **price–specie flow mechanism:**

- In a country, which has a negative balance of trade, gold would flow out of the country to decrease the amount of money in circulation (central banks can issue only paper money with regard to the amount of held gold). It caused a decline in the prince level, which resulted in the growth of competitiveness of goods (cost of goods compared to foreign goods decreased). Foreign demand increased and hence there was a rise in exports and decline in imports (foreign goods become more expensive), and this process continued until the balance of payments will be balanced.

- And conversely, in a country, which has a positive balance of trade, due to the export of gold, the amount of money in circulation increased as well as the price level, the competitiveness of goods decreased (domestic goods versus foreign goods were more expensive) and foreign demand also decreased. Export decreased and vice versa import began increasing until the balance of payments adjusted it.

This theory proved that the external balance of the economy is automatically restored. However, there is a condition – a general application of the policy of free trade. Over time, individual countries have begun to adopt a floating exchange rate policy and the above-mentioned mechanism underwent modification. The imbalance of balance of payment was adjusted by a change in the exchange rate. This modification is sometimes referred to the **exchange rate adjustment mechanism**. It is a variant of neoclassical price adjustment mechanism. This mechanism works as follows:

- In a country with a passive balance of payment leads to excess of supply of the domestic currency over demand (payments abroad). It leads to a **currency depreciation** of the domestic currency's exchange. It also cheaper domestic goods and imports are more expensive, which leads to an adjustment of balance of payment.
- And in a country with an active balance of payments it is opposite and it leads to excess of demand for the domestic currency over its supply (exporters sell foreign currency and buy the domestic currency to pay to domestic subcontractors). There is a **currency appreciation** of the domestic currency's exchange, which in turn leads to higher prices of production exported and cheaper imported production, which leads to equalization of balance of payments.

But the question arose – how large the changes of exchange rates have to be to ensure the restoration of balance of payments equilibrium? This problem was solved by *A. Marshall*, which introduced into monetary theory a term **price elasticity of imports and exports**. It shows a change in demand for products of the country in response to a change in price by 1 %. Price elasticity of imports and exports show the sensitivity of exports and imports to price changes. The imbalance of balance of payments does not induce changes in internal prices of the economy, but changes of exchange rates and through them, the changes in the prices of goods in foreign currency. The price elasticity expresses e.g. the volume change of the English exports to the U.S. in decline (rise) of exchange rate GBP/USD. The price elasticity of imports and exports depend on substitution of one good to other one. The easier the goods are substitutable, the price elasticity of imports and exports increased. For instance, when a country exports goods that are easily substitutable, then at the rise in its price, sharply decreases demand for these goods and is replaced by other goods or those goods from other countries.

To remove the deficit of balance of payments through the currency depreciation so-called **Marshall-Lerner condition** must be fulfilled. This is defined by equation (7.1):

$$e_M + e_X > 1 \qquad (7.1)$$

where: e_M – elasticity of import

e_X – elasticity of export

Marshall-Lerner condition says:

- If the sum of the elasticity of demand for export and elasticity of demand for import demand elasticity greater than 1, then the devaluation improves net export
- If the sum of these elasticities is equal to 1, then devaluation has no effect on the current account
- And if the sum is less than 1, the devaluation worsens the current account

However, these theories did not take into account the possibility of thesauration of money in the country with the inflow of gold and in the existence of available factors of production, the ability to invest idle funds into the next production, which would prevent the rises in prices. The connection between foreign trade and GDP growth was devoted to the Keynesian macroeconomics.

7.1.2 THE EFFECT OF FOREIGN TRADE ON PRODUCT

For understanding the relationship between foreign trade and the product of the economy is necessary to remind the basic Keynes' idea that the size of the product is determined by the level of purchase effective demand, i.e. the amount of cash expenditures in the country. In a closed economy, the purchase effective demand consists of spending on consumption, investment and government spending. The left side indicates the right side, what means that the size of expenditure determines the amount of product and there is relation (7.2):

$$C+I+G = Y \qquad (7.2)$$

where: C – consumption

I – investment

G – government expenditures

Y – product

In an open economy, there are additional expenditures accruing to above-mentioned expenditures, and that are the expenditures of foreign entities spent on goods of the given country, which are the value of exports of the given country. At the same time, the part of the expenditures of the domestic population is spent on foreign products, whose value is the value of imports of the country. This value is not involved in product formation of the given country, but in the product formation of other countries, and therefore it must be deducted from the expenditure. Then apply the relation (7.3):

$$(C-M)+I+G+X = Y \qquad (7.3)$$

where: M – import

X – export

Equation (5.3) can be also written by following:

$$C+I+G+(X- M) = Y \qquad (7.4)$$

where: (X-M) – trade balance of the country

Expression (X-M) is also known as a net export (NX). Previous equation (7.4) can be written as:

$$C+I+G+NX = Y \qquad (7.5)$$

From the above it follows that export increases product and import reduces it, or trade surplus increases product and deficit of the balance of payment reduces it. From the above-mentioned relationship can be derived the condition for the equilibrium of open economy. If there is a balance of closed economy expressed by the relationship I=S and simultaneously G=T, it can also be written as:

$$I+G = S+T \qquad (7.6)$$

where: S – household savings

T – taxes

Then the equilibrium condition for an open economy can be expressed by following expression (7.7):

$$X+I+G = S+T+M \qquad (7.7)$$

Equilibrium condition of an open economy is not only the equality between savings and investments and taxes and government expenditures, but also between exports and imports. Expression (7.7) can then be written as follows:

$$X-M = (S-I)+(T-G) \qquad (7.8)$$

Expression 7.8 shows that the economy is in equilibrium if is reached the internal and inner equilibrium and if there is the internal equilibrium then there is also external equilibrium. However, this also means that if they are saving less than investment, then there is a deficit of the current account (assuming that government expenditures and taxes are equal and the state budget is balanced). The state budget deficit, then the deficit of the current account is widening.

Another feature of Keynesian theory is the definition of the function import. It is based on the Keynesian consumption function, which says that consumption is an increasing function of the product and is conditioned by the marginal propensity to consume of the

population. Since consumption expenditure[46] includes also expenditure on imported consumer goods, it can similarly formulate the imports. It says that imports are increasing function of the product. There is a expression (7.9):

$$M = mpi * Y \qquad (7.9)$$

where: mpi – marginal propensity to import

The **marginal propensity to import** show the increase in imports caused by a one-unit increase in Y. Marginal propensity to import is a necessary variable for determining the multiplicative effect of foreign trade on the product.

As well as investments having multiplicative effect on Y (there is a much greater increase in income than the increase of investment) has a multiplicative effect of exports (X). The size increment of the product due to increase exports can be determined using the export multiplier which indicates how many times the product is increased if there will be one-unit unit increase in export. Its formula is identical to the pattern of investment multiplier of open economy (relation 7.10):

$$moe = \frac{1}{1 - mpc(1-t) + mpi} \qquad (7.10)$$

where: moe – open economy multiplier

mpc – marginal propensity to consume

t – the rate of income tax

Is evident that an **open economy multiplier** is the greater, the smaller the marginal propensity to save and marginal propensity to import. The multiplier effect of exports lies in the fact that the export produces primary exports of exporters. They are transformed into savings and consumer expenditures. Expenditure on consumer goods in this country is creating additional income for producers of consumer goods, etc. The multiplier operates in the opposite direction.

Export creates an increase in income and it leads to an increase in savings and imports. It follows that rising exports raises import. The same goes for investment. It should be borne in mind that everything is based on the assumption that all imports consist of imports of consumer goods. If capital goods are imported, those relations have only limited validity

The income adjustment mechanism

The above-defined relations between exports and product became the essence of the Keynesian approach to the adjustment of the balance of payments. They are based on the fact that the system of fixed exchange rates is transmitted by impulses from the external economy

[46] For simplicity, we consider only autonomous expenditures.

in the form of income effects. Income effect means the increase in the product in the domestic economy through net exports and it is transferred to the foreign economy and vice versa. The degree of mutual transfer depends on the marginal propensity to import in domestic and foreign economies. Export growth leads to an increase in aggregate demand, product and employment. Growth in import means that the demand is shifted to abroad, on the contrary, it leads to a decrease in product and employment. This so-called **income adjustment mechanism** then operates as follows:

- A country with passive balance of payments records a decline in aggregate spending, which leads to a decline in real output, which leads to a decline in imports while maintaining the current level of exports what should lead to the adjustment of balance of payments
- A country with active balance of payments records the growth of aggregate expenditures, and therefore the growth of real output resulting in import growth while maintaining the current level of exports what should lead to the adjustment of balance of payments

7.1.3 THE MONETARY MECHANISM OF ADJUSTMENT

At the end of the 60s of the 20th century, economists *R. Mundell*[47] and *H. G. Johnson*[48] elaborated the alternative to the above-mentioned approach. The monetary model is an extension of the monetarism to an open economy. The monetary approach is based on the relationship between the demand for real money balances and their supply and it is not limited to relationships in the current account of balance of payments and is available both in the fixed and floating exchange rates.

The **monetary mechanism of adjustment** is based on the fact, that excess demand for goods, services and capital (current account deficit) reflects the excess supply of money that flows to abroad. Balance of payments surplus arises on the contrary by the excess demand for money. If this demand is not met by growth in the domestic money supply, it is met by the inflow of money from abroad through surplus balance of payments (e.g. the allows explaining the balance of payments surpluses in rapidly growing economies).

The monetary mechanism of adjustment works as follows: the balance of payments surplus leads to pressure on the appreciation of the currency, the central bank in its effort to keep the exchange intervenes by selling the currency. Consequently, the money supply increases. This leads to both the direct growth of import and the increase in the price level (inflation) and thus to the growth of import and finally to the growth of real output growth is again to the growth of import. As a result of these pressures on growth of import there is an increase in import and the equilibrium of balance of payments is restored. As is evident, the monetary mechanism of adjustment contains elements of both the price–specie flow mechanism and income adjustment mechanism. It is also focused on the overall balance of payments of the country, not only on the balance of trade, which has great influence on the issue of relations between external and internal balance.

From the above text is evident a shift in the importance of the balance of payments and its structure, so it is good to become familiar with more detail. It is also good to take into consideration the relationship between internal and external balance that will be further developed.

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[47] Robert Mundell (1932) is an American economist of Canadian origin, the laureate of Nobel Prize in Economic Sciences

[48] Harry Gordon Johnson (1923-1977) was an Canadian economist dealing with the international trade and international finances

7.2 THE STRUCTURE OF THE BALANCE OF PAYMENTS

The **balance of payments (BoP)** is a systematic record of all international monetary transactions at a specific period of time. The balance of payments was originally considered for overview of the sources of foreign exchange and their use, was expressed by the trade balance. With the gradual increasing importance of services, the trade balance was extended on the balance of goods and services, and the income balance. Later it began to monitor the movement of capital from different perspectives in the capital balance (nowadays the financial account balance). The main reason for keeping these records is to provide information to government institutions on the international status of the country and to assist in determining of monetary and fiscal policy and trade and payment issues.

IMF member countries prepare their balance of payments in accordance with the approved scheme. It has the following parts:

- ***A. Current Account***
  - Trade balance
  - Balance of services (tourism, transport, insurance)
  - Income balance (transfers of wages of foreign workers, received and paid interest, etc.)
  - Current transfers (private and government gifts, such as inheritance, donations, pension contributions to international organizations, etc.)
- ***B. Capital Account***
  - Capital transfers due to population migration
  - Transfers of non-tangible assets and intangible assets[49]
- ***C. Financial Account***
  - Direct investment
  - Portfolio investment
  - Financial derivate
  - Other investment
  - Long-term liabilities granted abroad
  - Long-term liabilities from abroad
  - Net short-term capital
- ***D. Net errors and omissions, valuation changes***
- ***E. Change in reserves***.

The balance of payments is conducted in a standard double-entry accounting in which every international transaction results in a debit and credit at the same size. Thus, export of goods is a credit on the current account and simultaneously the debit on the account of short-term capital (debt creation abroad), import of goods is contrary a debit on the current account and a credit account short-term capital (establishment of liability). Each record with a plus sign must be accompanied by offsetting liability with a minus sign or each source must have its use. Credit entries must equal the debit entries, because the balance is always compiled as balanced. Items of balance of payments can be distinguished between credit and debit. **Credit entries of balance of payments** are recorded with a plus sign and represent such transactions, which result in the receipt of payments from non-residents. E.g. income from exports of

[49] The change of the structure of the balance of payments was introduced during the year 1998 in accordance with the requirements of the IMF for processing balance for 1997. Existing capital account has been renamed to the financial account and the content of capital account has been changed. Capital transfers, including transfers of non-productive financial assets, tangible and intangible rights, were allocated from the current account.

goods and services, the inflow of incomes from factors of production of the country, but involved abroad, the inflow of direct investment or income from loans abroad.

Debit entries of balance of payments are recorded with a minus sign and represent providing payments to non-residents. These include the payments for imports of goods and services, the outflow of income from foreign production factors involved in home economics, foreign direct investment, credit abroad. These include e.g. the payments for imports of goods and services, the outflow of income from foreign factors of production involved in domestic economy, foreign direct investment or providing credit abroad.

Transactions in balance of payments are recorded in current and capital account on net **turnover principle** (such as incomes and expenses, respectively as export and import), while in the case of all the items of the financial account as the **net change in assets and liabilities**.

For understand the accounting in the balance of payments we use the following example 5-1. For clarity it will be charged only on the current and financial account and on the account of currency reserves. It is necessary to realize that in all financial account items, we assume that the default value is 0 and therefore items shown in the example represent a change from this condition. It should also be noted that the meaning of some of the records and their location in the balance is evident at first sight (the so-called autonomous records). In additional records it may not be the case, their purpose is to compensate for balance (i.e. accommodating record).

The sufficient information about transactions is not always possible to obtain, because there is a time gap between the duration of the operation, its payment and its statistical recording. Some items can only be estimated. These are transaction of individuals who regularly do not report their foreign transaction, or inaccuracies in the customs statistics, and finally the exchange rate differences. Consequently, it is necessary for the for counting of all credit and debit entries introduce a balancing item recording errors and omissions and exchange rate differences to offset the balance of payments. Given that fact, the balance of payments is first draw as a preliminary (third month after the beginning of the following year) and one year later as a final balance for the given year.

7.3 OPEN ECONOMY MACROECONOMICS

Macroeconomics mainly works with models of the national economy and that in both a closed economy and an open economy. An open economy is associated with foreign economies through two basic channels and those are international trade and international financial markets. These two channels can be found in models of open economy in the form of balance of payments. In this chapter, we briefly introduce the basic framework of open economy macroeconomics, which is the model IS-LM-BP.

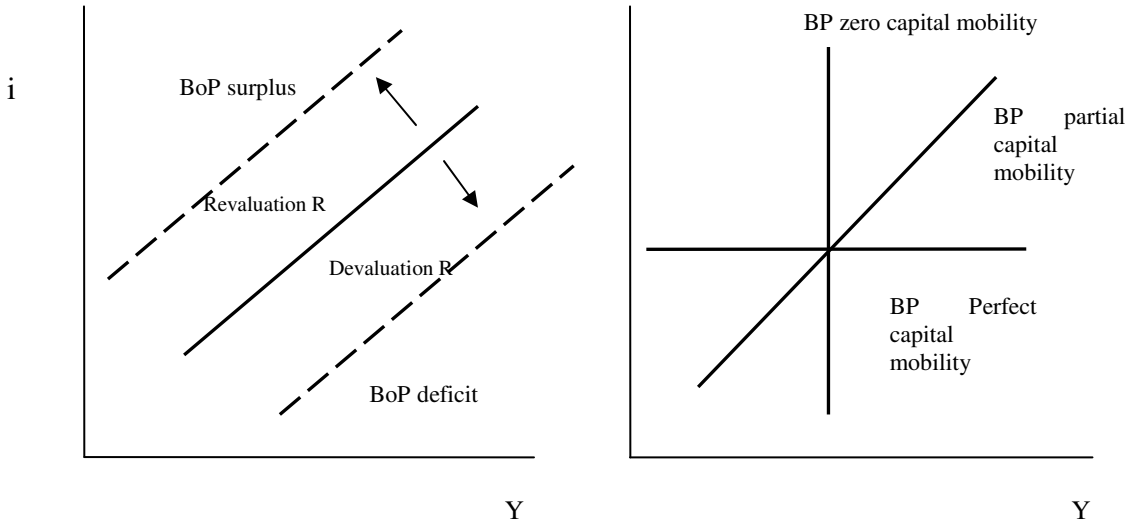
An essential feature of open economy macroeconomics is the distinction between internal and external balance. Internal balance means achieving a level of real income, which corresponds to the natural rate of unemployment and price stability. External balance means a situation when the balance of payments is in equilibrium. In this case, the external economic balance occurs when the central bank does not lose or accumulate foreign exchange reserves. Internal and external balances are mostly achieved through automatically acting market mechanism. However, this often does not respond quickly enough and therefore, there remains scope for regulatory role of the state and its policies.

7.3.1 A BALANCE OF PAYMENT CURVE

According the Keynesian theory, changes of the balance of payments are caused by two factors, namely by the growth of economy (leading to growth in imports and therefore to the

balance of payments deficit) and changes in interest rates, which affect the import or export of capital. The balance of payments curve reflects these relationships and it is valid at a given exchange rate. The curve reflects all combinations of interest rates and income, in which the balance of payments in equilibrium. The **balance of payments curve** is therefore referred to as a **balance of payments in equilibrium**. Points above the BoP curve represent the balance of payments surplus while points under the curve represent its deficit (see Figure 7-1). BoP curve is increasing because the increasing income worsens the BoP and is necessary to attract more foreign capital to the restore the balance, which is possible only through the increasing interest rates. Conversely, if there is the BoP surplus, it must be offset by capital exports, which must contribute to the decline in interest rates.

Figure 7-1 The balance of payments curve formation



The slope of the curve is affected by the mobility of international capital. If the capital is more mobile, then the curve is approaching the horizontal. The mobility means the sensitivity/elasticity to changes in interest rates between countries. Conversely, the capital is less mobile (barriers to the movement of capital), the balance of payment curve is steeper. The BoP curve has three basic shapes that reflect the three different situations:

- ***BP curve is horizontal*** *(perfectly elastic)* – there is a perfect capital mobility, which means that domestic and foreign financial assets are perfect substitutes and capital flows react quickly to changes in the interest rate differential (the difference in domestic and foreign interest rates): if is the interest rate differential positive, there will be an unrestricted inflow of capital and a surplus of the balance of payments, regardless of the status of BoP, the situation in the balance of payments situation will be determined by financial account and interest rates (a situation typical for economically developed countries
- ***BP curve is vertical*** *(perfectly inelastic)* – the mobility of capital is null and capital flows to changes in interest rate differentials do not react (a situation typical of many developing countries with undeveloped monetary systems and non-convertible currency), this BoP is completely determined by the development of the current account and that affect it

- *And **BP curve is increasing** (elastic)* – this is a limited respectively ultimate mobility of capital, the impact on the BoP has both the current account and the financial account.

The position of the curve is not stable and the competitiveness of a country's goods leads to its shifts. Movements of the exchange rate of the country cause change in the competitiveness. The decline in the domestic currency leads to an increase in competitiveness of goods the given country when the BP curve shifts to the right, and appreciation leads to shifts to the left.

7.3.2 MODEL IS-LM-BP

Model IS-LM-BP is the basic model of an open economy that allows exploring the possibilities of stabilization policy, thus maintaining internal and external balance of the economy. It was created by the extending IS-LM model, which expresses the balance in goods and services market (IS curve) and the money market (LM curve) in a closed economy. This model has been extended to external relations, as expressed through the curve BP. This model is referred as its authors – the **Mundell-Fleming model**[50]. Since the book of macroeconomics deals with this model, we outline only the necessary context.

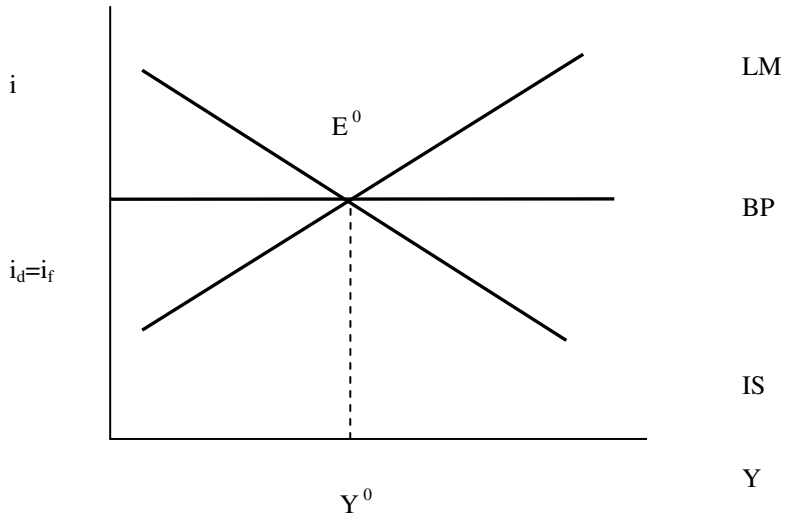
The Mundell-Fleming model is based on following assumptions:

- A fixed price level and therefore no inflation
- A real product is lower than the potential
- An economy is open
- A central bank controls the money supply
- An equilibrium is formed in goods markets and financial markets
- A supply is adjusting to demand
- Savings and tax increases are direct proportionally to income, the marginal propensity to save and income tax rate are constant
- Economic entities do not expect changes in exchange rates
- Countries taking world prices
- A perfect capital mobility
- A validity of Marshall-Lerner condition.

The model is based on the above assumptions and it is shown in Figure 7-2. The model demonstrates that the equilibrium product (Y) is reached if there is equilibrium in goods and services market, while domestic and foreign financial assets are perfect substitutes and capital flows react quickly to changes in the interest rate differential. As was already mentioned, this model is used to study the impact of fiscal and monetary policy on a balance of the economy in an open economy. External relations enter into the model as foreign demand for domestic goods and services and supply of foreign goods in the domestic market as well as the movement of capital into and out of the economy, which is all reflected in the movement of the exchange rate of the national currency. Therefore, it is necessary to examine the behaviour of the model particularly in a situation of fixed exchange rate and particularly in terms of a floating exchange rate.

[50] Authors of this models are already-mention Robert Mundell a John Marcus Fleming (1911-1976) the director of the Research Department of the IMF

Figure 7-2 Model IS-LM-BP

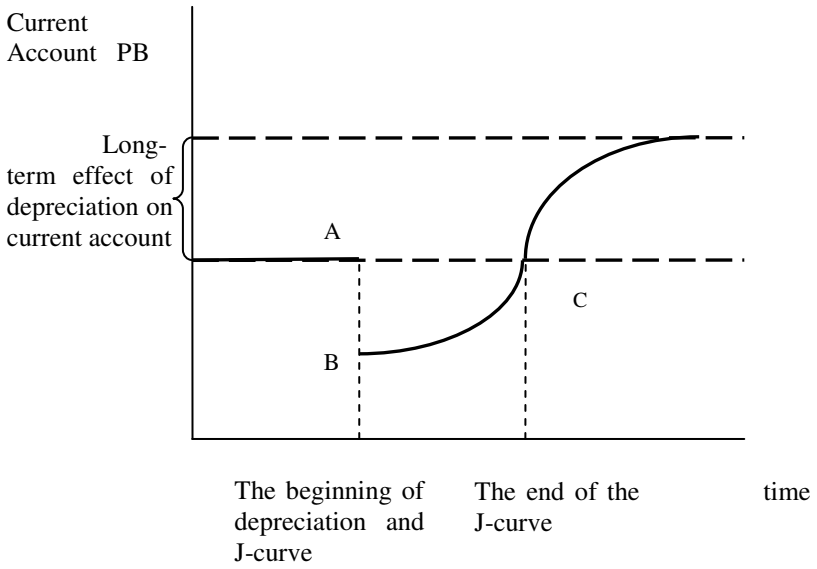


In a system of floating exchange rates, a central bank does not have to intervene in favour of the exchange rate of the national currency. Monetary policy is more effective than fiscal policy. When monetary expansion (LM curve moves to the right) and floating exchange rate the net export (NX) increases. **In a system of fixed exchange rates**, the central bank must intervene and therefore fiscal policy is more effective. When fiscal expansion (IS curve moves to the right) and in a fixed exchange rate, the NX is decreasing. These conclusions could be applied only on to the above-mentioned assumption for in the short run.

7.3.3 CHANGES IN EXCHANGE RATES AND J-CURVE

If there are fluctuations in exchange rates, this results in displacement from equilibrium of the BoP. It is caused by reaction of the current account balance of BoP. For example, if there is a depreciation of the currency, the current account immediately records a deterioration of its balance. This reaction can be represented graphically by using the **J-curve** (see Figure 7-3).

Figure 7-3 J-Curve



The current account of the BoP (measured through domestic output) may be deteriorated after the real depreciation of the currency. This is recorded by the movement from point A to B in the figure above and this situation arises because that most of the import and export transactions were agreed several months in advance. In the following months after the depreciation, exports and imports may reflect a buying decision based on "old" exchange rate, and therefore the primary effect of depreciation increases the value of imports, while export value has not changed (and thus causing deterioration of the current account). After a certain period of time, the domestic production will be cheaper abroad (export) and imported goods in the domestic economy will be more expensive, what improves the current account balance and this process is shown by the shift between points B and C. At point C, the level of the current account balance achieves original values and in the long run, the depreciation causes its surplus. This is caused by substitution of foreign products by domestic products. Based on empirical studies, estimated duration of the J-curve is between six months and one year and depends on many factors, such as the possibility of substitution of foreign production, sales markets, technological capabilities of domestic production, etc.

8 MONEY, FOREIGN EXCHANGE RATE AND FOREIGN EXCHANGE MARKETS

This chapter will be devoted to the role of exchange rates in international trade and to their formation and determination. But first, we explain what means the term exchange rate.

8.1 THE FOREIGN EXCHANGE RATES AND THE FOREIGN EXCHANGE MARKET

The **foreign exchange rate** is the *price that is traded in the foreign exchange markets.* In other words, the exchange rate *is the relative price of two national currenc*ies, and thus the price of foreign currency expressed in domestic currency (so-called direct quotation), or the price of domestic currency denominated in foreign currency (so-called indirect quotation). In practice, there are used four types of exchange rates: nominal and real effective and bilateral (multilateral).

8.1.1 TYPES OF FOREIGN EXCHANGE RATES

The price of foreign currency units expressed in units of domestic currency is expressed in **nominal bilateral exchange rate**. However, this does not reflect the development of the purchasing power of the currency against another currency. That gives the **real bilateral exchange rate** (R), which is most commonly expressed as an index of the ratio of the nominal exchange rate multiplied by the foreign price level and the domestic price level, as shown in equation (8.1). This means that R is the ratio of external and domestic goods in units of domestic currency and this is an important indicator of export competitiveness of the economy.

$$R = E * \frac{P_F}{P_D} \qquad (8.1)$$

where: P_F – foreign price level in domestic currency

P_D – domestic price level

Changes in the exchange rate are called appreciation or depreciation[51].

An **appreciation** is an increase in the value of a currency relative to another currency and means that goods of the given country becomes cheaper for foreign entities and imports become more expensive for domestic entities. Currency depreciation lowers the relative price of exports of the given country and increases the relative price of its import.

The **depreciation** is an increase in the value of a currency relative to another currency and means that domestic goods become more expensive for foreign entities and domestic entities pay less for foreign products. In other words, the appreciation of the currency of the economy increases the relative price of its exports and lowers the relative price of its import.

[51] In the case of fixed exchange rates we talk about revaluation and devaluation

8.1.2 THE FOREIGN EXCHANGE MARKET

The **foreign Exchange market** is a system *in which the transfer of the amount in one currency into another currency takes place*. These markets are used for settlement of debts arising in international trade, for hedging against exchange rate risk, for arbitrage and speculation:

- ***International Trade*** – in this case, banks operate in the foreign exchange market as a clearing centres for supply of foreign exchange and demand for foreign exchange arising from the transactions of entities of the given economy and foreign entities (*spots,* where the transaction takes place at one time for the current exchange rate and *forwards* that are a certain type of forward transaction, which is currently carrying out and payment takes place in the future for an agreed exchange rate)
- ***Hedging against exchange rate risk*** – against fluctuations in the exchange rate market through term foreign exchange or *futures* (promise to pay an agreed amount in the future) or *options* (they give its owner the right to buy or sell a specified amount of foreign currency at a specified price at any time until the maturity date)
- *An* ***arbitration*** – means buying one currency in one market and its selling in the other market for profit (profit from the price difference), this activity is not speculative and is risk-free because the result is certain in advance
- *And a* ***speculation*** – is the opposite of hedging and although it is based on the same principle as the arbitrage is very risky with forward unknown outcome, because it only predicts the future development of the exchange rate.

Commercial banks, firms (brokers and dealers), non-banking financial institutions (investment funds, insurance companies and pension funds) and central banks participate operations in the foreign exchange market.

- ***Commercial banks*** are centres of foreign exchange markets because the most of international transactions requires operations on accounts held by commercial banks in different financial centres and also so-called *interbank trades* or trading in foreign currencies between banks themselves take place there
- ***Companies*** operate in the foreign exchange market in case if they need a different currency than their domestic, for instance Korean multinational corporations paying wages and buying goods in the Czech Republic
- ***Non-banking financial institutions*** that offer to its clients a wider range of services, especially transaction exchange rate
- And ***central bank*** intervening in the foreign exchange markets; their range of transactions is smaller, but with an extensive influence.

The foreign exchange market consists of demand for foreign assets and the demand for domestic assets, which is actually a supply of foreign assets. Assets in this case mean foreign exchange and price of assets is thus the exchange rate. The demand for foreign assets is influenced by rate of return on assets, specifically **the expected rate of return** (R^e). Generally, people want to keep those assets that have the highest expected rate of return. For the determination of the expected rate is necessary to know the interest rate of assets i^* and the expected rate of change of the exchange rate E^e. The expected rate of return on assets is therefore determined on the basis of the sum specified in equation (8.2).

$$R^e = i_F + E^e \qquad (8.2)$$

where: i_F –interest rate assets

E^e – the expected rate of return on the exchange rate

when:

$$E^e = \frac{(E_{t+1} - E_t)}{E_t} \qquad (8.3)$$

where: E_{t+1} – future nominal exchange rate

E_t – current nominal exchange rate

The demand for the domestic asset is determined by the rate of the asset-return, i.e. its interest rate *i*. For the determination of the **equilibrium exchange rate**, we have to accept the assumption that economic entities want to keep an exactly offered number of domestic and foreign assets, where these assets offer the same expected rate of return. This can be written using the formulas given in equations (8.4) and (8.5).

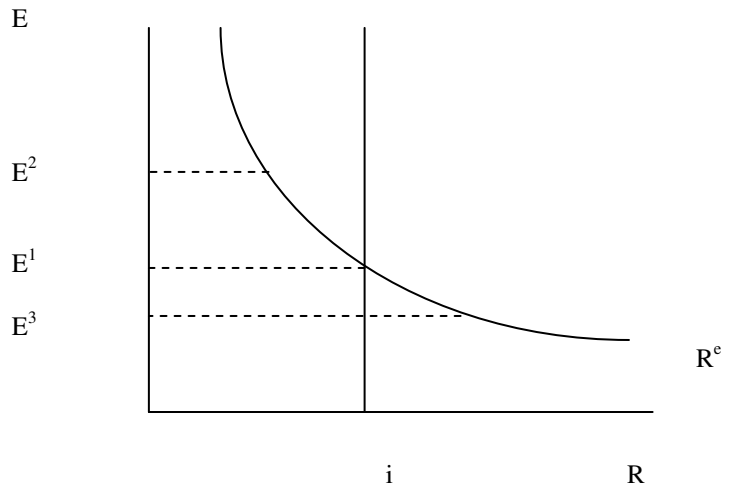
$$R^e = i_D \qquad (8.4)$$

or:

$$i_D = i_F + E^e \qquad (8.5)$$

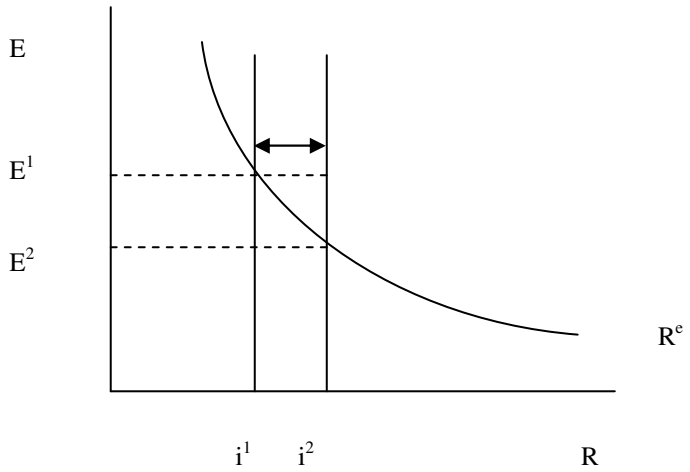
This situation can be graphically illustrated using Figure 8-1. The vertical axis shows the exchange rate and on the horizontal axis is rate of return R. Vertical curve shows the rate of return of domestic assets, which is independent on the level of the exchange rate. The declining curve of expected return of foreign assets has a slope given by the inverse relationship between the change in the exchange rate and the consequent change in R^e. If the exchange rate grows, future incomes from foreign assets decrease (E^2) and vice versa (E^3). In other words, if the market is in a situation E_2, the rate of return on foreign assets is less than the rate of return on domestic assets. Each entity owning foreign assets wants to sell for more favourable domestic assets and this leads to the depreciation of the domestic currency. If there is a situation corresponding to E^3, income from foreign assets exceeds the income from domestic assets and there is to the domestic currency appreciation (selling foreign currency).

Figure 8-1 Determination of the equilibrium of exchange rate



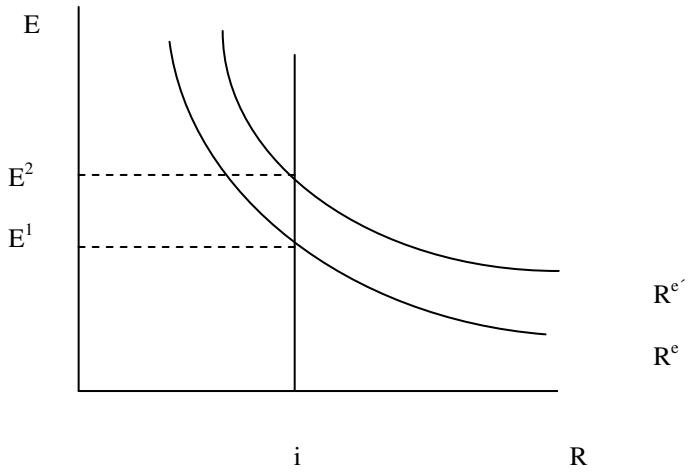
Now let's take a look at how changes in interest rates and changes in the rate of return of foreign assets affect the exchange rate. Imagine that the rate of return of domestic assets has changed and shifted from i^1 at i^2 by an amount equal to the area marked by the arrows. This shift has resulted in a decline in the exchange rate and **appreciation** of the domestic assets, which is shown in Figure 8-2

Figure 8-2 The effect of increase in the rate of return of domestic assets



What happens in case of increase in interest rates of foreign assets shows Figure 8-3. If there is a shift in expected returns of foreign assets, this returns exceed these returns from domestic assets and this leads to a decline in the exchange rate and the **depreciation** of the domestic assets. The increase in expected rate of foreign exchange assets has therefore the opposite effect than increase in interest rates.

Figure 8-3 The effect of increase in foreign interest rates



From the above it follows that a ***rise in interest rates of the given currency causes the appreciation of this currency against foreign currencies***. However, we have to realize however that it is always the view from the "inside": that is clear from Figure 8-2 and Figure 8-3 shows on the above-mentioned conclusion that the domestic currency is actually the foreign currency and its interest rate is expressed through R^e.

8.2 MONEY, INTEREST RATES AND THE FOREIGN EXCHANGE RATE

In the previous part of the previous chapter, we analysed the effect of interest rates and expected changes in the exchange rate on the development of this exchange rate. Now we take a look at how the interest rate is set and how the expectations of future exchange rates are formed. But first, we repeat the definition of money we know and subsequently we explain how to form the money supply and money demand and how they affect both the interest rate and the exchange rate.

8.2.1 THE DEFINITION OF MONEY

Money is generally accepted tender that performs several functions. The most important is that money is a ***medium of exchange***, since it eliminates the huge money transaction costs associated with barter trade. Another important function of money is the ***unit of account***, because the value of goods, services and assets are mostly expressed in money, and it simplifies economic calculations for comparing of the prices of various commodities. Given the money is used to convert the current value into the future value it is considered as the ***store of value***. This attribute is important for each medium of exchange, because nobody accepts payments whose value (expressed in goods and services) immediately ceases.

When we talk about money, we must also analyse their supply and demand. In our case, **the money supply M_S** is defined as supply of monetary aggregate M1 (it includes money in circulation and demand deposits) of households and firms. Other financial assets are less liquid and are not used to the ordinary financial transactions. Suppose that the money supply, which is controlled by the central bank, is fixed and at the demanded level.

Money demand M_D is distinguished from the viewpoint of the individual and the aggregate. Three aspects determine *individual demand* for money:

- ***The expected returns*** – if returns (or interest rate) of less liquid assets rises, demand for money falls[52]
- *A **risk*** – money holdings is risky because an unexpected increase in the prices of goods may cause a decline in their value as well as fall in the value of other financial assets (e.g. government securities), but the increase in risk does not have an impact on reducing the demand for money, but increase demand for assets bearing interest
- *A **liquidity*** – the highest profit money came out from liquidity because cash is the easiest way of financing everyday expenses and there is a rule that the larger value of transactions induces the greater need for liquidity. This means that the increase in the value of transactions increase raises the demand for money

The aggregate demand is the sum of the individual demands and is influenced by the following factors:

- *An **interest rate*** whose growth causes less willingness of economic entities to keep money in liquid form and aggregate money demand declines
- *A **price level*** which if grows it causes higher costs of economic entities and it resulting in the growth of aggregate demand
- And a ***real national product***, whose growth induces the growth of output and foreign exchange transactions in the economy, which is caused the growth of aggregate demand.

The relationship between the interest rate *i*, the price level P, income Y and aggregate demand for money M_D can be expressed by equation (8.6):

$$M_D = P * L(i,Y) \qquad (8.6)$$

where: $L(i,Y)$ – real aggregate demand for money

or:

$$L(i,Y) = \frac{M_D}{P} \qquad (8.7)$$

where: M_D/P – required money holdings measured by the CPI

8.2.2 THE EQUILIBRIUM IN THE MONEY MARKET

Equilibrium in this market occurs if supply equal demand and thus $M_S=M_D$. The real balance can be derived by using equation (8.6) and it can be expressed by the equation (8.8):

[52] In this case we can considered the interest rate as the opportunity costs of money holdings

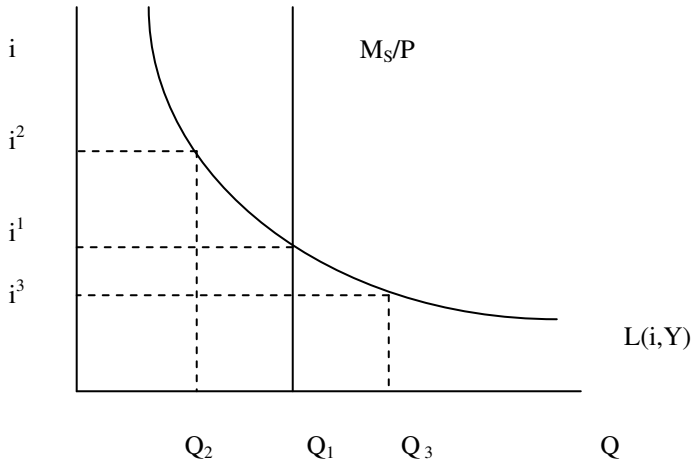
$$L(i,Y) = \frac{M_S}{P} \qquad (8.8)$$

where: M_S/P – the real money supply

The above-mentioned relationship is graphically shown by Figure 8-4, which shows the equilibrium in situation i_1, Q_1. In the case that the interest rate is higher (i_2), money demand is low and the real money holding is also low (Q_2). If the interest rate is below the equilibrium (i_3), the demand for money is high as well as holdings of money (Q_3). The money market has a tendency to return to equilibrium: if the economy is in situation 2, high interest rates are compressed to their equilibrium level by the high demand for financial assets and similarly in situation 3, the high demand for money causes rising interest rates of financial assets.

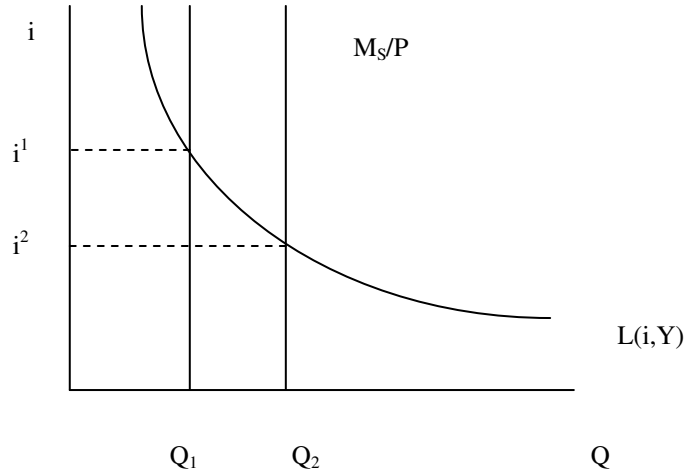
This means that ***the market always tends to achieve such a interest rate at which the real aggregate supply equals real aggregate demand***. If this rate exceeds the money supply, it tends to fall and vice versa.

Figure 8-4 Determination of equilibrium in the money market



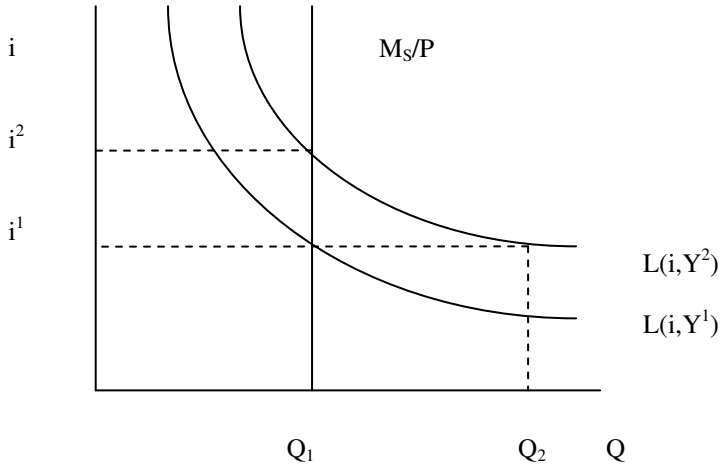
But what happens if the central bank decides to increase the money supply? Since people have more money than before, they try to invest this surplus – they try to buy financial assets. They compress the price of these assets (i) downward, as illustrated in the following figure 8-5. It also leads to ***the increase in the money supply at a given price level and income that causes a decrease in the interest rate and vice versa***.

Figure 8-5 The effect of the increase money supply on interest rate



As was already mentioned, the output will cause a shift of real demand, which means that if income rises, it also rises the real money demand, as shown in Figure 8-6. If income increases from level Y^1 at Y^2, a real money holding could rise as well (at Q^2). But since the money supply is fixed, the increase in income causes only an increase in interest rates, which gets at the new equilibrium level. ***The increase in a real income at given money supply and at given price level cause an increase in the equilibrium interest rate and vice versa***.

Figure 8-6 – The effect of the increase in income on interest rate



8.3 MONEY AND EXCHANGE RATE IN THE SHORT AND LONG TERM

After we explained the effects of changes in individual determinants of supply and demand for money, we can analyse how monetary changes affect the exchange rate. This analysis will be performed in the short run, where is a stable price level and stable expectations of exchange rate changes, and then in the long run, where prices are flexible and always adjusts to maintain optimal allocation of resources.

8.3.1 THE SHORT RUN

The short run equilibrium and movements of foreign exchange rate in the short run is explained by the **theory of interest rate parity**. This theory analyses the situation in the money and foreign exchange markets on the basis of changes in the domestic interest rate (determined by the interaction of supply and demand for money). These changes affect the inflow of portfolio capital from abroad, the demand for the domestic currency and the exchange rate. The theory of interest rate parity is based on the assumptions:

- The same liquidities and risks of domestic and foreign assets
- Preferences of investments of economic entities in certain economies on the basis of profitability
- And different profitability of domestic and foreign assets.

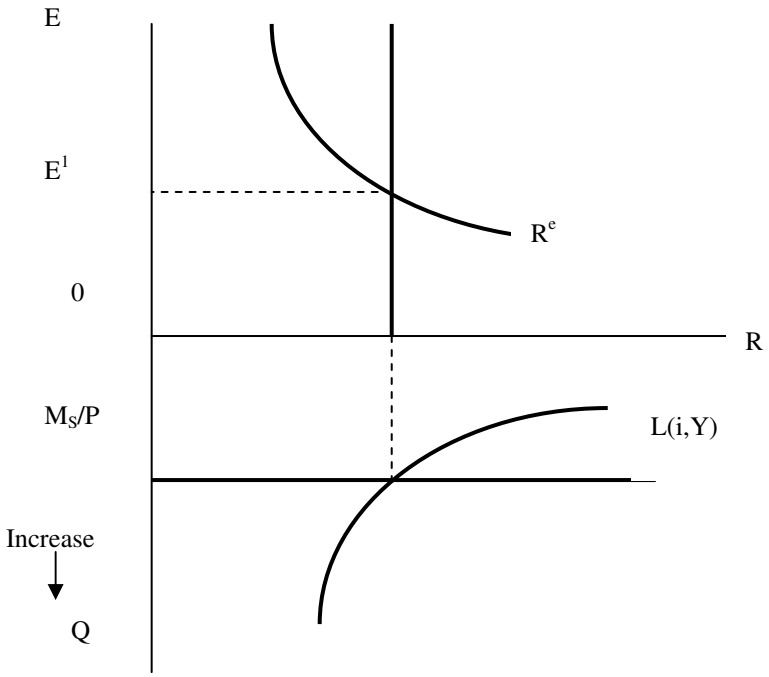
In this context, we distinguish between ***covered and uncovered interest rate parity*** when the difference lies in the coverage of risk of uncertainty about the development of the exchange rate. While in the first case it leads to elimination of risk through forward rates and in the second case, the risk is not eliminated and the expected development of the exchange rate plays an important role. Uncovered interest rate parity will be the subject of our further analysis. Given that the market balance of assets (cash and foreign exchange) requires the equality of income, we can express the parity of the interest rate differential in equation (8.9).

$$E^e = i_D - i_F \qquad (8.9)$$

where : i_D - i_F – interest rate differential

For graphical analysis of the relationship between money and the exchange rate in the short term we use two images that are discussed separately and this is Figure 6-1 regarding the balance of the foreign exchange market, and Figure 8-7 regarding the equilibrium in the money market. We combine them together and this figure relating to the real money holding turn 90 degrees clockwise. Equilibrium occurs at point 1, in which the interest rate encourages economic entities to demand such an amount of money that is given price level offered, i.e. the intersection of the curves L and M_S/P. The interest rate of domestic assets with the expected rate of return of foreign assets forms the balance of the foreign currency market (and in fact on the both markets together).

Figure 8-7 The equilibrium in the domestic money market and foreign currency markets



It is clear that the previously analysed variables are not static, evolving and changing and we take a look at how the foreign exchange rate is influenced when there will be a change in:

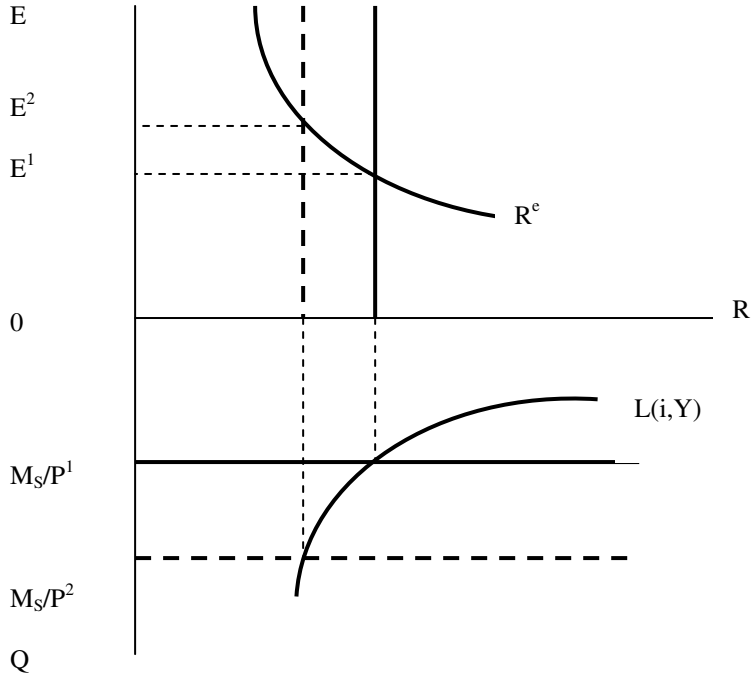
- The domestic money supply
- A household income
- The foreign money supply
- And foreign income.

Domestic money supply, domestic income and foreign exchange rate changes

If the central bank of domestic economy will change the money supply, it will also have impacts on the exchange rate, as shown in Figure 8-8. Suppose that the central bank increases the money supply in the economy (for increase in AD). How it will affect the foreign exchange market? Original interest rate dropped and money market reaches a new equilibrium. However, this step increases the expected returns of foreign currency and owners of domestic try to "exchange" this currency for more attractive foreign currency. This leads to a depreciation of the domestic currency and an increase in the exchange rate.

The conclusion is that the ***increase in the domestic money supply causes a depreciation of this currency in the foreign exchange market and conversely a reduction of the money supply causes its appreciation***. The opposite effect has a change domestic income. If this income increases, it causes an appreciation of foreign currency appreciation and depreciation of the domestic currency.

Figure 8-8 The effect of the increase in the money supply on the domestic market

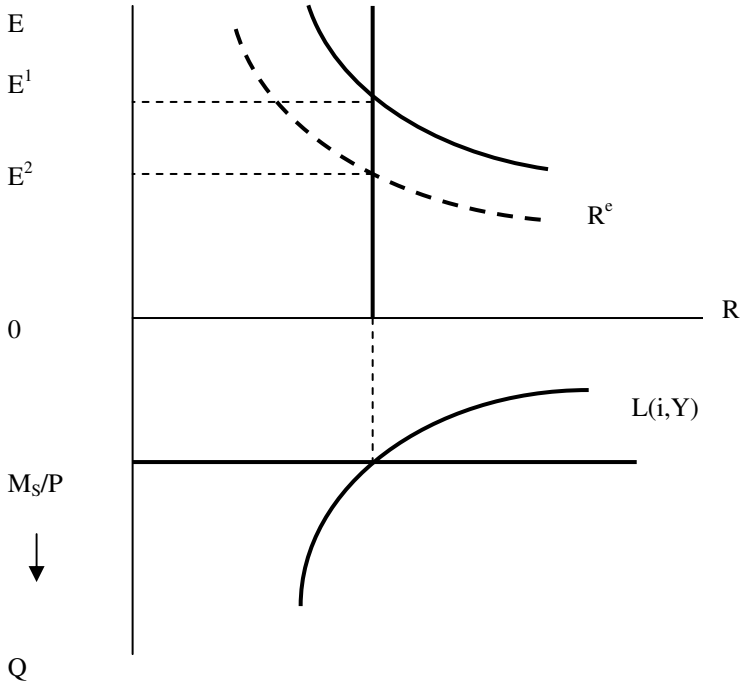


Foreign money supply, foreign income and foreign Exchange rate changes

If the foreign central bank increases money supply in its economy, it leads in a given economy to the same final effect, as we already shown – the depreciation of the currency (and appreciation of domestic currency). The difference is that it will not "affect" the domestic interest rate. If foreign income increases it leads to the expected return of R^e and foreign currency appreciation and depreciation of the domestic currency.

The impact of the increase in money supply on domestic economy shows the figure 8-9 If there is a depreciation of foreign currency caused by the increase in the money supply on the foreign market, it reduces the interest rate of this currency and thus expectations concerning its future income. All shifts the curve to the left down and this leads to a reduction in the exchange rate (appreciation) on the domestic market.

Figure 8-9 The effect of increase in the foreign money supply



8.3.2 THE LONG RUN

We already mentioned, the prices in long run are flexible and dependent on the interest rate, real output and domestic money supply. This assumption can be expressed by modifying equation (8.8.) on the given relationship in equation (8.10):

$$P = \frac{M_S}{L(i,Y)} \qquad (8.10)$$

If we accept the realistic assumption that i and Y remains in a long run unchanged, the increase in money supply in the economy has resulted in a price increase. In order to maintain a balance on this market (at unchanged real money demand and constant real money supply), the price level P has to increase as well as money supply, M_S.

But how it is possible that in the long run the money supply does not affect the real output, neither interest rates? The level of output at full utilization of productive resources depends on the endowment of the economy with labour and capital. It results in monetary reform, when the reduction in the money supply does not affect the output any effect (just a few zeros was deleted). The same applies for the interest rates: for instance, if the supply and prices doubling and the interest rate remains the same, because ten crowns at the beginning of the year and eleven crowns at the end of the year are the same as twenty crowns at the beginning of the year and twenty-two crowns at the end of the year (i is always 10 %). On this basis, it was concluded that ***a permanent increase in money supply in the domestic economy produces a proportional long-term depreciation of the domestic currency against foreign currencies and vice versa***.

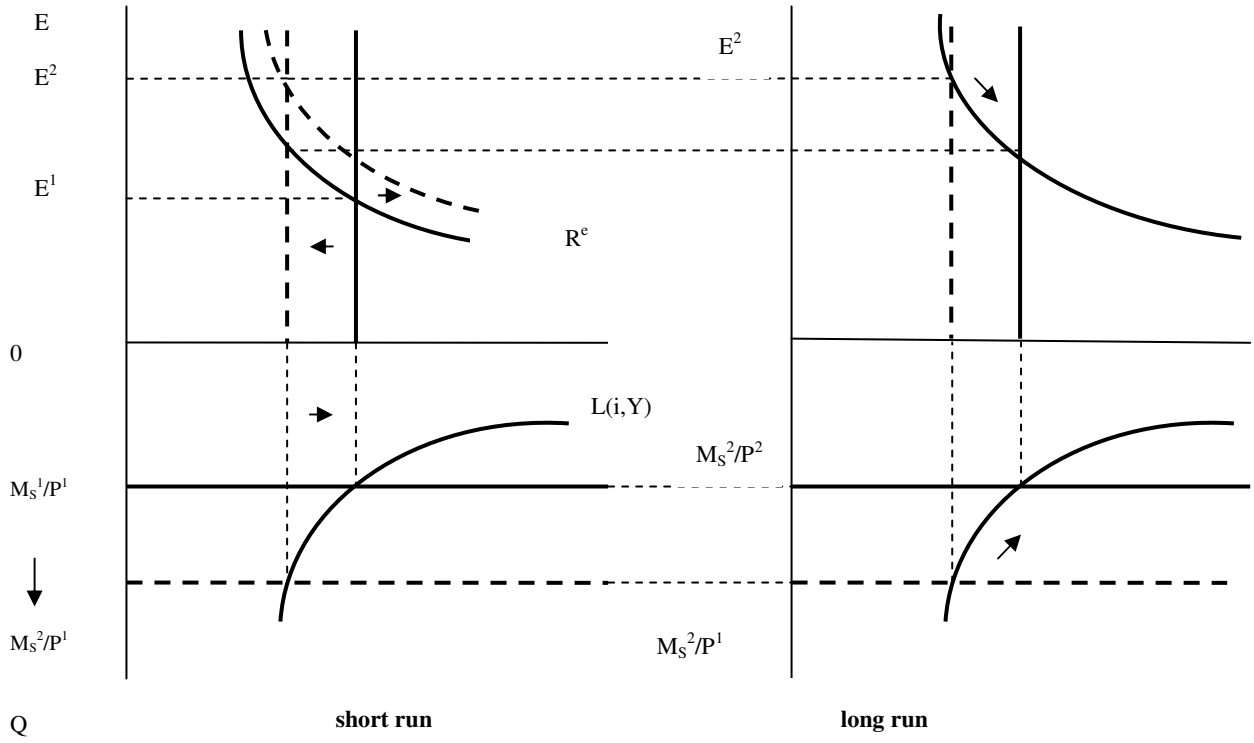
8.4 THE ISSUE OF INFLATION AND OVERSHOOTING

So far we did not assume significant changes in the price level and we did not include in our model **inflation**. Now we will show how this inflation resulting from inflation expectations or excess demand, influence the exchange rate.

8.4.1 INFLATION AND THE FOREIGN EXCHANGE RATE

A figure 8-10 illustrates on the left side the short run and the long run on the right side. If prices are initially at P^1, then the increased money supply M^2 increases the real money supply (M^2/P^1) and it decrease interest rates at i^2. On the foreign exchange market, revenues from the domestic currency are reduced. But it does not end due to the expected change in the exchange rate. Since the increase in the money supply is constant, people expect that in the long term the exchange rate will increase. This expectation has resulted in an increase in the expected rate of return of foreign assets (in the depreciation of the domestic currency). This shifts the curve R to the right, what cause the growth of exchange rate at E^2. You may notice that the change of exchange rate is greater than if the expected exchange rate would remain the same (this would correspond to point E^3).

Figure 8-10 Money supply and inflation



We are moving to a long period in which we assume that prices vary (growth up to P^2). Because the increase in the price level must correspond to growth in the money supply, new real money supply M^2/P^2 comes to the level of the original real money supply M^1/P^1. Because the output is constant and real money supply returned to its original level, there must be a change in the interest rate – the increase back on i^1. In the long term it leads to appreciation of the domestic currency against foreign currencies in relation to its initial level, although it

created a new equilibrium exchange rate corresponding to E^3 (final depreciation). This means that both the price level and exchange rate increases proportionally to the increase in the money supply.

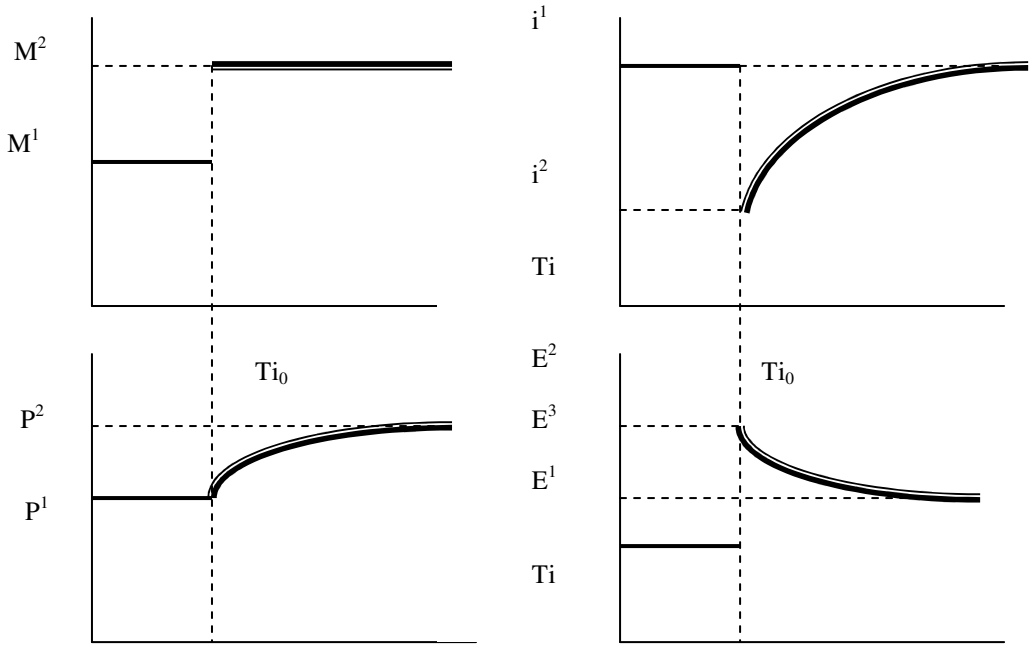
8.4.2 THE FOREIGN EXCHANGE RATE OVERSHOOTING

Based on the above analysis, we concluded that based on the increase in the money exchange rate depreciate in the short run from E^1 at E^2 and in the long run from E^1 to E^3. In this context, we talk about the **exchange rate overshooting**, so, if the initial fluctuations are greater than in the long run. It is an important phenomenon because it helps to explain why the exchange rate varies dramatically from day to day and this explanation came out of the level of uncovered interest parity. This situation is illustrated graphically by using Figure 8-11.

In this picture we see the analysis of various economic variables that change in the money supply at time T changes. Increase if the domestic money supply M, the pressure on the money market causes an initial drop in interest rates and who "gets" the interest rate below the rate of foreign. According to interest rate parity condition is then expected to decline in the exchange rate E coupled with the appreciation of the domestic currency. However, he may drop after first overshoots the level of E2 (and, in the long term falls to a level E3). For all variables occurring in the final stage of change (increase M, P and E, after overshooting), in addition to interest rates, which, after an initial decrease (due to an increase in the money supply in the domestic economy) returns in the long term to the original level.

We can see on this picture the analysis of various economic variables that change by the change in the money supply at time T. If the domestic money supply M increase, the pressure on the money market causes an initial drop in interest rates *i* and which "gets" this interest rate under the foreign rate. According to interest rate parity condition is then expected a decline in the foreign exchange rate E coupled with the appreciation of the domestic currency. However, it may drop after first overshooting of the level of E^2 (and then in the long run the level E^3 falls). All variables leads in the final stage to a change (increase M, P and E, after overshooting) and in addition to interest rates, which is returns in the long term to the original level after an initial decrease (due to an increase in the money supply in the domestic economy).

Figure 8-11 Overshooting of the foreign Exchange rate



Finally, we can conclude that the ***increase in the money supply may cause in the short run the overshooting of the level of long run of the exchange rate. If the output is fixed, permanent increase in money supply causes more than proportionally short-term depreciation of the currency followed by the appreciation of the currency in the long term. It is a direct consequence of the "slow" price-level adjustment and the condition of the equilibrium interest rates***.

9 PRICES AND FOREIGN EXCHANGE RATE

In the previous chapter we have analysed the issue of determination of the exchange rate by both the interest rate and expectations for the future that are on the other hand influenced by conditions of the money market. As we have indicated, the development of exchange rates affects the price level and this issue will be examined in this chapter.

9.1 PRICES AND THE FOREIGN EXCHANGE RATE IN LONG RUN

In the long run, national price levels play a key role in determining of interest rates and relative prices, for which produced goods and services are exchanged. Theories that deal with this issue explain changes in foreign exchange rates at the time, which is called as the law of one price and the theory of purchasing power parity. These theories are based on the following assumptions:

- Free trade between countries
- Zero transaction costs
- Zero costs of acquiring information
- And zero time costs.

9.1.1 THE LAW OF ONE PRICE

If all above assumptions are met, then we can accept the assumption that prices in different economies cannot differ in the long term because it would be exported goods out of the economy, which would be cheaper in the economy in which is more expensive (which would lead to prices adjustment). This is the essence of the **law of one price**, which claims that the price of goods in one economy equals to the product of price of goods in the second economy and the exchange rate, as shown in Equation (9.1):

$$P_D = E * P_F \qquad (9.1)$$

The exchange rate would match on the basis of the above-mentioned the quotient of domestic and foreign prices (7.2)

$$E = \frac{P_D}{P_F} \qquad (9.2)$$

A major shortcoming of this law is that it assumes homogeneity of goods – in terms of quality and other utility properties and cannot be applied to services or construction. Another drawback are the above-mentioned assumptions themselves (lack of protectionist barriers, transaction costs or time) since in certain products, these costs are so high that it prevents their mutual tradability (this issue was analysed in sub-section 7.1.3).

9.1.2 THE PURCHASING POWER PARITY THEORY

The law of one price generalizes the **purchasing power parity theory** (hereinafter PPP theory), and that the price of one good goes to the price level. The PPP theory tries to explain

the exchange rates (like the law of one price) by comparison of price levels and this is based on the idea that price should not differ in different countries in the long term if these countries are not closed economy. If we would like to apply this theory to the currency, then based on this theory and the above comparison of price levels, the unit of currency in the domestic economy will have the same purchasing power in the international economy.

Although the thought of the purchasing power parity is much older, the author of this theory is considered *Gustav Cassel*[53]. In the 15th and 16th centuries, at the time of scholastic teaching and time when the Catholic Church forbade usury, theologians lecturer at the University of Salamanca (Spain) responded to the growing interest by claiming that creditors could justify interest payments in relation to move through the PPP by loans in foreign currency. One of them was *Domingo de Banuez*[54] that in 1594 wrote about the loans and interest wrote: "One party can legally agree with overpaying of large sums of money to the other party, corresponding to the amount needed to purchase the same package of goods, as this other party could buy if they do not provide their money to the other party."(Sarno and Taylor, 2002, p. 51). The classical economists in their analysis of foreign trade developed the thought of purchasing power parity, but in 1918, already mentioned G. Cassel called the ratio of the purchasing power of money and exchange rate as purchasing power parity: "Only the exchange rate at which the trade balance is in equilibrium, can be permanently stable. Such an exchange rate is a purchasing power parity." (Cassel, 1932, p. 658)

The extending of the law of one price is the ***absolute version of PPP*** (sometimes also referred to as ***static***), which compares the price levels of the two economies on the basis of the consumer price index, set of the consumer basket – a mathematical expression is the same as the equation (9.2). Absolute version is based on the fact that the internal and external purchasing power of both currencies must be identical, then the exchange rate is determined by purchasing power parity. This means that if the price level in the "crown" economy Alpha is five times higher than in the "euro" economy Beta, the internal purchasing power of the crown is five times lower than the euro and on the basis of this, the exchange rate is creates as 5 crowns for 1 euro. Since the preferences of consumers and the composition of their consumer baskets vary in different countries, the more practical version of PPP is used and that is the relative version of PPP.

The relative version of PPP (also known as ***dynamic***) is based on the same assumptions and it tries to capture the changes of the foreign exchange rates by differences in inflation rates of the both economies. These changes may be mathematically expressed by the equation (9.3):

$$E^e = \pi_D - \pi_F \qquad (9.3)$$

where: π_D – change in the domestic price level

π_F – changes in foreign price level

[53] Karl Gustav Cassel (1866-1945) was a Swedish economist, the founder of Swedish modern economic theory.

[54] Domingo de Banuez (1528-1604) was a Dominican theologian who works at several Spanish universities and he was also a big supporter of the doctrine of Thomas Aquinas.

This means that if the annual rate of inflation in the economy Alpha was 4 % and in the economy Beta 2 %, it would result in a depreciation of the Czech crown by 2 %. Higher inflation would worsen the competitiveness of Alpha's goods on Beta's market and it would create the deficit in the current account of BoP with the economy Beta. The decline of the Czech crown against the euro would be done as long as it is not equal purchasing power of the crown to market of Alpha as well as Beta.

Relative version says that ***the external depreciation of the domestic currency against foreign currency will equal the difference between the internal depreciation of the domestic currency and internal depreciation of foreign currencies***. If the absolute theory is applied, then the relative version is applied as well, but if the relative version is applied it does not mean that the absolute theory is also applied and that is because of the changes in nominal foreign exchange rates (e.g. because of existence of transaction costs).

The empirical verification of the PPP theory is the subject of many studies dealing with the analysis and evidence of shortcoming that this theory shows, especially in the post-war period, when Bretton Woods's monetary system began to operate with the dollar as a reserve currency. The most important shortcomings of this theory include:

- It ignores international movements of capital and therefore it does not count with the BoP as such, but only with the current account balance of payments
- It does not count with the cost of transportation and protectionist measures, when transaction costs are included in the price of goods and not-including reduces profits (losses increases) of producers, the costs of trade restrictions have a similar effect
- It does not imply the existence of imperfect competition because monopolistic or oligopolistic position of firms on the product market may affect the price level of similar goods in different economies
- In international comparisons is the determination of the rate of inflation difficult, because the baskets vary by country (the empirical verification of this theory is also almost impossible)
- And this theory does not analyse the effects of a short run, when short-term fluctuations in the exchange rate fluctuations are larger than those of the long-term.

If we will take a look closer to the latter deficiency in deviation of exchange rate from PPP, we can provide three types of measurements, through:

- ***The static version of the real exchange rate***, when compared to the price level of foreign and domestic economies converted to a common currency (domestic economy) with the nominal exchange rate
- ***The exchange rate variations ERDI index***, which expresses the ratio of GDP converted from national currencies using purchasing power parity exchange and GDP converted using the official exchange rate (Lebiedzik, Majerová and Nezval, 2007) and which is essentially identical to the static version of the real exchange rate
- And ***comparative price level index CPL*** expressing the ratio of the price levels of domestic and foreign economies and corresponding to the inverse value of the static version of the real exchange rate.

9.2 THE FOREIGN EXCHANGE RATE AND OUTPUT IN THE LONG RUN

Although the theory of PPP on the basis of the above mentioned shortcomings are subjected to criticism, we will further deal with its analysis and for this reason, the base for understanding the relationship of long-term foreign exchange rates and long-term development of the price level.

9.2.1 THE PPP THEORY AND MODEL OF THE FOREIGN EXCHANGE RATE IN THE LONG RUN

The PPP theory itself deals with factors affecting supply and demand for money only marginally, but because in the long term in economies experiencing growth in money supply and thus inflation and currency depreciation, was created a model so called the **monetary approach to exchange rate**. This approach is based on three basic assumptions:

- Products are freely tradable (the validity of PPP theory)
- Assets are freely tradable (the validity of uncovered interest parity)
- And prices are perfectly flexible (long run[55]).

If there is applied first and simultaneously second assumption, it means that the interest rate of the domestic economy must be equal to the world real interest rate plus the expected rate of inflation. Prices and inflation depends on the level and extent of changes in the nominal money supply and real demand for money. In an analysis of the monetary approach to exchange rate, we will extend the assumption of the influence of exchange rates of money supply in the domestic economy and the foreign economy by further determinants. These are real exchange rate, interest rate and changes in output of economies.

Real foreign exchange rate

For determination of the monetary approach, we must base on the definition of the exchange rate using PPP, which we derive from (9.2) and from the relationship between nominal and real exchange rate defined in the previous section (relation 8.1). Purchasing power parity is therefore the basis for estimating the price level in the long term determined by equilibrium in the money market. When modelling this balance, we have to realize that the ratio of prices can be expressed as the ratio of money supply and money demand on the domestic and foreign markets, as shown in equation (9.9):

$$\frac{P_D}{P_F} = \frac{MS_D}{MS_F} * \left[\frac{L_F(i,Y)}{L_D(i,Y)} \right] \qquad (9.9)$$

where: MS – money supply

L – demand for money

This equation can be modified into a final form that expresses the *basic balance of the monetary approach*. For the real exchange rate, changes in the money supply and money demand in domestic or foreign economy affect the long-term nominal exchange rate:

$$E = R * \frac{MS_D}{MS_F} * \left[\frac{L_F(i,Y)}{L_D(i,Y)} \right] \qquad (9.10)$$

[55] We will deal with the monetary approach in short run after we will perform an analysis in long run. We based on the fact that long run from the point of view of the perfect competition less complicated than short run, which is given by fixed prices.

The interest rate and the Fischer effect

From the equation (9.9) we can deduce the effect of other variable on the development fot he price level, and thus the interest rate. In its analysis we will bring to the reality the monetary approach to the exchange rate by including the demand for money. From this relation it follows that the real demand for real money balances is a function of not only income, but also a decreasing function of the interest rate. It is based on the fact that the increasing rate of assets increases the opportunity cost of money holdings, which reduces the demand for money.

Now let's look at what determines the interest rate, if prices are perfectly flexible. First, we must realize that the expected changes in the exchange rate are influenced by both the interest rate differential (uncovered interest rate parity condition in equation 8.9) and differences in inflation rates in individual countries (relative version of PPP in equation 9.3). If we combine these two conditions together, we can express them by using equation (9.11):

$$i_D - i_F = \pi_D - \pi_F \qquad (9.11)$$

If the long-term domestic interest rate is higher than this rate abroad, it must also be higher expected rate of inflation in the domestic economy than in the foreign economy and vice versa. This effect is known as the **Fisher effect**. In order to clarify the full functioning of the model of monetary approach to exchange rate, we have to add to our assumptions the real interest rate (nominal interest rate minus inflation). As a consequence of this, we modify the Fisher effect: if there is the uncovered interest rate parity and real version of PPP, then the real interest rate must be the same in both economies and equal to the *world real interest rate* (we talk about **real interest parity**). The nominal interest rate of the domestic economy must equal the sum of the world real interest rate and the expected domestic inflation rate, which is equal to the difference in money growth and the growth rate of real output. Therefore, sudden changes in the growth of the money supply lead to fluctuations in exchange rates on the basis of changes in money demand that are caused by changes in interest rate.

Aggregate expenditures and output

The last variables, which will be discussed in relation to the movements of the exchange rate are the aggregate spending and output. The effects of these macroeconomic variables are the same as the effects of the money supply: increase in expenditures in the domestic economy causes the real appreciation of the domestic currency and a decline in the real exchange rate, which results in a decrease of E (because of changing the slope of the curve).

In case of the output, the result is not so clear, even if is based on the same principle as the previous one. In case that the output of the domestic economy increases, this results in a depreciation of the domestic currency (steeper slope of the curve). But the increase in output has also resulted in increase in demand for money, which causes a decline of curve (despite an increase in interest rates) and currency appreciation. Thus, the final net effect of the change in the nominal exchange rate is ambiguous and depends which effect predominates.

9.3 THE FOREIGN EXCHANGE RATE AND OUTPUT IN THE SHORT RUN

In the previous interpretation, we clarified how interest rates and the price level affect exchange rates. Mostly we assumed that the output level is given. Now we complete macroeconomic model analysis and we will try to answer on exchange rate and interest rates affect the economy product and it will be analysed from the point of view of short run when the price level is fixed. To determine the output in the short run, we must first undergo an

analysis of aggregate demand. We will modify the basic model of an open economy (Y = C + I + G + NX) by the involvement of factors that affect the individual items of this relationship:

- *The **disposable income (YD)***, except consumption it also affects the amount of net export
- And the ***real exchange rate (R)***, which affects net export

If we want to determine the effect of real exchange rate on NX, we have to analyse its changes on both the export and import. As regards export, if R rises, foreign goods in comparison with domestic goods become more expensive and demand for domestic goods increases, that induces the growth of export. In the case of import, the impact of the growth of R is not unambiguous, since import reflects the value of import, not the volume of import of foreign goods (in the first conception is the growth in imports caused by the growth of R, in the second one there is a decrease in imports). We will assume for simplicity that the effect of the volume effect always exceeds the value effect and therefore the real currency depreciation improves NX and vice versa.

The increase in disposable income increases consumption expenditures and thus the expenditures on import. This means that the increase in YD has resulted in a reduction in NX and vice versa, despite the increase (decrease) the import. The export has no effect, it is autonomous and it is independent of Y.

9.3.1 BALANCE OF AGGREGATE DEMAND

If we summarize the above-mentioned findings and include them into the equation on aggregate demand, we can express this by the using the equation (9.12):

$$D = C(YD) + I + G + NX(R, YD) \qquad (9.12)$$

where: C – consumption

I – investment

G – government expenditures

D – aggregate demand

The above-stated equation indicates a functional relationship, when the aggregate demand for domestic product can be expressed as a function of the real exchange rate, disposable income, investment´s demand and government expenditures. We can write this down by using equation (9.13):

$$D = D(R, YD, I, G) \qquad (9.13)$$

How can we interpret the above functional relationship? The growth of R cheapens domestic goods and moving expenditures on foreign goods to domestic goods. The result is the growth of NX and aggregate demand. ***The real depreciation of the domestic currency increases aggregate demand for domestic products and vice versa***. Domestic real income effect on aggregate demand is somewhat more complicated. If taxes are fixed at a given level, the growth of Y represents the same growth YD. The growth of YD increases consumption and deteriorates NX because of increasing domestic spending on foreign goods. However, since the effect of increasing consumption on the growth of aggregate demand is greater than the effect of the deterioration of NX, we can conclude that the ***increase in domestic real Y increases AD for domestic output and vice versa***.

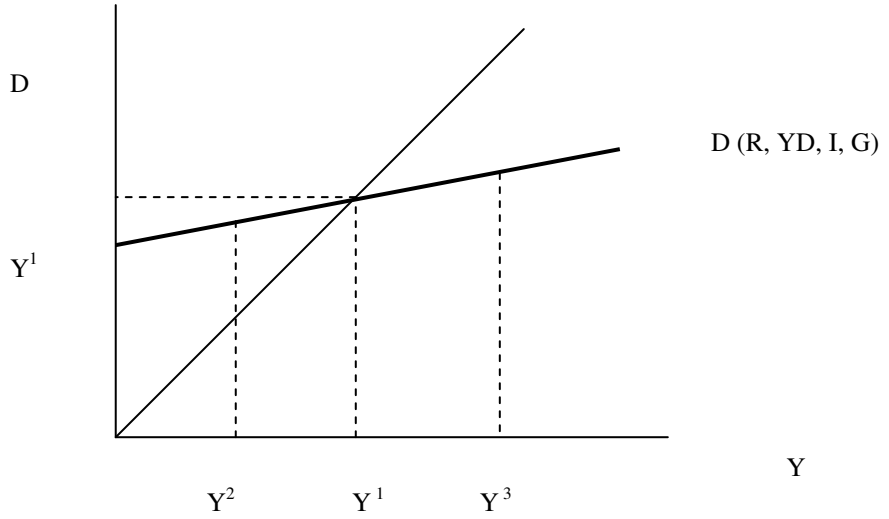
9.3.2 DETERMINATION OF OUTPUT

The market is in equilibrium if the real output Y is equal to aggregate demand D, what is true for a short run, in which we expect stable prices and long term, as well as for a long run, when prices adjust the way to achieve the balance. This can be expressed by using equation (9.14):

$$Y = D(R, YD, I, G) \qquad (9.14)$$

Graphical representation of equilibrium is shown in figure 9-1 as a point Y^1. In point Y^2 demand is higher than output and firms increase production to meet this demand (by returning to the point Y^1). In the case of point Y^3 demand is less than the output and companies are reshaping their production to supplies. To avoid this, they must reduce production to the point of Y^1.

Figure 9-1 Output in short run



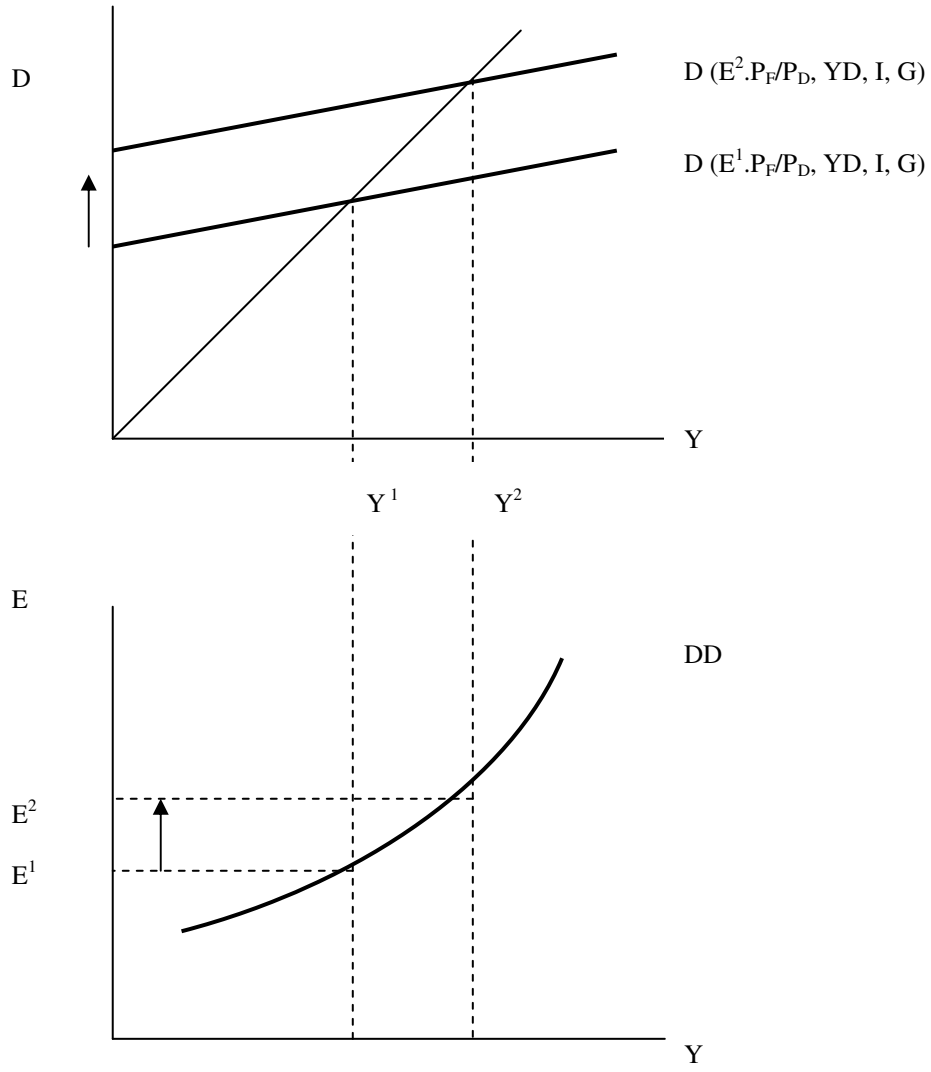
9.3.3 OUTPUT AND FOREIGN EXCHANGE RATE

For the analysis of output and R, we must first determine the relationship between the output and the exchange rate in the case of macroeconomic equilibrium using the **DD curve**, and then determine this relationship in the case of equilibrium on the money and foreign exchange markets using the **AA curve**.

When constructing the DD curve we use the income-expenditure model that you know from macroeconomics and we will based on the relationship between the real exchange rate (its changes) and output. The increasing of the real exchange rate will lead to the increase of D and to depreciation of the domestic currency against foreign currency, and that based on changes in nominal exchange rate (movement from E^1 at E^2).

Simultaneously this shift can by shown by the direct relationship between the nominal exchange rate and output, which is expressed by DD curve assuming constant prices. This curve shows all combinations of output and exchange rate, which are in equilibrium in a short run (see Figure 9-2). For better understanding of the reciprocal links, the real exchange rate is shown here in its original form according the equation (8.1).

Figure 9-2 Derivation of the DD curve



In this context, we have to mention that certain situations can lead to the shifts of DD curve. Factors that cause this shift are following:

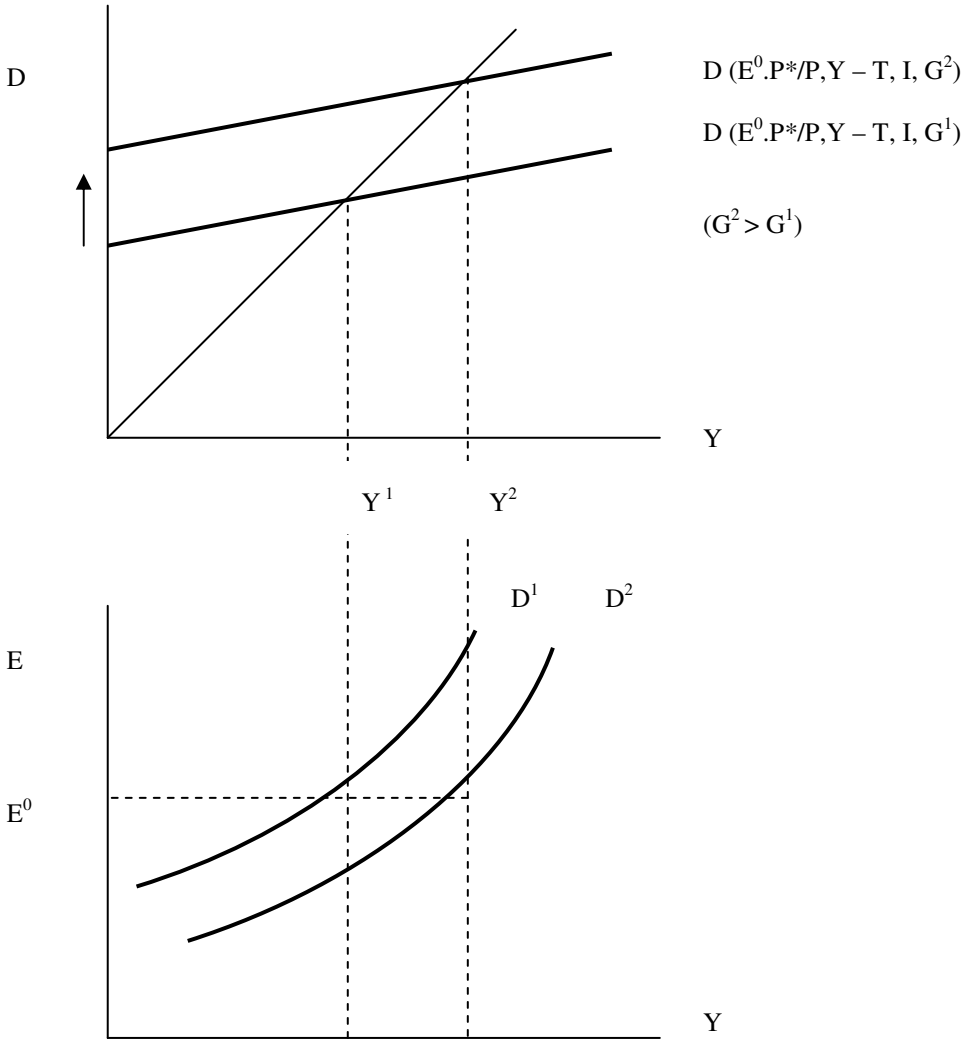
- ***Changes of the government expenditures*** – their increase causes the increasing of Y and while unchanged E there is a shift of DD curve to the right
- ***Changes in taxes*** – their increase causes (if the E remains unchanged) decreasing of D (a DD curve shift to the left)
- ***Changes in investment*** – whose rise has the same effect as an increase in government expenditures and raises DD curve shift to the right
- ***Changes in domestic prices*** – when E and PF remains the same – their increase causes the raises domestic goods, decrease in NX, resulting in a decrease in AD and shift of DD to the left
- ***Changes in foreign prices*** – their increase has the opposite effect than the increase in domestic prices, causing a shift to the right DD
- ***Changes in consumption*** – the increase in consumer expenditures results in increase in domestic aggregate demand curve DD and its shift to the right
- ***Change in demand between domestic and foreign goods***, which are not caused by a change in consumption, but in the decisions of domestic and foreign entities, for

instance to consume domestic goods more than ever before. This decision (when YD and R remains the same) causes a rise in exports and decline in imports (and thus the improvement of NX), resulting in a shift of DD to the right.

Impact of factors (on the example of increase in government expenditure), which results in an increase in aggregate demand and shift of the DD curve to the right (at the unchanged E) is shown in Figure 9-3. The function of aggregate demand is detailed to accurately reflect the above impacts:

- Real exchange rate consists of the nominal exchange rate and the ratio of the price levels of foreign and domestic economy
- And YD consists of the difference between the total income Y and net taxes T.

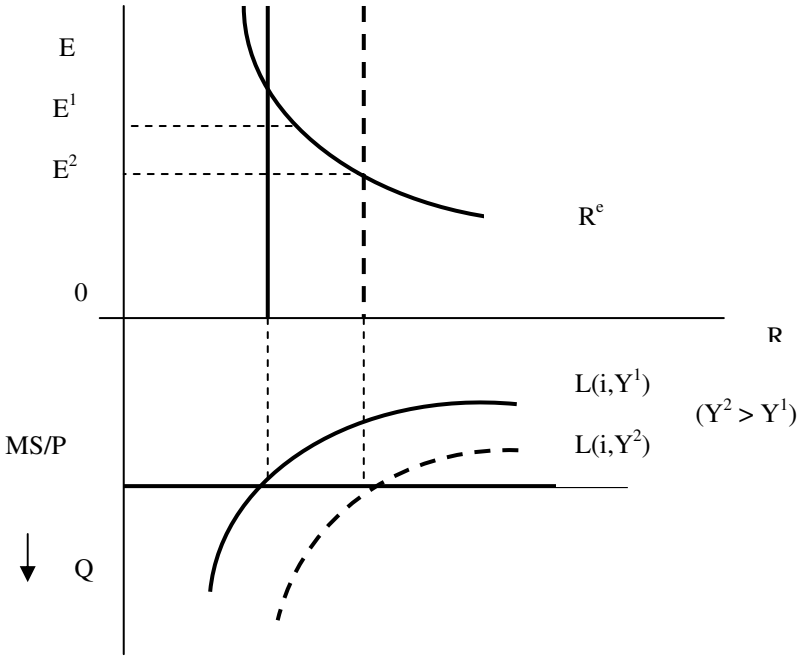
Figure 9-3 The shift of DD curve based on the changes in factors affecting the aggregate demand



Once we have established a relationship of exchange rate and output in the model of aggregate demand, we move on to complete the analysis of the foreign exchange rate in the short run and that by the establishing equilibrium on the foreign exchange and money market using AA curve. First, we look at how the change of level of income affects the equilibrium on foreign exchange and domestic money market (see Figure 9-4). An increase in the output

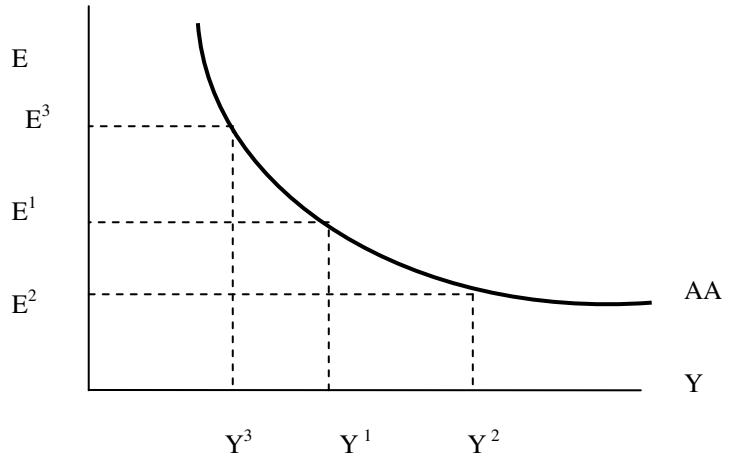
level from Y^1 at Y^2 causes a rise in the real money supply and establishes a new equilibrium interest rate i^2. When R^e and i_F are constant, this step causes a shift E, i.e. appreciation of the domestic currency. To achieve equilibrium in asset markets it means that ***the increase in domestic output must be accompanied by an appreciation of the domestic currency*** and vice versa.

Figure 9-4 Effect of change in output to the foreign exchange and money market



Now we can model the AA curve on the basis of the above relation. The AA curve shows a direct relationship between the change in Y and the subsequent change in E (Figure 9-5).

Figure 9-5 The AA curve



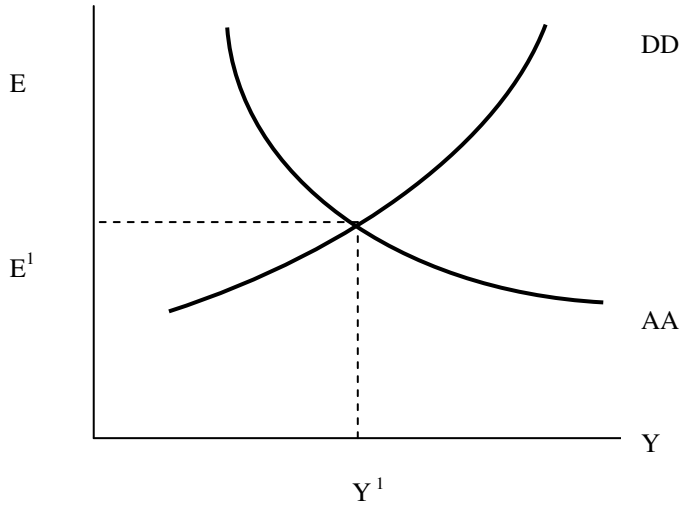
Like there are factors causing the shifts of the DD, likewise also in case of the AA curve exist some factors. These include changes in the domestic money supply, the domestic price level, in anticipation of future exchange rate, foreign interest rate and changes in the real demand for money:

- ***Changes in domestic money supply*** – their increase at a fixed level of income causes the depreciation of the domestic currency in the foreign exchange market (E increases) and shifts the AA to the right up
- ***Changes in domestic prices*** – their increase causes the decrease in the real money supply and *i* shifts to the right up what cause a decrease in E and shift of the AA curve to the right
- ***Changes in the expected rate of return*** – if economic entities expect that the expected rate of return of the domestic currency increases, the R^e curve shifts to the right what causes a depreciation of the domestic currency and a shift of the AA to the right
- ***Changes in foreign interest rate*** – they have the same effect as changes in the R^e – their increase shifts the AA curve to the right
- And ***changes in the real demand for money***, if economic entities decide to reduce their holdings of money, the real money demand L (shifts left) is reduced, that decreases i and increases E and there is the same effect as in the case of an increase in MS, a thus the AA curve shifts to the right up.

9.4 SHORT-TERM EQUILIBRIUM OF THE OPEN ECONOMY

So far, we have determined the relations between output and the exchange rate in terms of aggregate demand (DD curve) and asset markets (AA curve) separately. To determine the macroeconomic equilibrium must be maintained equilibrium condition of these two markets simultaneously and for this reason it is necessary to combine these models and determine the point at which this short-run equilibrium occurs. Assuming fixed interest rates and expected foreign exchange rates we combine DD and AA curves (see Figure 9-6). Balance in all markets occurs at Y_1 and E_1.

Figure 9-6 Determination of short-term equilibrium



Like in the macroeconomic balance, also in this model DD-AA occurs imbalance, either through the points outside of the intersection of curves or by shifts of DD and AA curves. In the first case there is a return to the equilibrium point relatively quickly, because the asset markets have a large adjustment capacity. To the curves shift occurs by acting of the economic policy, fiscal (u curves DD) or monetary (for curves AA).

9.4.1 SHORT RUN EQUILIBRIUM WITH THE IMPLEMENTATION OF NET EXPORT

If we want to include the macroeconomic effects of macroeconomic policies (monetary and fiscal) in the context of international trade into the short-term balance, we have to include in the created model DD-AA the effects on net exports. This quantity is shown using the **XX curve** and expresses a combination of foreign exchange rate and output, in which the net export is equal to a required level X. If actual level of the net export does not match X, the short-run equilibrium is not on the XX curve. The above conclusion can be expressed by equation (9.15):

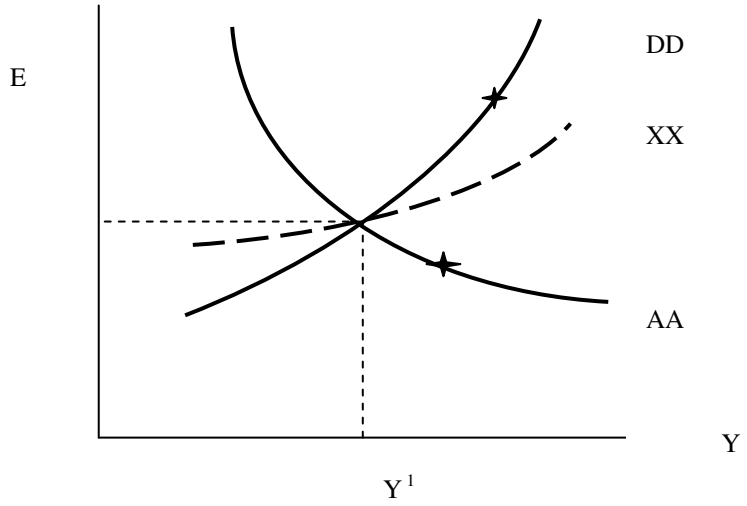
$$NX(R, YD) = X \qquad (9.15)$$

where: NX – current account balance

X – required level of the NX

We can graphically represent the short-term balance with the implementation of the curve XX using the figure 7-8. The curve has an upward trend since the increase in output causes an increase in expenditure on imports, which worsens NX, if this is not accompanied by a depreciation of the currency. However, its course is flatter, because of the smaller growth in domestic demand for domestic output than is the increase in output itself (because the income is partly saved and partly converted in expenditure on import). Equilibrium occurs at point 1, where NX=X. Up to this point the balance is NX> X, which means that in case of an expansionary monetary policy (point C on the curve DD) net export in the short run is growing. Down from this point is NX<X and fiscal expansion reduces NX (point F on the curve AA).

Figure 9-7 The XX curve



10 INTERNATIONAL MACROECONOMIC POLICY

In the first chapter it was said that international trade is associated with the movement of money, when every international transaction has to be paid, which requires not only a functioning system of international monetary relations, but also international macroeconomic policy. This policy can be expressed only through the IS-LM-BP, but mainly through DD-AA model.

However, if we want to analyse international macroeconomic policy, we also need to monitor the evolution of the international monetary system[56], which we will deal with first. Although its post-war history dates back to 1944, when the agreement establishing the International Monetary Fund and the International Bank for Reconstruction and Development was created in Bretton Woods, its origin goes much more into history, concretely in the second half of the 19th century. We look therefore at how this international monetary system evolved and then we will analyse the formation of macroeconomic policy in the case of fixed and floating exchange rate in the context of the development of the international monetary system.

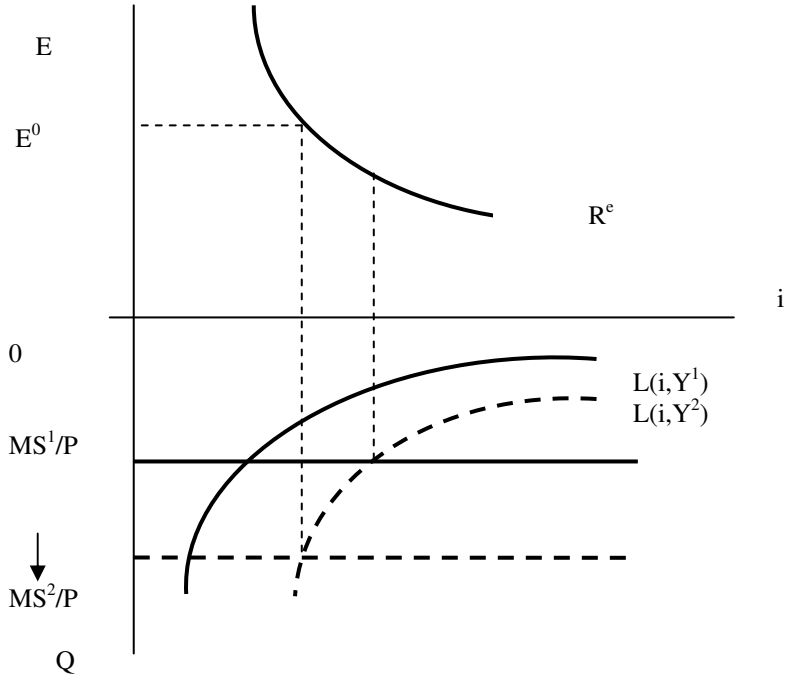
10.1 THE FIXED EXCHANGE RATE POLICY

Before we proceed to the actual analysis of macroeconomic policies in different exchange rate regimes, we will describe how the central bank can maintain a **fixed exchange rate**. The initial condition is that ongoing financial transactions ensure balance on the market assets. Suppose that the central bank fixes exchange rate (in Figure 10-1 at level E^0), which implies that it must maintain domestic interest rate equal to the interest rate abroad. Based on the original relationship of equality (6.5), where the domestic interest rate is equal to the sum of the foreign interest rate and the expected change in the domestic currency against foreign currency (in the case of fixed rate is equal to zero). Participants in the foreign exchange markets are therefore willing to keep as many domestic and foreign currencies that offer the same interest.

The central bank can meet the equality of domestic and foreign interest rates only if adjust the money supply to equal i_F to the real money supply and real demand for money. However, not always there is this ideal situation. Suppose that there will be an increase in the income in the economy, which automatically causes a rise in the demand for money. What the central bank must do to keep rate at a fixed level is shown in figure 10-1. If the demand for money increases, domestic *i* automatically decreases and nominal exchange rate decreases as well. However, since the central bank keeps the exchange rate fixed at the level (and will not allow appreciation of the domestic currency), it must buy foreign currency, which is accompanied by the expansion of the domestic money supply, which will happen as long as the domestic money supply does not reach the level of MS^2. This step is called **central bank intervention**. It is thus reach a new equilibrium point, which corresponds to the condition of equality of both interest rates.

[56] International monetary system is the sum of the linkages between currencies and monetary systems of individual economies (Lebiedzik, Majerová and Nezval, 2007).

Figure 10-1 The fixed exchange rate and equilibrium on the market assets



10.1.1 THE FIXED EXCHANGE-RATES SYSTEM

So far we have talked about fixing the exchange rate, but we did not tell anything about the system that allows this fixation. The first system of fixed exchange rates is a **gold standard**. In this system, the central bank (CB) fixes the value of its currency to gold and hold gold as official international reserves. This system worked between the years 1870-1914, even though some economies tried on its reintroduction after the First World War[57].

The second system of fixed exchange rates was the **gold bullion standard**, which operated briefly in the interwar period. It was founded on the principle of convertibility of currency into gold, but only for the entire ingot 12.4 kg of gold (Tuleja, Majerová and Nezval, 2006). Even before World War II was replaced by the **gold exchange standard**, which was based on central bank reserves in the form of gold and simultaneously a reserve currency.

The **reserve currency** is a set currency that is part of the international reserves of central banks and each CB fixes its currency against the reserve currency. That is given by the reason that CB has to be able to exchange domestic money for reserve assets precisely at this exchange rate. These reserve currencies (until the Second World War it was the British pound and the U.S. dollar, after the war it was only dollar) were fixed to the price of gold and each CB fixed the exchange rate to this currency. This system worked like the gold standard, but allowed greater flexibility in the growth of international reserves.

[57] Before 1870 the international monetary system was characterized by the use of bimetallic currency - see Lebiedzik, Majerová and Nezval (2007). Although the year 1870 is generally cited as the beginning of the gold standard, the exact date is disputed. The first economy, which started using the gold standard, the United Kingdom under the law (Resumption Act) of 1819, which established the pound's convertibility into gold at a fixed rate. In the second third of the 19th century, other economies adopted this system (e.g. Germany, Japan and Russia). USA had introduced it in 1879, but institutionally was implemented in 1900. France abandoned the system of bimetallism also very slowly (until the turn of the 19th and 20th centuries).

10.1.2 CONDITIONS OF FIXATING THE FOREIGN EXCHANGE RATE

For functioning of this system, following condition had to be fulfilled:

- CB must guarantee trade with gold in unlimited amount at a fixed price and there had to be a free coinage (with the exception of the gold exchange standard)
- The state must guarantee the free import and export of gold and gold coins by private entities
- Parity of all forms of money with the value of the gold monetary unit and free convertibility into gold had to be maintained
- And all the money in circulation had to be covered by gold reserves.

Because of the above-mentioned conditions, this system has shown for a macroeconomic stability certain positives as well as negatives. The positive was that CB, because of obligation to fix the price of money in gold or reserve currency, could not increase the money supply faster than growth in demand for money. Therefore, the system automatically set the limits for the increase in the domestic price level (through monetary expansion), which maintained the real value of domestic money more stable. The negatives were that the system made the use of monetary policy to stabilize the price level and unemployment impossible (CB did not think about increase in money supply even if the economy was in recession). Furthermore, the money supply (supply of gold or reserve currency) grew ever slower than real product and demand for money, which resulted in deflationary pressures (prices were more flexible and therefore this did not lead to significant recessions), and last but not least, the big gold producers (Russia and South Africa) could affect the global macroeconomic conditions by production and sale of gold.

10.2 THE INTERNATIONAL MONETARY SYSTEM IN 1870-1973

Now let's look at how the international monetary system affects macroeconomic bearers. Macroeconomic policy in an open economy has two objectives: ***internal balance*** ensuring full employment and price stability and ***external balance***, which eliminates the current account imbalance in BoP. This means that the economy does not have such a current account deficit that the economy would not be able to pay the foreign debt and neither such surplus to put into this situation its business partners (and thus deprive itself of the loss of wealth represented by foreign currency).

10.2.1 INTERNATIONAL MACROECONOMIC POLICY IN 1870 - 1914

In terms of the gold standard was the obligation of the CB to maintain the official parity between currencies and gold, to which needed the appropriate supplies. It meant that the CB had to watch that gold would not flow out of abroad into the economy and what is more important – that gold would not flow out of the economy to abroad. In modern terminology, the CB tried to limit large fluctuations in BoP, the sum of the current account and non-reserved components of the capital account. At that time, surpluses or deficits BoP were financed by transfers of gold between CB and to avoid this, the surplus (deficit) non-reserved components of the capital account "have been pushed" into the line deficit (surplus) of current account. Generally true that the economy has its BoP in equilibrium when the sum of the current account and capital account equal zero. This meant that the current account was financed by international loans without movement of the reserves. In this period, there was a

rule of the game of the gold standard[58], which was ***based on the sale of domestic assets in the case of a deficit and on purchase of domestic assets in the case of BoP surplus***.

As regards price stability, the gold standard tried to eliminate the monetary growth in the world economy and thus ensured the stability in the level of world prices. In the long run, while the world price developments during this period did not show a large increase, but the national price level fluctuated unpredictably over short periods between inflation and subsequent deflation. This is due to the orientation of the economy to external balance and not on the internal balance that was "on the agenda" after the First World War, as a result of economic instability.

10.2.2 THE INTERWAR PERIOD 1918 - 1939

During the First World War the governments left the gold standard due to funding of military spending by printing money. Stocks of capital and workforce have been reduced by war losses and that all caused a general increase in the price level.

First economies returned to the gold standard in the USA in 1919, followed by other countries that profited from the financial stability of the system. At a conference in Genoa in 1922, Italy, Great Britain, France and Japan agreed a general return to the gold standard and the partial gold standard currency for small economies was granted. In 1924, the first country in the post-war period that restored the gold standard was Sweden, followed by Great Britain in 1925. The Great Britain decided to return to the gold standard at pre-war prices and this step was accompanied by restrictions on monetary policy, high unemployment and as a result, this economy has got into stagnation.

This situation supported by the global economic crisis of 1929 (in the sense of reducing the volume of international trade and the sharp rise in unemployment) resulted in mistrust of London as a financial centre and in creation of **currency blocks**. These blocks were as follows:

- The ***pound block*** was created after the devaluation of the pound in 1931, it consisted of about 40 economies – countries of the Commonwealth, Scandinavian countries, Japan and China reached a relatively high stability
- The ***gold block*** was founded in 1933 and lasted until 1935, it kept the gold parity and was formed by France, Belgium, Holland, Switzerland, Italy, Poland and the Czechoslovakia
- And ***dollar block***, which was established in 1934 and it consisted of the USA, Canada, Central America and the Philippines, where these economies, due to the growing influence of the U.S. dollar, showed a most satisfactory macroeconomic development.

The period of the 30s was marked by great instability accompanied by enlarging trade barriers, output declines and deflation. About this time we talk as about the **international economic disintegration** that led to the breakdown of the gold standard. In addition to the Great Depression, the causes of this collapse were the following:

- ***The underestimation or overestimation of major currencies*** after the end of the First World War
- ***No adjustment mechanism of BoP*** – since the incorrect exchange rate parities were maintained, many countries had gold reserves, deficits has been deepening inflation, what has led to the stagnation of the economy, deficits of BoP and restrictions on foreign trade

[58] Set by J. M. Keynes.

- A ***competitive devaluation*** – given the poorly defined exchange parities many countries devalued their currencies, which raised a revaluation of the currency in the foreign countries where central banks protected themselves by devaluations with efforts to restore the original parity
- And ***destabilizing capital flows*** between the traditional financial centre London and the new centres – Paris and New York.

10.2.3 THE BRETTON WOODS SYSTEM IN 1944 – 1973

The depression 30s of the last century and the subsequent World War II caused a nearly perfect disposal of international trade, international trade and capital flows of money (lots of economies had almost autarchic character). However, during the World War II, the economies began to realize the need for reform of international monetary relations, not only to the world economy avoid economic and social chaos and devaluations that took place in the interwar period.

The first step to restore the international monetary system was the negotiations of the Monetary and Financial Conference of the United Nations in the American town of Bretton Woods, which was attended by 44 countries and on which was the negotiated agreement having a basis for the **Bretton Woods monetary system**. At this conference agreed mechanism for regulating the international financial system and establishing international monetary institutions with responsibilities in the area of foreign relations.

By signing the agreement of Bretton Woods was established:

- The creation of international monetary institutions[59] whose purpose is to lend to any member country that will have problems with the current account of balance of payments and will have a shortage of foreign exchange, particularly the IMF had gold for other currencies to lend on the basis of the **subscription**, which meant that each entrant economy had to pass on account of IMF gold and its currency according to quotas set according to the size and economic power (*quota* represents both the contribution and the right drawing)
- As a **reserve currency** in the international monetary system was established U.S. dollar (pegged to gold, which gave rise to the gold dollar standard) and other economies maintained its foreign exchange reserves in that currency or in gold
- Each economy has set a par value of its currency and maintained a fixed exchange rate with a tolerance of ± 1% through intervention purchases and sales of USD on foreign exchange markets
- Member countries could devalue or revalue the parity value of its currency without the consent of the given international institutions, and only in a situation when BoP showed the ***fundamental imbalance***[60]
- After a certain time, all the currencies of member countries were to become ***convertible***, in terms of convertibility on current account transactions BoP

Maintaining a fixed exchange rate and gold reserves required considerable effort, which was in later years, as we show below, still bigger but less successful.

[59] These institutions are the International Monetary fund and International Bank for Reconstruction and Development (original World Bank).

[60] This imbalance was not strictly formulated, but it was considered that it was the economy, which suffered permanent adverse movements of international demand for their products.

The international monetary system began to operate after the war, because the states were committed to the convertibility of their currencies, which was accompanied by a necessity of devaluations and adequate reserves for interventions on foreign exchange markets. The US initially did not have the willingness to provide their currency, but during the ***Cold War*** and fears of the spread of communism, the situation has changed due to the Marshall Plan, whose essence was to provide USD for recovering of the economies and militaries of European economies. This period was in relation to macroeconomic equilibrium ***period of stability*** when the dollar maintained its position as a reserve currency, mainly due to inconvertibility of the most currencies (except the Canadian dollar which was convertible since 1945) and current account deficits of BoP in relation to the USA. The Marshall Plan had efficiency, but European countries considered it as unsatisfactory and therefore, they tended to mutual trade among themselves.

In the fifties, the situation was reversed and a period of the ***"calm before the storm"*** has come. Since 1958, most European economies considered their dollar reserves to be sufficient and they have restored the convertibility of currency and with that related convertibility of goods and surplus current accounts with the US. The fear of devaluation of the dollar against gold have began to arise, for instance the fear of increase in the price of gold. The US responded to these concerns by interventions on the gold market (price remained the same) and other steps – credit restrictions and capital controls to prevent the buying of dollars by foreign economic entities. In this period there was a substantial increase in the mobility of capital and thus a new approach to deficits or current account surpluses of BoP. Economies that showed fundamental imbalances were obliged to devalue or revalue its currency. Expectations of devaluation and revaluation resulted in a speculation when central banks most of the time awaited with these steps until the last moment and speculators could before selling or buying currencies to earn.

In the next period – in the period of the **Vietnam War and the "Great Society"**, was the macroeconomic policy of the USA considered as a major mistake that helped to end the system of fixed exchange rates. The huge increase in government expenditures (on the war in Vietnam and program of "Great Society" with expenditures on public education and housing) was accompanied by monetary expansion, which resulted in growth of inflation and taxes.

Contrary to the belief of sufficient dollar holdings of European economies, in the world economy prevailed beliefs about the lack of international reserves or international liquidity. This was the essence of so called the **Triffin Dilemma**, which was based on the questionable commitment to the US about the dollar's convertibility into gold. In other words – if demand for the dollar increases (due to the increase of international trade), the money supply should increase as well, but in practice it was not possible anymore because of the exogenous offer. If the US satisfies the demand for dollars, it would cause the decrease in the ratio of the gold-dollar and would lead to the loss of confidence in the dollar as a reserve currency. If not satisfy, this demand would reduce the international trade and global growth.

A solution would be to introduce more than gold reserve assets. In 1967, the **Special Drawing Right** (SDR) was created. This is a type of artificial, paper gold, traded only among central banks to offset imbalances of BoP[61]. Originally it amounted to 1 USD and currently is set up of a basket of four currencies (euro, British pound, U.S. dollar and Japanese yen).

Since 1968, US monetary policy on the one hand and on the other hand, Germany and Japan, diametrically opposed and the dollar against these currencies was overvalued. This period has been called the **period of golden crisis**. The solution was twofold: either in

[61] Nowadays, due to the floating exchange rates, international mobility of capital and creditworthiness of economies, SDR is ineffective for developed countries and they may help in the case of developing economies, which cannot raise funds on global financial markets (but for this purpose have not been created).

monetary growth, a revaluation of the DEM and JPY (which would imply a devaluation of the dollar) or changes in monetary policy. No central bank did want to step aside and the situation came to a head in 1971 when the Bundesbank interventions were such strong that the Bundesbank left the exchange rate float and the dollar has depreciated strongly against the Deutschmark.

This devaluation was not a simple matter for the USA, because it was tied to the consent of the other economies with fixing of their exchange rates at a new level[62]. Therefore, devaluation could be made only on the basis of negotiations. These negotiations took place at the end of 1971 in Smithsonian institution (Washington) and they are known as ***Smithsonian agreement***. The dollar was devalued by an average of 8 %, the price of gold rose by $ 3 per ounce (at 38), the fluctuation band was expanded to 2.25 %[63] and the convertibility of the dollar into gold was cancelled.

Between 1972 and early 1973 there were further speculative attacks and devaluations of the dollar, which led to the closure of the international foreign exchange market. March 19, 1973, this market was reopened and most currencies against the dollar were floating. This situation has been reported as end the regime of fixed exchange rates and as the beginning of a new era of international monetary relations.

10.3 THE POLICY OF FLOATING EXCHANGE RATES

The system of **floating exchange rates** is based on the principle of non-intervention of the central bank on foreign exchange markets. The functioning of this system is followed by many arguments for and against[64]. For the affirmative arguments we consider:

- The ***autonomy of monetary policy*** when the central bank does not have to intervene in the foreign exchange markets, monetary policy can be used to achieve the internal and external balance of the economy and economies do not have to import inflation (deflation) from abroad
- A ***symmetry***, when the US does not have to determine monetary conditions to other economies and simultaneously they have the same opportunity as to influence their exchange rates against foreign currencies other economies
- And ***exchange rates are automatic stabilizers***, when even in the absence of active monetary policy the rapid adaptation of market determined exchange rate helps the economy to support internal and external balance by changes in aggregate demand.

Among the arguments that have reservations about the introduction of floating exchange rate regimes, we rank the following disadvantages:

- A ***discipline*** – if central banks do not the obligation to fix their exchange rates, they may tend to inflationary policies
- The ***destabilizing speculation and fluctuations in the money market*** – for example, destabilizing sales of a weak currency may support future inflation expectations and bring home a wage-price spiral, which results in additional depreciation
- A ***damage to international trade and investment*** – a floating exchange rate developments raise the unpredictability of development of the relative international prices

[62] This meant consent with the revaluation of their currencies.
[63] In 1973, even these measures proved insufficient.
[64] Only the arguments concerning the macroeconomic level are mentioned, at the microeconomic level may be an argument against for example costs to hedge against exchange rate movements.

- A ***lack of coordination of macroeconomic policies*** – the damage of other economies can be caused by the application of independent macroeconomic policies due to the loss of the rules of the Bretton Woods system
- And a ***great illusion of autonomy*** – a floating exchange rate do not allow to penetrate foreign inflation into the economy, and thus it allows the central bank to influence the money supply, but the exchange rate is also so important macroeconomic variable that policy makers cannot apply tools of monetary policy without including their impact on exchange rate.

To incline more to the arguments against is a disputable issue since the world economy after the collapse of the fixed exchange rate system was exposed to many strong shocks, which also managed due to floating exchange rates. Now, these shocks will be analysed.

10.3.1 THE INTERNATIONAL MONETARY SYSTEM AFTER THE COLLAPSE OF THE FIXED EXCHANGE RATE SYSTEM

The world economy and the international monetary system were after the collapse of the Bretton Woods system exposed to many strong shocks, whose overcoming would be very problematic in the system of fixed exchange rates. After the outbreak of war between Israel and the Arab countries, the OPEC countries decided to impose an embargo on oil exports to the US and the Netherlands as a protest against their support of Israel. This resulted in the overstocking of customers and a huge increase in oil prices, which resulted in a reduction in consumption and investment in individual economies and led to a recession in the world economy, which is known as the **first oil crisis** in 1973-1975. In countries that were dependent on oil imports, there was a significant deterioration in the current account of BoP and in case of exporters of oil there was a significant improvement in the current account. Reactions were varied, mostly in the form of an expansionary fiscal and monetary policies, which led to stagflation and external and internal imbalances. The return to fixed exchange courses was in this situation impossible.

This situation forced the developed economies to decision to legalize the use of floating exchange rates in the IMF and that on the G7 meeting at the Chateau Rambouillet near Paris (where it was agreed that member states do not return to fixed exchange rate, but will coordinate "enormous fluctuations") and then in 1967 at a meeting in Jamaica (Kingston town), which was the beginning of the **Jamaican currency system**. On this meeting was arranged:

- A ***cancellation of the official price of gold***, which resulted in a huge increase in its price (see Example 8-2)
- An ***elimination of gold from official foreign exchange reserves***, which was effectively the end of the process of demonetization of gold
- A ***cancellation of parities of currencies to gold***, which did not mean anything other than the recognition of floating exchange rates
- The ***use of SDR*** as an international reserve currency
- And the ***eligibility of exchange rate system*** of each member economy in its sole discretion and IMF surveillance over those policies.

In the next four years, there was a ***period of a weak dollar***. Because the US used expansionary policies (for recovering of economy) separately, it resulted in inflationary pressures and then the sharp depreciation of the dollar against the Yen and the Deutschmark. This caused deflationary tendencies in the German and Japanese economy, which prevented themselves by interventions against the dollar by increasing the money supply. The

weakening dollar was the impetus for a change of monetary policy to strictly restrictive with the limitation of monetary growth, which resulted in a brief but sharp recession.

However, in 1979 due to political and economic problems in Iran there was further significant price increase and the ***second oil crisis*** came. The results were similar to those of the first one – oil importers' current account deficits of BoP and stagflation. Monetary policies in most economies were restrictive, because their creators worried about further inflation and inflation expectations. This has led to a rise in interest rates and a sharp recession, which had very negative consequences especially for oil-exporting developing countries in a form of increased indebtedness.

The effectiveness of restrictive monetary policy of the US has been proved. On the foreign exchange markets early disinflation was expected and the dollar strengthened. This resulted in a drop in output and rise in unemployment in the USA and also negative reactions to the strengthening abroad (disinflation occurred partially exporting inflation abroad). All this, together with the effects of the second oil shock, led to a greater recession in the world economy than was the great crisis in the 30s. Strengthening dollar raised deterioration in the current account of balance of payments of USA (cheapening imports has been accompanied by increasing prices of exports), which reduced demand of certain sectors – agriculture, textiles, steel and automotive industries. This raised the need for protectionist measures.

The most developed economy have begun to worry about the collapse of the world economy and in 1985, at the Plaza hotel (New York) agreed on joint intervention on the international foreign exchange market and thus the pressure on the dollar. This intention was achieved. The dollar has been declining until 1987 and unfortunately, despite the adequate appreciation of other currencies against the dollar, the dollar has depreciated and there was a threat of another crisis. In early 1987, when sufficient appreciation of currencies against the dollar was considered, the meeting of the six most advanced economies in the Louvre was carried and a plan to stop falling of the dollar was adopted. However, reducing of the current account deficit of the US balance of payments and increasing expenditures and money supply growth in Germany and Japan conditioned it. It did not happen and the dollar steadily declined. Alan Greenspan, a new Fed chairman, prevented this crisis, because he improved the liquidity of the international financial system by providing dollars to the international financial market. Since other governors of central banks followed him, the global reduction of interest rates and partial stability of the dollar was achieved.

However, this situation did not last long and the fluctuations of the dollar began to appear again in the late 90s of last century and the dollar is unstable till these days. Based on past experience it cannot clearly determine how to precede in the future. It is shown that the system with relative exchange-rate flexibility works quite satisfactorily, but not optimally. It was developed in the context of changing international financial system and this development process was not always satisfactory and it was partly because it was uneven and activities of many supporting institutions lagged behind this development. This occurred financial crisis, but they are not a phenomenon of the past few years and they are proof that international financial system has been breaking down rather than the monetary one.

10.4 THE INTERNATIONAL MACROECONOMIC POLICY IN THE FLOATING EXCHANGE RATE SYSTEM

Given that the analysis of the functioning of macroeconomic policy in the system of fixed exchange rates can also be found in Czech literature (Neumann, Žamberský and Jiránková, 2010), we focus on the coordination of macroeconomic policies in the system of floating exchange rates and individual effects, then we will compare to the situations that

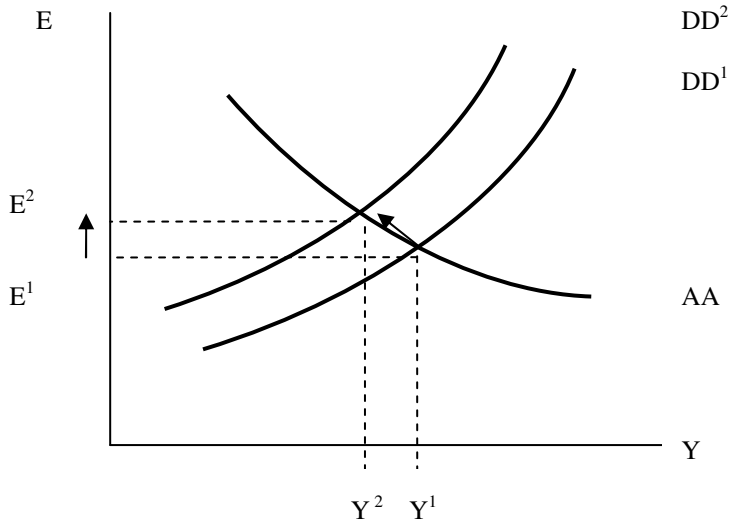
occur in a fixed exchange rate regimes[65]. We will use the well-known DD-AA model, whose nature we explained in the previous chapter. First, we analyse the impact of the decline in foreign demand for exports of the domestic economy, then we will analyse the impact of the growth in demand for money.

In the case of a decline in foreign demand for exports will rely in particular on the argument, mentioned at the beginning of chapter 10.3 and this is the argument of ***exchange rates as automatic stabilizers***. The best explanation is the graphical one (see Figure 8-3). The decline in foreign demand for domestic goods causes a decline in aggregate demand and shift of the DD curve to the left up (to the level DD^2). So far, the effects do not differ for any of the exchange rate regimes. But impacts of this shift will be different for floating rates (Figure 10-2 (a)) as well as for fixed exchange rates (Figure 10-2 (b)). If implemented the ***policy of floating exchange rates*** it will not lead to a change of the AA curve, but to the depreciation of the currency and the decline in output. This is caused by a decline in demand and output which lead to the reduction in the transaction demand for money. In order to maintain equilibrium in the money market, the interest rate must also decrease because it causes a devaluation of domestic currency appreciation (a shift from E^1 at E^2). In the case of fixed-rate policy there is also a decrease in the output, but to a greater extent due to intervention of the central bank to maintain the stability of the exchange (at E^1). The central bank buys foreign currency for domestic currency and this reduces the money supply (shown in curve shift from AA^1 at AA^2). The exchange rate thus remains fixed, but there will be a drop to the level of the output Y^3.

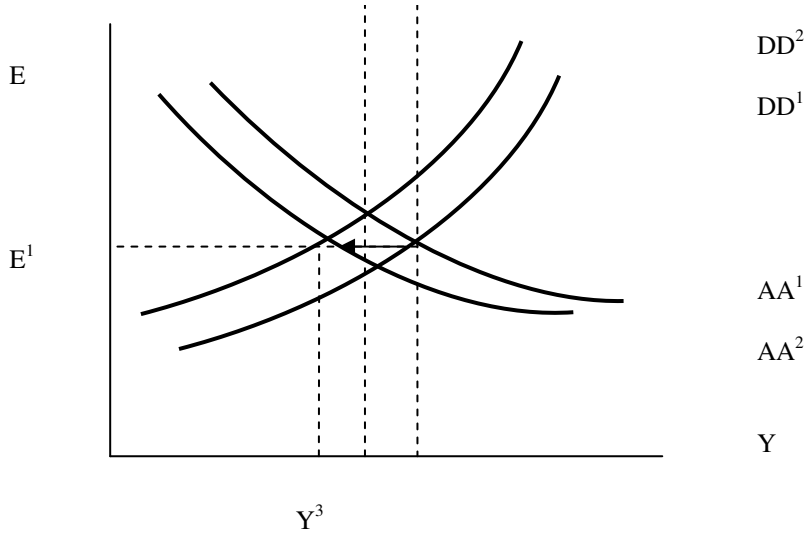
The above-described situation shows the movements and effects in terms of short run. What happens in the case of the long-term (permanent) decline in foreign demand? The effects are the same, only deeper: in floating-rate policy, there will be a shift of the AA curve up and greater depreciation and a decline in output and in terms of the policy of fixed exchange rate a decline in long-term leads to fundamental imbalance of BoP.

[65] For instance, Krugman and Obsfeld (2003) deal with that issue very clearly.

Figure 10-2 The effects of the decline in external demand in the regime of floating and fixed rates

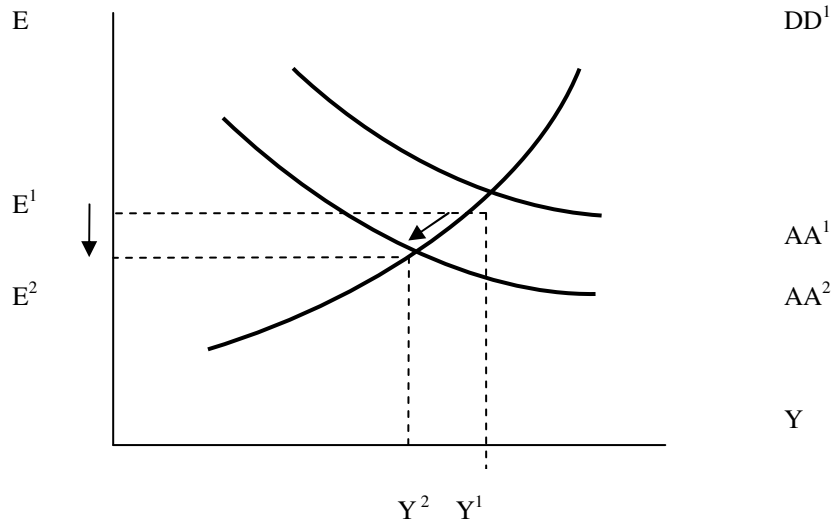


(a) The floating foreign exchange rate

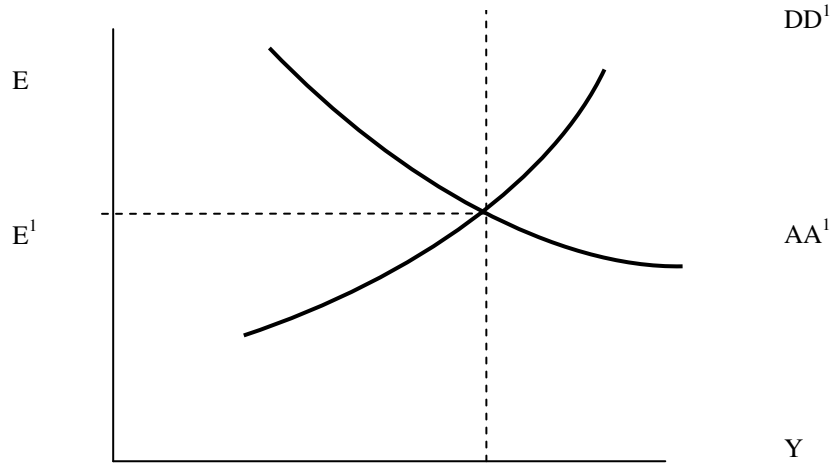


If we mentioned the argument for choosing policy of floating exchange rates, we also have to analyse the negative impacts, using the argument of ***destabilizing speculation and fluctuations in the money market***, which cause fluctuations in the demand for money. When the exchange rates are floating, the economy becomes more sensitive to shocks originating in the domestic money market, as shown in Figure 8-4. In the floating exchange rates regime (Figure 10-3 (a)) is shown that the effects of the growth of the real money demand curve AA to the right at AA^2. This causes a drop in output and the appreciation of the currency. In the long run, the growth of money demand leads to a decline in the domestic price level. In a fixed exchange rate regime (Figure 10-3 (b)), changes in the demand for money will not affect the economy at all – to avoid the currency appreciation, the central bank buys domestic currency for foreign currency and thus it increases the money supply, thereby negating the growing demand for money. Because of this intervention the AA curve remains at its original level (and the exchange rate as well). It also means that the output does not change and in the long term neither the price level.

Figure 10-3 The effects of growth in external demand for money in the regime of floating and fixed rates



(a) Floating exchange rates



(b) Fixed exchange rates

From the above arguments and the experience of the two systems exchange rate regimes we cannot incline neither to the side of advocates nor the critics of those policies. However, one thing is very clear – no system of exchange rates can function without the international economic cooperation.

11 GLOBAL CAPITAL MARKETS

The **international capital market** (ICM) is a market on which residents of different economies trade with their assets. It historically evolved from national capital markets in Europe, USA and Japan. The integration process has become both an important factor for investing in international assets, but also for the determination of exchange rates and finance.

11.1 THE STRUCTURE OF INTERNATIONAL CAPITAL MARKET

The **international capital market** is a *group of closely related markets in which there is trade with assets in international dimensions*. The assets include securities and bonds, which are bonds, which in this case can be divided into two groups. The first group are the so-called **foreign bonds**, or bonds issued by a foreign borrower in a given country in its currency, for instance dollar bonds issued by the British issuer on the capital market in the USA. The second group are the so-called **Eurobonds** or bonds, *which are issued beyond the scope of currency in which they are denominated* (e.g. Czech company may issue bonds denominated in US dollars and sold outside the US market).

Issuers of these assets are mostly companies and public organizations and investors are mostly non-financial organizations that collect money from those economic entities that are interested in a stable interest income. Banks arrange and implement all. This brings us to the structure of ICM. It is very similar to that of the foreign exchange markets and consists of:

- ***Commercial banks***, which are centres of the ICM, because they provide a chain of international financial activities and may carry on foreign activities that cannot be carried out in their own economy and by this way they promote the growth of international banking
- ***Corporations (companies)*** that usually finance their investments by drawing foreign funds, in the form of bonds or loans from international banks and financial institutions
- ***Non-banking financial institutions*** (insurance companies, pension funds, so-called investment banks), which are important "players" on the ICM, because they participate on this market in order to diversify their portfolios
- And ***central banks and government agencies***, the CB to participate in operations on the ICM by interventions on foreign exchange market and government agencies by borrowing from foreign commercial banks[66].

From the point of view of the international economics – we are interested in relation to the international capital market to three things:

- How this market increased revenues from international trade to the economies involved in it
- What caused the huge increase in international financial activities in the last forty years
- And how can economic policy-makers minimize problems arising on the ICM without a drop in profits this market brings.

[66] This applies especially to the governments of developing economies and state-owned companies. For example, Poland and Hungary were indebted this way at the time of the Council for Mutual Economic Assistance.

11.2 INCOMES FROM INTERNATIONAL TRANSACTIONS

All transactions between residents of individual countries can be summarized into three categories:

- A ***Trade of goods and services for goods and services***, which we discussed in connection with models (theories) international trade. Revenues from this type of trade resulting from the fact that the economy can concentrate on producing of those goods, which are more efficient.
- A ***trade of goods and services for assets*** resulting from Intertemporal trade, where goods and services are exchanged for the right on future goods and services, i.e. for assets (e.g. when the economy borrows abroad, that means that is sell bonds abroad, it may import goods and services to domestic investment project). This type of trade allows higher incomes for the domestic economy, because of higher investment, which is financed by foreign capital, as well as for foreign investor, since it achieves a greater return on assets than would be achieved in their economies.
- And ***trade of assets for assets*** – this type of market is numerically expressed in the capital account of BoP (foreign assets held by domestic residents – debit, domestic assets held by foreign entities – credit), which may be balanced by purchase or sale of assets.

11.2.1 RISK AVERSION AND PORTFOLIO DIVERSIFICATION

When the participants in the ICM decide on buying assets, an important role in their decision plays the risk of each asset and its expected return. Behaviour of these economic entities is usually very influenced by the **risk aversion**[67]. This explains the existence and profiting of insurance companies that "sell protection against the risk" (theft, illness, etc.). It also explains the existence of the ICM, because investing on the foreign markets, which may not recorded e.g. price fluctuations in the domestic economy, offers the possibility of reducing portfolio risk.[68].

James Tobin, the founder of **modern portfolio theory**[69] with risk aversion, described this process, called ***portfolio diversification*** as follows: " Don't put all your eggs in one basket", i.e. divide the amount you want to invest on different parts these deposit with a different interest. When the economy is open ICM, investor may reduce risk of his wealth by placing some of his "eggs" in foreign "basket". This risk reduction is the basic motive for market assets.

However, economic entities know that even on domestic markets is portfolio diversification into different sectors to reduce risk to expected return, because it is possible to eliminate unsystematic (diversified) risk. However, the systematic elimination (undiversified) of the risk is very limited. What is hidden under these terms? **Unsystematic (specific) risk** is linked to the situation of individual companies and the industry. It can be removed in such a way that when one company (industry) is loss, the second is profitable. The **systematic (market) risk** is associated with the macroeconomic situation in the economy, such as economic cycles and fluctuations, the situation on foreign markets, etc. In the domestic market is not possible to eliminate the systematic risk of the reason that prices are influenced

[67] Those who prefer risk are called „risk lovers".
[68] Except the possibility to reach higher incomes.
[69] J. Tobin (1918-2002) acquired for this theory in 1981 the Nobel prise in Economic Science.

by the same factors, such as fluctuations in interest rates, money supplies, economic and political cycle

Asset prices in individual national markets are not influenced by the same factors and therefore their incomes are different. The variability of returns and risk can be eliminated by international diversification. In other words, a risk that is systematic in terms of one economy may not be systematic in terms of the global economy (see oil shocks).

But why in the globalization process are still preferred the investment in domestic assets? This is given by the existence of **barriers of international diversification**, including:

- ***Legislative barriers*** – foreign exchange regulations, controls limiting investment of domestic entities abroad, limiting ownership of domestic assets by foreign entities, the double taxation of income from foreign assets, etc.
- ***Indirect economic barriers*** – information and transaction costs of investing in foreign assets, inaccessible or incomplete information about the issuers and about the market itself, different accounting standards, inadequate protection of minority shareholders, etc.
- A ***lack of liquidity national markets*** – inefficient and slow marketability on the stock market, the rapid devaluation of the domestic currency, unstable macroeconomic and political situation etc.
- And ***psychological barriers*** – based on insufficient knowledge of foreign markets, lack of understanding of the customs and culture, underestimating the stability of these markets, etc.

11.3 THE DEVELOPMENT OF THE INTERNATIONAL BANKING AND CAPITAL MARKET

Despite the above-mentioned barriers occurred in the last fifty years the globalization of the banking industry by that the bank "crossed" boundaries of economies and joined the foreign financial centres. Such a trade that is managed by foreign bank offices outside their domestic economies is called **offshore banking**[70]. Hand in hand with offshore banking, the offshore currency trading has been growing. Offshore deposits are bank deposits denominated in a currency other than the currency of the country in which the bank is located (e.g. Yen deposits in the Bank of London). They are typically short-term deposits (from overnight to one year) with a fixed interest rate. Banks that accept such deposits are called **eurobanks**.

The motivation for the development of offshore banking and currency was the growth of international trade and transnational nature of business activities. Another reason for the expansion of international banking was a "desire" of banks to escape from domestic government regulation of financial activities by moving their operations abroad and in foreign currencies. Last but not least, it includes also a political factor, when some depositors, due to legal conditions demanded possession of currencies outside the domestic economy. The above types of deposits are usually referred to as the **Eurocurrency**, which is a little misleading name, because it is often traded on non-European markets such as in Singapore or Hong Kong. They also include dollar deposits deposited outside the US, called **Eurodollars** and **Eurobonds**.

[70] It can be explained as external support of banking.

11.3.1 THE GROWTH OF THE EUROCURRENCY TRADE

The **market with Eurocurrency** is not a new phenomenon, since many banks in Europe before and after World War I accepted deposits in other currencies. Origin Eurocurrency market as we know it today, refers to the period of the Cold War, when the reserves of the former Soviet bloc held in the USA in danger of being frozen. At the time of the gold standard had these economies, if they wanted to trade with the West, to accept dollars and therefore to avoid this blocking, the reserves held in England and France.

The above-mentioned sanctions have an impact on the emergence of the **Euro-dollar marke**t. This also helped develop two types of regulation by the Federal Reserve Committee – regulation Q and regulation M:

- ***Regulation Q*** is based in determining the interest rate ceiling on deposits in the US, because European banks did not participate in this regulation, they could pay higher interest rates for dollar deposits in the European market, where interest was higher
- And ***regulation M*** is based in determining the rate of minimum required reserves for the US banking system, because reserves do not bring any interest, its pose represents for banks high costs. European banks were no obligation to maintain minimum reserves of dollar deposits, which reduced their costs compared to US banks and allow them to pay higher interest rates "to attract" deposits.

Two other measures helped to the development of the Eurodollar market:

- In 1963, the tax on the income of US residents of foreign securities was introduced. To compensate this tax, foreign borrowers have to pay higher interest rates, which was for foreign economic entities expensive and they have oriented the Eurodollar market, where the measure did not apply
- And in 1965 restrictions on the use of foreign domestic assets was introduced and therefore, many American companies that planned investments abroad, shifted its activities to the above market.

It would seem that the euro money market has suffered by these measures (contradictory) but the opposite is true. After their removal in the mid 70s, this market has seen tremendous flourish, partly due to the large quantity leading to economies of scale and also because these transactions are appropriate for the current globalized world (it is impractical to deal with different banks in different economies in different currencies).

Now we show what is the process of deposits´ making and we try to understand the benefits of the above-mentioned markets. And we will try to refute unfounded objections that Eurocurrencies are the part of the money supply in the given economy and thus may cause outflow of cash reserves.

11.3.2 CREATION OF EUROCURRENCY

To show the best this process we use an example. Imagine that BMW Company sold in the US car worth 50,000 USD. American – the new owner pays by check bank A and BMW becomes the owner this check and it thinks what will do with that. It is expected that in about a month will need dollars to pay for the laptops that intends to purchase in the USA. So BMW decides to keep those dollars for one month and in a form that will bring interest.

It may decide for two ways – either buy some type of security (e.g. treasury bills, or bills issued by US banks), or buy Eurodollars depositing this check to the Bank of England. If BMW decides for the second option – the Eurodollars was created.

Suppose that the Bank of England has a dollar account in US B bank, then the transaction described above has the impact on the change in the balance of the three banks: for A bank it means loss of 50,000 USD (on both sides) because of increasing deposits of

American owner of BMW car. For the bank of England has the increment of this money in the form of increment of the BMW account and this transaction has the same effect on the balance of B bank (see Tables 11-1 to 11-3).

Table 11-1 Balance of A bank

Assets – changes		Liabilities – changes	
Reserves	-50.000	Deposits (owner account)	-50.000

Table 11-2 Balance of the Bank of England

Assets – changes		Liabilities – changes	
Deposits of B bank	+50.000	Deposits (account of BMW company)	+50.000

Table 11-3 Balance of the B bank

Assets – changes		Liabilities – changes	
Reserves	+50.000	Deposits (account of the Bank of England)	+50.000

Source: own processing

The above transaction has the consequence that the monetary base[71] remains unchanged. And because the monetary base is the passive side of CB, it means that the increase in Eurodollar supply (in our case) is not cause by a decrease in the money supply. This process continues further and due to a multiple expansion of bank deposits leads to a further increase in the volume of Eurodollars, but because of the interconnect of the international capital market there is not an outflow of money from the US money market.

11.4 MACROECONOMIC STABILITY AND EUROCURRENCIES

Often happens that politicians and journalists are sounding the alarm because of the huge range Eurocurrency deposits when these "non-state money" – in their opinion no uncontrollable – are not any national monetary authority can thwart the government effort to maintain economic stability and may even cause global inflation

Eurocurrencies and monetary control

Monetary base must equal liabilities CB, you directly control the transactions based on the domestic and foreign market assets. The course of the relationship between the monetary

[71] Powerful money - the amount of reserves and currency.

base and the various monetary aggregates is dependent on the money multiplier. The need to reserve different types of deposits has a major influence on the determination of the size of money multiplier. This fact causes the euro currency trade multiplier somewhat destabilized. To avoid this instability CB must control monetary aggregates in the short term. Therefore, it would seem that the economic perspective, this market seems inappropriate. On the other hand, we must take into account the economies of scale that benefit the consumer market assets, which facilitate the exchange of assets currently Eurobank.

Monetary base must equal liabilities of CB that directly control the transactions based on the domestic and foreign market assets. The course of the relationship between the monetary base and the various monetary aggregates is dependent on the *money multiplier*. The need of reserves of different types of deposits has a major influence on the determination of the size of money multiplier. This fact causes that the Eurocurrency trade somewhat destabilized this multiplier. To avoid this instability, the CB must control monetary aggregates in the short run[72]. Therefore, it would seem that from the economic perspective, this market seems inappropriate. On the other hand, we must take into account the economies of scale that are benefits for the consumer on the market assets, when the Eurobank enable this exchange of assets currently.

Moreover, this instability has no effect on the monetary base, as we have already said. When some economic entity selects dollar of deposits in a A bank and places it in an account in the Bank of England, the reserves are not affected by this operation and it will not be shown in the balance of CB. In terms of the balance of payments, the capital outflows from the domestic economy will be abroad as capital inflow if a foreign bank lends the dollars to buy goods and services or assets in the domestic economy. Fear of outflow of currency and the subsequent flooding of vast domestic money market is unfounded.

Eurocurrencies and world inflation

Inflation causes the growth of monetary supply, which includes money in circulation and non-term deposits[73]. Eurocurrency deposits cannot be explicitly included in this category because they are relatively illiquid, resemble the term deposits and are usually referred to as a broad monetary aggregate, so called **quasi-money**. However, it does not mean that the effect of these deposits on the price level can be completely ignored because they are a medium of exchange and rising substitution for money may cause in the future large inflationary pressures.

Meanwhile, the Eurocurrency market is under the control (although such a control in the short run is not a simple matter) and the only one threat is that it might get out of the control by introducing compulsory reserves on foreign currency transactions of banks. It would be necessary to implement the legislative coordination of governments, which is technically and politically difficult.

11.4.1 REGULATION OF INTERNATIONAL BANKING

At the international level, the regulation of the banking market is less effective, than at the national level, where domestic banks are subjected to legislative regulation, which is internationally not possible. This national regulation is associated with the elimination of bank insolvency and to it belongs:

- ***The deposit insurance***
- ***Minimum reserves***

[72] The effect of instability in long run is not large enough.
[73] or Monetary aggregate M1

- A ***regulation of bank capital and risk assets*** (bank capital represents bank shares and risk assets represents ordinary securities whose prices are volatile)
- Banking supervision
- And ***lending of commercial bank by the CB*** (a tool to prevent panic in the banking system).

If we look at the international regulation from the perspective of the above measures, we can conclude that:

- The deposit insurance in international banking is missing, due to the fact that the amount that is available for insurance is too small to cover all deposits used in international banking
- The absence of minimum reserves is a major factor in the development of Eurocurrency market is actually competitive advantage of Evrobank and no economy is willing to address the problems that would arise by the introduction of this measure to domestic banks that do business abroad
- A regulatory of capital and risk assets and bank supervision is problematic as regards the first – the CB regulate its commercial banks, but they do not dare "get" into the accounts of foreign subsidiaries and affiliates (subsidized) members, and in the second case, who would carry out supervision (which other CB – in the case of the association of the Bank of England in Italian – Italian, British or American CB)?
- as well as the issue of lending is problematic, given the above example, who should take responsibility for the loan in the event of withdrawal of dollar deposits – American CB, British or Italian commercial bank?

The issue of national security against the banking collapse took on the severity of the particular events of bankruptcy of largest private bank in Italy (Banco Ambrosino) in 1982. Addressing this issue, however, does not date from this event is related to the huge development ICM beginning in the 60s.

By the year 1974, in addressing of this issue was not done that much – till 1974 there have been many bankruptcies of major banks for losses on foreign exchange markets. In 1974, under the banking crisis, was appointed the group of central banks of eleven industrial countries, which is called the **Basel Committee**, whose main goal was cooperation in banking regulation.

In 1975, the Committee adopted a resolution called ***Concordat*** in which was established the responsibility in the international banking system between the domestic and host countries, e.g. through monitoring of assets of foreign subsidiaries or the unification of financial balance of international banks).

A major step to improve the situation to ensure ICM was performed in 1988, when the Committee agreed common standards for adequate valuation of bank capital (minimum was set at 8 % of risk assets).

An open problem remains the lending in the interbank market and the international activities of non-bank financial sector, because the bankruptcy of insurance companies as well as banks failures may cause a collapse of the banking system. The growing ***securitization***, which is the process of converting assets into multiple bank market form (investment and insurance funds), makes the supervision of financial flows and balance sheets of banks difficult.

In the next chapter, we describe how the crisis of the banking system in the 80s resulted in the debt crisis of some developing countries.

11.5 FINANCIAL CRISES IN 90'S YEARS

After years of relative global economic stability some financial markets were hit by certain monetary crisis. In February 1994 in Mexico, interest rates dropped due to declining inflation, because interest rates in the US rose at such a level that did not bring interest earnings in Mexico what led to the leaving of first investors and government was not able to finance increasing current account deficit. Foreign exchange reserves of the CB declined and the solution was twofold: either currency devaluation, or the introduction of a flexible exchange rate. The Mexican central bank conducted this devaluation in late 1994 and then there were a huge capital outflows, further devaluation of the Mexican peso (in total by 120 %) and it led to the transition to a freely floating currency exchange rate.

The outflow of capital caused the financial crisis in Mexico, subsequent economic depression, started further declines in currencies and asset prices in other countries of Latin America and Latin America was hit by the financial crisis, which was continued in 1999 in Brazil (see below). This process was called ***tequila effect*** and this term also took the Asian financial crisis mentioned below.

For solving of this crisis, US provides to Mexico the stabilization loan to prevent a collapse of the banking sector and this loan was very helpful – Mexico during the year liberalized economy, restore investor confidence and consequently there was a significant increase in foreign direct investment.

These crises were reflects of the growing problems of global capital markets and cause of short-term speculation in the currency markets. Now we look at each crisis separately and we will try to analyse the causes and specifics of each crisis.

11.5.1 THE ASIAN CRISIS IN 1997

The origin of the Asian crisis is in fundamental changes in the economies of the region and in the transition of many Asian countries from the position of net exporters to net importers position. At the beginning of 90 years, Thailand was the most developing economy of the Far East and it began to import more than export and required together with other economies net capital flows to support their fixed currencies. If capital flows were made (the development of companies, infrastructure, construction of dams and even speculation in real estate) currencies were kept at a fixed level, once these flows ceased, the crisis was inevitable.

A most noticeable was this situation in Thailand between 1996 and 1997. In the context of rapid economic growth and increasing profits Thai companies, banks and financial companies entering the international capital markets and substantial credit burden on investment, because they thought that these dollar loans are cheap. How does this investment "bubble" has been increasing, they began to hear voices warning against the (un)ability to pay growing debt.

Thai CB and the government began to intervene in the foreign exchange market and that directly (using large foreign exchange reserves) and indirectly (rise in interest rates to prevent the outflow of currency). That stopped the flow of investment, what caused huge monetary losses and bank failures and then the CB allowed a floating of the Thai baht. From hour to hour currency fell against the US dollar by 17 %, against the yen by 12 % and this process have been continued and in November 1997, the baht fell against the dollar by as much as 38 %.

This was followed by the Asian version of tequila effect when other countries in the Asian region came under the pressure of brokers and capital market. Philippine peso, Malaysian ringgit and the Indonesian rupiah and other currencies fell against the dollar, as shown in Table 11-4. Only in the case of Hong Kong (due to direct interventions of the CB) and China (due to inconvertibility) there were no changes.

Table 11-4 The development of the foreign exchange rates in the period of Asian crisis (1997)

Country	Exchange rate (to USD)		% change
	July	November	
Indonesia (rupiah)	2400	3600	-33.3
South Korea (won)	900	1100	-18.2
Malaysia (Ringgit)	2,5	3.5	-28.6
Philippines (Peso)	27	34	-20.6
Thailand (Baht)	25	40	-37.5
China (Renminbi)	8.4	8.4	0.0
Hong Kong (Dollar)	7.72	7.73	0.0
Singapore (Dollar)	1.43	1.60	-10.6
Taiwan (Dollar)	27.8	32.7	-15.0

Source: Eiteman et al. (2001)

The Asian economic crisis was more monetary crisis, since it had, in addition to difficulties in the balance of payments, many other causes, including as market socialism, the existence of state-owned enterprises and banking liquidity (large speculative investment) poor management of banks (underestimating the role of banks in business management).

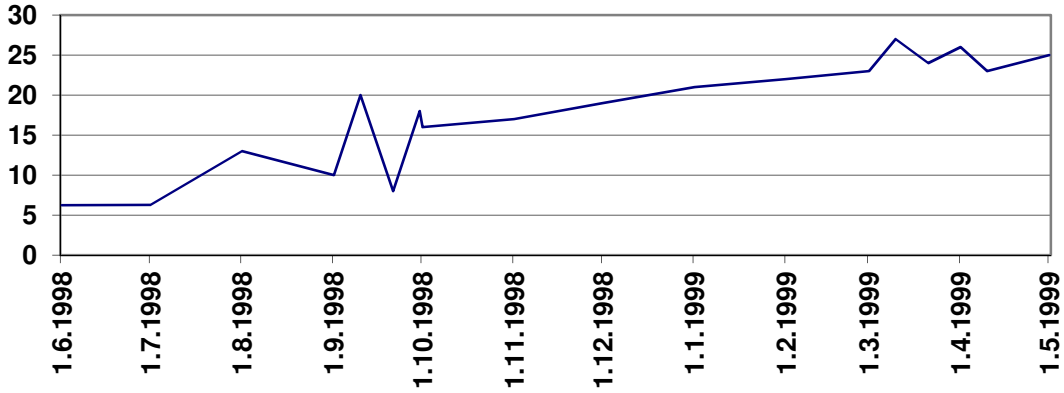
The Asian crisis has had a worldwide impact, because the slowdown in the Asian region caused a major reduction in world demand for various commodities (oil, copper, agricultural products). Russian and Brazilian crises were a reflection of the decline.

11.5.2 THE RUSSIAN CRISIS IN 1998

This crisis was the culmination of prolonged worsening economic conditions in Russia. From 1995 to 1998 Russian loan grew on the international capital market (governmental and non-governmental). Debt operator began to be a growing problem and dollar flows inflowing into the economy immediately outflow. In the spring of 1998, the Russian export began decline (so far showed a current account surplus), since this export was most commodity-oriented and that because of the decline in prices in global markets caused by the aforementioned Asian crisis.

The Russian ruble fell until mid-August 1998 under the regime of managed floating and to keep this regime the central bank intervened – usually by purchase of rubles while using gold reserves. Consequently, the result of a decline in the value of Russian assets (due to devaluation of the Chinese renminbi) CB announced in mid-August (on 17th) the decline of the ruble against the US dollar, which continued until the end of the year (see Figure 11-1).

Figure 11-1 The development of the Russian ruble in time of Russian Crisis (ruble/USD)



Source: Eiteman et al. (2001)

The Russian crisis had an impact not only at the international capital market, but also to the Russian society that began increasingly ask question concerning the meaning of a market economy (in the style of Western democracy), and also because the level of economic environment and its stability is currently compared with states such as Sudan, Iraq, Congo or Afghanistan.

11.5.3 THE BRAZILIAN CRISIS IN 1999

Between 1997 and 1998, the most of economists did not speak in the context of the Brazilian real about whether devalued, but when and how much will be this devaluation. Since 1994 (the devaluation of the Mexican peso and the beginning of the financial crisis), the value of was artificially maintained in the hope of stabilizing expectations of economic and financial growth. The inability of the government to reduce the ever-growing current account deficit and domestic inflation resulted in currency devaluation in early 1999.

The decline in value of the Brazilian real (from the initial value of the exchange rate 1.207 to 2.2 in early March 1999) was reflected in a decline in the value of Brazilian securities, as shown in Table 11-5. This decline negatively affected cash flow and possibilities of net earnings of Brazilian companies, which resulted in a decline in their market value and with that related problems.

Table 11-5 Decline in the value of securities on the Brazilian market assets in January 1999

Day	Capital flows (in bill USD)	Change in value of securities
Monday 11.1.	0.19	-5.8 %
Tuesday 12.1.	1.20	-4.9 %
Wendesday13.1.	1.05	-4.4 %
Thursday 14.1.	1.00	-7.2 %
Friday15.1.	0.00	28.0 %

Source: Eiteman et al. (2001)

11.5.4 THE ARGENTINE CRISIS IN 2002

Further and till this time also the last is the crisis on the Latin American continent called as the Argentine crisis of 2002. The huge increase in private and public debt preceded

this (from 8 to 43 billion US dollars) in the period of the military dictatorship in the years 1976-1983 in order to finance the war on Falkland Islands in 1982. This increase was the main reason for the crisis. At the end of the eighties of last century, it seemed that the situation is stable – debt was maintained at a relatively constant level and at the same time extensive privatization of state enterprises was conducted, which attracted foreign capital[74]. However, once you have exhausted the proceeds from privatization, public debt began to rise again and in 1998 reached 110 billion USD[75]. At the end of 2000, a total debt amounted more than 200 billion USD.

Except the aforementioned privatization, which was a part of the reforms, it was also its part the establishment of an absolute fixed exchange rate so-called *currency board*, when the Argentine peso was pegged to the US dollar at a ratio of 1:1. Due to the currency board, inflation fell from 5 000 % in 1989 to 1.1 % deflation from 1999 until 2001. On the other hand, this absolutely fixed exchange Argentine goods more expensive, with negative consequences for domestic exporters and at the same time encourage the purchase of foreign goods competed with the whole sector of the domestic economy.

While in 1996-1998 the economic growth in Argentina amounted to 4-8 % per year, in 1999, came the recession, mainly due to the Brazilian currency crisis and the appreciation of the US dollar. This recession has been to mitigate the expansionary monetary policy, currency board but it did not allow the devaluation of the peso and the government policy of a fixed exchange rate would not give up. It had three reasons:

- The first was the fear that hyperinflation occurs again
- The second, Argentine businesses and households had their debts in dollars and break away from the dollar would lead to bankruptcies
- The third, the Argentine government hoped that the US dollar would weaken, leading to increased competitiveness of Argentina, which it did not.

In the Argentine economy, there was a gradual deterioration of public finances and growth of foreign debt. Along with the growth of debt grew naturally (in December 2001 amounted to 155 billion USD) and logically interest grew as well (to 20 %), but Argentina was unable to pay them. In 2001, Argentina had to put on the full repayment of interest of 9 % of GDP. In that year there has been a deepening recession (-4.4 %) and the IMF refused to provide further loans (in December 2000 the government received 39,7 billion dollars in August 2001 and a further 8 billion). It subsequently led to outstanding debts to private creditors (national bankruptcy) and the beginning of 2002 to the devaluation of the peso (January) and the introduction of floating (February). The peso has depreciated by 380 %, recession continued, GDP fell by 11 % and there was a return of inflation to 26 %. In 2003, it has managed to restore economic growth (8.3 %) and inflation fell to 13.4 %.

Argentine financial crisis had a negative impact not only on the economy but also the standard of living:

- The income per capita dropped to about one-third the level of 1998
- The cost of living index rose during the first half of 2002 by 39.1 %

[74] Banks, telephone companies, television stations, gas, water, electricity, roads, railways, ports, airports, military industry, post office and metro were privatized – overwhelmingly in the hands of foreign owners. Also because of this investment boom, Argentina's GDP grew rapidly – in 1991-94 by an average of almost 8 % per year.

[75] While the public debt in the years 1992-1998 doubled, the debt of the private sector increased tenfold (from 3,5 billion to 35 billion USD).

- The number of people living below the poverty line (2 USD per person/day) increased from 38.3 % in October 2001 to 52.2 % in March 2002 (in the 70 years of the 20th century there were only a million out of 37 million inhabitants)
- From 1997 to July 2000, the unemployment rate has been increasing from 13.8 % to 15.4 % and in early 2002 it climbed to 21.5 %.

Brazilian and Argentine economic crisis weakened not only because of that were affected the economy but also the entire region of Latin America and the Caribbean. On the other hand, further developments have shown that those economies with the crisis and trying to learn through stabilization programs and social changes capitalize on their growth potential and to participate fully in the global economy.

12 DEVELOPING COUNTRIES AND EXTERNAL ECONOMIC RELATIONS

If we talk about trade policy in developing countries, we must first clarify the concept in its historical context. Already at the time of colonialism, were the colonial economies, respectively semi-colonies (e.g. China) or dependent countries (e.g. Argentina) termed *backwards countries*, what means underdeveloped countries. Their features were economic stagnation or slow economic growth and redistribution of wealth and income in these countries to controlling economies. After they gained independence, representatives of these countries refused to use such a designation that they associated with elements of racism and therefore they began to be used the term *less developed countries* or *underdeveloped countries*. Neither the first nor the second term was adopted and for this reason there was adopted a term – one could say diplomatic – ***developing countries***. This name is assumed and is used in the literature on international negotiations.

12.1 THE CHARACTERISTIC OF THE DEVELOPING COUNTRIES

From the perspective of development, the developing country is most often characterized as an economy with low (or very low) level of income per capita, a high proportion of the labour force in agriculture and other primary sectors (mining and minerals), short life expectancy, high illiteracy, high population growth and low growth in real income per person. From the perspective of international trade, the difference between developed and developing economies expressed by that the developing countries mainly exports food and raw materials (OPEC countries, Botswana – diamonds), while the developed economies export industrial goods.

Neither of the above characteristics applies in general. In the case of some oil barons (see below) it cannot be talked about the low per capita income and its low growth, as well as the latter division does not apply to so-called newly industrialized countries[76] exporting labour-intensive manufactured products and also for India.

The only reliable indicator of classification of developing and developed countries remains the sectorial structure of the economy, respectively the share of employed people in each sector. The larger the importance of the primary sector in the national economy and the more people work in it, the less economically advanced countries. The share of each sector on the GDP is shown in Table 16-1. For comparison, there are both developing and developed economies. We can see that the share of both types of economies is different. While developing countries does not show large differences in individual sectors, in developed economies dominates service sector and the share of the primary sector is minimal. On the contrary, in the proportion of employees in each sector, which in developing economies dominated employment in the primary sector (e.g. in Egypt is 30.5 %, in Burundi even 92.6 %), but in developed economies, this ratio is significantly lower (e.g. UK 1.8 %, the Czech Republic 6.5 %).

[76] Thailand, Malaysia, Indonesia, China, Taiwan, South Korea, Hong Kong and Singapore.

Table 12-1 GDP composition in developing and developer economies in 1995 and 2008

	A		I		S	
	1995	2008	1995	2008	1995	2008
Developing countries	15	10	34	37	51	53
Developed countries	2	1	29	27	68	72

Source: WORLD DEVELOPMENT INDICATORS 2010.

Based on the above we can say that in the group of developing economies, there is differentiation, which divides these economies to more advanced and less advanced. Therefore, these economies are further divided[77] into sub-groups:

- A group of ***major oil exporters*** ("oil barons") which play a significant role in the world economy duet to their large revenues from oil exports
- A group of ***newly industrialized countries*** (NIC), i.e. countries with a high rate of growth, which is approaching with its parameters economically advanced countries
- Developing countries not having access to the sea (ocean) called ***Landlocked Developing Countries (LLDC)***, which includes 31 countries of Asia, America, Africa and Europe
- Small ***Island Developing Countries (SIDC)*** include 38 states and 14 dependent territories
- And a group of ***world's poorest countries***, the ***Least Developed Countries (LDC[78])*** and there about 49 countries

12.2 THE IMPORTANCE OF THE WORLD TRADE ON DEVELOPMENT OF INDIVIDUAL ECONOMIES

The world trade is very important for economic growth of developing countries. The share of foreign trade in GDP in 2006 amounted about 30 % and recorded growth compared to 1996 by more than 10 percent, while in developed economies, it was only 17 % (in 1996 showed 20 % in the 60s of last century, the ratio developing countries/developed countries 15 and 9 %). By 2050 it is expected that the share of developing economies on world trade will double and rise up to 70 % of global GDP. This development reflects the fact that developing countries are in the development phase, which is characterized by building a diversified economies and make efforts to remove the structural disproportions.

12.2.1 IMPORT AND EXPORT

As already said, for developing countries is paramount the acceleration the pace of economic growth and the implementation of far-reaching structural changes, i.e. mobilization of human and capital resources for industrialization. Although increasing the share of savings, it does not mean the increase in investment. On the world market of capital goods, these countries import share of 30 %, but exports only 5 %. This process is logical, since the initial

[77] This is the classification of UNCTAD – the United Nation Conference on Trade and Development was found in 1964 for supporting of integration of the developing countries into the world economy

[78] Some developing economies belong to several groups at once – in LDC, LLDC or SIDC.

phase of industrialization is characterized by high intensity of capital (e.g. implementation of infrastructure projects). Imports of machinery and introducing them into production is associated with an additional import of raw materials, when the individual developing countries are major producers of raw materials, but highly specialized, while domestic consumption of raw materials is very diversified.

Another problem is the ***large-scale import of primary energy*** and that is oil. While developing countries are in overall terms its exporters, it is due to a few countries. These economies are not able to use alternative energy as an advanced economy, because of the capital intensity and their consumption will not decline neither from the reason of still growing energy needs of the rural population while dwindling supplies of coal and wood.

A significant disproportion is the ***slow development of agricultural production***, which leads to a deepening of structural imbalances and negative effects on the development of some developing countries. Particularly perceptible is this development reflected in the food, when the unchanged share of world production does not fully correspond with population growth. Some countries such as Sub-Saharan Africa are even dependent on food supplies in humanitarian aid. Developing economies in the post-war period has changed themselves in the largest importers of cereals, when import of cereals increased from 50 years (15 million tons) over 70 years (50 million tonnes), 80 years (100 million tons) to 150 million tons in the 90s of the last century.

A ***raw material export*** is concentrated on six items – oil, copper, iron ore, coffee, cocoa beans and sugar. However, this kind of commodity trade is significantly cheaper unstable and characterized by sharp fluctuations in prices as compared to manufacturing products. In addition, the development of raw material production in the developing world is dependent on sufficient capital, skilled labour and technology. For the development of raw material exports on the other hand speaks the fact that developed economies tend to secure long-term raw material resources which developing countries have a return for a guarantee of long-term access to raw materials entering into mining projects multinational company (including its financing).

Regarding the ***export of the manufacturing industry***, this is mostly labour-intensive products, although the slow move towards areas technically intensive can be recorded (especially ANIZ). The dynamics of manufacturing exports would have been even higher but there are protectionist measures in developed economies, which comprise more than 50 % of exports of developing countries. Developed countries are worried about competition from developing countries, which have certain advantages: longer working week, a smaller number of holidays in a year, multi-shift operation, unpaid overtime, skilled and cheap labour, weak, respectively, no labour unions, etc.

Dynamics of export and import of developing countries in international trade is increasing, which is also due to the overall expansion of world trade. The positive trend was interrupted in 2008, when impacts of the global economic crisis began to weigh on these economies and it was deepened the drop in 2009. In 2010 is no longer based on the global recovery expected to rebound.

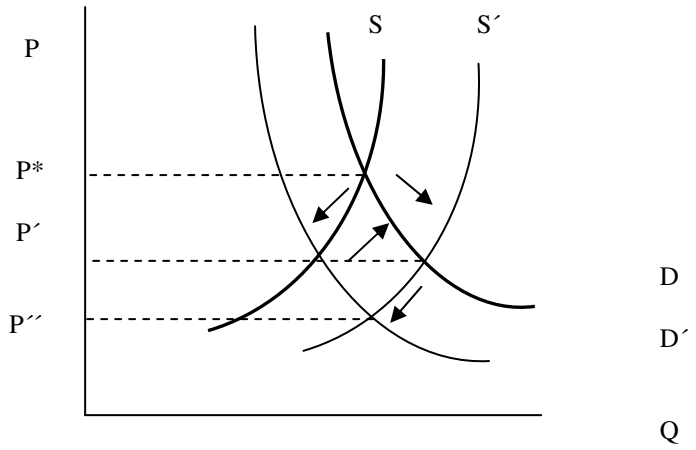
12.2.2 EXPORT INSTABILITY AND ECONOMIC DEVELOPMENT

Developing countries shows **export price instability**, which reflects the price fluctuations of their primary exports and which seriously bind their development. This instability is caused by inelastic and unstable supply and demand. Inelasticity of demand reflected by the fact that households in these economies expended a very small proportion of their income on goods such as coffee, cocoa or sugar. So if they change the prices of these commodities, households do not change their expenditure on these commodities equally,

which results in price inelasticity. Demand for commodities is inelastic also due to the absence (or small options) substitutes and the instability is due to fluctuations in economic cycles. The offer is inelastic because of the rigidity and inflexibility of use of resources in these economies and unstable due to weather conditions, epidemics, etc.

The above facts can be displayed graphically (see Figure 12-1). The curves S and D represent export demand and supply of developing countries. If there is a shift in the demand (D') or the supply S (S'), then the equilibrium price falls to a level P'. If there will be a shift in both curves, the equilibrium will be reached in P''. It may also happen that the curves D and S move back to its original level and the price rises again to P. Price inelasticity and instability of S and D lead to price fluctuations.

Figure 12-1 Price export instability



To avoid this price instability, the developing economies began after the Second World War to take certain measures, which were always specific to a particular economy. Such measures may include **business offices** that bought the production of domestic producers for stable prices in order to avoid their fluctuations. In favourable times they bought at a price lower than the world prices, in order to form the financial stocks and at times worse then bought up the production of these stocks at prices higher than the world. This type of defence did not work too well and more frequently **international commodity agreements** began to appear, which should guarantee an increase in export prices and earnings. There were three basic types of these agreements:

- ***Buffer stocks***, which were based on the principle that if the price of commodities fell, this commodity imposed to the warehouse where it waited until prices rise – e.g. Cocoa Agreement, natural rubber or tin
- A ***control of export*** which was regulation of the amount of exported commodities to stabilize prices – e.g. an agreement on coffee or sugar
- And ***purchase contracts*** – long-term multilateral agreements that determine the minimum price for which given import country purchase this commodity and maximum prices for which the export economy will purchase given commodity – e.g. agreements on grain.

Although the degree and rate of economic development depends primarily on the internal conditions of developing countries, international trade contributes significantly to the development process. We have already reported the view of some economists that the classical theory of international trade based on comparative advantages is irrelevant for these

countries and their development process – better than focusing on the production of primary commodities – is development through the form of industrialization.

12.3 INDUSTRIALIZATION

Industrialization is a ***process in which there is rapid technological progress and the growth of the industry (especially manufacturing)***. Industrialization supports the creation of well-paying jobs to relieve the unemployment problem, stabilization of production processes, leads to increasing values of terms of trade and stable export prices and to facilitate balance of payments difficulties due to faster growth in demand for industrial goods in developing economies.

If developing countries want to industrialize, they have the option to choose between the form of industrialization through import substitution or export-oriented industrialization, when each of them has its advantages and disadvantages.

12.3.1 INDUSTRIALIZATION THROUGH THE FORM OF IMPORT SUBSTITUTIONS

Industrialization through the form of **import substitutions** means that ***previously imported industrial products are replaced by domestic production***, mainly due to the introduction of protectionist measures. Among the advantages of this form of substitution is the existence of a market for industrial products, so the risk of introducing new types of import substituting production are minimized and the development of the economy itself is easier to protect their markets against foreign competition than the force developed economies to reduce trade barriers on their export. On the other hand, there are disadvantages including:

- The risk of inefficiency, when the domestic industry is growing on the base of protection against foreign competition and thus losing the initiative to be effective in this context and in this situation this substitution of imports becomes costlier
- A minimization of economies of scale due to the small size of the domestic market
- And last but not least, this substitution occurs often in the case of less demanding manufacturing industry, although the substitution of capital-intensive and high-tech production would be desirable

In reality, the impact of import substitution had on the developing world rather negative consequences, although during the 50^{th} to 70^{th} years of the last century, this policy was very successful in large development countries of Latin American (Argentina, Brazil and Mexico), but on the other hand, for smaller economies such as Ecuador, Honduras or the Dominican Republic did not bring bigger success, mainly for the reasons given above. Also in Asia (e.g. in Turkey and Pakistan) import substitution resulted in inefficient industries in these economies and slowing exports.

12.3.2 EXPORT-ORIENTED INDUSTRIALIZATION

In the case of **export-oriented industrialization** ***these is a focus on foreign markets through production, in which the economy has a comparative advantage***. As well as import substitution, the export-oriented industrialization has its advantages and disadvantages. The benefits include:

- An overcoming the small scale of the domestic market and the ability to achieve economies of scale
- Production of manufacturing goods for export is a stimulus for achieving efficiency, because the output of this (domestic) industry is input of another (foreign) industry

- And the expansion of export is not conditioned by the potential of the domestic economy, as it is in case of import substitution.

However, there are two major drawbacks – firstly for developing countries is very difficult to develop export industry resulting from better conditions already established and efficient industries in developed countries, and second, there is a high level of effective protection by the developed economies to less labour-intensive commodities in which developing countries have a comparative advantage and thus penetrate their markets is very difficult.

In practice, the implemented export-oriented policy is typical for the development of the Asian newly industrialized countries after World War II and in recent years, especially for one very expanding economy, which is China.

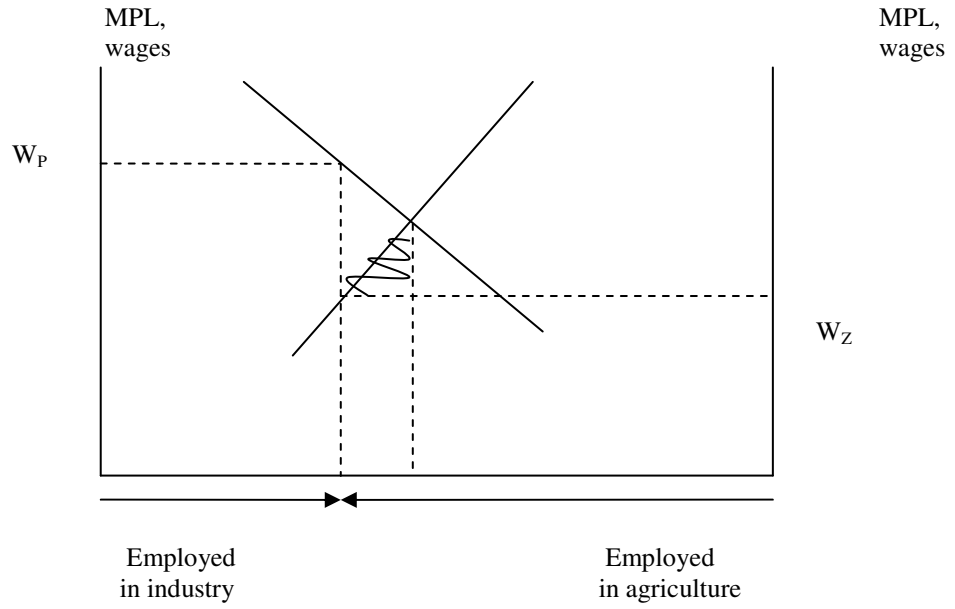
12.4 THE ISSUE OF DUAL ECONOMY

In developing economies, on the one hand, there are sectors that are very underdeveloped, such as agriculture and on the other hand, relatively modern, capital-intensive industrial sector. This phenomenon, when ***in one economy there are two sectors of two different levels of development***, we call **economic dualism** and economy in which this phenomenon occurs we call **dual economy**. When the economy exhibits the following characteristics, we talk about this phenomenon:

- The level of output per worker in the modern sector is higher than in the rest of the economy
- A high level of output is accompanied by high wage rates (industrial workers can earn, on average, ten times more than workers in agriculture)
- Although wages in the industrial sector are high, capital incomes are low
- A modern industrial sector is more capital intensive than the agricultural sector (which is not true in developed economies, where agriculture shows signs of capital-intensive sector), and for this reason, that agricultural work carried out using primitive tools, while industry with its level approaching those used in industrial countries.

Economic dualism is a sign of economic inefficiency since in the effective economy workforce does not get very different wages in different sectors and it is also the cause of using protectionist measures to protect the seemingly efficient industry. The substitution of import helps to the creation of dual economies. This inefficiency can be represented graphically by using the situation on the labour market (see Figure 12-2). Wages in the industrial sector (WP) are high and there is only few people employed, while in agriculture (WZ) the situation is reversed. The highlighted triangle indicates the inefficiency of the economy. The efficiency could be achieved if it would be in both sectors employ as many workers the corresponding point of conflict MPL curve in industry and agriculture.

Figure 12-2 Economic Dualism



12.5 LIBERALISM VERSUS PROTECTIONISM

The developed countries have the largest share of international trade and trade mainly among themselves. Terms of trade between developed countries are very open, and therefore they require the release of trade borders and demand from developing countries. Developed countries through the International Monetary Fund, World Bank and WTO often conditioned financial aid for less developed and developing countries just through the opening markets and liberalization of trade conditions.

Nevertheless, the main requirement of developing countries, is to protect their own markets and populations, respectively determination of the playing field for trade, since the developed countries often protect a certain part of their different market by barriers and quotas that other developed countries does not matter because trading in more commodities and types of products at once. Developing countries are often dependent on one type of crop or raw materials, whose values determine the world's stock exchanges, which are very sensitive to various external influences. Commodities prices on which are many developing countries depend, very volatile or even declining.

Protectionism is one of the basic tools that the government can use to influence economic policy. Their removal belongs to the fundamental tools of globalization and the expansion of world trade. They along with the liberalization of business and economic globalization companies become less dependent on the state, where business and government therefore increasingly used last tools that remain in the economic field. In the area of trade are mainly customs duties and import quotas, which the government can regulate the movement of goods flowing both from the ground and into the ground. The traditional approach of most governments always consisted in the imposition of the highest tariffs on imported goods to encourage domestic production, or the set quota for a certain kind of goods that could be imported into a country for a certain period. In addition, there are tariffs and quotas and non-tariff barriers to trade, such as various orders or regulations to protect consumers of products to which the products from the developing countries cannot meet.

12.5.1 WTO AND THE ROLE OF DEVELOPED COUNTRIES IN TRADE NEGOTIATIONS

In order to liberalization, acceleration and improvement of the exchange of goods, the developed countries after the World War II established organizations which aimed to gradually abolish the tariffs and quotas. The first such organization was the General Agreement on Tariffs and Trade (GATT), which was in 1994 transformed into the WTO with a stronger structure, as mentioned in chapter 10. WTO Agreements currently manage around 97 percent of world trade and through them grow the volume of world trade by average rate of 6 % per year while the ongoing efforts of its progressive liberalization in other sectors.

Trade negotiations under the GATT and the WTO have in the past led by centres of the world economy – by the United States, the European Union and Japan. Therefore, the discussions focused on those areas that are a priority for developed countries and almost did not take into account the needs of developing countries, although developing countries account for two thirds of the WTO. Developing economies gradually try to change this. At the fourth ministerial conference in Doha was adoption so-called the **Doha Development Agenda** (DDA), which allows deepening the integration of developing economies into global trade. DDA should address in particular:

- The agrarian reform, the so-called NAMA (non-agricultural trade liberalization products)
- Liberalization of trade in services
- Certain elements of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)
- The issue of trade and environment
- And trade facilitation (customs procedures), the multilateral trade rules (anti-dumping), preferential agreements, subsidies and countervailing measures.

In 2001, within the Framework of DDA the Doha Development Agenda Global Trust Fund was established. From this fund are through the form of technical assistance funded various programs related to the trade of developing countries (the Czech Republic contributes to this found since 20005 and in 2008 its voluntary contribution was 1.36 million of Czech Crowns).

Another breakthrough was the Ministerial Conference in Cancun in 2003, where the developing countries under the leadership of Brazil, India, China, South Africa and other developed countries, called the **G20 group**, for the first time were able to unite and jointly formulate an opinion. Its ultimate requirements in the area of agriculture encountered a tough stance of developed countries and then these talks collapsed. At the Ministerial Conference in Hong Kong in December 2005 it was already clear in advance that further negotiations on the liberalization of world trade is not achievable, but at least it managed to adopt certain procedures that allow continuing the negotiations of the Doha Development Agenda. During the negotiations, the conference was being developed very strong pressure on other members of the WTO to EU to agree to these substantial concessions on agriculture, the liberalization of trade in non-agricultural products (NAMA) and services. However, negotiations collapsed on the intransigence of both parties – the developed countries do not want to retreat to developing countries in the release of its markets and on the other hand, developing countries are resisting negotiations on the Singapore issues.

During 2006, should be submitted draft amendments to the negotiation of agreements, but after negotiations six trading powers (EU, USA, Brazil, India, Japan and Australia) in July 2006 in Geneva has been no progress. The negotiations failed because of issues elimination of subsidies in agriculture, distorting world trade and has not found a unified view on access to the world market for agricultural as well as industrial products and agreement on further

liberalization of world trade was postponed by half a year (new negotiation meeting was held in 2007 in Potsdam, Germany). In July 2008, an extraordinary ministerial meeting of the WTO was held in Geneva in order to save existing development Qatari round. Even those negotiations failed, and the issue of the so-called special safeguard measures for developing countries – their possible range of criteria, the amount of trigger mechanisms (in particular on the base of contradictions between the USA and India and China). If negotiations are restored quickly, it can lead to a complete collapse a threat to the multilateral trading system in the entire world, even the WTO itself.

The most typical example of a commercial dispute between developing and developed countries is thus a **dispute on agricultural products**. Developed countries (EU, USA, Australia, Japan and New Zealand) expend annually on support of domestic farmers over 300 billion USD. Simultaneously, these developed countries have high tariffs and specific quotas on food imports from developing countries, although they are usually cheaper than those produced by farmers in developed countries. Subsidies to farmers and food companies in developed countries in addition allow exporting their products into the developing countries at dumped prices, which local producers cannot compete. This unequal relationship does not allow to local farmers to sell not only the world but also in the domestic markets, resulting in extrusion of local agricultural production, with serious consequences for the region. In the context of world trade talks while developed countries are pushing for the liberalization of markets in developing countries, which thus lose the opportunity to protect their agriculture against subsidized by the dumped imports.

A similar situation also exists in other fields. This is especially the industry is labour intensive industries, where developing countries have a comparative advantage and developed countries often protect their producers by quotas. In the area of trade in textiles and fabrics is also under an agreement concluded within the WTO only a gradual opening of Western markets

12.5.2 Other Issues of the World Trade from the Perspective of Developing Countries

Since the 80s of the 20th century many countries deregulated financial markets and most of restrictions on capital movements were removed, which make a space for ***speculative capital***. Integration of financial markets, modern technology and the rapid transmission of information currently allow very quickly responding to any impulses and they may therefore cause a number of problems. The movement of capital is very flexible and also investors who otherwise operate in the financial markets in the longer-term and are interested in more stability, trade with it. That may cause a certain fragility and vulnerability of these markets.

Developed countries have a greater opportunity to influence the financial markets than the governments of developing countries, which generally cannot prevent a decline in its currency that would support its value on the stock market, because they do not have enough money.

In ***trade with raw materials*** there is between the developed and developing parts of the world a lot of tension. Many developing countries may not offer anything else than minerals that are mined in their territory into the world trading exchange. The uncertain financial markets determine prices. In addition, developed countries consume considerably more minerals than developing countries because their industry is more developed and they often can also handle the material better because they have more advanced technology. It is not the exception that for example the developed country exports expensive products from iron ores into the developing country in which these iron ores were bought. Customs regimes of

developed countries this trend support, since the duty on imports of processed products is higher than the import of raw materials (so-called tariff escalation).

Developing countries do not have enough money to support their own firms and therefore they try to obtain foreign capital through ***foreign direct investment***. It is therefore an investment of multinational companies that build or buy a factory, begin to produce, employ local people, pay taxes while goods exported from the country and sold. Investors can choose from a variety of locations for their businesses and for this reason the local governments try to offer them the best possible conditions and often retreat to the detriment of their own people. These companies also have very often tax reliefs, so the result of levied taxes to the state budge does not match the original expectations while exporting a large part of their profits especially in the form of dividends abroad. Very often these companies are building assembly plants, which may, in the case that labour seems too expensive, easily move throughout the world elsewhere.

International financial institutions and other advocates of the free market came in the eighties of the last century with the policy known as ***neoliberalism***. According to this policy, the economic development will be effectively ensured by the most the privacy of the owners and the freest market. Within this concept, trade was liberalized, capital market was deregulated and the most sectors of the economy were privatized especially in countries that are still undergoing the process of decolonization, are exempted from dictatorships or socialist tendencies. Institutions that in established democracies are able to regulate the free market and the environment in developing countries, however, did not exist or did not work correctly. The result was that in many countries, even privatize public services that traditionally ensured the state and for which the Company has existed replacement, and that such privatization and price increases have become inaccessible to many citizens. Often it was about health care, access to electricity or drinking water, which, although poorly managed state, but often the basic level of service to ensure all. After privatization, a price of services rose sharply or there was a decrease in quality. In developing countries people frequently protest against the proposed privatization of such public services.

It is obvious that each country or region would have in searching of a place in the world economy to approach after careful analysis of their own possibilities and position and taking into account to the local traditions and skills. Uniformed approach has in many cases proved to be not too well chosen.

13 DEVELOPMENT COUNTRIES AND A DEBT ISSUE

In the previous chapter, you were acquainted with the important role of capital inflows into the less developed countries that are significant for their development, but currently insufficient. This was the main reason of the creation of an international institution called the World Bank, whose role has expanded over time also to help in investment patterns, implementation of trade liberalization, privatization, macroeconomic stabilization, eradication of corruption and debt management.

13.1 THE WORLD BANK AND ITS ROLE

The **World Bank** was founded in 1944 and its original official name was the International Bank for Reconstruction and Development (IBRD). When it started to carry out its activities in 1946, it had 38 members[79]. Their number has increased significantly in the fifties and sixties of last century, when many former colonies gained independence and became its members. Nowadays this instuition has 188 member countries whose views and interests are represented by Board of Governors and Board of Directors based in Washington. World Bank raises money for development programs of global capital markets and through contributions from richer member countries (in the case of IDA).

As part of its growth the World Bank has created new institutions that specialize in different activities. Together, these organizations called the World Bank Group[80] and it consist of:

- ***IBRD – the International Bank for Reconstruction and Development***, which provides loans and technical assistance for development of middle-income countries and creditworthy poorer countries. IBRD obtains most of the funds from the sale of its own bonds in international capital markets.
- ***IDA – the International Development Association***, which strongly supports the missions of the World Bank, which is the reducing of poverty. Its assistance is intended to poorest countries and IDA provides them the interest-free loans and other services. Most funding comes from contributions from IDA richer member states, including several developing countries.
- ***IFC – the International Finance Corporation***, which promotes the growth of the developing world by financing private sector investment, and provides technical assistance and consulting services to governments and businesses. In cooperation with private investors, IFC provides loans and direct investment in business projects in developing countries.
- ***MIGA – the Multilateral Investment Guarantee Agency*** supporting foreign investment in developing countries through guarantees, which guarantees to foreign investors against losses caused by non-commercial risks. The MIGA also provides technical assistance aimed at disseminating information on investment opportunities.

[79] The founding members included the former Czechoslovakia, but its membership was suspended in 1955 and it was restored in the year 1990.

[80] Nowadays, the term **World Bank** usually refers only IBRD and IDA, however in another interpretation, we will use for the whole group only the generic name.

- And ***ICSID – the International Centre for Settlement of Investment Disputes***, which helps settle or arbitrate investment disputes between foreign investors and host countries.

According to its purpose, the above-mentioned institutions (except ICSID) distribute funds in various developing regions. Total expenditure of the World Bank in 2008 amounted to 324 billion USD, of which IBRD and IDA consisted of both 44 % (143 billion USD), IFC 10 % (32 billion USD) and MIGA remaining 2 percent (7 billion USD).

13.1.1 LEGISLATIVE FRAMEWORK

The greatest decision-making powers in the World Bank have member countries as its shareholders. Each member country nominates one governor and his deputy, who are executors of this power and consists of the Board of Governors. **Governors** are usually Ministers of Finance or Planning and they meet every fall at the Annual Meetings of the World Bank. They make decisions on major strategic issues, they accept new members, decide to suspend the membership, decide on changes in subscribed capital, determine the allocation of the net income of the IBRD and approving the financial statements and budgets.

The executive body of the World Bank is Executive Directors, which make up the **Boards of Directors**. This body represents President and 25 Executive Directors (since 2010). The Boards of Directors meets at least twice a week council to oversee the business of Bank's, approve significant strategic documents, the administrative budget, operational policies, rules and procedures of the World Bank, but also individual operations, i.e. the provision of technical assistance, grants, loans and guarantees.

Member countries are on the Board divided into **25 constituencies** (each represented by one executive director), that the while voting they stand out as one unit. Grouped into constituencies takes place on a voluntary basis, make up the majority on the basis of geographical proximity, common interests, or other factors that may advantage from this connection. Currently, eight countries, including the five largest shareholders of bank have they own constituency (China, France, Germany, Japan, Russia, Saudi Arabia, USA and the United Kingdom), the other members joined in the remaining 17 constituencies[81]. The voting power of each constituency is derived from the voting rights of its members.

The **president** of the World Bank is traditionally a citizen of the state, which is the largest shareholder, i.e. the United States of America. He is elected for a five-year period and may be renewed. He chairs meetings of the Boards of Directors and is responsible for the overall management of the World Bank Group[82].

13.1.2 THE ROLE OF THE WORLD BANK

The World Bank is not the bank in the true sense of the word. It is an institution that, as the leading world source of development aid and annually provide to its member countries that are members credits and loans. It focuses in particular to help the poorest countries in the framework of the following programs:

- An investment in human development (health and education)
- A protection of the environment
- A support the development of private enterprise

[81] The Czech Republic is a member of the Austrian (EU says Belgian title) constituency, along with Austria, Belgium, Hungary, Luxembourg, Slovak Republic, Slovenia, Belarus, Kazakhstan and Turkey, which has one of the highest voting shares (the higher is only the USA and Japan).
[82] Nowadays it is Dr. Jim Yong Kim.

- A support for reforms leading to the creation of a stable macroeconomic environment conducive to investment and long-term planning
- And social developments, full integration, form of government and institution building as the main tool to reduce poverty.

The Bank also assists countries to develop and consolidate the basic elements required to attract private investment and retention of them. Governments may reform their economic systems and strengthen national banking due to loans and advisory activities of the World Bank. They invest in human resources, infrastructure and environmental protection, thereby increase the attractiveness and return on private investment. Guarantees of the World Bank and guarantees against political risks along with capital investments lead to the fact that investors reduce their risks to a minimum and they do not afraid to invest into developing countries and countries in transition to a market economy.

The main objective of the World Bank is to reduce poverty by supporting sustainable economic growth in countries that are its members[83]. Overcoming these problems is in the interest of all countries, because raising living standards and promoting development in poorer countries expands markets, provides jobs and increases incomes of richer countries. Conversely, increasing poverty in developing countries can have a negative impact on richer countries, since their markets and investment opportunities are decreasing and it leads to environmental degradation and migration of people looking for work. Successes in developing countries are dependent on economic developments in the US, Europe and Japan. As well as is important whether developing countries will be able to lead such a policy and implement those structural reforms that will allow them to grow strong.

In 1999, the World Bank in cooperation with developing countries has introduced the approach referred as the **Comprehensive Development Framework** (CDF). Within the CDF is sought to ensure that individual countries feel their own involvement in the developing plan, which would focus on the changes required in the long term perspective and that would be supported by close cooperation between all economic entities. In connection with the implementation of this framework, the World Bank has focused its attention on what it regards as fundamental pillars of effective development, namely:

- A ***structure*** – an effective way of government and incorruptible, transparent government, effective legal and judicial system, well organized and supervised financial system, a network of social security and social management
- A ***physical security*** – water and sanitation, energy, roads, transport and telecommunications, cultural background and environment
- And a ***specific strategy*** – for urban development, agriculture and the private sector.

Each country has besides their own priorities, such as macroeconomic and budgetary issues, trade and regulation, labour market and employment conditions or the role of the private sector. Comprehensive Development Framework is a process that is expected to support more efficient development and contribute to the overall goal of reducing poverty.

[83] The aim of the global fight against poverty is to give people the opportunity to better living standards for current and future generations. In the process of poverty reduction in the developing world has achieved considerable success, such as an increase in average life expectancy of 55 to 65 years, doubling the income per capita, and of less than half to three-quarters of the increase in the number of children attending school and infant mortality decreased by 50 %. The antithesis of these achievements still exist problems. 3 of 4.7 billion people in 100 countries that are members of the World Bank live on less than $ 2 a day and 1.3 billion on less than $ 1 a day. 40,000 people die every day from diseases that can be prevented by the effective prevention, 130 million people have no opportunity to attend school and 1.3 billion people do not have access to safe drinking water.

Since the deformation of the economic environment have resulted in increasing poverty, the World Bank helps developing countries improve economic and social policies in order to increase its efficiency and transparency, strengthen stability and enable the achievement of steady economic growth. The World Bank provides finance, advisory services and technical assistance to support reform efforts to reduce the budget deficit, reduce inflation, liberalization of trade and investment, privatization of state enterprises to build reliable financial system, the judicial system and guarantee property rights. These reforms will help to attract foreign private capital to generate domestic savings and investment and allow governments to provide effective social services.

However, reform measures may lead due to the closure of unproductive companies to increase unemployment and the end of inefficient government subsidies and to higher prices, and so in the short term may adversely affect the lives of poor people. For this reason the World Bank often includes in its support of reforms also funding for social safety nets to protect the poor and vulnerable population groups.

13.1.3 THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

The **International Bank for Reconstruction and Development** (IBRD), on which annually accrue about three-quarters of all loans that the World Bank provides, it obtains almost all the money from international capital markets (only 5 % comes from fees of Member States). The IBRD as one of the most conservative and conservatively managed global institutions sells bonds rated AAA and other debt securities to pension funds, insurance companies, corporations, other banks and individuals around the globe. The interest rate charged by the IBRD to loan recipient complies with the conditions under which the bank lends money alone.

The IBRD provides professional assistance to more than a hundred developing economies, financial, technical and therefore it is one of the largest sources of aid in the world. It provides loans in two ways. The first type is loans for 15-20 years (with 3 or 5-year grace period) to richer developing economies that can afford to pay the interest. These loans are granted to finance programs that reduce poverty, providing social services, support environmental or economic growth. For example, in 2003 it was granted 11,2 billion USD to 99 projects in 37 economies. In 2007 it was 12,8 billion and in 2008 it was 13.5 billion USD. The highest share has traditionally region of Latin America and the Caribbean. Liabilities of eight largest borrowers – Argentina, Mexico, Brazil, Colombia, China, Indonesia, India and Turkey – account for 62 % of the total amount corresponding to 102 billion USD.

The **International Development Association** (IDA) was established in 1960 to provide loans to countries that are too poor to be able to borrow at normal commercial rates. The IDA helps to the development and the fight against poverty as well as the IBRD, but it provides interest-free loans, technical assistance and consulting services. The IDA's loans contribute to all loans of the World Bank about one quarter.

Recipients of the loan have to pay a fee to cover the administrative costs of loan, which amounts less than 1 % of the sum borrowed. The loans have maturity between 35-40 years, with the possibility of a ten-year deferment of the payment. Almost 40 countries contribute to the IDA funds, which are complemented every three years. Among the donors are the only developed countries such as France, Germany, Japan, United Kingdom and the United States, but also Argentina, Botswana, Brazil, Hungary, South Korea, Russia and Turkey, which were in the past among the recipients of loans.

The IDA is one of the largest sources of assistance in the world for 79 poorest countries (39 of them are in Africa[84]). The IDA also provides grants to countries at risk of debt. Almost free-interest loans for 35-40 years with the possibility of a ten-year deferment of the payment are used for investments in agriculture, health, education and safe water. Since its creation IDA loans and grants amount on average 140 billion USD and the largest share goes to Africa (especially the sub-Saharan) and South Asia. Like in the IBRD, the eight borrowers is tied to the total amount of about 112 billion USD. Those borrowers are Bangladesh, Vietnam, Ethiopia, Niger, India, Tanzania, Uganda and Côte d'Ivoire, who make up 58 % of the total amount.

13.1.4 CLASSIFICATION OF ECONOMIES

Since each institution of the World Bank focuses its resources on different area, especially in different region, it must classify their borrowers in order to properly allocate these funds. This classification is based on indicators of economic maturity, i.e. GDP per capita and the World Bank divides countries into five groups, as shown in Table 13-1. This classification is renewed each year on 1 July and remains the same for the full fiscal year.

Table 13-1 Country classification according to economic maturity in 2010 (in USD)

Income Group	*Number of countries*	*GNP per capita*
low-income	40	995 and less
lower-middle-income	56	996 – 3.945
upper-middle-income	48	3.946 – 12.195
high-income non OECD member	39	12.196 and more
high-income-OECD member	30	12.196 and more

Source: Worldbank (online)

Also in terms of debt the methodology of the World Bank distinguishes different levels of debt. The following classification applies to those countries that announce detailed statistics on debt within the Debt Reporting System (DRS):

- ***Heavily indebted economies*** are characterized by critical levels of two key variables – the present value of debt service to GNP is 80 % and the present value of debt service to export 220 %, it includes 37 low-income and 13 middle income countries
- ***Moderately indebted economies***, their present value of debt service to GDP is 48 % and the present value of debt service to export 132 %, it comprises 15 low and 26 middle-income economies
- And ***least indebted economies*** are economies whose debt service does not reach the above-mentioned values (this also includes the Czech Republic), there are 14 low and 33 middle-income countries.

13.2 THE ISSUE OF DEVELOPING COUNTRIES DEBT

On the basis of what was stated in the previous chapter, we can conclude that debt is a major obstacle for economic development. What does this term mean? In the economic

[84] For instance, due to the IDA African schoolchildren received more than 6 million books. About 6 billion USD come from IDA to the social development projects, which are used for investments in agriculture, health, education and safe water.

analysis, we distinguish between the gross debt and debt service. **Gross foreign debt** is defined as the total value of foreign liabilities of domestic economic entities to the contractual maturity, which accounts for non-residents (creditors) the interest in the form of interest (Tuleja, 2007). In addition, this indicator also pays attention to the **debt service**, what is the total amount of funds, which domestic entities in a given year expended on instalments of principals and payment of interest of their liabilities to non-residents (Tuleja, 2007). Since the gross debt itself and debt service have limited explanatory power, the relative indicators (debt indicators) are used for analysis of debt, namely:

- ***Debt to GDP ratio***, which influences the decisions of foreign investors (limit value 40 %)
- ***Debt to export ratio***, which shows how much money from exports is necessary to cover debt
- ***A share of debt service to GDP*** (limit value 5 %)
- ***A share of debt service to exports*** (limit value 20 %).

The World Bank analyse for its own needs and for the allocation of aid in terms of debt three indicators – the Debt to GDP ratio, debt ratio and the share of debt service to exports.

The international debt of developing economies is one of the biggest challenges of the current global economy, and as mentioned above, it limits their further development. But this is not a new phenomenon. The debt occurred prior to the creation of separate economies and of the next chapter we will describe this development further.

13.2.1 HISTORICAL DEVELOPMENT OF INDEBTEDNESS OF DEVELOPING ECONOMIES

Before the First World War there were significant capital flows from Europe to developing areas, mostly in the form of loans[85]. In this period, when the London was a financial centre and many economies borrowed by selling their bonds through banks in London. Given that the terms of repayments were not exactly specified in contracts for loans, there were delays and defaults (e.g. in 1891, Portugal officially announced the inability to repay debt). The immediate effect of these delays was the sharp decline in the value of bonds. This meant rapid losses for holders of these assets, which did not have too many opportunities to intervene against this trend due to the fact that they were mostly individual and private.

Despite the above-mentioned problem of delays, in this period the international capital flows into the country (nowadays known as development – hereinafter we will use the term developing countries) increasing, which was caused by three major factors:

- Opportunities of foreign investment seemed to be very convenient – areas rich in resources were relatively unused and there was expected a large return on capital construction (factories, railways, etc.)
- Countries such as USA, Canada, Argentina and Australia, which absorbed most loans from Europe, were sparsely populated areas and thus attracting many experienced workforce and entrepreneurs. European lenders hoped that the results of the Industrial Revolution will transfer to these areas and the repayment of loans will be easier. European countries have also invested in tropical areas in the form of direct investment (mines, plantations, etc.) that has generated higher returns than bonds
- And last but not least, the British leadership in the world economy played a key role in the development of international investment – England was a source of saving of

[85] For instance the Great Britain invested abroad on average 5 % of its GNP in 1870 – 1914.

the rest of the world and it has being the market on which developing exporters could earn the money needed to repay foreign debts, on the other hand, the British loans to the developing countries allowed to these countries to import equipment and other goods from the UK and for this reason the British government played an active role in ensuring the rapid settlement delays, which did not lead to the collapse of international finance and trade.

After the First World War, England lost the position as the leading financial centre. The US became the leading financial centre. The Great Britain and France have become debtors of the United States. Germany was burdened with large reparations. Because of that neither of European lenders before 1914 already played this role[86]. In the 20s of the last century, many developing countries sell bonds in the US, which provided them foreign direct investment. In the mid 20s the prices of agricultural products decreased. They were the main source of export revenue for many of these economies and after 1928 loans abroad fell down when the US savings began to focus on increasing the stock exchange in New York. In 1929, there was a stock market crash and subsequent global depression caused a large drop in foreign investment. In contrast to England in 1914, the US was not able to reverse the global financial collapse and only a small part of the savings was lent abroad.

Developing countries have not been able to continue to borrow abroad. They had to reduce its imports, which resulted in a decrease in aggregate supply of developed economies. Their response was the introduction of barriers to imports (mainly high tariffs), which had a negative impact on developing economies as exporters, who covered by export revenues foreign debts. In 1931, Bolivia began as the first delay with payments and within three years almost all countries in Latin America followed it. Many of them at that time left the gold standard, adopted a regime of floating exchange rates and used expansionary policies to mitigate the effects of depression. In this period there was a huge delay, all developing countries (Germany accompanied by the rise of fascism) did not repay their debts due to the depression and trade restrictions, which also meant the impossibility of a return to normal foreign loans.

From 1945 until the 70s, the capital flows to developing countries had three forms: official loans, short-term commercial credits guaranteed by foreign exporters[87] and foreign direct investment. International financial institutions and banks believed that using borrowed capital the developing countries will build up their economies and it will result in increase in export and consequently they will not be able to repay their debts. More and more borrowers had problems to repay debt and therefore governments and international institutions established the **Paris Club** in 1956. The objective of this club was to create a framework for the transfers of debt to official creditors (such transfers occur in the case of deferred payments, subject to commissions that have the character of interests from those deferred interest payments).

The first oil shock caused the first wave of private commercial bank lending to developing countries. It was caused by a sudden current account surplus of oil exporters (due to the increase in oil prices), who lent to industrialized countries. It was financially advantageous for banks in these economies to over-lend them to developing countries. On the other hand, current account deficits of BoP in developed economies (deepening recession in 1974-1975) resulted in a huge increase in deficits of developing economies (those pursued an expansionary policy to encourage investment and maintain the output at level relative to that

[86] Therefore, some states did countermeasures (in order to avoid fluctuations in BoP) and for instance, the Great Britain banned the domestic economic entities foreign loans.

[87] They mostly had a nature of loans guaranteed by the creditor government as a way of indirect export subsidies

in the developed economies). Costs of these measures were large and persistent deficits were arisen based on large loans abroad spilling into foreign debt. So developing countries' debt rose from 130 billion USD in 1973 to 399 billion USD in 1978.

The second oil shock in 1979 resulted in a further increase in the current account surpluses of oil exporters and worsening of deficits of other developing economies. At that year, the US began to implement a restrictive monetary policy, which had a negative effect on the debt, because the dollar interest rates and value of the dollar exchange rate rose up. This increased the LIBOR[88], on which interest rate loans to developing countries were bound and loans have become more expensive, interest payments for already provided loans also increased and interest burden of the developing world and has seen a huge rise.

In 1982 debt of developing world was 750 billion USD. From this year also oil exporters showed a deficit because they could no longer provide financial funds to finance ever-larger deficits in other developing countries. The result was that less developed borrowers caused the rising problems in loans from developed economies even before there was a culmination of debt crisis in the second half of 1982.

13.2.2 INTERNATIONAL DEBT CRISIS

The **international debt crisis** began on 12 August 1982 when Mexico announced a lack of central bank reserves and the inability to repay foreign debt. This debt amounted to 80 billion USD, and this was after Brazil the second largest world developed debtor. Mexico also asked the IMF to restructure its debt. This situation was caused both by external shocks and also poor internal macroeconomic policy. In 1970, public external debt of Mexico was 4.26 billion USD. At the end of a presidency of Lopez Portillo (in 1982), it was the sum of 58.87 billion. In 1982, just for interests on foreign debt Mexico had to pay 14 billion USD. At this time, it found itself in the middle of Mexico's overall economic crisis. The outgoing president had to accept the result of the devaluation of the peso by 500 % and rising inflation in the country for the nationalization of all major banks.

Even the other borrowers in Latin America (Brazil with 88 billion USD debt and Argentina with 40 billion of debt in 1982) were unable to repay their debts, nor borrow, and because the economic conditions of countries in Latin America were similar, there was an overall decline in loans and foreign capital of commercial banks. At the end of 1986, more than forty countries in Latin America, Africa and Asia had huge external financial problems.

The most indebted economy suffered especially for large decrease in GDP per capita, which in the period 1981-1984 showed a decline over ten percent. Since 1985 the trade balance showed a surplus of these economies, but they were used to finance the interest payments (which accounted up to 5 % of GDP), so current accounts again turned negative. The above-mentioned results of the current account improvement were achieved by reduction of domestic investment and by a decline in capital formation at half its previous share of GDP. Net private capital flows into these economies have declined significantly and the most striking feature of the debt strategy was that since 1982 the net inflow of capital was much lower than the interest payments abroad.

Although it might seem that the situation five years after the outbreak of the crisis began to improve, the opposite is true – neither of economy did recover its normal access to international markets and economic problems still appeared.

In addition to the external causes of indebtedness (the development of world interest rates, income from exports, foreign exchange rates and terms of trade), there are also a number of errors committed by some governments of developing countries themselves, which

[88] Its determination is developer on the interest rate of assets located in the USA.

resulted in the increase of debt. The economic unfavourable projects were financed by loans, when these projects were often awarded on the basis of corruption and on which supply companies from developed countries and often-undemocratic leadership of developing countries earned. Most of the less developed countries were facing with their own political problems, especially with the various dictatorships, when these regimes used the loans, including those developing ones, strengthening their power, support for the army or for their own consumption. At that time a major role played a bipolar division of the world, when powers both financially and otherwise supported friendly regimes and they ingratiate them with a mild credit policy.

13.2.3 THE CONSEQUENCES OF DEBT FOR DEVELOPING COUNTRIES

Large debt raises and enhances the economic, social and political problems of debtor countries. In particular, the following issues:

- A ***pressure to export*** because of high repayment instalments are needed foreign exchange, which can only be obtained by exports and therefore debtor country must support it at the expense of the economy, focusing on local, domestic needs
- A ***elimination of social benefits*** when the expenditure on debt repayments are much higher than spending on education and health, while mostly privatized public services (water and electricity) and their accessibility for all residents so worsens
- A ***money from development aid in the repayment of debts***, which must be increasingly used to amortize a debt, such as sub-Saharan Africa expend more than half of bilateral loans for debt service
- An ***unemployment***, which is a result of cuts in public expenditures, thus it reduces the number of workers in the public services, support small businesses and along with the privatization of state-owned enterprises are driving up unemployment
- A ***deterring of investors*** when the country is unable to invest in infrastructure, which, along with the impending tax increase (compensate for state spending on debt servicing), rising interest rates and concerns about the use of foreign exchange to service the old debt, discourages domestic and foreign private investors
- A ***loss of capital*** in form of leaving of investors because of a lack of confidence in the economic stability of highly indebted countries
- A ***destruction of the environment***, because the pressures on export force indebted countries to increasingly exploiting its natural resources and the consequence is the destruction of the environment such as tropical timber production forests or damage to industrial mass production of export monoculture crops
- And ***rise in the poor groups of the population***, when the largest social burden is mostly on women, because they are in charge of maintenance and day to day running of families in a declining real wages and the absence of social networks must balance rising cost of living increased work effort.

13.2.4 DEBT AND STRUCTURAL REFORMS

For overcoming the debt of countries, international financial institutions adopted **Structural Adjustment Programmes** (SAPs), which had through the reform of the national economy, through stabilization and restructuring, bring the country to economic growth and ability to repay debts. The weakness was failure to adapt to specific conditions and differences in individual countries and regions. There was thus to cut public spending in order to eliminate the budget deficit, which resulted in the above mentioned growth of social inequality and the decline of education.

This strategy has not worked well because the preferred orientation on export of raw materials, instead of the required support of domestic demand and industrial growth and support of companies, it resulted in a reduction in their prices on world markets. Unrestricted movement of capital has resulted in speculative movements, increasing uncertainty and outflows of deposits (for example in the case of the Asian crisis in 1997 and Argentina in 2001) and this led to a rapid decline in the economy

On this basis, the program SAPs was stopped and international financial organizations to adopt a new approach based on **Poverty Reduction Strategy Papers** (PRSPs), which should become the basis for structural reforms in developing economies. The World Bank and the International Monetary Fund does not prepare news, but the debtor governments that are involved in their implementation as well as civil society. Unfortunately focus on raw material export, liberalization of trade and financial markets and the privatization of public services is still a priority. Since July 2002, the World Bank strategy based on assistance for developing countries – **Country assistance Strategies** (CAS), which are states – active borrowers from the IBRD and IDA. Their aim is to set up a selective program of support for the World Bank Group to correspond to the development priorities and strategies of individual developing countries and the World Bank's comparative advantages in the context of other developing and donor activities. CAS is also designed to promote cooperation and coordination among development partners and donors in each country.

13.2.5 ILLEGITIMATE DEBTS AND MORAL HAZARD

The issue of debt is also associated with the risk of illegitimate debt and moral hazard. **Illegitimate debt** is considered a loan provided representatives of the dictatorial regime to maintain its power (it is the debt of the leaders and not of the state), as well as debt, where at the time of its adoption all the legal requirements given by the legislation were not fulfilled and the loan granted against the interest of the people and to suppress their rights.

International financial institutions and developed countries this type of debt officially does not recognize. The main reason is that such debt forgiveness to one country could trigger massive requirements for forgiveness from other countries. If there were mass non-repayments, it can decrease the high rating of the World Bank (and IMF) on the global financial markets. This would result in less access to low-cost private loans, which may provide favourable conditions for the poorest countries. Nowadays, many African countries would not survive longer than three months without special loans of the World Bank. The inability to repay debts of countries that got rid of the debt would also limit and it would significantly more expensive access to credit.

Another reason against debt forgiveness is a risk of **moral hazard**, since debt forgiveness would essentially have been rewarded many poorly managing country and they would not be motivated to further reforms. They would also have been "punished" by better managing countries that tried to repay their debts properly. Therefore, the debt discharge of international institutions are conditioned by reforms in the debtor countries. Experts point out that the practice of large debt forgiveness has rather the opposite tendency (an example is a debt forgiveness of post-war Germany in 1953).

13.2.6 CURRENT SITUATION AND THE HIPC INITIATIVE

The high degree of indebtedness is considered as a serious obstacle to the implementation of key reforms in less developed countries. To protect the reform efforts from the risks associated with high indebtedness and repayment of interest, the World Bank and the

International Monetary Fund established in 1996 (with revisions in 1999) the **Initiative for help to heavily indebted poor countries (HIPC)**.

This initiative contains two commitments of official creditors[89] that they will be jointly organized way seek to reduce the debt of the poorest countries on the HIPC sustainable levels[90]. To be eligible for the application of HIPC assistance, countries must also be eligible for IDA loans witch must be burden with unsustainable debt obligations and must demonstrate a commitment to implement economic reforms. Debt forgiveness provided under this initiative depends on a country's ability to repay its debt in the context of economic development and poverty reduction.

The first phase represents the three-year period during which the HIPC countries cooperating with the support of the World Bank and IMF to create the conditions for economic reforms and policies to reduce poverty. Countries, which meet these conditions and wish to sign up to this initiative, can achieve the so-called *Pre-Decision Point*. At the end of this period it is determined whether the country's debt is sustainable. If so, the country will receive the *Completion Point* and debts are relieved. For those countries whose debt burden remains unsustainable, the package in the framework of the *Decision Point* is prepared for them. In 2009, the *Competition Point* was reached by 30 economies, *Decision Point* by 6 economies and *Pre-Decision Point* by 4 countries.

What we can but imagine the concept of sustainable debt or debt sustainable? The World Bank defines debt such as debt as the net present value (NPV) to export up to a maximum of 150 %. If the country achieves the share of exports in GDP of at least 30 % and government revenues to GDP at least 15 %, it can be a sustainable debt is defined as one where NPV of debt to GDP is maximum 250 %.

13.2.7 THE TROUBLESHOOTING DEBT – DEBT MANAGEMENT

The most common tool to solve the outstanding debt is **debt restructuring**. It is actually a ***change in the structure of the debt, consisting in the change of the maturity of the loans, interest rate and interest payments***. During the debt crisis maturity was to extend to double (15-20 years) and there was a lower interest rates on previously provided loans. Another way is to **sell debtor obligations** that take the form of bonds and the sale of reducing or terminating the engagement of individual creditors and debt issues are of course sold with a large discount. A similar tool is the **conversion of debtor liabilities** when indebted economy themselves traded with these obligations by buying back maturing securities and they offer them for goods or bonds with high interest rates[91].

As the solution of debt crises a number of plans has been proposed but that have been largely unsuccessful and the comprehensive survey presented in the following chronology:

- **1985** – In this the **Baker's plan** was introduced when the US Ministry of Finance – Baker proposed to ensure the solvency of the fifteen most affected countries by providing new loans and this step should encouraged the growth, which would lead to the redemption of debt, but which did not happen and new loans went directly to the debt service
- ***1988*** – based on the **Toronto's conditions** the creditor governments at the G7 meeting in Toronto for the first time provided the possibility of bilateral forgive the

[89] This group includes the Paris Club bilateral creditors (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Russian Federation, Spain, Sweden, Switzerland, United Kingdom and USA) multilateral creditors (international financial institutions like the World Bank and IMF) and commercial lenders – about 1 000 commercial banks (London Club).

[90] This is a public foreign debt with domestic debt and excluding all private debts of unguaranteed governments.

[91] Such operations take place for example in Argentina, the Philippines, Equador or in Morocco.

debts of poor countries. As an upper limit of forgiveness was determined 33 % of the total current debt service payments, which immediately proved insufficient.

- ***1989*** – in that time, it began the most successful plan, named after former Minister of Finance – **Brady plan**, which should reduce bank debt of 39 most indebted countries through debt forgiveness of private creditors and debt relief, news loans and by converting the debt into shares in state-owned enterprises (so-called Brady bonds). It was founded on the principle of medium-term reforms, debt reduction and debt service lender, use of the international financial institutions to operations associated with the debt issue and not least the continued support of creditor governments through restructuring and new lending. Brady's plan led to temporary relief for some large middle-income borrowers, but did not deal with the situation of the poorest economies whose major creditors were governments and multilateral organizations.
- ***1991*** – at the G7 summit in London were accepted **London conditions**, which meant an increase in the upper limit of debt forgiveness for poor countries to 50 %.
- ***1994*** – at the G7 summit in Naples, it was decided to further increase quotas forgiveness to 67 % and thus could be reduced not only current payments, but also the total amount of debt – these was called the **Naples terms**
- ***1995*** – in this year, the G7 meeting in Halifax (**Halifax Initiative**) dealt with the debt problem of highly indebted poor countries (HIPC) against multilateral creditors and this initiative HIPCI was developed
- ***1996*** – **Lyon conditions** were adopted at the G7 summit in Lyon. Creditor governments were call upon to support the HIPCI initiative and advanced further than the Naples terms required. Based on these, Mozambique gained in 1998 as the first country in the framework of the HIPCI initiative debt forgiveness of 80 %.
- ***1999*** – showed that the HIPCI initiative was insufficient since only six countries have achieved in its framework the partial debt forgiveness and therefore at the G7 Summit in Cologne, Germany, hence the name of the **Cologne Initiative**, agreed to extend this initiative (HIPC II) and reduction of the access barriers should allow countries HIPC debt forgiveness of up to 90 %.
- ***2002*** – neither previous initiative did not achieve the expected results and from this reason, at the G7 **Summit in Kananaskis** (Canada) was adopted a resolution on the additional funding to remedy a lack of funds caused by inadequate calculations of international financial institutions.
- ***Currently***, in the World Bank and IMF there is a debate on the proposal to forgive the debt to 100 % (instead of the original 90 %) of the poorest countries, which they have in developed countries, the African Development Bank and the World Bank

None of the existing debt management practices brought any optimal and final solution for over-indebted countries. This is due to the fact that debts, which have not ever been paid, are mostly excused and assistance focuses mostly on the poorest countries and does not include those who are not the poorest, but have a greater debit while all debts are not excused, but only that much that the country can get in a sustainable situation, which still marks a debt in the amount of 150 % of export revenues. However, it seems that despite everything, there is an effective tool of debt forgiveness through the **debt swaps**.

CONCLUSION

Dear students,

you have just read study material devoted to the issue of international trade. Given the extent of this publication, only a theoretical overview of the basic issue of this part of economics was given. In case you want to deeper study of international economics it is necessary to study literature focuses on this area in more detail.

This publication is divided into thirteen chapters, which correspond to the thirteen weeks of the semester, where each of these chapters is discussed in the lectures. This study material was structured to first explain the evolution of views on international economics, respectively on the area of international trade and subsequently advance into more detailed theoretical parts.

I hope that the text above interested you and clarified many issues and helped in the study of issues of international economics. If you have any comments, please feel free to contact me at majerova@opf.slu.cz.

Karviná, June 2014

Author

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