

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

# INTERNATIONAL FINANCE

## TRAINING MANUAL

5th Edition, revised and enlarged

*Edited by Yuriy Kozak*

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**Based on the essence of international finance and development rules of the global financial and monetary system, functioning of the international financial markets in the context of globalization, international taxation and specifics of international financial management are reviewed.**

**For students and academics.**

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## PREFACE

An important feature of our time is the growing interdependence of the economies of different countries, the transfer from the internationalization of economic life to the globalization of production processes and financial environment.

The global financial sector, which is the most influenced by the globalization, is the most important element of the global economy. It is a global system of accumulation of financial resources with distribution and redistribution between the world's economic subjects based on the principles of competition, which also became global. The financial spheres, which previously were each more distinct (currency, credit markets, capital markets, financial management, taxation) are becoming increasingly integrated, due to the introduction of new financial instruments, innovative financial engineering and multinational approach to decision making in financial management.

The global financial environment is changing as a result of the globalization process, Eurocurrency market growth, the development of a common European market, the growing role of transnational corporations and international debt crisis.

Consequently, the aim of the manual is the systematization and unification of the laws, conditions, principles, processes which are occurring in the global financial environment.

The structure of this book is processed by reviewing the principles of the functioning and development of the international finance. The book consists of six sections.

**PART 1** is devoted to the role of international finance in the world's economy, the establishment of the global financial system and global financial market, features and principles of operation of the global monetary system, the stages of its development.

In **PART 2** the features of international payments as a form of monetary and financial relations, electronic systems of international interbank payments are presented.

The theoretical aspects of the balance of payments and the basic approach to its regulation are presented in **PART 3**.

The nature, structure and specificity of the international financial markets: foreign exchange, credit and securities market are characterized in **PART 4**.

The trends of the development and functioning of international taxation, differences in the tax systems of different countries of the world, issues of international taxation in connection with the money laundering and transborder organized crime are considered in **PART 5**.

**PART 6** is devoted to the problems of international financial management. It highlights the nature and characteristics of the financial management of transnational corporations and their investments. The general directions of international financial management and approaches to managing

related risks are considered there. On the one hand – the growth of loan capital, which seeks for profitable use, began in connection with oil crisis in the late 1973. Developing countries have been involved in intensive process of international capital movement.

## **PART 1. INTERNATIONAL FINANCE IN THE WORLD MONETARY AND FINANCIAL ENVIRONMENT**

### **Chapter 1. International finance: basic concepts**

#### **1.1. The economic nature of the international finance**

International finance is defined as the set of relations for the creation and using of funds (assets), needed for foreign economic activity of international companies and countries.

Assets in the financial aspect are considered not just as money, but money as the capital, i.e. the value that brings added value (profit). Capital is the movement, the constant change of forms in the cycle that passes through three stages: the monetary, the productive, and the commodity. So, finance - is the monetary capital, money flow, serving the circulation of capital. If money is the universal equivalent, whereby primarily labor costs are measured, finance is the economic tool.

The definition of international finance as the combination of monetary relations, that develop in process of economic agreements - trade, foreign exchange, investment - between residents of the country and residents of foreign countries, is not exhaustive. It does not reflect all the essential features, that are generated by the set of conditions outside the company (i.e. the external environment of the international business), which effects on their activity in practice.

These specifics lie in the fact of the relation between the international finance actions and the set of temporary and spatial risk factors (currency, credit, investment, political) caused by uncertainty and fluctuations in exchange rates of securities, the comparative difference in inflation and interest rates in different countries, the uncertainty of the economic policy of the country. Uncertainty and increased risk are exacerbated by the fact, that international company has a small effect on the business areas in which it operates. However, while choosing alternative financial decisions in the international business area, we cannot dispense with the analysis of the value of future costs and revenues of time (term commercial transactions), space (geographically remote) and the uncertainty caused by the need to work with a large number of currencies, taking into account the differences in interest rates and inflation, legislation and political systems in many countries.

This feature of international finance is represented in such determination. International finance, as a subject of special disciplines, reflect the economic aggregate of time and uncertainty, regarding the decisions, that touches several different countries, taking into account that every sovereign country has the own currency, business laws and political systems

International finance is one of the main subsystems of the world economy, which makes a decisive impact on the national and global economy. At the same

time, the international finance functions as a integral system, the elements of which are:

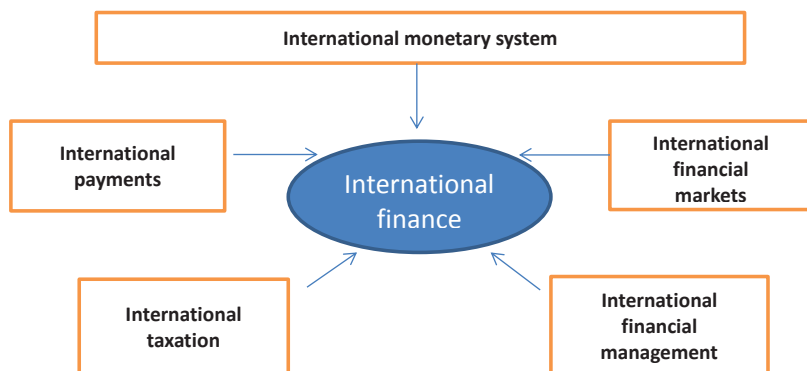
- the international monetary system, which is characterized by the components: the national and reserve currency, international collective currencies , the conditions of mutual convertibility, currency parity, exchange rate, national and international regulatory mechanisms of exchange rates ;
- international payments that serve the movement of goods and factors of production, financial instruments, and the balance of payments, which reflect all the transactions related to international payments;
- international financial markets and the mechanisms of trading by specific financial instruments – currency, loans, securities;
- international taxation, as the method of mobilization of funds;
- international financial management of TNC, where international investment, risk management, transnational financing etc. take the main place [Fig. 1.1].

To the main functions of international finance belong:

- Distribution function, which is the mechanism of international finance carries cash distribution and redistribution of world product. Due to the international finance cash funds are created, distributed and used, different needs of the world economy are met.

Distribution function is intended to promote the organization of the balanced and efficient global production and development of all the sectors of the world economy with the aim of the most complete satisfaction of necessities of the world community;

## International financial environment



**Fig. 1.1 Components of International Financial Environment**

- The control function, the general essence of which is monitoring the production and distribution of global social product in money form by recording and analyzing its motion. The result of this function is making decisions on

international finance and development of current and strategy international financial policy;

- Regulatory function is associated with the intervention of international monetary and financial institutions with the help of finance in the process of production ;

- Stabilizing function is to create stable conditions for economic and social relations in the global system.

International financial transactions are carried out in the international financial markets and solve the problems of organizing and managing money relations in the formation and using of the funds within the global financial environment. The objects of financial operations are the various financial assets: national and foreign currency, securities, real estate, precious metals. The major international financial transactions are the real money transfer, operations with capital, investment and speculation operations.

International transactions develop dynamically in modern conditions, transforming the financial systems of individual countries as well as the links between financial systems of these countries.

To the competence of international finance belong:

- Analysis of the financial sector on a global scale;

- Determine the interaction of financial transactions on a global level and consideration the international financial transactions as a continuous process with regular changes;

- The development of new financial methods, that affect the regional financial system and facilitate its integration;

- The analysis of financial activities at different levels: national, regional, global.

International finance contributes to the internationalization of social-economic and monetary relations on the accumulation, distribution and redistribution of internationalized financial resources and international financial flows. The influence of international financial relations on the development of economic relations makes through the internationalization of all the set of structural parts of trade, currency and credit relations system, the mechanism of securities and investments. The proportions of international exchange are formed on this basis, so internal unity of components of the global market and a unified system of international monetary-financial and credit relations is achieved.

## **1.2. International financial flows**

There is always movement of capital from one country to another in the global economy, creating global financial flows.

International financial flows are the set of financial transactions. The subject of these transactions is the money capital. These flows serve international trade in goods and services, and capital reallocation between countries. Financial flows contribute to the expansion of the types of foreign exchange transactions, foreign

investment, activation of securities transactions and other financial instruments, by providing international redistribution of financial resources.

The movement of cash flow is defined by relationships between economic agents of different countries, state and foreign governments and international organizations. The mechanism of this movement is established on the basis of international agreements, as well as the influence of economic laws.

The types of international financial flows can be classified according to the following criteria: the economic activity according to the structure of the balance of payments, the economic relationship between the non-residents, the terms of financial transactions, the form of ownership of the sources of financial flows (Fig. 1.2) [ 9, p. 14].

The main channels of financial flows are:

- monetary - credit and settlement services and sale of goods and services;
- foreign investment in fixed and working (floating) capital (FDI);
- transactions with securities and different financial instruments;
- currency transactions;
- assistance to developing countries, and state contributions to international organizations.

The amount and direction of financial flows depend on various factors:

- 1) the condition of the global economy. The economic recession in developed countries usually causes a decline in growing of world trade, and vice versa. Thus, the economic development of countries in recent years, especially of developing countries, became the reason for the annual global GDP growth, and the volume of world trade;
- 2) the reduction of trade barriers;
- 3) different rates of economic development of the countries (synchrony or asynchrony in the major countries' economies);
- 4) the restructuring of the country's economy
- 5) the differential break of inflation's rate and the level of interest rates
- 6) the faster increase of international capital flows comparatively to the international trade. It affects sizes of international financial markets;
- 7) the transition of industrialized countries from labor-intensive to knowledge-intensive production;
- 8) growth of the diversification of TNCs activities, including international investments in joint ventures. ;
- 9) the increase of balance of payments' deficits due to the imbalance of international payments.

International financial flows directed to those areas and regions of the world, where are: the highest demand for them and the opportunity to get the best profit.

Movement of financial flows (in the money form, in the form of various financial and credit instruments) carried out by banks, specialized financial and credit institutions, stock exchanges that form the global financial market.

Financial flows reach enormous proportions. It is estimated that the daily global financial markets' operations 50 times more, then the operations in world trade.

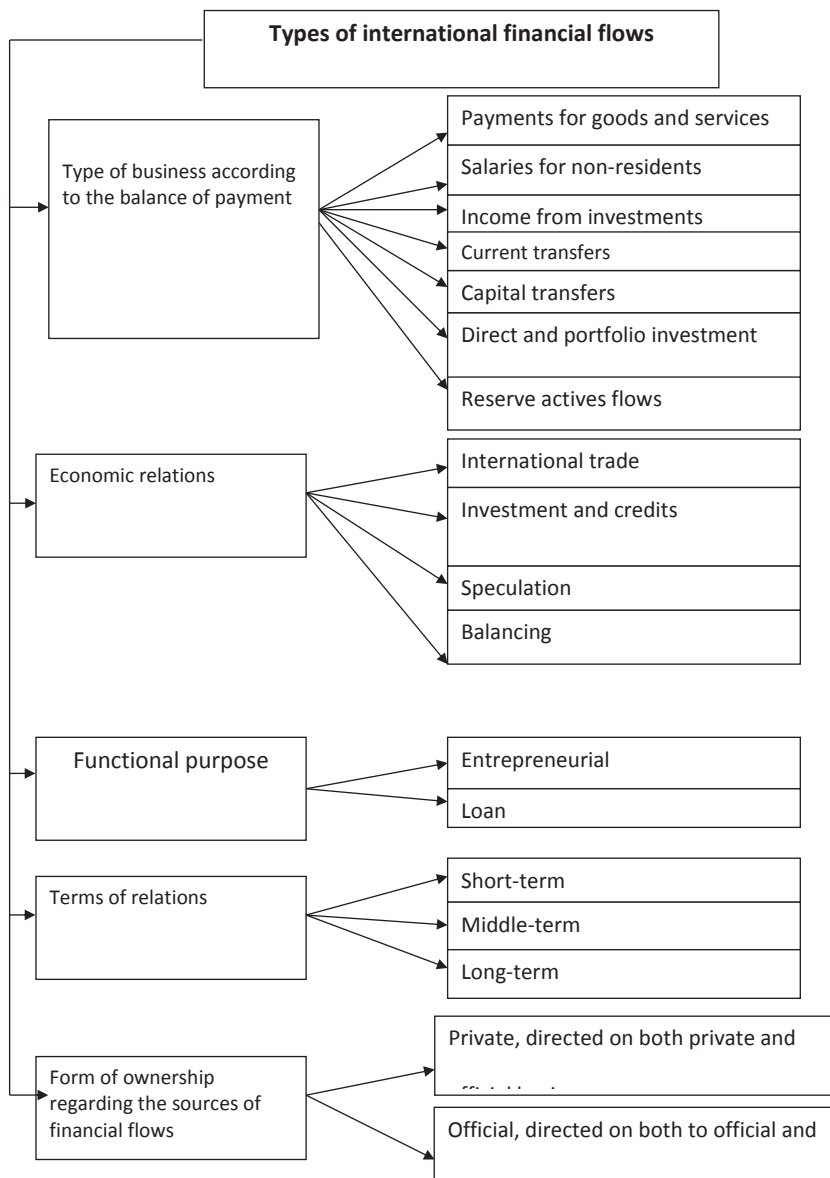


Fig. 1.2. Types of international financial flows

### 1.3.The world financial market

The global financial market is the system of market relations, which provides the accumulation and redistribution of international financial flows. The global financial market is traditionally divided into the international currency markets, international debt markets, international securities markets, each of which includes Euromarkets (the markets of euro deposits, the markets of euro credits, the markets of euro shares, the markets of euro bonds and euro bills). There is another model of the financial market, when according to the criterion "the timing of property rights" the financial market divided into the money market (short-term obligations, which are high liquidity) and capital market or the stock market (long terms of securities' sale).

The simplified structure of international financial market is given below, in the Fig. 1.3.

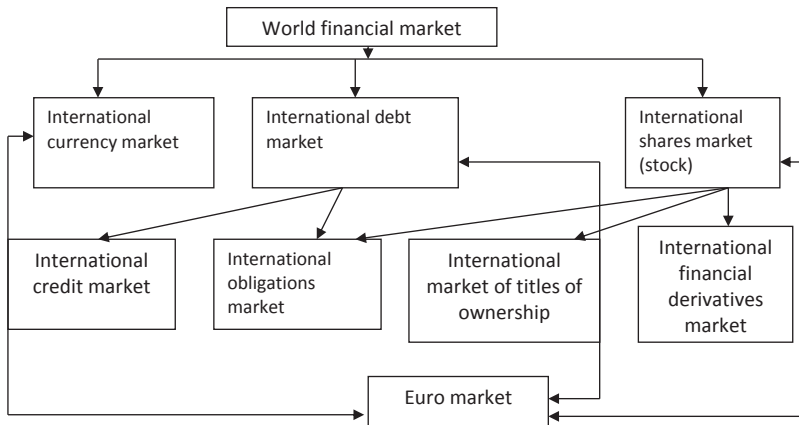


Fig. 1.3. Structure and interconnection of financial market parts

The structure of the world market is very complicated and it is not always possible to draw a clear line between its components. Thus, the international bond market is the part of the international securities market according to the first criteria, and is the part of the international debt market – according to the second; international market of property titles is an element of the international securities market and the part of international capital market at the same time.

The purpose of the international financial markets is to ensure the efficient allocation of the available amount of free capital between the final users (investors). Financial markets are the mechanism that connects those, who offer money, and those, who are looking for them, to make a deal. There are the financial institutions – the intermediaries between lenders and borrowers, which



help to increase the efficiency of distribution of free cash flow. They (institutions) offer services in a professional manner, related to a combination of demand and supply of capital. They give such services to firms, citizens and governments and operate in a legal and fiscal space. It should be noted, that in the narrow sense under the financial institution we can understand financial organizations. In the wide sense - normative order, the system of currency and financial transactions of these organizations.

A modern world financial market is characterized:

- by significant amount of financial resources and transactions on a twenty-four hour basis, mostly standardized. It involves subjects with high ratings;
- by elimination of restrictions on financial flows across the national borders, such as capital controls and limiting of circulation of foreign currencies. For example, OECD countries liberalized almost all types of capital flows, including short-term transactions, carried out by companies and individuals according to "The code of liberalization of capital movements" operating in the territory of countries - members of the OECD;
- by the high level of information technologies' usage, which reduces transaction costs between countries;
- by the use of various financial instruments.

International capital flows are more than the international flow of goods and services by 5 times. International capital mobility intensifies the instability of exchange rates as a result of the more quickly cash moving than changes in interest rates. Exchange rates have become more volatile in the national macroeconomic policy. The high mobility of capital has led to increased interdependence of national economies, has weakened the autonomy of national policies, despite the existence of floating exchange rates.

The following features characterize basic tendencies that are observed in the world financial market:

1. *Creation of currency unions around the major currencies.* A currency union is a group of countries based on the monetary and economic prevailing of the states that head this union, by fixing to their currency the currencies of participating countries of union.

Such factors influence on the creation of currency unions:

- trade (a country, that heads a union comes forward as a general trade partner of other member countries);
- financial (most member countries are the debtors of the main country, or of the third countries, or have mutual debts);
- economic (a country that heads a union is most industrially developed);
- political that was folded historically and firmly linked the participating countries of currency union.

A dollar currency union was created in 1933. The economical dependency upon the USA countries of Latin America and Canada entered to it. With the implementation of euro in 1999 there was created a currency union of euro. However, countries of euro and USA were not interested in the expansion of the

spheres of turnover of the currencies. That is why they restrain the integration intentions of countries with relatively weak currencies, the unstable banking and financial systems, and with not enough developed financial and stock markets.

There is the possibility to form the new currency union in Southeast Asia. It can be organized by means of the joining around the Japanese Yen, or Chinese Yuan, or by the combining of several currencies to create an "Asian euro".

2. *The structure of financial market instruments changes in favor of the real instruments sector - corporate securities and their derivatives.* Currency loses self-importance, as an instrument of financial markets. Daily turnover of transactions on the foreign exchange market increased by 4.5 times in 2011 compared to 1990, and in the bond market - 8 times. There is the rapid growth in the sector of corporate securities.

3. *Equity markets are the key structure-creation factors of the financial sector.* The banking sector has the second role after the mechanism of redistribution of funds' on stock market. Thus, according to the "Financial Time", banks' loans accounted for only 25 % of the funds, which have been involved in business and by governments all over the world.

4. *The growth of the relationship between finance and the real economy.* The issue of securities is the primary way of mobilizing funds (investment funds) for new industrial companies. Due to the further improvement of the functioning of the financial market, its mechanisms provide redistribution of funds in favor of the most profitable and promising companies. The 60 % of the annual investment in the economy is invested in companies in the field of information technology in the USA.

Stock market turns to the technological progress catalyst in the real sector and provides the growth of productivity. The shares of the companies, that are related to Internet technology has the greatest demand in the stock market. Such companies develop modern means of communication and information systems assurance programs for biotechnology, pharmaceuticals, and genetic engineering firms and so on.

5. *The scale's growth of technological upgrading of the financial markets based on internet technologies that erase the national boundaries and actively promote set of the direct links between investors and issuers, regardless of their nationality*

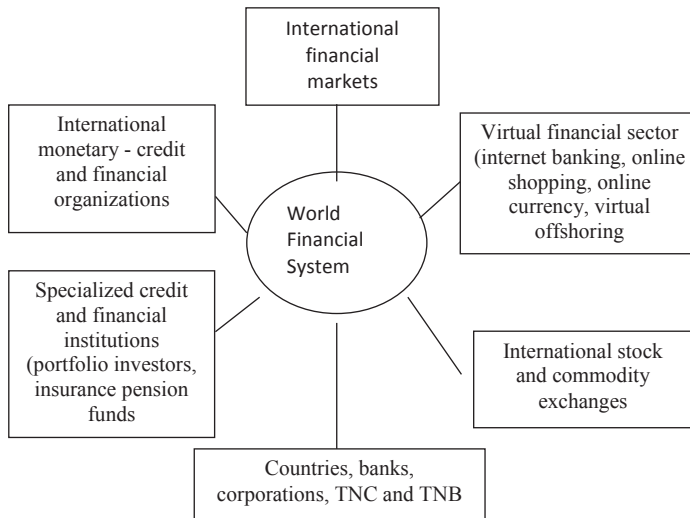
6. *Changes in the ideology of the activities of international financial institutions.* These organizations are focused on increasing of the responsibility of developing countries, for the stability of national markets and refuse to carry out the role of the guarantor of stability on their financial markets.

7. *The sharp increase and dominance of speculative operations in global financial markets. The speculative operations constitute over 95% of all the financial transactions.*

## Chapter 2. The global financial system

### 2.1. Structure and participants of the global financial system

The combination of financial markets and financial institutions, which operate in a legal and tax environment of international business, create the global financial system (Fig. 2.1).



**Fig. 2.1 The main components of world's financial system**

The participants of the global financial system that intermediate the bulk part of international financial flows are:

- national stakeholders - corporations, banks, specialized credit and financial institutions, including insurance and pension companies , stock and commodity exchanges, government ;
- international participants - international corporations, multinationals , international banks, TNB, specialized credit and financial institutions , large stock and commodity exchanges, international monetary and financial institutions.

The commercial banks take the central role in the global financial market, due to the broad field of financial activities. Liabilities of banks consist mainly of deposits with different maturities of assets: loans (by the corporations and states), deposits in other banks and bonds.

Corporations (especially TNCs) conduct operations to attract foreign sources of capital to finance their investments: sale of shares, loans, sale of debt funds of the corporation in the international capital market. Corporation bonds,

denominated in the foreign currency not of the financial center, in which this bonds sold, are called euro bonds.

Non-bank financial institutions conduct operations to diversify their portfolios of foreign assets.

Central banks are included to the global financial markets through the means of currency intervention. Government agencies borrow funds abroad, produce government bonds. The governments of developing countries, as well as companies owned by the state, take loans from the commercial banks of foreign countries.

## **2.2. Functioning of the global financial system in the globalization process**

The current global financial system operates and develops in conditions of financial globalization. Financial globalization - an objective process of the integration of a large part of capital in different countries, strengthening of their interconnectedness. Its main features are: the availability of huge financial resources of TNCs and TNB; high intensity of cross-border financial transactions of the global financial system's members; the emergence of new mechanisms and instruments of international financial transactions and the formation of the world market, through which the international market and beyond-market redistribution of financial resources works.

The driving forces of financial globalization are the deepening of international financial integration, the formation of international financial institutions' system, development of financial innovations.

*International financial integration* is the process of unification of financial services, banking operations; liberalization of customs procedures; unification of coordination through the international financial and credit institutions, electronic system of payment instruments ; movement toward global monetary system with an only world money. The aim of international financial integration is removing barriers on the movement of financial capital. In the last few years significant legal restrictions were eliminated on the way of the capital movement. The financial markets of developed countries integrated to the global financial system, which allows them to direct increasingly large amounts of capital not only to their economies, but to the economies of developing countries and transition economies. EU has the major progress in financial integration. Its concept of single financial area includes:

- total liberalization of payments and capital movements
- open access to market of banking, insurance and other financial services of partner countries to the companies and EU countries;
- the harmonization of banking, tax and other legislation of the investment;
- the increase of control over the activities of the national credit and financial institutions and protection the interests of investors
- the ensure of publicity and transparency of existing law

The formation of the EU single financial market is the reason of the increasing the intensity of intra-regional capital migration. Consequently, the ratio of total cross-border private capital flows (the sum of the import and export of capital, including direct, portfolio and other investment) and GDP in the EU to assess the World Bank is 40 %. This value over all developed countries is 30 % [ 9, p. 23 ].

Financial integration with the opening of financial markets is beneficial to countries:

- there are broader sources of investment finance to supplement domestic savings, ordered to the countries;
- open capital markets contribute to the growth of effectiveness of domestic financial institutions and the conduct of reasonable macroeconomic policy
- reducing financial constraints, open capital markets allow countries time to implement the settlement of payments in order to correct imbalances, caused by external shocks;
- creditor countries have more opportunities for diversification of investment and risks;
- the system of multilateral trade is supported, as a range of possibilities broadens for diversification to the portfolio of securities and for the effective placing of global savings and investments.

Now there is no single method to measure financial openness, but it must take into account differences between inflexibility of control and types of transactions. Such method was offered by the specialists of institute of the World Bank.

The measuring of financial openness includes adjusting or limitation of both operations with checking accounts and by the accounts of capital flow (in all 27 operations, information about that is contained in the annual report of IMF). The basis of the calculation of the index of financial openness is a 5 level scale with a range from 0 to 2 for each item that indicates the degree of openness ("0" - a high degree of regulation, and "2" - a high level of liberalism ), defined as follows:

0,0 - laws, regulations that impose quantitative or other regulatory restrictions on the specific operation (such as licensing or requirements on redundancy), which means a total ban on such operations;

0,5 - laws rules that impose quantitative or other regulatory restrictions on the specific operations that imply a partial ban on such operations;

1,0 - laws, regulations, which require that the conduct of a particular transaction was approved by the authorities, or provide, under certain conditions, its taxing on a large scale;

1,5 - laws, regulations that require registration, but not necessarily approval of a particular transaction by the authorities and, under certain conditions, its taxation;

2,0 - rules do not require the approval or registration of a specific operation by the authorities or its release from taxation under the law.

The removal of barriers between national and international financial markets, free movement of international capital from the inner to the global financial market

and vice versa , the development of relationships between the sectors of the market are the hallmarks of international financial integration.

In terms of financial integration, financial institutions establish branches in major financial centers to serve the borrowing, lending, and investment and for the provision of other financial services. Financial integration provides significant benefits both investors and borrowers, but they are subject to risk. Therefore, investors are more oriented to sectors of the world market with high yield and leave regions with tight regulation, low profit margins, and intense competition.

*International financial institutions* are the branched network of international currency-credit and financial institutions. The preconditions for the creation of them were: strengthening internationalization of economic life, the development of transnational corporations and TNB; development of international forms of the currency-credit regulation; increasing instability of currency and financial system.

The main objectives of the international financial institutions are: the stabilization of the world economy and international finance; realization of international currency and credit - financial regulation; development and coordination of strategies and tactics of the international monetary and financial policies. These organizations give loans, develop the principles of operation of the global monetary system, assist in solving international financial problems. Their financial resources present considerable part of streams of official international help.

The system of international financial institutions includes world-class organizations ( IMF , World Bank Group, which includes the International Bank for Reconstruction and Development, International Finance Corporation, International Development Association , etc.), regional financial institutions.

The globalization of financial markets characterized by the development of *financial innovations*, the creation of new financial instruments (euro-dollar certificates of deposit, foreign exchange swaps, zero-coupon eurobonds, syndicated loans in the euro currency, euro notes etc.) and the introduction of new technologies.

Technological innovations improve the quality and speed of international financial transactions and their amounts. Telecommunications help banks to attract savings from all over the world and send money to the borrower under the terms of the highest profits and lowest cost. Investment banks have the opportunity to sign contracts in bonds and in foreign currency, through the system SWIFT. Commercial banks can send letters of credit through electronic systems of payments from their headquarters to foreign offices.

The growth of global capital flows enhances financial competition between countries, affects the reduction of government interference in the operation of domestic financial markets, and leads to the liberalization of international capital movements. Thus, the global financial system is almost independent of governmental control and regulation. Less than 30% of the securities of the countries of the G7 countries are controlled by the state or subject to the public interest. From country to country moves more than 3 trillion dollars per month on

the global financial market. Of these, 2 trillion dollars – the money, are not controlled by the state or other official institutions. In the private sector have more resources than the central banks of major developed countries. Therefore, private capital defines the situation on the global financial market, rather than national governments. Private capital, according to the International financial institute, mostly directed at the developing market economy. Thus, in 2011, private capital flows to these countries amounted to more than 50 % of all global investments. Especially significant capital inflows observed in China and Russia.

The growth of revenues to China connected with the expectation of the rejection of fixed exchange rate of the yuan to the dollar, and move to the floating exchange rate, and in Russia - Russian banks interest in foreign loans in order to strengthen the ruble.

A positive characteristic of the inflow of private capital into developing market economies is a half of the funds presented as direct investments, i.e. investments in industrial objects, equipment, and business development. This half is not presented as portfolio investment in securities.

The largest recipients of private investment in 2011 were: Europe ( U.S. \$ 425.7 billion) , Southeast Asia (U.S. \$ 343.7 billion), Latin America ( U.S. \$ 216.4 billion), United States (210 billion) [15, p.44].

### **2.3. The main global financial centers**

The national currency, credit and equity markets that are closely interconnected with those global markets take part in the operation of the world financial market. In this case, have developed the world's financial centers based on the huge domestic markets, conducting international operations. These centers are: New York, London, Zurich, Luxembourg, Frankfurt am Main, Singapore, Hong Kong, Bahamas, Panama, Bahrain and others. There are international banks, banks consortia, exchanges, which engaged in international foreign exchange, credit, transactions with securities and gold – in the centers.

Global financial centers (SFTS) occur in countries where:

- permanent currency-economic position;
- there are the developed credit system and well organized exchange;
- moderate taxation;
- favorable currency legislation, that allows access of foreign borrowers and securities to exchange quotation;
- comfortable geographical location;
- relative stability of the political mode;
- standardization and high degree of information technologies of paperless operations are on the base of the use of the newest computers.

### 2.3.1. Financial centers in developed countries

The largest world financial centers are New York, London, Tokyo [15, p.44].

**New York** is the only foreign capital market and the main primary source of euro dollars. This is the main feature of this financial center. The market of bank loans takes the main place between the components of this financial center. International activities of major U.S. banks are connected not only with credit operations, but also with investment. Banks offer their clients a variety of securities transactions, place securities in the primary market, act like brokers on the secondary market.

Effectiveness of the New York capital market is achieved by issuing new bonds by the domestic financial institutions at a low price compared to other foreign markets.

Foreign Exchange Market is poorly developed. But it is considered the world's largest center for currency trading by such indicators as "turnover volume" and "number of currencies traded".

The stock market takes an important place. This market joins American financial markets and international financial markets. On the New York Stock Exchange shares of 2768 companies traded with the total value of \$ 19.8 trillion. The Daily volume of tenders makes about 50trln dollars. In 2012, the net profit of exchange presented 2324 million dollars, that on 13% more, than in 2011p. [31]. This market presents a large variety of financial instruments: stocks, bonds, mutual fund shares, depositary receipts, debt securities, convertible, code - shares, forwards, swaps, warrants and more.

The securities Market of New York, as well as the overall U.S. stock market is attractive to investors around the world by the absence of taxation for the non-residents of the USA. Non-resident does not pay anything, where the resident pays 35%. The most significant feature of the stock market is well-functioning regulatory legislation. It is the most effective and rigorous in the world. Investment companies and funds are constantly monitored by the organizations that issue licenses. The gold market does not play a significant role.

An important factor that determines the role and position of New York as world financial center is high investors' confidence. This is expressed in large amounts of FDI. According to the Department of Economics and Statistics of the United States for the period 2000-2010 FDI in the United States totaled \$ 1.7 trillion, in 2010 - \$ 194 billion, which is an absolute record among all countries of the world.

**London** - is the financial center of Europe. It is the world's largest national financial center with equally well developed markets of short-term loans and long term loans, powerful exchange, good insurance and freight business and others.

The dominance of international component over the national is inherent to London. The basis of its financial strength is not national, but international foreign exchange market and loan market. One of the features is the ability of banks, stock



exchanges, broker's bill quickly respond to any new situation, financial innovation and liberal legislation. London as a world financial center is divided into four markets: gold, currencies, short - and medium-term loans and insurance.

The gold market operates since 1919, as a consequence demonetization of gold. Gold got property to be a mainly ordinary commodity with a price that is expressed in credit-paper money.

London' foreign exchange market is the largest in the world. 30% of all contracts with the currency pass through its currency exchange, and the volume of foreign exchange transactions is about 1000 billion a day. Each year, the foreign exchange market increased by 39% (New York by 8%). The maximum freedom of exchange operations contributed the transformation of London to the leading global foreign exchange market.

The restrictions of freedom in other world financial centers are not allowed currency markets to reach the competitive level.

The marker of bank credit takes a leading position in the world. There are many foreign banks in London. British banks have a wide network of foreign subsidiaries. Due to the concentration of large world banks in London, this financial center became the chief of the loan transactions, where borrowers can receive any amounts of money. The UK is the main borrower of international credit market in London.

British firms and companies get from American banks in London 4 times more foreign exchange than from the British clearing banks. The orientation of the London international credit market to the needs of the UK accounts for its specialization in the field of short and medium-term loans. London successfully competes with other markets in the field of international trade securities. The transformation of the London Stock Exchange to the International Stock Exchange, equipped with fully computerized electronic exchange quotations in 1986 was the reason of the success. London Stock Exchange acts as a quotation center in the international sphere.

London Stock Exchange is the most international stock exchange in the world. There are a lot of selling foreign companies: more than 445 international companies from 63 countries are listed in London. London Stock Exchange includes a number of markets: governmental securities market, the market of shares and bonds of the local firms and companies, the market of foreign securities, the market of South African gold mining companies and others.

The total trading volume, including the participation of the international companies is more, than the volume of the world's leading exchanges. Average trading volume is 199 thousand transactions every day, and the average daily turnover reaches U.S. \$ 22.5 billion [1, p.239]. 70% of the secondary bond market and almost 50% of the derivatives market accounts for London.

The volume of transactions in mergers and acquisitions ("M & A") amounted to 1.15 trillion dollars in 2011. FDI inflow into private British companies was 246 billion. , and outflow - was 974 billion dollars.

Tokyo is becoming an international financial center after 1970. The strengthening of its position was contributed by:

- the increase of producing of government bonds, which were the reason of the development of the secondary market;
- the issuance of bonds in yen by foreign lenders in Tokyo, and later - in foreign currency;
- the liberalization of yen and capital markets, which allowed foreign banks and companies, the traders of securities, actively work in the securities market;
- increase in foreign investment in Japanese bonds and shares;
- growth of the money market. There is the most activity of foreign participants, observed on-call loans market (it is a short-term trade loan, which is paid by the borrower on the demand of the creditor), certificates of deposit and short-term commercial paper.

Tokyo is a financial center of the Asia -Pacific Region (APR). It is a major international currency market, due to the large daily turnover of foreign exchange, especially in transactions yen / dollar.

Tokyo Stock Exchange is one of the largest exchanges in the world, but the center gradually losing popularity as a marketplace. The total number of registered companies doesn't change. Foreign investors believe, that the listing rules of the stock exchange are too hard and the enforcement of publication rules cost very expensive. Generally exchange serves the quotation of securities.

Authorized Japanese banks (foreign exchange banks) and foreign banks operate In Tokyo. These banks are engaged in the lending of industry and trade in yen and in foreign currencies, the banks give foreign loans to Japanese companies through their parent bank, accounting export bills and so on. Foreign and Japanese banks carry out the operations in accordance with the situation in the international market of euro currency, in the markets for long-term and short-term lending.

However, greater focus on the domestic market, strong market regulation, protection of national banks, high levels of taxation; prevent further development of Tokyo, as SFTS.

### **2.3.2. Financial centers of developing countries**

Asian centers such as Hong Kong, Singapore, Shanghai, Dubai, Qatar rapidly expand the scope of activities and investment. The government policy is the reason of it.

**Hong Kong** became an international financial center of China in 1997. The high level of autonomy, granted by the government; adoption of legislation which are the foundations of monetary and fiscal policy, laid the basic of capital flows, and were designed to support and develop the city as a financial center ; the development of telecommunications and information technology (introduction of electronic money, the using of SWIFT ); creation of the only trading system by the combining of the Stock and the Emergency Exchanges ( 2000), the regulatory

framework of securities and derivatives (in 2001) gave Hong Kong the opportunity to become a free economic zone, opened for foreign investment.

Such conditions help Hong Kong to be an international financial center.

Hong Kong takes the 9th place in the world by the size of the economy, 11th – in the list of the largest exporters of services, the fourth - in terms of shipping. GDP per capita is higher than in the UK, Canada and Australia. Hong Kong is an independent customs area, an international center of commerce, finance and information. Foreign assets of the banking sector occupied fifth place by volume in the world. Hong Kong ranks 6th place in the world by the volumes of exchange. The stock market is the largest in Asia after Japan by the level of capitalization. Hong Kong is attractive because of the official position regards to FDI, liberal tax system, the relative simplicity of corporate law requirements. Small transaction costs, low interest rates, a small risk of changes in exchange rate, free capital movement are typical for Hong Kong.

**Singapore** is the financial center with international reputation, which focuses its work on the Asia Pacific region. The factors of its development are: Tokyo market deregulation in the mid- 80s; creation of an efficient business infrastructure, price competition; qualified personnel; strategic location, allows the investors to make transactions with financial centers of the Asia-Pacific region as well as with European and American centers around the clock. Singapore became one of the first financial institutions in the world in 1968. This allowed foreign banks to operate as offshore banking units.

There are many major and most respected world financial institutions in Singapore. It is an important center for capital management and ranks the fourth place among the major currency trading centers in the world after London, New York and Tokyo.

Singapore banks provide not only traditional banking activities, but other activities that are regulated by the financial authorities of Singapore (Monetary Authority of Singapore - MAS). For example, providing accounting and consulting services carry out insurance mediation service clients in the stock market. There are about 30 activities, they are fixed in the relevant piece of legislation and the banks need not obtain a separate license.

Recent years have seen rapid growth and spread of the securities market. Singapore is the second among the largest centers of OTC securities trading in Asia. It takes second place in the trade by the derivatives securities and the 1st place on derivatives commodities on OTC.

The bond market is represented by government securities and foreign bonds. Industrial bond market is one of the largest markets in the rapidly developing. In Singapore Exchange were listed and traded securities of more than 200 international companies.

Singapore is the regional center for primary and secondary insurance. It is also very attractive for foreign investors. The largest after Japan's real estate investment fund in Asia operates in Singapore. Investments are made in industrial trusts in the area of air transport, maritime traffic, and infrastructure assets. The

progressive regulatory framework, robust macroeconomic foundation, secure political climate, easy access to Asian growth markets contributes the investments.

In general, the activities of the financial center is characterized by the effective cooperation of representatives from all levels of government and business , no economic barriers for non-residents , low tax rates , the effective regulation of the banking sector, the high level of telecommunications networks. The level of professionalism and the value of costs so attractive, that the execution of certain operations could be transferred from Europe to Singapore.

In recent years Singapore has entered into many international bilateral agreements: free trade agreements with the U.S., Japan, Korea, Australia, New Zealand, India, and the agreements about the avoidance of double taxation with more, than 60 countries.

**Shanghai** claims on the status international financial center. This can occur while maintaining the current rate of economic growth in China and use the status and benefits of a free economic zone. Shanghai is the city of China, where the largest numbers of financial transactions conduct. Total volume of trading transactions on stock exchanges, bond markets, markets of futures, currencies and gold amounted to more than 386 trillion yuan in 2010 that is 11 times more than in 2005. Now the price of a variety of deals and trades operations in the futures market in Shanghai are important «reference " material for other global financial centers.

Foreign companies can carry out the listing of its shares on the Chinese stock exchanges in the near future. Shanghai is gradually turning into a major financial center of the Asia- Pacific region. National Commission for Development and Reforms of China developed the program of transformation of Shanghai into international financial center. The program provides to double the volume of trading on the financial markets of the city, improve the transparency of operations with derivatives. Over the past two years, China has lowered barriers to foreign capital, weakened the control over the yuan, and has allowed greater use of national currencies in international trade and finance. However, experts say, the pace of liberalization remains slow.

It is predicted that the volume of trading on the Chinese stock exchanges (excluding foreign exchange transactions ) will reach 158 trillion dollars by 2015; Shanghai interbank market of transactions in bonds is going to come to the three world largest centers , by the volume of securities in circulation (in 2005, it ranked the 5<sup>th</sup> place in the world). Shanghai market of financial derivatives could be one of the five largest in the world. Chinese currency is getting an international status. The building of World Financial Center will be based on the yuan, indicating the internationalization of the Chinese currency.

Leading international financial center of the Middle East is **Dubai**. Its rapid development started from 1966, when the oil was discovered on its area. However, the economy is based not just on oil, but also tourism, financial services, e-commerce. Dubai compared to Shanghai by the pace of development. The policy of tax exemption and avoid bureaucracy, the full support of growth and the

advantageous location - between European and East Asian financial centers. Delegation of the leading international banks and local banks provide all types of internationally accepted services in the of investment sphere, corporate and private banking; asset management and fund registration; insurance and so on. Dubai is a regional information center. It takes the third place between the most important re-export centers and located after Hong Kong and Singapore in the list.

The free economic zone (FEZ) Dubai International Financial Centre (DIFC) began to work in September 2004. The financial industry became the main focus of DIFC. Creation of FEZ is one of the most successful measures to attract foreign investments, and to develop trade and industry.

It has all the advantages for the establishment of offshore companies, but the company, which is registered in the FEZ, not classified as offshore, which increases their status and facilitate business. DIFC has more than 800 companies, including 6 major global banks, 8 major international asset management companies, 4 largest insurance companies in the world. Activity of companies registered in the DIFC, increased by 11 % in 2011.

DIFC offers its customers the following benefits: 100% foreign ownership right, zero tax on income and profits, no restrictions on the movement of capital, export earnings, foreign currency exchange, and import duties for goods. Companies also benefit from modern infrastructure operational support and uninterrupted business operations with persistent high standards of operation. International Financial Exchange (DIFX) started its work in Dubai in September 2005. The DIFX became the venue for the trading of stocks, bonds, instruments of Islamic financial system, derivatives, and indices. An IPO are actively held in Dubai, as well as in Hong Kong and in Singapore, which marked the beginning of the policy of non-intervention in the economy and market liberalization throughout the region. World financial market links the leading financial centers of different countries, and strengthening ties between them resulted in a financial revolution.

#### **2.4. Offshore zones in the system of global financial centers**

There are the offshore zones between the financial centers. There are non-national financial centers that carry significant amounts of loans and financing in currencies of other countries (Eurocurrencies). They are the redistributive element of global financial flows and they allow evading existing national and state legislation.

There are the characteristics of the offshore zones:

- liberal currency-credit legislation, that protects the interests of investors without imposing unnecessary restrictions on financial institutions (low taxes, small government intervention);
- implementation of currency-credit transactions mainly with foreign currency for the country;

-legislative tolerance for selling currency at the official price, when the official exchange rate is below market rate and buying currency when the official exchange rate is higher than on the market .

The main feature of offshore centers is low tax or no tax. In addition, their deposited capital is not stand without movement, and is intended for investment in the high profitable fields with low-tax abroad.

There are many criteria for the classification of offshore centers. The basis of the main criteria, used by the business world concerns summarized volume and nature of the benefits offered to customers.

In this approach, offshore centers are usually divided into two main types.

First is actually offshore areas officially recognized in the world and jurisdictions that are "tax havens". These are mainly the countries with a small population and small land area. According to the terminology, adopted in the UN, they are called mini- states. They are characterized by the lack of income tax for foreign "soft" companies. But this advantage is largely devalued in the eyes of customers because of so serious drawback as the lack of tax treaties with other countries and, in particular, agreements on avoidance of double taxation. This type of jurisdiction concerns a large number of offshore centers in the world, such as the Isle of Man, Gibraltar, Panama, the Bahamas, Turks, and other.

The second type includes the jurisdiction of the "moderate" level of taxation. These states are not considered as typical offshore areas, although some of them in some cases are included in the "black list" of tax havens. It is often charged "moderate" (and sometimes very significant) income tax. But this "defect" (in terms of wanting to minimize their tax liability) is completely offset by the fact of tax treaties with other countries.

There are also provided significant benefits for companies of a certain type of activity: holding, financial and license above all. These companies are used as intermediate points for the interstate transfer of income and capital. At the same time, offshore company acts as the destination of the transfer, registered in well-known tax havens.

Zones of "moderate" tax are usually considered quite "respectable" states of Western Europe - Switzerland, Holland, Austria, Ireland, and Belgium.

There is the number of "combined" jurisdictions, which combines features of these two types. These include such "best" jurisdiction, Cyprus and Ireland.

However, not all offshore centers of the first type of "aliens" entirely on the possibility of a tax agreements. Some of them have agreements on avoidance of double taxation with certain countries (such offshore jurisdictions include Madeira, Dutch Antilles, Mauritius, British Virgin Islands). This raises another convenient "loophole" to hide income tax and capital.

If we consider only offshore centers in terms of the fiscal situation, i.e. the specifics of the various benefits and advantages for different categories of taxpayers, these centers are divided into several groups.

These countries and territories have their outstanding characteristics:

- there are no taxes for their residents (Andorra or the Bahamas) ;

- there are taxes only on income, obtained in the country, but there are no taxes on the revenues, coming from abroad (Costa Rica, Hong Kong );
- there is no taxable income, obtained within the country, but the taxable income derived from abroad (Monaco );
- there is taxable income, obtained abroad, but the tax rates are very low - less than 1% ( Island of Guernsey or Jersey Shark );
- tangibles are taxable, current income is not taxable ( Uruguay );
- there is the possibility to use different combinations of favorable tax rules that create particularly favorable conditions for individuals. Their income is fully exempt from taxes, or some types of income enjoy the tax privileges. Andorra, Ireland, Monaco, Kampone in Italy - are the European centers of this type. Bahamas, Bermuda, Kaymanov Islands, French Polynesia or Islands of St. Bartholomew – are non European centers of this type.

## Chapter 3. Global monetary system and the principles of its operation

### 3.1. Concept and types of currency

Currency is any product, which is able to function as a medium of exchange in international payments. In the narrower sense – currency is the cash, which passes from hand to hand in the form of banknotes and coins.

Currency provides communication and interaction of national and world economies. Currencies are divided into national currency, foreign and international (regional) - depending on the origin (status).

**The national currency** – is the legal tender of the country: money in the form of banknotes, coins and in the other forms. The money, that are in circulation and are legal tender in the country, as well as vouchers or other securities (stocks, bonds, their coupons, tokens of exchange (drafts), promissory notes, letters of credit, checks, bank orders, certificates of deposit, savings books, and other financial and banking instruments) denominated in the currency of that country. The national currency is the basis of the national monetary system.

**Foreign currency** - banknotes of foreign countries, credit and payment resources that denominated in foreign currency and are used in international payments.

**International (regional) currency** - international or regional unit of account, the resource of payment and reserve. For example, SDR (SDR - Special Drawing Rights), which are the international means of payment, are used by the IMF for the cashless international payments. SDR could be used by means of the notation in special accounts, and by the unit of account of the IMF; Euro – is the regional international unit of account, which was introduced within the European Monetary System in 1999. Euro is the accounting unit of the EU.

There is a **reserve currency**, which is related to foreign exchange reserves of the country. Central banks of different countries accumulate and save reserves for international settlements in foreign trade and foreign investments in reserve currency.

There are **strong and weak (soft) currencies** - in relation to the movement of exchange rate of other currencies. Hard currency has a stable exchange rate. The concept of hard currency is often used as the synonym for convertible currency.

There are **cash and non-cash currencies** – in relation to the material form.

According to the principle of building – there are **"basket" type and usual currencies**. Currency basket – is the method of commensurability of weighted rate of one currency in relation to a specific set of other currencies. The determination of the parts of currency basket, the size of exchange components, i.e. the number of units of currency in the set are the important factors of currency basket's calculation.



### 3.2. Convertibility of currency

Important characteristics of currency are the degree of its convertibility - the ability of residents and non-residents to exchange national currency to foreign currency free and unlimited and the ability to use the foreign currency in transactions with real and financial assets. The degree of convertibility is inversely proportional to the volume and stiffness of exchange restrictions that are practiced in the country. On this basis (usage conditions) currency can be fully convertible, partly convertible and non-convertible.

**Freely convertible** - the currencies of the countries, completely canceled currency restrictions and exchange them for all other currencies.

**Partly convertible** - the currencies of the countries, which impose currency restrictions for a certain range of foreign exchange transactions.

**Non-convertible** - the currencies of the countries impose currency restrictions for all operations as for non-residents and residents.

Currency restrictions are different acts of official bodies, which directly lead to a narrowing of opportunities, to increasing of costs or to the appearance of undue delay in the implementation of foreign exchange and payments in accordance with international agreements. The main principles of foreign exchange restrictions include:

- ❖ centralization of foreign exchange transactions in Central and authorized banks;
- ❖ licensing of foreign exchange transactions ;
- ❖ complete or partial blockage of foreign currency accounts ;
- ❖ limited convertibility of currencies.

The degree of currency convertibility depends on the scope of foreign exchange restrictions. There are two types of the scope: the current account of balance of payments or equity transactions.

**Convertibility for current operations** - is the lack of restrictions on international transactions, which are related to trade in goods, services, income transfers and transfers.

The following forms of currency restrictions are used at current account transactions of the balance of payments:

- the freezing of proceeds of foreign exporters, which were obtained from the sale of goods in the country, limiting of their opportunities for disposal of these assets;
- the mandatory sale of foreign currency receipts of exporters in whole or in part to the central and authorized banks;
- limited sale of foreign currency to importers;
- the restrictions on forward purchases of foreign currency by importers;
- the prohibition of sale of goods abroad in local currency;
- the prohibition of payment for imports of certain goods in foreign currency;
- the regulation of the terms of payments for exports and imports and more.

**Convertibility for capital transactions** - is the lack of restrictions on international transactions that involve the movement of foreign direct and portfolio

investment, capital grants. The currency restrictions, that limit the export of capital and stimulate capital inflows to support the exchange rate, are used in case of the passive balance of payments.

This is the limiting of the export of national and foreign currency, gold, securities, loans, control of credit and financial markets; limiting of the participation of national banks in providing international loans in foreign currency; forced removal of foreign securities owned by residents and selling this securities for currency total or partial suspension of the repayment of external debt or the opportunity to pay in national currency without the right to transfer abroad etc.

There are some measures, which could be done in case of active balance of payment, to decrease the capital flows into the country and to increase the exchange rate of the national currency. These measures are: deposition of new foreign banks' liabilities to interest-free account at the central bank; ban on sales of investments and non-residents of domestic assets by foreigners; the mandatory conversion of foreign currency loans in the national central banks; the prohibition on interest payments on fixed-term contributions of foreigners in local currency; introduction of negative interest rates on deposits of non-residents in domestic currency (interest paid depositors of the bank or bank that is interested in attracting deposits in foreign currency, the bank pays them civil monetary institution); the restrictions on the import of foreign exchange; the restrictions on the currency forward sales to foreigners [10, p. 175].

The convertibility of the currency is not purely technical category of possibility of exchange. In fact, it is a special nature of the relationship between the national and world economy, deep integration of the first in the second. Convertibility of national currency provides long-term benefits for the country. The country could take these benefits in case of the participation in the multilateral world trade system and investments, including:

- the free choice of the most profitable markets within the country and abroad by producers and consumers at any given moment;
- empowerment to attract foreign investment and to invest abroad;
- the stimulating effect of foreign competition on efficiency, flexibility and adaptability of firms to changing business conditions;
- the pulling up of domestic production to international standards, regarding prices , costs and quality;
- the possibility of international payments in national currencies ;
- at the level of the economy as a whole – specialization, taking into account the relative advantages, optimal and economical consumption of material, financial and human resources.

The convertibility of currency is divided into internal and external, depending on the ratio of residents and non-residents to the currency. Residents are allowed to purchase and carry out operations with currency and bank deposits denominated in foreign currency inside the country – this is internal convertibility. Internal convertibility covers current and capital transactions. All developed countries have this type of currency convertibility. So foreign currency is the

means of payment, if the seller and the buyer agree with this fact. Residents have the right to implement foreign currency transactions with nonresidents – it is the terms of external convertibility. Local currency can be externally convertible in current or capital transactions.

### **3.3. Exchange rate: the nature, types and regimes**

The main feature of the theory and practice of international finance is the large number of currencies, which operate in this area. Each country has its own currency, the currency, which is the basis of the monetary system of the country (dollar, yen, ruble, hryvna, etc.). Currency may have one name but different value in different countries. For example, the dollar is the currency in Canada and the United States - but the U.S. dollar and Canadian dollar have different values.

Due to the fact that each country uses its outstanding currency in the circulation, and this currency differs from currencies of other countries, all international transactions - trading, credit and so on – realize on condition that the exchange of two currencies takes place. International flows of goods, services and capital in one direction provide the movement of currency in reverse.

Currencies tend to be exchanged not just to each other, but in a ratio that is determined by their relative value - exchange rate.

Currency exchange rate - is:

- the number of units of one currency needed to purchase a unit of another currency;
- market prices of one currency, expressed in another currency;
- price rates, which are interconnected by tripartite arbitration.

The exchange of one country's currency for another one - is the content of the currency transaction. Each national currency has a price, expressed in the currency of another country. It is called the exchange rate. Prices of the freely convertible currency are determined in the foreign exchange market, are based on supply and demand for the currency. The price of the currency is set by the central bank in countries with partially convertible currency. Thus, currency or exchange rate, characterizes by the quantitative determination, which is the ratio of exchangeable currencies.

The exchange rate is the means of internationalization of monetary relations, the formation of the world system of money; it facilitates analyzing the structures of individual countries, conditions and results in productivity, wages, rates of economic growth; is the means of comparing domestic prices and domestic production conditions; is the a means of redistributing of the national product between countries, engaged in foreign economic relations; is the means of promoting sustainable development and unification of the financial markets. Therefore, it is considered like an important macroeconomic indicator and a tool of macroeconomic policy.

The determination of exchange rates is called the quotation. There are two methods of the quotations of foreign currency to the national one: direct and

indirect (reverse). The course of unit of foreign currency is expressed in domestic currency (\$ 1. = 5.0 UAH) – it is the **direct quotation**. Exchange rate of the national currency unit expressed in foreign currencies - it is **indirect quotation** (1 UAH = \$ 0.20).

The base currency and the quote currency are installed in case of exchange quotation. *Base currency* - a currency against which the other currencies are quoted, i.e. the currency which is compared with a given currency. *Currency of the quotation* - a currency that is quoted to the base, i.e. the currency, exchange rate of which is determined. Typically, all currencies (except the pound sterling and a basket of currencies) are compared to the U.S. dollar. The use of the dollar as the base currency reflects the role of the U.S. currency as a universally accepted unit of account.

The quotation method is used for the analyzing of the dynamics of exchange rates. The exchange rate - is the price of money, so its changes mean appreciation or depreciation of money. The national currency is expensive, when the exchange rate determined by direct quotation, is reduced: was 5.4010 UAH for \$ 1, became 5.1210 per 1 USD, the growing purchasing power of the hryvna growth from 0.1851 dollars. for 1 UAH (1:5,4010) to 0. 1953 dollars for 1 UAH. ( 1:5,1210). It is impaired in case of the growth in the exchange rate.

The procedure of the quotation in the form of fixing, where interbank exchange rate is determined and recorded, in the way of the sequential matching of supply and demand for each currency –is used on many currency markets. The rates of purchase and sale, or the average course between them that is recorded as official are determined by using of data, which was noticed in previous sentence.

### 3.3.1. Types of the exchange rates

Several types of account of the exchange rates are used to assess the rate of economic development.

**1. The nominal exchange rate.** This is the rate between two currencies, i.e. the relative price of two currencies (the offer to exchange one currency into another). For example, the nominal exchange rate of the dollar to pound equals U.S. \$ 2.00 / 1 pound.

Determination of the nominal exchange rate is consistent with the general definition of the exchange rate and is set on the currency market. It is used in exchange contracts. It is the simplest and most basic definition of the exchange rate. However, it is not convenient for long-term forecasting, because the cost of foreign and local currency changes in case of the change in the general price level in the country.

**2. Real exchange rate.** This is - the nominal exchange rate, adjusted for relative price levels in our country and in the country, whose currency is used in quoted process with the national currency.

The real exchange rate is a comparison of the purchasing power of two currencies.

This is the formula, which is used for its calculation: (3.1)

$$S_r = S_n \frac{P^l}{P}$$

where  $S_r$  - the real exchange rate;

$S_n$  - nominal exchange rate;

$P^l$  - price index of the foreign country;

$P$  - price index of our country.

The real exchange rate is the ratio of the consumer basket abroad, transmitted from foreign currencies into national currency, using the nominal exchange rate (the nominal exchange rate, multiplied by the price index for foreign countries) and consumer price basket of the same goods in our country.

Index of real exchange rate shows its change, adjusted for inflation in both countries. If the inflation rate in the country is higher than in the foreign country, the real exchange rate will be higher than the nominal.

**3. Nominal effective exchange rate.** It is calculated as the ratio between the national currency and the currencies of other countries, weighted according to the proportion of countries in currency transactions of the country. It is expressed by the formula:

$$S_n^e = \sum_i (P_n^s \times W_i), \quad (3.2)$$

where,

$S_n^e$  - Nominal effective exchange rate;

$\sum_i$  - summation sign of indexes for  $i$  countries;

$i$  - the country, which is a trading partner

$P_n^s = \frac{S_{n_1}}{S_{n_0}}$  - the index of the nominal exchange rate of the current year ( $S_{n_1}$ )

compared to the base year ( $S_{n_0}$ ) of each country's trading partner;

$W_i = \frac{X_i + IM_i}{X_{total} + IM_{total}}$  - the share of each country in the trade turnover of the country

with countries, that are major trading partners.

The nominal effective exchange rate shows the averaged dynamics of the movement of national currency against several currencies, and reflects the change in price levels in each country.

**4. Real effective exchange rate.** This is the nominal effective exchange rate, adjusted for changes in price levels or other indicators of production costs, which shows the dynamics of the real exchange rate of the country to the currencies of countries - major trade partners.

It is expressed by the formula  $S_r^e = \sum_i (P_r^s \times W_i)$  (3.3)

where –  $S_r^e$  the real effective exchange rate;

$P_r^s = \frac{S_{r_1}}{S_{r_0}}$  - the index of the real exchange rate of the current year compared to

the base year of each country, which is the trading partner.

The index  $S_r^e$  is considered like a major indicator that characterizes the generalized dynamics of major currencies rates. Trends of their development are projected on the index  $S_r^e$ .

If  $S_r^e$  of the currency rises, exports become more expensive, its values are reduced, and imports became cheaper and its size increases, i.e. the competitive position of the country deteriorates in the global market. So  $S_r^e$  is the indicator of the competitiveness in the global market.

### 3.3.2. Cross-rate and trilateral arbitration

Every currency has more, than one exchange rate, but so much, how many currencies there are in the world. Exchange rates having different numerical expression are connected by trilateral arbitration. A trilateral arbitration is an exchange operation of two currencies through the third one, with the aim of getting income, using a difference between the exchange rate and cross-rate.

The cross-rate is the course of exchange of two currencies (A and B) through the third currency (C). We can determine cross-rate by the conversion of the currency "A" at first in the currency "C", and then – the currency "C" in the currency "B".

$$(A / C) \times (C / B) = A / B \quad (3.4)$$

The actions of arbitrageurs create additional suggestion of one currencies and additional demand on other currencies. A competition between arbitrageurs results in the fact, that an income from the arbitration is so small, that the exchange rate and cross-rate are practically equal. At the same time a trilateral arbitration creates the mechanism, which evens demand and supply on currency in all currency markets. In consequence of this, an export always promotes the rising of currency cost in the country in case of its measuring in currencies of other countries. An import reduces the cost of currency, regardless of the direction of exports and of the country, an import comes from.

Cross-rates are the secondary indexes. We can calculate them through the basic courses of currencies in relation to the dollar. There are three methods of cross-rate calculation, taking into account the type of quotation to the dollar (direct or indirect) [11, p. 19].

**The 1st method:** the calculation of cross-rate for currencies with direct quotation for US dollar (a dollar is the base of quotation for both currencies). We must divide an exchange rate, which is the currency of quotation, on the currency,

which we use as the base of quotation for the calculation of the cross-rate. For example, it is needed to find the cross-rate of the Canadian dollar and Japanese yen (CAD/JPV). The quotation of the Canadian dollar for US dollar (USD/CAD) equals 1, 5658, and the Canadian dollar to yen (USD/JPV) - 107,34. The cross-rate of CAD/JPV will be:  $\frac{107,34}{1,5658} = 68,52$

**The 2nd method:** the calculation of the cross-rate for currencies with direct and indirect quotations for US dollar, where the dollar is the base of quotation only for one of currencies. For the calculation of the cross-rate we need to multiply the dollar exchange rates of these currencies.

For example, if we needed to find the cross-rate of pound sterling to the Ukrainian UAH (GBP/UAH). The exchange rate of GBP/USD=1,5890 (indirect quotation), the exchange rate of USD/UAH=5,4250 (direct quotation). The cross-rate of GBP/UAH= =1,5890×5,4250=8,6203.

**The 3rd method:** the calculation of the cross-rate for currencies with indirect quotations for US dollar, where a dollar is currency of quotation for both currencies. For the calculation of the cross-rate we need to divide the exchange rate of the basic currency into the exchange rate of quotation currency. For example, it is needed to define the cross-rate of the pound of sterling to the Australian dollar (GBP/AUD). The exchange rate of GBP/USD=1,5820, exchange rate of AUD/USD=0,7596.

$$\text{Cross-rate GBP/AUD} = \frac{1,5820}{0,7596} = 2,0827.$$

There are cross –rates, which are the most popular: pound sterling to Japanese yen, euro to Japanese yen, euro to the Swiss franc. The market of cross-rates in Ukraine is presented by a few currencies: pound sterling to the UAH, Russian ruble to the UAH, euro to the UAH. The determination of other cross-rates is not popular, because the trade contracts consist mainly in the dollars of the USA.

### 3.3.3. The regimes of the exchange rates

There are three main regimes of the exchange rate in international practice: fixed, floating (flexible), compromise.

**The regime of the fixed exchange rates** - is the system, which characterizes by the features: the exchange rate is fixed, and its changes, which are the results of the changes of demand and supply, could be eliminated by the stabilization measures of the state. The classic form of the fixed rates is the "gold standard" currency system, where every country installs the gold content of the monetary item. The exchange rates are the fixed correlations of gold maintenance in currencies.

The fixed exchange rate can be fixed by different ways:

1. Fixing of the national exchange rate to the rates of the most important currencies in the international calculations.
2. Using of the foreign countries as legal means of payment.

3. Fixing of national exchange rate to the currencies of other countries - general trade partners.

4. Fixing of national exchange rate to collective currency units, for example, to SDR.

There are the advantages of fixed exchange rate:

- stable exchange rate provides a reliable basis of company for planning and pricing;

- it limits a domestic money and credit policy;

- it positively influences on the financial markets and financial instruments, which are developed not enough.

There are the disadvantages of fixed exchange rate:

- in case of lack of credibility to fixed exchange rate, it may be involved in speculations, which could be the reason to stop the using of fixed exchange rate

- there is no reliable method to define the optimality and stability of the chosen course;

- a central bank must be ready to provide currency interventions for the support of fixed exchange rate.

On the whole, the system of the fixed exchange rates allows settling the short-term problems, related first of all to the high rate of inflation and instability of national currency. This currency regime is unacceptable in a long-term period, because the divergences in the rates of production productivity increase do not find an adequate reflection in relative price changes and allocation of resources between the different groups of commodities and services. As a result disproportions are accumulated in the structure of national economy.

As a rule, the market (floating) exchange rates operate in countries with a market economy and high level of profit.

**Flexible or free floating exchange rates** regime – is the regime, when the exchange rates of currencies are determined by the demand and supply. The market of currencies is counterbalanced by means of price, i.e. rates mechanism.

The advantage of market exchange rates - is their ability to be automatically corrected in the way, which gives the opportunity to remove unbalanced payments. This process is happened due to free oscillation of demand on currency and its supply; speculators do not have the opportunity to get an income due to a central bank; there is no necessity to carry out currency interventions by the central bank.

The disadvantages of market exchange rates are:

- work of markets couldn't be ideally efficient all the time, so there is the risk of not predictable level of exchange rate;

- uncertainty of future exchange rate may create difficulties for company in the field of planning and pricing

- the freedom of independent domestic monetary policy could be broken (for example, if the government hasn't tools to stop decrease in the exchange rate, it can lead inflation, fiscal and monetary policy).



**Compromise exchange rates regime** – is the regime, where the elements of fixing and of free floating exchange rates are combined, and the regulation of currency market is carried by the motion of currency rates only partly. It can be:

- ✓ the maintain of fixed rate through minor changes in the economy, and in case of their insufficiency – by the devaluation of currency and establishment of the new official fixed course;
- ✓ managed float of currencies, when the authorities change the exchange rate gradually, while a new parity will not be attained. It can be: a) "sliding peg" - is daily devaluation of national currency on the earlier arranged and declared size; b) "crawling peg"- is a decline of the exchange rate on the defined size with earlier declared periodicity; c) the "dirty float"- is daily devaluation on the not earlier declared size. The government takes measures to adapt the economy to the new situation.

When the proposal does not comply with the demand in terms of the set official rate, the currency trade is illegally, the exchange rates of black market are used. The offshore exchange rate behaves to the unofficial cost of the managed currencies, operation with them are conducted in offshore zones.

The choice of the regime of exchange rates depends on the aim of economic politics. In the situation, when the achievement of full employment belong a primary purpose, and inflation does not get the special importance, advantage can be devoted to the floating exchange rates. When the avoiding of inflation is the main aim, the exchange rates are often fixed. Essentially, the problem of comparative advantages of the fixed and floating exchange rates is the problem of optimal combination of unemployment and inflation.

The degree of depending of the national economy from the processes taking place in the global economy influences on the chosen of currency regime. If a country in a large measure yields to the threat of internal instability and in a less measure depends on external, the best exchange rates for such country are fixed. In the case when the economy of country in a considerable measure depends on a world market, and an internal economic situation and national macroeconomic politics are relatively stable, the best option is the floating exchange rate.

Countries with the deficit of balance of payments are more interested in flexible exchange rates then the countries, which prefer independence of their monetary and fiscal policy. The flexible exchange rates are recommended for the countries that are specialized on the export of narrow set of foods, demand on that depends on economic position of importing countries.

It is possible to say in the most general view, that we must pay much attention to the optimal combination of the evaluation of currency policy in the modern world. The currency policy is an instrument of economic integration and is the tool of protection from the negative and destructive influence of the world economy on the national economy.

### 3.4. The equilibrium exchange rate

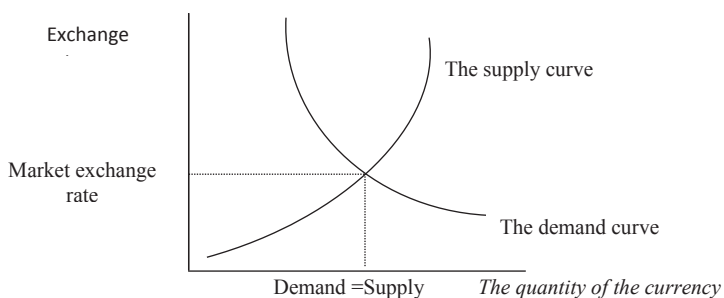
#### 3.4.1. Demand and supply of foreign currency

A concept of the **equilibrium exchange rate** is important in the study of mechanism of determination of exchange rate. The analysis of exchange rate is performed by the using of the instruments of the demand and supply of foreign currency at the currency market.

Demand for foreign currency arises as a result of necessity to buy commodities and services abroad. Demand for the currency of any country at the currency market means, that there is the demand of foreigners for goods and services of this country. The size of demand on currencies depends on a price of the offered commodity. More customers will buy the commodity, when the price of this commodity will descends.

The currency of a selling country is needed by the buyers, who want to get foreign commodity by means of the exchange of foreign currency for the national currency, at the market price, i.e. at the exchange rate. Demand of the currency of the seller of commodity depends on the currency price (exchange rate). Supply of currency from the side of selling country is the result of necessity to buy commodities (i.e. the demand of the commodity) from the country-buyer of commodities.

In a market economy the price of currency ranges under the act of demand and supply. If the course of exchange is too high, the currency supply is higher, than demand of currency and the price on currency is low. If the price is too low, the demand of the currency is more, than the supply, so the exchange rate is higher. As a result of such fluctuations, the price of equilibrium of currency or market price is created. A market price - is the exchange rate, when the supply of currency and the demand are equal on the currency market (Fig. 3.1)



**Fig.3.1. The determining of the market value of currency (equilibrium exchange rate)**

### **3.4.2. The dependence of prices on the change of exchange rate**

Understanding of essence of exchange rates and of types of their quotation allows to compare the export price of commodity to the cost of internal market and to find out, if the sale of that or other commodity or service at the certain foreign market is advantageous, or not.

Devaluation of national currency reduces the costs of national commodities, that is shown in foreign currency (commodities for foreigners become cheaper). It assists the height of export, which becomes more competitive. At the same time prices on foreign commodities, that is shown in national currency rise and the imports of them decrease. The national commodities, with prices expressed in foreign currency, become more expensive as a result of the appreciating exchange rate on the national currency (commodities are more expensive for the foreigners). Their export goes down and becomes less competitive. The prices of foreign commodities, which are expressed in the national currency, fall down and their import grows at the same time.

## **3.5. Forecasting the exchange rate**

### **3.5.1. Factors influencing the exchange rate**

Long-term fundamental factors, that determine the path of exchange rates, are processes, which take place in the field of a national production and turnover. It is, first of all, the comparative (in relation to a world level) labor productivity, and, accordingly, charges of production, long-term growth rate of GDP, place and role of country in world trade and capital exports.

Relatively more rapid increase of the labor productivity in a separate country (relative increase of the labor productivity) in a long-term plan results in the increase of relative purchasing power of national money in relation to commodities and in accordance with the increase of rate of exchange of this country. This circumstance gives an opportunity to forecast long-term development of exchange rates.

When there is the growing of the charges of production (lower labor productivity) compared with world, import grows more rapidly, compared with export. This process is the reason of depreciation of national currency, and vice versa. This factor got the name "parity of purchasing power" (PPP) of currencies. Currencies are compared according to the international price of the determined amount of commodities and services, represented by one or another currency. During international and world economic relations such correlation of both currencies sets. According to this correlation the certain sum of money can be changed on identical in composition and volume the "market basket" of commodities and services in both countries. It is the parity of purchasing power of currencies, i.e. such level of the exchange rate of two currencies, that evens the purchasing power of each of them, if the other things being equal.

The increase of national income of country results in the increase of demand for the imported goods generates demand of the currency of country-importer and tendency to depreciation of national currency. And the increase of export, related to the increase of national income in other country, generates a tendency to the increase of currency national exchange rate of country-exporter.

Inflation is one of the factors of the turnover sphere, which determine the long-term tendencies of motion of exchange rate. The rates of inflation comparatively with the rates of depreciation of leading currencies are very important. Higher national inflation rates, if everything else being equal, is the reason of the decline of exchange rate of this country in relation to countries that have relatively not high rates of depreciation of money. In case of inflation the change of exchange rate is cleanly nominal, unlike the real course-changing in case of relative change of the labor productivity.

If in first case, the monetary policy can influence the exchange rate toward its increase (reduction of emission of money, increase of rate of the borrowed interest etc.), then in the second case - the facilities, sent to the increase of the labor productivity to the level that provides a competitiveness in the world market.

One of factors that determine the path of exchange rates is a relative level of the real interest rates, i.e. of nominal interest rates accounting for the size of inflation.

The relative level of the real interest rates regulates the flows of capitals between countries. The increase of interest rates does the country attractive for insetting of financial, as a result suggestion of foreign currency and demand of the national currency increase. Low interest rates limit or cause the outflow of capital, demand of foreign currency increases - as a result. Accordingly conducts itself and exchange rate. In the first case it tends to the increase, in the second - to the decline. Thus, strong inflation and low real interest rates result in depreciation of currency.

The state of the balance of payments effects on the exchange rate. As a rule, passive of balance worsens the position of that or other currency in the world market, because the demand on foreign currency exceeds its supply. An asset improves the situation, as supply of foreign currency exceeds the demand of it.

The short-term volatility of exchange rates depend on a psychological factor - market "expectation" of participants of currency market (dissering of bankers, dealers about the prospects of dynamics of currencies exchange rates, currency interventions etc.). Market "expectation" generates different sort of speculation on currency markets, including speculative motion of capitals. Expectation of further decline (increase) of exchange rate leads to the stronger decline (increase) of the exchange rate.

Currency intervention, i.e. interference of central banks and treasuries in currency operations, is conducted both with the aim of increase and with the aim of decline of exchange rate of the country or foreign exchange rate. If the aim is the increase of currency national exchange rate, banks and treasuries masse sale foreign currency and purchase national currency. If a country is interested in the

decline of the currency exchange rate, then there is reverse process - the mass buying of foreign and sale of national currency. Currency intervention can influence on motion of exchange rates only temporally. The degree of its efficiency depends on the volume of money of the specially created currency funds.

The decline of currency national exchange rate assists the discharge export of commodities. However the currency dumping brings additional revenue only when there is the external currency depreciation, i.e. reducing its exchange rate, ahead of internal devaluation, i.e. a fall in purchasing power of money in the country. Only in this case, selling a commodity at previous price (or lower) in foreign currency, exporter change this currency for the greater amount of the national currency as a result of fall in the exchange of the last. It allows buying more equipment, raw material, labor force at the internal market for the expansion of production.

Banks, firms, TNC do the prognostications of exchange rate. The aim of prognostication is an improvement of insurance of currency risks and increase of efficiency of decisions in international financial management.

### 3.5.2. Models of the determination of exchange rate

The prognostication of tendencies of changes of exchange rates maybe, first of all, on the basis of PPP, which binds prices in national currency with the exchange rates (PPP - is equality of purchasing power of different currencies at the unchanging level of prices in each of countries). There are theories of absolute and relative parity of purchasing power.

It becomes firmly established in the **theory of absolute parity of purchasing power**, that the exchange rate between currencies of two countries equals the relation of price level in these countries:

$$R_{d/f} = \frac{P_d}{P_f}, \quad (3.5)$$

where  $R_{d/f}$  – an exchange rate

$P_d$  – level of domestic prices (the price of the consumer basket in your country)

$P_f$  – price level abroad (the price of the consumer basket in a foreign country)

**The theory of relative parity of purchasing power** asserts that the change of exchange rate between currencies of two countries is proportional to the relative change of prices levels in these countries, so inflation is taken into account.

$$R_{d/f}^1 = R_{d/f}^0 \times \frac{P_d^1 / P_d^0}{P_f^1 / P_f^0}, \quad (3.6)$$

where  $R_{d/f}^0$  and  $R_{d/f}^1$  - exchange rate in the baseline and current year;  
 $P_d^0$  and  $P_d^1$  - level of domestic prices in the baseline and current year;

$P_f^0$  and  $P_f^1$  - price level abroad in the baseline and current year.

Another way to determine the exchange rate, based on the theory of relative purchasing power parity is the comparing of the difference of inflation rates within the country (id) and abroad (if) with the change of the national currency exchange rate :

$$i_d - i_f = \frac{R^1 - R^0}{R^0} \quad (3.7)$$

The expected changes of rate of exchange under the act of change of interest rates depend on those forces that influence on interest rates. First of all it regards the inflation.

Irving Fisher, an American economist, proved the relationship between interest rates and inflation in detail. According to his theory, the growing of inflation rate leads to the growing of interest rates and vice versa. This pattern is called the "Fisher effect".

The "Fisher effect"- the ratio between the nominal interest rate (r), the real interest rate (R) and inflation rate (i) in the country:

$$(1 + r) = (1 + R) \cdot (1 + i) \quad (3.8)$$

Generalized Fisher effect is used for two or more countries. Generalized Fisher effect: difference in inflation rate between the two countries is the difference in nominal interest rates, i.e.:

$$i_d - i_f = p_d - p_f \quad (3.9)$$

The "international Fisher effect" explains the moving from interest rates to exchange rates. The "international Fisher effect" shows that the expected percentage change of the exchange rate is a function of different interest rates in two countries.

The "international Fisher effect" is presented by the equation:

$$\frac{R^1}{R^0} = \frac{1 + p_d}{1 + p_f}, \quad (3.10)$$

where  $p_d$  — interest rate in domestic currency;

$p_f$  — interest rate on foreign currency;

$\frac{R^1}{R^0}$  - percentage change in the spot exchange rate.

Fisher's theory demonstrates a direct relationship between the nominal interest rate, inflation and the exchange rate (see formulas 3.7, 3.9) [15, p. 41]:

$$p_d - p_f = i_d - i_f = \frac{R^1 - R^0}{R^0} \quad (3.11)$$

Higher inflation rate in the country, than abroad, compels local banks to set higher percent rates in comparing to foreign ones, because inflationary expectation is incorporated in them. It conduces to depreciation of national currency.

We must understand, that the increase of interest rate can leads to the increase of exchange rate and to decline of it. It depends on the reason of interest rate increase.

As known, a nominal interest rate equals the sum of the real interest rate and expected inflation rate. ( $p = P + i$ )

An inflation rate and the change of the real interest rate can influence on the level of nominal interest rate – this comes from the above formula. An exchange rate of national currency will grow or go down depending on the constituent of formula ( $P$  or  $i$ ), which influences on the change of nominal interest rate. If the increase of the real interest rate influences on the increase of nominal interest rate, then it conduces to the increase of exchange rate of national currency. If an inflation rate influences on the increase of nominal interest rate, then it will be the reason of fall in the exchange rate of national currency

The prognostication of exchange rate is assisted by the analysis of balance of payment. This prognostication is based on prognostication of changes income and expenditure of foreign exchange reserves; identify differences between expected income and expenses. International trade influences on the exchange rates through the correlation of import and export.

There are the key factors that influence on the changes of exchange rates. These are: the factor of trust to reliability of currency, the spread between an official exchange rate and market exchange rates and the set of technical factors, such, as a publication of national statistical data, seasonal requirement in currency, some strengthening of currency after its continued weakening, and vice versa.

### **3.6. The essence of monetary policy, its forms**

The important instrument of expansion of world economic connections is monetary policy, i.e. the totality of economic, legal and organizational measures and forms that public, central bank and financial institutions, international currency-credit organizations use in the field of currency relations.

Monetary policy is determined by a currency legislation, that includes a body of law to regulate the order of operations with currency values in the country and abroad as well as foreign exchange transactions between countries with currency problems (bilateral and multilateral).

The basic element of monetary policy is the currency adjusting. The system of the currency adjusting - is the regulation of the mode of realization of currency

operations, international settling, determination of general principles of the currency adjusting, plenary powers of public organs and functions of banks and other credit-financial establishments in adjusting of currency operations, rights and promises of subjects of currency relations, order of realization of currency control, responsibility for violation of currency legislation.

The currency adjusting is provided on international, regional and national levels.

The necessity of the currency adjusting on international and regional levels is conditioned by the processes of integration and transnationalization, by the development of international economic relations, by the formation of world division of labor. The international and regional currency adjusting is oriented to:

- the coordination of currency-financial politics of the separate states and economic integration associations,
- the development of general measures in relation to overcoming of currency crises,
- the development of common approaches to the development of monetary policy.

Coordinated international and regional currency regulation can reduce the degree of autonomy of national economic policies and to increase interdependence of monetary spheres of different national economies.

The currency adjusting at the national level takes into account a requirement of IMF and regional associations, which are the included to the separate states. His strategy and tactics are fixed in normatively-legal and methodical documents.

The systems of the national currency adjusting, as a rule, determine the subjects of the currency adjusting, the order of realization of operations with currency values, the status of currency and exchange rate, the plenary powers of public organs and function of the banking system in the field of the currency adjusting and currency control.

The national systems of the currency adjusting divide all participants of currency relations into:

- a) residents, these are all institutional units that are on territory of this country constantly, regardless of their citizenship or belonging of capital
- b) non-residents, which are all institutional units that are on the territory of the foreign states constantly, even if they are the branches of institutional units of this country.

The objects of the currency adjusting in accordance with the order of regulation are currency turnover abroad, into countries and with foreignness. Under currency turnover, we must understand operations with currency values that are used by the subjects of the currency adjusting. National and foreign money signs, pay documents and securities, issued by a non-resident, and bank metals, belong to the currency values.

Monetary policy, depending on its aims and forms, is divided into current and long-term [16, p.163].



Current currency policy – is the totality of the measures, sent to the daily, operative adjusting of exchange rate, currency operations, activity of currency market, including by means of discount and foreign exchange intervention policy.

The aim of current monetary policy is providing of the normal functioning of international and national mechanisms of the world currency system, support of equilibrium of balances of payments.

Long-term (structural) currency policy envisages the long-term measures of structural character in relation to the successive change of currency mechanism.

International negotiations and agreements are used for its realization, primarily within the IMF and on the regional level. Also currency reforms, that include the measures, sent to the change of key elements of the currency system, such, as an order of the international settling, mode of exchange rates and parities, use of gold and key currencies, international means of payment, functional tasks of international and regional currency-credit and bank organizations, are used for the realization of long-term currency policy.

The forms of monetary policy are: the discount and foreign exchange intervention policy.

Monetary discount (registration) policy is the system of economic, legal and organizational measures in relation to the use of discount interest rate for the regulation of investments and balancing of payment obligations, oriented adjusting of exchange rate regulation.

Foreign exchange intervention policy is the system of adjusting of exchange rate, through the purchase and sale of foreign currency by the public. The currency intervention, currency limitations, diversification of currency reserves. Adjusting of degree of convertibility of currencies, mode of exchange rate, devaluation, revaluation are the forms of foreign exchange intervention policy.

Two tendencies fight in the currency policy. From the one side - aspiring to the more close continuous concordance, collective control under an aegis IMF on the macroeconomic indexes of development of national economies for the achievement of stability and "predictability " of exchange rates. Such aspiration exists objectively as a reaction on the growing interdependence of national economies, generated by internationalization and integration of production and capital. On the other hand there is the desire to protect against external interference (mainly from IMF and USA) in internal economic development, to save an independent course in the national economic policy, to prevent the infringement of sovereignty.<sup>1</sup>

These tendencies appear with different force in different countries and regions. The possibility and efficacy of a particular exchange rate regime determined largely by the tendencies of the currency policy. It is impossible to define currency policy, which would be the best for all countries. There is the

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<sup>1</sup> For example, the United States seeks to shift the main burden of organizing the international monetary and financial situation in other countries, which is only natural that resist. IMF in deciding the loan requires currency devaluation, wage freeze, the abolition of government subsidies for basic goods, reduction in government loans and so on.

question of the right choice of concrete politics in concrete situation, depending on tasks (problems), which stand before a country or groups of countries.

### **3.7. Evolution of the world monetary system**

World monetary system (WMS) is the concrete form of organization of monetary relations. It is the functional form of organization of international monetary relations, i.e. the set of methods, instruments and organs (institutes), which are used for international settlements. There are the basic elements of WMS: national reserve and supranational (collective) currency units; terms of currencies mutual convertibility; standardized mode of currency parities; regulation of exchange rate regimes; intergovernmental regulation of currency limitations; unification of the international payments; the regimes of world currency markets and markets of gold; intergovernmental regional and supranational organs, which regulate currency-financial connections and relations.

There are the main tasks of WMS: the regulation of international payments and currency markets, mediation of payments for export and import of commodities, services, capitals and other types of international economic activity, creation of favorable terms for development of world production, international specialization and international productive co-operation.

The evolution of the world monetary system is determined by the development and necessities of national and world economy, by changes in the world economy and by periodic world currency crises. Currency crises may cause the explosion of currency contradictions, the dysfunction of WMS. It appears in disparity of structural principles of world currency organization mechanism to the new terms of production and world trade. These crises are accompanied by: the violation of exchange rates stability, the redistribution of gold-value reserves, currency limitations, worsening of international currency liquidity.

The development of the world monetary system passed the row of the stages, each of that had been occupying long historical period of time. The main difference between world monetary systems depended on the asset, which was considered as a reserve. The equilibrium of balance of payment reached by dint of this asset (it was: gold, dollar, exchanged into gold at a fixed course, the other currency, which played the role of international means of payment – in different time)

#### **3.7.1. Gold and gold exchange standard**

The first world currency system is the Parisian currency system. It was legally executed by the international agreement on the conference in Paris in 1867. The conference recognized gold the only form of world money. A gold-coin (gold) standard was the basis of the currency system. The gold parities were installed

according to their gold contents (the ratio of currencies of different countries on their gold content). All national currencies had their fixed gold contents by the system of "gold standard". For example, English p. of st. had its gold content, which equaled 7,322385 g. of gold (since 1821), 1 German mark - 0,385422 g. of gold (since 1873p.). The exchange rate was determined by the relation of gold content of currencies. In our case - 1: 20,3.

A gold-coin standard based on direct connection with gold. According to this system:

- currencies were freely converted in gold;
- the bars of gold had the opportunity to interchange on coins freely;
- gold was freely exported, imported and was for sale on international markets, the markets of gold and currency markets were interdependent;
- all countries supported strict correlation between their gold stocks and the amount of money in turnover.

The exchange rate fluctuated in a relatively narrow range (within the limits of gold points, which were equivalent to the parity of national currency with addition or deduction of transport and insurance charges, caused by the material transfer of gold). Therefore, the system of gold standard is acknowledged as a currency system with the fixed courses. The organs of currency control pursued the policy of regulation that allowed providing currency stability and the equilibrium of balance of payments.

The international payments of gold-coin standard carried by the use of the bills of exchange that were discharged into local currency, mainly in English. Gold was used only for payment of deficit of balance of payments. The part of gold diminished in money supply and fractional credit money forced out gold from turnover gradually in the end of XIX century. Gold-coin standard disintegrated at the beginning of the First World War because of its useless in scales of economic connections, that grew, and in terms of adjusting of market economy.

The second world currency system was legally executed by the intergovernmental condition of the Genoese international economic conference in 1922. A **gold exchange standard** was the basic of the system. It based on gold and leading currencies that were converted in gold. Characteristic features of the Genoese currency system are:

- gold and foreign currencies were the basis of the system. The currencies that were suitable to exchange for gold at any time were called as reserve. The pound sterling and the dollar were responsible to such criterion (in 1922). The money systems of 30 countries were based on **gold exchange standard**
- gold parities have been saved. The conversion of currencies in gold was carried out directly and indirectly (through foreign currencies) Great Britain, USA, France, Belgium, Netherlands, Germany and other. However, unlike the gold standard, currency of these countries changed not on any amount of gold, but on bullions no less as 12,4 kg per each;
- the exchange rates hesitated freely;

- the currency adjusting was provided in the form of international conferences, active currency politics.

The relative exchange rate stability in the world observed from 1922 to 1928, but it was undermined by a world economic crisis 1929 – 1933. As a result of crisis, a **gold exchange standard** collapsed. The course of many currencies decreased on a 50 – 84%, an accumulation of gold by the private persons increased, external payments were stopped, the mass of "hot" money were created, money moved from one country to other spontaneously to find speculative super profit.

It was the reason of the currency war. Currency intervention, currency dumping, currency limitations, currency bans were used in the war.

The world currency system was shocked by a new economic crisis in 1937. It was the mass devaluation of currencies. There was no stable currency before the Second World War.

### **3.7.2. Bretton – Woods monetary system**

Development of new, more efficient international currency system began in April in 1943. The leading countries of the West coordinated basic principles of the Bretton Woods currency system at the international conference in Bretton Wood in 1944p. International organization - International monetary fund (IMF) was founded, - the "obligation" of that is providing of the normal functioning of the system and observance of the principles, envisaged by a general agreement.

The basic principles of organization of currency relations according to Bretton – Woods system are:

1) the Bretton - Woods system was based on Gold exchange standard. The role of gold as a general equivalent, as a mean of payment and settling unit in international turnover was maintained. "Parities of currencies of all participating countries must be expressed in gold, that is a general equivalent, and also in the dollars of the USA according their gold content on July, 1st 1944"- was wrote in Bretton – Woods agreement. However, this position was not executed in practice; the connection of all currencies with gold was indirect (through foreign currencies). Only the dollar kept an external convertibility and acted as a kind of world money

2) establishing of the fixed parities, concerted within the framework of IMF. Currencies were compared and interchanged on the basis of the parities.

To provide accordance of the real currency exchange rate to the declared parity, every country could:

- guarantee convertibility of the currency in gold according to official parity (this variant was chosen by the USA, such parity: 35 dol. for a 1 ounce of gold, was set in 1945);
- to support the currency exchange rate on markets in relation to other currencies within the limits of vibrations "+", "-“ of 1% of its parity (other countries chosen).

The exchange rates of currencies deviated from the parities unimportantly, as they were under the state and intergovernmental influence. The IMF controlled the mechanism of the international payments, succeeding to currency interventions, mainly in the dollars of the USA. At fundamental unbalances, by approbation with IMF, devaluations and revaluations of currencies of the developed countries were conducted;

3) convertibility's of currencies, freedom and versatility of payments were on current operations;

4) prohibitions of free (private) to the purchase-sale of gold

Bretton –Woods system had been operating during almost 30 years. These were the years of proceeding in the economy of Western Europe countries and Japan, "the economic miracle", in relation to moderate inflation rates in the industrially developed countries.

However to the extent of increase of world economy, strengthening of competitive activity, growth of inflation, sharp increase of volume of financial operations, unconnected with concrete foreign trade agreements, and also in connection with the crisis of key currency of the system – the dollar of the USA, the Bretton-Woods system satisfied less necessity of international trade and capital flow.

Inequality of currencies was folded within the framework of the Bretton – Woods system. The dollar of the USA occupied the privileged position. It allowed the USA to cover the deficit of balance of payments in a considerable measure due to the short-term obligations of the American banks to foreign state organizations and private persons. The USA became debtors. Investment balance (capital balance sheet) was also folded not in behalf on the USA. There was an outflow of capital, and, as a result, negative balance of balance of payments.

The chronic deficit of balance of payments resulted in fact that the amount of dollars abroad considerably exceeded gold reserve of the USA. There was an distrust to the dollar and aspiration to exchange dollars for gold. The USA began to lose the dominating position in a world production and international trade. The role of the countries with positive balances of payments grew ( EEC, Japan and other countries) The overcoming of deficit of balance of payments of the USA in this situation would mean the reduction of international liquidity, that would bother the international settling. The USA appeared before a choice: to bear large charges or change all currency rules. The USA did a choice in behalf on the change of rules, tearing connection of dollar with gold in 1968, and then entering the floating course of dollar in 1971.Except that, principles of the Bretton –Woods system undermined the development of euro market and market of eurodollars, where the enormous amount of dollars, that practically fell out of the mode of the limitations, which were set by national currency departments and IMF, circulated freely. All of it created a favorable situation for currency speculations. At these terms the system of the fixed exchange rates could not effectively function.

Transition to a new currency system had begun, that had got the name "Jamaican" in honor of the name of country, where basic principles of this system were established.

### **3.7.3. Jamaica monetary system**

A transition from a **gold exchange standard** to the new system of currency relations occupied a few years. After the first substantial step - stopping of exchange of dollars on gold - such events happened. The floating exchange rates were entered In March 1973. All leading currencies (dollar, pound sterling, German brand, yen, French franc) freely floated on attitude toward each other from 1974. In the same year "Special Drawing Rights" - "SDR basket" became the new standard of value exchange. The IMF made a decision to give up fixing of official cost of gold, stopping the operations with him within the framework of IMF, giving a right to the national currency organs to dispose of their own gold at own discretion in 1976. And finally, there was the envisaged abandonment from the fixed parities in the charter of IMF in 1978. The Jamaica monetary system was officially enacted.

Basic differences of the Jamaican currency system from Bretton-Woods are:

1. The transmitter of world money changed. If the Bretton-Woods system used gold and key currencies as eventual means of settling, then the new currency system leans on SDR (collective currency of IMF). This currency became an element in the structure of international liquidity.

2. The new currency system allows both fixed and floating exchange rates and mix of them.

3. The presence of the reserved currency blocks that, from the one side, are the participants of the world currency system, and from the other - there are the special relations between participating countries into them. The most characteristic example is the European currency system (ECS) - origination of EEC.

4. The rights for IMF on a supervision of the exchange rates are extended in the Jamaican currency system. IMF produced basic principles, which are required to perform by countries-members of IMF, during realization of course politics, for the effectively functioning of international currency system on the whole. Essence of these principles is illustrated in the points:

- the rate of exchange must be economically reasonable. Countries must avoid manipulation by the exchange rate with the aim of non-admission of the necessary adjusting of balance of payments or receipt of unfair competitive edges.
- to carry out intervention with the aim of smoothing of considerable chaotic short-term course vibrations.
- to take into account interests of other countries during realization of intervention

Basic criteria were developed for determination, whether the country fulfills these principles.

The obligations were laid on the countries-members of IMF: at the choice of the new currency mode to inform the IMF; collaboration of countries-members from IMF in the decision of currency problems; national economic politics of countries-members must assist stabilizing of exchange rates.

The abolishment of gold, as an official international means of payment and the measure of value, was the condition of Jamaican system. The official price on gold was canceled, and its demonetization (the deprivation of gold from functioning like money) started. Gold could be the national reserve instrument, but all payments between IMF and national currency organs were implemented only in SDR.

The principle of adjusting of exchange rates by market forces (demand and supply) was proclaimed as the theory basis of the Jamaican system. However, the exchange rates could not function in the mode of the pure floating (so under the act of only market forces). Integration processes resulted: in the close interlacing of the national recreated processes, in the greater submission of national economies to conformities of world economy, in dependence on processes that take place in the world economy, including in the field of currency. It was unreal to create optimal background for the development of international trade without the currency policy coordination.

By means of the "pure" floating it was not succeeded to attain the equilibrium of balances of payments. The floating exchange rates did not result in the autonomy of domestic economic policy. In contrast, the freely floating exchange rates strengthened intercommunication between the exchange rates and internal economic processes. Consequently in the real practice the Jamaican currency system functions as the system of the guided floating courses (with a tendency of strengthening of "custom controls" elements in currency politics of separate countries). The central emission banks do interventions for providing to exchange rates a favorable level for national interest by:

- 1) purchase or sale of both foreign and own currency on the foreign markets;
- 2) limitations or prohibitions of purchase or sale of certain currencies, direct control above private external translations, introduction of negative interest rates in relation to the foreign holding etc.

Despite the fact, that the Jamaican currency system has a row of negative moments, its functioning renders substantial influence on the acceleration of rates of development of the industrially developed countries and many countries of the "third world" in direction of further social-economic integration.

There are the characteristics of the modern world currency system: substantial volatility of exchange rates, in particular, in relation to the American dollar (the periods of underestimation of dollar change by the periods of rise of his cost); considerable flexibility of exchange rates, that, as a rule, are regardless despite the existence of free-floating, world economy cannot be free from international interdependence, which imposes certain restrictions on national

economic policy; the instability of the world currency system to the currency crises and sensitiveness to the external shocks.



## **Chapter 4. Features of modern world monetary and financial crises**

### **4.1. Essence and types of financial crises**

New quality of interdependence of participants of the world financial system is clearly manifested in the modern terms of global integration and internationalization. Their interests require maintenance of economic and political stability in the world, as a financial sphere has decisive impact on the real economy, on a level and quality of life. However, the world often facing financial crises, which are the shocks to the financial system, causing great damage to the national economy.

A financial crisis is a process of disorder of financial market when the problems of adverse selection and psychological risk result in that financial markets cease to function as a channel of financial resources transmission for parties with the best investment possibilities.

The financial crisis is accompanied by disorder of financial market functioning that shows up in depreciation of national currency, exhausted foreign exchange reserves, mass bankruptcy of credit-financial institutions, insolvency of of non-financial sector and sovereign debt default. [10, p.179].

During the financial crisis there are quality changes in the economic system, that cause violation of proportions in development, its halt, modification or destruction of the financial system of some countries or world markets in general.

To the characteristics of modern financial crises belong:

- spreading of crises by waves, touching all new spheres of financial relations. They systematically embrace financial markets and institutions of financial sector;
- negative influence in medium- and long-term on economic activity within a country and on the dynamics of welfare of the population;
- in a financial sector and on the financial markets the crisis shows up as a sharp increase of interest rate, share of insolvent banks and non-bank financial institutions, debts; reduction of loans; transformation to the unprofitable model of banking and other financial activity; predominance of speculative financial activity above investment; substantial falling of stock prices; destruction of the payment system; mass losses at the market of derivatives; illiquid financial markets;
- in the field of international finance there is an out-of-control drop in the national exchange rate; mass capital flight from a country; out of control increase of external debt and overdue payments of the state and commercial organizations;
- in the field of monetary turnover there is an out of control price increase with passing to a chronic inflation; escape from national currency, prompt emergence of hard foreign currency in internal turnover;

- in the field of public finances there is a sharp falling of foreign exchange reserves and state stabilizing funds; origin of budget deficit; reduction of tax revenues and budgetary financing of the government spending; increase of internal national debt;
- realization of system risk (risk related to the change of investment climate in a country and changes in the conditions of investment market) that is accompanied by the effect of "domino", if: 1) crisis of financial institutions and companies of the real sector, segment of market or system of payments is passed in an growing extent through cross obligations on other groups of financial institutions and companies of the real sector, market segments and payment system, gradually embracing greater part of market; 2) crises of financial market of one or a few countries is passed to other country, as a "financial contagion", crisis of trust of investors, that causes market illiquidity;
- crises begin not in the real sector of economy, but on stock exchanges, in the banking sector through unbalanced amount of money in an economy.

There are different types of financial crises: currency, bank, stock market.

A currency crisis takes place in cases when a speculative attack on currency results in sharp devaluation of national currency or when public authorities try to prevent devaluations, selling reserves or considerably increasing interest rates.

Bank crises are connected with inability of banks to meet obligations or with active state interference, preventing the arising problems.

A bank experiences a bank run with all the depositors wishing to withdraw their deposits and in this situation can not pay off the depositors.

During the *debt crisis* there is bankruptcy of the state (default) i.e. the state can not meet the obligations. Government obligations sharply lose their value and there begins a flight of capital.

During the *stock market* crisis there is observed an increase of price volatility of financial assets or their falling, which is connected with the change of expectations of investors. The stock market crisis, as a rule, precedes to the first three crises.

In the conditions of financial globalization important is a question to determine the reasons of origin and development of financial crises, their analysis, forecast with the aim of prevention, neutralization or minimization of negative consequences.

There are many scientific works, where the mechanisms of distribution of financial crises are investigated, and their influence on international and national development. These problems are examined, first of all, in the theoretical models of P.R. Krugman.

A financial crisis, according to the models of Krugman, arises inside the country as a result of inefficient economic policy and begins after awareness of the irrationality by external economic agents (table.4.1).

Table 4.1.

**Models of a financial crisis by P.R. Krugman**

Terms of the origin of crisis	Characteristics of consequences of model application
1. Fixing of exchange rate by a central bank or its support within the limits of currency corridor by interventions at the currency market	The amount of money grows quicker than in other countries at these model, hereupon internal prices grow in relation to world that abbreviates an export and stimulates an import. Reduction of flow of currency into the country and increase of its outflow reduces foreign exchange reserves and leads to forced devaluations. Speculators of international currency market, knowing about reduction of official reserves begin to lend money in national currency and to convert them in foreign, hoping that at the moment of loan repayment national currency will become cheaper. It accelerates devaluation and, as a rule, is its reason.
2. Excessive inflow of foreign investments	Appreciation of the national currency is stimulated according to this model. Central Bank buys on the market excess foreign currency to save the previous level of the exchange rate. This process causes the increase of the gross international reserves and of the money supply, leading to higher prices. Central Bank may issue government bonds at the same time in order to absorb excessive money supply. The threat arises in this case, that this process will become cyclical because sale of bonds stimulates the growth of interest rates, the new inflow of foreign capital. This policy causes an increase in national debt and expenditure on its maintenance, and then policy causes debt crisis, accompanied by devaluation.
3. The accumulation of national debt	This model is based on the comparing of advantages and disadvantages of refusal of FER treatment. In case, when the investors understand that the benefit from the devaluation of the national currency and the devaluation of national debt exceeds the negative effects of FER (increase of prices and the cost of servicing of the national debt) for the government of a country, they convert their assets into foreign currency, causing a crisis. Excessive accumulation of national debt, expectation of default, devaluation of national currency results in the early withdrawal of investment from domestic stock market that puts pressure on the currency.
4. Excessive increase of assets prices	In case of huge capital inflows and hasty economic growth there occur overvalued assets and increase of private sector debt. In case of occurring tendencies of reduction of rates of growth, expectation of investors and creditors change. They will quit market, quickly will realize their liquid assets, the supply of which at the market grows considerably. It results in asset price decline, as a result of which the value of bank collateral

	deteriorates. There is transformation of investments from highly profitable to unprofitable. There is a currency, debt and bank crisis.
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World experience testifies, that the political events of 70-80<sup>th</sup> – the cyclic deceleration of rates of the economy growing in the industrially developed countries - were the basic terms of occurrence of financial crises at 50-60th of XX century. The motion of "hot money", that are characterized by considerable volumes and supermobility on the world financial markets, and also appearance of new innovative products, technologies, sharp increasing of the demand for real estate – are the basic terms of occurrence of the modern financial crises.

The first world financial crisis of XXI century (sometimes it is called "Great recession") started in September-October 2008 as a considerable worsening of economic indicators in the most developed countries, and the recession became global at the end of this year. There were the main conditions for its appearance:

- imbalances of international trade and capital flow;
- an inadequate estimation of risks on the speculative investing in financial resources and the absence of the appropriate regulatory system;
- overproducing of the basic world currency – U.S. dollar;
- depreciation of the U.S. dollar during 2002-2008, as a result using of this currency, as a reserve, was diminished by countries;
- the general cycle of economic development;
- overheating of credit market, mortgage crisis as a result
- the high prices on primary goods, particularly on oil;
- the overheat of stock exchange market.

There were the consequences of this financial crisis in the countries of the world: the decline in a production and volumes of crediting, increase of interest rates, hard requirements to the borrowers, reduction of scales of the mortgage loans, price decline on energy commodities, crash of stock exchange markets, crisis of mistrust, recession in trade, bankruptcy of enterprises and banks, reduction of workplaces and salary.

Financial crises are considered as the phenomenon of globalization in the financial sphere. Financial globalization creates the pre-conditions of outgrowing of crises in separate countries in the crises of global character, so there is the contagion of countries by crisis (transfer of crisis).

There are some ways to the crisis contagion. 1) By realization of conscious actions of one country in relation to other that threaten last heavy crises, decline of competitiveness of national economy and narrowing of its presence on markets, worsening of enterprise and investment climate; 2) consistent transference of crises from more developed to the less developed countries.

The outflow of capital to abroad grows in the infected countries (not less than 30 %), the capitalization of market of shares and reserves (not less than 20%), the levels of interest rate and inflation in the annual measuring present not less than a 20%, exchange rate of national currency (not less than 15%)

The transfer of crisis situations is realized through: the pressure of international financial organizations, discrimination in foreign trade, artificial lengthening of life cycle of products on the markets of other countries, export of out-of-date technologies and canning of backwardness of other countries of moving ecologically dangerous productions etc.

First of all, macroeconomic shocks, that are divided into shocks of the real sector and monetary shocks, influence on distribution of financial crises. The most typical shocks, that take place in the real sector, are changes of world prices of the main exported or imported commodities of certain country. Monetary shocks are related to the increasing of world or national interest rate.

Sudden price decline on export products and the jump of interest rate on the international credit market could significantly reduce the competitiveness of national commodity producers and their maintenance of external debts.

Trade relations and devaluation of currencies assist to the distribution of crises. Crisis in large country market-partner is accompanied by the decline of volumes of export of internal firms, by the declining of prices on assets at internal market, by the outflow of capital and speculative operations at the currency market. In general, the worsening of the condition of current account of the balance of payments occurs. Devaluation of currency reduces the export competitiveness of countries-market partners in the country, infected by a crisis, because there is a pressure on currency of these countries.

In addition, the financial connectedness and informative channels have an influence on infecting of countries by crisis. The investors look over the international securities portfolio in the conditions of crisis in one or a few countries. They begin to sell not financial assets with low rates, but the assets with high rates. As a result, there is destabilization, volatility of financial markets, especially in segments with speculative operations that keep unjustified high prices on the certain categories of financial assets. Due to the informative channel, large international investors (TNB, the specialized financial institutes) could know, that there is a currency crisis in some country, that the regime of the fixed exchange rates in countries with analogical macroeconomic politics is shaky. Hereupon investors begin to pay high attention on the macroeconomic indexes of other countries. Countries with weak macroeconomic fundamentals could be the object of infecting by crisis.

The most informed investors begin to withdraw the investments from the country; following their example, other investors do the same that causes the mass outflow of capital. International investors begin to search new fields of application for capital, after the leading out of the capitals from the infected country and from other countries with alike situation. There is the considerable entering of capitals in a certain sphere. However investors can lose a trust even to this sphere.

Then the receipt of capital could be stopped or it could be withdrawn by the sale of securities and converting of profit yields in foreign currency that results in speculative pressure on national currency, as a result of what a crisis begins in a country.

There is the system of indicators that signal about the danger of origin of financial crisis.

There are the indicators of currency crisis: the dynamics of the real effective exchange rate, official foreign exchange reserves, ratio of short-term foreign investments to GDP and ratio of FDI to GDP; state of the balance of payments; rates of increase of amount of money; a comparative analysis of the real interest rate in relation to the rates of other countries with similar economic conditions.

The indicators dynamics warn about a bank crisis: the real interest rate of deposits, ratio of deposits in foreign currency to the amount of money, prices on the real estate and export prices.

The following relative indicators are used for the diagnostics of bank crises: ratio of external debt toward an export, ratio of external debt to GDP, ratio of payments of maintenance of debt to the volumes of export of commodities and services, ratio of sum of international backlogs of country to the external debt, in particular short-term.

#### **4.2. Anti-crisis measures at the national and international levels**

With the aim of overcoming of negative consequences of financial crises on national and international levels, anti-crisis measures are developed. So the governments of the world countries defined such key elements of the anti-crisis programs to minimize harm from a world financial crisis in 2008-2009:

1) the application of traditional monetary methods – declining of interest rate and norm of reserves by central banks for commercial banks. The USA, EU and Japan chosen this way. The USA had reduced an interest rate from 4,5% to 0,25% , the bank of Japan - from 0,5% to 0,1%, the bank of England - from 5,25 % to 0,5 %, the rate of ECB was diminished from 4% to 1,25% from the beginning of 2008.

2) state help to the systemic banks and financial institutes: their refinancing from budget (money of taxpayers), increase of control from the side of the state (including through acquisition of part in a own capital), granting of guarantees (for a certain comission) on the cost of past investments of banks, placing of state facilities on the savings accounts of commercial banks. The key principles of state help to the financial sector are protecting of taxpayers and giving of it on some term. Thus most states - world leaders declared, that the plans of state help would operate during 2009-2012, and tax deductions are temporal. For example, legislation requires from companies that will sell the "bad assets" to the state within the framework of participating in Program of privatization of problem assets, to give the guarantees of that these assets will bring a benefit in the future. Another ways of defense of taxpayers are the permanent monitoring of efficiency and directions of the using of state facilities and timely stopping of help in case of abuses or absence of positive effects. There are the conditions, which are connected with the state aid: lending to small businesses and homeowners, support

the efforts of people who are experiencing difficulties with mortgage payments, to prevent their eviction, limiting of compensation of top management.

3) improvements of the regulator system by the input of harder control. Germany suggested the creating of Economic Council under the auspices of the United Nations that would operate like Security Council and would mortgage bases of new social economy in a global scale. Also countries require revising the role and functions of IMF and The Forum of financial stability. Great Britain suggests entering the so-called cyclic measures that would allow creating reserves in economically successful years for the softening of slumps. Great Britain, France, Germany support the liquidation of offshore zones, which allow tax evasion.

4) the redemption of problem assets by the state;

5) the strengthening of control of financial flows at the national level;

6) the reduction of tax pressure on households;

7) the exemption of enterprises from taxes or their decline with the aim of increasing of competitiveness and business activity. It is a tax cut on the income of enterprises, favorable tax treatment of investments of enterprises in studies and scientific developments, arranging on the installment system of tax debt, decline of payments on social security of workers, the exemption of import of technical equipment from VAT.

8) the increasing of investments in new technologies, developments and researches, especially in those, that are related to power efficiency;

9) the support of small and midsize businesses that must provide proceeding in economic activity and soften the problem of unemployment. The USA extends possibilities of participation of small enterprises in the public purchasing, introduce tax incentives to increase their investment volumes. The program of sponsorship of small business, which is realized by "Vnesheconombank", was increased (to 30 milliards of rub.). There was the proposition to expand the access to public procurement at the regional level, provides a mechanism for refinancing of loan portfolio of small and medium-sized businesses.

A central role in coordination of international efforts in relation to overcoming of crisis in global level play such multilateral forums as Group of "seven" and Group of "twenty". In reply to distribution of world financial crisis from the end of 2008 the "Group of twenty" conducts 5 anti-crisis summits : on November, 14-15<sup>th</sup> in 2008 in Washington, on April, 2<sup>nd</sup> in 2009 in London, on September, 24-25<sup>th</sup> in 2009 in Pittsburg, on June, 26-27<sup>th</sup> in 2010 in Toronto and on November, 11-12<sup>th</sup> in 2010 in Seoul. The anti-crisis program that included new standards became the result of realization of these summits.

1. A new structure with widespread plenary powers was created - it was the Financial Stability Board that was the successor of Financial Stability Forum. All the members of "Group of twenty", the members of Financial Stability Forum, and also Spain and European Commission are the members of Financial Stability Board. The main task of new structure is collaboration with IMF to do the early warning of risks of macroeconomic and financial instability and development of

the actions sent to their minimization (it is planned to create the effective system of prognostication of financial crises).

2. The feasibility of restructuring of the regulatory systems, in the way to give to the public organs the opportunity to identify and take into account macro financial risks, was recognized.
3. The decision to distribute the systems of adjusting and supervision under all important institutes, instruments and markets, was accepted. Important hedge funds were included in this list for the first time (funds of management of risks that are private investment funds, unreserved by the normative adjusting, inaccessible to the wide circle of persons and that are followed by professional investment leaders). The hedge funds have the special structure of fee for guidance by assets, and, as a rule, serve professional investors only). A failure in activity of hedge funds, as specialists determine, is one of the reasons of world financial crisis.
4. New hard principles of Financial Stability Forum are installed (taking into account the features of national jurisdiction). The principles are connected with the practice of payment of compensation award in the most of system arising financial institutes for managers and other employees that are responsible for high-risk financial transactions. Initiatives are also supported in relation to the input of rational charts of payments of indemnifications and social corporate responsibility of all companies of financial sector. It is about the regulation of bonus payments to the management of the company and to the banks (the using of the state aid), the control of the payments.
5. The duty agreement of the Basel committee is focusing on a bank supervision (Basel of III), in relation to introduction of new bank standards of international adequacy of capital and liquidity, that must increase the rigidity of the world banking system, decrease the incentives of banks to assume excessive risks, to bring down probability and sharpness of future crises and allow to the banks to maintain (without a considerable state help) financial shocks of the same scale as during the recent world financial crisis. The system of new standards includes the leverage coefficient harmonized at an international level that must complement the indexes of capital taking into account risks. The coefficient envisages the decision of problem of divergence in the terms of financial requirements and obligations, and also sets buffer reserves of capital over the level of minimum requirements, that can be used in unfavorable periods. The leaders of "Group of twenty" are determined to fully implement the new standards during the period of 01.01.2013-01.01.2019.
6. It is decided to implement measures against countries, that renounce the collaboration by the above-mentioned questions, thus it applies even to "tax havens". A fight against offshore centers increases. It is declared about application of approvals in relation to defense of public finances and financial systems, about completion of era of bank secrecy. Thus, expounded readiness in relation to the improvement of mechanisms of exchange by information, that applies to tax payment.



7. The necessity of creation of only complex of the high-quality global standards of accounting is underline. It is suggested to spread informative work with developing countries, and their participating in creation of these standards.

8. The decision about distribution of supervision on credit rating agencies was accepted, with the aim of inhibition of international conscientious practice code by them.

9. It is suggested to prepare the national packages of conjuncture measures in relation to prevention of financial crises; to set stricter control over financial markets.

The package of measures at 1,1trln U.S. dollars was accepted to promote the economic growth and jobs, and also trust to the financial system. The mentioned package included the following measures:

- the additional 500 billion U.S. dollars for the sake of grant of support from the side of IMF to the developing economies;
- the additional 250 billion of U.S. dollars as SDRs of the IMF for all countries-members of the Fund (new financial mechanism of "overdraft facility");
- the trade-financial package at 250 billion U.S. dollars for the sake of support of international trade flows during two years;
- at least 100 billion U.S. dollars of additional loans from the multilateral banks of development to the poorest countries.

Concerning the activity of regional organizations, particularly of EU, European Commission developed the Plan of European economic renewal in the end of 2008. The plan contains two key elements. These are:

- the scale and urgent budgetary stimulation of purchasing power at the level of 200 billion euro (1,5% of GDP) for the support of consumer demand, and also to assume the exit of some countries-members outside the threshold of deficit of budget set by the plan at 3%, which is necessary for overcoming the crisis;
- strengthening the competitiveness of the EU by investing in perspective innovative technologies - energy-savings, development of alternative resources, transport infrastructure etc.

The council of EU of economic and financial questions granted permission to the countries-members of EU to apply the brief rate of VAT in separate industries, and also confirmed the new rules of activity of credit-rating agencies that set more hard standards of quality and transparency and envisage the realization of permanent control over their functioning from the side of public organs.

International organizations develop anti-crisis measures also. IMF negotiates with countries concerning granting them loans on the simplified chart within the framework of instrument of *standby* that envisages the brief terms of payments and more simple terms. Within the framework of efforts on a fight against the global

economic crisis, IMF entered the row of new credit instruments, in particular, flexible loans (*Flexible credit line*).

The Executive Board of the IMF confirmed the introduction of new instrument of the operative grant of short-term loans (*Short - Term Liquidity Facility*), intended for the countries with a market economy in the process of becoming (emerging markets). In the conditions of international economic crisis the World Bank also declares about possibility of increasing of the sponsorship to the developing countries. A world bank expounded a willingness to increase the volume of loans to 100 bln. U.S. dollars.

Modern financial crises (in particular world) put under a doubt not only the idea of globalization, but also strategy of open market in general ( now many countries declare about possibility of closing of the markets). It should be noted that Africa, China, Brazil are least affected by the crisis in 2008. The degree of globalization is not too high in mentioned countries. The corresponding measures are accepted for prevention of world financial crises at the level of the separate state and at the international level. The main attention during the development of these measures is spared to the limitation of out-of-control inflow of speculative capital, limiting of risks, that undertake banks, and to the macroeconomic stabilizing on the whole – at the state level. At an international level, the IBM system of measures must reflect the interests of world economy, to assist prevention of crises and serve to the effective functioning of markets.

## PART 2. INTERNATIONAL SETTLEMENTS AS THE FORM OF MONETARY- FINANCIAL RELATIONS

### Chapter 5. International settlements: essence and forms

#### 5.1. The essence of international settlements

The realization of international economic operations envisages the exchange of money of one country on money of other country. There are *currency relations* on this basis. *Currency relations* are the totality of money relations, mediate payment and settlement operations between the participants of the global economy. The participants of these relations are banks, financial institutions, subsidiaries of large enterprises, brokers.

The location of currency relations in the system of world economic connections is determined by their role in making the relations of world trade and international loan, international motion of capitals, influencing, from one side, on these relations, and from other, - being under their influence.

Talking about eventual reasons of processes that take place in the field of currency (first of all, movement of exchange rates), they are determined by processes, that take place in the sphere of production, and are developed under the act of changes of correlation of economic forces between separate countries or groups of countries.

The international settlements, as a form of currency relations, assist the deepening and strengthening of intercommunications between national economies. They are conducted by international economic operations and generally represented in the balances of payments of all countries of the world. The international **settlements** create the system of adjusting of payments of money claims and obligations that arise between the subjects of international economic activity, based on political, economic, scientific, technical, and other relations. Thus, international **settlements** - are:

a) commercial payments of money claims and obligations, that arise between enterprises, banks, establishments and individuals of different countries, related to international trade, international loan, by the foreign direct investments etc.

b) the noncommercial payments, related to the transport of passengers, insurance, tourism, the transfer of funds abroad etc.

Different factors have an influence on the state of international payments:

- economic and political relations between countries
- position of country on the commodity and the money markets;
- the degree of the using and effectiveness of government measures to regulate foreign trade;
- international trade rules and customs;
- the adjusting of intergovernmental commodity flows, services and capitals;
- the differences between inflation rates in different countries;
- the state of balance of payments;
- the banking practice;

- the terms of foreign trade contracts and credit agreements;
- the convertibility of currencies etc.

There are the specifics of the international settlements:

1. Importers and exporters, their banks, enter to the certain isolated form of external economic contract relations, related to sending, processing of payment documents, with arranging for payment. The volume of obligations and distribution of responsibility between them depend on the concrete form of settlements.

2. The international settlements are regulated by national normative and legislative acts, international bank rules and customs.

3. The international settlements are the objects of unification. It is predefined by the process of internationalization of economic connections, universalization of bank transactions. For example, the unitization of bill legislation, Unified rules of governed for a document for documentary credits and encashment, the rules in relation to contract guarantees etc.

4. The international settlements have, as a rule, document form, so function based on financial and commercial documents.

5. The international settlements come true in different currencies, and consequently, firstly, the dynamics of exchange rates influences on their efficiency. Secondly, the normal functioning of international commodity-money relations is possible only on condition of free exchange of national currency on currency of other countries. In other words, the most effective participating of that or other country in the international trade settlements is possible only on the basis of convertible currency. In modern practice, settlements of promissory requirements and obligations between the banks of different countries come true mainly in BKB. The state uses currency limitations that directly influence on the foreign trade settlements in countries with convertible currency.

The international settlements are bilateral, when they are implemented between two countries, or multilateral, when the amounts proceeded from the sale of goods in one country are used for payments to the third countries.

The majority of international payments exercised by the procedure of cashless payments, through the banks of different countries, that support mutual correspondent accounts, keep on them monetary assets in corresponding currency and execute payments and other commissions on principles of reciprocity. The procedure is provided by such way: a bank in the country of importer writes off the sum of payment from the account of the client and enrolls it (or equivalent in foreign currency) on the account of foreign bank - the correspondent. The bank in the country of exporter writes off this sum from the account of correspondent and enrolls it on the account of the client that exported the commodity.

Cash payments for international settlements are performed mostly in case of traveling of delegations overseas, traveling of tourists or individuals who change their currency in foreign currency in banks.

International payments are connected with the functioning of financial markets because of capital movement in indirect and direct investments.

Large banks play a leading role in the international settlements. The degree of their influence on the international settlements depends on:

- the scales of external economic connections of basing country;
- the application of national currency of basing country;
- the specialization, financial state, business reputation;
- the networks of banks-correspondents.

The banks use their foreign separations and press relations with foreign banks for realization of settlements. Press relations with foreign banks are accompanied by opening of accounts of "loro" (accounts of foreign banks in this bank) and "nostro" (accounts of this bank in foreign banks). Press relations determine the order of settling, size of commission, methods of addition to the spent money.

With the aim to receipt the higher income, banks try to keep minimum balance on the accounts of "nostro". They give the advantage to allocation of currency assets in the world financial market, including the European market.

Banks usually support necessary currency positions in different currencies in accordance with the structure and the terms of next payments for timely and rational realization of the international settlements. At the end of every working day they try to balance assets and liabilities of every currency. *Currency position of bank* is a ratio (difference) between the sum of assets and off-balance obligations in certain foreign currency and sum of balance and off-balance obligations in the same currency. Assets and off-balance obligations are the assets of bank for some period of time and assets that will be got by a bank in the future. The balance and off-balance obligations are an obligation of bank to clients and contractors on a certain day, and obligation of bank in the future.

Currency position could be different. *Currency position is closed* when the sum of requirements equals to the sum of obligations in every foreign currency. *Currency position is open* – when the sum of requirements in certain foreign currency does not equal to the sum of obligations in this currency. There is a possibility of arranging of the risk of losing or getting a profit in bank from the change of exchange rates. *Opened long currency position* is - the sum of requirements exceeds the sum of obligations in every foreign currency, as a result of this fact the bank can sustain losses in case of increase of national currency exchange rate in relation to foreign. *Opened short currency position* is - the sum of obligations exceeds the sum of requirements in every foreign currency. In this case, a bank can sustain losses at the increase of foreign exchange in relation to the national.

## 5.2. Basic forms of the international payments

The basic forms of the international payments in international trade are a commercial letter of credit and acceptance of the documents passed to the bank on encashment.

**A letter of credit** is a document issued by a financial institution, or a similar party, assuring payment to a seller of goods or services provided certain documents have been presented to the bank. The letter of credit notarizes an exporter, that the bank will pay the transported products. It also notarizes an importer, that the payment to the exporter will not be executed without verification of the accordance of documentation with the terms and conditions of the letter of credit.

Procedure of realization of letter of credit operation is divided into three phases.

The 1 phase. The agreement to open a letter of credit. The suggestion is examined in relation to the terms of delivery of commodity. An exporter gives to the potential customer his suggestion and discusses the terms of letter of credit with a customer during negotiations.

The 2 phase. The commission to open the letter of credit. This phase is related to signing of delivery terms of commodity and its payment. An importer gives to the exporter an order to supply the goods in accordance with the signed agreement of sale. At the same time he gives to the bank the commission to open the letter of credit.

The 3 phase. Using of letter of credit. An exporter supplies the booked commodity and gives to the bank documents for payment.

Commercial banks, get a certain commission from producing and payment of letter of credit.

**Encashment** - is a bank transaction, by means of that a bank gets monetary resources from a payer (importer). The resources belong to the client. Bank does it on the instructions of the client (exporter) and on the basis of settling documents for the commodity and material values or rendered services shipped to importer and sets off these money on the bank account of client-exporter. This form of payment is considerably widespread, as it is cheaper, comparatively with the letter of credit.

The realization of encashment is conditionally divided into three phases.

The 1phase. The agreement about terms of encashment. An exporter determines the terms of payment in the suggestion or co-ordinates them with a customer in a contract of a purchase-sale.

The 2 phase. Issue of encashment order and the delivery of documents. The seller ships the ordered goods or directly to the buyer or to the agent upon receipt of the order or after conclusion of the contract for purchase and sale. At the same time he folds all necessary documents (invoice, bill of lading, insurance certificate, testifying to the origin of commodity and other) and sends them to the bank (bank - the payee) together with an encashment commission. Bank - the payee passes the documents with necessary instructions to the collecting bank.

The 3 phase. The presentation of documents to the payer. A collecting bank informs the customer about the receipting of documents, and also about the terms of their receipting. He takes over a custom payment or accepting bill of exchange and passes documents to the customer. The prepaid sum for encashment is translated to bank - the payee that then the bank sets off this amount on the account of exporter.

The state can interfere in the sphere of the international payments by the using of *currency clearings*. The currency clearing is an intergovernmental agreement about the mutual enrollment of counterclaims and obligations that come from the cost equality of commodity deliveries and rendered services. The aim of the currency clearing can be:

- the smoothing of balance of payments without the charges of gold-value reserves;
- the favorable credit drawing from trade partners that have active balances of payments;
- the irretrievable financing of the country with adverse balance of payments by a country with an active balance of payments.

The exchange turnover abroad is replaced by the calculations in local currency through the clearing banks in case of the currency clearing. The clearing banks carry out the final enrollment of counterclaims and obligations, so the operations come true not by cash payments or the transfer of costs, but by allocating appropriate amounts of transactions on debit or credit of demand deposits.

Depending on the number of participating countries there are bilateral and multilateral clearings. There are two types of clearing according to the volume of operations: the complete clearing (covers up to 95% of payments) and partial (spreads to the certain operations). There are three types according to the method of adjusting of clearing account balance: with freely convertible balance, with conditional conversion (for example, after a certain period after the establishment of balance) and non-converted (balance of them cannot be exchanged for foreign currency).

Currency of clearing can be of any country. A currency risk can arise at the clearing settlements. This risk is related to the freezing of currency profit in case of the not converted clearing and to the losses from the change of exchange rate.

Currency clearings have a notable influence on foreign trade. The negative consequences of currency limitations are softly because of currency clearings, because the clearings give the opportunity to exporters to use the currency profit. It is the necessity, during the using of currency clearings, to regulate foreign trade turnover with every country separately, and a currency profit can be used only in a the country – clearing partner. Thus, the currency clearing is unprofitable for exporters. Instead of the profit in convertible currency they get national currency.

The clearing agreements between the industrially developed countries disappeared gradually because of the development of international economic relations. But clearings are used by developing countries.

## Chapter 6. International payment systems

The growth of payment transactions between banks of different countries caused the necessity of creation of standardized communication systems that would work with unified data. Such systems by which payments for goods and services are moving between banks have become international payment systems, which is essential for the efficient functioning of global financial environment.

In general, the payment system is understood as the payment organization, the members of payment system and the set of relations that arise between them during the transfer of money. Carrying out money transfer is mandatory function that payment system must perform. This is done via telegraph, telegraph and computer networks, electronic communications.

*International payment system* – a payment system, in which payment organization can be resident and non-resident, and which operates on the territory of two or more countries and ensures the transfer of money from one country to another.

At functioning payment systems may face the following risks:

- credit – risk that a participant of the payment system will not be able to fully meet his financial obligations currently or in the future;
- liquidity risk – risk that a participant of the payment system will not have enough money to meet his financial obligations as it is expected, although he could meet them at a certain point in future;
- legal – risk that insufficient or changeable legal basis can cause or exacerbate credit risk and liquidity risk;
- operational – connected with operational factors: technical failures and operating errors can cause or exacerbate credit risk and liquidity risk;
- system – arises from the inability of one of the participants of the payment system to meet his obligations or due to the destruction in the system rest of its participants or credit institutions in other segments of financial system will also be unable to meet their obligations.

Therefore, spread of problems with liquidity and stability of the system or financial markets is possible.

### 6.1. Basic principles of payment systems functioning

The key to financial stability is reliable payment systems. Committee on payment and settlement systems (CPSS) of central banks of the countries “Group of Ten” made an important contribution to this case. In December 1999, it published “Basic principles for systemically important payment systems” that defined conditions for efficient functioning of payment systems [19, p.625]. These principles include the following.

1. *The system should be based on well-founded legal basis in all relevant jurisdictions* (the laws on banking, contracts, payments, securities, debtor – creditor relations, bankruptcy, etc.).



2. *System rules and procedures should provide a clear view of the impact of the system on each financial risk to the participants.* They should clearly specify the rights and obligations of all parties involved, which must be provided with relevant materials in time.

3. *The system should have clear management procedures of credit risk and liquidity risk, which would establish respective responsibilities of system operator and participants and provide appropriate incentives to manage these risks and their limitations.*

4. *The system should provide final settlement on the day of currency, preferably - during the day or at least in the end of the day.*

5. *System, with multicurrency offsetting shall at least ensure timely completion of daily settlements in case when participant with the largest obligations fails to perform the calculation.*

System of multicurrency offsetting and postponed settlement is at the risk of failure of one participant to meet his settlement obligations. This increases probability that the other participants suddenly will experience pressure of lack of liquidity. Therefore, the system must be offset at least to withstand the insolvency of a member with the purest receivables position.

6. *It is more comfortable, when the assets that are the claims to the central bank are used for calculations. When other assets are used, they should have negligible credit risk or none at all.* If there is even a slight threat of insolvency of the issuer of assets, the system faces a crisis of trust, which in its turn creates system risk. Accounts in the central bank are usually the most suitable assets for payments due to the absence of credit risk

7. *The system should ensure a high level of security and operational reliability and should have mechanisms to handle unusual situations for timely completion of daily processing of payments.*

8. *The system should provide suitable for users and efficient for the economy method of payment transactions.* If the system has inadequate maintenance mechanism of intraday liquidity, it faces the risk of slow turnover or even stops when each member expects that the other will pay first. To be efficient, the system must encourage its members to immediate payment. The support of intraday liquidity for settlement systems in real time is especially important. Central Bank has to decide whether it should provide intraday liquidity to support continuous daily functioning of the system and how to do it. The structure of the payment system should meet the country's geography, population distribution and its infrastructure (telecommunications, transport and banking).

9. *The system should have objective and public criteria for membership that ensure fair and open access.*

10. *The management mechanisms of system should be effective, accountable and transparent.* Guidance of system has to encourage management to meet the interests of stakeholders and society in whole. In its competence - to take care of appropriate tools and opportunities to achieve system goals. Management

mechanisms should ensure accountability of system to its owner and the general public finance. In addition, they should be transparent.

The participation of countries in international payment systems is characterized by the following features:

- Access to advanced and flexible technologies, which allow providing customers with a variety of services;
- A significant entrance fee;
- Necessity to keep a large amount of insurance deposits in foreign banks;
- Limited market of customers and service outlets that make such projects quite complicated, capital-intensive and those that require detailed study.

## **6.2. The types of international payment systems**

The number of international banking networks is constantly increasing. To meet growing demand for information and telecommunication servicing international networks that provide a range of services for transferring payments, information and asset management are created. The most famous international payment systems are systems SWIFT and TARGET.

### **World interbank SWIFT system**

The system SWIFT – is a worldwide interbank financial telecommunication system. It was organized in 1973 in Brussels to develop unified methods of exchange of financial information and the establishment of an international data network using standardized messages. This system is the largest and most widespread in the world network of financial messages, any bank can consider itself a full-fledged member of the world financial community after connecting to the system. The main activity of SWIFT is to provide prompt, reliable, efficient, confidential and protected from unauthorized interference access to telecommunications services for banks and for works on standardization of forms and methods of sharing financial information.

SWIFT provides the following services:

- The exchange of standardized financial messages with a fixed set of symbols;
- Transfer by the network of mass payments and other files with an arbitrary set of symbols;
- The exchange of secured financial messages of own formats in real time (“Online”, i.e. the departure time in the place where the starting point of transfer is located);
- Union of structural units of the financial institution and its customers into a single virtual network (creating a closed user group), led by a member of SWIFT;
- Obtaining online data about the state of the correspondent account.

Network payment messages as well as messages that are relevant to the treasury, securities and trade are sent by SWIFT. Financial SWIFT messages are

classified into: system messages, client transfers and checks, transfers of financial organizations, money markets - forex, derivatives and deposits, collections and cash letters, securities markets, precious metals, letters of credit and guarantees, traveler's checks, money management and the status of the client.

Transmission of a message over the SWIFT network takes from 20 seconds to 5-20 minutes, while the high degree of reliability and confidentiality is provided (about 100%).

Every day in the world over 9 million SWIFT messages are transferred, total value of which is more than \$7 bill. dollars. Distribution of SWIFT messages in the whole world in 2011 is presented in Table. 6.1.

Table. 6.1.

**Distribution of messages SWIFT (%)**

Payments	52,9
Operations with securities	39,1
Forex transaction, money markets and derivatives	6,2
Documentary operations	1,4
System messages	0,4

Source: [2, p.129]

Main advantages of SWIFT:

- Reliability. SWIFT takes on financial responsibility for the accurate and timely delivery of messages;
- Speed. Message delivery is done within a few seconds, is completely automatic with verification and authentication;
- Safety. SWIFT network ensures complete security by multilevel combination of physical, technical and organizational security methods, provides complete autonomy and privacy of transmitted messages;
- Efficiency. All payment documents are received by the system in a standardized form that allows the automate processing, eliminate the possibility of different understanding of the meaning of messages by sender and recipient, and ultimately increase the efficiency of the bank. Fixation of transaction execution enables full control (audit) of all orders and daily automated report about them, besides, language barriers are being overcome and the difference in the practice of banking operations is reduced;
- Profitability. SWIFT network allows significantly reduce settlement and financial risk, reduce the cost of communications and broaden the range of services for its clients, which in its turn increases the competitiveness of member banks.

The main drawback of SWIFT, in terms of users, is a high entry fee, which creates some problems for small and medium-sized banks. Generally, in practice, the cost of banks to participate in the SWIFT system is usually recovered within 5 years.

There are more than 50 national payment systems built, based on SWIFT.

#### **Trans-European interbank system TARGET**

In EU for servicing transactions between the ECB and national central banks the Trans-European Automated Real-Time Gross Settlement Express Transfer System – TARGET was created, which began operating on January 4, 1999. It was organized in

order to facilitate implementation of the single monetary policy, reducing transit time of cross-border payments, creating a safe and secure mechanism for cross-border payments, increasing the efficiency of payments between EU countries. Its basis is the system SWIFT. TARGET system - a decentralized system, i.e. cross-border payments go through national central banks, by passing the European Central Bank (ECB). It consists of the national Gross Settlement systems in real time (GSSRT) and system of relationship between them and the European Central Bank (ECB). TARGET system performs such three main tasks:

- Serving the needs of the monetary policy of the Eurosystem;
- Increases the effectiveness of cross-border internal European payments;
- Provides reliable and secure mechanism for the settlement of cross-border payments.

In TARGET the following types of payment transactions are processed:

- Payments, directly related to the operations of central bank, where at least one party (sender or recipient) is Eurosystem;
- payment transactions of netting systems of large transfers which are in Euros;
- Payments in euro between clearing banks;
- Interbank and client payments in euro.

TARGET system operates with about 70% of the total gross European settlements. Over 200 thousand payments in the amount of approximately 1,500 million euros are made through it daily. The average size of one cross-border customer payment is 1 million euros, and of interbank – about 18mln euro [19, p.632].

Since January 2007 the implementation of the system TARGET 2 was started. Basis of TARGET 2 is defined by task of creating a single European payment area, which involves the harmonization of infrastructure, interfaces and functionality, consistency management system, the overall liquidity management system and uniform prices. In addition, the development of the system is influenced by EU enlargement, which involves the use of common platform for payment transactions for countries – new EU members instead of decentralized structures, including the national payment systems.

Principles of TARGET 2 formation:

- Contacts with customers are decentralized (between the credit institution and its native central bank);
- Accounting, management reserves and transactions are related to monetary policy and are implemented on the level of the national central bank.

Modular TARGET 2 implies the existence of compulsory and additional modules (systems). The compulsory modules provide a full range of services for conducting settlements and providing information about payment transactions. Additional modules allow making transactions with calculation in a national central bank, managing customer database, using a data warehouse and providing the ability to control the minimum reserves.

### **PART 3. THE BALANCE OF PAYMENTS: THEORY AND STATE REGULATION**

#### **Chapter 7. The theory of the balance of payments**

##### **7.1. The essence and principles of the balance of payments**

Balance of payments is one of the most important concepts in international economics. Its studying allows giving generalized assessment of the economic situation of the country, the efficiency of its economic relations. Functionally the balance of payments acts as a macroeconomic model, which systematically reflects economic transactions, made between the national economy and economies of other countries. This model is made for the purpose of developing and implementing a reasonable exchange rate and foreign trade policy, analysis and forecast of commodity and financial markets, bilateral and multilateral comparisons, research and more. Based on the evidence on the balance of payments by international financial institutions, particularly IMF, decisions are made about granting financial assistance to specific countries to stabilize the balance of payments and to deal with its deficit.

Balance of Payments is a statistical report in which in a systematic form it is summarized the data on international transactions of residents of the country with residents of other countries (non-residents) for a certain period of time.

The balance of payments performs the following functions:

- Gives an idea of the level of international interconnections of the country, structural changes in international transactions as it is a source of information;
- Allows simulating the processes of macroeconomic development of an open economy, i.e. characteristic of the balance of payments in addition to practical, has scientific value;
- Serves as a guide for government, who are responsible for economic policy, because monetary and fiscal measures as well as measures to stimulate competition, often are the result of the condition of balance of payments or international influence, which is fixed by balance of payments.

Balance of payments is based on certain principles arising from its purpose – to account for external operations. Economic operation is considered foreign economic if it occurs between the economy of one country and economies of other countries. Economic transactions that occur between residents and non-residents include agreements which subject is goods, services, income, external financial assets and liabilities. *The economic agreements*, by the definition of IMF, are the economic flow that reflects the transfer of real resources (transactions in goods, services and income) as well as the creation, the elimination of external financial assets and liabilities and/or the transition of ownership of the existing external financial assets and liabilities (transactions in external financial assets and liabilities).

Foreign economic transactions can be exchangeable and one-sided.

Most economic transactions that are recorded in the balance of payments, are exchangeable and mean that one participant of agreement passes an economic value to another participant and receives its equivalent cost in return. There are three types of international exchange transactions: 1) the exchange of goods and services for other goods and services (barter operations as both sides of these transactions are real); 2) the exchange of goods and services for cash or other financial requirements, i.e. one party of transaction is real, the other is financial; 3) exchange of financial instruments for other financial instruments, i.e. both parties are financial transactions.

Transactions under which one participant of agreement provides economic value to another participant without the return of cost equivalent are called one-sided. If there is no economic value in one of the parties, in the balance of payments, a special record is made “transfer”. Usually transfers have form of money or goods. Transfers appear, usually in the form of money or goods. Depending on to which of these types belongs a particular foreign operation, its account in the balance of payments of the country is carried out.

The definition of the subject of foreign economic transaction is based on such a concept as “**economic territory of the country**”, which is identical to the concept of “economics”. Economic area, by the definition of IMF – a territory which is under the jurisdiction of the government of particular country, within which labor, goods and capital can freely move. However, this area does not always coincide with the geographical boundaries of the state, because in its boundaries territorial enclaves outside the main state border are included: embassies, consulates, military bases, scientific stations, information or immigration charitable agencies that are located in other states and are held by the Government, which owns or rents these items.

The term “economic territory” plays a significant role in determining the first principle of the balance of payments – **the principle of residency**. The concept of residency in the system of balance of payments is not based on the criteria of nationality or economic subject or on legal criteria for determining the residents of a particular state. Economic subject (economic unit), the center of economic interest of which is concerned about economic territory of a particular country is the resident of that country. The economic entity has the center of economic interest in the territory of particular country, if it carries on business and economic transactions within the country, and intends to continue this activity for a long time. Setting of resident units is important for the registration and classification of transactions within a particular economy. Position of worker as a resident and non-resident defines the various entries in the balance of payments.

According to the IMF classification, the residents of the economy include the following business units:

- households and individuals who are the members of the household;
- legal persons, i.e. companies of different legal forms;
- non-profit organizations;
- state administration bodies of the country.

The second principle of the balance of payments – **the principle of double entry**. Since the balance of payments is based on the principles of accounting, each foreign operation that is registered should be represented by two records that have the same cost value: the article of credit and the article of debit. The articles of Credit – Plus Articles (+) – display operations of “Export type” by which country receives, “earns” foreign currency. The articles of debit – Minus Articles (-) – reflect the operations of “import type” by which foreign currency is spent. Credit shows the inflow of foreign currency, i.e. its proposal, while debit – spending of foreign currency, i.e. its demand.

Thus, according to the principle of double entry on credit, registers a decrease of international assets of the country or increase of its foreign liabilities (international liabilities), and debit registers increase of international country's assets or reduction of its external obligations. Each change in the debit must be accompanied by a corresponding change in the loan, and vice versa, that transaction is recorded twice: one transfer – both debit and the second – as a loan. Thus, total debit and total credit are always equal in the balance of payments. In a systematic view rules for recording the transactions in the balance of payments by debit and credit are given in Table. 7.1.

Table. 7.1.

**Rules of recording transactions in the balance of payments**

<b>Operations</b>	<b>Credit (+)</b>	<b>Debit (-)</b>
A. Goods & Services	Export of goods and services	Import of goods and services
B. Incomes (wages and investment income)	Revenues from non-residents	Payments to non-residents
C. Transfers (current and capital)	Receiving the funds	Transfer of funds
D. Purchase / sale of non-productive non-financial assets	Sale of assets	Purchase of assets
E. Operations with financial assets or liabilities	The increase in liabilities of non-residents or decrease in requirements for non-residents	The increase in requirements for non-residents or decrease in liabilities of non-residents

The third principle of the balance of payments is the **principle of a single evaluation** of all transactions that are recorded in the balance of payments. Its essence is that when evaluating transactions with real and financial assets and liabilities use market prices that are consistent with the participants of economic transactions. Market price, as defined by IMF – is the amount of money the buyer is voluntarily willing to pay for goods, services, etc., that are purchased from a seller, who is willing to voluntarily sell him the product, service, financial assets. Both parties of this agreement are independent, and the exchange between them

takes place on a commercial basis. The market price is established for each operation. The market price is different from stock quotes, world market prices, current prices, i.e. prices are not the prices actually paid for the goods. There are times, when the market price cannot be set in accordance with the above criteria. This occurs during barter exchange of commodities, agreements between departments of the same multinational corporation, at international leasing operations, etc. In these cases, the evaluation of transactions is carried out at prices of similar agreements. Following this principle ensures the comparability of the balance of payments in different countries and items of balance of payments of each country.

The fourth principle of the balance of payments – **the principle of simultaneous registration** of foreign operation. Each operation must be reflected in the balance of payments on credit and the corresponding debit simultaneously. Both parties of the agreement must record this transaction by the same number that corresponds to the date of its execution. To implement this approach, it is necessary to determine the time of registration by the balance of payments. This moment can be the time of conclusion of the contract or time of transition of legal ownership on assets that are transferred. If the time of transfer of ownership is difficult to determine, it is considered the moment of appropriate accounting entry into account of contractors.

In drawing up the balance of payments it is important to establish in which monetary unit records should be kept, i.e. to determine the unit of account (estimated exchange rate). The Unit of Account should be quite stable, so that changes in its course during the accounting period were not reflected in the totals; in addition, it must be stable for the largest possible number of accounting periods to ensure comparability and analysis of their dynamics. During preparing the balance of payments we should use the unit of account, which is used by them in internal calculations and accounting. According to the IMF, we should make the balance of payments in national currency, and then recalculate the figures obtained in the unit (USD) for the free-market exchange rate. Therefore, it is in U.S. dollars in most of the recording and publication of balance of payments.

Information sources of the balance of payments are:

- The data of the State Statistics: Data of national accounts, generalized statistics on foreign trade in goods and services, statistical reporting accounts of direct and portfolio investment, quarterly reports on foreign trade in goods at prices FOB and CIF in geographical terms, indices of consumer and wholesale prices, the cost structure of export industries, data on informal trade;
- The information on the state bodies of economic policy: forecast calculations of the dynamics of key macroeconomic indicators, information on the economy as a whole and for individual sectors, reference prices of basic goods and services exported and imported, data on terms of trade, data on trade regime;
- The information of the State Customs Service: the data on exports and imports of goods and humanitarian aid assessment, the data on non-formal (or spontaneous) trade.



## 7.2. The structure of the balance of payments

Development of the balance of payments is based on a methodology that is regulated by international standards “Guidelines for the balance of payments”, prepared by the IMF [25]. It is updated periodically, is reviewed and published. Last, the sixth edition of the Recommendations was published in 2007.

The basic BoP standard components are listed in the table. 7.2.

Table 7.2

### The standard components of BoP (according to IMF)

Articles	Credit	Debit
<b>Current Account</b>		
A. Goods and services		
1. Goods		
2. Services		
B. Incomes		
1. Wages		
2. Investment income		
B. Current transfers		
1. General government sector		
2. Other sectors		
<b>Capital account and financial instruments</b>		
A. Capital account		
1. Capital transfers		
2. Purchase / sale of non-produced non-financial assets		
B. Financial account		
1. Direct investment		
1.1. Outward		
1.2. Inward		
2. Portfolio investment		
2.1. Assets		
2.2. Liabilities		
3. Other investment		
3.1. Assets		
3.2. Liabilities		
4. Reserve assets		

The distribution of BoP on standard components (sections) is based on such approaches:

- Each article should have characteristics, i.e. factor or the set of factors that affect the amount of one article should be different from the factors that affect the other articles;

- The presence of a particular article in BoP should be set for a group of countries, which is reflected as changes in the dynamics of this article and in its absolute value. In other words, if any balance of payments varies significantly over time in either group of countries it is a significant percentage of the balance of payments of the group; it must be isolated in a separate article;

- Gathering information for the account under article should not have particular difficulties for preparers of balance of payments;

- The structure of the balance of payments must be such that its values were connected with other statistical systems, such as the system of national accounts;

- The number of items should not be too numerous, and the article should be subject to consolidation in the components of a higher level.

The standard components of BoP are divided into two accounts: the current account, which accounts the economic agreement on the international movement of real property, and the capital account and the financial instruments that are accounted for international transactions associated with changes of ownership in foreign financial assets or liabilities of the country (especially this operation, the essence of which lies in the presentation and settlement of financial claims of one country to other countries and vice versa).

### **7.2.1. Items of current account**

The current account includes all operations with actual values that occur between residents and non-residents, and operations related to the provision of free or receiving values that are designed for current use. There are four main components in the structure of the current account: goods, services, and income and current transfers. Export transactions are recorded on credit side, import – on debit side. Current account includes transactions that are completed during the period. If they are reflected in BoP in future periods they do not have any effect on it.

Let's consider the main types of current operations in more details.

- 1. Under the goods** are meant a group of articles of BoP, which summarizes market prices on exports and imports of ordinary goods and goods for further processing (goods that cross the border for further processing, after which they return to the country - owner of the goods), repair of goods (the cost of repairing mobile equipment), the purchase of goods in ports transport organizations (fuel, food, inventory and auxiliary materials).

- 2. The services** provided by residents to non-residents and vice versa include:

- Transportation (freight and passenger transportation by all types of transport, related services, support services, which include rental of vehicles with a crew, storage, loading, unloading, vehicle maintenance, pilot services, commission payments, agency services, associated with passenger and freight transportation);

- trips (the value of all types of goods and services purchased by newcomers: payments for tours, for accommodation, purchase of goods for personal use, private transfers from abroad to non-residents, cash exchange sold for travel, etc.)
- communications services (telecommunications, telephone, radio, email, satellite, telex, TV communications, postal services);
- building services (construction objects equipment installation and repair of buildings and facilities);
- insurance services (insurance, which are made by residents to non-residents);
- financial services (financial intermediaries, receipt or payment of fees for operations of letters of credit, bankers' acceptances, securities, asset management, financial leasing and maintenance of correspondent accounts, etc.);
- other services (computer, informative, royalties and license fees, services to individuals, services in the field of culture and recreation, government services, i.e. foreign trade embassies, consulates, military missions, as well as various types of business, professional, technical linked to the research activities and services).

**3. Income** – a group of articles, which includes payments between residents and non-residents related to the wages of non-residents, and operations, related to investment income.

Wages include salaries and other benefits, received by workers and employees outside the country where they are resident, for work, performed by them for residents of other countries.

Income from investments is divided into:

- income from direct investment: from share participation in the capital of the company (dividends, distributed and undistributed profits of foreign branches, reinvested earnings) interest on debt liabilities (interest paid to direct investor by enterprise of direct investment and vice versa);
- income from portfolio investment: cash flows between residents and non-residents as a result of buying and selling stocks, bonds, long-term securities, government bills and other instruments of the financial market;
- income from other investments: interest (receipts and payments) in other financial requirements and obligations (interest on deposits, loans from the IMF).

**4. Current transfers.** This article reflects the operations of interstate transfer of material resources, when in return the country does not receive any cost substitution. Depending on the direction transfers appear only on credit or debit.

Current transfers include: cash transfers to governments to finance expenditures, humanitarian aid, and regular contributions to international organizations, government fees or costs for international organizations to provide technical assistance.

## **7.2.2. Items of capital and financial accounts**

Capital and financial account fixes the movement of capital, export and import of goods and services are financed with the help of which. It is divided into the capital account and the financial account.

*The capital account* reflects capital transfers and acquisition/sell of non-produced non-financial assets.

Capital transfers – transfers that involve the transfer of ownership to the fixed capital or debt relief by creditor. These include investment transfers (funds transferred by one country to another with the purpose of payment of fixed capital purchase: buildings, structures, airfields, airports, communication networks, hospitals, etc.), transfers related to migration (migrant remittances, cost valuation of migrants' property that moved from country to country), debt cancellation by creditor (written off all or part of the debt by the bank and other state or private entity), private donations for investment purposes (for example, transfer of inheritance bequeathed to finance the construction of hospitals).

The article “Acquisition/sell of non-produced non-financial assets” includes operations with assets, which are not the result of production (land, its subsoil) and intangible assets (acquisition of patents, trademarks, copyrights).

The amount of transactions that reflected on this account is usually insignificant.

On the *financial account* it is reflected all transactions there is a transition of ownership to external financial assets and requirements of the country in which, that is the emergence and repayment of financial liabilities between residents and non-residents.

The financial account is divided into two classification groups, including transactions with financial assets and transactions of financial commitments (liabilities). Both groups, in turn, are divided into three functional categories: direct, portfolio and other investments. The composition of assets also includes such category as reserve assets.

Accounting of direct investments is carried out depending on their orientation: investments of residents abroad showed separately (capital outflow) and investments of non-residents in the domestic economy (capital inflow).

Direct investment is divided into share capital (the purchase of shares of branch and associated establishments), reinvested earnings (inverse investments of part of undistributed in the form of dividend income) and other investments (typically intra-firm crediting by company of its branch and associated establishments).

Thus, capital in the form of direct investment is: 1) the capital invested by direct investor in foreign enterprise of direct investment and 2) capital obtained by direct investor to participate in this enterprise.

Portfolio investments are divided into two groups: operations with foreign securities (operations with financial assets) and domestic securities transactions (transactions with financial liabilities).

Depending on the type of financial instrument, transactions with portfolio investments are divided into:

1) securities transactions, confirming participation in capital (transactions in shares, certificates of participation, ADR);

2) operations with debt securities, confirming the right of the creditor to collect the debt from the creditor: a) bonds and other long-term or perpetual debt, b) in currency market instruments, i.e. treasury bills, promissory notes, bankers' acceptances, short-term certificates of deposit, and c) financial derivatives (options, futures, swaps).

The category of “Other investments” includes trade and bank credits and loans, including credits and loans from the IMF and the international financial institutions, financial leasing agreements, cash currency and deposits and other short-term assets/liabilities.

During the considering the capital account it is necessary to pay attention to the fact that usually crediting abroad is called “the export of capital” and foreign loans – “the import of capital”. However, crediting of foreigners is import, as investments in other countries (capital outflows) mean expenditure of foreign currency reserves decrease, and thus reflects on the debit side. Getting credit (capital inflow) is an export operation, as foreign investment increased reserves of foreign currency, and therefore reflects on the credit side. So, if export of goods increased and import reduces reserves of foreign currency, the outflow (removal) of capital, i.e. investment in other countries, means spending, reducing foreign currency reserves and inflow (import) of capital, i.e. investment from other countries increases the reserves of foreign currency.

The most important part of the financial account is *reserve assets*, which include foreign assets of the country under the control of monetary authorities and at any time can be used for direct financing of payments, or the implementation of intervention on the currency market to support the rate of national currency.

Reserve assets include:

- monetary gold, which held by the central bank or the government of the country and can be implemented on the global gold markets or international organizations in foreign currency;
- Special Drawing Rights (SDRs) – a reserve asset issued by the IMF, which is shared between the member states in accordance with their quotas. It is used to purchase foreign currency, allocation of credits and carrying out of payments;
- reserve position in the IMF, that is the amount of reserve in the capital of the IMF (25% quota of the country in fund capital);
- currency assets, which consist of foreign currency, bank deposits, government securities, shares in companies, financial derivatives. Currency assets have the largest share in the structure of reserve assets;
- the other claims that include the remainder of the foreign currency.

Foreign currency reserves determine the extent of the solvency of the country.

As the balance of payments is a financial report of double entry, the debit balance of all structural parts must exactly correspond to the credit. However, such compliance is rare in practice due to incorrect entry or lack of records of certain transactions. The article “*errors and omissions*” was putted to achieve balance and

maintain a system of double entry. This article is balancing and represents the difference between the amount on all credit entries and the sum over all debit entries that reflect the time and cost differences.

### 7.3. Balancing items of BoP

The principle of the balance of payments (BoP), when debits equal the loan, often does not satisfy economists and it is required the balance of aggregated groups of operations within the overall balance to develop specific measures. Therefore, the balance of payments consists not only in the neutral form (in accordance with standard components), but also in analytical form. The main parameter that is used to analyze the balance of payments is the balance of BoP.

Due to the definition, the BoP is always in balance. However, the analysis of the balance of payments uses notions such as “active (surplus)” or “passive (deficit)” balance of payments. International Monetary Fund proposed the method for determining the deficit or surplus on the basis of the distribution of its articles on independent (main or “articles over line”) and balancing (compensation or “articles below line”). Thus, the balance of payments is divided into autonomous balance (basic) operations and balance of balancing operations. Autonomous include all private and public transactions that are undertaken without regard to the balance of payments, the implementation of which is not intended to influence it. Under balancing operations are understood actions of state bodies, especially of the central bank due to balance of payments that is used to finance the pre-autonomous transactions. Thus, the basis of the distribution of transactions is the criterion of their motivation. Balance of autonomous articles called “balance of BoP”, and depending on the positive or negative this value, the balance of payments is defined as active or passive. It is used balancing article to cover the balance of BoP. Thus, the concept of balance of BoP does not apply to the entire balance of payments, and to its constituents is to balance up a particular set of transactions.

There are analytical groups of articles of balance of payments, an appropriate balance is result of which:

- The trade balance;
- The balance of services trade;
- Current account balance;
- Base balance;
- Total balance or the balance of official settlements.

The *trade balance* is the difference between the payments of exports and imports of goods. If export exceeds imports, it creates a “positive balance” of trade balance. If import exceeds export, there is a trade deficit or “negative balance” of trade balance. In the most general terms, the assets and liabilities of the trade balance associated with an increase or decrease in demand for products of the country on the world market that is the economic conjuncture of the world market. The excess of exports over imports shows increasing global demand for the country, and domestic buyers prefer domestic products, which indicate the good

state of the economy. In contrast, the deficit (negative balance) indicates the lack of competitiveness of the products of the country on the world market and excellence in the country of import.

However, the trade balance may be affected by other factors such as a favorable investment climate, which can cause the inflow of investments into the country, and the increase in purchases of equipment abroad, which could lead to trade deficit. In this case, the trade deficit is accompanied by economic growth. Trade deficit may, for example, be covered by proceeds from sale of licenses, from tourism, remittances of foreign workers.

The *balance of services trade* is the movement of services and non-commercial payments, classified as “invisible” exports and imports, comparing of which forms the balance of “invisible” transactions.

*Balance on current account* is the most informative. It displays all transfers of assets that are associated with the movement of goods, services, investment earnings, transfers, and provides a link between the international treaties of the country and its national income. The positive balance on current transactions means that the country is a net investor in relation to other countries, and the negative balance indicates that the country is a net debtor, i.e. it should pay for the net imports of goods.

The balance of current account and balance of operations with capital and financial instruments represents *base balance*, excluding short-term capital and the reserve assets. The balance of the basic balance is defined as the sum of operations of these two balances. The balance can be both negative and positive. The negative balance often leads to the depreciation of the currency and reduction of reserve assets. All agreements of current account balance and balance operations of long-term capital are autonomous (basic) and are displayed in the main articles. Base balance shows the most important characteristics of the economic area: the level of international competitiveness, investment climate, consumer preferences, labor productivity, level of its pay, etc.

Operations with reserve assets are balancing and create *the balance of official settlements*.

The balance on current account and flow of capital (total balance) balances, summarizing the amount of official reserves that is balanced by reserve assets (compensatory articles). So, if the payments of the country (debit transactions) are not covered by foreign currency inflows (credit transactions), then the negative balance shows a deficit of balance of payments. An equal credit balance in the balance of official reserves must offset this deficit. The amount of cover the deficit by reserves shows a reduction of currency reserves of the country. The positive balance of BoP (total credit exceeds the total debit) must be compensated by an equal debit balance of official reserves.

## **Chapter 8. State regulation of the balance of payments**

### **8.1. The concept of economic equilibrium of balance of payments**

The balance of payments is in equilibrium state when the national economy is well adapted to the global economy. Under the equilibrium we can understand the stable relationship between the economic indicators such as demand, supply, and prices of certain goods. Despite of balance of payments is the balance sheet, but it is not always in a state of equilibrium. Prices, income, exchange rates and other macroeconomic indicators of country vary to restore a stable relationship with another world in case of disequilibrium of the balance of payments. Thus, the concept of the balance of payments equilibrium is the concept of leveling market.

The balance of payments is influenced by various internal and external factors, the effect of which is not the same length of time. There is long-, medium- and short-term balance of payments equilibrium [2, p.57].

*Long-term equilibrium* provided with the lack of balance of trade in goods and services for a long period of time. Active balance of current account is evidence of that the country earns on foreign markets more than it spends. A negative balance shows that this country spends more than it earns on foreign markets. The result for the current operations has to be financed in certain way of capital movement to achieve balance: net credits from non-residents used to finance the deficit, and the surplus goes to residents crediting. Current account balance indicates the international financial position of the debtor country or creditor. Country of prolonged current account deficit is a net debtor, the country that has for a long time active current balance is net creditor. Thus, the presence of balance is a measure of disequilibrium of balance of current transactions.

*Medium-term equilibrium* of balance of payments equilibrium is provided by the absence of total balance of the current account and the balance of long-term capital, i.e. the lack of balance in base balance from three to five years. This balance is maintained by the mechanism of long-term crediting. Breaking medium-term equilibrium is defined by the base balance state, the balance of which indicates the degree to which it is financed by long-term capital. It is believed that the basic balance is unreceptive to factors of the short-term actions, such as, for example, fluctuations of exchange rates and interest rates, and more exposed to non-monetary economic factors (long-term changes in the distribution of resources in the branches of production and their prices, labor productivity, tastes and consumer preferences, etc.). Credit or debit balance is the evidence of medium-term equilibrium breach, which necessitates an appropriate adjustment of the country's economic ties with the world economy.

*Short-term equilibrium* of balance of payments equilibrium observed in the absence of balance of official settlements balance. This occurs in the case when the state monetary institutions do not use official reserve assets.

Balance of payments equilibrium could be broken because of the imbalance of international payments for the following reasons:



- seasonal or random imbalance. Seasonal imbalance appears as a result of seasonal fluctuations of production and consumption that do not coincide in time. Seasonal variations are not long-lasting, and the deficit in one period is compensated by an excess in another one. Random imbalance is caused by unforeseen non-economic reasons. For example, flood or earthquake can cause an increase in imports, and adverse weather conditions – reducing agricultural exports;

- cyclical imbalance, which is based on the cyclical nature of economic conjuncture. As a result, there are periodic changes in supply and demand on world markets;

- structural imbalances, based on a gap between changes in the demand for exported and imported goods, and not a quick adaptation of the national economy to new conditions;

- imbalance, as a result of destabilizing currency speculation and capital outflow. These are different phenomena by their nature, but usually take place at the same time;

- imbalance of other reasons. For example, an imbalance may occur due to an unrealistic exchange rate or technological and other changes in the economy transition from one stage of development to another.

The main economic factors affecting the balance of payments are: inflation, the real rate of GDP growth, interest rates, exchange rates of “spot” [30, p. 71].

Comparative increase in the price level in the country affects the competitiveness of its products and services. Goods and services that are produced domestically are expensive to foreign buyers. As a result, there is a reduction of export. However, there is increased import due to increased prices for domestic goods. This means the reduction of the inflow and the increase of outflow of currency.

High rates of GDP also lead to an increase in imports of goods and services. the High GDP growth means higher incomes in the country, some of which will be spent on imports.

Interest rates affect the movement of capital. Increasing interest rates may lead to capital inflows, decline – to capital outflows.

High current spot rate of foreign currency prevents the import operations and facilitates export operations in terms of floating exchange rates. The low exchange rate favors import and hinders export.

The effects of BoP disproportion can be both negative and positive.

Negative consequences include: total debt, lack of necessary safety reserve of foreign currency, reducing overall welfare in the passive balance of payments. The positive effects are: the ability to develop rapidly by attracting foreign investment, the compensation of trade deficit by attracting long-term capital. Alternative solved problem: economic growth, an increasing employment, the fight against inflation.

The negative consequence of the active BoP is the depreciation of financial assets that accumulate, giving rise to the need to develop a program of spending of

excess funds. This program may include the stimulating of the acquisition of foreign ownership, the development of foreign tourism, the revaluation of the national currency and so on. The positive result is the accumulation of currency liabilities in foreign currency, which allows the extra stabilizing of the state in the country in case of natural disasters, temporary crop failures, declining in production.

## **8.2. The essence of the state regulation of the BoP**

The balance of payments cannot always be in a state of disequilibrium and therefore is subject to state regulation. The material basis for this regulation is considered official gold currency reserves, the state budget, the country's participation in global economic activity as an exporter of capital, the creditor, borrower, guarantor, and the regulation of foreign economic activity by means of laws and regulations.

The state regulation of the balance of payments provides for totality of currency, financial, monetary measures, aimed to the creating of major items of balance of payments and to cover its balance.

These activities are intended to stimulate exports, reduce imports, raise capital in the country and limit the outflow of capital [2, p. 60]. They include:

- deflationary policies, which aim to reduce domestic demand by limiting budget expenditure, mainly for civilian, needs, freeze prices and wages. Important instruments of this policy are considered to reduce the budget deficit, the change rate of the central bank, credit limits, setting limits to the growth of the money supply;
- the devaluation of national currency depends on the specific conditions of its implementation and financing and general economic policy. The role of this process is the regulation of the balance of payments;
- the introduction of currency control and of the restrictions on currency transactions. The blocking of currency earnings, the licensing of sales of foreign currency to importers, the concentration of currency transactions at authorized banks are aimed at eliminating of deficits of BoP by the limiting of the export of capital and stimulating its inflow, and restricting the imports of goods;
- the financial and monetary policies. Using of a budget export subsidies to exporters, increasing of import duties, the abolition of tax on interest, paid to foreign owners of securities for capital inflows into the country, etc. helps to reduce deficits of BoP.

The government uses a variety of financial, credit, currency, including the revaluation of currencies, measures to promote the growth of imports and reduction of exports of goods and services, to increase exports and limit imports of capital for the eliminating of excessive active balance of BoP.

The exchange rate regime impacts to achieve the equilibrium of BoP. If fixed exchange rate is implemented, the rebalancing occurs directly under the articles of BoP. According to a floating exchange rate, equilibrium is restored on

currency market and exchange rate changes until it is aligned to demand and supply of foreign currency within the current and long-term capital transfers.

There may be a situation in the country, when the government is unable to settle the balance of payments, resulting in late payments, interrupts financing. There is a so-called balance of payments crisis. In this case, a country may resort to *exceptional financing*, we can understand it like the transactions, which are conducted by the country that has some difficulties in the financing of the BoP deficits, and are provided with the agreement and support of its international partners in order to reduce the negative balance to a level that can be financed by traditional methods (use of reserve funds, etc.). In other words, exclusive financing includes financial agreements concluded by the authorities of the country to resolve balance of payments problems. The basic operations of exclusive financing are:

- the transfers. For example, partial or total cancellation of debt obligations in accordance with an agreement, concluded between the creditor and the borrower; other intergovernmental transfers, including transfers from international organizations (grants in cash);
- exchange of debt on participation instruments in capital, such as shares of companies of the country-debtor;
- the loan for settlement of BoP (including by using issue bonds), which are carried out by state management or the central bank;
- the restructuring of debt that involves changing the terms of existing debt contract or the conclusion of a new agreement with the continuation of debt service payments;
- late payments on debt: countries do not pay the proper amount on external liabilities with the consent of the creditor or without it.

### **8.3. The international investment position of the country**

The balance of payments shows only flows of real and financial resources between residents and non-residents during specified period (quarter, year), reflects the changes occurring only as a result of economic transactions. These flows accumulate and form deposits that are recorded in the so-called balance of international debts. The balance of international debts is a *country's international investment position*, which characterizes the overall cost and structure of external financial assets and liabilities of the country by the accrual sum at the end of the year. Thus, by definition of the IMF, international investment position is a statistical report, which shows the value and the composition of the financial assets of residents of the country, that are the claims to non-residents and liabilities to non-residents by residents at a particular time [3].

The structure of the international investment position indicators corresponds to the structure of the financial account of BoP. For the classification of the articles of the international investment position can be used:

- functional destination or type of investment: direct investment, portfolio investment, financial derivatives and other investment, reserve assets;
- the type of financial instrument: different classes of shares, debt instruments and other financial assets and liabilities;
- the institutional sector of the domestic economy;
- the repayment of the debt liabilities: short-term or long-term, with an original or other repayment term;
- currency: national, foreign, SDR;
- the structure of interest rate of debt instruments: fixed or floating.

It should be meant that the institutional sector, repayment term and currency are used for the analysis of financial stability and vulnerability.

Changes in the investment position compared to the previous period can be caused by the economic transactions with the assets and liabilities, with revaluation of assets and liabilities as a result of changes in exchange rates, prices, etc., and as a result of other actions (such as the donation of financial resources transfer). The calculations of the international investment position are used to predict the future stream of payments of foreign investment.

The relation between international financial resources, which country has and the countries' debt to other countries (i.e. matching of assets and liabilities of the country), forms a ***net international investment position***. Net investment position is the equivalent to the share of national wealth, which was given or taken into credit from the outside world (non-residents). It defines the country's economic dependence on the outside world and shows the relationship between foreign assets that the country has, and the debt to other countries. The excess of liabilities over assets indicates that a country that is international investment position is the "net debtor" to the outside world. The excess of foreign assets over liabilities to the outside world points to the "net creditor". The level of net investment income of country for its foreign assets and liabilities is determined on the basis of the net investment position.

Of course the international investment position is calculated in U.S. dollars for the international comparability.

## **PART 4. International financial markets**

### **Chapter 9. International foreign exchange market**

#### **9.1. The essence of the international foreign exchange market**

International currency market is the largest financial market in the world and takes an important place in the ensuring of correlation between the components of the global financial market.

Currency market – the system of currency and organizational relationships, associated with exchange transactions, international payments, and provision of foreign currency loan under certain conditions.

There are the following peculiarities of this market:

- it is non-material;
- it does not have a specific location and center;
- mechanism of its functioning – exchange of the currency of one country for the currency of another country;
- there is complete freedom of immediate opening or closing of any position, the opportunity to trade 24 hours online;
- it is the interbank market;
- a flexible system of trade organization and flexible strategy of payment for conclusion of agreement;
- it is one of the most liquid markets with the ability to work on it with different currencies;
- it is global because of the process of telecommunications and information science.

There are the following functions of currency market: the provision of international settlements; the insurance from currency risks; the providing of crediting in foreign currency; the diversification of currency reserves of banks and states; the obtaining of speculative profit by market participants; the impact on government regulation of the national economy and monetary policy coordination at the level of the world economy [9, p.110].

The participants of the international currency market are commercial banks, corporations that are engaged in international trade, non-bank financial institutions (asset management firms, insurance companies), and the central banks. However, the main point of the international currency market is commercial banks, because the most transactions with currencies involve exchange of bank deposits, denominated in different currencies.

The main product of this market is a foreign currency in different forms: currency deposits, any financial requirements, identified in the foreign currency. The operations with currency demand deposits prevail on the currency market.

Demand deposits – are the money, used in currency trading among banks operating on the currency market. Banking dealers hold foreign perpetual deposits in foreign currency in correspondent banks, located in countries where this foreign currency is national.

Bank in any country may sell foreign currency, giving the orders to foreign employees to transfer deposits to the buyer. The purchase of currency is carried out similarly. In this case, the seller puts it on the buyer account in a bank, located abroad. Currency transaction acts in some way. For example, an American firm has to pay 200 thousand euros for delivery of the goods to the German firm. The company instructs its bank to debit a dollar bill and pay that sum, transferring it to the supplier to the German bank. American Bank transfers dollars at the exchange rate from the account of U.S. firms on the German bank debit in exchange for deposits in euros, which will be used to pay for the German supplier.

International currency market consists of many national markets. There are three levels of the currency market operations:

1<sup>st</sup>: Retail. These are the operations in one national market, when the bank-dealer directly interacts with customers.

2<sup>nd</sup>: Wholesale interbank trading. These are the operations in one national market when two banks-dealers interact through currency broker.

3<sup>rd</sup>: International trade. These are the operations among two or more national markets where banks-dealers from different countries interact with each other. Such operations often involve arbitrage operations on two or three markets.

Depending on the level of currency market organization, there are distinguished exchange (organized) and off-exchange (non-organized) currency markets. *Exchange market* is represented by the currency exchange, and *off-exchange* (interbank) is represented by banks, financial institutions, enterprises and organizations.

Functions of exchange market determine the demand and supply of currency, settle exchange rates, predict their dynamic, identify the inquiry exchange rates, as well as form the strategy and tactics of the country's central bank with respect to financial and monetary policy and currency regulation system. Agreements of the current nature as well as durable ones are concluded on the currency markets. Exchange market is small due to its volume, as it functions primarily as a national currency market (fits approximately 10% of all currency agreements).

The activity of interbank market is directly linked to the implementation of currency transactions. Interbank exchange rates, i.e. rates that banks ask from each other, are established on this market. Interbank "wholesale" rates are lower than "retail" rates for customers. The difference is the income of the bank for the service. The interbank market takes about 90% of the turnover of foreign currency.

Any two currencies can participate in the operations with foreign currencies, but most interbank operations are the operations with exchange currency for the U.S. dollar, which is considered as a key currency. Euro, Japanese yen, Swiss franc, British pound sterling also play an important role on the currency market. The demand for these currencies is occurring every second, as opposed to other currencies.

International currency market operates with significant amount of money. Its volume exceeds \$700 trillion per year, the daily turnover amounted approximately

\$4 trillion in 2010,\$5 trillion in 2011, in 2020 it is predicted an increase in the daily operations till \$10 trillion, while the Asian market is about 20% of all transactions, 40% – on European, and 40% – on the U.S. [14, P.246].

According to the nature of operations, currency market is divided into the markets: spot, forward, swap, futures and options.

## **9.2. The transactions on the international foreign exchange market**

There are settled various types of agreements by exchange operations on the international currency market.

Exchange operations are the agreements, concluded on the currency market for buying and selling a certain amount of currency of one country for the currency of another country at an agreed exchange rate on a specified date. The purposes of exchange operations are:

- currency exchange during international trade, the implementation of tourism, migration of capital and labor;
- the speculations (to get profit from changes in exchange rates);
- the hedging (protection from currency risks and from the potential losses from changes in exchange rates), which improves conditions of concluding of international trade and investment agreements. In this way hedging is the stimulation of international flows of goods and capital.

Exchange operations include:

- operations of immediate delivery of currency (current conversion operations), which are divided into operations “tod” with today value date, “tom” with tomorrow value date, “spot” with value date by two working bank days;
- term currency conversion operations, which are divided into forwards, swaps, futures, options.

### **9.2.1. Spot transactions**

Spot market – the market, where the transactions of current and immediate (or cash) currency exchange between two countries provide. The two parties agree to exchange the bank deposits and carry out an agreement on the second working day from the date of conclusion of the exchange rate, fixed at the time of the conclusion of agreement. Now, by the request of customer, the currency converting is carried out on the date of the conclusion of agreement by electronic means.

Rates of immediately exchanged currency are called current (spot) rates. The operations create cash currency market.

The spot agreements are the basic currency operations, the spot rates– are the basic rates. The other agreement rates on the currency market are calculated on the basis of spot rates – cross-rates, forward and futures contracts rates.

Two prices (rates) of currency are used during the exchange of foreign currency: the rate of the buyer and of the seller. When you buy the currency at a

bank or the dealer to pay for the currency higher price than the one for which you can sell the same amount of currency the same bank or dealer. Banking and dealer *rates of buyer* – those prices for which the bank, dealer are ready to pay for foreign currency. *Rates of seller* are the prices by which bank, dealer are ready to sell foreign currency. These two rates are quoted in pairs. For example, if a bank quotes dollar as 5.437 – 5.598, it means that it is ready to buy dollars at 5.437 UAH for \$1 and sell them at 5.598 UAH for \$1. Higher price always refers to the seller price, and lower –to the buyer price. The difference between these rates is called the *absolute spread*. It is used to cover the cost of bank and as the insurance from currency risks. Under the condition of instability of currency market or during the currency crisis, spread may increase from 2 to 10 times, compared to “normal” spread – 0.05-0.09% of quoted rate.

The relative spread can be calculated as the difference between the seller and buyer quotations, calculated in relation to the seller price, i.e. in percentages:

$$\frac{\text{Seller price} - \text{Buyer price}}{\text{seller price}} \times 100\%$$

The size of spread is influenced by such factors: the status of the contractor and the nature of the relationship between contractors (the size of spread is more narrow for constant and reliable bank-contractors); market conjuncture (the size of spread is usually greater during rapid changes in exchange rates); quoted currency and market liquidity (the size of spread is greater during the quotation of rare currency or by agreements on less liquid market); the amount of the agreement (a smaller spread is used under agreements in large amounts).

Currency operations of immediate delivery are the most common and accounts for approximately 60% of the currency agreements on the interbank market. These operations must be fulfilled by subjects. They are used primarily for the immediate receipt of currency for foreign trade payments.

Banks give necessary foreign currencies to their customers; provide the flow of capital and the implementation of arbitrage and speculation operations with the help of spot operations.

### 9.2.2. Forward contracts

Forward market – the market, where term currency transactions with foreign currency could be provided. Term (forward) agreements – contracts, which are the agreements of two parties about the delivery of agreed amount of currency over a certain number of days after conclusion of the agreement at the rate, fixed at the time of its conclusion. Forward agreements are concluded out of exchange and are mandatory for implementation as opposed to futures and options.

The interval of time between the moment of conclusion and the implementation of agreement can be from 1-2 weeks, from 1 to 12 months, to 5-7 years. Exchange rate of the forward agreement is called the forward exchange rate. It is fixed at the time of signing of the agreement.



Exchange rate of the forward contract differs from the spot rate. The difference between the spot and forward rates is defined as the discount from the spot rate, if the rate of forward agreement is lower, or premium, if it is higher than the spot rate. The premium means that the currency is quoted more expensive by the agreement with a term than by cash transactions. The discount means that the exchange rate of forward agreement is lower than the spot agreement.

The size of forward premium/discount calculates by formula:

$$FD = \frac{(FR-SR)}{SR} \times \frac{360}{t} \times 100, \quad (9.1)$$

where FR and SR –forward and spot rates;

t – time (in days) of actions of forward contract.

Forward agreements are carried out for the following purposes:

- the real sale or purchase of currency;
- currency exchange for commercial purposes, advance sale or purchase of foreign currency to insure currency risk;
- insurance of portfolio or direct investment from risk, which is associated with a decrease of the exchange rate;
- getting of speculative profit due to differences in the exchange rate.

Speculative operations can be performed without a currency.

Forward market is narrower than the market of cash transactions (10% of trade in currency values). Mostly, forward agreements are carried out with major currencies, by large corporations or banks with a stable credit rating.

The rate expectations (increasing or decreasing rate) are not always justified, in case of conclusion of forward agreements. Thus, forward contracts are not always appropriate or not available in all types of businesses. Many businesses and most individuals are looking for alternatives to forward contracts. One of these alternatives is the swap agreement.

### 9.2.3. Currency swaps

Currency swap is a combination of the current (cash) and term transactions, i.e. the combination of spot contract of selling the currency (immediate supply of currency) and simultaneous forward contract of purchasing of the same currency for a specified period of time. Cash agreement is carried out on the spot exchange rate in swap transactions. The spot exchange rate in the forward contract is adjusted for premium or discount, depending on the motion in exchange rates. So the swap rate is created on the market of currency swaps – the difference between the spot rate and the forward rate. Swap transaction may be signed with one contractor, when both conversion transactions are carried out with the same bank, or with different contractors. Two opposing agreements must be signed by two contractors with different dates for the same amount of value in case of agreement with different contractors .

Let's consider the example of currency swap. Bank A received a payment in the amount of \$10 million on March 1<sup>st</sup>. This amount will be needed in 6 months,

and so during this period it is beneficial to invest this amount in euros. Bank A decided to implement currency swap: to sell 10 million for euro to the foreign Bank B on the condition to redeem it as part of the deal in future. It is more profitable than to implement on the currency market two separate agreements on March 1<sup>st</sup>: sell hryvnia per euro on the spot market and buy hryvnia per euro on the forward market to get them in 6 months.

Swap transactions are convenient for banks, because they do not create an open position (purchase is covered by selling); reduce currency risks, implement hedging of forward operations; can be used for extension (prolongation) of open currency positions in the future, that is to save the state position for a specified period in the future; the using of them is more cheap for marker-takers (banks that provide spot contracts) than the conclusion of forward contracts in the case of prolongation of currency position.

Operation “swap” is used for:

- the implementation of commercial agreements: the bank sells foreign currency on “spot” conditions and buys it for some time;
- the purchase of needed foreign currency by bank without currency risk;
- the mutual crediting in two currencies by bank.

Operation “swap” is hedging, i.e. the insurance of the exchange risk by the creating of counterclaims and liabilities in foreign currencies. The market of currency swaps is about 20% of the total currency trading.

#### **9.2.4. Currency futures**

Currency futures – are the contracts that certify the obligation to buy or sell currency at standardized requirements in the future at a predetermined rate. A certain amount of foreign currency must be supplied on the day of the contract implementation. Currency futures market is a market of monetary derivative instruments because not the currency is being traded, but monetary instruments (liabilities). The signing of the futures contracts is provided on the stock market. Party, which is obliged to fulfill the supply of currency, is called the seller of futures contract and a party, which is obliged to transfer the funds against the supply of currency, is called the buyer. Futures contracts shall be obligatory executed.

Futures currency transactions create a special form of speculative agreements and hedging of currency risks by large banks. Currency futures account about 15% of currency trading.

Currency futures are essentially forward contracts that provide the future exchange. However, terms and, above all, the exchange conditions differ from the conditions of forward contracts, allowing avoiding currency risk more flexibility.

The difference is:

- the agreements are carried out only for certain currencies;
- the currency futures are liquid, they can be bought and sold by most of the business entities on the stock market;

- the futures contracts can be re-sold on the futures market at any time before the deadline for their implementation;

- buyer of currency futures undertakes to buy and the seller – to sell the currency for a specified period at a rate, agreed at the conclusion of the contract;

- the futures contracts are standardized (e.g., futures contract of the British pound is concluded on the amount of 62.5 thousand pounds, Canadian dollar – \$100 thousand, Japanese yen – 712,500,000 yen) and their implementation is guaranteed by guarantee payment in settlement and clearing house (clearing and settlement fee). This is a deposit, which is paid in cash by clients;

- the supply of currency can be occurred only in specific days;

- the standard amount of futures contract is less than the sum of the forward contract. In case of exceeding of the standard sum of the contract the buyer conclude the agreement for the purchase of several contracts.

Futures price is determined by their supply and demand and the currency, the subject of the contract.

The effectiveness of futures is determined by spread after each working session on the stock exchange. If the seller sells currency more expensive at the time of the contract than the quotation rate at the time of the execution of this contract – the seller will win and vice versa.

$$M = pQ(C - C_c)$$

where M- spread (positive or negative);

p=1 in case of selling; p=-1 in case of buying of the currency;

Q – the quantity of contracts;

C – the exchange rate on the day of agreement conclusion;

C<sub>c</sub> – the rate of quotation of current working session (on the day of agreement conclusion).

Spread is added on each open operation, even if the participant did not make the operation on the current working session.

$$M = p(C_p - C_c)$$

where C<sub>p</sub> – the rate of quotation of the previous working session.

### 9.2.5. Currency options

Currency option – a contract that proves the right of its buyer, but not committing to buy or sell a standard amount of foreign currency on certain conditions in the future at fixing prices at the time of conclusion of the contract or at the time of the acquisition by the decision of the contractors. The seller of the option undertakes for a cash prize to ensure the realization of this right if it will be needed by being prepared to buy or sell foreign currency at the respective agreed price. Thus, if the foreign currency exchange by futures contract is mandatory even in the case, when the transaction is unprofitable for the buyer, the option provides a choice: if the transaction is profitable – to make an exchange, if the transaction is not profitable - give it up. The buyer of the option has more rights and fewer responsibilities, and seller – more responsibilities and fewer rights.

Currency option contracts are similar to futures. The amount of currency, term of repayment and execution price is determined by them. Options, which are traded on stock exchange, require standardized forms of contracts and guarantees of its implementation, like futures. The amount of currency, which operates in each option, is equal to half of that, which is set for futures contracts.

There are two basic types of options: call option (options to purchase) and put option (option to sell). Call options give to their owners the right, but not the obligation to buy the standard amount of currency at a price, specified in the contract. Put options provide their owners the right, but not the obligation to sell a standard quantity of currency at the price, specified in the contract.

There are options that can be implemented at any moment before the expiry of the period of time (American option) and options that can be implemented only by maturity (European option).

Options as a kind of hedging are more alluring than forwards and futures contracts, but they have high price of implementation – the supply of the standard amount of currency takes place in this the price. The buyer of the option has to pay a high premium (bonus) for them, which is fixed in the option contract.

An option will bring a profit to its owner in the following cases:

- for a call option, if the price of implementation is lower than the price of a standard amount of currency by option on the market;
- for a put option, if price of implementation is higher than the price of a standard amount of currency by option on the market.

Options are used to hedge currency risk and to conduct speculative operations.

### **9.2.6. Speculative currency operations**

Currency speculators intentionally affect the state of the currency market, by buying or selling the currency, to achieve a devaluation of the exchange rate, or its appreciation. Betting on the increase or decrease in the exchange rate, they can make a profit or suffer a loss. Speculative transactions are carried out on the spot market and on the forward market.

On the *spot market*, if the speculator wants to raise the exchange rate, he buys it, and keeps on deposit at the bank, in order to sell it in case of higher exchange rates. Speculators' profit will be equal to the difference between the original low spot rate, at which he had bought the currency, and the higher current rate, for which he had sold this currency.

If the speculator is playing on the decrease of exchange rate, he takes a loan in foreign currency for a fixed term, then sells it at a high rate (changes it for the national currency), and he puts the received money on deposit in the bank for earning interests. At the end of the term of the loan, if the spot rate of foreign currency is decreased, the speculator buys foreign currency at a lower rate for returning the loan. In this case, speculators' profit is equal to the difference between the spot rate on the sale and purchasing of foreign currency.

Speculation in the forward currency market is more common and is based on the assumption of rising and falling currency spot rate, compared to the forward rate in the future. If speculator believes that the currency spot rate will be higher in 3 months, than in comparison with the present-day forward rate, he conducts such operations: he buys foreign currency in the forward market for delivering in 3 months, in case of his prediction coming true, after 3 month he receives foreign currency at a low price of forward market and then he resells it at a high rate of the spot market. Speculators' profit – is the difference between the forward rate and the spot rate, if his expectations were not met, then it makes losses. If the speculator expects that the future spot rate of foreign currency will decrease relatively to the present-day forward rate, he performs such operations: he sells foreign currency on the forward market, buys foreign currency on the spot market for the low spot rate and then he resells it at a higher rate on the forward market. Speculators' profit is also determined by the difference between the spot rate and the forward rate. Professional speculator makes thousands of currency forward exchange contracts, to avoid the risk of mistakes on the future spot rate, and, if the assumptions about the general nature of the changes in exchange rates will be valid, his operations will be profitable.

Currency options are also used for speculation. Speculator – is the buyer, as we have noted above, he can use the option, or let it expire its date. He uses the option, when it is profitable for him; it means that the exercise price will be higher than the market price.

Banks, firms and TNC are involved in the speculative operations. The speculative operations that are aimed at decrease or increase of the exchange rate often attain tens of billions of dollars in a few days. Currency speculation has substantially increased in a floating exchange rate conditions, as their wavering has increased.

Speculation on the exchange rates is one of the legal forms of currency business, but it often negatively affects the monetary sector and the whole economy. Speculation destabilizes the economy, when speculators sell the currency at a low rate, hoping that it will have the further fall, or in the condition when speculators buy foreign currency with an increase in the exchange rate and in anticipation of its future growth. As a result of carrying out of destabilizing speculative transactions, wavering of exchange rate becomes strengthen.

At the same time, speculation operations can be stabilization, it means that they weaken the currency fluctuations over time and also contribute the stabilization of the currency market. This occurs when speculators will: a) buy foreign currency at decreasing of its domestic price, or at its lowest level in anticipation of growth, and b) sell the currency, when the exchange rate is increasing, or is at a high level and it is expected to decrease soon.

### 9.2.7. Arbitrage operations

Arbitrage operations are also made with the speculative goal on the currency market. Arbitrage - is the process of purchasing and selling of foreign currency for profit. The difference of arbitrage operations from speculative operations is that they are always stabilizing, as they contribute to the short-term currency realignment in different currency markets, and speculative operations are carried out to maximize profit through the difference of rates of foreign and national currency.

The main types of arbitrage on the currency market are the currency and interest rate arbitrage.

**Currency arbitrage** (simple) - it is the purchasing of currency on the one market at a low price, with its simultaneous sale on another market at a higher price, and getting profit from the difference in exchange rates. Currency arbitrage can be complicated, in case of multiple different currencies on different currency markets.

On the currency market, where the currency has a relatively low rate, arbitrage operations increase demand on it, and the exchange rate begins to rise, but on the market where the currency has a high rate, such operations increase its supply and the rate decreases.

Arbitrage operation, which is conducted by arbitrageur, gives the opportunity to make profit practically without any risk and there is no need of investments. For example, Bank A (arbitrageur) provides customer with service of buying and selling of currency. The client believes that the price of the British pound will rise against the U.S. dollar. This client applies to the Bank A for the purchasing of pounds and specifying the amount. Dealer of the bank communicates with the banks-partner B and receives two-way quote 1.4250 / 1.4255. Before giving this quote to the client, bank includes the commission in it, and after that it gives the new quote to the client: 1.4248 / 1.4257. Then the bank A buys pounds in the bank B at the rate of 1.4255 in, after this it sells them to the customer at the rate of 1.4257 and gets the profit on the difference in this course (1,4257-1,4255) without any risk. Such operations are done by the expenses of the client of the bank A, which doesn't invest any money for this operation [15, p. 139]. Currency arbitrage can be temporal and spatial. In case of *spatial* arbitrage, arbitrageur gets profits due to the difference in "spot" price on the markets, which are situated in a "different spaces", it means on the two different geographically distant markets. Profits are derived from the difference in exchange rates over time (for example, the currency is bought on the spot rate, then placed on a fixed term deposit and at the end of this period, it is sold on the same market but for another spot rate) in case of *temporal* currency arbitrage.

**The interest arbitrage** is connected with the operations on the market of capitals and based on the use the difference between interest rates in various markets by banks.

The base of interest arbitrage is the striving of economic subjects (investors) to invest available amount of money in the currency, which makes the greatest profit. Interest rates in different countries rarely coincide with sizes. They have quite wide diapason on different world markets. Investors seek to move funds from the market with low interest rate to the market with a higher one. To do this, they carry out a transaction of interest arbitrage. If investors want to preserve capital and make profit, they will produce *covered (secured) arbitrage*, providing for the exchange of one currency for another. There is a process of borrowing money in one country and converting it into the currency of another country, where funds are given on credit.

Providing means that the risk of reverse conversion of the currency, where the loan was made, for payment of the loan in date, is eliminated by the purchase of that currency in the forward market. The simultaneous purchase of currency on the spot conditions and its forward sale, i.e. the swap operation, reduces or eliminates the operational risk. Swap has a price, so this price (costs) has to be deducted from the difference of interest rates of currency, with which arbitration is carried out to get net profit.

The interest arbitrage operation consists of taking loan in one currency and crediting in another one. Risks from changes in rates of exchange can be reduced by drawing up forward contracts of currency exchange for the term of loan or deposit.

Since the operation of interest arbitrage associated with the supply and demand of spot and forward transactions, this operation affects the spot and forward exchange rates [27, p. 84-86].

Interest arbitrage (e.g., transference of the U.S. dollar to country B) consists of three operations:

- 1) the loan in dollars and convert of them into the currency of the country B;
- 2) the allocation of credit to the country B;
- 3) the drawing up the forward contract at the end of the credit for the reverse exchange of country B to dollars.

At the end of the credit  $(t + 1)$  the arbitrageur will owe (in dollars):

$\$(1 + r_{us})$ , where  $r_{us}$  – the interest rate in the United States.

The bank will receive in country B:

$B(1 + r_B)$  units of currency B. This currency must be converted at the forward rate  $(\$/B)_{t+1}$  to dollars in the amount of  $B(1 + r_B) \times (\$/B)_{t+1}$ .

As the amount of foreign currency (B) equals the amount of borrowed dollars (\$), divided by the spot rate  $(\$/B)_t$ , i.e.  $B = \$/(\$/B)_t$ , the amount of earned money is:  $\$ / (\$/B)_t \times (1 + r_B) \times (\$/B)_{t+1}$

Arbitration profit of bank equals to the amount of earned dollars minus the amount of dollars that it owes to its creditor:

$$Profit = \{[\$/(\$/B)_t] \times (1 + r_B) \times (\$/B)_{t+1}\} - \$(1 + r_{us}) \quad (9.4)$$

The exchange of one currency for another affects on the supply and demand on the spot and forward markets. At the process of exchanging dollars for currency

B, it is created additional demand on the spot market for currency B, which leads to the increase of value of that currency in dollars  $(\$ / B)_t$ . At the forward market, the currency B is exchanged for the dollar, leading to a further supply of this currency and reducing its value in currency terms  $(\$/B)_{t+1}$ . The increase in the exchange rate of "spot"  $(\$/B)_t$  and decrease of forward rate  $(\$/B)_{t+1}$  reduce the profits of the arbitrageurs to a value at which the potential profit will be zero.

$$[\$ / (\$ / B)_t](1 + r_B)(\$ / B)_{t+1} = \$(1 + r_{us}) \quad (9.5)$$

Equation (9.5) describes the balance, which is caused by the arbitration actions.

If we divide both sides of the equation (16.5) to  $\$(1 + r_{us})$ , we will get:

$$(\$ / B)_{t+1} / (\$ / B)_t = (1 + r_{us}) / (1 + r_B) \quad (9.6)$$

This equation shows that the ratio of the forward rate to the spot exchange rate of the currency B is equal to the ratio of profitability of the United States to the one in country B.

The ratio between the spot rates, forward rates and interest rates, expressed by equation (9.6) is called the interest rate parity.

Interest rate parity is expressed by formula:

$$(1 + f) = (1 + r_{us}) / (1 + r_B), \quad (9.7)$$

where  $f$  – forward raise to the currency of the country B or a discount with it.

$$f = \{(\$ / B)_{t+1} - (\$ / B)_t\} / (\$ / B)_t \quad (9.8)$$

For example, if the interest rate of the USA is 8%, and the interest rate in Germany – 6%, the interest rate parity leads to the fact that the forward rate of the euro will be with 1,89% raise, i.e.:

$$(1 + r_{us}) / (1 + r_g) - 1 = f, \text{ or} \\ (1 + 0.08) / (1 + 0.06) - 1 = 0.0189.$$

The ratio of the forward rate to the spot one for the euro will be

$$(1 + 0.08) / (1 + 0.06) = 1.0189$$

The banks lean on interest rates parity in establishing of forward rates for their customers. Putting obstacles in arbitrage's way can cause deviations from interest rate parity.

### 9.3. The governmental interference in the activity of currency market

Governments can influence on the exchange rate of their currencies: a) by buying and selling of large amount of foreign currency on the currency market, b) by carrying out economic policies that affect changes in demand and supply of the national currency, c) by concluding of international agreements, related to the exchange rate.

Support of the exchange rate at a certain level can make the central bank through currency intervention. For this, the central bank has to trade currency at a fixed rate to private agents of the international currency market. For example, to keep dollar exchange rates at the level of 9.00 hryvnia to the dollar, the National Bank of Ukraine should be able to buy hryvnia for this rate to their dollar reserves in any amount dictated by the market. If it is needed to prevent the growth of the



national currency, the central bank must sell sufficient quantity to meet the excess demand.

In order to carry out currency interventions, the country must have sufficient foreign reserves, gold reserves, international money (special drawing rights, euro). Central banks, conducting currency interventions, want to slow down changes in the exchange rate to prevent abrupt changes in the competitiveness of export sectors, to prevent fluctuations in the level of employment and inflation trends.

To influence the exchange rate, governments are using two types of state macroeconomic policy:

- monetary, which affects the exchange rate through the mechanism of change in the money supply;
- fiscal, which affects the exchange rate through changes in government spending and taxes.

The temporary increase in the money supply is currency depreciation and rising output. The rapid depreciation of currency leads to reduction of prices of the domestic product compared to the imported one. So there is the increase in aggregate demand for it, which should be covered by the increment of output. The continuous growth of the money supply influences on the exchange rate and on the output greater impact.

The disadvantage of the use of monetary policy for influence on exchange rate is that great fluctuations of money supply in the country can lead to inflation or deflation. This limits the ability to use monetary policy to regulate foreign exchange rates.

Fiscal policy – the policy, which is for changing of the level of taxation and of government spending. The policy, which causes the budget deficit or excess.

Fiscal policy can be expansionary and restrictive.

*Restrictive fiscal policy* is carried out by the reducing of governmental spending or by rising of taxes, or by using of these two methods. The realization of restrictive fiscal policy leads to an increase in the value of the currency. Reducing of the governmental spending and tax increases cut the budget deficit. There is also a decrease in demand for goods and services, which is reflected in decrease of imports, which, consequently, causes a decrease in supply of foreign currency and increase of its value.

*Expansionary fiscal policy* in the form of increase of governmental spending or saving taxes, or some combination of these two directions leads to an increase in aggregate demand. This leads to an increase in imports and, consequently, to greater supply of currency, which causes a decrease in the exchange rate.

In order to achieve macroeconomic stability, the central bank, under fixed exchange rates, cannot use monetary policy. However, fiscal policy, under fixed exchange rate, is more efficient than floating.

The government can also influence on the magnitude of the exchange rate by official statements of their intention to carry out a strategy for the exchange rate. The purpose of these statements is to influence the expectations and behavior of

the participants of currency market. The effectiveness of these statements depends on the degree of confidence in the currency market to government statements.

The government occasionally makes decisions about immediate change in price of the national currency, expressed in units of foreign currency, in countries, where the exchange rate is fixed.

If the central bank increases the price of a unit of foreign currency into national currency, there is devaluation, when the central bank reduces the exchange rate – revaluation. Devaluation or revaluation means the willingness of the central bank to sell unlimited amount of national currency in exchange for foreign currency at the new rate.

Change of the value of the exchange rate under a floating exchange rate, as a result of the joint impact of market forces and government, is defined by the terms “depreciation” and “appreciation” of currency.

#### **9.4. The Eurocurrency Market**

Eurocurrency market (Euromarket) is a specific sector of the currency market. If the currencies market is a market, where the sale and the purchase of foreign currency in the country of its origin take place, eurocurrency market – is a market of deposit and crediting transactions in foreign currency outside the country of its origin.

Eurocurrency market (in the broad sense) includes markets of eurodeposits, eurocredits, eurobonds, euroshares, eurobill, etc. It is a universal international market that combines elements of currency, credit transactions and securities transactions.

Deposit and crediting operations are carried out in euro on the European market. Currencies are transferred into foreign bank accounts and banks use them for operations in all countries, including the emission of this currency by country. For example, if the Bank of France takes credit in U.S. dollars, it is the operation on international currency market, and if they get a credit from a bank in the United Kingdom or Japan, the agreement is concluded on the eurocurrency market. Eurodollar or euroyen – is the same name of currency in bank accounts that are not in the U.S. and Japan, i.e. not in the “homeland” of these currencies and in other countries. So, the dollar in liabilities of the Bank of France is the eurodollar, yen in liabilities of Bank of UK – is euroyen.

Eurocurrency, functioning in the global financial market, retains the form of the local currency and the prefix “euro” only indicates that the currency is not under the control of national monetary authorities.

Eurocurrency market emerged due to company needs of investors, in some countries and not the government's decision. He started to operate since the mid of 50s, when Western Europe appeared the market of Eurodollar. There are the following prerequisites for the development of this market:

- firstly, the ability of branches of U.S. banks in Europe and European banks to pay for deposits in dollars higher interest than in the U.S. In addition, dollar loans that were given in Europe cost less;
- secondly, the surplus dollars in oil-exporting countries of the Middle East and countries that preferred placement in European banks;
- thirdly, the demand for dollar loans from the side of developing countries;
- fourthly, the removal of exchange restrictions in the promotion of capital by Western countries.

This led to the establishment of favorable conditions for transactions with non-residents' deposits on the national European currency markets. Western European countries experienced an acute dollar deficit and encouraged the inflow of funds to the residents in their banks, as these deposits serve as currency credit for the countries receiving these deposits. Therefore accounts of aliens exempt from taxation and compulsory reservation of funds in the local central bank. To distinguish flowing to the accounts of non-residents in European banks "ownerless" currency from the monetary units controlled by emitting their central banks, they have the prefix "euro", which became added to U.S. dollars, and then, as their development of the Euromarket, to other freely usable currencies.

Outflow of the currency regulation and tax laws of the country encouraged international banks to facilitate the full development of the Eurocurrency market.

Eurocurrency market participants are central banks and governments that operate primarily on the Eurobond market, commercial banks that are major participants in this market and are active on the market of short-term and as well as long-term operations, private institutions and investors (mostly TNC) that have a significant amount of money and play a significant role in the global financial market.

There are the following special features of the European market:

1. Supranational nature of functioning. Euromarket is not the subject of local laws, outside the scope of national and international control. This contributes to uncontrolled movement of huge masses of debt capital, by passing national borders and regulation (invasion of "hot money", "flight" of capital), increasing speculation. Attempts to control the Euromarket represented with no success. On the one hand, the Euromarket stimulates the development of world economic ties, the internationalization of foreign economic activity, contributing to the growth of the productive forces, and on the other hand, it is a factor of instability in the world economy as a whole, and of national economies.

2. Institutional feature – the selection of category of Eurobank and international banking consortium, which form the backbone of multinational banks (TNC), which carry out operations in many countries in different areas and in different currencies. Banks are Eurobanks in that part of its activities in foreign currencies, which are carried out on its territory. The rapid movement of money from one country to another is depending on the interest rate and the ratio of exchange rates on the Euromarket.

Eurobank activity is alluring for two reasons: the relative lack of regulation and the huge size of the Eurocurrency market. Eurobank is usually not covered by requirements of the regarding of availability of the necessary provisions and requirements of capital structure concerning and pay premiums for deposit insurance.

The largest banks on the Eurocurrency market are given in Table. 9.1.

Temporarily organized consortia (syndicates) of banks to finance and credit large-scale projects are specialized by regional or sector basis.

TNB continuously increase their number of institutions in foreign countries, where they compete with national banking systems. The international activity of TNB is diverse. It depends on the bank's strategy and on the rules, operating in each country, which can restrict banking activities.

Table 9.1

**The largest Eurobanks in the world**

<b>Country</b>	<b>Name of the bank</b>	<b>Asset size, trill. doll. in 2012</b>
France	BNP Paribas	2,84
Germany	Deutsche Bank	2,62
Great Britain	HSBC	2,6
USA	Bank of America	2,27
China	ICBC	2,2
USA	Citigroup	1,95
Japan	The Bank of Tokyo-Mitsubishi UFJ	1,53

Source: [25]

3. Access restrictions of borrowers. The main borrowers are TNCs, governments, international monetary and financial institutions.

4. The use of leading convertible currencies: eurodollar (60%), euroyen (6%), euro (3%) and others.

5. Using the latest computer technology. Transactions are carried out by telephone, fax with exchange on the same day of telegraphic confirmation, which serves as a single document.

6. Specificity of interest rates:

- relative autonomy in relation to national rates;
- the opportunity to bid on eurodeposits higher rates and on euroloans – below the national rates because system of mandatory reserves is not covering eurodeposits that commercial banks are obliged to hold on interest-free deposit at the central bank and the payment of income tax on interest. Because transactions in eurocurrency are more profitable than national currencies.

7. The emission and operations of:

- Eurobonds (from the 70s) that are placed simultaneously on the markets of different countries and TNCs used to finance investment, the government – to cover the budget deficit and refinancing of “old” loans;

- eurobills (since 1981);

- euroshares (1983), which does not rotate at all national capital markets , and only there, where it is permitted by law, as the share – is not only a form of credit, but also the right to a share of ownership.

The main Eurocurrency market attractiveness – the lack of government regulation that allows Eurobank to offer on eurocurrency deposits higher interest rates than on the contributions made in the national currency, and allows banks to take from borrower’s higher interest for the use of Eurocurrency, than loans in national currency. In addition, transactions with foreign currency, banks are given much greater freedom of action.

At the same time, Eurocurrency market has drawbacks. Thus, when there is the regulated banking system, the probability of loss of deposits in bank bankruptcy is negligible, while non-regulated system such as the Euromarket, the probability increases. Borrowing of company funds on the currency exchange market in the eurocurrency can be risky. Signing a forward contract can insure risk, but there is no absolute guarantee.

Nowadays Eurocurrency market gained enormous proportions (its volume is about \$700 trillion annually). A significant mobility of costs in this market due to the large scale of operations significantly affects the currency of the financial state of the world environment. The market covers all major international banks and world financial centers, and all convertible currencies.

Europe accounts for about 50% of Eurocurrency market transactions. The main financial center is London (over 20% of the global volume of transactions in eurocurrency). Now there are more than 35 centers of Eurocurrency market. Among the largest, apart from London, there are Tokyo (about 20% of market transactions), New York, Frankfurt am Main (10%), Paris (7%), Zurich – Geneva (6%), Luxembourg (4%), Amsterdam, Brussels (3%) [16, p.264].

## Chapter 10. The international credit market

### 10.1. The essence of the international credit market

#### 10.1.1. The place of the international credit market on international debt market

One of the components of the global financial market is an international debt market (loan market). This is a specific sphere of market relations on outstanding debt, guaranteeing to the lender the right to collect the debt from the debtor.

Debt liabilities take various forms by methodology of the World Bank ( Fig. 10.1).

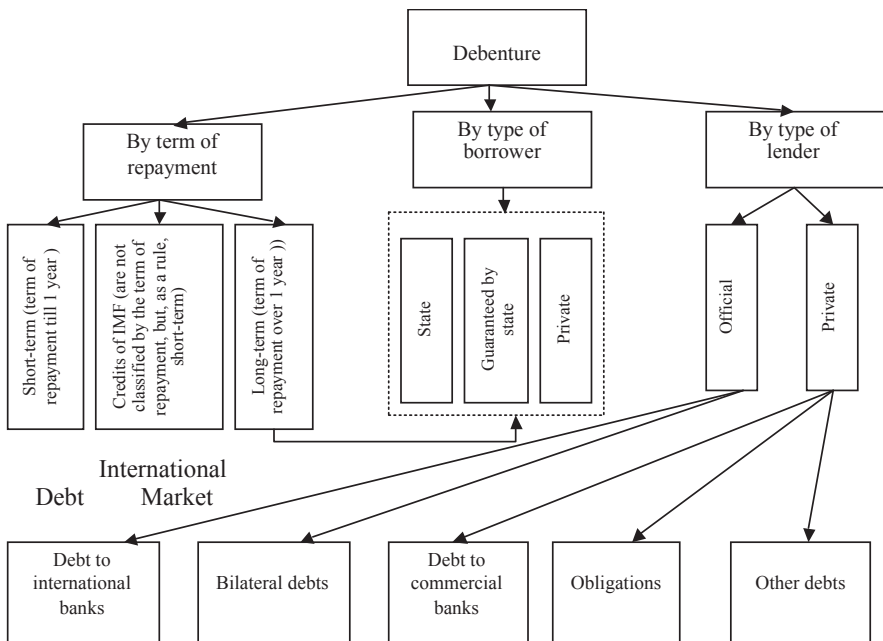


Fig. 10.1. Forms of debanture on the international loan capital market

conventionally is divided into the international credit market (the market of bank loan commitments) and the international debt securities market, where financial instruments are turned over, that evidences the debt relationship between lenders and borrowers (bonds, notes, commercial paper, etc.). The main feature of this division is the possibility or impossibility of freely buying and selling of financial liabilities or financial instruments (agreements to exchange the current value in the future may be concluded in the form of securities that may be the subject of free

buying and selling and loan agreements, i.e. committed liabilities of the borrower to the lender are not the subject of free buying and selling). Each market includes Euromarket, as part of the international loan capital market [16, p.265]. In chapter 11 it will be disclosed the main features of the international loan market, and issues, relating to the debt securities.

International loan is defined as the movement of debt flows in the form of financial claims between creditors and borrowers in different countries, associated with the provision of currency and commodity resources (assets) on the terms of repayment, urgency and interest payments. Taking part in the circulation of capital at all its stages, the international loan mediates its transition from one form to another: from money to the production, then to the commodity and to money again. Consequently, there is the movement of money capital, formed by supply and demand on the international loan market.

International loan is considered as a special kind of international trade. This trade is not the exchange of commodity to another one, but the exchange of current goods for future goods. This exchange is called inter-temporal trade.

There is always the problem of choosing between current and future consumption in economics. Usually produced products are not consumed immediately; part of it is used as an industrial capital to expand production in order to increase consumption in the future. In other words, it is a choice between consumer products now and in the future.

International loan makes it possible to trade in time. If a country-creditor provides a loan, it sells current consumption for future consumption. Country-borrower, taking a loan, has an opportunity to spend more today, than it was earned, for exchange for the obligation to pay compensation in the future for today's consumption. Which countries borrow and which provide is determined by production capacity. Countries that have good current investment opportunities, take loans from other countries that do not have the relative investment opportunities, but get large current income.

Countries that have relatively large financial resources, compared with the possibility of profitable application inside the country, can increase its national income by allocation of loans to countries that have a higher rate of return on capital (interest, dividends). Country-importer of capital has an opportunity to increase its national income due to foreign investment obtained on more favorable, compared with domestic, lending conditions. In general, using international loan there is the maximization of global product due to the general increase in world production.

The essence of international loan value is that due to the loan there is a redistribution of capital among countries according to the needs and abilities of its more profitable use, provided the growth of international trade, supported by foreign direct investment, and governments of different countries receive foreign currency to stabilize the economy, covering external debt.

The effectiveness of the loan is achieved by:

- free movement of capital;

- the stability and predictability of the global economy development;
- the fulfillment by borrowers of their obligations, the full payment of their debts.

Each country is an importer and exporter of capital. As lenders and borrowers, i.e. subjects of international loan markets, there are commercial banks, corporations, financial intermediaries, non-bank financial institutions (insurance companies and pension funds), central banks and other public bodies, governments, regional international development banks, international financial institutions. However, lending is usually carried out by the international banks, thanks to the broad field of their financial activities.

International banks are classified according to the share of international operations and profits in total volume of agreements and revenue for the following groups:

- national banks with a small foreign subsidiary, which accounts for a small share of assets and income;
- banks, from 5 to 10 percent of their income are created by international operations;
- transnational banks, where there is the international level of concentration and centralization of capital, allows them to participate in the economic division of the global debt market;
- offshore banks, registered in offshore zones and used special tax and other incentives in the financial loan transactions. Transactions of each TNB are not carried out without them.

The Bank of International Settlements includes specific activities of banks to the sphere of international lending operations, [1, p. 152]:

- loans and loans that banks offer to each other, both domestically and abroad;
- loans and loans, granted by non-bank institutions, both domestically and abroad;
- interbank deposit (euro operations, operations on offshore banking markets).

The international operations of banks are characterized by the following features:

- lending operations include currency, loan, and regional risk, the implementation of the various protective measures helps to avoid them;
- the great part of lending operations of international banks are loans to foreign banks, which are not branches of the bank. Direct bank loans tend to be concentrated in developing countries;
- international lending is mainly focused on providing short-term loans to foreign banks, which are not branches of the bank;
- geographical areas of the short-term lending are more diverse than areas of long-term loans.



### 10.1.2. The forms of international lending

International lending is carried out in various ways. They can be classified according to several features that characterize certain aspects of loan relations [1, p. 153].

According to *sources*, there is domestic and foreign lending in foreign trade.

According to *the subject of foreign trade agreements*:

- the commercial (trade) loan, which is directly related to foreign trade. It is provided for the purchase of certain goods or payment for services and usually has “connected” character, i.e. strictly special purpose, fixed in the loan agreement;
- financial loan. It provides trade on any market that gives opportunities to choose trading partners. But often this type of loan is not used to the trade supply, but to the direct investment, construction investment objects, updating accounts in foreign currency, foreign debt repayment, maintaining exchange rate and so on.

Loans are divided into commodities *by types of allocation*, that exporters give importers, and *by currency*, issued by banks in the form of money.

According to *the terms*, international loans are divided into short-term – until 1 year (typically used in foreign trade, for the settlement of non-commercial, insurance, speculative agreements), medium – from 1 year to 5 years (sometimes up to 7-8 years) and long-term – more than 5 years (used for investments in main instruments of production, financing major projects, scientific research, new technologies implementation, as well as allocation of loans by international financial institutions, governments).

According to *the currency of loan*, loans can be given in the currency of the borrower, country-creditor, a third country or international units of account (SDR, euro).

According to *ensuring*, there are secured and blank loans. Products are served as a provision for loans, product-manager and other commercial documents, securities, promissory notes, real estate, etc. Blank loan is given to the debtor under his obligation to repay it within a specified period, and the document of this loan is solo-promissory note, signed only by the debtor.

According to *the technique of allocation of loan*, they are classified as cash, which are entered in the account of the debtor and received at his disposal; the acceptance, used in the form of acceptance of draft by importer or bank; deposit certificates and other.

According to *the type of lender*, loans are divided into private, that are provided by firms, banks, brokers; government; mixed, involving both private companies and state; interstate loans of international and regional monetary and financial institutions.

An important variety of international commercial loan is a *corporate loan*. It occurs when a firm-exporter of one country gives to the importer of another country deferred payment when selling goods and services. Under present conditions, terms of corporate loans have become quite long (usually from two to seven years) and are determined by conjuncture of world markets, commodities

and services, interest supplier in maintaining foreign economic relations and the expansion of exports, etc. Corporate loan is usually registered by a promissory note or given by an open account.

Corporate loan, that expresses the relationship between the firm-exporter and firm-importer, is usually combined with a *bank loan*. As the long-term firm loan distracts significant funds of exporter, who uses the bank loan or refinance his loan in the bank. Bank lending of the exporter and importer takes the form of loans on the security of goods, shipping documents, promissory notes and bills of exchange account. Sometimes banks give bank loans to a large exporting firm, i.e. without formal provision.

Bank loans have some advantages over firm ones: give the opportunity freely use the funds for the purchase of goods to the borrower, provide extended loan terms, larger volumes of supplies due to the loan, and characterized by relatively lower cost.

Banks give besides the financial loans that allow under the most favorable conditions to purchase goods on any market, also export loans. Export loan –is the loan that is issued by the bank of the country-exporter to the bank of the country-importer for lending supply machinery, equipment and so on. It is issued in cash and has “associated” character: the borrower is obliged to use the loan solely to purchase goods in the country-creditor.

The broker loan is the intermediate form between corporate and bank loan in some countries. As well as commercial loan, it has to deal with commodity operations and simultaneously with bank loan because brokers usually take loan from banks.

The following alternative forms in foreign trade such international factoring, forfeiting and leasing are used in the practice of international bank lending.

*Factoring* – is an operation to sell foreign accounts before getting export products to commercial banks or specialized companies by suppliers. Factoring can be carried out with the right of regress and without it. Factoring with the right of regress means that non-compliance of terms of the agreement financial institution, which bought accounts, may indemnify company’s losses from the company that sold them. However, as a rule factoring of international accounts before receiving is carried out without the right of regress.

The distinctive features of factoring: requirements of agreements accepted till 1 year; no restrictions considering the amount; it is mainly used on the domestic market; potential right of regress of requirements for the buyer; using a wide range of currencies; additional guarantees are not always needed.

Factoring services usually provided by factoring companies, many of which are owned by banks. They are buying accounts from exporters at a discount. They can pay immediately in cash till 85% of the nominal value of the accounts of exporters. The rest is paid after the payment of bills to importers. The benefit to the importer is that he cannot deal with loan. Exporter avoids the threat of credit and currency risks. He should not expect the moment, when the importer will pay for the goods.

*Forfeiting* – is the purchase operation of bank-forfeiter for full terms and beforehand established conditions of bills and other debt and payment documents. According to the agreement of forfeiting importer, of course, provides a simple bill, which guarantees the bank on behalf of the importer. Exporter sells this promissory note to the bank-forfeiter at a discount. Bank-forfeiter assumes the risk of non-payment of debt without right of regress (turnover) of these documents to the former owner. Forfeiter may resell the purchased from exporting bills on the secondary market, which is called “a forfeit” (which means to yield the right).

Distinctive features of forfeiting are:

- Long-term notes are taken under the term over 1 year;
- the minimum amount, which is used, is not less than \$500 thousand;
- the average amount of contract - \$1.2 million;
- it is used primarily in international operations;
- the absence of requirements’ regress for exporter;
- the purchase of requirements only by FCC (freely convertible currency);
- obligatory bank surety.

For the exporter, forfeiting agreement is beneficial because it turns loan agreement into cash; it is not necessary to worry about the creditworthiness of the importer. Forfeiting frees the exporter from liability on the bill after the sale. Importer gets the goods on credit, without succumbing, as an exporter, to exchange rate risk.

Forfeiting is often used in the implementation of medium-term lending of foreign trade by means of production, especially in Eastern Europe and the countries of Asia and Latin America, which are developing.

*Leasing* – is the operation of lending in the form of rental equipment, ships, cars, planes, etc., for a period of 3 to 15 years. Rental serves as a form of loan and at the same time as a form of international trade, which creates conditions for the rapid development of new technologies. The leasing company (lessor) purchases equipment and so on at their own expense and transfer under the contract of lease to the firm (lessee) for a specified period. At the end of the lease term firm-client may continue it or to buy the leased property by the residual value. The rent is set at a level that exceeds the price of the lease object at which you can buy it at normal commercial terms.

Depending on presence or absence of the transfer fact of ownership of the leased asset, there is operational and financial leasing.

Operational lease provides the temporary use of property without following its acquisition. Financial leasing combines lease with subsequent purchase of the object by the residual value.

According to the method of lending, there are fixed-term and renewable lease. Fixed-term lease is a one-time rental. Renewable lease is a lease agreement, which is restored at the end of its first term.

According to the organizational characteristics, there are direct lease when the lessor is the owner of the property, and indirect lease when renting is carried out through a third party.

Level of leasing relations' development is an indicator of the dynamic state economy. In developing countries, it is less than 1.5%, while in developed countries this figure reaches 25 - 30% or more. For example, leasing in the United States is the primary investment instrument, it accounts for over 30% of investment in equipment. The share of U.S. leasing market is about 39.5% of total world asset [1, p. 160].

International Leasing is especially important for developing countries because it allows reducing the outflow of funds, which are spent on importing expensive means of production, reduces balance of payments deficit, and contributes to the introduction of new technologies into the national economy.

## **10.2. The monetary and financial conditions of the international loan**

Conditions for obtaining of international loan are: cost and term of loan, the loan currency and the currency of payment, provision type and methods of insurance. These conditions are influenced by the number of factors: the areas of credit resources, the character of lending relationships, the level of internationalization of the loan markets and their subordination to the national credit control.

The cost of the loan, i.e. borrower's expenses on the loan, consists of amount of loan, interest rate, commissions and other commissions. It is given by:

$$S = \frac{Lim \times R \times T_{cp}}{100}, \quad (10.1)$$

where S – the total cost of loan;

Lim – the amount of loan;

R – total interest rate (basic rate on loan, commissions, insurance premiums, legal fees and any other services);

Tcp – medium term of loan.

The main element of the cost of loan is the interest rate. Interest rates in the world market are formed on the basis of interest rates of leading creditor countries (USA, Japan, Germany, and others).

The range of interest rates is quite wide (average 7-18%). The difference in interest rates is determined by:

- the risk on the loan;
- the term for which the loan is issued;
- the size of the loan (the higher – the lower of the two, other equal conditions);
- the size of the tax (i.e., prefer 7% loan interest rate on bonds, which is not taxable, than the 9% rate on the bonds, which is taxable);
- a competitive loan capital market.

An important indicator of allocation of loan is the amount (limit) of loan. It is part of loan capital that is provided to the borrower. In firm lending the amount of loan is specified in the loan agreement. Loan may be given in the form of particles that differ in their conditions.

The term of international loan is affected by the purpose of the loan; supply and demand of similar loans; the size of the contract; the national legal framework; intergovernmental agreements.

There are full and medium terms of loans. Full term includes: the term of using of the given loan, preferential period (deferment of repayment of used loan), the repayment period (when it is done the payment of main debt and interest). It is calculated from the beginning of the loan to its ultimate repayment.

The average loan term includes full preferential period and half of the term of using, and repayment of the loan. It is used to compare the effectiveness of different loan terms, because it shows the average full amount of the loan per period.

There are different types of loan, according to the conditions of payment:

- with uniform repayment in equal installments over an agreed period of time;

- with uneven repayment;

- on-time repayment of the full amount;

- with equal annual installments of main loan and interests.

The type of provision is discussed at the allocation of loan. This can be the opening of savings accounts, mortgage assets, assignment of rights under the contract.

It is important for international loan in what currency it is given and in what currency indebtedness will be repaid. The correct choice of loan currency depends on whether the lender will suffer losses or not. The choice of loan currency is affected by the degree of interest rates, the practice of international payments, inflation, and exchange rate dynamics. The payment currency may be the same loan currency, or may not coincide.

There are the elements of the cost of loan: contractual and hidden.

Contractual – is the cost of the loan due to the agreement. They are divided into basic and advanced. The main elements are: the amount paid directly by the borrower to the lender; interest; costs of collateral commission. Additional elements of the cost of the loan include amounts, paid by the borrower to third parties (under warranty). In addition to the basic rate, there is bank commission: the negotiations, participation, management, the obligation to provide the borrower the necessary funds, agency commission.

The hidden elements of the cost of loan related costs associated with the allocation of loan, but not recorded in the agreement (high prices of goods under firm loans, compulsory deposits in certain amounts in respect to the loan, the bank overstating fees for collection of documents, etc.).

### 10.3. The Eurocredit market

Eurocredit market is an important source of borrowed funds. Banks provide short-, medium-and long-term loans in Eurocurrency. Using of eurocurrencies, as currencies of loans, is due to such advantages as large size, easy access, short mobilization, lower cost, because there is no national loan limit. The functioning of eurocurrencies promotes the formation of loan facility of greater efficiency and capacity on the international credit market.

International interest rates are applied for eurocredit, which are relatively independent, compared with national rates. Eurocurrency interest rate, as a variable includes LIBOR – the London interbank offered rate on short-term inter-bank transactions in euro – and an increase to the basic rate that is the premium for banking services. Interbank interest rate of demand for short-term operations on the European market in London is called LIBID. As Eurobanks are not the subject of the local law and are not the subjects of income taxing, they can reduce the interest of their loans while the maintaining of high profits.

Short-term eurocredits are usually given at a fixed rate for the whole term in the full amount. This is the simplest form of the loan agreement.

Medium- and long-term eurocredits that provide reproduction of the fixed capital, exports of machinery and equipment, implementation of industrial projects, take the form of rollover and syndicated loans.

A characteristic feature of rollover eurocredits is that the interest rate is not fixed for the whole term of the loan, and reviewed regularly (every 3 or 6 months) in accordance with a change in the base rate (LIBOR rate). The main forms of rollover eurocredits include renewable rollover loans and rollover loan support (under conditions of “stand-by”).

Rollover loan under conditions of “stand-by” is secured loan, i.e. at the conclusion of the loan agreement, loan is not actually available. The Bank takes commitments to provide eurocredit on the first demand of the borrower during the time of the agreement.

Renewable rollover loans have no fixed size of the loan. It allows only a maximum limit within which the borrower is entitled to get loan in the required amounts at the beginning of each interim period of using it. There is fixed date of interest rate and loan amount change in the loan agreement that is carried out every 3 or 6 months within a period of implementation.

Compulsory conditions of rollover loan agreements include: characteristics of partners; the amount and purpose and the currency of the loan, the procedure and the term of repayment; the cost of loan and guarantees of it.

Today, the most common type of international loan are syndicated eurocredits. The resources of Eurocurrency market are the sources of syndicated eurocredits. Typically, such loans are organized by large commercial banks, which are the head of consortiums (syndicates) and come to an agreement with the borrower about loan conditions.

There is the procedure of allocation of syndicated eurocredits:

1. The borrower finds a bank, which will lead allocation of syndicated eurocredit (bank manager) and submit major loan conditions (term, amount and currency of the loan) to its approval.

2. Bank manager forms the syndicate: inquire a certain number of banks to participate in the loan.

3. Appointed Banks – guidelines that establish the LIBOR rate (interest rate-orientation).

4. Bank manager chooses bank agent that acts as a control on the loan. He receives the loan interest paid in accordance with the repayment schedule of the loan.

The total cost of syndicated eurocredit includes:

- interest payments (the interest rate is adjusted every 3 or 6 months based on changes in the interest rate-orientation);

- tax payments to banks that are members of the syndicate;

- commission to banks that are members of the syndicate;

Commissions are paid at the beginning of the loan, making the loan package more alluring to creditors.

Commission fees are divided into:

a) commission for obligations, when the borrower can determine the sequence of repayment the loan and can use cash after the conclusion of the agreement. These commissions are appointed on the part of the loan that has not yet returned;

b) commission for management, which is paid to bank manager as payment for arranging the loan;

c) commission for participation, which is paid on determined day or at the moment of full repayment of the debt. With the increasing number of members of the syndicate, the commission increases;

d) commission to bank agent as payment for services.

The total amount of commission varies from 0.50 to 1.25% of the nominal amount of the loan.

The main features of eurocredit are:

- the amount of loan– from 20-30 million to 1-2 billion of US dollars;

- term – from 10 months to 12 years;

- interest rates – are reviewed regularly, calculated on the base of the discount rate (LIBOR, SIBOR – Singapore bid proposals, the U.S. “prime rate”) plus the difference (spread), that uses floating interest rates as a result of the introduction of which the risk of changes in interest rates is transferred to the borrower;

- the commission for management, participation, loan servicing;

- usable currency – the U.S. dollar, British pound, Japanese yen, euro, Swiss franc, and others;

- the access to funds is fast;

- the right to early repayment – under condition of payment of compensation;

- guarantees and insurance – governments, companies, central and commercial banks provide guarantees for loans; various governmental and private agencies engaged in insurance of foreign loans and investments.

Benefits of syndicated eurocredits lie in the fact that they make it possible to distribute loan risk among the members of the syndicate; banks can participate in lending, regardless of their size; the borrower gets a great loan due to the unification of resources of certain number of banks; the difference between interest rates on loans is much lower than on national markets; allocation of loans is carried out in any freely convertible currency, and it gives the borrower the ability to use these tools on his own, without limiting his economic decisions.

Disadvantages of syndicated eurocredits related primarily to the fact that they are given for a shorter period, compared to the national bank lending.

#### **10.4. The international official assistance to developing countries – non-market mechanism of the redistribution of financial resources**

One of the channels of global financial flows movement is the redistribution of national income through the budget in the form of assistance to developing countries. The aim of the assistance is the elimination of underdevelopment. This redistribution of financial resources related to international non-market mechanism that contributes to macroeconomic stabilization of the economy and sustainable production growth in countries that are directed to a market economy.

The International Official Development Assistance (IODA) to developing countries is mainly achieved in the form of preferential loans and irrevocable subsidies, as well as in the form of commodities.

There are the subjects of international assistance in the recipient country:

- governments;
- executive agencies, authorized by government;
- central and export-import banks;
- legal entities.

Recipient country receives the bulk of loans and subsidies irrevocably from industrialized countries, international financial institutions, multilateral funds, integration associations that act as foreign donors.

International official assistance to countries is classified in designed and out-of-designed.

**Projected assistance** in development of country includes:

- system designs (macroeconomic stabilization of the economy): the financial stabilization of the economy; the structural changes in the economy; the reforming of economic relations; the implementation of administrative reforms;
- *structural designs* (structural changes in separate sectors of economy): loan rehabilitation; institutional development, state administration reforming; the reforming of legal system;
- *investment designs*: the development of production, industries and sectors of economy;



- *technical assistance designs*. Forms of assistance: additional qualified staff; job training; specialized courses in the recipient country; documentation, equipment and technology to provide technical assistance.

The designs have the following components: mutual obligations between the government of the recipient country and donor; the development program of certain sectors of the economy, the mechanism for its implementation and monitoring; grants to improve effectiveness of the process of design preparation and implementation.

***Out-of-projected assistance*** in development of country includes:

- *commodity assistance*: long-term preferential export loans for the purchase of imported goods; food aid as a gift for resale in the local currency; creation of special funds to support agriculture at the expense of profits derived from the use of export loans;

- *grants* to support the reformative actions of government: cover deficits of balance of payment; financing certain parts of some projects;

- *non-loan tools* of the IODA: discussion of strategy development of country in the short and medium term perspectives; general economic and branch of industry research work; the mobilization and co-ordination of official resources through the conducting sessions of donor countries and the participation in joint financing.

The international official development assistance is carried out on a bilateral (international) and multilateral basis, bilateral flows twice exceeds the multilateral ones.

The donor countries give loans and irrevocable subsidies from the budget and strictly control their spending in case of the implementation of the IODA on the bilateral basis. Donors should commit funds in the amount of 0.7 % of GNP to the IODA, which are fixed in a range of international documents. However, the major donor countries (USA, Japan, Germany, Great Britain) provide funds in fewer amounts – 0.25 % - 0.35% (Table 10.1). So, the total amount of assistance in 2011 decreased compared to 2010 by 2.7 %.

Table 10.1

**The international official development assistance in 2011**

		% from GNP	bill. US dollars
<b>Total volume of the IODA</b>	Purpose indicator UNO	0,7	300,3
	Fulfillment in 2011	0,31	133,5
	Lag in 2011	0,39	166,8
<b>The IODA for the least developed countries</b>	Purpose indicator UNO	0,15–0,20	63,7–84,9
	Fulfillment in 2010	0,11	46,5
	Lag in 2010	0,04–0,09	17,2–38,4

Source: [29]

The main criteria for the distribution of the IODA are: the level of economic development of the recipient country; military-strategic, political, social and economic considerations.

Most of the resources, which are given, are connected with financing of specific objects. Lending of construction of infrastructure is carried out under preferential conditions (transport, communications, energy), social programs (education, health), agriculture. An important role also belongs to food assistance.

During the implementation of the IODA on the multilateral basis, funds come from international financial institutions: IBRD, regional banks of development, the IMF, the various funds under the UN and EU.

The international official development assistance, provided to countries that are the members of the Committee of provision assistance for development purpose (CAD), is more than \$133 billion that is the equivalent to 0.31 % of the GNP of these countries (Table 10.2).

Table 10.2

**Volumes of the IODA in leading donor countries**

<b>Countries</b>	<b>2010</b>		<b>2011</b>	
	<b>mln.\$</b>	<b>in % to GNP</b>	<b>mln. \$</b>	<b>in % to GNP</b>
Australia	3 826	0.32	4 799	0.35
Austria	1 208	0.32	1 1070	0.27
Belgium	3 004	0.64	2 800	0.53
Canada	5 209	0.34	5 291	0.31
Denmark	2 871	0.91	2 981	0.86
Finland	1 333	0.55	1 409	0.52
France	12 915	0.46	1 2994	0.46
Germany	12 985	0.39	14 533	0.40
Greece	508	0.17	331	0.11
Ireland	895	0.52	904	0.52
Italy	2 996	0.15	4 241	0.19
Japan	11 021	0.20	10 604	0.18
Korea	1 174	0.12	1 321	0.12
Luxembourg	403	1.05	413	0.99
Netherlands	6 357	0.81	6 324	0.75
New Zealand	342	0.26	429	0.28
Norway	4 580	1.10	4 936	1.00
Portugal	649	0.29	669	0.29
Spain	5 949	0.43	4 264	0.29
Sweden	4 533	0.97	5 606	1.02
Switzerland	2 300	0.40	3 086	0.46
Great Britain	13 053	0.57	13 739	0.56
USA	30 353	0.21	30 745	0.20
Total	128 465	0.32	133 526	0.31

Source: [29]

According to the basic programs of development, assistance increased by 9% over the past year. The overwhelming share of growth of the IODA fell to reduce debt to foreign creditors. For this component, the support from abroad increased by 3 times. Another component – humanitarian assistance – increased by 15.8% and reached \$8.7 billion.

The IODA, which is provided by the EU as part of CAD, was increased by 28.5% (to \$55.7 billion). Most of it was aimed at reducing the debt of the recipient countries.

It was concluded a range of international agreements aimed at improving the efficiency of assistance over the last decade, with the active participation of the OECD.

Two momentous agreements – the Paris Declaration on Increasing Effectiveness of Foreign Assistance (2005) and the Accra Agenda for Action (2008) – were signed by more than 100 donors and recipients of the IODA. Five basic principles of international official development assistance are attached in these documents:

- the recipients must develop their own national development strategies;
- the donors should support national strategies, developed by the recipients of assistance;
- the donors should achieve the harmonization and co-ordination of their actions;
- the national development strategy should include clear objectives, and achievement of these objectives shall be monitored;
- the donors and recipients of assistance are jointly responsible for achieving of development goals.

In order to make the IODA to stimulate economic growth (not dependence on assistance), the recipient countries should act more actively by themselves – to engage in the mobilization of domestic resources, attract foreign investment and develop small and medium businesses. It is needed to continue the reforming of the system of international trade and finance, to seek new forms and instruments of financing international development. Private foundations and non-profit organizations as new members of the IODA make significant contributions to the development. According to the OECD, in 2010, these organizations have spent for development \$31 billion. [25].

## **10.5. International debts**

### **10.5.1. The causes of international debts**

The practice of international lending clearly shows how the actual development of international loan does not come to an agreement about the conditions of the normal work of loan system such as stability and timely payment of debts.

Weighty evidence of this fact – is the global debt crisis.

The main reason for the periodic reiteration of the international debt crisis is the presence of strong motivation to abandon the payments on the debt of sovereign debtors. If the debtor-governments conclude that fulfillment of all payment obligations does not provide more net inflow of funds in the future, there is an incentive to give up from part or all payments on the debt, in order to avoid the outflow of resources. The existence of such incentive to abandon the payments on the debt helps to explain the repeated refusal of payment of Latin American countries in the early XIX century, simultaneous mass refusal to pay during the financial crisis in 1929-1932, 1975-1986, 1997-1999, 2008-2009, when the amounts of debt service has grown to the size of the new capital inflows and many debtors demanded a review of the terms of payments.

The reason for termination of payments by sovereign debtors helps to explain some features of the behavior of international creditors. One of them is the persistence in establishing higher interest rate on loans to foreign governments compared to the private and public borrowers in their own country. Requirements of higher interest rates are the way of getting in its way premium in case of refusal to pay the debts: until there is no crisis, creditors receive this premium, but in case of crisis they have big losses.

What can solve the problem of failure of payment? We believe that this cannot be a traditional sequel, but it links receipts of new loans to the debtor with the implementation of requirement of “belt tightening” to gain the time of payments on debt. New loans must cover the amount of interest and main amount of debt at least. But even the new loans are so large, that their provision increases the total amount of debt, because the debtor may eventually refuse to pay independently of the term of new lending.

A reliable way to solve the problem of ownership of loans, given to sovereign debtors, is introduction of security or provision (any kind) that may become property of the creditor in the case of suspension of payments on the debt of the borrower. In the loan agreements within the country, legally executed security or provision play an important role in maintaining payments on the debt and at the same time to strengthen the debtor creditworthiness, allowing him to get loans at the lower interest rate and more convenient temporary scheme. In the past countries, which paid debts on time, were those whose creditors were able to seize the debtor's assets in case of non-observance of payment terms.

Despite the adoption of the above measures, the total world debt has increased by 2 times over the past 10 years, and in 2012 reached \$69.08 trillion. [42]. The external debt of some countries is illustrated in the Table 10.3.

The main part of the debt falls on developing countries. The problem of international debts of these countries is one of the central ones as in theory as well as in practice of international monetary and financial policies.

A significant increase of debts of developing countries began in the middle of 70s of XX century. Let us consider its causes.

On the one hand – the growth of loan capital, which seeks for profitable use,

began in connection with oil crisis in the late 1973. Developing countries have been involved in intensive process of international capital movement.

Table 10.3

**The external debt of some countries, billions of dollars**

Country	The amount of external debt		
	bill.\$	per capita, \$	in % to GDP
EU-27	16 080,00	27,864	85
USA	16 506,20	52,17	105
France	5 633,00	74,619	182
Germany	5 624,00	57,755	142
Japan	2 719,00	19,148	45
Italy	2 684,00	36,841	108
Netherlands	2 655,40	226,503	344
Spain	2 570,00	18,26	84
Ireland	2 352,00	26,82	108,2
Luxembourg	2 146,00	3,696,467	3,443
Belgium	1 399,00	113,603	266
Australia	1 376,00	52,596	95
Switzerland	1 346,00	154,063	229
Canada	1 181,00	29,625	64
Sweden	1 016,00	91,487	187
Great Britain	983,6	156,126	390
Hong-Kong	903,2	105,42	334
Austria	883,5	90,128	200
China	697,2	396	8, 7
Norway	644,5	131,22	141
Denmark	626,9	101,084	180
Greece	583,3	47,636	174
Portugal	548,8	47,835	223
Russia	501,3	3,634	23
Finland	370,8	68,96	155
South Korea	370,1	7,567	37
Brazil	310,8	1,608	15

Source: [15, p.150]

Necessity of implementation of the industrialization program, interest payments on previous loans, the use of new loans not for purposes of development, but to cover

the current deficit of balances of payments due to rising fuel prices, imposing them on different sides of the policy of militarization, activities of TNCs, urged developing countries to take loans and loans in growing amounts. The negative role was played by massive corruption of the officials, who made a profit out of agreements for getting loan.

On the other hand – in the same period, there have been some interrelated events that negatively affected on the economic and financial situation of developing countries, and led to the debt crisis; in 1982-1983 many economically backward countries appeared unable to make payments on their foreign debts.

The most important of these events – jump in prices for imported oil, reduction of demand for raw materials and agricultural products from the side of developed countries and, consequently, reduction in export revenues of developing countries, raising interest rates in the developed countries, the growth of the dollar rate, reduction of private loans.

Defaults of governments of developing countries were common in the 80-90's years (default – refusal of the debtor to fulfill his commitments on debt securities, unsecured<sup>2</sup> loans and loans). However, since 2000 the situation has changed. Considered fiscal policy, the rapid growth of the economy and currency reserves, high prices of raw materials have allowed developing countries to reduce the amount of borrowing.

As the World Bank notes, there is a tendency of reduction the external debt of developing countries. For instance, Thailand has reduced by half the indicator of foreign debts, which in swing of the Asian crisis was 75% of GDP. In 2006, Brazil, Mexico, Venezuela announced the redemption of bonds in sum \$15.5 billion, because of it there was saved enormous amount on interest payments. According to the Emerging Markets Trade Association (EMTA), the volume of debenture of developing countries was \$5,485 trillion in 2005 (18% more than in 2004) [15, p.152].

A new global financial crisis that started in 2008 immediately adversely affected the level of international debts. The losses of financial institutions in different countries were \$4 trillion. Some countries were on the brink of default. The main causes of the crisis were: the collapse of the real estate market, the rapid growth of nor returned loans, bankruptcy of loan funds, written off by world banks hundreds of billions dollars losses, stock market collapse, rising energy prices, accelerated growth of world inflation and slowing the growth of world economy.

Thus, the international debts problem is an acute problem of world economy. The economic situation of the country as a result of the globalization of financial markets is increasingly depend on external sources, needed to cover the budget deficit, domestic investment, socio-economic reforms in the use of debenture. Mobility and magnitude of capital flows depend on the level of development of countries. Financial resources, received by country under commercial conditions in the form of loans, lead to emergence of external debt, because they require appropriate payment.

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<sup>2</sup> Unsecured loans and borrowings are form of external government borrowings without bonds.

### 10.5.2. The concept of external debt and its restructuring

**External debt** is the amount of financial obligations of a country, owed to foreign creditors for unpaid foreign loans and interests.

Long-term debt obligations of a country consist of:

- the external public (official) debt, which is the amount of obligations of central and local state bodies to external creditors for unpaid loans and interest. External creditors can be foreign governments, central banks, governmental bodies, international and regional monetary and financial organizations;
- the state-guaranteed debt, i.e. an obligation of private firms, banks, companies, where the guarantor of payment is the country;
- private non-guaranteed debt, i.e. a debt of private borrowers that is not guaranteed by a country'. It occurs when a borrower receives bank and other loans by means of purchasing debt securities in the international stock market.

External debt service payments are usually made in a foreign currency.

For the analysis of external debt, country's ability to serve external debt the World Bank uses a number of relative indicators:

- the ratio of the total amount of external debt to exports of goods and services;
- the ratio of the total amount of external debt to GDP;
- the ratio of debt service payments to exports of goods and services;
- the ratio of interest payments to GDP;
- the ratio of international (official) reserves to the total amount of external debt;
- the ratio of international (official) reserves to imports of goods and services;
- the share of short-term debt in the total amount of external debt;
- the share of debt to international organizations in the total amount of external debt;
- the share of concessive debt in the total amount of external debt.

It is believed that the upper limit of the optimality of external debt should be:

- a) the ratio of the total amount of external debt to exports of goods and services at 200 - 250%;
- b) the ratio of payments on debt service to exports of goods and services is not more than 20 - 25%. (In calculating of these indicators we only take into account public and publicly guaranteed debt).

The return of loans by sovereign debtors is the most possible in terms of their capacity to pay debt. Therefore, the creditors are ready for debt restructuring.

**Debt restructuring** is a rescheduling of debt obligations, which have an expired payment term. International practice accepted the concordance of this process within the Paris Club of official creditors and London Club of private creditors.

**Paris Club** - an informal association of governments of creditor countries, which was established in 1956. It determines the conditions of government loans and

loans guaranteed by the state. The club operates in close cooperation with the IMF, World Bank, OECD, UNCTAD.

The work of the Paris Club follows three basic principles:

- the unmediated presence of the threat of non-receipt of payment;
- the conditioning of debt restructuring by obligations of the debtor to conduct certain economic policy;
- the uniform distribution of unpaid debts among creditors.

The first two principles - are conditions that debtor country has to pay before the revision of the old conditions of repayment will be considered by the Paris Club. The third principle is optional. It says that lenders must work together and coordinate their actions and claims to the debtor.

To create a more effective system of debt restructuring Paris Club has developed a classification of countries in terms of their income, according to which for each group of countries certain conditions for obtaining approval of a debt restructuring are applied. In relation to the poorest countries Toronto, London and Naples conditions are applied; to the poorest countries with an average income - Houston conditions; rich countries with average incomes use Standard conditions.

*Toronto terms* were adopted in 1988 and are applicable to countries, which income per capita does not exceed the specified level of the World Bank, which today is 540 dollars per year. Such countries can be:

- written off one third of debt with revision of interest rates on its servicing;
- given the opportunity to pay off the debt up to 25 years, 14 of which interest is charged at a preferential regime. In addition,
- interest accrual is made at twice lower rates than market ones.

*London terms* mean:

- 25% cancellation of debt with further restructuring of amount remaining for 23 years of a six-year grace period;
- the restructuring of debt at market interest rates for 25 years with 16 years grace period;
- the restructuring of obligations on servicing the loan, which was given as an official promotion of the development of the country for 30 years with 20 years grace period.

According to the *Naples terms* debt restructuring is carried out within 40 years and a grace period can be up to 16 or 20 years. In this case, the interest rate will not be reviewed.

*Houston terms* were adapted to the poor countries in 1990, where annual income per capita exceeds the maximum level set by the World Bank, which now stands at nearly 785 dollars per year. Under these conditions:

- the maturity of commercial loans is increased to 15 years with a grace period of 8 years;
- the official aid programs of maturity and grace period is 20 and 10 years, respectively.

The poorest countries are also applied *Lyon conditions* (since 1997), in which debt can be reduced to 80%.



The most common are the *Standard conditions* that allow restructuring of debt by 10% for 10 years with 5 years of grace period.

Among the innovations of the Paris Club - "NIRS Initiative", this involves deliberate efforts to reduce debt for the poorest of the developing countries, in terms of carrying out the reforms of the financial restructuring, which should be approved by the World Bank and the IMF.

**London club** – is the forum of revision the terms of repayment of loans granted by commercial banks without guarantees from the governments of creditor countries (since 1976). This is an informal organization comprising commercial banks, to which third world countries own debt. Usually, the London club does not review the size of the interest rates on loans. Typically, commercial banks provide debtor countries new loans as a measure to restructure.

The measures of debt restructuring include transfer payments, the reduction of the amount of debt or its full cancellation, the conversion of debt into national assets of a debtor-countries and recapitalization. The mechanism of recapitalization involves exchanging debts for obligations of debtors, or providing them with new target loans to pay off former debts. Recapitalization is the most popular measure for restructuring the debt to commercial bank creditors. This mechanism was adopted in 1989, and is called the Brady Plan. According to the plan, banks restructure some part of the debt of the developing country (usually it is a lower interest payment) only if its government implements a more radical program of macroeconomic and structural changes.

Every creditor bank has the right to choose the methods of restructuring that are foreseen in the contract. However, on the basis of existing practice, banks choose an Advisory Committee that represents the interests of all creditor banks and negotiates with the debtor government.

Analyzing the results of the multilateral programs of overcoming the International debt crisis of the developing countries, the World Bank came to the following conclusions:

1. A major role in the economic development of a country is not played by external financing (loans and assistance), but by internal resources and a balanced economic policy.

2. The focus on external capital leads in the long term to a greater dependence of the socio-economic development of the country on unfavorable external events. External financing can play a positive role only when it complements and reinforces a healthy domestic economic policy.

Debt restructuring requires an economic policy, endorsed by the IMF, from it debtor-country. However, the practice of implementation of the IMF recommendations, without taking into account a country specificity, in many cases leads to a deterioration of the economy, causes social conflicts, forcing to abandon some of the requirements of the IMF and thus makes the debt crisis difficult to overcome.

## **Chapter 11. International securities market**

### **11.1. International securities markets: the concept and tendencies of development**

The important segment of world financial market is an international securities market (ISM). Its role in recent years has increased considerably. With the rapid economic rise of many industrialized countries, traditional sources of funding are not fully meeting the needs of large corporations in the capital. Therefore, these companies are not limited by the services of the national banking system and, relying on a high credit rating, they attract cheap financial resources by issuing securities. Growing demand from issuers, increase of supply as a result of the integration of national markets, competition as a result of openness and globalization of the economy leads to a reduction of the role of the banking sector as a mechanism for the redistribution of financial resources at the national and international levels and to simultaneous strengthening of investing and lending activities in the international securities market.

The issue of securities gives the possibility: to raise a loan for a long period (for a few decades, bonds, for example), i.e. investment in the instruments of a loan; of unlimited use of financial resources (shares), i.e. investment in the instruments of property (title of ownership); to reduce a financial risk, i.e. investment in the instruments of trade in the financial risk (financial derivate).

The market of long-term securities is called a stock market. Together with the short-term debt instruments of the money market (bills of exchange, certificates), a stock market forms the securities market.

Thus, the international securities market unites the part of the global debt market (namely: the international debt securities market, which is mainly presented by the international bonds market), the international market of legal titles (property rights) and the international market of financial derivatives.

There are following instruments of the loan: bonds, bills of exchange, deposit certificates. The instruments of property include all types of shares and depositary receipts. There are also so-called hybrid instruments, securities, which have features of both bonds and shares (for example, preferential shares and convertible bonds) and derivative instruments - warrants, options, futures etc.

Market of loan instruments deals with a loan capital, and market of property instruments - with parts (by shares) of property within a corporate capital.

The stock market deals with long-term borrowing instruments and instruments of property derivatives.

At the international capital markets trading in securities denominated in foreign currencies is conducted.

The Bank for International Settlements distinguishes such types of security issues in the international market:

- the security issue by nonresidents in national or foreign currency in the internal financial market of the country;

- the security issue by residents in foreign currency;
- the security issue by residents in national currency, which are intended for a sale to foreign investors [16, p.175].

The international securities market is divided into two structural segments:

- the foreign securities market. It is a financial market of the states, in which the transactions with financial assets of nonresidents (foreign securities) are conducted;
- the securities Euromarket. It is a market, in which the securities expressed in Eurocurrencies are: produced, bought and sold.

The definition of europapers is given in the Council Directive 89/298/EEC of the European Commission, according to which europapers are being in circulation securities, which:

- 1) pass underwriting and are placed through mediation by a syndicate, at least two participants of which are incorporated in different countries;
- 2) are offered in considerable volumes in one or more countries, except the country of registration of the issuer;
- 3) can be initially purchased (including the subscription way) only through mediation by the credit organization or other financial institution.

The functioning of ISM requires certain preconditions: demand, supply, intermediaries, regulatory and self-regulatory system. The demand for securities is determined by the welfare of the nation. The higher is standard of living, the greater are the savings of the population and the possibility of purchasing securities. The supply depends on the demand. It is higher, if market mechanism of sources delivery of long-term loans and financing are more developed. For the development of the securities market specialists of investment business and the system of training such specialists are needed. Finally, intermediary organizations - broker and investment dealer firms, stock exchanges and regulators of investment business are required.

The securities market - a major source of investment resources for governments, corporations and banks.

#### **11.1.1. Investment capital, its suppliers and consumers**

The term "investment" has several meanings. The most common - is the definition of investment as use of money to generate income or to accumulate capital. All property and intellectual values that are contained in business and other activities to make a profit or achieve social impact are investments.

Even with this definition it is clear that this is not just about money, but about money, which is a form of monetary circulation of capital, i.e. investment capital. Investment capital can be personal (retained earnings, depreciation) and borrowed, the source of which is temporarily free someone else's money. But free money is not an investment. They are converted into investments in the hands of those, who spend them on purchase on elements of production that brings income, i.e. converts into real assets. Real assets - are economic resources of the company:

fixed and circulating capital, intangible assets (patents, licenses, know-how, trademarks, etc.) used for productive activities to generate income. Proper storage, moving into real assets is directly converted into investments. Someone else's free money (savings) is converted into investments via the capital market, especially through the stock market.

Investment objects can be real investment projects, real estate and various financial instruments. Financial instruments as investment objects - are different types of financial liabilities:

- deposits in the bank;
- securities (bonds, stocks, options, etc.).

Thus, the term "investment" is used to refer to:

a) the investment of funds, intellectual property into real assets, i.e. production;

b) the investment of funds into financial instruments, i.e. the purchase of securities.

In this chapter and the next, under the Investment will be understood investments in financial assets, not in production. In other words, we consider an investment like any financial tool, which can hold money, hoping to maintain or increase their value and provide a positive amount of income.

The main goals of investors are: the safety of investments; increase in current income; the accumulation of funds for large expenses; the accumulation of funds for retirement period; the growth of investments; the "concealment" of income from taxes; the liquidity of investments.

An investor in the purchase of securities thinks primarily about minimizing risk. Under the security of investments we can understand invulnerability of investment from market turmoil in capital investment, and the stability of income generation. Security is usually achieved at the expense of profitability and growth of investments. The government bond is considered to be the safest investment. The most risky are investments in shares of young high-tech company that may be most beneficial for yield and growth of investments. Maximizing income on investment is usually associated with a low level of security.

Some investors in selecting securities prefer their liquidity or market standards. Under the liquidity is understood the ability to quickly and break-evenly converting securities into cash for investors.

None of securities has qualities that would ensure the achievement of all these goals. The mechanism of the stock market works such way that when securities are really reliable, the yield will be low, as the increased demand for them will raise the price and bring down yields. The relationship between such qualities of securities as prospect of capital growth and profitability is similar.

Optimality of securities portfolio is achieved by diversification of investments when capital is distributed among a great number of different securities, and by regular review of the portfolio. It is used to limit investment in each type of securities in 5-10% of the total portfolio.

Stock market - a mechanism for agreements between those, who offer securities and those, who offer money. In the purchase and sale on the stock market seller is the one, who sells securities and the buyer - the owner of the money. Security is opposed to money as a special product, release of which in circulation is called emission.

Sellers of securities (they are consumers of investment capital) are called issuers and buyers of securities (they are the suppliers of investment capital and holders of securities) - investors. Issuer - is only the first seller of securities, which issues them for the money required for his work. He issues securities on his own behalf and is responsible for them. However, the issuer may sell securities not to the final holder of securities but to intermediary (dealer), which initially serves as a buyer, and then - as the seller of securities. Hence the term "issuer" and "seller" reflect only the primary securities market. In the secondary market, where they resell these concepts are not identical.

The only source of investment capital is savings. Savings arise, when income of enterprises, governments and individuals exceed their costs. The largest suppliers of investment capital are individual savers. Personal savings (in the form of bank deposits, certificates of pension funds, bonds, government loans, corporate securities, insurance policies, etc.) reach 20-30% of total savings.

Non-financial corporations are the main creators of the investment fund (about 60% in developed countries), but their savings mostly remain within the corporation, acquiring the form of retained earnings and depreciation. The financial needs of corporations tend to exceed their savings. That is why on the market of investment capital business sector acts as a net final borrower-consumer of investment capital. The public sector also generally acts as net borrower.

According to the constitution of many countries, local authorities can issue securities both for its own and for foreign investors. The cost of municipal securities is determined by the ability of local authorities to pay interest and observe the maturity of the debt.

Institutional providers of investment capital are commercial banks, trust companies, insurance and pension funds. Commercial banks conduct financial operations mostly on the money market, where they act as buyers and sellers of treasury notes and other government securities with maturities not exceeding three years. On the market of investment capital their role is not as significant. Banks may issue its shares. Trust companies carry out agent function on management and preservation of individual portfolios, transfer of shares. Trust can be the guardian of corporate bonds etc. The investment activities of insurance companies and pension funds lie in the long-term high-yield securities. Insurance business is a huge holder of institutional savings. Pension funds are also big buyers of high-yield corporate and government securities, as income of investments of pension funds are not taxed.

The foreign sector (foreign corporations, governments and individuals) can be net borrowers and a net savers to a particular country. If foreign sector has a

negative balance of capital flows with this state, it is a net creditor in relation to it, if the balance is positive - net debtor.

The central bank obtains the special place on the market. The central bank issues government bonds, pays interest from them and repay them. To control the government deposits, the central bank has a special account for the investment of surplus of government revenue in securities (usually the very same government).

One of the tasks of the central bank is a public debt management: defining the properties of bonds, the conditions of their release, locations, changing of debt composition. Public debt is the cumulative (for all years) state budget deficit. It consists of market bonds and non-market bonds.

*Market Bonds:*

- Treasury bills, which are sold by the Ministry of Finance of Central Bank for its application. Their maturity - up to one year;
- Treasury notes and Treasury bonds that have coupons, on which the percentage and date of payment are indicated. Maturity - from 2 to 30 years.

*Non-market bonds:*

- Savings bonds, etc., which are registered on the name of the holder and cannot be sold. Savings bonds can be sold at the nominal value at any time, which makes them highly liquid.

Periodically, the government issues bonds that are denominated in foreign currency for overseas placement. The main objective of such issues is to ensure exchange rate stability.

Managing the public debt, the central bank collects and processes the economic data, keeps track of changes in demand for the securities, the level of interest and liquidity on ISM. The central bank is concerned about the conditions of marketing and distribution bonds, coordinating their stock policy with monetary and fiscal.

### **11.1.2. Intermediaries on the securities market**

Purchases and sales of securities are carried out on ISM through intermediaries: investment dealers and brokers, investment fund, the depository (the institution that maintains securities and formalizes transfer of ownership rights to them), settlement and clearing institutions, registrars.

Broker carries out transactions with securities on the basis of the contract with the customer and at his expense. For the services broker receives a commission, and therefore broker activity belongs to the category of commission activities.

Dealer carries out transactions on his own behalf and at his own account for resale of securities to third parties or forming his own reserve of securities. Dealer activity belongs to the commercial activities.

In addition to these two types of services on ISM there exists depository activity:

- 1) storage and transfer of securities and the related inventories;

2) collection, collation, correction of documents and conduction of mutual settlements - clearing and settlement;

3) acting registrator - a legal entity which keeps the register of securities holders.

Intermediary operations of the issuance and circulation of securities may perform:

- banks;
- investment companies, which combine the functions of a financial intermediary and institutional investor;
- companies that specialize in working with securities and carry out intermediary activity of the issue and circulation of securities.

Organized and permanent securities market is a stock exchange - a voluntary association of securities market intermediaries.

### **11.1.3. Investment risk**

Securities market creates investment risk. Investment risk includes:

- the risk of losing the invested capital;
- the risk of losing possibility of obtaining of expected income.

The risk of loss of capital depends on market risk and business risk. Market risk is not directly connected with the commercial and manufacturing activities of the company. It may depend on the movement of interest rates, stock speculation, strike etc. Business risk is determined by the possibility and the ability of the company to maintain the level of income on invested capital, and for the joint stock company - on stocks. Business risk is indirectly affected by competitive situation on the international commodity, credit and currency markets.

*The risk of loss of expected income* depends on interest rate risk and the risk of changes in the purchasing power of money. For example, government bonds have a nominal value, expressed in money. The sudden rise in prices reduces the real value of bonds on interest value of depreciation. Yield of stock consists of dividends paid and changes in stock price. Dividends and capital gains, at sufficiently long period of time, are determined by the company's revenue, which in turn depends on technological, competitive, economic, and political factors. Exchange rate fluctuations also affect the yield of securities.

The possibility that securities will be both profitable and reliable is extremely small. High income is usually accompanied by high risk. An investor choosing an investment object, is guided by advantage, which it provides, or safety of capital, or obtaining a high return. Securities belong to risky, if the rate of return on invested capital strongly fluctuates. In fact as any investment in securities contain an element of risk.

Ratio of risk and profit by types of securities or types of deposits in the U.S. are listed in Table. 11.1 [16, p.182].

Table 11.1

**Risk characteristics of profit by types of securities or types of deposits in the U.S.**

Security or type of deposit	Income on investments	Risk of loss of invested capital		Risk of loss of expected income	
		Venture risk	Business risk	Interest rate risk	Risk of changes in the purchasing power of money
Speculative ordinary shares	15-20	B	B	H	H
Shares of increase	10-12	B	B	H	H
Shares with "blue roots"	8-10	C	C	H	H
Certificates of investment funds	8-10	C	C	H	H
Profitable shares	7-8	C – H	C -H	C	C
Convertible preferred shares	6-10	B – C	B - C	H	H
Convertible bonds	5-10	B –C	B –C	H	H
Bonds of enterprises	5-8	C – H	C-H	B-C	B
Municipal Bonds	4-5	H	H	B	C
Government Bonds	4-6	H	H	B	B
Account in saving or commercial bank	4-5	H	H	H	B
Account in Swiss Bank	0	H	H	H	B
Savings in safe or "stocking"	0	H	H	H	B

#### 11.1.4. Stages and development trends of world stock market

The development of world stock market passed 5 stages.

**The first stage** covers the period 1860 - 1914. National stock markets were rapidly developing during this stage, international movement of capital was expanding, and global capital market began to form.

The formation of world stock market at that time was influenced by the following factors:

- changes in the structure and composition of borrowers in the capital market. On the world market 60% of foreign debt accounted for government loans in 1870, and in 1914 - less than 30%. The role of private loans increases (increases emissions corporations stocks and bonds);
- the commercial nature of the majority of the debt;
- mostly long-term character of borrowings;



- the increase of interaction between participants of the stock market;
- the introduction of new means of communication and connection;
- the establishment of stock exchanges as a key element of the global capital markets.

**The second stage** covers the period 1920 - 1945. The decay of the world stock market and the disappearance of the conditions for its development in the pre-war period began during this stage

After the First World War the balance of power in the global capital markets changed. Western European countries turned from exporters into importers of capital.

The main creditor of the global capital markets is the USA. However, in the late 20's export of capital from the United States in connection with the economic rise has slowed down. In the U.S. stock market growth of stocks quotations (Dow Jones index) in 1924 - 1929 was 300%. U.S. banks lost interest in the Western European market. The flow of private capital was directed to the American market, which worsened the financial position (up to bankruptcy) of Western European banks involved in international transactions. As a result, U.S. banks faced serious financial difficulties because they got rid of stable sources of funds for repayment of earlier loans granted to Western European banks.

World economic crisis of 1929 - 1933 and the introduction of foreign exchange restrictions on current and capital operations in the beginning of The Second World War led to the disintegration of the world stock market.

**The third stage** covers the period 1945 -1972. The development of monetary and financial relations defined Bretton Woods's agreement in 1944.

International movement of capital in the early postwar years was carried out mostly by government channels and movement of private capital was under the strict state control. Due to stringent currency restrictions international activities of national capital markets was practically absent. Formation of world capital market has gone through the development euro-exchange market and Eurobond market.

World stock market at this stage was represented by two levels:

- at the top level bond market was functioning;
- at the bottom level closed, isolated national markets operated, in which securities transactions were strictly regulated by the national authorities.

However, the degree of "transparency" of the boundaries between the world and domestic stock markets gradually increased, indicating that the expression of the globalization of capital markets.

**The fourth stage** covers the period 1973 - 2000. During this period, a radical transformation of the national stock markets of developed countries happened: market of banking services was created, public debt market, market of corporate securities. In fact it was "financial revolution", part of which are:

- the deregulation of financial transactions in the country;
- the liberalization of national regimes of long-term movement of capital;
- the formation of an active market monetary policy.

The policy of deregulation and liberalization has created conditions for the integration of national stock markets, expansion of operations on them and transfusion of private capital between countries. Strong relationship between stock markets of leading countries was created.

The model of financial transactions changed: banks lost its role as the major financial intermediaries, giving way to the stock market.

*The fifth stage* began in 2001, and continues today. Stock market increasingly takes shape of two-tier system: a global level, represented by securities turnover of leading TNCs whose activity is global; and national, where securities of domestic companies are circulating and their turnover is provided by the infrastructure of local financial markets.

The current condition of the world stock market is characterized by quantitative assessment of its volume, dynamics and structure of different types of securities.

Total world stock market is about 70 trillion dollars. At the same time 42% are in equity market and 58% - in debt. Half of the total world market for the shares and bonds falls on the United States [15, p. 185]. Turnover in the stock market is 800 billion dollars a day, and in the bond market - 950 billion. The ratio between the amounts of equity and bond markets in general reflect the situation in the markets of developed countries due to their absolute dominance in the global stock market. For some states, these proportions can vary significantly. For example, in East Asia most of the market accounts for shares, and in Latin America - for debt securities.

The main trends of the modern world's stock markets are:

- *the growth of currency factor in the operations of global stock markets.* Unstable exchange rates significantly affect the movement of financial flows between the markets of developed countries;
- *securitization of financial transactions with a focus on the development of corporate financial instruments (primarily equities and their derivatives)*<sup>3</sup>;
- *the growth in interdependence of national stock markets.* This is primarily manifested in practically simultaneous increase or drop in securities on the domestic capital markets of different countries;
- *the growth of the amplitude of fluctuations in securities.* Synchronized fluctuations of quotations movement of securities in the domestic market creates the conditions for an increase in scale of fluctuations and duration of cycles of movement of rates;
- *the growing influence of capital markets on the economy.* High conjuncture on the stock markets of developed countries contributes to high economic activity in Western countries, in promoting scientific and technological progress, modernization, capital concentration. For example, in the U.S. 60% of

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<sup>3</sup>The volume of world stock market is calculated by a method which involves summing the debt on debt securities, excluding bills, and the market value of shares (in calculations involving securities that are traded on organized securities markets).

Securitization - the process of transformation of illiquid financial assets into capital market (long-term bonds, shares) that are suitable for sale.

the total annual investment in the economy accounts for companies that are connected with the latest technology;

- *change in market infrastructure.* The use of computer telecommunications technology intensifies competition of all infrastructure elements of stock market and its participants, forcing them to be improved technically, organizationally and technologically. First of all, changes organization of stock exchanges, they are expanding the range of financial services, form stock alliances and unions. Feature of the infrastructure the world stock market is equality of volume of transactions on the exchange and OTC stock market;

- *the unification of regulatory framework governing operations at the stock market.* The legal norms of regulating transactions in the stock market that are accepted almost simultaneously in the United States, Western Europe and Japan have similar content. These requirements relate to financial reporting corporations, insider trading, business analysis and consulting services, rating agencies, etc.;

- *The infrastructure development of cross-border transactions with financial instruments.* Thus, the foreign exchange market has a system of continuous calculations. It makes it possible to reduce the time from the date of the transaction until settlement from 2-3 days to several hours. The system is also used for the calculations on securities and money market instruments. Automotization system of processing of applications for purchase and sale of financial instruments market is introduced. In Western Europe, a unified platform for the clearing and settlement of securities is created. Through all this the cost of operations can significantly reduce and risks can be minimized due to the acceleration of payments.

The level of development and the role of the stock market differ countrywide. This is because the differences in the ownership structure of the stock capital and in the control system above companies. A stock market is more developed in the countries, where the "*outsider*" *model of the capital supervision* is implemented (in the USA, Great Britain and in other Anglo-Saxon countries). This model is characterized by following features:

- the capital of stock companies belongs to the large group of individual and institutional interest holders;

- there are effective defense mechanisms of investors' rights and the information disclosure system. If the management of company hurts the investors' rights or works ineffectively, interest holders will realize their securities, and because of large dispersed share ownership, a company can become the object of hostile takeover;

- certain isolation of the company's management from shareholders due to that a stock ownership is distributed between plenty of interest holders, who have some difficulties with the actions' coordination.

For the countries of Europe, Japan and developing countries, the "*insider*" *model of the capital supervision* is characteristic. This model is characterized by the following features:

- the share ownership is concentrated in large blocks;
- the crossholding of papers is widespread;
- a stock market is less developed in comparison with the "outsider" model. Its volume is less due to lower capitalization of companies and less of papers, circulating in the market;
- large shareholders have the possibility to work effectively with each other for the control implementation above the company's management;
- the interests of minority shareholders are protected worse;
- it is almost impossible to carry out the hostile takeover.

The outsider model is considered to be more modern and flexible and has better reaction to the changes of the market environment.

The basic function of the stock market consists in the redistribution of money facilities. In countries with the "insider" model, the role of the stock market in the redistribution of free money facilities is relatively below than with "outsider" one, as in these countries economic entities emphasize the bank crediting.

## 11.2. The classification of securities

A variety of securities makes it necessary to classify them according to certain criteria. The most detailed classification of securities is given by O. Mozgoviy in his book "The stock market of Ukraine" [9, p. 156]. The classification is based on such features as the economic nature of the securities, purpose, role, difference of issuers, type transfer of property rights, maturity and method payment of return, reliability and so on.

**Depending on economic nature** the securities are divided into equity securities, debt securities and derivatives. Equity securities fix relationship of co-ownership or equity participation in the authorized capital and the distribution of income (stocks). Debt securities mediate lending relationships (bonds, bills, savings and certificates of deposit). Derivatives certify the right to buy or sell securities (usually shares).

**Depending on the purpose** securities are divided into fund and commercial. Fund securities (stocks, bonds) are the tools of investment capital traded on the stock market, they usually are not limited in time or act more than one year. Commercial securities (bills, letters, etc.) are credit instruments that mediate trading operations and are circulating in the money market. These securities are mostly short-term and partially used for capital investment.

**Depending on issuers** securities are divided into issued by companies, public companies, government, government agencies, banks and local authorities.

**Depending on the type of transfer of property rights** securities are divided into registered securities, bearer and transferable. Transfer of rights by registered security requires identification (confirmation) of the owner. Transfer of rights by bearer securities does not require identification of the owner.

Transferable security (bill - draft) issued by the creditor (drawer) and is the order of the debtor (drawer) for payment at the appointed period specified amount

to a third party (payee) or to bearer. When sending a bill from one owner to another on its back side transfer inscription is made, which is called endorsement. Transferable bill enables the creditor to pay for his own debts.

**Depending on the role** securities are divided into basic (they record the basic property right or claim) and additional, which is a confirmation of additional rights, conditions, and requirements (for example, a coupon that indicates the right of the owner to the relevant interest or dividends).

**Depending on the possibility of purchase and sale** securities are divided into market that can be resold, and non-market, which can only be sold once.

**Depending on the type of income payment** securities are divided into: securities with fixed payments (bonds and preferred shares); securities with floating rates (bonds with floating interest, which depends on the discount bank rate); securities, the income of which directly depends on the size of net profit (ordinary shares).

**Depending on the territory of circulation** securities are divided into: regional (local government bonds); national (domestic securities stock market); international securities, which are free to rotate in other countries.

**Depending on the place of the office registration of the issuer** securities are divided into foreign and domestic securities. Among foreign securities there are securities of issuers that are not residents of the country, and whose production is registered in other countries.

**Depending on the degree of reliability** securities are divided into high qualified (with high probability of return of capital and income) and ordinary (with lower probability).

Also there are other groupings of securities

### **11.3. International market of property titles**

The international market of legal titles is divided into the equity market, which accounts for about 80% of all new international primary distribution of legal titles, and the market of depositary receipts, which account for about 20%.

Legal titles - the instruments, confirmative participating of the investor in the capital of the company

#### **11.3.1. International equity market: market of foreign equities and euroequities**

**Equity** (share) – a security without set term of circulation, indicating the introduction of some solders in the capital of the joint-stock company, allows the holder to purchase part of the profits in the form of dividends, to participate in the distribution of property in the process of liquidation of the joint-stock company.

Shares on the basis of personalization can be inscribed and bearer, and depending on the rights of owners – ordinary and preferential. The nominal value of shares is determined by the formation of the joint-stock company and is fixed at

its front side. Nominal value of the share is not a reflection of the real value of the assets of the corporation and usually is not indicated. Shares without nominal value are issued at a price that is attractive to investors.

Balancing value of shares is calculated as the portion of the division of net asset value of a joint stock company by the number of shares issued and distributed.

Rate (market) value of shares is determined by supply and demand correlation for them on the security market. This is the current value on the stock exchange or over the counter circulation.

**Ordinary shares** – shares, the income of which depends on the net income of the corporation and its dividend policy. The distribution of income between the owners of ordinary shares is made in proportion to the invested capital, depending on the number of purchased shares. However, not all net profit goes to pay dividends on ordinary shares. After paying preferential dividends, the part of net profit goes to finance future investments in most corporations. The risk of investing in ordinary equities is linked to the fact that dividends on the ordinary shares may decline and even not to be paid. Sometimes dividends are paid not in cash but in shares. If the corporation becomes bankrupt, the shareholders of ordinary shares may lose all their investment. When it is about the claim to the assets and profits of the corporation, the shareholders of ordinary equity will be on the last place – after banks, bondholders and preferred shares.

The source of the risk of ordinary shares may be the stock market or the firm, or both first and second.

The attractiveness of ordinary shares that they give the right to vote, a preferential right to purchase shares of new issues, the ability to increase capital (increase in due course of share price) due to the high liquidity, i.e. rather active trading of shares in any time.

Dependences on the degree of risk and yields of shares that are traded on the RSP, divided into shares: the "blue roots"; profitable; growth shares; cyclical; speculative.

**Shares of "blue chips"** – shares that are issued by powerful corporations (within the U.S.: IBM, Dow Chemical, General Motors, and others.), which in its history consistently paid dividends to their shareholders. These shares are safe and profitable.

**Profitable shares** – shares of the telephone corporations, water, gas and electricity corporations, as well as other companies with dividends exceeding the average level. Shares of corporations tend to grow with time.

**Growth shares** – are shares of corporations whose income is higher than average level, but dividends are not very high, because corporations finance the expansion of production, scientific and technical researches and so on. The future value of the shares of such corporations has a great probability to grow.

**Cyclical shares** – are shares whose price is rising and falling in sync with the ups and downs in the economy. Mostly, these are shares of corporations of

basic industries. Investors seeking to buy such shares during the recovery and to sell prior to the recession.

***Speculative shares*** – shares of corporation that cannot produce a course of 5-6 years. They are usually sold "off the counter" without going through the stock exchange, cost less than the shares of known corporations, but have a high degree of risk.

Along with ordinary shares, the corporation issues preferential ones in amount that does not exceed 10 percent of the authorized fund of the corporation. These shares give their owners a range of benefits (preferences), but do not give the right to vote, the right to participate in the management of the corporation (if other provisions not provided by the charter). Preferences include:

1) the right to receive a fixed income or as a percentage of the value of shares, or a sum of money paid regardless of the performance of corporations;

2) a preferential right to: a) the priority dividend; b) the priority participation (after satisfaction of creditors - banks of bond holders) in the distribution of assets of the corporation during liquidation; c) if the amount of the dividend paid on ordinary shares exceeds the amount of dividends on preferred shares, additional payment may be held to the holders of the latter.

There are the following types of preferential shares:

- cumulative, which have the right of accumulation of unpaid dividends accruing and paying them by missed period in the following one;
- non-cumulative, unpaid dividends which do not join the dividends of next years;
- convertible, which are exchanged for fixed number of ordinary shares or bonds of the corporation;
- non-convertible, which cannot change their status;
- share of participation, which entitles shareholders to get additional dividends over the prescribed, if dividends on ordinary shares are higher.

A variety of benefits make preferred stock attractive to investors. The issuer is interested in their production, as the latter does not result in dilution of capital and allows keeping a control shareholding. Holders of preferred shares occupy an intermediate position between the holders of bonds, who are corporate creditors and holders of ordinary shares, who are co-owners and have right to participate in the management of the corporation. Preference shares can be viewed as compensation for the lack of the vote.

Investment quality of preferred shares is determined by:

1) the degree of provision of payment of all preferential dividends by net income.

It is believed that the adequacy of the coverage of the annual excess of net income over preferential dividends shall be at least:

- for public companies in the utilities sector 2 times;
  - for industrial companies 3 times;
- 2) the continuity payment of preferential dividends;

3) the adequacy of preferential share provision by share capital of the company:

- the minimum share capital in calculation per preferential share in each of last five years should be 2 times more than the value of assets, which the shareholder will receive for each preferential share in the case of liquidation;
- the annual increase of share capital in calculation per preferential share should be relatively stable or have a tendency to increase in last five years;

4) the rating of preferential shares. It is defined by independent rating agencies of the securities in the following shades:

P<sub>+</sub> – “super”. Preferential shares directly protected by a third party (e.g. parent company) or provided by highly liquid securities (bank acceptances).

P<sub>1</sub> – higher quality. Excellent protection from the side of assets and greater ability to pay dividends.

P<sub>2</sub> – very good quality. Reliability of assets and income.

P<sub>3</sub> – good quality. Preferential shares well protected, but they can be exposed to downturns in quality as in times of economic hardship.

P<sub>4</sub> – moderate quality. Adequate protection, but there are factors that under adverse conditions can weaken the company's ability to timely payment of dividends.

P<sub>5</sub> – speculative. There is no assurance that the company will be able to protect preferential shares.

During the process of rankings of preferential shares, it is analyzed the company, industry, management, financial position and other parameters of its activities.

Some TNCs emit its shares for distribution in various countries. To get to the market of any country, they need to make their shares in exchange bulletin of the country. To do this:

- a) spend large sums of money by placing information in the bulletin;
- b) provide sufficient amount of information that must pass an independent audit verification and certification of authenticity;
- c) inform the foreign press, brokers and potential investors about the prospects of the corporation development.

International equity market depending on the level of economic development of the country is divided into mature markets and emerging markets.

**Mature markets** – equity markets of developed countries, which are characterized by a high proportion of organized trade through exchanges, high level of market capitalization, developed system of organizational and legal provision of shares trading. Mature equity markets are considered markets of U.S., Japan, EU countries, Canada, Australia and others.

Aggregate capitalization of mature markets is 93% of the total international equity market.

Under the *market capitalization* it is defined an index that reflects the market value of all companies involved in transactions on the stock market. The market



value of a company is calculated by multiplying the market value of its shares by the number of shares in circulation.

The following key indicators are used for the analysis of stock markets:

- the ratio of stock market capitalization to GDP;
- annual turnover of stock market as a percentage of capitalization;
- listed foreign shares on the markets of individual countries.

Index capitalization/GDP is very important because it largely reflects the level of stock market development in accordance with the classification of the International Finance Corporation and the International Monetary Fund. The world leaders in terms of capitalization / GDP in 2011 were Hong Kong (capitalization is 13 times higher than GDP), Switzerland (235%), Luxembourg (183%), Malaysia (172%), Chile (167.9%), Singapore (166.2%) [7, p.185].

**Emerging markets** – the equity markets in developing countries and transition countries, characterized by high growth, high-risk, low market capitalization and regulation mechanism that is being formed.

Among the emerging markets, there are three types of stock market:

- old, established long ago (Greece, Spain, Argentina, Brazil, India);
- emerging markets due to special specific situations (such as Hong Kong, Singapore – due to their role as regional financial centers);
- new markets, emerged on the basis of rapid economic growth (South Korea, Taiwan, Philippines, Indonesia) [9, p. 123].

The highest indicators of capitalization are observed in China, Taiwan, South Korea (Table 11.2).

Table 11.2

**Major emerging equity markets**

<b>Countries</b>	<b>The number of companies quoted</b>	<b>Monthly trading volume, mln dollars</b>	<b>Market capitalization, bill. dollars</b>
South Africa	472	6520	184,6
Brazil	399	3242	123,8
Mexico	166	1212	108,1
South Korea	1518	58721	248,5
Malaysia	865	1245	123,9
Taiwan	638	45179	251,5
China	1235	20692	463,1
Russia	196	2711	124,2

Source: [15, p. 85]

The active role played by institutional investors (90% of portfolio investments in these markets) in emerging markets. However, the share of emerging markets in these portfolios is 3-5 times lower than it needs to be according to the theory of international management portfolio of securities (in the optimal portfolio of the investor, individual countries should take a proportion occupied by the market capitalization of the country) .

In 2012 compared to 2011, emerging equity markets increased by 18%, the country with the largest global growth on the stock market was Venezuela, the main index of which increased by 342%.

An important indicator of the dynamics of emerging markets is a composite index of IFC that includes 1224 firms from 26 countries. It is used as an indicator to compare share rates of individual countries and consists of regional indexes of share rates [ 9, p. 131].

In recent years, in order to improve the activity of emerging equity markets, IFC applies a number of measures aimed at:

- the provision of full information on the status and tendencies of these markets development;
- the creation of investment funds that direct foreign capital to investment of emerging equity markets. Thus, it was the fund's emerging markets, regional funds, which aim to integrate these equity markets in the international equity market.

Some countries improve their legislation for effective regulation of the equity market and trade on them; contribute to the development of pension funds, mutual funds, stocks, providing institutional framework of the market; encourage foreign portfolio investment through the establishment of foreign investment funds and more.

International equity market structure has two segments: the market of foreign shares and the market of euroequities.

**Foreign shares** – shares issued by non-resident corporation on the stock market of another country.

There are traded on market of foreign shares: shares of non-resident companies that are issued or quoted on a national stock market of a country in its own currency; shares issued and received stock listed only in the country of its issue, but sold on the stock markets of several countries and shares that got cross-list<sup>4</sup> on stock exchange of different countries via relative price quotes and consequently traded on the stock exchange and OTC markets [15, p. 197].

The main advantages and disadvantages of foreign stocks listed in the Table. 11.3.

Table 11.3

**Advantages and disadvantages of foreign shares issue**

<b>Advantages</b>	<b>Disadvantages</b>
1. Eliminates the need to exchange currency for purchase / sale of shares and thus reduced currency risk.	1. The presence of a specific regulation to foreign shares in the country of issue.
2. Investors avoid certain taxes and restrictions.	2. Stringent requirements for foreign companies on the amount, frequency reflection and the quality of financial reporting.
3. Reduces the political, economic risk, liquidity risk.	

<sup>4</sup> Cross-listing - a quoted of shares on one or more stock exchanges, in addition to exchange of the country.

**Euroequities** - are shares that are placed simultaneously on several national stock markets by international syndicate of financial institutions that sells them for euro.

Euroequity market appeared in 1983. Euroequities are sold on the European market, traded in world financial centers (mainly in London) and the income, derived by them, is not a subject to any national taxation.

The mobilization of financial resources through euroequities is usually carried out by TNC of developed countries, whose share in total emissions is about 50%.

Euroequity market is characterized by increase in emissions, expansion of the composition and number of participants, but the scale is relatively small (4-7% of total emissions on the European securities market).

Issue of euroequities has positive impact on the company, which plans to export to foreign markets and the development of foreign production, as it is widely known abroad, which promotes its products on the market. Issue of euroequities often improves the credit reputation of the issuing company, making it easier for it to access other resources, and there is indirect advertising abroad.

However issue of euroequities can be risky because of the transfer possibility of a control shareholding of the company to the shareholders of another country.

International equity market takes a central place among other financial markets and its volume increases. Thus, the volume of shares trading in 2011 amounted to 8.755 billion euros (compared with 2010 increased by 32%), while the London Stock Exchange accounted for 31% of total trade, NYSE Euronext - 20%, the German Stock Exchange - 16% , the Spanish stock exchanges - 13% of the Swiss Stock Exchange - 8% [34].

The regional structure of the equity market is as follows: the U.S. accounts for 45%, Europe - 28%, Japan - 10%, China 4% - and other countries - 13% [25].

The large number of listed issuers has increased over the past 15 years from 18 to 21 thousand.

The main factors of internationalization of the equity market:

- the internationalization of corporate ownership;
- the expansion by non-resident companies their shareholding by registering their shares on foreign markets. It is connected with the fact that the registration of the shares on the foreign market is generally preceded the issue of shares on the market in order to obtain additional capital. Non-residents using the liquidity of foreign markets and thereby increase the funds available for investment and reduce the cost of capital for the firm. Placement of shares on the foreign market facilitates the acquisition of foreign companies in the future;
- non-resident companies can use foreign shares to pay for labor of local managers, employees, possession helps to create a positive image of the company in the eyes of the consumers and suppliers of investment capital;

- reduce financial risk by diversifying their portfolio of shares in different countries.

### **11.3.2. International market of depositary receipts**

Depositary receipts – derivative securities (in the form of certificate) issued by the National Bank of global significance, confirmative its right to a stockholding of foreign companies and being in its trust management.

The main purpose of issuing any securities of companies is the attraction of additional capital for development. This is not always possible to achieve with the resources of the internal market. The issue of depositary receipts allows obtaining considerably greater results and has a number of advantages:

- the group expansion of the potentially informed investors due to the infrastructure development of foreign markets;
- the improvement of the image and rise of trust to the issuer, increase of the number of persons who have positive information about the issuer;
- the company's fame, its image abroad and reputation of active participant of world financial market allows to negotiate effectively with other companies on financial issues;
- issuer can avoid in some countries the active constraints on the export of securities abroad, as well as to sell securities to foreign investors when their sale is prohibited or limited or regulated superfluously hardly;
- issuer has the right not to follow the legal requirements of the country, in which the produced through depositary receipts equities are circulated;
- possibility to avoid the problem of reverse capital inflows, which appears for immediate release of foreign equities;
- investors are easy to diversify the portfolio of securities;
- investment in depositary receipts has low transaction costs.

Thus, the experts of The Bank of New York, analysis of spending of investor who buys ADRs in the first year is 2 times lower than in the case of purchase of relevant shares on the foreign stock exchange. And then the level of costs connected with owning ADRs dose not change, while the costs of the shares that were purchased directly increase each year. This situation is due to the fact that in the second case, the investor pays high bank fees, besides conversion of currency influences on significant cost on the acquisition of shares;

- dividends paid by depositary receipts, are more than those, which are paid on equities. So according to the calculations of Morgan Stanley, the average rate of dividend on shares of American companies is 1.7%, while in Europe - 2.9, UK - 3.3, the leading Asian countries, except Japan - 3.6% [13, p.144];
- the liquidity of depositary receipts as compared to equities is on the whole much higher.

The main depositary receipts are American depositary receipts (ADR), European depositary receipts (EDR), Global depositary receipts (GDR) International Depositary Receipts (IDR).

*American depositary receipts* – are the circulating securities issued by U.S. banks, which have bought large amount of foreign equity, depositing them on trust accounts. Then they sell their shares in property in a trust, which are called ADR, to the investors. The number of issued ADRs can equal the number of the issued equities or be less, and then every ADR is equivalent to one or a few equities of foreign capital. When a foreign company pays a dividend, a bank converts it in dollars at the current rate of exchange and distributes the received funds among the holders of ADRs proportionally to the amount of receipts per each of them.

ADRs are in free circulation on the U.S. stock market. This is the most common form of depositary receipts, as the U.S. stock market has large and a large number of potential investors. Normally, when entering international capital markets, companies are starting to produce ADR.

First ADRs were released in the USA in 1927 on the company's shares Selfridges, which owned chain of department stores in the UK. ADRs are registered in the U.S. Securities and Exchange Commission (SEC). The greatest popularity this type of investment instruments achieved in the last 5 years. Nowadays, in the United States are in circulation around 1900 ADR issues, with more than 450 of which are traded on three exchanges, while the rest is sold on the OTC market. Leading depositary banks are The Bank of New York, JP Morgan Chase, Citigroup and Deutsche Bank. Issuance of ADRs also involved Chase Mellon Bank, Mitsubishi Trust & Banking and other financial institutions.

The mechanism of release of ADR involves buying broker on behalf of potential investors through a local broker shares on the stock exchange of the country. Shares received into charge to the depositary bank, which then issues dollar certificates of the established number of shares.

Exchange and OTC markets of ADRs are functioning.

The cost of ADRs is closely related to the value of foreign shares represented by them.

Price of DRs is determined by the value of the basic assets, converted into dollars at the current exchange rate and adjusted based on the ratio of receipts and shares, and transaction costs that are related to ADRs.

$$\text{The ADR price} = \frac{\text{Price of the foreign equity in dollars}}{\text{equity in dollars}} \times \frac{\text{The number of equities included into ADR}}{\text{included into ADR}} + \frac{\text{Transaction cost related to the ADRs sale}}{\text{related to the ADRs sale}}$$

Banks collect a fixed fee by issuance and maintenance of outstanding ADRs.

Generally, large companies issue ADRs in order to mobilize capital, the distribution range of investors or the acquisition of foreign company. Depending on the purpose of company or investors, the ADR programs are divided into sponsored, non-sponsored and private accommodation.

Now the most popular sponsored ADRs that are imposed by issuers of shares. They are issued on the basis of an agreement between the issuer and the depositary bank. Foreign firms that emitted the securities and wants them to be sold on the U.S. market, pays all the costs of creating and registering sponsored

ADRs. The bank that issued these ADRs will provide investors who purchased them, services with information on the status of the company, the financial statements of the company. There are three levels of sponsored programs. For the ADR program of the first, simplified registration procedure in SEC is used. The main problem solved by issue of ADRs of this level – spread the circle of shareholders. Depositary receipts are traded on the OTC market. For today, the ADR of first level – the fastest growing segment of depositary receipts.

The same requirements of SEC are imposed on ADR programs of II and III levels due to registration and disclosure as to American corporations. Programs of the II level include providing level II ADR listing in major American stock exchanges: NYSE, Nasdaq, AMEX. ADRs and II levels produced in securities that are traded in the secondary market. Thus these two levels of ADRs are issued on the basis of existing shares in companies and of themselves do not allow issuers of shares to raise funds. For companies on the basis of which shares are issued ADRs and II levels, so access to the world's largest American stock market is profitable, especially given the opportunity to expand the range of its shareholders outside the domestic market and improve its image as issuer among the international public investors.

ADRs of III level issued shares at their original location. They make it possible to attract additional investment as providing additional issue of shares under this program. That is why the ADRs of III level causes issuers the high interest. However, this issue requires from the issuer higher level of “transparency”.

Non-sponsored ADR programs are programs that are created and offered to investors without the formal consent and participation of the share issuer. A foreign company does not pay depositary costs incurred by investor and has fierce obligations with respect to time and the provision of information to investors. Several depositary banks can implement the launch of these programs. These ADRs are traded exclusively on the OTC market. Now non-sponsored programs are not used.

In the case of private placement of ADR to the programs of depositary receipts resnet are minimum requirements and registration with the SEC is not required. These ADRs are placed among a limited circle of investors. Vouchers are purchased by individual large “qualified” institutional investors or by non-American investors.

The volume of agreements with U.S. and global depositary receipts, according to Bank of New York Mellon, one of the world's major depositories in 2011 amounted 3.8 trillion dollars, in 2012 – 2.79 trillion dollars. In 2012, companies around the world have registered 213 new programs of depositary receipts.

Among institutional investors, major holders of ADRs are mutual and pension funds, some of which are prohibited from buying shares of foreign company's directions. Thus, since 2469 institutional investors who manage funds

of \$ 9.525 trillion dollars and have assets in foreign securities, 1839 (74%) invest in ADRs and 630 (26%) invest in equities areas of foreign companies (Table 11.4).

Table 11.4

**Leading institutional investors in the ADRs**

Investors	Investments in ADRs (billion dollars).	Total investments in shares (billion dollars).	ADR share in total investment in equities (%)
Fidelity Management & Research	25,5	540,2	4,71
Brandes Investment Partners, LLC	20,1	40,2	49,88
Capital Research & Management Company	17,7	351,4	5,03
Wellington Management Company, LLP	13,4	236,2	5,66
Morgan Stanley Investment Management Inc. [US]	10,2	109,4	9,31
Dodge & Cox	10,0	70,7	14,14
Lazard Asset Management, LLC	6,8	22,6	30,06
Alliance Capital Management LP	6,0	214,6	2,77
Fisher Investments, Inc.	5,5	18,4	29,95
Smith Barney Asset Management	5,4	133,4	4,06

Source: [13, s.147]

*European Depositary Receipts* issued by European banks as evidence of ownership of shares of companies located in countries outside the EU. They have free circulation in the European stock market, which is regulated, as a rule, by the law of Great Britain, and sold on the Paris Stock Exchange.

*Global depositary receipts* are offered and placed as on the U.S. stock market as well as on the stock markets of other countries. Their circulation is regulated by the United States. Typically, the EDR and GDR are denominated in U.S. dollars, but may be issued in any currency.

*International Depositary Receipts* introduce deposited non-American foreign shares. They are issued by American Bank – depository in non-American currency outside the United States and intended for sale in Europe and other markets.

#### 11.4. International bond market

State and municipal authorities released into circulation bonds on the security market to mobilize financial resources of corporations. **Bond** – a debt investment security that certifies the deposit of cash resources by its holder and confirming an obligation to recover him in the foreseen terms the nominal value with payment of the fixed percent from the nominal value of the bond. A bondholder (an investor) is not the joint owner of equity capital, he is a creditor and has a right to receive the hard profit and returning in the term of the nominal value of the bond or other property equivalent.

The attractiveness of bonds to investors is that they have a higher degree of reliability compared to shares, although the profitability – lower (in developed countries within 6-12%). The most reliable are considered state bonds and municipal bonds, which are guaranteed by the government and provided with the property. The disadvantage of bonds is that the fixed coupon rate is the periodic interest payments at regular intervals without inflation. To increase the attractiveness of bonds to investors bonds are issued with a floating interest rate, which varies with the change of return and interest on loans, bonds indexed percentage of the price level for goods. Some bonds give the right to part of the assets of the corporation in case of liquidation.

Types of bonds are different, they are distinguished by:

- 1) the degree of reliability, backed by a pledge of property or other assets not backed by collateral;
- 2) term loans – short-term (3 years), medium (3 to 7 years), long-term (7 to 30 years), undated;
- 3) the frequency of accrual of income.
- 4) the mode of circulation – free circulation and limited circulation;
- 5) the principle of redemption – serial bonds that are repaid sequentially by series at regular intervals, and ordinary bonds, which are issued at the same time;
- 6) the nature of taxation – the usual tax, reduced taxes, which are not subject to taxation;
- 7) the mechanism for interest rates payment – nominal bonds, interest payments on which are directed to owners whose names are listed in bonds and bearer (not registered), to which are added coupons to receive interest on each payment date, etc.

Exchange bonds on the security market depends on supply and demand for them, which, in turn, is determined by income, which give bonds, the level of interest on loans, the degree of profitability of alternative investment funds. If there are several corporate bonds on the security market, the nominal of which is the same, then in case of other things being equal, the greater demand will be for those bonds that have a higher interest rate. Demand depends on the bond rating, which is determined by special agencies by analyzing the financial condition of the company and its ability to fulfill the obligation. The market price of each bond at a given time may be higher or lower than the nominal value, increase or decrease.



International bond market is a source of medium-and long-term capital in the international financial environment.

International bonds are divided into foreign and eurobonds.

#### 11.4.1. Foreign bonds market

**Foreign bonds** – are securities issued by non-residents on the national bond market and denominated in the national currency of this market. For example, the French corporation that sells its bonds in Japan, issued in yen, is considered as a distributor of foreign bonds. Local investors, interested in buying bonds in local currency, are major buyers of foreign bonds.

Thus, the main distinguishing features of the foreign bond issue are:

- 1) the issue of bonds emitted by non-resident (foreign) borrower;
- 2) the currency of bond issue is foreign for issuer;
- 3) the placement of bonds is carried out at a given national market and guaranteed by a bank syndicate.

Foreign bonds are issued to individual national capital markets because the interest rates on their outputs are defined at the level of the rates of the relevant markets. There is a rule according to which the interest rates on bonds in strong currency are lower and unstable currencies – higher. Interest rates on the bond markets of the world financial centers established by local supply and demand.

Foreign bonds depending on the country of issue have special names: “yankee bonds” – in the U.S., “samurai bonds”, “shybosay bonds”, “daymio bonds”, “shahun bonds” – in Japan, “bulldog bonds” – in the UK, “chocolate bonds” – in Switzerland, “the matador bonds” – Spain, “kangaroo bonds” – Australia, “rembrandt bonds” – in the Netherlands.

“Yankee” and “Samurai” – the most common foreign bonds. The structure of bond markets by type of issuers listed in Table 11.5.

Table 11.5

**The structure of foreign bonds “Yankee” and “Samurai”  
by type of issuer, %**

Issuers	Market "Yankee bonds"	Market "Samurai bonds"
1. Corporation	49,0	13,0
2. International Agency	3,0	8,0
3. Province or state	9,0	9,0
4. The state enterprises or state authorities	3,0	22,0
5. Enterprises of utilities sector	10,0	3,0
6. Banks	22,0	9,0
7. Sovereign borrowers	5,0	36,0

Source: [12, p. 149]

The main investors of the foreign bonds market are those that seek to minimize the risk of investment. These are savings banks, insurance companies and pension funds.

Not all borrowers have market access for foreign bonds and it is much more difficult compared to the Eurobond market. There are government restrictions, regarding the timing and amounts eligible for foreigners and directions for their use. The resulting capital may be limited to local use only with the help of foreign exchange controls. Only international investors with high credit ratings receive access to these markets. Developing countries have limited access. This selection of investors leads to the fact that borrowers with low credit ratings are disappearing from the foreign bonds markets.

Issues of foreign bonds are realized through underwriting (guaranteed placement). Borrower with the Governor of the Bank plans to issue bonds on the most favorable terms: maturity, coupon, the possibility of early redemption, and the premium provided early withdrawal repayment terms.

Foreign bonds with long maturities – 20-30 years. Interest coupons on bonds correspond to the level of interest rates markets, where they are produced, and are dependent on the creditworthiness of the borrower. Typically, public borrowers have the highest rating “AAA” and corporate borrowers vary depending on the creditworthiness of their financial status and regional risk.

After agreeing on the terms of the bond issue created a group that provides underwriting. This group includes investment domestic banks, the banks of the borrower and other countries where there may be potential investors. These banks should have sufficient own resources and underwriting experience and be capable of placing bonds to local investors and among investors of the borrower.

Governor of the Bank and a group of underwriting get profits as the difference between income from the sale of bonds and the amounts, paid by the issuer. And managing the bank receives  $\frac{1}{4}$  of the profits for the preparation and organizational work group underwriting –  $\frac{1}{4}$  of insurance risks that arise when buying and storing bonds for resale. The remaining income goes to pay commission fees for selling to the bond sellers [9, p. 189-196].

#### **11.4.2. Eurobonds market**

***Eurobonds*** are long-term debt securities that are placed at the same time in several markets by transnational syndicates and the currency of their issue is foreign for investors, who buy them.

The emergence of Eurobonds is connected with the globalization of the world economy and demand of transnational corporations for new financing sources for its operations. The restrictions on placing foreign bonds in the domestic market were an impetus for the development of the Eurobond market. It was introduced by the U.S. administration in 1963 and the Vietnam War, which caused restrictions on the export of capital from the country. For further development of the Eurobond market in the USA influenced the introduction of direct

administrative limits on investing outside the U.S. and the imposition of euro, as it reduced the exchange rate risk for investors. The development of the Eurobond market was accompanied by the creation of adequate infrastructure of payments and document processing. All payments were made via New York that required physical movement of certificates, which were often lost during shipping. Bank "Morgan Guarantee" established a depository and clearing center for trading Eurobonds for solving these problems in 1968 the U.S. – "Euroclear" in Luxembourg in 1970 – the similar center "Cedel" which was later renamed as "Clearstream". Due to these systems, the effectiveness of settlement of transactions has increased significantly.

Depository clearing centers are controlled by a large number of banks, securities-companies and their annual turnover is estimated in the tens of trillions of dollars. In 2002 "Euroclear" merged with some European depositories, and "Cedel" – with depository clearing system of the German Stock Exchange (in 1999). Thus a common mechanism of payment was created.

Eurobonds have a number of valuable features.

1. They give a right to choose the currency of expression. The exchange factor plays an important role in the Eurobond issue. But not any currency is suitable for expression of Eurobonds. Currency should have free circulation, and payments must be expressed in this currency without any risk. Too stable currencies are undesirable from the standpoint of the borrower, and stable – from the point of view of the lender. When choosing between two variants of Eurobond expression there is a compromise between interest rate and currency stability. In some cases, Eurobonds are issued in multiple currencies, allowing the lender to demand payment in one of several currencies, which reduces the risk, connected with exchange rates, and expanding the range of investors. However, both interests and principal sum of Eurobonds are paid in U.S. dollars in most cases.

2. Bonds have a high degree of exchange rate flexibility both as the composition of exchange expression and as weight of Eurobonds denominated in a particular currency in their total mass.

3. Eurobonds provide greater capital mobility on an international scale as they attract a greater number of borrowers and investors than other international financial instruments.

4. Eurobonds provide investors with greater portfolio diversification and higher income than investments in domestic bonds.

5. There is a close link between international Eurocurrency market and the Eurobond market. For example, Eurobonds dealers can get loans to finance their operations in Eurocurrencies.

6. Income, received on Eurobonds, is not taxed. Eurobonds are especially attractive to investors, who pay relatively high taxes on their declared income and less – for investors, whose activity is not taxed (insurance companies, pension funds).

Eurobond market has no particular geographical location, although new issues usually take place in London, Luxembourg. Eurobond market is

multicurrency and largely anonymous, as Eurobonds are issued "to bearer", this is convenient for many investors (providing anonymity). The period of cancellation of Eurobonds is shorter (5, 10, 15 years) than period of foreign bonds. Interest rates on Eurobonds tend to be determined by the rates of the same currency on the domestic capital market, but are often lower due to the higher efficiency of the Eurobond market. Eurobonds are issued with fixed and floating interest rate. The total loan sum is from 50 to 100 thousand U.S. dollar. Quotation is fulfilled in the world's financial centers.

The main figure in the Eurobond market, as in every security market, is issuer. The structure of this market, according to the categories of issuers is following: corporations – 56%, banks – 25, sovereign borrowers – 7, supranational institutions – 7, others – 5% [15, p. 152].

The major part of the Eurobonds is bought by individual investors. The benefits that they receive are tax anonymity and the possibility to get speculative profits in the form of cash by increasing the value of the bonds.

The volume and number of Eurobonds issues were increasing at the average 20% and 14% each year since 1990, respectively. The volume of Eurobonds was 3.91 trillion dollars in 2009. This is due to the increasing demand for funds by multinational companies, governments, international organizations, the emergence of new sources of funds that are looking for their areas of off-load; the advantages of the Eurobond market compared to foreign bond markets and a high degree of market flexibility, which provides the possibility of issue of new types of securities, the choice of bonds currency. However, due to the deterioration of conditions of Eurobond placing, the volume of their production declined and accounted 3.2 in 2010, and in 2012 – 3.17 trillion dollars. The issuance of securities was mostly reduced by U.S. and European corporations. Eurobond market is growing in developing countries.

The structure of Eurobond emissions according to the period of cancellation is following: from 1 to 3 years – 16.79%, from 4 to 9 years – 49.33, from 10 to 29 years – 29.75, more than 29 years – 2.32, perpetual bonds – 1.81%.

The first place in the currency structure of Eurobond emissions is occupied by U.S. dollar – 37%, euro – 35, pound sterling – 11, Japanese yen – 13% [13, p. 152].

The underwriting of Eurobonds is executed by an international syndicate, in which banks from different countries participate. The advantage of such bond placement is risk sharing and efficient implementation of issue.

Eurobond placement in comparison with international bonds is considered to be riskier activity. In foreign bond underwriting the main risk is the raise of interest rates in the local capital market. The Eurobond market is characterized by higher risks and costs of organizing the sale of bonds. They are compensated by doubled higher gross profit of underwriters. In the Eurobond market investors buy securities in those currencies that provide the greatest profit. Changes in exchange rates are a source of risk when making underwriting.

The development of the Eurobond market caused such types of eurobonds: the bonds with warrants, which give the right to buy shares of the same corporation, Eurobonds with fixed and floating rate, bonds with zero coupon, global bonds.

**Global bonds** – medium- and long-term debt securities that are issued simultaneously in major financial markets of the world. They are mostly denominated in U.S. dollars and registered in the SEC; are included in the listing of several stock exchanges in different countries; are applied by various forms of national regulation, as are located in different countries. Global bonds issue is made by highly reliable borrowers with a credit rating of AAA, because of that, they have the highest quality and the lowest interest rates. The period of their circulation is 1-40 years.

The International Bank for Reconstruction and Development (IBRD) plays the leading role in the global bond issue, made the first issue of global Eurobonds in yen in 1992.

International bond market is characterized by the data, given in the Tables 11.6 and 11.7 [9, p. 294].

Table 11.6

**The volume of international bond market in the 1993-2011 (trillion dollars).**

Types of bonds	1993	1999	2003	2004	2010	2011
Corporate bonds	11,7	20,5	30,8	31,5	60,8	68,3
Public bonds	10,5	14,5	20,5	21,2	32,4	34,3
Total	22,2	35,0	51,3	52,7	93,2	102,6

Table 11.7

**The regional structure of the international bond market**

Countries	Corporate bonds, trillion U.S. dollars	Public bonds, trillion U.S. dollars	Market size	
			trillion U.S. dollars	%
USA	36	12	48	20,1
Eurozone	29	21	50	21,0
United Kingdom	30	7	37	15,4
Eastern Europe	3	20	23	9,6
Japan	12	35	47	19,7
China	5	6	11	4,6
India	1	22	23	9,6
Total	116	123	239	100

The general structure of the international market by almost 80% is formed by the markets of USA, Europe, UK and Japan.

Due to the globalization process, the growth of government and corporate obligations, securities market becomes more transparent and more liquid.

The bond market is developing dynamically and over the past 10 years has increased by 2.5 times.

In contrast with stock market bond market is rather stable, especially in developed countries. The change of the value of fictitious capital, represented by bonds, depends on the current changes in interest rates, which vary in minor quantities. Fluctuations in the prices of bonds in developed markets are 4-10 times lower than in equity markets.

The globalization of bond market is evidenced by the fact that foreign investors own 25% of short-term bonds and about 44% of government bonds. For example, the People's Bank of China has invested in U.S. public bonds over 262 billion U.S. dollars. [15, p. 211].

“Credit Suisse *First Boston*” identifies the following trends in the international bond market:

- *the further globalization of international bond markets.* The placing of international bonds is increasingly taking more international character. Bonds are distributed among a large number of international investors, in contrast to well-established practice of redemption of such issues mostly by local institutional investors;

- *changes in the traditional structure of European bond markets as a result of the introduction of the euro, and the rapid growth of the volumes of bond issue denominated in this currency;*

- *the increase in the diversification of loan portfolios of international institutional investors.* Investors are actively reviewing their investment portfolios, directing a higher percentage of funds managed to investment in riskier bonds, which respectively have a higher income level;

- *the constant search for ways to improve liquidity of Eurobond markets.* Grows the popularity among large investors (so-called jumbo) of Eurobonds issues accounting 1 billion. U.S. dollars and more. A wide range of investors participating in the placing of these issues, provides a sufficient number of buyers and sellers of such bonds;

- *the development of pfundbrief market.* Pfundbrief - are bonds that are issued by banks secured by a pool of private mortgages. They account about 18% of the total bond issue denominated in euro;

- *the growth of the European bond market with a high income.* In the early 21<sup>st</sup> century in this segment of Eurobond market were attracted funds totaling 16.6 billion U.S. dollars, and the total volume of high-yielding international bonds issue with European element reached \$40 billion. [15, p. 211].

## **11.5. The international market of financial derivatives**

Over the last three decades many new financial instruments, which are called derivative securities or derivatives, appeared in the financial market. Financial derivatives are defined as financial risk trading instruments; their prices are tied to a financial or real asset. Derivative is a standard document which

certifies the right and (or) the obligation to buy or sell an underlying asset on certain terms in the future.

If classical securities are intended for attraction of long-term capital, than derivatives are a mean of hedging, i.e. insurance against price risks. Derivatives take the first place among different instruments of risk management in financial markets.

The terms of derivatives are determined by agreement of parties.

Contracts must include the following requisite elements:

- the name of the contract;
- the parties of the contract;
- the underlying asset<sup>5</sup> of the contract and its characteristics (issuer, type of security, its face value, period of circulation, and other information for the securities; the currency – for funds, portfolio – for other products);
- exercise price;
- the quantity of the underlying asset, the value of the contract, the procedure of payment for the underlying asset sold (in forward contracts);
- the type of contract (with or without delivery of the underlying asset); the amount of the contract; the amount of the initial margin; the unit of price measure (in futures contracts);
- the type of option (with or without delivery of the underlying asset), the option type (option to purchase, option to sell); the procedure of payment for the underlying asset acquired, the rate of option (for options);
- the term of contract;
- contractors' liabilities;
- the procedure of adjudication;
- addresses, signature and bank account requisite elements.

According to the classification of the Bank for International Settlements there are four types of underlying assets, for each of them can be tied a derivative:

- commodities (derivative price is tied to the price of a particular good or to the movement of the index for a group of products);
- shares (derivative price is tied to the price of a particular share or to the movement of the price index on a group of shares);
- foreign currency (derivative price is tied to the exchange rate of one or several currencies);
- interest rate (derivative price is tied to a fixed, floating, combined interest rate).

The main derivatives are options and futures on commodities, securities, currencies, interest rates and stock indices, swaps on interest rates and currency and forward contracts.

When buying and selling derivatives, counterparties exchange not assets but risks which arise from these assets.

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<sup>5</sup> Underlying asset – commodities, securities, funds and their characteristics which are the subject of discharge of obligations on derivatives.

Derivative price is determined by the movement in prices on commodities, financial instruments, indices or differences between the two prices.

Derivative contracts are closed by cash payment. In so doing the change of ownership or delivery of goods are not provided.

The objectives of the derivative are:

- fixing the future price for any asset today, which is achieved by concluding a forward or futures contract;
- cash flows or assets exchange (swaps);
- purchasing the right but not the obligation to carry out the transaction (option contract).

There are two main types of contracts by way of a financial arrangement in the international derivatives trading: forward contract and option contract.

**Forward contract** – a bilateral agreement of the standard (default) form, which certifies individual's obligation to buy (sell) an underlying asset at the appointed time on certain terms in the future with the fixation of prices of the sale during the conclusion of a forward contract.

The following types of forwards are distinguished:

- commodity forward – a forward contract for delivery of goods;
- stock forward – a contract for delivery of a stock or of a set of stocks in future by the price fixed today;
- forward interest agreement – a contract, according to which the interest rate, which will be paid or received in the future, is determined during signing of the contract;
- direct forward – a contract for exchange of two currencies at an agreed today exchange rate for more than two working days after its signing.

To forward contracts refer futures and swaps.

**Futures** – are the same forwards, but they are traded in standardized form on the exchanges. Futures contract – a standard document which certifies the obligation to buy (sell) an underlying asset at the appointed time and on certain terms in the future, with price fixing at the time of liabilities conclusion by contracting parties.

The subject of futures transactions are underlying assets, but a futures contract may be sold, regardless of whether there are indeed the listed assets at the time of the transaction. It is sufficient to be stated an interest rate, exchange rate, index of prices and so on.

The meaning of a futures contract is that it is a fixed-term agreement (within three months): there is a gap in time between the conclusion of the agreement and its implementation. Borrowers tend to insure themselves against the interest raise and to make the price of received loans stable, but lenders – against unexpected decrease in the interest of loans that they provide during the conclusion of a futures contract. Therefore, the borrowers conclude futures contracts for selling and lenders – for buying futures. Moreover, each hopes to make a profit on the price difference due to their fluctuations.



The attractiveness of a futures contract lies in the fact that when in the common agreement of sale the income of one party is caused by the loss of another, the results of the implementation of a futures contract may vary in futures agreement.

The increase of current price in relation to the contract will cause:

- in case of complete liquidity of object of the agreement to obviously missed income of the seller and the obvious income-making of the buyer;
- in the case of low liquidity of object of the agreement to the probable loss of revenue of the seller and the probable real income of the buyer.

The reducing of current price will cause:

- in case of complete liquidity – to obviously averted loss of the seller and obvious real loss of the buyer;
- in the case of low liquidity – to probability of loss prevention of the seller and buyer's probability of real loss.

The buyer is dominated by the desire to win on price volatility, the seller – to protect him from the effects of these fluctuations.

Swaps – are forward contracts within the framework of which the parties agree to exchange assets on the basis of agreed rules.

There are the following types of swaps:

- commodity swaps – the exchange of two payments for one product, one of which is paid for its current spot price, and the second – the agreed price for this product in the future. A contract to exchange is formed by the price change of one commodity or index of commodity prices on the other;
- currency swaps – contracts that provide the exchange of two currencies, excepting interest payments today and their inverse exchange on a certain date in the future at the exchange rate, agreed today;
- stock swaps – the contracts for the exchange of income on stocks or stock index as a result from the application of fixed and floating interest rates;
- interest rate swaps – a contract according to which the parties exchange payments which follow from their differences in the case of fixed and floating interest rates;

**Option** – the standard document which certifies the right (but not an obligation) to buy (sell) the underlying asset on certain terms in the future with price, fixing at the time of signing the contract or at the time of the acquisition according to the decision of the contractors.

The peculiarity of the option is that the owner gets the right but not the obligation to buy or sell an underlying asset. Option buyer may renounce his right to buy the underlying asset but the seller, getting a fee (premium), may not renounce the obligation to sell them, if the option buyer requires the discharge of obligations. Option buyer can sell it to any third party, after that the option seller has to fulfill the contract terms in relation to its new owner. Option becomes a negotiable security.

There are the following types of options:

- commodity option – a contract that gives the buyer the right but does not impose the obligation to buy or sell a certain quantity of goods at the agreed price before a certain date;
- stock option – a contract for delivery or obtaining a certain stock or set of stocks on a certain date in the future on the terms of the option;
- currency option – a contract that gives on the terms of option the right to buy or sell a currency at an agreed exchange rate over time;
- interest rate option – a contract for the delivery or obtaining an interest income on certain agreed sum in the future on the terms of the option.

The objective of the option purchase and sale can be either speculation on the exchange rate differences or hedging, decrease of risk associated with falling of prices for securities.

The positions of the buyer of the option "call" (which expects the increase of stock price) and the seller (which expects the depreciation of stock price) can be the following (assuming the contract price per share – \$100, and premium – \$10):

a) if the current market price is lower than the contract price (for example, \$85.), the buyer refuses to purchase shares so far as he could buy shares in the market for \$85, together with the premium will be paid \$95 instead of \$100, i.e. he gains a profit of \$5. The seller in this situation will make a profit (premium) \$10. This profit will be stable as long as the current price is below \$100;

b) if the current price is equal to the contract price plus a premium (\$110), the buyer of the option "call" will cover the cost of premiums, but will not receive a profit. Result of the operation for him is that he avoided the risk, associated with the fall in stock prices;

c) in the range of price from \$100 to \$110 the result of the seller, as the price increases, will gradually deteriorate, but the result of the buyer – will improve. If the current price exceeds the limit of \$110, the loss of a seller in the form of missed profit will increase.

The positions of the seller of the option "put" (which expects an improvement in exchange) and the buyer of "put" (which expects the depreciation) can be the following:

a) if the current market price is equal or above the contract price, than revenue of the seller is stable and the maximum possible (premium of \$10);

b) income of the seller of option "put" is reduced in proportion to the reduction of losses of the buyer in the range from \$90 to \$100;

c) less than \$90 occurs an increase in size of missed income in proportion to the increase of real income of the buyer.

Thus, the changes of profits and losses occur at increase of stock prices at options "call", and at options in "put" – at decreasing of the share price.

Both parties take a risk in option transaction, but the option buyer's risk is somewhat less than the seller's, because he has the right to choose: the buyer buys or does not buy the stocks and his loss will be expressed only in the amount of award. The loss of the seller has the character of missed income (profit) as having

sold their stocks under option contract, he loses the opportunity to gain jobber's turn by selling these stocks on the spot market at a higher price.

The members of option transactions reduce the risk through various hedging techniques, for example by straddle (*opération de stelage* – French). The essence of the straddle is simultaneous purchasing of call option and "put" option on the same stock at one and the same price and the same expiration dates of contracts. There is one of the two options executed, depending on the level of stock prices.

The international market of derivatives is characterized by the growth of volume of transactions with derivative instruments. It has increased by 125% for the last 5 years. This is due to the high volatility in quotations and increasing risk of loss in conditions of declining rates. Recently the market of derivatives has been filled up with new members. Management companies and corporations participate in operations in addition to the institutional investors. The ability of insurance and minimization of the risk of loss via impairment of financial assets in the market of derivatives helps to avoid further impairment and significant reduction in operations with the stock markets. The turnover of derivative market is in 8 times higher than world GDP. According to the Bank for International Settlements, the total volume of international derivatives market is about 300 trillion dollars. [15, p.158].

International trade in derivatives is conducted on exchanges (15% of world trade in derivatives) and over the counter (85%). This led to the division of these financial instruments on derivatives, that are sold on exchanges (interest and currency futures and options, futures and options on stock indexes) and derivatives, that are sold outside the stock exchange (currency and interest instruments).

Almost the whole exchange trading in derivatives has focused on trading in interest futures and options (91%). The trading in futures and options on stock indexes (7.4 %) occupies the second place, currency futures and options – is on the third (1.6%). The volume of futures trading amounted to 11.2 billion of contracts in 2012, options trading – to 11.1 billion of contracts.

The volume of trade in derivatives exchange is growing both in the global market in general and in particular regions. For example there were 8.9 billion contracts in Asia Pacific, in 2012, 7.2 billion – in North America, 4.42 billion – in Europe, 1.53 billion – in Latin America.

Exchange trading in derivatives concentrated in several leading countries: UK, USA and Germany. Stock market provides, unlike over the counter (OTC), greater standardization of trade, the greater coordination of settlement mechanisms that reduce the degree of financial risk, developed interexchange system of electronic communication.

The growth of derivatives trading is mainly due to the OTC market, which is in 7 times higher than exchange market. The main part of the contracts, which are concluded in the OTC market, accounts for currency and interest derivatives. The role of commodity derivatives and derivatives on stocks is negligible in the stock market. Currency derivatives trading in OTC play more significant role, than in the stock exchange market (which accounts for 16.5%). In the OTC occurs mainly

trading in interest and currency swaps and short-term contracts dominate (80% of contracts are concluded for a period up to 1 year).

The advantages of the OTC market, compared with the exchange market, are the flexibility of contract system, the rapid introduction of new financial instruments, the coordinated system of bilateral bank settlement.

New instruments of risk management appeared in recent years. Among them the most rapidly credit derivatives develop. Credit derivatives – structured financial instruments that separate the credit risk from the asset for its further transfer to another party. The participants of the market of credit derivatives have the ability to reallocate the credit risk, not formalizing the transfer of property rights for the underlying asset. The market of credit derivatives is presented by the world's leading financial centers, where are carried out the operations of buying and selling of protection against credit risk. Thus, for 43% of trade in these derivatives is accounted in New York, in London – 29%, Asia – 21% and in other financial centers of Europe – 7%. The largest participants in this market are the leading investment banks: Chase Manhattan, Deutsche Bank, J.P. Morgan, CSFP, Goldman Sachs, Nomura.

Futures contracts are developing, where the underlying assets are macroeconomic indicators, such as GDP, inflation.

Characteristic features of the international derivatives market are:

- the unit weight of derivatives, that are sold on an exchange is reducing;
- by the volume of trade currency and interest derivatives completely dominate over commodity derivatives and derivatives on shares;
- more than half of derivatives trading is international;
- nearly a half of derivative contracts are placed in dollars.

## **11.6. Primary and secondary securities market**

The securities market is a mechanism that facilitates the signing of contracts between buyers and sellers of securities. The securities market is divided into primary and secondary markets.

### **11.6.1. The essence of the primary securities market**

Primary securities market is a market of the first and repeat issues of securities, on which their initial placement among investors occurs. The issue of securities is legislatively established operating procedure of the issuer for the issuance and placement of securities. Securities (stocks, bonds) are placed through their sale by issuer to the primary owners through signing of an agreement. The decision to issue is made by the founders of the stock-company with its approval at a general shareholders' meeting.

The primary issue of securities is realized with the help of mechanism of underwriting. Underwriting is the buying or guarantee to buy securities at their

initial offering for sale to the public. Underwriter is an investment institution (or a group of institutions) that maintains and guarantees to the issuer the initial placement in the stock market on agreed terms for a fee. Underwriter purchases securities for resale to private investors. Underwriting services are provided by investment and commercial banks, brokerage firms, investment and financial companies. Functions of underwriter:

- preparation of the issue, its estimation, evaluation of securities that are issued, establishing of links between issuers and key investors, members of the syndicate of the distribution of securities;
- distribution: the redemption of part or the entire amount of emissions, direct distribution (selling directly to investors), sales through the issuing syndicate, risk guarantee, the support of security rate in the secondary market during the initial offering;
- post-market support: the support of security rate in the secondary market;
- the analytical and research support: control of the security rate dynamics factors affecting it.

Within the framework of the initial issue securities are divided into "seasoned" and "unseasoned". Issue of "seasoned" securities means the additional placement of existing securities. "Unseasoned" are new securities or a primary offering of securities.

During securities offering investors have a problem of defining in which stocks or bonds to invest their money, and the issuer's problem is to convince potential investors in the attractiveness of investment namely in his securities.

These problems may be solved due to the information about investment mediums, which would allow estimating the possible profitability and the risk of investment in the company.

It is considered that data for making decisions about investing and reporting on the conditions of investment gives analysis of firm balance, income statement, statement of cash flows and data on share capital. Generalized picture of the corporate activity is received due to analysis of relative indexes that characterize separate reported data and connect them with one another, allowing identifying the strengths and weaknesses of the company. Thus, when comparing the performance of separate firms of "medium" level can be identified companies with a high degree of risk. When comparing the data of the same company at different time periods we can justify about the deterioration or improvement of the company state (in detail see §16.1.2.). The most popular indicator of financial condition for investor is index of return on equity (ROE – Return on equity), which is calculated as the ratio of net income to stock capital:

$$ROE = \frac{\text{Net income}}{\text{Stock capital}} \quad (11.1)$$

ROE can be represented as the product of three coefficients, which give an idea of three factors:

- The favorableness of market to the company's production;
- The efficiency of the company's assets;
- The participation of own capital in the operation of the company assets<sup>6</sup>.

$$ROE = \frac{\text{Net income}}{\text{Sales volume}} \times \frac{\text{Sales volume}}{\text{Value of assets}} \times \frac{\text{Value of assets}}{\text{Stock capital}} \quad (11.2)$$

*The first multiplier* – profit margin – shows the amount of profit in one dollar of sales. When choosing an object of investing is important that this ratio would have no tendency to decrease.

*The second multiplier* – asset turnover ratio – shows how many dollars of sales generates one dollar of assets. It indicates the efficiency of assets use.

The product of the first two ratios characterizes the return on assets (ROA – return on assets).

$$ROA = \frac{\text{Net income}}{\text{Sales volume}} \times \frac{\text{Sales volume}}{\text{Value of assets}} \quad (11.3)$$

*The third multiplier* is called the leverage. This indicator shows the ratio of own and borrowed funds. The more is loan capital (i.e. debt), the more profit fall on one dollar of equity, but the less is invested capital of the owner protected by assets. If the greater degree assets are financed for account of equity capital, then, other conditions being equal, more stable is financial position of the company, but lower rate of return on equity. So investors face a dilemma: either to have less debt, i.e. a lower investment risk, or to get more income and higher risk.

The analysis of the financial condition of the company is a necessary stage of financial investment, especially in the primary market. However, it must be borne in mind that the stock market is living according its own laws, and state of a corporation on the stock market is a consequence of the interaction of set of factors that go beyond the internal state of company affairs.

### 11.6.2. The characteristics of the secondary securities market

Secondary market is a market in which occurs the purchase and sale of securities, launched in circulation earlier. Buyers sign agreements not with the issuer, but with the new owners of the securities in the secondary market. The underwriters play the role of brokers, i.e. bring together buyers and sellers, and the role of principals, i.e. buy and sell securities in order to stabilize prices in the secondary market. The secondary market is the fundamental market, since on it occurs: a) trade in securities, issued into circulation earlier, and b) the determination of securities rate, i.e. the definition of the market price, which reflects all available information about a particular security.

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<sup>6</sup> Such decomposition is called DuPont control system, since this index was first applied by managers of "DuPont".

The feature of the secondary market is the high level of liquidity, i.e. the possibility of rapid sale of securities. The more is the number of participants of securities buying and selling, the higher is market liquidity.

The secondary market consists of:

- organized stock market, which is represented by the stock exchange;
- OTC market.

**Stock exchange**, as an organized and regular functioning securities market, is the central market of shares of the largest monopolies. Totally there are about 200 stock exchanges in over 60 countries in the world. The largest of them are: stock exchanges of New York, Tokyo, London, Mid-West (USA) and others. 31 stock exchanges are part of the World Federation of Exchanges (WFE), located in Paris.

Most important exchange procedure is listing – a selection procedure of clients and securities for the next admission to exchange trading. Strict rules of entering companies in a stock exchange list are applied to improve the efficiency of listing. Although listing requires additional costs and is connected with the control over the activity of the company-issuer, it increases the rating of the issuer, provides high liquidity of the securities, the relative stability of prices. The stock exchange is responsible only for the operations with the securities which have gone through listing.

Quotations of securities are made on the stock exchange. The term "quotation" is usually used to describe an action or mechanism of fixing the securities price, also it means the possibility of circulation of securities (when securities are traded on the stock exchange, it is said that they are "quoted"). Although the quotation is made on the stock exchange, but the exchange rate is used also on the OTC market. Quotation of securities occurs: 1) according the method of registration, which includes analysis of data of agreements registered in the stock exchange and 2) according the method of establishing a single rate of securities of any kind. This rate is set on the basis of information about the number of securities which are being sold by the seller, and the number of securities which the buyer wants to purchase [9, p. 118].

The main criteria by which American exchanges are guided, when deciding on the admission of company shares to listing are:

- 1) the degree of national interest in this company;
- 2) the place of the company in the industry and its stability;
- 3) the belonging of the company to growing industry and prospects that would allow maintaining its position.

The index of capitalization of domestic companies, whose securities are listed on a stock exchange, usually is used for the purpose of comparison of stock exchanges with each other in size.

Another indicator of the exchanges size is the number of listed companies and trade turnover. For the leading trading platforms the turnover per day accounts for tens of billions of dollars.

The requirements for foreign firms, wishing to include their shares in the listing are much stricter than for national. Thus, in the New York Stock Exchange the requirement for inclusion in the listing is the actual net value of fixed assets in the amount of not less than \$18 million, for a foreign company – \$100 million.

In functioning of stock exchanges occurred significant changes that have completely changed the accounting of exchanges for last 10 years:

- the transition to electronic trading system;
- the intensification of globalization on stock markets. Separate stock exchanges begin to transit to the technology of leading organizers of trade; that created conditions for their merging. The integration of stock exchanges promotes the formation of investment space that functions according unified rules;
- the joining of classic stock and derivative exchanges;
- the transformation of stock exchanges in public stock-companies, i.e. business-organizations;
- the withdrawal of exchanges due to increased competition from national borders and offering their services in foreign market. They provide access to their trading platforms for foreign bidders, carry out listing and are conducting trade on foreign securities;
- merging of depository institutions.

**OTC market** is a part of the stock market, which is outside the field of activity of the stock exchanges. In it takes place the circulation of securities not registered on a stock exchange. The operations of buying and selling of securities are made by phone, by passing the trading floor of the exchange. Prices are set by negotiation between buyers and sellers. When there appears a set of applications, the auction is held.

The share of OTC stock market is not the same in different countries: in Japan it is 1%, in the USA – 25, Czech Republic – 60, Slovakia – 80, Russia – 90, in Ukraine – 98% [14, p. 301].

The advantages of the OTC market include the fact that:

- it increases the volume of investment because it brings the stock market nearer to the retail investor;
- it finds promptly the most profitable objects of capital investment and sources of finance;
- it promotes the development of the stock market at the regional level, the development of services for market participants;
- it creates prerequisites for the development of stock market infrastructure.

An important aspect in the development of the OTC securities market was the use by large banks of own electronic brokerage systems. They are notable for low cost of service, the ability to trade in the hours, when traditional exchanges are closed, the anonymity of quotations and a wide range of instruments traded. Instinet (electronic share trading system) refers to such systems, it operates globally, electronic communications networks, such as Island and others are



included in electronic brokerage systems. There are about 20 such systems in the U.S.

OTC market is heterogeneous due to the different degree of organization. Thus, the organized participants of OTC transactions are those, who are the members of either self-regulating organizations. So-called "street" market are distinguished within the informal OTC market, "third" and "fourth" markets. But the experience of developed countries shows that the OTC market can be organized.

"Street" market is an unorganized market, where random transactions of buying and selling of securities and mainly shares of privatized enterprises dominate.

"Third market" is a market where OTC trading on securities, which are registered in the stock exchange through middlemen, takes place. This market has emerged due to the fact that it was not profitable for institutional investors to trade in the stock market because of the:

- 1) quite large commission charges, the minimum rate of which is fixed. Therefore, the commission charges often exceeded marginal costs for large-scale commercial operations, while brokerage firms that are not members of the stock exchange, did not set limits on commission charges;

- 2) fixed time of tendering, while in the OTC market operations continue even when they are stopped on the stock exchange.

"Fourth" market is a market, where agreements of purchase and sale of any securities and even entire portfolios by institutional investors are concluded directly, avoiding stock exchanges and brokers through the computer system.

Investors conclude agreements of purchase and sale of securities in the secondary market mainly for two reasons. The first – an assumption that the current market price of buying or sale is overstated or understated and investor wants to play on a possible price difference. An investor, who believes that he has the information that is unknown in the market, is called oriented to information. The second reason – the desire of the investor to sell a certain number of shares to get money for his needs or invest in securities temporary surplus funds. Investor, driven by such motives, is called oriented to liquidity. Concluding an agreement, he does not foresee that other market participants can incorrectly estimate the prospects of this security. In this situation, the dealer can take an active or passive position. Passively set dealer will wait until the prices are not determined by the market. Actively set dealer will try to get as much information as possible and to determine developments in the market, having changed prices for purchase and sale in advance, thus supporting the balance in the flow of orders.

The prices on the stock market can not only establish a balance, but also be a source of information. However, the information about buying or selling of a large set of securities can be interpreted differently if the motives of a seller or buyer are unknown. An investor, who focuses on liquidity, should inform his intentions in order to avoid adverse effect, which can influence on demand or supply for price at which he intends to make a deal. An institutional investor, who buys a set of

securities, should announce that he does not believe, that the price of these securities is undervalued. The firm, which wants to buy or sell a large set of securities at a price which does not meet the current value in its estimation, must hide its motive. The result depends on the way, how the will get it.

Share prices, which are quoted on the market, usually vary wavelike, as cycles: after the rise comes a fall, then rise again, etc. The market is called "bull" market in the recovery phase, in the phase of falling of share prices – "bear" market.

#### **A. The principles of forming of a share portfolio of an investor**

The investor must follow a number of principles that generalize the practice of operating of securities market when he forms the portfolio of shares in consideration of the cycle phase and the forecasts of trends in the equity market (Dow Jones indexes or other) [15, p. 229].

**The first principle of the buyer.** Stocks, the exchange rate for which exceeded the overall (average) rate reduction on the previous cycle of "bear" market, are the most prospective in the sense of the following significant growth in the wave of "bull" market. There are two reasons for these conclusions.

Firstly, stocks with large rate depreciation in the "bear" market are more "flying" than the total mass, which determines the average indexes.

Secondly, pessimism of "bear" market is usually exaggerated for many of these stocks. If the stock price fell by 85%, 90% or even 95%, it could also mean that corporate profits have fallen, dividends reduce, the company's prospects are sad and bankruptcy is "near at hand". 90-95% of rate reduction usually signals about serious problems, but it may also simply indicate that investors "panic" and that the real and future situation of the company at the end of the cycle of "bear" market is not much worse than at the beginning of it.

If this is true, then the prices of such shares will go up with a rate that exceeds the average level in case of the recovery in the market.

Thus, **Principle 1:** if there are forecasts about the beginning of the "bull" market is better to buy stocks of corporations, the rate of which decreased more significantly than the average rate during the "bear" market.

**The second principle of the buyer** is based on the fact that the share price of corporations, in which the value of market capitalization is low, increases during the "bull" market more (in percentage terms) than the average rate of all the shares listed, much more than the share price of corporations with significant volume of market capitalization.

For example, let us imagine a corporation A, which has issued 1 million shares and their current market rate is \$10 per unit. Then the value of market capitalization is \$10 million (1 million shares  $\times$  \$10). Suppose that in the first stage of "bull" market the level of capitalization will increase by \$5 million, and in the second – \$5 million more, i.e. was for this corporation \$15 million and \$20 million. As additional issue was not carried out, it means that the stock price

increased in the first case by 50% per unit to \$15, and in the second – by 100% (compared to the last market price in "bear" market) to \$ 20 per unit.

Now let us consider a corporation B, which has issued 5 million shares, which, as in the first case, in the end of "bear" market, are sold for \$10 per unit. Then the level of market capitalization is \$50 million (5 million shares  $\times$  \$10). If in the beginning of the "bull" market this rate doubles to \$5 million, that is \$55 million and \$60 million, in the absence of the new issue market price of shares of the corporation will increase only by 10% in the first stage (from \$10 per unit to \$11) and by 20% - in the second stage (from \$10 per unit to \$12).

From the comparison of these examples is clear, that the rise in the cost of equity capital in "bull" market for one and the same amount (\$10 million) in the first case (with corporation A) resulted in a doubling of the price per share of \$10 to \$20, and the second (with corporation B) – resulted in increase of rate only by 20% from \$10 to \$12. This is explained by the fact that, other things being equal, the capitalization rate of corporation B (\$5 million) was 5 times higher than the same rate of corporation A (\$1 million).

Thus, **Principle 2:** if is predicted the beginning of "bull" market is recommended to buy stocks of corporations with the lowest indicators of market capitalization.

**The third principle of the buyer** proceeds from comparing the quantity of value according the balance and its market estimation, which is determined by a buyer of market capitalization. If the market capitalization rate is higher than the value according the balance, then the state of corporation is overestimated by the market, otherwise – underestimated. However, the special importance in our analysis has the comparison of the ratio of net liquid assets of the corporation<sup>7</sup> to the number of issued shares with their market rate. And when the market price of shares of any corporation is lower than the mentioned ratio (coefficient), than these shares are most advisable to buy the day before the beginning of the next cycle of "bull" market. Why? The answer is simple: consumer demand has significantly underestimated these shares. As a corporation, which has enough liquid assets to cover its debts, is in excellent financial condition. So it is possible to predict with a high degree of probability that when a wave of "bull" market begins, the stock price of these corporations will grow at a pace that exceeds the average level.

From here **Principle 3** proceeds: if there are forecasts of beginning of the "bull" market is recommended to buy stocks of those corporations, the current rate of which is lower than the value of net liquid assets, which refer to the share.

## **B. Principles that define the behavioral strategy of the investor in the case of sale of his shares**

Similarly as at buying of shares, each investor should have a strategy of behavior in case of the sale of his shares.

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<sup>7</sup> Recall that the value of net liquid assets of the corporation is determined from free financial balance as the difference between the amount of liquid assets and liabilities. Further differentiation is appropriate only when for the corporation this indicator is positive, because it can be negative.

**The first principle of the seller** is based on the analysis of price-earnings ratio (P/E Ratio), which characterizes the proportion between the current stock price and the value of the corporation's net income, which refers to one share<sup>8</sup>. For example, if the selling price of the stock at the moment – \$40, and net income of the corporation for the last financial year is \$8 per share, then the price-earnings ratio is equal to 5 ( $\$40/\$8$ ). If the stock price is \$16 and net income per share is the same as the above (\$8), this ratio will be 2 ( $\$16/\$8$ ). Naturally, each share has this coefficient, excepting those corporations which have no profit.

Price-earnings ratio is an indicator of how much compared to the average level will fall the share price at the beginning of the cycle of "bear" market. Thus, other conditions being equal, the shares for which this ratio is higher, will "loose" more in price than those in which it is lower. The reason is that during the overall fall in exchange first of all "suffer" shares of those corporations, rate of which does not correspond to their real financial condition. And, as shows the foreign statistics, stock prices of corporations with high level of this ratio in the "bear" market decline in percentage terms more than average indicators in general (for example, Dow Jones index).

Thus, **Principle 1:** if there is foreseen the beginning of "bear" market, is recommended to sell (or sell for a period) shares with the highest values of the price-earnings ratio.

**The second principle of the seller** is based on analysis of the coefficient of dividend return on stocks (Stock Yield), which establishes a relationship between the amount of the dividend and share price. For example, if the stock price of corporation A is \$60, and the dividend for the year has been charged to this share in amount of \$3, then the Stock Yield ratio is 5% ( $\$3/\$60$ ). If at the same level of the dividend the share price of corporation B is \$30, then this ratio is equal to 10% ( $\$3/\$30$ ).

Ratio of dividend return is the second indicator of what is the expected trend of drop in rate of stocks of separate corporations in conditions of "bear" market. Typically, the rate of shares, for which this coefficient is higher, decreases in percentage terms less than the rate of those shares, for which it is lower. Here is observed the principle of investment profitability: the demand always will be greater for those stocks that with the same income, which brought them per unit, cost for investor cheaper.

Thus, **principle 2:** if the beginning of "bear" market is forecasted, is recommended to sell (or sell for a period) shares of those corporations that have the least values of the coefficient of dividend return on stocks.

**The third principle of the seller** is the opposite to the first principle of the buyer. Clearly, that the stock prices of different corporations with different paces will rise in the wave of "bull" market. Ones of them will double or triple the value, while others will grow by only a few percent. Moreover, at first it is often the

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<sup>8</sup> As you know, this coefficient is one of the key financial values of corporation and is given in all exchange information tables that are published by western financial newspapers of countries where functions the securities market.

result of not only the optimistic expectations for the future flourishing of the corporation, but also speculative enthusiasm and excitement.

However, as a rule, unfounded optimism is changed by pessimism and feverish demand for stocks rapidly decreases (especially when their price is already very high). So with the beginning of "bear" market, the share price of such corporations begins to fall, leaving behind the average level in the same pace.

**Principle 3** proceeds from here: if the beginning of "bear" market is forecasted, it is recommended to sell (or sell a period) shares of those corporations, the exchange rate of which increased the most significantly (in percentage terms) during the previous "bull" market.

### **11.6.3. Basic indicators of activity in stock market**

Indicators – stock market indices are used to determine the effectiveness of the stock market relatively to their separate types. Stock market indices are indices of share prices that circulate in the market, i.e. stock indices reflect the change in value of a particular security portfolio. The calculation of indices is done daily, monthly, quarterly, semi-annually and annually. The reference location is the day when the index value was 100 or 1000. Their average value increases or decreases with the growth or fall in stock prices, respectively increases or decreases the value of the index. Indices provide brief information about market prices or prices in the particular market segment. This allows drawing conclusions about the demand for certain securities in the context of a specific market segment, the total market, different companies and different countries.

According to the degree of summarizing, the indicators of stock market are divided into:

- integral (averaged) that characterize the state of the market (or a segment) in general by one composite index (for example, the Dow Jones Industrial Average);
- partial that complements the integrated indicator with characteristic of either changes in the stock prices of separate companies, or dividend share return of companies etc.

According to the composition of objects, which are under study, the indices are:

- international, which characterize the state of the market beyond the national boundaries. For example, MSCI indices (Morgan Stanley Capital International) cover both the entire global stock market and its specific geographical sectors – North America, Europe, Far East, etc.;
- national;
- sector, which describe the state of a particular internal market. For example, the index of the New York Stock Exchange (NYSE Composite Index) describes the movement of the share prices of all companies listed on that exchange; the index of the American stock exchange which is quoted on that exchange;

- subsector integral indices which characterize the dynamics of stock prices of particular groups of companies: industry, transport, finance, etc.

By the method of calculating, the indices are divided into two main types:

- the series of arithmetic average of available prices, which reflect price changes of securities groups;

- the series of primary market values of all securities in the group.

The principle of the calculation of price average is based on the sum of prices (average price) of a defined group of stocks [15, p. 233].

$$\sum_{i=1}^n \frac{P_i}{D}, \quad (11.4)$$

where D – divisor that provides the equity of index value and the moment of beginning of calculation of some given value (usually 10 or 100 points). For example, the stock index is calculated for shares of the two companies. A share price of company A – \$100, the share price of company B – \$10. Arithmetical mean value equals:  $\frac{100+10}{2} = 55$ . If the shares of company B rise in price 3 times,

the index will increase by 10 points  $\left( \frac{100+30}{2} - 55 \right)$ .

The first group primarily includes the Dow Jones indices – the average measures of the dynamics of current stock prices of leading U.S. companies. Among the system of medium-sized companies of the Dow Jones the best known index is DJIA (Dow Jones Industrial Average), which is the arithmetic average of stock prices of 30 major industrial companies on the New York Stock Exchange, which are leading in their industries.

The Dow Jones index is calculated by the formula:

$$DJIA_t = \frac{\sum_{i=1}^{30} P_{it}}{D_{adj}}, \quad (11.5)$$

where DJIA – denomination of integral Dow Jones index in the day t;

$P_{it}$  – the stock price at the end of day it;

$D_{adj}$  – adjusted divisor in day t, which varies with splitting of shares. When stocks are split, the divisor becomes smaller.

Besides DJIA index also is calculated DJTA index (Dow Jones Transportation Average), which includes share prices of 20 transport companies, the DJGT index (Dow Jones Global Titans Index), which was established in 1999 and which is calculated on the basis of 50 companies of 8 major stock markets around the world: USA, United Kingdom, France, Japan, Germany, Italy, Switzerland and the Netherlands.

The magnitude of the index may be affected by events that are not connected with the growth of company value, for example splitting of shares. Therefore, the

average values (indices which are based on the average primary value of securities of certain groups) require adjusting and are calculated so:

$$Index_t = \frac{\sum_{i=1}^n P_t Q_t}{\sum_{i=1}^n P_b Q_b} \times B_{iv}, \quad (11.6)$$

where Index t – index value in a given day;

$P_t$  – share prices at the end of the day;

$Q_t$  – number of available in circulation shares in a given day;

$P_b$  – share prices at the end of the basal day;

$Q_b$  – number of available in circulation shares in the basic day;

$B_{iv}$  – primary index value.

Some other well-known in the world indices are calculated by using the average arithmetic mean. For example, Nikkei indexes – the average share prices that are quoted on the Tokyo Stock Exchange; the International Stock Index EAFF, which takes into account the share prices of more than 2000 companies from 21 countries, the World Index, which is developed by the company Morgan Stanley; FTW Index, which is developed by the Institute of Actuaries in the UK together with large brokerage firms; Global Index, which is calculated by the First Boston Corporation together with the magazine “Euromoney”. Besides that, the international institutions calculate regional indices and indices for rising markets.

There are the advantages of stock indices:

- provide information about the profitability of stock markets and provide an opportunity to compare the effectiveness of investments in different markets;
- allow to identify the trends in the market;
- are the bases for specific financial instruments: fixed-term contracts for indices that allow insuring market risk (futures, options for stock indices).

#### 11.6.4. Determining the market value of shares

Market price or the share price is a price at which stocks are actually bought and sold on the stock market. Shares price is directly dependent on the size of the resulting dividend for them and in reverse – on the level of loan interest.

$$Share\ price = \frac{Annual\ dividend\ per\ share}{Yield\ rate\ per\ share} \times 100 \quad (11.7)$$

The determining of securities price is a result of the interaction of supply and demand in the stock market. But the factor that determines the demand and supply is the estimation by the investor of corporation’s income in the future and the value of forecasted dividends. Supply and demand are affected by the value of the spread

– the gap between the minimum supply price and maximum demand price. The most liquid are securities where the ratio of spread to the maximum price is the smallest (0 to 3%).

The procedure of tendering in securities markets and determining the market rate is the following. All brokers with their applications gather in the exchange hall. Specially authorized stock agent declares the rate, such as \$940 per share. After that brokers try to conclude with one another agreements by this rate. The brokers, who are ready to buy a number of shares by this rate, and brokers who have applications for sale of shares by this rate are identified. Preliminary agreements are concluded. But it turns out that the demand for the price of \$940 exceeds supply. Demand is 300 shares, and supply – only 200 shares. This means that the price of \$940 is too low for the seller. Then the agent names the new price, for example, \$950. In this situation the preliminary agreements from the previous trading are completely canceled, and brokers again review their application packages. 300 shares are offered for sale at the new price, as demand charged only 200 shares. If requests for sale continue after preliminary agreements, but they remain without answered, it means that the price of \$950 is too high. Stock agent makes the next attempt and names the new price, etc. Only when a very small number of unmatched requests of brokers remains, the price is named final.

If we represent this process in the form of graphs of aggregate demand for buying and supply for sale, the point of intersection will show the price at which supply and demand are equal. Consequently, the market price of a security reflects the unique result of agreement and mutual opinion about the prospects of a particular security.

Describing the state of the stock market, it is talking about efficient and irrational market.

**Absolutely efficient market** – it is a market where the price of each security is always equal to its investment value. **Investment value** is the value of the security for now considering prospective evaluation of price and demand level for it in the future, which is calculated by knowledgeable and capable analysts, which may be regarded as the fair value of the security. In such market there are no underpriced and overpriced securities, new information is immediately reflected in market prices. This, of course, is a benchmark. In reality, market definition follows the graduation degree of market efficiency: weak, medium, strong. Three degrees of efficiency are based on different predictions about the degree of mapping in the rates of securities of information about them. **Irrational market** – a market where rates are not connected with the investment value, rate fluctuations are random. Irrationality is a rare phenomenon on a well-developed and free market. Main U.S. stock markets are estimated closer to effective than to the irrational.

Market participants tend to identify undervalued and overvalued stocks in comparison to the investment value in buying and selling agreements. A tool is used to determine the true value of ordinary shares, which is called the model of dividend discounting.



Algebraically true share value (V) equals the sum of the expected dividend payments (D) at time (t) and the corresponding discount rate<sup>9</sup> for the financial flows (i.e., the difference between income and expenditure) of the given level of risk (K):

$$V = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \frac{D_3}{(1+K)^3} + \dots = \sum_{t=1}^{\infty} \frac{D_t}{(1+K)^t} \quad (11.8)$$

To determine the true value of ordinary shares with different dividend changes during the time are used particular models:

- zero growth model, in which is assumed that the amount of dividends in the future remains unchanged, i.e.

$$D_0 = D_1 = D_2 = D_3 = \dots = D_{\infty} :$$

$$V = \sum_{t=1}^{\infty} \frac{D_0}{(1+K)^t} \quad \text{or} \quad V = \frac{D}{K} \quad (11.9)$$

- constant growth model, in which is assumed that dividends will increase from period to period in the same proportion, i.e. with the same growth rate (q):  $D_1 = D_0(1+q)^1$ .

The formula for the model of constant growth:

$$V = \frac{D_1}{K - q} \quad (11.10)$$

- multiple growth model, which assumes that by the moment T for each period, the investor makes an individual forecast of the value of dividends –  $D_1, D_2, D_3, \dots, D_t$ , predicts the occurrence of moment T and forecasts that after the moment T dividends will grow with a constant rate q.

The formula of calculation according this model looks like:

$$V = V_{T-} + V_{T+} = \sum_{t=1}^T \frac{D_t}{(1+K)^t} + \frac{D_{T+1}}{(K-q)(1+K)^T}, \quad (11.11)$$

where  $V(T-)$  – present value of dividends paid by the period T inclusive;  $V(T+)$  – present value of all dividends paid after the period T at point of time 0.

An important parameter in estimation ordinary shares is marketability, i.e. the stock trading is to be active enough to make agreements be done without unnecessary jerks in the dynamics of prices. As the prices of ordinary shares fluctuate significantly, and dividends may not be paid at all, these shares are not for all investors. In the application of a new client, that is filed in a brokerage firm,

<sup>9</sup> Discount - present value of each dollar of revenue from security, which must be obtained through a number of years  $d_t = 1 / (1 + S_t)$ , where  $S_t$  – spot rate for t years – coefficient of discounting. Discounting – the process of calculating the present value of the given flow of payments.

is required to set out clearly the investment objectives and emphasize that namely they determine his investment actions. Investor should recognize that the risk, associated with the purchase of ordinary shares, corresponds with his financial state.

When taking decisions about investing in privileged shares is necessary to pay attention to: the terms of an agreement, the behavior of stocks in the market and ratio between income and degree of risk.

To determine the investment value of the privileged shares, the following variables are used:

1) fixed dividend rate, which the owner hopes to get in the end of each period (for example a quarter or year);

2) current discount rate or the minimum profit rate which is acceptable for the investor.

The mathematical formula for determining the investment value of the share is following:

$$VP_0 = \sum_{i=1}^{\infty} \frac{D_p}{(1+r)^i}, \quad (11.12)$$

where  $VP_0$  – approximately calculated investment value of privileged shares;

$D_p$  – expected annual dividend payments;

$r$  – expected minimum discount rate.

For privileged shares there is no maturity date, but for them is paid a fixed sum of dividends for an indefinite period of time ( $D$ ).

If the expected minimum discount rate is constant, the equation for determining the actual value of the share can be simplified:

$$VP_0 = \frac{D}{r} \quad (11.13)$$

For example, the investment cost of privileged stock, for which the company pays \$10 dividends and provides 12-percent income, is equal to \$83.33.

$$VP_0 = \frac{10}{12} \times 100 = 83,33.$$

The expected revenue is an important characteristic which is used by investors to determine the income on the privileged shares.

It is determined by formula:

$$i = \frac{D_p}{P_0}, \quad (11.14)$$

where  $i$  – expected income on privileged shares;

$D_p$  – annual dividend payment;

$P_0$  – current market price of privileged share.

Privileged shares may be redeemed at face value and the previous award. Previous award is the value of the dividend level during 1 year. Assuming that the stock will be redeemed in 5 years, dividends will be paid annually and the

repurchase price will be \$110, the current price per share – \$85, then the income on the date of redemption approximately is calculated so:

$$I_c = \frac{D_p + [(P_c - P_0) / Y_c]}{(P_c - P_0) / 2}, \quad (11.15)$$

where  $I_c$  – income up to the date of redemption;

$D_p$  – annual dividend rate;

$P_c$  – the market price at the moment of redemption;

$P_0$  – current market price of a privileged share;

$Y_c$  – number of years to the date of redemption.

Using the above data, the estimated income to the date of redemption is equal 15.38%,

$$I_c = \frac{10 + [(110 - 85) / 5]}{(110 - 85) / 2} = 15.38\%.$$

Realized gain as the average annual profit rate on privileged shares between the date of purchase and the date of sale is calculated so:

$$I_r = \frac{D_p + [(P_t - P_0) / Y_{pr}]}{(P_t + P_0) / 2}, \quad (11.16)$$

where  $I_r$  – realized gain on privileged share;

$P_t$  – sales revenue;

$Y_{pr}$  – the number of years of share ownership;

$D_p$  – the annual dividend rate;

$P_0$  – current market price of privileged share.

If the share was purchased for \$95, sold for \$99, dividend on shares – \$10, tenure of a share – 4 years, then

$$I_r = \frac{10 + [(99 - 95) / 4]}{(99 - 95) / 2} = 11.34.$$

### 11.6.5. Determining the value of bonds

Bond prices are determined by five basic aspects:

- the level of loan interest;
- the credit rating of the issuer;
- the period of cancellation;
- the presence of sinking or purchase fund;
- the conditions of primary and next bond issues.

The bonds of the first issue are more appreciated than the next.

The bond prices decrease with the increase of loan interest and inversely.

The stronger is the financial position of the borrower, i.e. the higher is its credit rating, the better are the conditions the loan is made under which. For example, a state, a large well-known company, and so on can borrow at lower interest rates. The money borrowed over the long term is more expensive than the money borrowed for a short period of time. Thus, for bonds coming with a discount the

closer is maturity date, the lower is the discount from the nominal value. The presence of purchase fund for early repayment of the bonds has a positive effect on the price of issue. With the increase of the level of loan interest the prices of long-term bonds reduce, usually at a larger value than the prices of short-term bonds. The sharp rise in prices of ordinary shares, which are exchanged to convertible bonds, may lead to the sale of bonds with a substantial premium over nominal value.

Investor tries to identify cases of market's incorrect assessment of bonds during the transactions on the stock market. The economic method of detecting incorrect assessment of bonds is the method of evaluation via capitalization of earnings.

This method assumes that the inmost value of any asset is based on the discounted value of payments that the investor expects to receive in the future by owning the asset. Application of this method for the bonds evaluation consists in comparing the value of the yield (Y) by the repayment of bond with a value of "correct" ( $Y_n$ ), to investor's mind, yield by repayment.

The yield by the cancellation of the bond (or promised yield by the cancellation) is defined by the following formula:

$$P = \frac{C_1}{(1+Y)^1} + \frac{C_2}{(1+Y)^2} + \frac{C_3}{(1+Y)^3} + \dots + \frac{C_n}{(1+Y)^n}, \quad \text{or}$$

$$P = \sum_{t=1}^n \frac{C_t}{(1+Y)^t}, \quad (11.17)$$

where P – the current market rate of bonds with a residual period of cancellation of «n» years;

$C_1, C_2, \dots, C_t, \dots, C_n$  – provided payments to the investor in the first year, the second and so on;

Y – the promised yield by the cancellation.

For example, a bond with nominal value of \$1000 and the current value of \$900 has the residual period of circulation 3 years. Coupon annual payments by the cancellation are \$60.

Yield of this bond by the cancellation is:

$$900 = \frac{60}{(1+Y)^1} + \frac{60}{(1+Y)^2} + \frac{1060(1000+60)}{(1+Y)^3} = 10,02\%$$

$$Y = 10,02\%.$$

If the next analysis indicates that the interest rate should be equal to 9%, then this bond is undervalued, since  $Y > Y_n$ . If the yield by the cancellation is higher than the "correct", the bond is undervalued, and then it is a candidate for purchase. If the yield by the cancellation is lower than the "correct", the bond is overvalued and then it is a candidate for sale. So, if the current market rate is lower than the true value of the bond, the bond is undervalued, and if it is higher – then overvalued.

The internal value of the bond (Y) can be calculated also by the following formula:

$$V = \frac{C_1}{(1+Y_n)^1} + \frac{C_2}{(1+Y_n)^2} + \frac{C_3}{(1+Y_n)^3} + \dots + \frac{C_n}{(1+Y_n)^n} \text{ or}$$

$$V = \sum_{t=1}^n \frac{C_t}{(1+Y_n)^t} \quad (11.18)$$

As the buying price of a bond – is its market rate (P), then for the investor the net present value (NPV) is the difference between the value of the bond and the buying price:

$$NPV = V - P = \left[ \sum_{t=1}^n \frac{C_t}{(1+Y_n)^t} \right] - P \quad (11.19)$$

For our example:

$$NPV = \left[ \frac{60}{(1+0,09)^1} + \frac{69}{(1+0,09)^2} + \frac{1060}{(1+0,09)^3} \right] - 900 = \$24,06$$

If a bond has a positive NPV, it is undervalued.

If an investor determined that  $Y_n$  is 11%, the NPV of a bond would be - \$22.19, i.e. the bond would be overvalued.

If the investor defined the value of  $Y_n$  approximately equal to  $Y$ , then the bond would be considered as accurately estimated.

A key component of the bond analysis is determining the normal for an investor value of  $Y_n$ , since it is not easy to calculate because it depends on the subjective estimation of the investor both of some characteristics of the bonds and current market conditions.

## **PART 5. INTERNATIONAL TAXATION**

### **Chapter 12. Features of international taxation**

#### **12.1. General features and specifics of the world modern tax systems**

The globalization of world economic relations objectively creates the need for harmonization of national tax systems, which allows:

- the coordination of tax policies of separate countries;
- the convergence of taxation rates;
- the unification of methods for determining the tax base;
- bringing in correspondence the criteria for granting tax concessions.

The international community is still at the very beginning of the formation of a common world economic space. It is still graded on numerous degrees of unity.

The global harmonization of tax system is just beginning to be comprehended. the concept of impartial taxation proposed by an American economist *Doernberg R. L.* is interesting in this important case.

The Doernberg's concept of impartial international taxation allows the adoption of system of such impartial tax standards that could not act either against or in favor of any type of activity. The tax system, according to R. Doernberg, should remain in the background, and the decisions on economic activity and investment should be made according to the principles that are unrelated to taxation.

Doernberg's concept of impartial international taxation has three basic rules [9, p.215].

The first rule: impartiality in relation to the export of capital. The tax system satisfies this rule, if the question of taxation does not affect the taxpayer's choice between investing in his own country or abroad. In this case, the corporation will decide to invest on the basis of business rather than tax factors. In perfect competition the impartiality in relation to the export of capital will lead to the efficient allocation and use of capital.

The second rule: impartiality in relation to the import of capital. This rule is satisfied if all firms operating in the market are taxed at the same rate.

The third rule: national impartiality. According to this rule the total profit of capital, which is shared between the taxpayer and the budget, should be equal regardless if the capital was invested in own country or abroad.

The present level of development of the world economy requires such situation in international taxation, when each country conducts fiscal policy based on its national interests. Considering the specifics of taxation in different countries, we will dwell on its features in advanced countries and in transition economies.

### 12.1.1.1. Taxation in industrialized countries

The general trend in the formation of the tax system in industrialized countries can be expressed in such a way: rational taxation should avoid methods and forms that prevent the accumulation of wealth by all participants of the reproduction process. Of course, the system is influenced by specific historical conditions (economic and geographical, political, religious) which determine its long-term development in each country. So tax systems of different countries even within the Western European region differ although the accelerated development of integration processes facilitated convergence of tax laws in the European Community. In these countries the multilevel system of tax collection has been formed. In countries with federal regimes it is a three-level system and in unitary states – two-level. Taxes are divided into national and local. The taxes of separate regions, provinces and autonomous entities in federal states are added to them.

One of the most stable tax systems that have been established and are functioning without significant changes since the XIX century is *in the UK*. Here it is two-level one, which consists of state and local taxes. An important place in national taxation is occupied by the income tax, which brings two-thirds of all tax revenues to the budget. This tax is paid only by individuals, while legal entities such as corporations pay profit tax. Income tax varies significantly, depending on the income of citizens. Family status, financial situation of the taxpayer are taken into account when the tax is imposed and given all circumstances exemptions and discounts can be applied. When this tax is paid there are three basic rates: 20 %, 25% and 40 % of revenue for the richest.

Profit of companies is taxed at 33% and recently it is significantly lower than it used to be (10 years ago the rate was 52%).

Another source of replenishment of the treasury is inheritance tax. Moderate property (up to 150 thousand pounds) is not levied at all, and the more expensive legacy is taxed at 40 %. Social security contributions are singled out into a separate article. They are differentiated, depending on the earnings or income and range from 2% to 9%.

Value added tax is the major tax among the indirect ones in the UK. As far as the amount of revenue is concerned (17 % of total tax revenues) it is the second after the income tax. The tax base is the value added in the manufacturing process and subsequent sale to the cost of purchased materials and primary products. It is the difference between the value of the sold goods and the cost of purchases from suppliers. The tax rate is 17.5 %. One of the other important indirect taxes is the excise tax.

Excise duties are imposed on alcohol and tobacco, fuel, cars. The rate of excise duty varies between 10-30 % of product price.

Real estate including land is subjected to local taxes in England. These taxes are set by the authorities and they differ significantly across the country.

The current tax system *in France* is similar English under the general direction. The tax burden also falls mainly on consumption rather than on

production. The main source of budget revenue is an indirect tax – value added tax. It accounts for 41.4 % of all tax revenues to the budget. The rates of value, added tax (VAT) in the country, are differentiated by commodity groups: while the main rate is 18.6%, the rate for basic goods and services does not exceed 5.5%. The highest rate is 22% it applies to cars perfumes luxury items. Reduced rate (7%) is imposed on goods of cultural nature. Medicine and education are exempted from VAT as well as private teaching activities medical practice and spiritual activities (literature, art). VAT in France is supplemented by excise taxes on alcohol and tobacco, certain types of vehicles and aircrafts.

The most important among the direct taxes is the individual income tax in France. Its share in the country's budget is more than 18%. Legal entities – companies, corporations are subjected to the profit tax and the taxation is net profit object in this case. The basic tax rate is 34 % and tax rate, imposed on profit from agriculture and securities, ranges from 10 % to 24 %. It should be noted that the share of profit tax in total tax revenues does not exceed 10 % in the budget. This serves as compelling evidence of how the French authorities actively protect domestic producers. Similarly desire can be seen in the law that freed all goods, produced by French companies for export from VAT. Very low tax rates are imposed on agricultural products as well.

The tax system in *Germany* is focused on the same basic principles as the tax systems of these above-mentioned European countries: the rational distribution of the tax burden between production and consumption, social justice, protection of domestic entrepreneurs. The federal structure of the country obliges the government to allocate the main tax revenues on an equal footing: about half of the funds, gained from the income and profit taxes, are transferred to the federal budget, while the other half is directed to the budget of the state, where these taxes were collected. Since the industrial potential of different states varies significantly, the value of the budget in "rich" states exceeds the value of the budget in "poor" ones by far. With the help of the mechanism of the federal budget the so-called horizontal alignment of income is conducted: industrialized states (e.g. Bavaria, Baden-Württemberg, North Rhine-Westphalia) subsidize poor ones with financial resources (Saxony, Schleswig- Holstein).

Germany is a country with a typical three-level tax system. Tax revenues are distributed among three parties: the federal government, state governments and local authorities (communities). The largest source of the treasury replenishment is the individual income tax. Its rate varies from 19% to 53%, taxation is differentiated. When the salary tax is determined, 6 classes are set, which consider various life and property circumstances. Social charges on payroll account are equal to 6.8%, their sum is distributed evenly between employer and employee. The second most important direct tax is a corporate income tax. It is levied at two rates: on income that is redistributed - 50%, on income, which is distributed as dividends - 36%. Substantial tax discounts are providing in case of accelerated amortization. In the agricultural sector the law permits to write off up to 50% of



the equipment to the depreciation fund in the first year, and 80 % in the first three years. So the government encourages technological re-equipment of production.

As far as tax revenue is concerned income tax yields less than the major indirect tax - value added tax. VAT brings 28 % of tax revenues to the German treasury. The basic tax rate is 15%. Basic foodstuff and products of cultural and educational purposes are taxed at a reduced rate, as in France.

Indirect taxes are supplemented by the excise. The same products are subjected to them, as in the UK and France. Revenues from excise taxes (except excise duty on beer) are directed to the federal budget.

The local governments benefit from the industrial tax (levied on companies and individuals that are engaged in industrial and trading activities) land tax and property tax. In general the evolution of taxation in Germany takes place in line with the trends, observed in Western Europe: reducing tax burden on profit, extending the range of tax incentives to encourage technological progress and business development in general and small businesses in particular. Tax reforms, conducted in the 90's, made significant changes to the direct taxation practice, provided significant relief to domestic producers.

*The U.S. tax system* belongs to the developed tax systems that successfully perform fiscal and regulatory functions. It has evolved over two centuries, and serves as an effective instrument of economic regulation nowadays. The U.S. also has a three-level tax system and 70% of revenues refer to the federal budget. At the same time the absolute value and share of local taxes and the taxes of individual states remain high. For their account (from 70 % to 90 %) the maintenance of health, education, social security and local police are funded.

As in Germany, the largest proportion of the U.S. treasury revenue is brought by the individual income tax. This tax's nature is progressive: its rate increases with the income. Prior to 1986 income tax rates were differentiated, they were divided into 14 standards from 11% to 50%. Since 1988, this tax is levied at 5 rates: 11, 15, 28, 35 and 38.5%. The maximum value of non-taxable income has been increased and maximum tax rates have been lowered. The tax system has been simplified in general and the number of tax benefits has been reduced.

The second most important for the federal budget are contributions to social security funds. Contributions are also obligatory and are divided equally between an employer and an employee; the value of these contributions is growing. For example, it constituted 12.3 % of wage fund in 1980 (i.e., 6.15 % for each of the parties), it was 15.02% in 1988, it equaled 15.3 % in the early twenty-first century.

The third major tax in terms of budget revenues is a corporate income tax. It also has a trend tax rates reduction. The rate was 46% up to 1986, it equaled 40% in 1987, it was 33 % in 2002, and now - 30.6%. Corporate income tax rates of U.S. multinational corporations continued to decline in 2004 despite the increase in their profits. This is due to: the expansion of multinational corporations in foreign markets, which allows them to pay the smaller percentage of their income in the U.S. and other countries, where they operate; the relocation of production to countries with less stringent tax system; production growth in international

markets. The reduction in income tax rates allowed 68 U.S. multinationals to save \$8 billion in 2004. The current tax system provides that for the first 50 thousand dollars of profit it must be paid 15%, over the next 250,000 - 25% and only the higher amount of income is subjected to maximum tax rates. This differentiation seriously encourages small business development and expands the tax base of the country. Accelerated amortization is widely used in the U.S. as in some other countries. It allows encouraging scientific and technological progress with the help of the mechanism of tax incentives.

Unlike other states, the federal excise tax does not occupy a significant place in the U.S. budget, as the major part of this tax is charged by local state authorities.

Inheritance tax plays a significant role in federal budget revenues. Its rate varies from 18% to 50%. Non-taxable minimum is equal to 10 thousand dollars.

Local authorities and state governments possess substantial power in the field of taxation. Individual income tax (apart from the federal one) is introduced in 44 states. The state budgets in addition to individual income tax levy their own corporate income tax, sales tax and business activity tax. A great source of replenishment of local (municipal) budgets is property tax. In New York, for instance, it provides 40% of budget revenues.

At the same time despite significant revenues from various taxes - direct and indirect - local governments, especially in large cities, cannot work without subsidies and subventions from the federal budget. In general, the three-level tax system, which has historically formed in the U.S., has a beneficial effect on the rational distribution of the country's industrial facilities and on the increase of business activity in less developed regions. According to some experts tax policy, which has been conducted since mid-80s, has a positive impact on the economic development of the country, especially in small business area and helped to reduce unemployment and to increase people's welfare.

It should be noted, that even after tax cuts during tax reforms in the late twentieth century, which were carried out in the USA, Germany, the UK the fraction of taxes in GDP continued to grow but this growth rate slowed down considerably. The share of income tax in total tax revenues continued to rise over the last 30 years, but over the past two decades there was a fall in France (-0.2 points) and the UK (-2.2 points). For both periods the share of excise taxes in the total amount of tax revenues decreased. However during these periods the fraction of social security taxes increased although its growth pace slowed down during the examined two decades.

An important feature of recent decades in tax policy is a significant decrease of corporate income taxes in industrialized countries. For example they were reduced by one-third, in Spain, Denmark, Sweden, Austria and Ireland. A noticeable decrease was observed in the United States, Japan, Canada and other countries.

However, this decrease is not reflected in the total tax revenue of these countries. In fact, their share in GDP even increased. This occurred because of the

lower tax rates on profits, which has led to the expansion of the tax base. The level of taxation in industrialized countries is presented in the table 12.1.

Table 12.1.

**Major tax rates in different countries**

Countries	Basic VAT rate	Individual income tax	Profit tax	Social security contributions
<i>European countries</i>				
Austria	20	10-50	34	41,8
Belgium	21	25-57	34	47,3
The UK	18	20-40	30	15,6
Germany	16	25,9-53	40	38,2
Ireland	20	27-48	12,5	22,2
Spain	16	30-56	35	38,7
Italy	20	10-51	36	57,9
The Netherlands	19	6,35-60	35	54,7
Norway	23	37,5-23,5	21	24,5
France	19,6	12-54	33	56,3
Switzerland	6,5	11,5	24,1	22,8
Sweden	25	30-50	28	32,3
<i>Average</i>	18,7	20,4-46,2	33,7	37,7
Ukraine	20	10-40	30	39,55
Australia	32	20-47	36	0
Canada	7	17,31	29	14,8
New Zealand	13	24-33	33	2,7
The USA	-	15-39,6	30,6	21,5
Japan	3	10,50	38	31,5

Source: [2, p.179]

### 12.1.2. Taxes in transitive economies

Taxation in industrialized countries serves as a reference point in the analysis of tax systems formation process in emerging market economies. Worldwide experience has shown that taxes are inherent in the market economy and constitute its integral part. You can promote the efficient operation of businesses with their help, can form the modern structure of the economy within the framework of separate countries, regions and globally. Nevertheless the same world practice shows that the deviation from the market forms of economic principles and corresponding tax ones pushes a particular country to a roadside of the historical progress. The tax system has evolved usually in the opposite direction to the process of global development in totalitarian countries. They occasionally used administrative methods of enterprises profit collection and redistribution of funds through the budget instead of taxes. Complete centralization of funds and the absence of any independence of enterprises in dealing with

financial matters deprived economic managers of any kind of initiative and gradually led to the collapse of these countries.

Reformation of post-socialist countries' economies, which started in the 1990s, was focused on the transition to liberal market model from the very beginning. In contrast, to the socially oriented model, which involves a high degree of state paternalism and the corresponding high level of taxation the liberal model is based on the insignificant state intervention in economic life and relatively low taxation. In order to reform the economy, according to the liberal model, in these countries following legal principles of the tax system had to be restored, which had already passed the trial by time in a number of industrialized countries. There are:

1. Legal equality towards the law for all legal entities. The creation of tax neutrality and its strict compliance.

2. The guarantee of tax policy stability due to the country's legislative power.

3. Tax benefits (privileges), granted to different categories of taxpayers should be established only by law.

4. The prohibition of retroactive tax law.

5. The operation of tax liability institute, based on the presumption of guilt of a taxpayer in combination with a flexible impact on those, who evades taxes.

6. The simplicity and transparency of the tax system.

7. The end of the tyranny of tax administrations.

8. The proportionality of tax revenues with the expenditures in strict accordance with the budget law for the next fiscal year.

Adherence to these principles is essential for the functioning of any market economy, but to an even greater extent this applies to the liberal market economy in the creating process. The success of market reforms is dependent upon the creation of an efficient and reliable tax system. Rapid advancement through market reforms in Poland, the Czech Republic, Hungary and Slovenia was due to the fact that these countries speedily reformed the tax laws, provided its stability and reliability, bringing it maximally close to European models in the early 1990s. This law provides effective measures of development and protection of domestic production.

The process of tax system legalization in Bulgaria, Romania and the former Yugoslavia stretched for a longer period because of political and socio-economic reasons.

The tax legislation formation process in the course of economy reformation in the former Soviet Union countries is very difficult, inconsistent and contradictory. The difficulties of objective nature lie at the heart of these conflicts. Unbalanced economy, hypertrophied share of its military-industrial complex and underdevelopment of industries, that produce consumer goods reinforced gigantically with the collapse of the USSR. The care for covering current expenditures on social security, the maintenance of the army and the administration has fallen on the shoulders of young independent states. The tax system that can provide budget fullness had to be created from scratch in these

countries. In this case the passage of above-mentioned legal principles in the creation of a new tax system in the countries of the former Soviet Union proved to be very difficult. Since most public enterprises were either unprofitable or produced products which were not intended for sale on the market (the spheres of the military-industrial complex and others related to them), the brunt of the tax burden was put on profitable enterprises which worked for the market. The principle of the legal entities equality towards the law was clearly trodden and this has had negative economic and social consequences. Due to political circumstances tax legislation was subjected to numerous changes that lead to the disruption of economy. The principle of tax benefits was repeatedly violated. This happened due to political reasons and because of lack of understanding among both authorities and also a number of economists of the fallacy of the idea of applying generous tax reliefs.

The result of this tax policy, in the first years of economic reforms, was the mismatch of the economic system which was being formed in the post-Soviet countries (excluding the Baltic States) with the liberal market model. The main features of the liberal market economy model are low tax rates, stability, reliability and simplicity of the tax system. Instead of this a cumbersome, complex, complicated tax system was created in most countries of the former Soviet Union. This system was a heavy burden for the producer and moreover it changed constantly.

The formation of the tax system runs hard in post-socialist countries. Ukraine is not an exclusive in terms of overcoming these difficulties. The tax system formation process in Ukraine proceeded with trials and errors, owing to huge difficulties of both objective and subjective nature - the inexperience of most legislators and their desire to solve immediate problems in the first place and to put an end to the economic and social difficulties in a simple and as it seemed to them the most affordable way.

In Ukraine a tax system, which in terms of composition and structure is close to the European one, was formed in the past 10 years. But it was very far from being perfect. The tax burden on the entrepreneur is still huge and the distribution of income tax and indirect taxes among different segments of the population still does not fully correspond to the ideals of social justice.

The tax system is a living organism that stays in a state of continuous growth, development and repair. An important step towards the creation of a tax system was the adoption of the Tax Code of Ukraine in 2010. The tax system covers legal entities and individuals. Under this system the structure of tax revenues to the consolidated budget of Ukraine has been formed, national and local taxes and fees are established according to which.

National ones include following taxes and fees: profit tax; individual income tax; value added tax; excise tax; fee for the first registration of the vehicle; environmental tax; rent for the transportation of oil and petroleum products through main oil pipelines and oil-products pipeline, transit of natural gas and ammonia through pipelines across Ukraine; royalties for oil, natural gas and gas

condensate produced in Ukraine; fee for use of mineral resources; land fee; fee for the use of radio-frequency resource of Ukraine; fee for special use of water; fee for special use of forest resources; fixed agricultural tax; collection for the development of viticulture, horticulture and hop growing (used until 31 December 2014); customs tariff; fee as a surcharge to the current tariff for electricity and heat apart from electricity produced by qualified cogeneration systems; fee as a surcharge to the existing natural gas tariff for consumers of all forms of ownership.

Local taxes include: tax on estate property other than land; single tax.

Local fees include: fees for certain types of business activities; fee for vehicle parking places; tourist fee.

In general the development of the tax system is planned in key areas: tax unification, liberalization (rates reduction), promotion of entrepreneurship.

Tax Code of 2010 provides the reduction of the number of taxes from 29 to 17. In addition ten local taxes and fees are cancelled, gradual decrease of the profit tax is provided - from 25 % to 20 % in 2011 and further annual decline of 1 % to 16% in 2014. The changes have touched VAT. Its rate should be reduced from 20% to 17%. The tax rate for some operations can be set at a rate of 0 %. The income tax is 15 %.

Accelerated amortization was introduced as one of the incentives for capital renewals. Given the international experience, a mechanism for innovation stimulation and investment development was introduced. The new tax reform will fundamentally enhance the investment climate in Ukraine, the state will rise in the ranking of economic freedom and attractiveness for business.

## **12.2. International double taxation and the ways of its regulation.**

Double taxation is levy of a single payer's object with the same (or similar) tax during the same period of time (usually tax period). International double taxation occurs mainly due to tax collection both in a particular country and abroad. It is often associated with profit and property taxes, imposed on income from work or from capital.

In determining the scope of its tax claims some states use the residency principle, that is all revenues of entities, residing or having residence in their territory, are taxed no matter in which country they actually received that income; or state adheres to the source principle (territoriality) that is taxing any income, earned in its territory regardless of whether the income recipient has residence in the country or not. Most of the states use the combination of these two principles.

Residency principle is placed in the construction base of the so-called unlimited tax duty. As regards individuals unlimited tax duty which means the taxation of all income regardless of its receipt place is applied to all persons, who are resident in a particular country or those, who are temporarily (over 183 days) remain in a country. The same rate of the income tax is imposed both on a person who does not even have a residence in the country, but stayed in it for more than 183 days during the accountable year, and on the person who, having a residence

in this country, was not in it for a single day or did not leave the country, having a residence in it.

As concerns legal entities, unlimited tax duty covers enterprises with residence or administrative body in the country.

Unlike the unlimited duty rule the idea of limited tax duty is based on the principle of the income source. Individuals, who do not have permanent residence in the country or whose time spent there is more than 183 days in an accountable year and those, who arrived in the country on a temporary residence permit to work in foreign companies or in joint ventures with foreign capital, in the departments and offices of foreign enterprises and banks - all these persons fall under the obligation to pay taxes only on income from work on the territory of the country regardless of the place of remuneration payment and revenue acquisition.

Most countries outline their tax jurisdiction in the same broad way, which inevitably causes disputes with foreign partners. There are three possible situations:

1) when two country impose unlimited tax duty on the same subject (e.g., a person who is a resident in one state but lives in another state longer than for 183 days in an accountable year);

2) when an entity is subject to unlimited tax duty in one country and to limited tax duty in another;

3) when the laws of both states claim that the income was received on their territory and impose limited tax duty on the entity that received the income.

The phenomenon of international double taxation occurs due to the collision of tax orders of two or more countries. International double taxation is universally recognized as a negative feature and not only by taxpayers but also by tax authorities of several countries. This is because it leads to excessive fiscal burdens upon economic activity, which is a serious obstacle to the development of international economic cooperation, especially in terms of foreign investment attraction.

#### **12.2.1. International double taxation relief agreement as a tool for tax minimization**

The solution of the double taxation problem has two ways. First one is about providing residents one-sided offset of taxes paid abroad. The second is concerned with the distribution of taxation between the country, where the income is derived and the country of residence of the recipient. In this case an agreement on the double taxation avoidance is concluded.

Tax agreements are usually concluded bilaterally. However recently multilateral agreements came into effect, for example, treaties established between the Benelux countries, Northern Europe or the countries of the British Commonwealth of Nations.

Two basic models of tax treaties are used in international practice: the OECD model and UN model. They serve as an example and a legal basis for bilateral and multilateral agreements.

The basis of the first one is "Model agreement on avoidance of double taxation of income from labor and capital", approved by the Finance Committee of the OECD in 1977. The main objective of the Agreement on avoidance of double taxation is to facilitate the smooth transfer of goods, services, capital and labor by eliminating double taxation. At the same time, international agreements should not be used for tax evasion. The last fact is possible with the help of artificial adjustment of the concrete existing state to the situation that is economically more beneficial for entities, which seek to evade taxes.

The basis of this model is the principle of residence. The country of income origin yields a significant part of the income tax to a country of taxpayer's residence, according to this model.

In terms of return (repatriation) of income in the form of interest, dividends and royalties, this model provides a low tax rate or its complete abolition in the country where such profit was obtained and income is mainly subjected to taxation in the country of residence of the taxpayer.

This model, however, was unacceptable for developing countries: as in the case of adoption they lose a significant part of revenue. Therefore, the UN developed and recommended another model of a typical tax agreement between industrialized and developing countries in 1980 to ensure that revenue from taxation of multinational corporations is received by developing countries. The principle of territoriality is used better, it provides the taxation of all income, which was formed in the developing countries according to the UN model. This principle also allows applying higher tax rates, than in the OECD model for profit repatriation to industrialized countries.

There are general and special agreements in addressing the problem of double taxation in the modern world practice. General agreements solve the problem of avoidance of double taxation of income and capital in all sectors of business activity, and specific agreements regulate tax relations in certain sectors, such as the transportation of goods or communications.

Tax treaties provide solution of the double taxation problem in such ways:

1. The distinction of tax jurisdiction towards agents engaged in foreign economic activity is indicated in texts of treaties, the range of businesses and individuals, who are subject to this agreement is set, the way double taxation is settled, which ensures the reduction in tax expenditures for these individuals is determined.

2. Internal taxation level is set in line with the taxation level in foreign contracting country to avoid taxpayers' discrimination.

3. Points, concerning the order of information exchange and about the relationship between tax agencies in the process of combating tax evasion are set in the agreement.



4. A special procedure for settling disputes and conflicts in the area of taxation with the assistance of the courts, if necessary.

International treaties about the avoidance of double taxation are the part of international law and therefore prevail over national law. This means that, if in respect of income from foreign economic activity there are relevant paragraphs or provisions in a tax treaty, which provide higher or lower tax rates, than adopted in this country preference should be given to the rates of international tax treaties.

These agreements provide a system of tax credits and tax offsets. *The system of tax offsets* (tax deductions) assumes that the amount of taxes paid abroad due to the principle of income generation territoriality of a foreign person or entity shall be deducted from the tax base when calculating the taxable income of the company in jurisdiction of its residence.

*The system of tax credits* allows deduction the amount of taxes paid abroad from the amount of tax liabilities of an individual or a legal entity in the jurisdiction of its residence.

Tax credit brings taxpayer a bigger relief from international taxation, than tax credits. Consider an example. The profit is transferred from a foreign country A, where the branch of corporation K is located to country B, which is the jurisdiction of residence of the corporation. The sum is \$ 1500. The tax rate in country A equals 20% and in country B - 40%.

In case of tax offsets, system application the order of tax payment for the corporation is the following.

Tax liabilities of K in country A are:  $1500 \times 0.2 = \$ 300$ .

Tax liabilities of K in country B are calculated in such a way. The tax base of K in country B will be: total income minus taxes paid abroad that is:  $1500 - 300 = 1200$ . As the country's tax rate is 40% K's tax liability in the state B is:  $1200 \times 0.4 = 480$  dollars.

The total amount of taxes paid by the corporation K is:  $300 + 480 = 780$  dollars.

Net income of the corporation is  $1500 - 780 = 720$  dollars.

Now let's calculate how much tax corporation K would pay if there were a point about the use tax credits instead of the point about tax offsets in the treaty's text.

Then in country A corporation K would pay the same amount of tax as in the first case (\$ 300). However in the state B where the tax rate is 40 % it would have to pay \$ 600 ( $1500 \times 0.4$ ). Nevertheless, the system of tax credits allows the deduction of the amount of tax which has been already paid in A (\$ 300). Therefore the corporation would pay \$ 300 ( $600 - 300$ ) to the state B. The total amount of taxes paid by the corporation K to countries A and B would be \$ 600 ( $300 + 300$ ). Net income of the corporation would be \$ 900 ( $1500 - 600$ ), i.e. \$ 180 more than in the case of tax offsets system.

Thus, the system of tax credits is more suitable for taxpayers. However, it has a significant limitation: a tax credit is available only for the amount of tax paid abroad that does not exceed the level of taxation in the own country. If the tax in a

foreign country is higher than in the country of residence such overpayment of taxes is not included in the tax credit and the taxpayer bears the financial loss.

Agreements on avoidance of double taxation are constantly improved and supplemented by new provisions and clauses aimed on the one hand at the exclusion of any possibility of repeated taxation of the taxpayer and on the other - at the construction of barriers for those wishing to hide their income from tax authorities and to evade taxes. However, corporations put forth huge effort to take advantage of tax treaties in their manipulations, carried out to evade taxes.

### **12.2.2. "Tax Treaty Shopping"**

The term "tax treaty shopping" literally means benefitting from tax treaties. These include primarily the agreement on avoidance of double taxation, which aims in addition to avoiding repeated taxation of the same entities at blocking fraudulent schemes or tax evasion in the countries that have signed the treaty.

Tax agreement, signed between the two countries, provides benefits for their residents. Additional objective of the agreement on avoidance of double taxation is to give the residents of third countries to chance to gain benefits, arising from the content of the treaty. The paradox, however, is that these agreements allow businesses from third countries to circumvent tax laws by hiding from taxes huge amounts of money with the help of financial manipulations, called «tax treaty shopping». The essence of this system is the fact, that investors from other countries that did not take part in the treaty create intermediary companies in these countries and use them to direct investments to one of the countries that became a member of the agreement about avoidance of double taxation. Due to skillful use of the advantages of this treaty, businesses gain the following benefits:

- 1) the reduction of taxes in a country that has signed the treaty;
- 2) low or zero tax rates in the income recipients' country;
- 3) low or zero tax rates in the country of residence of the person, who actually receives the income.

The first of these situations occurs when the content of the agreement on avoidance of double taxation provides low taxes or no taxes on certain types of income (such as dividends) in the country of their origin.

The second situation arises in an offshore center jurisdiction, where all income is subjected subject to low taxes or favorable taxation of certain activities such as holding companies is offered.

The third situation is connected with the fact that offshore centers do not charge taxes on income "at the source" of its receipt that is at the place where profit is created.

Mechanism of «tax treaty shopping» looks like this. Country A has signed tax treaties with the offshore center B. A taxpayer from the third country C will be able to reduce tax payments through «tax treaty shopping» by receiving income not

directly in the country A but using tax agreement between A and B and the agreement between B and C if such exists (figure 12.1).

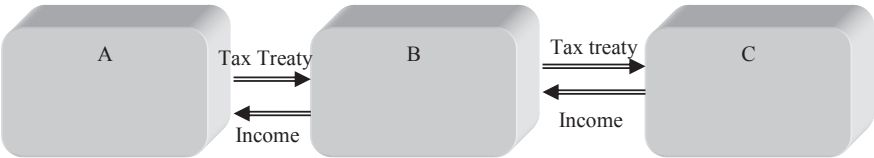


Fig. 12.1. “Tax treaty shopping” mechanism

The "tax treaty shopping" formula can also be used in the case of a foreign loan when the borrower from a country with high taxation and foreign lender create a company in an offshore center, where the tax rate on interest is very low. We give the following example.

Suppose that the businessman A, who lives in the Bahamas receives interest from the capital invested in the United States. The amount of such interest in this example is \$ 1,000 and according to U.S. law it is taxed at 30% that is \$ 300 dollars. Thus, businessman should receive after-tax income in the amount of \$ 700. However, using an agreement on avoidance of double taxation between the United States and Honduras businessman can successfully evade taxes. Since Honduras, as well as the Bahamas is the offshore center the intermediary company (B) is set up in Honduras to use the procedure of "tax treaty shopping". Interest payments are directed from the United States to the account of this company which according to the agreement on double taxation avoidance is transferred to Honduras in full amount without tax deductions, i.e. the sum of \$ 1,000. Company B remits the same amount of \$ 1,000 without any deductions to the dodgy businessman in the Bahamas (fig. 12.2) [9, p. 235].

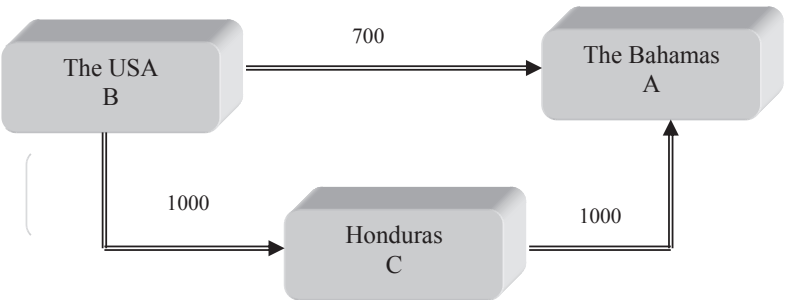


Fig. 12.2. “Tax treaty shopping” mechanism in case of a foreign loan

To evade payment of taxes on a permanent basis at the source income receipt as was the case with American borrowers financial companies are established. Multinational corporations often serve as their creators. Financial companies created by them open their branches in offshore centers a favorite place for this is the Dutch Antilles. Branches of financial companies borrow huge sums of money in third countries (often they do this on the Eurodollar market) and transfer borrowed money in the form of loans to their parent companies in the U.S.

The U.S. company is not subjected to taxation of interest paid on loans to its subsidiaries located in the Antilles as there is an agreement on double taxation avoidance between the U.S. and the Dutch Antilles. At the same time interest paid by the same subsidiaries to third countries also is not subjected to taxation at the source of income as in the Antilles offshore center this tax does not exist. As a result participants of the "tax treaty shopping", procedure have to pay a single tax that is one imposed on the amount which is the difference between interest rates on loans received by branch in Antilles and on credit of the same amount of money given to its parent company. The rate of this tax levied at the offshore center in Antilles is extremely low.

Similarly firms that provide patents, licenses, trademarks and receive different types of income for this, can evade taxes at the source of their income. Those payments, which are transferred directly to residents of other countries by companies (those who own the rights for granting patents, licenses, etc.), are subject to taxation at relatively high tax rates (30% profit). Payment of such taxes by American firms can be avoided by forming a holding company in the Netherlands. This company is given the rights of ownership for patents, licenses, trademarks, etc. and the possibility of giving the right to use them in the U.S. Income from this activity, coming from the U.S. due to the conclusion of treaty on avoidance of double taxation between the US and the Netherlands, shall be taxable only in the Netherlands. At the same time holding companies pay minimal taxes in this country.

In addition investments to the United States can be made through a holding company, established in the Netherlands by any non-US corporation. Such holding company can easily establish its branch in the United States. Based on the treaty between the U.S. and the Netherlands dividends paid by a U.S. branch in favor of the parent holding company will be taxed at the source of income at 5% rate instead of 30% paid by local firms under domestic U.S. law.

In the case, when the Dutch company opens its branch in Antilles it is able to pay dividends to it without their taxation at the source of income according to the terms of the agreement, concluded between the two countries (the Netherlands and the Netherlands Antilles). Strategy described above is illustrated by the following scheme (figure 12.3).

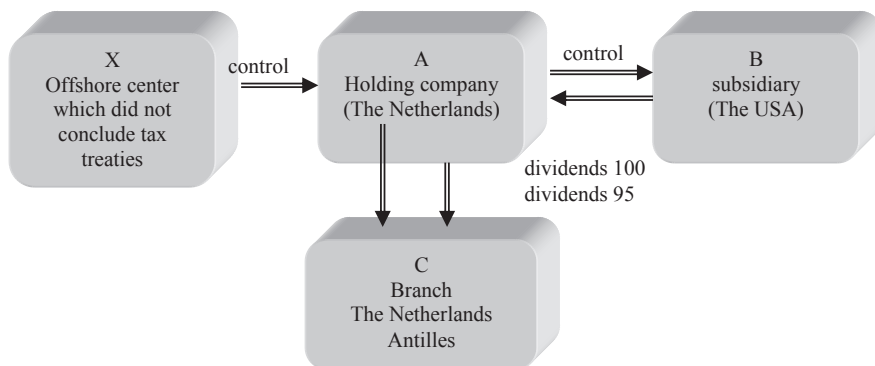


Fig. 12.3. Scheme of tax evasion strategy

The problem of fighting with abuses, which are related to the "tax treaty shopping" system, becomes increasingly relevant. This struggle became more difficult because of the fact that many countries have concluded the agreements with offshore centers about the avoidance of double taxation. The easiest way would be to refuse from the concluding of such agreements and other tax treaties with offshore centers. But such ban on an international scale is not easy to apply in the real life, because the appearance of tax heavens is caused by complex economic, geopolitical and historical circumstances.

In recent years a number of countries and international organizations make statements against the practice of "tax treaty shopping". The Ministry of finance of the U.S. protested especially vigorously against such fraud and abuse of the agreement on double taxation avoidance. It acts with the requirements and recommendations, aimed at not signing new tax treaties, reviewing or terminating the already signed ones that allow third countries to obtain the benefit in the taxation area. However due to the large number and great variety of tax systems in the world it is almost impossible to develop a universal model of provision (clause) that would limit the possibilities for abuse of tax treaties' terms. Tax relations between individual countries should be treated and regarded individually. The current system of taxation at source of income needs to be improved and modified.

The optimal "anti-shopping" point (clause) becomes more widespread in international treaties. It provides tax agreement termination by one party of the treaty in case it brings evidence that the other party is unable to comply with the terms of this agreement.

Tax agreements also provide positions and rules which extract some functions of companies from treaties' control. An example is the tax agreement between France and Luxembourg as well as between Luxembourg and the United States with respect to holding companies. Similar provisions are contained in the

agreements between France and Malta as well as between Cyprus and France on shipping companies.

In general, it should be stressed that to date tax administrations of concerned states have not developed effective methods to combat abuses in the area of "tax treaty shopping" as well as ways of dealing with other forms of tax evasion. Some countries (the USA, Canada, Switzerland, Germany, the Netherlands) having concluded agreements on avoidance of double taxation mentioned into their texts orders that pursue the goal of preventing the criminal use of terms of those agreements.

Agreements on avoidance of double taxation are concluded in the interest of taxpayers. Their conditions and regulations make parties of the treaty more attractive to investors in terms of financial commitments. When viewed from this perspective the conclusion of these agreements can be regarded as an attempt to restrict the use of offshore centers by entrepreneurs.

## Chapter 13. Offshore centers in the system of international taxation

### 13.1 Tax evasion

Escape and evasion from taxes is a phenomenon as old as are taxes themselves. A reduction in public revenues which serve national and local needs is related to both those things. The use of offshore centers by businessman is connected with them.

*Escape from taxes* is the reducing tax liability to the level, at which the tax is the lowest. Here we see the adaptation of a particular situation to one, which is more favorable to the taxpayer. You can also create an artificial situation with taxes by distributing arable land between family members of the owner. It is possible to reduce the amount of industrial activity or change the location of production legally.

A large number of lawyers believe that any transactions conducted through offshore centers are illegal. Their opponents have the other point of view. They think that it is appropriate to use tax laws to reduce the tax burden referring to the services of offshore centers but without putting themselves at risk of administrative or legal liability for any breach of the law. These lawyers do not see anything wrong in using offshore centers in order to minimize or evade taxes.

It is important for a taxpayer to know whether the operation, performed by him, is legitimate or not. The problem of the distinction between "tax evasion" and "tax escape" is a matter of third importance.

Qualification of procedure of the use of offshore centers as fraud or as legal "tax escape" depends on value definitions of these terms. These concepts are difficult to define. They are determined and formulated differently in various countries.

The term "tax escape" is vague and inaccurate. According to one of the most renowned experts in the field, I. van Hoorn, the term "tax escape" is filled rather with neutral than negative content. It should be distinguished from tax fraud due to the fact that the tax escape is not associated with attempts to evade taxpayer's responsibilities in a criminal way.

It is difficult to distinguish between legal and illegal escape from taxes in practice. There are the criteria that can be useful for this distinction:

- the motives of the taxpayer activity (intended actions);
- the fake nature of activity;
- the amount of benefits, received with the help of tax evasion;
- the assessment, done by the competent authorities.

Escape from taxes has its own differences across countries depending on the orders of the tax laws functioning in these countries. A common feature of this procedure is to use the opportunities within the existing tax rules by searching for ways to reduce the tax liability as well as the tax:

1) the profit can be converted into capital by using the mechanism of payment of dividends;

2) the payment for goods or services may be made with the benefit for the manufacturer in the form of loans, often interest-free;

3) the use of legally formalized common property on an equal footing with regard to income or assets that can be transferred to the hands of a person, who uses tax exemption or is taxed at lower rates;

4) company's capital can be presented in the form of loans so the taxation becomes less burdensome.

Escape from taxes also becomes possible by carrying out a series of transactions each of which is quite legal, but the sum of which gives the taxpayer the benefit, not provided by tax rules.

The escape from taxation often happens under existing rules and laws, but its implementation is possible only with the help of action or behavior, which are inconsistent with the spirit of law and order. If this happens the taxpayer is concerned as the person, who abuses laws and should bear the responsibility for such abuse, although no legal sanctions can be applied against him.

*Tax evasion* has always been an illegal activity, incompatible with tax laws. It may be, for example, in the form of fraudulent declarations presentation. The evasion from taxes from a legal point of view is a crime, punishable by law. This crime occurs in different forms and by different methods.

Individuals evade taxation by falsifying of tax declarations, submitting the false information or by the concealing the information which is connected with taxation or the address of their residence. The tax evasion in many Western countries is done by the abuse of rules, which governs the exchange of currencies.

Tax evasion takes similar forms in different countries. The most popular ones are:

- non-disclosure of information to regulatory authorities about the presence or activities in the country in which the taxpayer is located or is engaged in business activities;

- non-disclosure of income source and profit that is taxable despite the obligatory nature of such notice;

- non-disclosure of the full amount of taxable income, report of costs that did not happen or notification about their value which is higher than the actual one;

- use of benefit references in the income declaration that apply to children who the taxpayer does not have or use of deductions from income for depreciation of machinery and equipment that do not exist ;

- non-payment of taxes to tax authorities which are imposed on employees' wages hired by the taxpayer.

This list can be extended. Most of these abuses are complemented by compiling false invoices and tax documents falsifications.

One of the common ways of evading taxes in the own country is the moving activities or capital to another country, because of this fact they are hidden from national tax authorities. Getting of the information abroad becomes a harder matter for them than inside the country. Foreign financial documents overstating costs and understating sale revenues are more likely to be trusted by tax authorities than



similar documents, prepared in their own country. In addition, the taxpayer may take advantage of the opportunity of relocation abroad to the offshore center.

In recent decades there was a noticeable strengthening of legislative activity related to the problem of escape and evasion from taxes on an international scale. The reason was the increased tendency to desire of businesses and individuals to reduce their tax liability in order to use savings as an additional source of funding. The answer to this was the adoption of measures that can protect the integrity and the achieved amount of budget revenues. Collision of interests of the taxpayer and the state increasingly encourages the taxpayer to use the possibility of a simplified transfer of capital abroad as well as the simplified possibility to travel there too. The increasing internationalization of financial transactions makes it easier to escape taxes. The deepening of conflict between the treasury and the taxpayer results in the search for and use of gaps and holes in tax laws and the use of offshore centers.

No wonder that in such situation a number of countries have come forward with an international initiative to prevent the tax escape and evasion. This problem is reflected in the work of the Committee on Budget Affairs of OECD countries, which fundamental report ("Escape and evasion from taxes") contains principles of tax policy. It is reflected in the activities of the UN. A group of experts that studies tax policy from the perspective of relations between industrialized countries with developing ones convened by the organization pointed out the importance of international cooperation in combating tax evasion. The group operates under the name "Experts of international cooperation".

The problem of preventing escape and evasion from taxes is one of the central ones for the European Council, the Inter American Center of Tax Administrators (CIAT), the International Finance Association (IFA).

Losses for the state budget caused by non-payment taxes are very high. The data presented in the reports show that revenue losses from tax evasion constitute 3% of total tax revenues in Finland annually, in the U.S. - 10%, in Canada - 10%, in England - from 3 to 3.5 billion pounds a year, in Hong Kong - \$ 60 million, in France treasury loses 23 % of tax revenues due to these reasons.

To combat tax abuse effectively it is necessary to determine clearly which actions can be qualified as tax evasion and which - as a legal way to reduce the tax burden. This is especially topical for Latin America where legal rules relating to the prevention of tax escape are very loosely interpreted in judicial proceedings.

Fighting tax evasion is primarily concerned with the establishment (identification) of income's owner that makes tax authorities obtain information from a variety of sources.

Obviously, in countries such as the USA, Canada and Ukraine where the tax system relies mainly on the declaration composed by a taxpayer tax authorities have wide access to the information they need. There are countries where a general obligation of information about income earned during the financial year is established. This information allows tax authorities to identify unreported income or qualify unfilled declarations as a crime which is one of the ways to avoid paying

taxes. This information is particularly useful with regard to such income forms as royalties or fees for patent use.

In order to stop tax evasion special legal rules are introduced in some countries. Financial Brazilian law, for example, requires that each remittance sent abroad must be announced to tax administration. In Germany there is also a requirement to notify tax authorities immediately about doing business abroad or taking part in a foreign business. The U.S. tax declaration contains points filling of which helps to the procedure of tax evasion or escape.

Many states consider currency exchange regulation as an essential element of the fight against tax evasion. These countries include Australia, Austria, Brazil, Denmark, France, Greece, Norway, New Zealand, Israel, Portugal, Sweden, Ukraine, Russia. Forms and extent of such control vary in different countries – from the duty of informing about currency transactions up to their ban until the taxpayer does not pay the tax authorities. However, in some states tax authorities do not have access to information held by bodies exercising monetary control. Nevertheless generally there is a rule by which the income transfer by residents abroad or transfer of foreign companies' capital are permitted only after the fulfillment of tax obligations.

These measures represent the overall tax system of some countries and are not intended to address problems associated with the international escape or evasion from taxes. Therefore, most countries have taken special measures which allow combating this evil at the international level.

When it comes to international tax evasion the main problem is to establish the fact of violation of tax laws by tax authorities. Difficulties are often caused by situations where a local company controlled by a firm located in a country that provides a tax credit to companies receiving income from foreign branches and offices. This creates the possibility of obtaining significant financial benefits.

Basically tax liabilities are related to the status of the taxpayer. Tax liability of legal entities depends on the location of their residences or locations of their actual administration. Due to this reason taxpayers strive to leave the country with strict tax regime and to move to the country with favorable taxation that is to offshore centers. In fact, offshore centers are often used to escape taxes without any intention to evade them. So instead of transferring income from foreign sources (dividends or fees) to countries with high taxation it is sent to holding companies in offshore centers. The use of these centers leads to the fact that this income is accumulated without tax burden (or with little taxation) and is later used as a source of future investments.

Many states are making special efforts to create a legal framework in the field of taxation and show great concern to the collection of taxes. These countries are doing everything necessary to minimize tax evasion facts. Activities in this area are conducted under domestic law and international agreements with respect to the problems of tax evasion in particular EU Member States. EU Commission links the problem of evasion from taxes to their harmonization within the EU, and in a broader sense – to ensuring objective competition conditions internationally.

EU countries come to understanding that denial of the capital market regulation and the lack of ability to influence the transfer of capital cause large-scale tax evasion. Based on these views tax authorities pay special attention to multinational corporations whose activities create favorable ground for tax evasion.

### **13.2. Methods that limit financial transactions through offshore centers**

#### **13.2.1 Measures accepted on the international scale**

Development and adoption of measures aimed at combating tax evasion using offshore centers has become one of the main objectives of financial bodies in many countries. It is recognized that such actions should be both intrastate and international. In the second of these options coordination of efforts in the framework of existing international organizations is needed as well as conclusion of special agreements between two or more countries.

The most influential international organizations which have begun to counter abuses occurring in offshore centers are EU and OECD. At the same time countries that have established bilateral and multilateral agreements on this issue include the U.S., Japan, Canada, France, Germany and the United Kingdom.

EU has been working for many years on the issue of tax evasion. Results of these efforts are embodied in reports and methodological developments. Thus, the EU Commission insists on putting into practice principles of fiscal justice which would be able to prevent fiscal fraud and tax evasion; notes that high tax rates lead to an outflow of capital from the EU; indicates the feasibility of limiting opportunities of offshore centers associated with abuse of non-payment of taxes; is critical about tax manipulations practiced by TNCs. Europe Council's directives make it obligatory for tax authorities of EU countries to exchange information with each other, recommend to develop extensive contacts between tax inspectors from different countries practice the exchange of experience and learning practical achievements in the elimination of tax losses area.

Wide range of tax information intended for exchange is provided in the OECD model treaty which is the basis for the conclusion of bilateral agreements on avoidance of double taxation. The vast majority of these agreements (and about a thousand of them were concluded before the training model agreement) contain orders about the exchange of tax information. However, for countries that have not signed an agreement on taxes and this apply to many offshore centers regulations of the model contract do not have any value.

TNCs that use offshore centers benefit from frequent refusal of foreign governments to provide tax authorities of resident countries with information of interest for them and from the cases of obstacles in collecting tax-related information.

A number of states have introduced an instruction that ensures the protection of particular interests of domestic companies in terms of keeping in secret their

documents and information about their activities. Indeed it is closed for tax and other authorities from another state.

The need to obtain tax information abroad requires training of employees of tax authorities. The U.S. Internal Revenue Service has introduced special training for their employees on the issue of tax evasion practiced by multinational corporations.

Using the privileged position and leading role in the global economy the United States make effective pressure on some states in which U.S. taxpayers hide their capitals. Thus, based on the relevant legislation approved by Congress (Caribbean Basin Economic Recovery Act) the U.S. forced 24 mini-states all of which are de facto offshore centers to sign an agreement on the exchange of tax information with Washington. This data is transmitted at the request of the Treasury or the Department of Justice relate not only to taxes and finances but also to "dirty" money laundering, drug trafficking and organized crime.

The U.S., France and India belong to a small number of countries that officially sanctioned tax evasion and introduced a reward for providing information on tax evaders. For example, the Internal Revenue Service has already paid 500 thousand dollars to 578 informants. Code of Laws of France contains general provisions that allow the consideration of rewarding informants and by Indian laws the informant is entitled to receive from 10 to 20% of the amount charged by the State due to his statements on tax evaders.

OECD conducts analytical and research work on combating tax escape and evasion. A special body called the Working Group was set up for this purpose which in 1977 was transformed into the Committee of the problems of tax collection. This Committee includes representatives from tax authorities of OECD countries. The result of these efforts was a study entitled "The problem of international evasion and escape from taxes" conducted in 1987. This Committee also examines specific types and methods of such activities especially related to the use of offshore areas by tax evaders; its greatest interest is about abuses relating to the resolutions placed in agreements on avoidance of double taxation.

OECD member states exchange experience of fighting illegal practice of tax fraud between each other and provide each other with materials and documents on this issue. However despite these efforts they encounter difficulties when it comes to agreeing about the adoption of common directives aimed at the prevention of evasion and escape from taxes. This is due among other things to the serious problem concerned with national sovereignty on one hand and on the other to formal linguistic difficulties of the question related to the need to use at least 15 languages including Finnish and Japanese.

OECD developed a Convention on Mutual Administrative problems of taxation. However, it is criticized because it:

- 1) provides access for different states to sources of information prior to the investigation and criminal proceedings;
- 2) provides the exchange of information leaving taxpayers ignorant and thus depriving them of the possibility of giving explanations;

3) allows the possibility of abuse of data and confidentiality of trade agreements;

4) is a multinational in nature although some countries have not reached the harmonization of tax legislation.

It should be noted that there are not many international organizations engaged in the fight against tax evasion. Among them we can mention the so-called group of four (France, Germany, the USA and the UK) and the Community of Tax Administrators of the Pacific (Australia, Japan, Canada and the USA). A bilateral agreement between the U.S. Internal Revenue Service and British tax authorities was signed. This agreement provides mutual access to information of each of these countries. Later it was expanded involving France, Germany and Norway. Germany has gone in this direction so far that appointed its tax officer in the U.S. Its task was to monitor the changes in the functioning of the U.S. tax system and to assist the implementation of resolutions in the tax agreement between the U.S. and Germany.

The United States and Canada can serve as an example of the close cooperation between the two countries in the field of tax collection. Accounting control over taxpayers who receive income in both countries is practiced. In a growing number of cases the U.S. Internal Revenue Service makes pressure on the U.S. and Canadian banks in order to obtain access to the accounts of customers who use offshore centers. U.S. pressure extends to other countries such as Switzerland, the United Kingdom or Hong Kong.

Most of the small states of the Caribbean believe that relations with the United States are an unidirectional transmission of information of course towards the United States. The latter, however, in many cases make it difficult to obtain financial information relating to the inhabitants of the Caribbean islands doing business in the United States. The reason for this situation is the lack of well qualified staff in tax departments of these countries who are able to start and bring to a successful result the collection of required tax information in the U.S. U.S. gained the permit to access tax information in Costa Rica, Dominican Republic, Grenada, Guiana, Honduras, Jamaica and St. Lucia only as a result of pressing on them. Similarly Guam, Marshall Islands and Samoa in the Pacific have agreed to transfer information on tax evasion instead of some American concessions.

### **13.2.2. Domestic anti-offshore regulation**

States, whose taxpayers escaping taxes hide in tax havens, try to improve legislation to close the gate to 'tax haven' for their citizens tightly. Introduced rules and prohibitions are divided into two categories. The first section includes orders of general nature the second - special rules. The latter covers standards that govern the use of tax havens by holding companies and corporations controlled by foreigners.

The most agreements on avoidance of double taxation concluded between the countries with high tax rates and countries with low tax rates have been

recently revised. The result was the introduction of points (clauses) which makes it impossible to use the provisions of these treaties by residents of third countries in their attempts to evade taxes. Bilateral agreements between the U.S. and British Virgin Islands, between Cyprus and the United States, between the United States and Malta, England and Holland, Canada and Barbados can serve as examples.

Let's consider the measures taken by some states to curb attempts to use offshore centers for tax evasion and escape.

U.S. initiated and coordinated an international campaign against the transnational corporations and individuals who evade taxes. Anti-offshore regulation in the U.S. is carried out by a specially created subdivision F within the Ministry of Finance. In 1992 a law on income was adopted the content of which limited the possibility of using tax incentives provided by Switzerland to American firms. However the possibility to escape taxes using the territory of the Dutch Antilles remained. In response the United States concluded a tax treaty with the Netherlands conditions of which apply to Dutch Antilles. As a result opportunities for U.S. multinationals to transfer their income without paying taxes to Antilles have been significantly reduced. The UK followed an example of the United States in this regard.

The most significant result of the Internal Revenue Service in terms of combating tax evasion and escape by using tax havens is considered to be the so-called "Gordon's report". This document reflects the growing concern about the fiscal benefits and their use by U.S. taxpayers. It also stated the difficulties associated with the detection of adverse use of tax havens and mentioned impediments which make it hard for the U.S. authorities to stop and limit attempts to escape and evade taxes performed by U.S. corporations and individuals.

Legislative and executive powers of the U.S. prepared their own documents on offshore centers. Thus Senate commissions developed and presented a report entitled "Crime and its mystery: the use of banks and companies in tax heavens" and the Treasury Department prepared a document called "tax havens in the Caribbean". In these two documents special attention is paid to obtaining maximum information.

In 1979 Congress passed a law on secrets keeping by foreign banks. According to it fines up to 500 thousand dollars, imprisonment up to 5 years or both at the same time were introduced for an American resident who uses the account in a foreign bank to evade taxes. Residents of the United States according to this law have to give annual report to the government concerning foreign banking operations if the amount of the contribution exceeds one thousand dollars during a given calendar year.

In the U.S. a law "On fair taxation and fiscal responsibility" limits the possibility of the use of benefits arising out of the terms of international agreements, particularly ones on revenue taxation. In a later date tax reform strengthened the directives governing possibilities of use of tax offsets by U.S. firms that have foreign affiliates.

**The UK** is also one of the states which were the first to strive for the limit of the possibility of abuse of offshore centers in the international arena. High tax rates remain in this country. A special focus on offshore centers was in tax laws of 1970 and 1988. The latter is still active and requires that a British resident who receives income from abroad must pay taxes on it in the UK. A financial law was adopted here which largely corresponds to American orders that relate to the prevention of tax evasion through the use of offshore centers. Foreign companies are taxable if according to the English law they meet following requirements:

- 1) a foreign corporation is controlled by a British company;
- 2) British company together with UK residents own at least 10 percent of foreign corporation's property;
- 3) a controlled foreign corporation is a resident of the state or territory with low taxation.

Low level is considered the one the amount of which is less than half of the taxation level in the UK.

**Germany** is among the first countries that joined the fight against tax evasion conducted by individuals and businesses. Bundestag of Germany back in 1962 demanded the government to prepare a report on the effects of changes in residency by taxpayers and the differences in tax levels between countries. In 1964 a document which is a report on the situation in tax havens was drawn up. A year later a decree was issued concerning the transfer of income and assets from Germany abroad.

Stronger and more effective measures are reflected in the law on taxation of foreign economic activity. Among them:

- tax authorities are ordered not to recognize the price level or amount of fees paid by financially interrelated subjects as a real one;
- once limited, liability for non-payment of income tax, property tax, inheritance and gift tax was extended;
- a rule was introduced according to which immigrant from Germany who within five years of the ten preceding ones lived in Germany but travelled to a "tax haven" is subjected to German income tax payment.

**France** imposed orders against abuse of advantage of tax havens in 1973. Adopted in the same year financial legislation established that income earned by a foreign legal entity that has a residence in France is subjected to French taxation. This also applies to income derived outside of France.

In 1980 the so-called law on finance was passed which greatly limited the privileges and benefits enjoyed by individuals and legal entities that use the services of tax havens. The law requires that a French resident who owns directly or indirectly not less than 25% of equity in foreign companies operating outside France in locations where there is a "privileged" tax system should pay taxes in France. The tax base is the partial (in percentage) participation in company profits regardless of whether profit is distributed among owners or invested. Privileged tax system is considered the one which does not tax income at all or where tax rates

are by two-thirds lower than those existing in France. Basics of this order of taxation are kept to this day.

In **Japan** in 1977 parliament passed a resolution on the issue of tax evasion and escape, use of tax havens for this purpose. Then the "Law of the 1<sup>st</sup> of April 1978" introduced the regulation rule which limits the ability of tax fraud using such states and territories. The Ministry of Finance has recognized 41 territories as tax havens. At the same time it was recognized that "low" taxation should be considered the one with tax rates of 25% or less. April 1, 1992 resolutions of the Ministry of Finance have been abolished, tax authorities were offered to consider each individual case separately. However, the two main criteria remain:

- maintenance of company's governance in countries that do not tax company's income;
- clarification whether the level of taxation of the company is less than 25% in the country.

In both cases we are talking about companies registered in tax havens while 50 % of the shares or capital of these firms must be owned by Japanese residents.

In **Italy** the Ministry of Finance issued a decree in 1992 that contains a list of countries with preferential tax treatment creating in their territories possibilities of tax evasion. Same problems are addressed in Income Tax Code, adopted in 1991.

Italian law also borrowed 3 types of international principles which have been already introduced in a number of countries to prevent abuse of offshore centers use, such as:

- 1) orders approved in the United States in 1962 that tax companies with residence in offshore centers;
- 2) the principle recognized by the EU according to which companies which have residence in one of the EU countries are not allowed to deduct from the tax base costs related to agreements concluded with companies registered in tax havens;
- 3) orders and regulations which act in Belgium, Luxembourg and the Netherlands applying to dividends paid to companies resident in tax havens.

The restrictions contained in the Italian tax code on tax havens do not apply to countries that signed agreements on avoidance of double taxation.



## **Chapter 14. Money laundering**

### **14.1. The concept of “dirty” money. Money laundering as the process**

#### **14.1.1. The definition of "money laundering"**

Offshore centers in addition to the reputation of "tax havens" have become notorious places where so-called "dirty" money are laundered and legalized. This term is used to name the money gained from crime. A set of actions that pursue the goal of hiding the true sources of such money and to give them attributes of legal origin is called "money laundering".

Money laundering is considered as an illegal act in criminal legislation of many countries, particularly in criminal codes of the United States, the UK, France, Germany, Switzerland, Poland. The most comprehensive definition of "money laundering" is given in the U.S. criminal code. According to this document the crime of "money laundering" is committed by one "who understands that the property involved in a transaction represents income from illegal activities which are aimed at:

- conduct or an attempt to conduct a financial transaction which includes such income with the intention of supporting such types of illegal activities involving any signs of criminal acts organized crime and drug trafficking;
- the implementation of financial transaction with an intent to breach federal tax code regulations;
- the conscious conduct of a financial transaction with the intent to hide in whole or in part the fact of the matter, place, source, the owner or controller of income received from mentioned illegal activities;
- the conducting financial activities with evasion of duty of filing the statement of cash flow.

In the modern market economy most transactions are performed without the use of cash while the illegal profits received by criminal organizations are in the form of cash. Therefore, criminal bosses and their accomplices in order to be in charge of the money received from crime should bring them into legal turnover through financial institutions, business entities using a long chain of financial and economic transactions (called legalization channels). Money laundering occurs mainly in the banking system, the system of insurance, capital markets as well as the so-called entertainment industry (e.g. using casinos and other establishments that are engaged in gambling). Apart from that economic branches which are major money-laundering channels are those where one can easily and in a big way apply fake bills, invoices, where understated or inflated prices are mentioned, where bogus reclamations and other attributes of criminal business are recognized. This is primarily related to such businesses as real estate, art, cars trade, sale of excisable goods. Business processes such as privatization of state-owned enterprises, participation in the creation of venture capital enterprises, bankruptcy and liquidation of economic entities should be also outlined as special channels of money laundering.

All listed sectors and business processes have become an object of attraction of organized crime that launder "dirty money" because of the following reasons and the objective circumstances:

- versatility, speed and radicalism in some cases of changes in the legislation of several countries that have spread to these sectors; they influenced the effectiveness of changes in the functioning of the economy; (their negative display was expressed in the coexistence of different legal orders - old and new, often contradictory to each other, legal voids ("bottlenecks"), frequent changes in legislation, the advantage of the "broadened" interpretation of law) and similar ones;

- pervasive – from the top to the bottom - transformation of management structures, and creation of new units in management (with a lot of new positions), which is associated with qualitative changes in personnel, the establishment of non-governmental management structures (e.g. information systems), changes in ways of management;

- emergence of new forms of cooperation with relevant institutions abroad and arising in connection with this openness to the inflow of foreign capital, new management models, etc. and associated with them pathological forms that cause abuse;

- lack of appropriate mechanisms which protect the above-mentioned sectors from various types of violations and abuses;

- the vulnerability of the economy in relation to illegal economic activities as well as abuses in the conduct of economic policy (for example, with respect to "pressure groups" that lobby their interests in government institutions and parliament).

Due to the variety of illegal economic activities it is difficult to determine the extent of laundering of "dirty" money process with sufficient accuracy. Such difficulties are caused by the inability to obtain financial statements of criminal organizations as well as the existence of a huge number of unsolved crimes. Western experts argue that the worldwide amount of funds derived only from drug trafficking and subjected to money laundering constitute hundreds of billions of dollars annually.

One of the indicators that assess the extent of the process of laundering of "dirty" money can be a number of questionable transactions registered by financial institutions and business entities that are ordered by authorities to provide such information to law enforcement agencies.

According to estimations of FATF (Financial Action Task Force) experts every year from \$ 500 billion to \$ 1.5 trillion are laundered worldwide.

However it would be a mistake to reckon that "dirty" money appeared exclusively as a result of the activities of organized crime. "Dirty" money became a constant companion of any economic crime and especially the one concerned with taxes.

The problem of tax evasion and the related problem of money laundering are relevant in all countries. The share of non-taxable income in the total mass of the

national income is as follows: 10% in Australia, Belgium - 15%, Denmark - 6 %, France - 10%, Germany - 13%, in Greece - 50 %, in India - 18 - 20%, Italy - 25%, Japan - 5 %, in Norway - 17%, in Spain - 23%, in Sweden - 16 %, in the U.S. - 15% [15, p. 211].

Sphere of tax crime is an important but not the only source of "dirty" money in the business environment. A rich and varied arsenal of techniques and methods of getting felonious money is accumulated. This system of double-entry bookkeeping and intentional errors in accounting, many ways of understatement of profit, manipulation of assets and liabilities, deals without billing, methods of concealed billing and hidden shady conditions.

Another source of "dirty" money are bribes. They are generally not taxable so immediately after taking bribe turn into "dirty" money and in cases of large amounts they need immediate laundering (of course, if the source of bribes have not already been "dirty" money). Interestingly under the laws of some countries bribe amount can be deducted from taxable income. Belgian law allows this for export transactions only if bribes are needed to overcome the competition, if they are widely used in the industry, if relevant documents are submitted to the ministry of finance, if bribe recipient's name and address are called. If these conditions are not met and the recipient of the bribe is not named, then on the employer who pays a corporate tax an additional tax is imposed which value constitutes 200% of the bribe. Law of Denmark is even more liberal: bribe amount is simply deducted from the taxable profit if it is caused by production needs and is moderate. In Japan the money paid in bribes are treated as operating expenses if the name and address of the recipient of the money are claimed.

The similar attitude to this issue is in the Netherlands. In this country it is possible to deduct all expenses connected with business activities in different ways from the taxable profit. Decisive here are good intentions of the entrepreneur, for example, the desire to encourage the development of the company. Courts and tax administration in this country have no right to determine which costs cannot be considered as productive and therefore cannot be deducted from the amount of income subject to taxation. Terms about naming bribe recipient are not present. The entrepreneur should only convince the tax administration that such payments are made in the interest of the company.

In the UK it is allowed to deduct the amount of bribes from the amount of income subjected to tax provided that the purpose of such payments was related to the interests of production. However, the tax office has the right to demand to give the name and address of the recipient of such payments.

The most stringent legislation regarding receiving bribes and turning those into «dirty» money are in the United States. Although here as in the UK the bribes are allowed to be included in production costs but with the obligatory indication of beneficiaries this procedure is limited by a number of prohibitions including: bribery to all state and municipal officials as well as to employees of public organizations both in the U.S. and beyond is criminally punishable. In general despite the prohibitions and restrictions sums paid in all countries in the form of

bribes form a huge mass of "dirty" money most of which pass the laundering procedure in different forms.

#### **14.1.2. The organization of money laundering procedure: stages and methods**

Procedure of laundering of money received from criminal activities is very important for participants. British criminologist J. Mc Clean rightly notes: "From the perspective of the perpetrator the increase in profits from criminal activities is meaningless as long as there is no way to use them. This, however, is not as easy as it could be. Some part of income gained from criminal activities usually is directed at the development of illegal activities, but the rest the criminal would like to use for other purposes. If he intends to do so without putting himself at risk of excessive exposure of the money sources he needs to "clear" them before that, i.e. to fabricate a false, but completely legal and respectable "family tree" for them [18, p. 261].

#### **The Stages of money laundering process**

The process of money laundering consists of a series of stages or phases. Each process separately, of course, has its own peculiarities and differences. The general features are the features highlighted in the criminal law of a number of countries. These include: replacement of property (including money) obtained illegally, its movement, concealment, cover, purchase, possession, use, participation, cooperation. Such things as large hierarchical organizational structure of perpetrators, rational, planned and based on "division of labor" tasks, variable "technology" of crime conduct and a rich choice of ways to implement it seriously influence the complexity of money laundering. This arsenal consists of the use of financial institutions due to abuse by bank employees, diversity of bank accounts' species and, of course, a variety of ways of transferring cash across the border by using services of corrupt customs officials.

Activity related to money laundering – is always a transformation (modification) or movement. Transformation occurs when money change their shape. This happens, for example, when executor for illegal "profit" gets remittance or car. Illegal incomes discard their form of cash and turn into a document that legalizes receiving money, movable or immovable property. We have to deal with the motion when the same money will change not shape, but their location. This is, for example, the postal or the telegraphic transfer of them to another location.

Money laundering usually occurs in three stages. However, it has repeatedly noted that the first stage precedes preparation of the whole process, which consists in transporting cash from the place of crime to another place that offers the initial guarantee of the success of the planned enterprise.

Illegal transfer process that precedes the placement of "dirty" money is called "training placements." The selection of this introductory phase into separate proceeding in the Western literature is connected with differences between "countries with criminal activity" and "money laundering countries". The first

category enters countries, where the activity of organized criminal groups (especially drug dealers) is particularly intensive.

This is the USA, Italy, Thailand, Colombia, Nigeria, etc. The states that adjoin with the above mentioned countries, such as Canada, the major financial centers, such as Switzerland, as well as offshore are included to the second category.

The process of money laundering comprises three stages, besides the preparatory one (Fig. 14.1): placement, disguise and integration. The first stage – placement – a stage in which income, derived directly from the crime for the first time is placed in financial institutions or used for buying various types of assets (including securities). The second stage – disguising (hiding) – a stage, when the first attempt of concealing or disguising sources of origin and identity of the money owner begins. Finally, the third stage – the stage of integration (legitimation), in which money is introduced into the legal economic structures and financial system in order to their final assimilation of all means, presented there [2, p. 67].

The executors of the crime introduce cash, which is derived directly from the crime, in any bank or other financial institution - in the first phase. This stage is relatively easy to determine whether the investment of cash in financial institutions money laundering, as well as to reveal the source of the “dirty” income.

Thus, the given stage of money laundering is characterized by the following features:

- the subject of laundering is the value obtained directly from the crime;
- often the subject of laundering appears in the form of cash;
- the actions of criminals take the form of financial transactions that capture by short-term as well as uniformity and simplicity.

Executor tries to separate money from its illegal sources, conducting a series of financial agreements (such as modification and movement) at the second stage.

Executor hopes thereby to get the situation, when the link of money that is laundered, with the source of origin was more difficult to find or even impossible. This stage is called the overlay of mask or disguise. Its completion leads to removal – both in distance and in time – of masked money from the crime, for example, by placement illegal lab that produces drugs, or wholesale supply base of such potion.

The third and final stage – is to frame-up the explanations about allegedly legal origin of laundered assets and putting them into the legal turnover by investing or buying property. Therefore, this step is called integration or legitimacy. The actions of criminal groups are focused on investments “laundered” money in the economic structures in the way that they re-entered into the banking system, acquiring necessary features of legitimate income, at this stage. Among the tools and instruments which are used to achieve integration, the fictitious sale of real estate is used, fictitious firms for providing unreasonable loans, involvement into illegal activities of bank employees in different countries, etc.

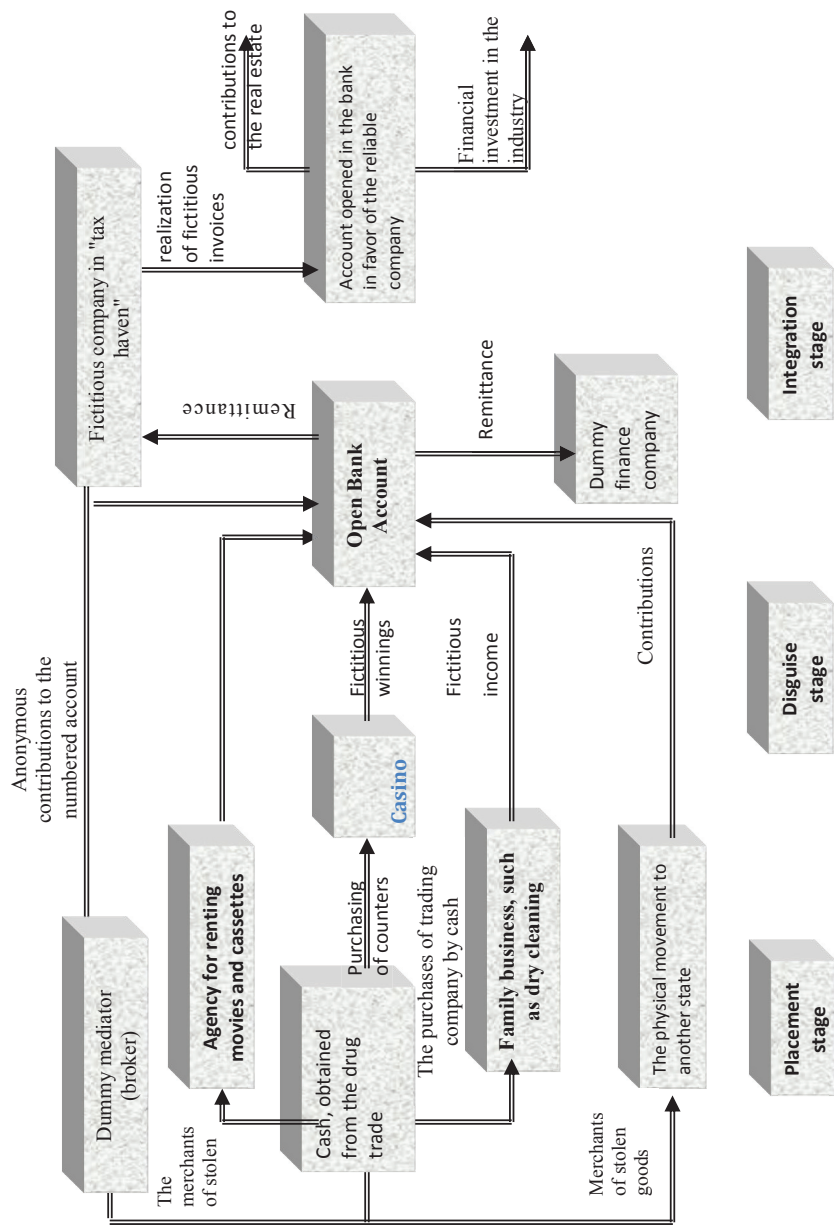


Fig. 14.1. Stages of money laundering

## The methods of money laundering

Actions that sum to the procedure of money laundering in the banking system, take the form of legal financial agreements (banking operations), but this form breaks internal banking statutes (bylaws and guidelines) or has the nature of illegal transactions, prohibited by regulations, implementation of which threatens the use of economic or criminal sanctions. There are other types of agreements in each stage of this process. Due to the fact they are usually illegal or break the decree of internal banking system, they are appropriate to call them as methods of crime (money laundering methods). The expression “technique of money laundering” can be a substitute to that definition.

Under this notion it is necessary to bear in mind a set of stable and repetitive features that characterize certain behaviors, which are associated with banking transactions, they define the scope and possibility of applying such transactions in the process of money laundering.

First of all, the differences, connected with financial nature of agreement, legal form of transaction, amount of capital, number of transactions, etc., effect on the diversity of methods of money laundering and also differences, which have non-financial character: the structure of criminal organization (simple, complex, hierarchical, internal functions, decision-making process, degree of trust among members of organization and related entities) (Table 14.1), socio-economic situation and relations, based on the plotting between criminal groups from one side, and administrative bodies and banks – from the other.

The effectiveness of the method of money laundering is considered to be high in the banking system, if the solution of three problems is provided:

- the hide of the true origin and of the owner of laundered money;
- the continuous control over laundered money;

•the change of the form of cash, procured by criminal way so that a decrease of the quantity (weight, volume) is maintained or increased its value.

Table 14.1

### Organized structures, which launder “dirty” money

1. Organized criminal group engaged in activity that brings great income
2. Intermediaries that link, for example, drug dealers with “launderers” of money “Slickers”: <ul style="list-style-type: none"> <li>➤ send traders to “launderers” or “launderers” to traders;</li> <li>➤ not interfere in the discussion of terms of the treaty about money laundering;</li> <li>➤ determine the rate for services (but not the percentage of “laundered” money).</li> </ul> <i>Brokers:</i> <ul style="list-style-type: none"> <li>➤ <i>Link drug dealers with “launderers” and make a contract. For an extra fee</i></li> </ul>

<ul style="list-style-type: none"> <li>➤ 3. The organizers (sponsor) of money laundering: <ul style="list-style-type: none"> <li>➤ Organize the whole procedure on a large scale (large amounts);</li> <li>➤ the participation of a large number of “launderers”;</li> <li>➤ payment for services of each executor separately;</li> </ul> </li> <li>➤ the contact with a group that has “dirty” money.</li> </ul>
<ul style="list-style-type: none"> <li>➤ 4. Couriers: <ul style="list-style-type: none"> <li>➤ organize transport and procedure at the first stage of the process;</li> <li>➤ are not associated with organized criminal groups;</li> <li>➤ disclose their passport data;</li> <li>➤ however, often use false passports and documents.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ 5. Currency changers: <ul style="list-style-type: none"> <li>➤ the owners of business units, these are often the currency exchange offices;</li> <li>➤ there are illegal, street currency changers.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>6. Professional advisers: <ul style="list-style-type: none"> <li>➤ make one or more services (e.g., advices in the field of investment, transfer of funds, registration of business entities on the surnames of third parties – dummy owners);</li> <li>➤ make manipulation in finance and law;</li> <li>➤ are bankers.</li> </ul> </li> </ul>

#### ***A. The features of money laundering at the placement stage***

At the first stage of money laundering – at placement stage– such methods are used as the investing of a large number of deposits in amounts below the limits that require bank employees to fulfill the registration procedure and identification of the depositor. This technology is called restructuring and covers in most cases the following points:

- multiple cash contributions (including currency) to the bank accounts of citizens of the country and foreigners (these are always amounts, which magnitude does not exceed the limits, beyond which banks are obliged to identify the customer) and similar contributions made by cash in a form of foreign currency, transported by smuggled way from abroad;

- transfer to the encashment of existing checks of bearer for an amount of lower limits that require identification;

- “smurfing”, i.e. the acquisition of easily transported property values by “dirty” money (in amounts that do not exceed the limits of identification), this applies mainly to bearer checks; multiple substitution of small face value banknotes into larger in amount that does not exceed limits of identification, without using bank accounts;

- various other cash transactions, conducted through a large number of bank accounts, branches, tellers or with the assistance of others, this includes operations among many cashiers by one person, in addition, there is a possibility to conduct the operation by one person or investment of deposits by cash into many different accounts of bearer, with a small amount of individual deposits, which form a very large sum of money in total.



Very popular and widespread technology of money laundering at the placement stage is the unification of “dirty” money with the income of legal commercial entity. This technology is called “mixing”. Hotels, restaurants, dry cleaners, bars, points of public services for the population are numerous types of economic activities that generate unstable income, which vary depending on the season, are not amenable to strict control and are therefore suitable targets for money laundering.

There are three options in the described technology:

- the owner of “dirty” money is the legal owner of commercial object or company which provides services during the process of money laundering at the same time;
- the owner of “dirty” money finds a legal firm to use it primarily as a “laundry” for money laundering;
- the owner of “dirty” money draws up a contract with another person (so-called contractor), which organizes the allocation of money through the company – “laundry”.

The mixing of “dirty” and “clean” money allows justifying the existence of large amounts of cash by links to legal economic activity without special efforts. The procedure of mixing money almost yields to exposure until the time, when the bank begins to suspect the client in abuse of their activities and in using of them for illegal purposes (noting, for example, income from business activities of the client too high, compared with those that he had before the emergence in this branch or in this area),

The introduction of strict legal rules in a range of countries forced the organized crime to attain penetration into some banking institutions of their accomplices or to strive to bribe bank officials and even the members of the Board.

A dishonest cashier may be involved in money laundering, the head of a department or of the whole bank (so-called “own” or “captured” bank). The technology of money “laundering” at the placement stage, which involves bank employees, includes:

- receiving of cash without documentation of the identity of the individual contributor and without the registration of the transaction;
- incomplete registration data, associated with taking cash;
- assistance in opening numerous false accounts for the purpose of admission cash contributions;
- the conscious rejection of the summation of multiple operations carried out within the same day;
- one physical cash receiving and accomplishment of deposits that are drawn as taken for several days;
- the registration abuse, which contains a list of persons, who use exemption from registration duties in the banking system, which is the order that requires the identification of customers.

The so-called “collecting of bank accounts” refers to the widespread technologies of money laundering in the banking sector. Immigrants from various Asian and African countries and from Eastern Europe invest small amounts of money (gratuity for legal work or “black” earnings) per account. These money are retransferred to the countries of immigrants’ origin.

One more technology became as result of lack of relevant legal regulations that govern the placement of large contributions to bank accounts in several countries. These are the deposits of currency contributions by citizens of these countries or foreigners. For instance, it is enough to show to the bank the custom declaration of foreign currency import in Poland and other countries, and it is exempt from the obligation of the depositor identification. Such banking transactions extend to the amounts that exceed the limits of identity, especially considering the shortcoming in the accounting of registered transactions, carried out by the same investors.

Buying and selling of foreign currency, simultaneously with writing down on bank account, remains the simple technique of money laundering, or buying and selling of foreign currency by cash through the mediation of exchange offices in banks and beyond.

The so-called “contracts”, which refers to the exchange, differ from the mentioned method. The essence of this technology is that the “dirty” cash is invested into different accounts in different banks. Further the investor draws up a contract on exchange with the help of bank manager in the third bank, for example, a large amount of U.S. dollars for Swiss francs. A further step involves the implementation of the agreement on the currency exchange for the specified rate. Entities, engaged in the implementation of such agreement receive commission for it in the third bank.

It is also important to mention the technology, concealing of various items in cases of widespread money laundering of great sums and large concentrations of money in banking saves. This method is used as an auxiliary in the first phase of money laundering.

The technical operations of banks which replace worn or damaged banknotes, can be used for money laundering,

Remittance is often used for money cleaning, such as payment for services. Usually they are used in connection with evaluating of “dirty” money into the banking system of another country.

All listed methods, used in the placement phase of the criminal gains in the banking system, are supported by other criminal acts aimed at achieving this goal – “clean” of received funds and the transition to the next, is the second stage of the process. All these methods are closely related to the maintenance of criminals by bank employees and by the specific nature of banking operations. In each case, the criminal action may take the following forms:

- forgery, which is the basis for the acceptance of deposits by bank;
- bribery – refers to both bank employee, and legal entity (such as a commercial bank);
- deceive, fraud in relation to individuals or legal entities, which are complicit in money laundering, without even knowing their complicity.

### ***B. The methods of money laundering at the disguise stage***

These methods have direct destination – to hide traces of the origin of criminal income and to ensure the anonymity of the owner of “dirty” money.

One of the most accessible and widely used methods of money laundering at the second stage of the process is the remittance by using EFT (electronic fund transfer).

This method often serves as the initial element in disguise, immediately after the transfer of cash to the bank. It may also be an indirect link at this stage after an exchange of cash for monetary instrument. For the purpose of masking also can be used: the point of sale transfer (POS), deal with the use of ATMs, electronic direct deposits (such as payment of gratuity or social benefits), and the payment of bills for telephone calls. It can be postal orders, both domestically and international. Internal systems of interbank settlements that exist in many countries can be used for their implementation on the territory of one state.

The main advantage of the electronic transfer of assets from money launderers is considered displacement of money velocity (including banking instructions and information). Assets transferred electronically, usually become available immediately after receipt to the account of money “launderer” in the bank that received the transfer. Therefore, immediately opens the possibility to start further criminal acts are related to money laundering – or the following masking of capital, or its integration into the banking system or beyond.

The second undeniable advantage of electronic transfer of assets (as SWIFT in general) is the frequency (intensity) of money shift.

The quickly and easy transfers of the money contribute to the fact that many intrastate and international shares of the money masking can be made in a short time – in order to camouflage their true criminal ties.

The third advantage is the large distance (in miles or kilometers), which is not an obstacle for such transfers. Today, many financial systems of different countries attached to the electronic transfer of assets SWIFT.

The fourth advantage – the minimum number of documents, used for the relevant banking operations.

Several technologies for money laundering at the stage of disguise can be called in addition to electronic forms displacement of assets and funds.

This is primarily improved technique of wire transfers. It is the transfer of “dirty” money from various parts of the country or region on a single account, the so-called “distribution” drawer. If the balance exceeds a certain level, passes the set “threshold”, the assets are automatically sent out of the country. The use of such “threshold” helps criminal groups to avoid great losses in the case of removal or blocking the account by justice.

There is the technology in addition to this. It is single or multiple change of form of illegal income through purchase of assets, i.e. stocks, bonds, traveler's checks. Often this is done very quickly. The executor of such operations may, for example, buy bearer checks with bank payment assignments or change such order for traveler's checks. Such “transformations” very hamper the identification of criminal income sources. The documents, accompanying such “transformations”, have relatively small physical volume that simplifies their export abroad and return back. In some cases, casinos or other enterprises, engaged in gambling, simplifies money

laundering, changing cash for tokens to play. Then “launderers” of money exchange the tokens for cash or checks.

Frequently used method of money laundering serves the formation of already mentioned “enterprise cover” and usage of their bank accounts for clearing at this stage. These entities exist only on the paper. In fact, they are not engaged in economic activity (as opposed to so-called company-screens). Such companies are used to mask the flow of illegal money. “Enterprise cover” (usually a company) makes it possible to allude the commercial secret. Their real owners hide behind nominee partners, who represent them, and board members. These companies are quickly created and can be used many times to disguise money laundering.

For the same reason, at the disguise stage illegal intrabank (between departments) and inter-bank transfers are used. This technology begins when an organized criminal group that launders money controls two or more bank departments or two banks in different countries (the already mentioned “own” or “captured” banks). Money, needed to be “laundered”, get to the bank department in the same country, but are detected in a bank in another country in the same currency or in any other. Considering that both departments relate to each other, there is no need to physically move assets. Of course, there is also no necessity for remittance by telegraph. This operation is done by phone or fax.

A characteristic feature of use of banking operations at the stage of disguise money laundering is a large number of counting checks that affect recognition (including those that are lower than the identification), including foreign checks..

It is used quite often to disguise “dirty” money, the technology that consists in reception of cash with a simultaneous closing of existing bank accounts to discover new, in other banks in the country or abroad. At the request of the client, it is executed termination of extension (erasing traces) of earlier made operations, while the bank cashier remittances money to other, mentioned client’s accounts, and simultaneously simulate the payment of this money in cash to the client.

### ***C. The methods of money laundering at the integration stage***

After the successfully disguise of “dirty” money, often with using various technologies, the executor, who legalizes income of criminal activities, must find a legal justification for the possession of property. For this, he uses various integration technologies.

The contract of sale of durable items, such as cars, boats, airplanes, antiques, real estate is used very often. Dummy companies are used to get property for the “dirty” money. Later the real estate is resold and the revenue from sale has now become quite “legal”. In other cases, “launderer” buys for “dirty” money, for instance, a yacht, declaring the price that is much lower than its actual value.

He pays the difference to the yacht seller in cash (the so-called agreement “under the table”). Later, he can resell the same yacht, putting the price equal to its true value. Thus he justifies “legality” of income by fictitious revenue. There are numerous cases when “launderer” cooperates, for example, with dealer who sells cars or with the real estate agency. The owners of these mediatory firms are often covered by criminal organizations. Criminals use these firms for a variety of transactions and

fraud. Items that are obtained by these firms are also used for criminal activity, such as vehicles, facilities for manufacture of drugs, a refuge for members of criminal groups, etc.

Such technology which buys companies that go bankrupt becomes more and more widespread at the integration stage, in order to create visibility, like income derived from criminal sources is actually income of the purchased company.

A very popular method of money laundering at the integration stage is the so-called technology of self-lending.

It consists primarily in creating a fictitious company receiving laundered money. Emergence of it overseas successfully hides the fact that this company is the property of person who is engaged in criminal activity. Criminals take a loan in one bank, and the second loan – usually much larger – from themselves as from fictitious company to use the money that is laundered. Legitimate loan is returned with interest from fake loan. It gives criminals money on hand that can be freely used in various purposes (e.g., to finance the further development of the criminal craft), and debt to itself (i.e. before fictitious company) opens the possibility of financing entirely legitimate business from the respected sources and still use tax benefits for the payment of interest or the inclusion of the same interest in production costs (depending on operating in this state tax regulations). In addition to the simplicity and accessibility, credits for itself have another important (in terms of criminals) advantage. They are difficult to expose the part of law enforcement, and they are difficult to find, given the lack of information about the true financial activities of criminal groups and their fictitious companies.

In many states, open method of money laundering relates to abuse by credit institutions. This method is often accompanied by smuggling cash. It proceeds in two phases. The first phase is transferring of criminal income, which goes to another state and distributing them in the form of bank deposits. Later – the second stage – taken a loan in a bank, located in the country of origin of “dirty” money and ensuring of its payment serves transferred to the foreign bank assets (certificates of deposit). This method is also used for tax evasion.

Credit institutions and loans are used in another technology that consists in transferring funds on very favorable terms (for example, low interest rates, favorable conditions from the standpoint of loan repayment terms, refusal of guarantees, etc.) for the implementation of various types of investment projects financed, for example, by the local government.

Cooperation with foreign banks widely used as in the earlier stages for the legalization of the source of money that is laundered at the stage of integration. It is usually banks with residence in offshore centers, which adheres to strict bank secrecy, which almost makes it impossible to get access to information about their clients. Cooperation of criminals with foreign banks at the integration stage often occurs as a result of corrupting bank officials, which was at the placement stage of “dirty” cash in the accounts of banks or at the disguise stage. It is important while criminals use these banks; their employees take from client’s unlikely (or even fantastic) “substantiation” of money sources and the reason for the deposit.

The use of invoices for import and export of goods during the trade agreements, and the use of bank staff are the common technologies, which used in money laundering at the stage of integration refers the for this purpose. This technology is used in four versions.

Firstly, these contracts are with dual source of payment (see Figure 14.2). Drawing up a foreign economic agreement (contract) for the purchase of goods (or raw materials) at an extremely favorable (very cheap purchase) when resale can bring profits which comes to 100%. In fact, the supplier (seller) accepts payment from two sources. The first payment, which is based on a single invoice, showed by the company, is no more than 50% of the actual value of the goods and formally executed by the buyer. The second payment is done mostly in cash (less transfer) or handed personally to the seller. The official profit of purchaser obtained during the resale of the goods in this way is “laundered” money. This technology is used in the purchase and sale of large quantities of high-value goods, such as electronic products, oil products, alcoholic beverages, and cigarettes.

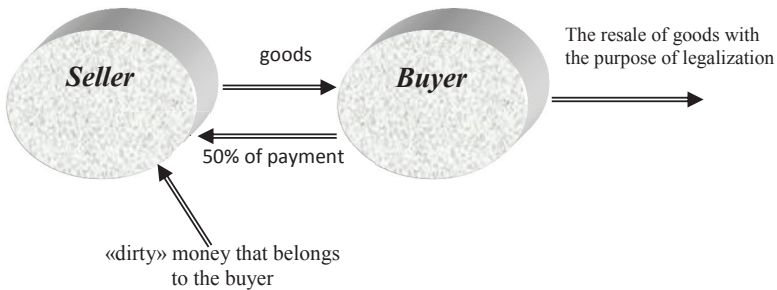


Fig. 14.2. Contracts with dual source of payment

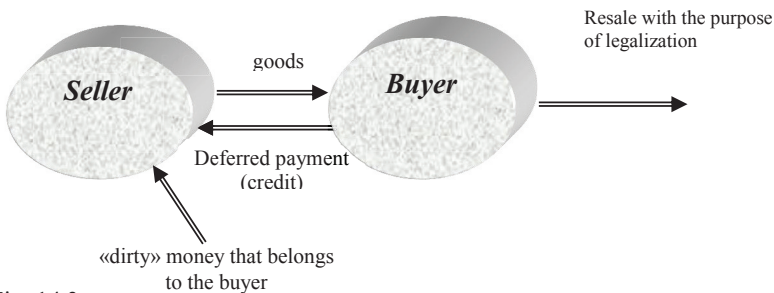


Fig. 14.3

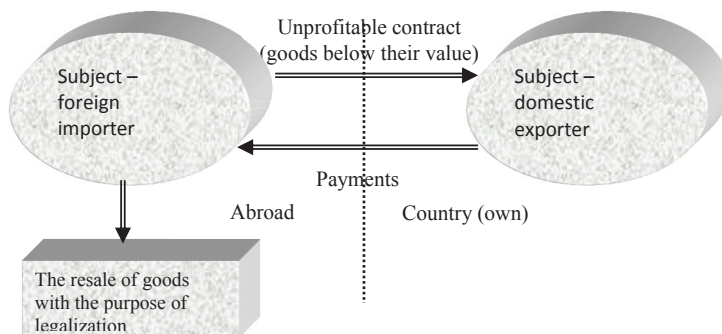


Fig. 14.4. Legalization of “dirty” money remittance abroad

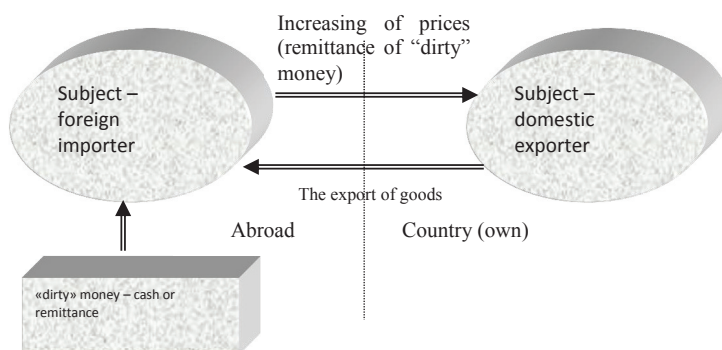


Fig. 14.5. Legalization of “dirty” money remittance to the own country Source: [18, p. 288]

Secondly, these contracts are particularly formal or false contracts (Figure 14.3.). This option is similar to the previous one, it is different only in fact, that it is used almost exclusively in large import agreements of trade firms. The essence of it is the fact that a certain number of contracts (20 – 50 % by value terms) are realized without any formal payment by buyer firm; usually everything is drawn up by fictitious loans. The contracts provide a significant deferral of payments, much less than the value of the realized delivery. The payments come from illegal foreign sources in fact. Banks with shady reputation, located in offshore centers are often used for financial payments under these agreements. In addition, the parties of the agreement are widely used in calculations of this type of credit.

Bank employees of different levels can play the important role in a variety of similar frauds, related to money laundering, - cashiers, accountants, etc. Great benefit can be even a careful analysis of invoices. Coming from different parts of the world, from different regions and from different companies, they often have common,

identical features that give the same vocabulary and even the same spelling. It is easy to guess under careful study that they have the same executor.

Thirdly, it is the legalization of “dirty” money through remittance abroad (Figure 14.4.). This technology is used in situations when the earlier stages of money laundering were on the bank accounts of some domestic firms and there is an urgent need to remove them from the country, followed by legalization and investing abroad. It is in officially drawing up unprofitable export contract for the sale of goods below their value. This leads to the results in financial losses for the domestic firm. At the same time, the foreign firm (which is usually under the control of domestic exporting firms) unofficially gets significant revenue from the resale of goods, which are the subject of the contract. Now profit becomes the legally earned income from trading activities.

Finally, fourthly, it is the legalization of “dirty” money through remittance to the own country (Figure 14.5.). This method consists in drawn up export contract provides excessive compared to their actual cost price of the goods. Overcharge successfully complemented with incomplete delivery of the goods (i.e. less than provided in the contract). Invoices which are adduced by domestic firms are paid in full, although some goods not delivered and the cost of its much lower than it is required by the contract.

The last two of the above technologies of money laundering have general name – “transfer pricing”.

## **14.2. The recognition of operations related to money laundering**

The recognition is important for informing law enforcement authorities about the crime of money laundering. The effectiveness of the procedure of recognition from this side is seen as a significant contribution to the successful operation of justice in the fight against organized crime.

The recognition of attempts to launder “dirty” money in the bank activity is regarded as a set of activities, aimed at organizing continuous or intermittent flow of information about customers and suspicious agreements. This information can be used for the appropriate action aimed at stopping unwanted financial connections. These actions usually involve the following steps:

- the gathering information about agreements that can potentially be used for money laundering, as well as creating the conditions for continuous flow of information;
- the processing of accumulated information through the variety of methods and the classification of suspicious and atypical (unusual) transactions based on various criteria;
- the monitoring of suspicious and untypical transactions;
- the preparation of conclusions on the basis of information processing, the result of recognition.



### **14.2.1. The collection and the storage of information**

Gathering information for recognition is the first introductory stage of the process. It covers both active steps, which consist in the creation of appropriate tools that facilitates data acquisition and activities passively (indirectly) involved in determining the method of access to information that could potentially be used at the next stages of recognition. The information, needed for recognition comes mainly from the following sources:

- the registers of transactions in cash that exceed the established quota, as well as similar agreements registers using cashless payments if the relevant internal rules indicate the mandatory introduction;
- the other bank statements and bank records;
- the documents about operations, implemented by different categories of bank employees in terms of broadly applicable policy of “know your customer”, especially the operations, performed at the opening of bank accounts for individuals and legal entities, during the introduction of these accounts when dealing with authorized representatives of clients, etc.;
- the statements of operations, performed by various bankers in relation to contacts with people – not the bank's clients, for example, which bring cash to the accounts of bank customers;
- the analysis of key financial indicators, related to banking activity;
- the database of bank employees;
- the database of bank customers, and others, who use banking services and used or attempted to use banking operations for criminal purposes.

The main source of information for the recognition of attempts of “dirty” money laundering in the bank – is the register of existing transactions that exceed set limit.

The creation of a special database of bank transactions, made by men of straw is an important contribution to the recognition process. Gathering information about them should be as much complete as possible.

Another category of information that can be useful for recognition, it is all sorts of indicators that are particularly relevant to the work of involvement of investors. It is about the indicators of growing number of opened accounts for a certain period of time, fluctuation (raising or lowering the number) of cash contributions, the number of open so-called “frozen” (inactive) accounts for a certain time (e.g., quarterly, or six months), indicators relating to earnings of money on the accounts.

Terminates part of the data, required for the recognition, is “historical” information of different types, relating to accidents and events, associated with money laundering or suspected in this crime.

### **14.2.2. Data processing**

The information collected and accumulated in registers of available contributions, received from other banking sources shall be processed under the recognition program, adopted and implemented in several countries. This stage

includes actions, related to correlation, addition, analysis, processing in the form of text, and the transfer of data, needed to detect attempts of money laundering.

Information processing should be carried out regularly. Its goal is to identify among all transactions, such type that pass through the banking system, which, most likely, can be used for “dirty” money laundering. The issue is primarily the detection of agreements atypical (unusual), i.e. those which differ from other previously many times realized customer data or certain categories of customers (e.g. trade enterprises that are engaged in sales of electronic equipment), and unexplained transactions, i.e., in whose financial characteristics fullness and completeness are absent or purpose of their implementation is uncertain and unclear. This type of transaction is often mentioned as suspicious.

Several methods are used for information processing. Often this is comparison, which is to compare the elements that characterize certain deal with in advance prepared and adopted as a “template” database. The last serves as a “benchmark” for comparison. The purpose of this method is the establishment of the similarities and differences in certain financial transactions, as well as the dynamics of the same transaction in time.

Another method, used for processing information – is so-called structural analysis, which is to allocate and to study certain financial transactions. This method makes it possible to find the illegality of the transaction using a financial instrument, fraud cases, and money laundering.

You can use another method of systematization and grouping of data about financial transactions for data processing, which is to bring together some selected elements in order to establish between them cause and effect relationships. It allows, for example, to identify the duplicate transactions and to isolate the groups of subjects who can potentially become the participant of money laundering.

Identifying atypical and obscure transactions, using these methods can be facilitated if symptoms of using banks will be identified advance with the purpose of “dirty” money laundering in the practice of banking activity. For example, the symptoms, associated with the behavior of bank employees; with the atypical nature of the transaction with cash and preserving bank account; with the unusual nature of the non-cash transactions, with the specifics of the bank customers; the place of origin of the bank customer, guarantor or beneficiary; and specific symptoms, related to either the level of indicators that determine the financial activities of banks or qualitative changes that occur as a result of compliance with the financial and legal obligations and instructions.

Different ways of transmitting the processed data are used during the processing of bank information, depending on the type of information, as well as on research methods. More than other these ways are used:

- the chart of transfers which helps in flowing of financial resources;
- the relationship chart that displays the link between bank customers, both individuals and legal entities;
- the calendar of events, which facilitates the analysis of transactions carried out at the same time;
- chart of the frequency of financial transactions;

- sights, which are related to the most important observations of bank employees, who process information on the atypical and obscure agreement;
  - the comparisons and the tables of features, which characterize the obscure and atypical agreements as well as specific symptoms of this type of transaction.
- The data should be processed by using modern information technology.

### **14.2.3. Monitoring**

An important stage of recognition the procedure of “dirty” money laundering is the monitoring of transactions, selected as atypical and suspicious. The purpose of this process is monitoring the bank account of the client, as well as conducted his other banking operations. But the main result of this observation should be the confirmation of suspicions attributes of criminal acts of the client (or several clients) or removing of these suspicions and complete recognition. Monitoring makes it possible to exclude the adoption of any unreasonable decisions and as a result – to send the confirmed information to the prosecutor.

Monitoring should lead to the maximum accumulation of a large number of documents and information that will be needed to determine the nature of the suspicions that have appeared with bank employee, who is responsible for this procedure. Assumptions about the legal qualification of the criminal activity or rejection of the hypothesis of the involvement of the client in criminal activity are generally formed at this stage.

Monitoring should be productive. Efficiency lies in the fact that suspicions of criminal nature of transactions carried out by the client are dispersed in the process of its holding, and in fact that the suspicions are confirmed.

### **14.2.4. The completion of recognition**

The decree about the end of the recognition process gives the official, who is responsible for the monitoring of specially selected transactions for this purpose. It is based on a document that serves as the reason for the message prosecution about the crime of money laundering or refusing the suspicion in such crime. The document concludes activities within recognition may take the form of:

- the presentation, aimed at Audit Branch Bank;
- the offers to the Management Board to decide and give information to law enforcement agencies about suspicions of money laundering;
- the information, aimed the Chief of the Department of the Bank;
- the information aimed the Chief of the Department of Bank about the progress of monitoring;
- the report (for the period, such as six months), which includes information about suspected money laundering;
- the generalizing official note with the conclusions, which are related to reasonable suspicion of money laundering, which was observed in financial transactions, with the offer to take the required action.

These documents are sent to the Director of the bank later. The director decides individually or after discussion with their legal advisers (Advisers Group) to inform the prosecutor's office about the crime of money laundering or about the behavior of officials who have shied away from such notification.

Information, obtained in the course of banking recognition can be used to:

- provide the right direction for investigative actions, conducted by justice;
- study the value and the purpose of the use of funds, acquired as a result of the crime;
- facilitate actions, aimed at searching for criminal profit;
- bringing criminal case to trial;
- count illegally received income;
- facilitate the arrests of dummies.

### **14.3. The main directions of combating money laundering**

#### **14.3.1. International cooperation in dealing with money laundering: the establishment of legal framework**

Methods of money laundering become more refined and difficult to expose. The level and extent of money laundering procedures have achieved worldwide such enormous proportions that have become the threat to the stability of individual countries and to the external security of regions.

There are the greatest dangers, associated with the procedure of “dirty” money laundering:

- *the destabilization of economies of individual countries.* The activities of powerful criminal groups, who rotate billions of dollars, may (as often happened) cause an disorder of monetary, customs and tax system of the state, falling exchange rate. Mass money laundering of illegal income often leads to the violation of the principles of economic competition and to deformities and distortions in the functioning of the macroeconomic system state. All these inevitably accompanied by the bribery and the corruption of public administration, which is involved in the regulation of certain sectors of economic activity. Eventually, whole sectors of the economy revealed in the hands of criminal groups;

- *money laundering, which occurs primary in financial institutions, mainly in banks, will inevitably lead to the undermine of the banking system, causing bankruptcy of banks or causing them financial loss in some cases.* It occurs the corruption of bank officials, who carry out suspicious transactions, and this encourages them to take economically baseless decisions that cause financial loss or other official abuses. As a result, there is the loss of depositor's confidence in the credit system in this country, as a result it undermines the confidence of the state and its financial system on the part of the international community;

- *the laundering of “dirty” money, as has been noted above, adds accelerated growth and the development of organized crime.*

The large-scale laundering of illegal earnings has become a worldwide problem long ago. Therefore, the international cooperation in the struggle against money laundering gets special importance, which is based on certain legal acts.

The main incentive, which prompted many governments to join forces in the struggle against international crime was a concern because of spreading across the world opium trade nearly a century ago. On the eve of the First World War (in 1912) International Convention in matters related to the sale of this drug substance was concluded, and it was replaced by a new Convention in 1931, which restricted and regulated the production and distribution of medicines in the worldwide, which contains drugs at that time.

The UN took upon itself the initiative to fight against the spread of drugs, and along with “dirty” money laundering after the World War II. The cornerstone, laid in the foundation of international law on this issue, is the United UN Convention on intoxicating substances in 1961, subsequently supplemented and amended by the Protocol in 1972.

The second most important legal act, which regulates issues, related to the fight against drug business is the UN Convention about the psychotropic substances of 1971, which significantly extends the scope of international control on a large list of synthetic drugs. This document has been ratified by over 140 countries.

However, the continued growth of drug trafficking, the expansion of its geographical boundaries, more sophisticated and dangerous form of criminal business forced the UN to come back to solving this problem. In November 1988 it was convened the UN Conference to fight against the illegal trafficking intoxicants and psychotropic substances in Vienna. The conference ended with the adoption of the text of an international agreement, which is known worldwide as the Vienna Convention. The most countries of the planet are acceded to this Convention now.

The requirement that the crimes of money laundering, all other crimes related to drug trafficking, were considered by the courts of all States Parties of the Convention with particular diligence became the important feature of the Convention. In addition, it requires the introduction of articles on extradition of guilty in committed crime in the legal acts of the member countries, as well as confiscation of criminals’ property.

According to prominent lawyers, Vienna Convention has played an important role in the development of international law and became a major contribution to the organization of international cooperation in the fight against drug trafficking and money laundering.

The Council of Europe plays the leading role in the strengthening of international cooperation on issues of criminal law in Europe.

Two multilateral conventions were recognized the highest achievements of the Council in the creating of international law instruments by foundation of European cooperation in the fight against crime. This is the European Convention about the Extradition in 1957, and the European Convention about the mutual assistance in the investigation of criminal crimes in 1959. In 1980, the recommendations, called “Measures to prevent the transfer and concealment of funds, which come from criminal offenses” were accepted. In subsequent years, the work on the preparation of

legislation on confiscation of illegal income, coming from drug trafficking, was launched.

Another impetus for the acceleration of activity in this direction was the initiative of the Ministers of Justice, entrusted to the Council of Europe the European Committee on Crime Problems in 1986 to develop international norms and standards to ensure effective cooperation between the bodies of justice (and if necessary the police) on stay, extracting and confiscation of illegal income, property, equipment and items, derived from the illegal drug trade.

Another important document is the basis of international cooperation in dealing with organized supranational crime – “The Convention in cases of laundering income derived from a crime, their exposure and Confiscation”, was signed in Strasbourg on 18 November 1990. The document was prepared by the Committee of Experts of the Council Europe. Experts in law regard this as the most comprehensive list of regulations and rules that covers all stages of the legal procedure – from the beginning of the investigation to sentencing and confiscation of “dirty” money.

The aim of the Convention is deprivation of international criminal groups from their income and the creation of the current system of international cooperation to achieve this goal. Its content largely complements and develops the provisions laid down in the Vienna Convention, but nevertheless includes important, fundamentally different from the Convention, positions. The Council of Europe does not just require penalization, that is the announcement of criminal money laundering, but also requires that the act was considered as a crime, regardless of whether it is associated with drug trafficking, or such a link is not established. This condition establishes criminal penalties for the laundering of proceeds, received and accumulated in the implementation of any grave crime. All states that have signed and ratified the Convention are required to fulfill this requirement.

The Council of Europe pays much attention to the organization of the search of criminal proceeds, their identification, and to activities that lead to the confiscation of criminal proceeds in any form. The measures that provide access to banking, financial or commercial documents are listed in the fourth article. There the procedure for monitoring bank accounts, organization of phone calls audition, entry into computer networks and other actions necessary to track procedures laundering “dirty” incomes within the same country and abroad are explained. It should be noted that more than one hundred countries around the world ratified the agreement, is the most comprehensive document that serves as the fight against money laundering for today. As well as the Vienna Convention, it played an important role in the perfection of the criminal law of many countries, focusing on the revitalization of its efforts to fight against money laundering.

#### **14.3.2. Practical measures, implemented on the international scale**

The creation of legal framework through the preparation and the conclusion of international agreements – is undoubtedly an important step in fighting international organized crime. But even more important and difficult task is the using of practical measures to implement these agreements, and such measures bring significant

concrete results. For this purpose it was adopted the World Program of Action in 1990, approved by the UN General Assembly during a special session devoted to international cooperation in dealing with illegal production, supply, demand and distribution of intoxicating drugs and psychotropic substances.

The members of the United Nations also paid attention to the need for measures, aimed at undermining of the economic potential of criminal organizations. The Session of the UN noted that “huge financial gains which come from illegal trade in intoxicating substances and related criminal activity, open up the possibility to supranational criminal groups to penetrate into government agencies, to deprave and corrupt officials, to spoil the principles of law, and to threaten the sovereignty of states” [18, p. 336].

The specialized organization, which is called The United Nations Drug Control Program (UNDCP), established under the auspices of the UN, headquartered in Vienna, plays the role of the main coordinator of the economic activity against international crime. It has developed its own plan of action in fighting against money laundering and confiscation of the proceeds, received from drug trafficking. The UNDCP provides specialized support to everyone, who is drawn to it, by its own power or, if it needs, with the assistance of other organizations. There are different forms of assistance, for example, training – often thematically adapted to local conditions – for politicians, law enforcement officials, who are engaged in searching of members of drug trafficking. training courses for operational staff, whose members – people who are responsible for the disclosure of economic crimes, are complementing to these programs.

The provision of legal assistance to those states that after the ratification of the Vienna Convention must undertake the difficult and time-consuming job of adapting their legal systems to its requirements should be highlighted from various activities of the UNDCP. The greatest difficulties in this field are experienced by developing countries. Therefore, one of the most important initiatives of the UNDCP in this direction was the development of “model legislation” in 1993, adapted to the needs of countries, whose legal systems are based on the principle of Roman law. Strong emphasis is also made on the prevention of the use of financial institutions to launder money that comes from drug trafficking (and also the use of some other institutions, such as the casino).

The important role is played by the Department of crime prevention and criminal justice of Vienna Office of the United Nations in solving the problem of money laundering. It is engaged in various types of research that have attracted the attention of foreign governments to the enormous scale of the phenomenon of money laundering, received from all kinds of crimes except drug trafficking, as well as to the scale of the threat that comes from the growth of organized crime. The department is also engaged in the propaganda and the advertising of “model agreement” of the UN, such as mutual legal issues on cooperation in criminal matters and extradition of persons suspected in crime.

The Model Law on laundering of money, derived from drug trafficking is very important document of international law which was developed by the experts of the United Nations in 1993 in addition to the “model agreement”. This law is based on

the newest legislation of different countries, containing recommendations on the prevention of money laundering, derived from trade and drug trafficking, the identification of such acts and the establishment of penalties for their commission.

Apart from the United Nations and its affiliated organizations, special services actively participate in the fight against transnational organized crime and money laundering; these services complement and support the activities of the investigative authorities and justice throughout the world. First of all, it is the International Criminal Police Organization (Interpol) and the World Customs Organization.

### **14.3.3. The functions and activity of the FATF**

The leading international organization that struggles against money laundering and other property achieved by criminal means, is the Financial Action Task Force on Money Laundering – the FATF – an influential intergovernmental body established in 1989. The purpose of the FATF is the development and implementation of standards and measures at the international level to fight against money laundering. FATF monitors the implementation process of activities exploring ways and technique of money laundering, develops preventive and protective measures and helps to the implementation of global standards to struggle with money laundering. The FATF collaborates with other international organizations whose activities are also aimed at struggling against “dirty” money laundering in carrying out these functions.

The FATF has three main directions. The first is the extension of the adopted recommendations on all continents and regions of the world. The second –is the test of how the measures to struggle against money laundering, based on the forty recommendations of the Financial Action Task Force, which is a guide to action, are carried out in the Member States and how are implemented in other states. The third direction – is the tracking of global methods and schemes of the laundering of criminal capital and developing of countermeasures.

40 Recommendations were prepared by the FATF in 1990. The group was guided by the spirit and letter of the Vienna Convention and the Declaration of control principles of banks by the Basel Committee of Banking Supervision, during their training. The authors identified three types of priority measures named as a basis for the concept of Recommendations. Specific proposals will be based on these Recommendations. The Recommendations (by the desire of the authors) were directed on elimination of the major obstacles that stand in the way of international cooperation and enhance their effectiveness. Three types of measures acquired the form of the following Recommendations that are distinguished in chapter A:

1. Each Member State must, without long delay, take steps to ratification for the full implementation of resolutions of the Vienna Convention, and to begin the process of ratification.

2. The law on data privacy, which operates in financial institutions, should be changed in the way to not interfere the state to adopt these recommendations.

3. An effective program of struggling against money laundering procedures should take into account the strengthening of multilateral cooperation and increase



the efficiency of mutual legal assistance in the search, investigation and judicial process in extradition of cases involving money laundering, and all cases when it is possible.

In the B chapter, Recommendations press the state to expand the definition of the crime of “money laundering” in a way that it covers all other crimes related to drugs; an alternative solution is the introduction of criminal penalties for money laundering, achieved, as a result of all serious crimes and (or) all the crimes, which bring large income. There is the possibility of the extending of criminal liability for money laundering on legal entities in the Recommendations; as well there is no analogue in the text of the Vienna Convention.

The third chapter of Recommendations (C) defines a strategy for attracting of financial system to eradicating of the phenomenon of money laundering without the violating of rules and conditions, which are necessary for effective financial transactions.

Another important area of the FATF – is the monitoring of the typology of new methods of money laundering, which are used in the criminal underworld, and the verification of means to counter this phenomenon. Annual reviews for the preparation of which world-known experts are involved, as well as the investigation in cases of money laundering, witness more refined methods of increasing the professionalism of international criminal groups. Important tools of criminal activity are always remained in the view of FATF experts: dummy corporations, electronic transfers, non-bank financial institutions and other enterprises, such as shops and export-import firms [43, p. 352].

#### **14.3.4. The problems of struggle against organized crime and money laundering in offshore centers**

Many governments pay great attention to the problems of struggle against organized crime and “dirty” money laundering exactly in offshore centers. Companies which are placed there, banks, funds, trusts have become the financial support of international terrorism, drug trafficking, and of almost all forms of organized crime.

Two regions raise particular anxiety – the states and territories of the Caribbean region and the states of the “golden triangle” – Burma, Thailand, Pakistan and Afghanistan.

States of this region are poor in natural resources, with a underdeveloped economy and poorly educated or even illiterate population, since the 1960s they have begun to create offshore centers and tax havens on their territory, that have become very attractive to financial and banking institutions.

The turbulent activities of financial institutions in conditions of low state and legal control have drawn the attention of tax authorities and law enforcement agencies of neighboring countries, and especially of the United States. The Internal Revenue Service U.S. Treasury did not stop even before the unilateral operative-investigative measures on drug traffickers and money “launderers” in these regions under the conditions, when the relevant international agreements, applicable to these

regions were not signed and not ratified. But these measures brought temporary, limited results and were accompanied by international scandals and even by the deterioration of relations among the countries.

Countries use the strategy of the concluding of bilateral and multilateral agreements on specific issues, hold conferences to develop common approaches to the use of effective methods of struggling against money laundering, introduce in practice 40 Recommendations of FATF, use self-assessment procedure and mutual control of countries due to the degree of recommendations fulfillment to prevent the laundering of “dirty” money. In addition, there are created regional and inter-regional international organizations that decide whether to struggle against laundering.

The Organization of American States (OAS) developed a program in 1986 that was called the Inter-American Program of Action against unauthorized use and production of drugs and psychotropic substances (CICAD). This program has provided the preparation of the new legal acts that expand the powers of law enforcement and fiscal authorities in establishing of the actual sources of funding. However, the resolution was confirmed to adopt the legislation about criminalizing of laundering of money that are accumulated as a result of crimes, related to drugs and about the confiscation of funds and property, which come from the illegal drug trade or are used for this procedure, regardless of such operations placement. In 1990, the OAS experts have developed a package of instructions, called “The sample orders, relating to crimes of money laundering, which are connected with drug trafficking and similar crimes”. In 1992, they were approved at the General Meeting of the OAS. “Sample orders” covers all the important elements of the modern strategy to struggle against money laundering. The preventive means of recognition are also provided, which are spread in the private sector. Authors of the orders connected not only banks to counteraction of this evil, but also a number of other financial institutions. There are brokers, who trade securities, the owners of currency exchange, as well as people, who are engaged in other kind of economic activity that is the subject of state-owned banks’ or other financial institutions’ control. These orders may be extended to other types of economic activity, where the operations with the cash in amount that exceeds the limit are provided.

Interregional international organization British Commonwealth of Nations made the significant contribution to the fight against the laundering of “dirty” money. Over the years it has made great efforts to strengthen international cooperation and to improvement of criminal law. Agreements, which are related to the extradition, are the evidence of positive organizations’ influence. Such agreements have been concluded between most of Commonwealth countries. The document of the Commonwealth “The Procedures of mutual assistance in criminal matters” is very important to solve the problem of money laundering, because it influenced the formation of the current mechanism of cooperation between the countries. Commonwealth succeeded of introduction of articles and amendments to local law that guarantee the implementation of measures aimed at the identification, exposure and confiscation of income, derived from all types of crimes.

The following international organizations enhance their activity in the fight against international crime in offshore centers:

- The Asia-Pacific Group of money laundering counteraction (APG), which has become an influential member of Interpol, the FATF and the UN today;
- The Caribbean Group of money laundering counteraction (CFATF), which is not only contributed to the introduction of legislation in the Caribbean region of 40 FATF Recommendations, but also developed its 19 Recommendations on struggling against money laundering;
- The Expert Committee, which evaluates measures to struggle against money laundering (PC-R-EV Committee);
- The Offshore Group of Banking Supervisors (OGBS), which carries out, together with FATF, the evaluation and monitoring of the effectiveness of the approved “anti-laundering” laws in the member-countries of the OGBS. The main difficulty of group lies in the fact that only about half of the offshore banking centers are the members of the OGBS.

The international community, concerned about the pace of growth of organized crime, requires doing everything to stop the financial power of criminal syndicates, or at least significantly undermine it. The realization strategy of this goal involves three elements. The first one is a traditional, aimed at the improving of the efficiency of domestic criminal law that can guarantee compliance with the principle of “inevitability of punishment.” The second element is the strengthening of measures, which deprive the offenders of results of their criminal activities. This element of the strategy in addition to the purely criminal punishment emphasizes the need for criminalization of the phenomenon of money laundering as well as creation of the basis for the search and confiscation of income received by crime.

These measures, according to the authors, are preventive-offensive in nature. The third crucial element of the strategy comes from the belief that the efforts that begin in one country, for all their importance to overcome the local crime, are ineffectual in dealing with refined international activities of “dirty” money “launderers”, based on the powerful support of “rear subdivision”, which include highly skilled professionals and corrupt government officials of different countries in their ranks. Effective tools and mechanisms of international cooperation are needed to struggle against this evil.

## **PART 6. International Financial Management**

### **Chapter 15. The essence of international financial management**

#### **15.1 The concept and basic functions of international financial management**

Financial management deals with financial firms, i.e. with own and borrowed capital. It is associated with a set of solutions to formation and maintaining an optimal structure of financial assets of the company in the market that is managed, which are conducted with the goal to maximize the welfare of shareholder or income owners. Financial management includes the following sections: financial analysis and decision-making system, planning of the use of short- and long-term financial resources, the analysis of possible risk, the establishment and implementation of decisions, the control over the implementation of decisions.

The goal of financial management is to achieve the highest possible dividend on common stock while maintaining of sustainable level of income security of the firm. Profit and risk are the key parts of the financial management. Their correlation determines the specific decisions of the financial manager of the firm at any particular time. In this regard, financial management performs the following types of financial activity: 1) the increasing of profits and 2) the ability to perform its external financial obligations to other firms and organizations. The financial manager must choose solutions that provide the increase in share price based on such factors as the long-term sustainability of dividends, the turnover of firms' capital, the protection against the risk etc.

An important task of the financial manager is also the development of financial strategies of the company, i.e. the concept of using financial resources, which are involved in order to achieve consistently high dividends or sustained growth of the shares on the stock exchanges; how and under which conditions the resources will be involved; how the payment for loans will be provided, how to build tax policy.

International Financial Management (IFM) – is the system of economic decisions-making that occurs in case of the realization of the tasks of financial management in the internationalization of business activities of firms, or TNC.

International Financial Management, in addition to common financial management tasks, solves a number of specific objectives:

- the analysis of the balance of payments of a country;
- the planning of financial transactions from the perspective of international payments in different currencies;
- financing the export activity;
- international capital budgeting, the motivation of direct and portfolio investment;
- transactions in the eurocurrency, the eurocredit market and the euroequities market.

Implementing the company's tasks is determined by the choice of the geography of the international market. There are the following characteristics of the market:

- the elasticity, enough credit instruments and financial institutions that respond quickly to changes in interest rates and credit conditions, operate in the market;
- the accumulation of free financial resources;
- the stability of financial levers and instruments, interest rates are unstable to external economic processes;
- low cost for operations in the market, there is little difference between the interest rate on the loan and the interest on deposits;
- the easy prediction of conditions of funds allocation in the market and of credit conditions;
- relatively easy access to the financial resources of international bonds market.

### **15.2. The specifics of the external environment of financial decision-making**

The effectiveness of financial management decisions of international firms depends on whether it has knowledge of a particular situation, i.e. the circumstances of internal and external environment of its activity. Without knowledge of the specific set of internal and external factors managers can't choose the most effective methods and techniques for managing the organization at a certain time and in a particular place. The management theory argues that there is no single "best" way to manage a company, because the most effective method of control in a particular situation is the method that corresponds to the given situation in a best way, to the given set of factors of internal and external environment. "The law of the situation" also declares that particular situation often determines which traits and skills are required in international business management. The knowledge of the environment, an understanding of the forces in the global surroundings is important for international business, especially for multinationals.

This environment is a complex contradictory unity of national space, with its system of economic and social demands, and the multitude of the other national economic spaces with their special requirements and business conditions.

Duality is a specific feature of the external environment of international business and it is the main source of problems for IFM. As the production capacity of TNCs spread out across different countries, their external environment is characterized by high complexity, mobility and uncertainty<sup>10</sup>.

On the one hand, the activities of TNCs regulate international production costs, the world prices, exchange rates, interest rates and stock market indices movements in global financial markets; on the other hand, IFM has to examine the specificity of each partner country carefully and thoroughly and coordinate their decisions and actions with such features of the international environment as:

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<sup>10</sup> The complexity of the environment – is a number of factors to which the organization is obliged to respond, and the variability of each factor.

The mobility of the environment - is the rate at which changes occur in an environment of an organization.

The uncertainty of the environment is a function of the amount of information available to the organization regarding the specific factor, and the function of self-authenticity of this information. Getting information in a foreign language enhances the uncertainty.

- the fragmentariness and diversity of markets;
- the multiplicity of currencies, which are characterized by the stability and the real value;
- the differences in the levels of interest and inflation rates;
- the differences in pricing and taxation;
- the differences in wages and accounting;
- the differences in rules and regulations of doing business;
- the high probability of negative impact of government intervention on decisions and business conducting;
- the variety of financial climates, ranked from very conservative to the one with high inflation rates.

Obviously, companies that operate in the global economic environment must analyze the state of the economy and development trends of the countries in which they do or intend to do business: the GDP, balance of payments, transportation costs, exchange rate, inflation, bank interest rates, characteristics of the competitive struggle etc. Firms must reckon with the laws and regulations on taxation, patents, labor relations, standards for finished products, pricing, procedures for providing information to government institutions and others. For example, pricing is often regulated by means of Anti-Dumping Code of GATT / WTO. This code allows countries to impose bottom limits on the prices of products entering their markets outside at lower prices than those prevailing on the domestic market.

The political factors should be evaluated and the forecasts should be adjusted as the new information comes, before entering the market of a particular country. Such factor as culture is also very important in international management– the major values in the society, beliefs, customs and prevailing attitudes, which affect the style of everyday life. International management often is faced with a much greater degree of risk and uncertainty on the global market, because managers don't know at a good level the culture, political and economic situation, the institutional structure of the distribution network, potential competitors and their actions, guarantees and legitimacy of intermediaries in a given country. Practically found and fixed in theory that the biggest mistake is made by those leaders, who believe in the incorrect assumption of the similarity of financial practices at “home” and abroad.

Financial manager of TNC must adapt to the external environment and be aware of the close interrelation of finance and accounting functions. Accounting provides the financial director of the corporation with adequate and timely information about the nature and the value of company assets. At the same time accounting must consider both the specifics of the MNCs environment and local reporting requirements and generally accepted principles and accounting rules in the country of origin of the company while preparation of summary reports.

Accounting standards differ greatly across countries. The main reasons of the differences are:

1) the differences in the understanding of the objectives, for example, between states and private organizations.

2) the discrepancy of viewpoints concerning the tasks of the financial statements in regard to conformity with the law and provision of the legal information.

3) the differences in the position and prestige of the profession of an accountant.

4) the impact of tax legislation.

5) the legal norms.

6) the misalignment of the main economic indicators.

7) the primacy of the state or the private sector in the development of accounting standards.

8) the reluctance to introduce the worldwide standards.

There are three main groups of countries, which follow similar approaches to the construction of the accounting systems [20, p. 217]:

- the Anglo-American model of accounting (UK, U.S., Netherlands, Canada, Australia, etc.). This model operates in the conditions of a developed financial market. Accounting is focused on the needs of investors and creditors. The principles and rules of accounting and financial reporting are regulated by the national standards, which are developed by the independent professional bodies of accountants, so they are not established by the national legislation. There are many variations of accounting within the generally accepted professional accounting methodology in countries with this type of accounting;

- the continental accounting model (Germany, Austria, France, Switzerland, Italy, etc.), which is focused on the state taxation and the macroeconomic resource planning. It has a legal basis, i.e. accounting standards are approved by law and are obligatory for execution. There are: a unified chart of accounts and the methodology of the financial statements. Thus, the state methodology is typical for this model of accounting;

- the South-American model (Brazil, Argentina, Chile, and others.). It is oriented at the tax interests of the state, and therefore accounting is legally unified. The peculiarity of accounting standards is the disclosure of accounting methods in case of inflation.

It should be noted that this classification of countries, according to the accounting models, is rather relative. Countries that have a different model of accounting can influence the regulation of accounting in the other country; this is a result of the interpenetration of the capitals of these two countries in each other's economy.

The EU has unified the accounting in order to remove barriers and promote the investment. International Committee for Standardization has developed accounting standards (not obligatory), which are largely based on similar U.S. standards. US Financial Accounting Standard Board (FASB) indicates that financial statements should contain information that is useful for:

- making investment and credit decisions;
- assessing the prospects for cash flow;
- the estimation of resources of enterprise, resources needs and changes.

We see how diverse and complex the key factors that directly or indirectly affect international business are. If a financial manager doesn't take into account at least one of the factors, not to mention the interaction of factors of internal and external environment, it can more or less significantly affect the efficiency of financial activity of the company. Therefore, the system-situational approach requires from managers the necessary adaptive management of finances.

The adaptation process is based on the control, which allows you to fix the changes that have occurred, to identify the problem and correct the activities of the company before these problems escalate into a crisis. The task of the monitoring is to obtain the information about changes in the business climate, which occur on all financial markets, and to convey this information to those people, who are entitled to carry out the necessary corrective actions.

The global financial sector has been changing rapidly during the last decades. The Eurocurrency market, the international credit market, the stock market are also growing quickly. The role of TNCs has strengthened, their activity has become more diversified, the amount of joint ventures has increased. The globalization of business and finance became an important factor of the external environment, which is based on computerization and telecommunications; it allowed to speed up international operations and to increase their amount. As a result, the flows of information and capital became faster; savings were attracted from the deposit pools all over the world and were sent to borrowers in terms of the highest income and lowest cost. Investment banks were able to conclude transactions in bonds and foreign currency through SWIFT. The financial engineering has begun to develop – it is a creative application of financial innovations (technology, tools), which can help to solve financial problems and to take financial opportunities.

International financial integration has brought benefits to borrowers and lenders and increased foreign exchange, interest and political risk. An international debt crisis and financial crises that periodically repeat have become a new phenomenon.

The transition of industrialized countries from labor-intensive to knowledge-intensive industries, the success of the newly industrialized countries (NICs), progress towards a market economy of the CIS and Eastern Europe have led to the growth and changes in international capital flows; the new opportunities have arisen and new problems emerged to subjects of international business.

Governments, corporations and international financial institution had to meet new challenges. The growing flows of global capital have intensified financial competition among countries and forced governments to provide a favorable legal, economic and social environment in which both international and domestic business could fully operate and develop.

### **15.3. The financial management of transnational corporations. The features of investment activity**

The financial Management of TNCs performs common to all firms functions (although they have their own characteristics within TNCs) and also the functions



that are common only for international management, these functions were caused by the functioning in a heterogeneous environment, in terms of currency risk, restrictions on international trade and investment, political risk, special conditions of taxation and accounting.

If you consider a company as an accumulation of capital funds, received from various sources (from investing in the company's capital, loans, incomes received as a result of company's activity) and aimed at different targets (acquisition of fixed assets, creation of commodity stocks, purchasing securities, cash, etc.), the management of such movement of capital is a function of financial management.

Here are the main specific operations of financial management of TNCs:

- foreign investment that includes:
  - the financial planning as a process of evaluating and selecting long-term investments, foreign direct investments;
  - the management of investment risk;
  - the management of portfolio investments and determination of portfolio diversification by countries:
    - the budgeting of international investments, defining their payback;
    - the selection of sources and the optimal level of funding;
    - the determination of the loan currency and currency of loan repayments;
    - the financing of international trade;
    - the determination of the cost of capital and return on invested capital;
    - the monetary transactions between subsidiaries in different countries;
    - the sale and the purchase of foreign currency;
    - the management of credit and financial risks;
    - the identifying the ways of reducing the financial risk of TNCs;
    - tax issues;
    - constant contact with the foreign exchange market, Eurocurrency market, Eurobonds market, and so on;
- the determination of dividend policy.

The role of TNC is increasing on the international investment market. They conduct the vast number of transactions. Foreign direct investments are generally implemented through the creation of new businesses or the acquisition of existing local companies that provide production growth.

The national governments and international organizations pursue the policy of liberalization of international investment space and elaborate the unified norms of state regulation of investment processes to facilitate international migration of capital. These norms are contained in the bilateral and multilateral international and regional agreements on the protection and promotion of investments, which operate in the framework of international economic organizations, including the WTO. The standards of state regulation of FDI include:

- the provision of state guarantees by the home country and the host country. Multilateral Investment Guarantee Agency, established under the auspices of the World Bank, offers guarantees at a multilateral level. Investment guarantees are included in *Lomé Convention*, which was signed between the EU and many developing countries. "Agreement on Trade-Related Investment Measures (TRIMs)",

signed by WTO members, contains a direct prohibition to use measures of the state industrial policy in relation to foreign investors;

- the settlement of investment disputes. Thus, member countries of OECD have adopted the principle of international arbitration as dispute resolution (which is based on the national legislation of the country) often does not satisfy both home countries and the host countries as home base and host countries;

- the elimination of double taxation;

- the insurance of foreign investments;

- diplomatic and administrative support. For example, government negotiations with international partners on the creation of the favorable conditions for national investors abroad, or invitation of representatives of international business to be a part of international delegations in order to discuss economic issues.

In nowadays conditions of international production growth the major direction of TNC's investment policy is FDI, made through the agreements on mergers and acquisitions ("M&A"). The number of cross-border mergers and acquisitions is growing (average annual growth is 28,2%). The total value of M&A transactions exceeds 2 trillion euros; its share in the total amount of FDI is equal to 82%.

Cross-border "M & A" – is the process of integration (based on shareholding) of companies around the world.

Cross-border merger – is an consolidation of companies' assets, when the new company is created and the previous cease to exist.

When the cross-border acquisition takes place, a foreign company buys a national one and takes over its assets, i.e. the local company becomes the subsidiary of the foreign one. The number of "aggressive" ("enemy") acquisitions is growing and consequently the number of "friendly" ones is decreasing. During "aggressive" acquisitions invaders at first buy up the shares of foreign company on the stock market and then interact with the rest of shareholders on the General meeting of shareholders. The result of "aggressive" takeover is a complete change of executives of absorbed company. In the case of "friendly" takeover heads of TNCs at first reach an agreement on purchase and sale of shares. Then the exchange of shares between two companies takes place. Alternatively, the "friendly" takeover is an absorption in the form of transfer of a controlling stake of TNC in trust or asset management.

Thus, the difference between mergers and acquisitions is technical and deals with the financial side of the transaction.

The prerequisites for the process of "M & A" are the globalization of information and economic exchange, technological change, the liberalization of cross-border capital movements and trade regimes, the activities of powerful financial intermediaries. Financial intermediaries are, as a rule, large investment banks that are present in many countries. They provide a wide range of services to their TNC – clients: from negotiations to "M & A". The number of consulting firms that operate in the world in the sphere of "M & A" and provide services for buying and selling companies is constantly growing. Top places are occupied by American investment banks «Goldman Sachs», «Morgan Stanley», a consulting company «Merrill Lynch». Several intermediaries may participate in the consulting agreement.

For example, when U.S. firm «Comcast» was buying the cable company «AT & T», the cost of which amounted to 72 billion dollars, it was the largest in the world "M & A" deal, «Goldman Sachs», «CSFB», «Deutsche Bank», «JP Morgan», «Morgan Stanley» and «Quadrangle Group» were participating and giving advices [40].

The large number of cross-border «M & A» transactions is done in industrialized countries (USA, UK, France, Japan). However, in recent years a number of such transactions have been increasing in developing countries, it is connected with the privatization programs.

Worldwide, about 80% of FDI, which are connected with the growth of international production, is ensured through "M & A" agreements.

Places of TNCs in the list of the most prestigious companies are closely correlated with their participation in cross-border "M & A". This is evidenced by their share in the total value of such transactions over the last 15 years - about 20%. The growth of cross-border "M & A" transactions makes large TNCs even larger. Thus, the "British Petroleum" has spent 94 billion dollars on 98 cross-border "M & A" during this period, and "General Electric" has signed 228 agreements of this type. [41]

TNCs are entering the market of a country through the "M & A" for various reasons: the level of economic development, investment and tax laws, availability of a large number of competitive private enterprises, financial crisis of local enterprises, large-scale privatization in the country and so on. American multinational corporations due to the liberal laws carry most "M & A" operations on the U.S. market. Western European companies are looking for partners abroad as a result of national legal constraints. For example, for German MNCs the most attractive in terms of mergers and acquisitions are U.S. (they participate in about 14% of the total "M & A"), Switzerland, the United Kingdom, the share of each of which accounts for 10%, Spain, and Italy (their share in the total "M & A" - 9%). In Western Europe, companies are often bought by UK, USA TNCs [60, p. 72]. Factors of cross-border "M & A" transactions also include the desire to get rid of non-core, minor enterprises, to strengthen the position of subsidiaries, to acquire key or final link in the processing chain. The company «Norsk Hydro», which is one of the leading integrated producers on the world market of aluminum and which sought to gain control over major parts of each production stage (from alumina to rolled metal), acquired the assets of the Norwegian company «VAW», which was specialized in the production of bar iron. Takeover of «VAW» company will have a significant impact on the industry. Flow of metal on the European market of aluminum will decrease, agreements with «VAW» will be considered internal and the volume of supply to the "free" market will decrease continuously. So, actually independent sellers of rolled metal will be gone because their opportunities in the processing chain will decline greatly. Non-integrated producers will become even more vulnerable. [34]

Agreements on mergers and acquisitions can be concluded in the various sectors of the economy, but the priority industries change over time. Thus, from the 80s to the second half of the 90 years cross-border "M & A" operations of TNCs covered mainly manufacturing firms. Now the process of consolidation of business

entities is going on in the financial, food and tobacco sectors, the services sector, telecommunications, information technology, consumer goods.

Cross-border mergers and acquisitions may be a result of bankruptcy (selling to foreign investor of inefficient private company), a result of privatization (the transfer of control over the former state company to foreign company on terms of ensuring its efficient functioning), as well as with the purpose of protection (to obtain competitive advantage) or growth (association of strong companies that are seeking to increase their effectiveness).

Consolidation of companies ambiguously affects their activities. On the one hand, for large multinationals it is easier to reduce production costs and increase investment in advertising, innovation or to continue acquisitions of other firms. They get economies of scale, accelerate the innovation process, eliminate excess capacity, provide their shareholders with higher dividends, and have access to specific corporate assets. On the other hand, for large companies it is more difficult to act quickly and to focus on the market, this can lead to an increase in their costs. In addition, the process of "M & A" is very long. Its implementation can last several years. Sometimes it is better to choose strong brands than the size of the company. The focusing on a small number of brands can bring more noticeable results. An example may be "L' Oreal", that has sold its pharmaceutical business and focused on manufacturing products for hair care and skin, or «Danone» that sells only water, biscuits and yoghurts, and it is a world leader in all three areas. TNCs don't have to strive to the cross-border merger or acquisition all the time. "M & A" operations make sense only when they are strategically justified, ensure sustainable competitive advantages and profits that exceed the average level.

Thus we can conclude that in today's conditions TNCs, while choosing their investment strategy, prefer not to create new production facilities abroad, but to invest in already existing companies that produce highly competitive products and have their share in the domestic market.

The structure of the investment activities of TNCs has shifted towards the services sector over the last decade. According to the UNCTAD survey, the share of this sector accounts for more than 60 % of the total FDI in the world. Developed countries still receive the major part of exported FDI into services sector, although the distribution of such investments between them became more uniform.

As for imports, the distribution of the total FDI in the services sector is more balanced, although the main part of them is still received by developed countries. The most rapid growth is in Western Europe and the United States, reflecting the fact that the purpose of the main part of FDI in the services sector is to secure market position.

The structure of FDI in the services sector is also changing. Until recently, these investments were directed mainly in the trade and finance sectors. However, there is an increase of FDI in such industries as electricity, water, telecommunications and entrepreneurial services (including corporate services provided through information technology).

In addition, most services can't be the subject of foreign trade: they must be produced at the place of their consumption and at the moment they are consumed. Regarding this, the main way to enter the foreign market with services is FDI.

Moreover, many countries have liberalized their regimes, governing FDI in the services sector, which increased inflow of investment, especially in sectors that were previously closed to multinational corporations.

Despite the growth and benefits of FDI in the services sector, the degree of transnationalization in this sector is lower than in the manufacturing sector (for example, in the U.S. - 20% vs. 40%).

One of the most important factors that determine the contribution of FDI in the services sector in the development is the technology transfer. TNCs operating in the service sector can transfer material technologies (plants, equipment, and industrial processes) and "soft" technologies (knowledge, information, experience, organization, management, marketing skills). This kind of technology is embodied in skills, which in many cases is reflected in the salary. Data on wages of employees of foreign affiliates of U.S. multinationals in developing countries working in the service sector indicate that the qualification of such workers is higher in comparison with workers of manufacturing companies.

UNCTAD reports on world investment are focused on the internationalization of research and development (R & D) undertaken by TNCs. This phenomenon is not new. When companies expand internationally, they should adapt technologies to local needs and successfully sell their products in the markets of the host countries. In many cases, internationalization of research and development is needed for this. At the same time, traditionally research and development was made by TNCs mainly in home countries. Now there are some new features in the process of internationalization. In particular, multinational corporations are placing R & D (that is out of the frames of the adaptation to the requirements of local markets) beyond the developed countries. Thus, in some developing countries, South-East Europe and CIS TNCs increasingly focus all their R & D on global markets, integrating them in the key areas of their innovation activities.

Today it is clear that only a small number of developing countries and countries with economies in transition are involved in the process of internationalization of R&D. At the same time, the fact that some of them are now considered to be attractive to conducting sophisticated R & D means that countries can build capacity needed to connect to the global R & D systems of TNCs. From the point of view of the host countries R & D internationalization gives them the opportunity not only to transfer technologies created in other countries, but also for their development.

This may enable some host countries to strengthen their technological and innovation potential. At the same time, it can increase the backlog of those who could not join the global innovation system.

The evidence of the growing internationalization of R & D is the increased role of foreign affiliates in the research and development conducted in many host countries.

The share of host developing countries in global R & D systems of TNCs is growing, albeit unevenly. Most of these R & D is carried out only in a few countries. The most dynamic in this respect are Asian developing countries. For example, the share of Asian developing countries in the R&D costs of foreign affiliates owned by

American TNCs has increased from 3% to 10%. This increase was particularly noticeable in China, Singapore, Hong Kong and Malaysia.

The need to adapt products and processes to the needs of key markets of host countries has always been an important motivation for MNCs to internationalize research and development. At the same time, the recent rapid growth of R & D carried out by TNCs in some developing countries has been caused by the desire to reduce costs and to use the growing human resources of these countries. This process can be considered as a logical next step in the globalization of TNC's production networks. It is similar to the international restructuring, which was implemented in the export-oriented and ICT-related sectors, through which TNCs significantly improved their competitiveness by using the competitive advantages of individual countries.

## Chapter 16. The general directions of international financial management

### 16.1. Capital budgeting

#### 16.1.1. Criteria for evaluating the economic efficiency of investment projects

One of the most important spheres of international financial management is capital budgeting (capital budgeting) - the process of analyzing the efficiency of investment, which aims at evaluating and selecting the best options for long-term investment. Financial resources, which material basis is money, have value over time. The value of financial resources over time can be considered in two ways.

The first aspect is connected with the purchasing power of money, which may change over time because of devaluation, which is a result of inflation. Financial manager should consider this fact when he prepares the analysis and forecast of the financial resources flows.

The second aspect is connected with the turnover of money as capital and with receiving incomes from this turnover. When considering investment options investor will prefer the option which is more efficient when money makes new money faster.

The efficiency of investment projects can be estimated by using several criteria. The most common criterion is the net present value (NPV). NPV - is the present value of cash flows minus the present value of cash outflows. In other words, NPV - is the difference between the market value of the project and the cost of its implementation. NPV method is the method of cash flow discounting to determine the effectiveness of long-term investments (discounting - the method of reduction of the future value of money to their cost in the current period). If the taken into account cash flows exceed the value of investments, the NPV criterion indicates that the project is acceptable.

The formula for calculating NPV:

$$NPV = -I_0 + \sum_{i=1}^n \frac{C_i}{(1+K)^i} + \frac{T_n}{(1+K)^n}, \quad (16.1)$$

where  $I_0$  - the cost of initial investment;

$C_i$  - the cash flows associated with the project after taxation in year  $i$ ;

$T_n$  - the residual value or the liquidity of investments in year  $n$ ;

$n$  - the estimated term of the project or the planning period;

$K$  - the value of capital used for realization of the project.

In addition to NPV, the analysis of international cash investment can be done by using an internal rate of return (IRR) and payback period of investment (PPI).

The internal rate of return for the investment project - is the value of the discount rate ( $r$ ), where the present value of expected cash outflows is equal to the present value of expected cash inflows, i.e. the value of  $r$  by which  $NPV = 0$ .

IRR can be calculated using the following formula:

$$I_0 = \sum_{i=1}^n \frac{C_i}{(1+r)^i} + \frac{T_n}{(1+r)^n} \quad (16.2)$$

The value of  $r$  can be estimated using the data of the formula 13.2.

The formula for calculating payback period of investment:

$$PPI = \frac{1}{C_i}, \quad (16.3)$$

where for simplicity of calculations it was assumed that the annual cash flows ( $C_i$ ), related to the project, have equal values. For example, if the initial investment is \$ 1 million, and annual cash flow is \$ 300.000, the payback period of investment is equal to 3.3 years.

The most acceptable methods for investment decision-making are NPV and IRR.

Economic analysis of investment efficiency contains evaluation of incremental flow of that part of cash, which is directly connected with the project. There should be estimated such cash flows:

- initial investment (purchase of land, business, and equipment ), investment in operating capital (cash, working capital, etc.), licensing costs , organizational costs;
- operating cash flow: revenues from sales of goods and services received after project realization, costs for raw materials, labor and management;
- collateral cash flow: protective tariffs on goods, administrative costs, local and federal taxes on income;
- final cash flow: the value of assets in the end of project.

The estimation of cash flows for long-term investment projects -is a difficult task. It requires a lot of experience and talent. Capital budgeting for TNCs includes analysis of the company's capabilities to undertake FDI, the evaluation of their efficiency and risk. Foreign direct investment determines the transnational nature of corporations; it is the source of funds for overseas departments multinationals.

### 16.1.2. The evaluation of the financial position of the company

If the TNC plans to invest in a foreign company, then it should primarily assess the financial position of the company, i.e. investment attractiveness. It is not enough to consider certain parameters (e.g. only ROE coefficient), they should be generalized. The indicators are usually divided into 5 groups:

#### ***Group1. Development indicators of the company:***

- dynamics of sales = sales growth in reported period / sales in previous period x 100%
- dynamics of profit = profit growth in reported period / profit in previous period x 100%;
- dynamics of assets = growth of the total amount of assets in the reported period / total assets in previous period x 100%;
- dynamics of equity = increase in liabilities to shareholders in recorded period / previous liabilities to shareholders x 100%;



**Group 2. Return indicators,** which help to evaluate the efficiency of the company:

- $\text{return on investment in the company} = \text{profit after tax} / \text{investment} * 100 \%$ . This is an indicator of company's management efficiency;
- $\text{return on investment in ordinary shares} = (\text{profit after tax and dividends on preferred shares} / \text{liabilities to shareholders} - \text{par value of preferred shares}) * 100\%$ ;
- $\text{the main rate of return} = (\text{profit after tax and interest on loans} / \text{total assets} - \text{intangible assets}) * 100 \%$ ;
- $\text{return on total assets} = (\text{profit after tax and dividends on preferred shares} / \text{total assets} - \text{intangible assets}) * 100\%$ ;
- $\text{return on tangible assets} = \text{profit after tax and dividends on preferred shares} / \text{tangible assets} * 100\%$ ;
- $\text{gross return on sales} = \text{gross profit} / \text{sales} * 100\%$ .

**Group 3. Liquidity indicators:**

a) coefficients of current liquidity, which give the possibility to assess firm are performance in short-term liabilities and its solvency:

- $\text{current coefficient} = \text{current assets} / \text{current liabilities}$ ;
- $\text{coefficient of critical (instant) estimation} = (\text{cash} + \text{marketable securities} + \text{accounts receivable}) / \text{current liabilities}$ ;
- $\text{duration of accounts receivable} = \text{accounts receivable} / (\text{sales on credit: the number of days of the year})$ ;
- $\text{accounts receivable turnover} = \text{sales on credit during the year} / \text{accounts receivable}$ ,
- $\text{turnover of inventories} = \text{sales} / \text{inventories}$ ,
- $\text{duration of inventories} = \text{inventories} / \text{average daily sales of goods}$ ,
- $\text{accounts payable turnover} = \text{total supplier purchases} / \text{accounts payable}$ ,

b) long-term liquidity coefficients:

- $\text{the ratio of liabilities and obligations to shareholders} = \text{total liabilities} / \text{obligations to shareholders}$ ,
- $\text{the ratio of long-term liabilities to shareholders and sources of long-term financing of firm} = \text{long-term liabilities} / (\text{obligations to shareholders} + \text{long-term liabilities})$ ,
- $\text{the ratio of cash flow and the total liabilities to creditors} = \text{cash flow} / \text{total liabilities}$ ,
- $\text{the ratio of cash flow and long-term liabilities} = \text{cash flow} / \text{long-term liabilities}$ ; indicator reflects the firm's ability to pay its long-term credit liabilities, especially bonds,
- $\text{turnover of fixed assets (the use of fixed capital)} = \text{sales} / \text{balance value of fixed assets}$ ,

- $\text{turnover of total assets (the use of total capital)} = \text{sales} / \text{total assets}$ ;

**Group 4. Indicators of stability:**

- $\text{indicator of indebtedness to lenders} = \text{total liabilities} / \text{total assets} * 100 \%$
- $\text{indicator of indebtedness to shareholders} = \text{total debt to shareholders} / \text{total assets} * 100 \%$

- coverage of the interest on the bonds by revenues = profit before taxes and interest payments / interest payments on the bonds. The indicator reflects how operating profit of the company can reduce before it has to pay annual interest to bondholders,

- coefficient of coverage of payments on long-term liabilities = (Profit before tax and interest payments + annual payments of lease liabilities) / (interest payments on bonds + annual payments of lease liabilities),

- the ratio of securities with fixed and non-fixed income = total liabilities / liabilities to shareholders.

***Group 5. The indicators of share capital:***

- shares profitability = amount of dividends / share price on the market x 100%

- income per ordinary share = profit after tax and dividends on preferred shares / number of ordinary shares

- the ratio of price and profitability of ordinary shares = current market price of ordinary shares / latest indicator of profitability of ordinary share

- the ratio of the market and balance price of ordinary shares = market price of a share / equity attributable to one ordinary share.

Thus, TNCs operate in such a way as to maximize the market value of the share capital of the company, distributed among its owners. To achieve this, the direct investment should contribute to the achievement of large volumes of sales, to increase of a market share and profits. To solve these issues it is insufficient to calculate NPV, IRR, PPI. Financial Manager should have the ability to control risk, associated with FDI: to predict risk and to compare the outcomes of the planned investment risk, associated with the implementation of FDI.

## **16.2. Securities portfolio management**

### **16.2.1. The diversification of the securities portfolio**

Recently, TNCs have become more interested in international portfolio investments<sup>11</sup>. TNCs have increased the issuance of securities, and securities of foreign affiliates in a considerable number of national markets. This growth is driven by:

- the desire to increase the profit of foreign investment and to diversify risks;
- the growth of international Eurocurrency market;
- the growth of national money markets, shares and bonds have become an alternative to the money market.

The primary economic motivation of international investments is the diversification of the securities portfolio (the distribution of investments in different directions), which reduces the risk of investment. International investments in stocks and bonds open the possibility of efficient diversification.

It is believed that the shares are risky if the rate of return on investment fluctuates greatly. Investing should be done in shares of different companies to limit

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<sup>11</sup> The distinction between direct and portfolio investment is the ownership of 10% of the shares. The possession of less than 10% of the shares is a portfolio investment.

the fluctuation rates of return. Losses in one type of shares can be offset by income from other shares. Portfolio of different shares provides an average rate of return per share, which fluctuates less. Such reduction of risk by choosing the volume of investment in various assets is called the effect of securities portfolio.

The volume of risk reduction that can be expected as a result of the effect of the portfolio, determines the correlation<sup>12</sup> between share returns. Shares with a high degree of correlation have similar changes in profit rates. So in this case, losses in some shares can hardly be offset by unplanned income. If shares in the portfolio have the lowest possible degree of correlation with each other according to their profitability, the reduction of risk due to the portfolio effect will be high.

All internal markets and Eurobond markets in one currency show a high degree of correlation. For the markets of government and Eurodollar bonds correlation is 0.84, and the correlation between different currencies - mostly 0.5.

Since the correlation between the different securities markets is quite low and sometimes negative, long-term interest rates almost do not coordinate in time, foreign investment reveal significant opportunities to reduce the risk.

With the help of foreign shares and bonds the risk of portfolio securities can be reduced to the extent at which the rate of return of foreign shares is not correlated with shares and bonds return rates in domestic country or in other countries.

Weaker correlation of profitability in the securities markets in different countries compared to the correlation in the domestic market can be explained by such factors as differences in the levels of dividends and income from capital in different countries, which, in turn, depend on the technological, competitive, economic and political factors. Different countries have different inflation rates, corporate income taxes, price controls, and the phase of the business cycle and so on. By purchasing shares of companies of different countries, investors can hedge the risks from influence of these factors.

Investment policy, which helps to reduce volatility of the securities portfolio due to lack of complete correlation in their returns, is called diversification. The simplest diversification strategy is a random set of many different securities.

Another strategy is to change the correlation of individual shares and then to choose the portfolio among those, which are the most, uncorrelated with each other. This method allows achieving a high level of diversification; however, it is difficult to implement it in practice.

Hedging of securities in foreign exchange forwards and futures markets helps to reduce the impact of unexpected fluctuations on the profit.

Hedging on forward and futures markets provides the lowest risk for a given level of hedging.

There are several factors that hinder international portfolio diversification. These factors:

- the segmentation of foreign shares and bonds markets, caused by legal barriers that limit investment abroad;

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<sup>12</sup> Correlation – the statistical indicator of the degree of dependence between two variables. Maximum positive correlation means that a certain percentage increase in one variable is accompanied by the same increase in the other one. Maximum negative correlation exists when an increase in one variable leads to a proportional decrease in the other.

- the prohibition for foreigners to own national companies;
- a tax that balances the interest rate;
- the difference of market practices in securities trading and operations (cash transactions or forward transactions);
- the method of determining shares prices (quotations or auctions);
- operational and information costs.

The problem of taxation is often a major obstacle to international diversification.

Large companies can pay the costs of overcoming obstacles to international portfolio diversification, but diversification costs often exceed the benefits for smaller corporations. In recent years, new types of securities, financial mechanisms have appeared, owing to it investors with modest funds can benefit from international diversification. The main ones are depositary receipts, including American Depositary Receipts (see chapter 8), and international mutual funds.

International mutual funds sell parts of ownership in their existing portfolios. Co-owner of the mutual fund receives income from all securities held by the fund in proportion to his contribution to the overall portfolio. Investors make periodic payments, required for the operation of the fund.

International mutual funds have the following characteristics:

- people, who give their money to investment intermediaries carry risks related to investments;
- fund manager brings together money from many people into a single pool of money and thus averages the risks to members of the collective investment scheme;
- the schemes of investment funds do not provide pre-agreed fixed payments;
- investor can choose any form of investment.

The main economic benefits of international mutual funds:

- *efficiency and information transparency.* Investment fund offers such income which cannot offer any existing financial institution. Additional income is obtained by reducing costs through economies of scale, because the larger are the packages of securities purchased or sold, the lower is the cost of transactions. Disclosure of information by funds raises the awareness of depositors and their experience that is necessary for investment. Investors are able to control the investment decisions of governors of the fund. The prices in the stock market arise as a result of trade of informed investors and prices themselves begin to reflect all the information about securities. The market becomes less risky and more reliable, that is "efficient market";

- *diversification.* Due to investment funds, investors have the opportunity to create a diversified portfolio of securities. This reduces the risk because the investor holds the variety of shares in different countries and industries. In addition, investors have the opportunity to enter new investment markets and to receive incomes from new sources;

- *professional management.* Professional managers of mutual funds constantly analyze which securities to buy and sell; they are active in trade in order to increase income, thus affecting market activity they contribute to the stabilization of

the market. This distinguishes them from small investors, which are dangerous for the market, they are usually guided by rumors and unchecked information;

- *liquidity*. Shares issued by investment funds are freely traded on the market without any restrictions., investor gets back his money and income within several days, when he is leaving a fund;

- *convenience*. The fund participant has a permanent right to have a share in the income of the fund, regardless to the period during which he is a shareholder;

- *preferential taxation*. In some countries, funds are exempt from taxation, there are schemes of tax credits, tax deferrals, when the worker invests a share of his income in the fund, which until retirement is exempt from tax, etc.;

- *strict control and regulation of activity*. This is done by government regulatory bodies, organizations that are regulated by them put high demands on standards of work of the funds and carry out oversight function. Mutual funds are required to be licensed and be responsible for all their actions [15, p. 338].

### **16.2.2. Active and passive international portfolio management**

International portfolio management can be based on passive and active approaches.

Passive management is based on the hypothesis of market efficiency. When the price of the securities is identified on the basis of all available information, and the market responds rationally on this information, management should focus on the market being structured on the basis of the index investments method. This means that the portfolio manager may invest the whole portfolio or its significant part in the market (stock) index or set of securities, which expected dynamics largely corresponds to the market index (Standard and Poor 500, Nikkei 225, Financial Times All Share Index, Dow Jones Index etc.).

Passive management is understood as an allocation of funds on the top 20-25 national stock markets in proportion to the weight of these markets in the world's market index. The only required information is about the share of world market capitalization in each component of the index.

Active management requires a large number of forecasts and analysis. It is essential to select the stock markets and to diversify them. Markets with the best features are given the highest weight in the portfolio. Then manager selects shares in specific industry sectors. This requires a significant amount of forecasts.

### **16.3. The current capital policy**

The current capital policy - is an asset and liability management of international firms in the short term, that is, working capital management.

Working Capital Management includes the management of:

- 1) cash;
- 2) receivable accounts and payable accounts;
- 3) the stock of materials;

4) short-term borrowings.

### **16.3.1. Cash management**

The cycle of cash flows covers getting cash from sales and paying for factors of production. Management of this flow is one of the most important aspects of the current capital policy. Finance Manager of TNC must: 1) identify the corporate and local needs in cash; 2) ensure that the cash can guarantee the repayment of obligations in hard currency; 3) minimize the cash "surplus" as quickly as possible and profitably invest cash if the rate of turnover of cash and market security are relatively low; 4) focus on accelerating cash withdrawal and slowing down its spending.

International Financial Management should make decisions on these issues both within systems of cash payments of individual countries, and between these countries. In this case, the control and regulation of international financial transactions must be conducted in conjunction with other issues of financial decision-making, first of all – with the investment policy.

Process of control and regulation of cash transactions can be controversial. For example, manager is required to offset the balance of the corresponding size in order to be sure that there is always enough cash in the cash register. In this case, the decision of the manager is heavily influenced by his ability or inability to adapt to risk. Being not ready to strategic risk entails keeping a large excess of cash or securities in different currencies in case of making payments. This is a conservative strategy. It provides assurance that, if necessary, money will be actually available. But this confidence is achieved due to the fact that the manager will save funds that could be invested profitably. This approach is expressed in the thesis "low risk, low turnover".

The situation is different: energetic manager, who performs the control and regulation of transactions, may have a very small amount of cash in securities and invest more money in business. This is an energetic approach, aimed at profitable investment. But this approach can suffer from few risks. If the cash need grows, the manager will have to take out a loan with an unknown interest rate. Manager carries out the risks, connected with foreign exchange risk. This approach can be called "high risk, high turnover."

The desire to speed up the cash inflows and slow down its outflows is especially dangerous for international firms because of the risk of exchange rate fluctuations and high inflation, which result in the devaluation of currencies. If there is a delay in receiving money from operations in countries with rapid currency depreciation, the cost of funds in national currency plummets.

In other circumstances the desire of energetic manager to control and regulate the transactions leads to good results.

The efficiency of the current capital policy of international and transnational firms also depends on two factors: the speed of the transfer of funds from a bank in one country to a bank in another country and the degree of centralization of transactions. By the usual wire transfer operation takes from one to two business

days. *Society for Worldwide Interbank Financial Telecommunication* enables to do a transfer transaction within minutes.

The current capital policy of TNCs is usually centrally managed. The lack of centralization leads to excessive costs and risk. The common method of centralization of transactions management, of control and regulation is the use of accumulated accounts.

Let's suppose that the firm operates in Chicago, London and Munich. Financial managers in each region analyze their cash flow at a certain date. The analysis provides a forecast of cash flow which is presented in Table 16.1 (million dollars):

Table 16.1

**The forecast of cash flow**

<b>Indicators</b>	<b>Chicago</b>	<b>London</b>	<b>Munich</b>
Expected inflow	2,0	3,6	1,7
Expected outflow	2,3	3,4	1,8
Surplus or deficit	-0,3	+0,2	-0,1

Munich and Chicago operations will require total amount of loans - U.S. \$ 400,000 to cover the expected deficit, while the result of London operations will be an excess of \$200,000 - in case of using the centralized system of current capital policy.

The needed loan will amount to \$ 200,000 – in case of using the system of accumulated account. Consequently, firstly, interest costs will be reduced, as the interest rates for borrowing money are higher than the deposit rates, and secondly, because the parent company is usually better known on the credit markets, loans may be provided at preferential (subsidized) rates.

When the centralized control and regulation of financial operations is used, cash flow is subordinated to the interests of the corporation as a whole. TNCs operate as a system of cash sources of funds, users of these cash and financial coordinators. The sources of funds are the subsidiaries, which have limited investment requirements, but great sales and cash inflows. Users of funds are such affiliates that have significant investment requirements, but limited sales and cash flow. These are usually more "young" and fast-growing divisions. Financial coordinators optimize the investment of cash, assist the avoidance of foreign exchange losses and ensure the relationship with the banks and so on.

Many large multinationals conduct operations with the international cash flow through a single central depository. All branches and offices of multinational corporations conduct cash transactions only through such depository. They are located in major international financial centers, as well as in those where it is allowed to conduct foreign exchange operations, which have good communication and banking services, where taxation is made at the lowest rates, and so on.

The main advantage of the centralized depository is the possibility of multilateral international netting. Netting is a mutual compensation of liabilities and assets between TNCs.

TNCs open clearing accounts in the central office. Branches with the negative net position transfer funds to a central clearing account, then clearing account manager transfers these funds to branches with the positive net position. Net position

reflects the difference between the accounts receivable and accounts payable. Clearing account manager monthly receives information on all transactions and calculates the net position of each branch. Then he organizes the final settlement process.

Let’s consider the example of the process of multilateral netting (Table 16.2, Fig. 16.1).

Table 16.2

Net positions of branches (in USD)			
Countries	Accounts receivable	Accounts payable	Net position
France	250.000	350.000	(100.000)
Germany	250.000	100.000	150.000
Italy	150.000	300.000	(150.000)
Great Britain	300.000	200.000	100.000

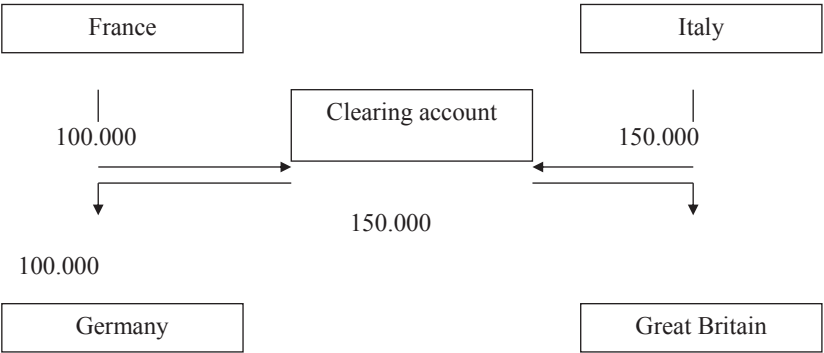


Figure 16.1. The process of centralized netting (in USD)

Multilateral netting helps firms to reduce the intensity of cash flows, to transfer it quickly and efficiently, to reduce the cost of currency exchange, fees and charges, paid for the transfer of cash, which is caused by the transfer of large amounts of money and by the decrease in the number of transactions.

Some major industrial countries, such as France and Italy, prohibit or restrict international netting in order to subsidize their national banking systems by increasing international cash flows that pass through them.



### **16.3.2. The management of accounts receivable and payable**

Management of accounts receivable and payable <sup>13</sup> consist in finding an optimal balance between the cost of payable accounts as a financial transaction for the customer and the supplier's sales increase in case of using accounts receivable. The management of these accounts can be difficult because of the constant changes in exchange rates and the possibility of restrictions on remittances during the doing business globally.

When financial transactions are small or casual, the "letter of credit" system is used in management of these accounts. However, this system is quite complicated and expensive. Receivable accounts are used as collateral for bank loans or they are sold in case of making large or recurrent deals, in order to avoid risk, it is the factoring. Factoring can be carried out with the right of recourse (reimbursement of losses of financial institution that bought accounts by a company that had sold these accounts) or without it. Factoring of foreign accounts receivable is usually carried out without the right of recourse. The factoring of foreign accounts is riskier than the same operation with the national accounts, that's why financial institutions that are engaged in factoring want a higher discount (an interest rate) for these operations.

The countertrade is used in order to avoid the credit risk in international trade agreements. There are the forms of countertrade:

1) barter – sales and purchase agreement by which goods are directly exchanged for other goods;

2) compensation agreements by which an exporter of capital goods agrees to get the compensation in the form of goods, which will be produced by using the delivered capital goods;

3) counter purchase agreement, which provide compensatory repayment by products, which are not connected with the delivered capital goods;

4) replacement - an agreement by which compensatory goods should be produced, using components, manufactured in the country of purchase.

### **16.3.3. Stock management**

International financial management also faces difficulties in case of managing the inventory, caused by unforeseen fluctuations in exchange rates and prices, remittances restrictions, quotas, tariffs and so on. Futures and options can be used to control the prices of raw materials and transportation. International companies often make prior purchases and stockpiling. During low demand firm can increase inventory of imported finished goods and raw materials and will use it when demand increases.

Remittances restrictions and the difference in the value of tax rates on corporate income in different countries can be avoided or mitigated by using transfer

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<sup>13</sup> Receivable accounts – recording in the balance sheet of assets, which reflects the amount of money that the company's customers owe to the company. Accounts payable – recording in the balance sheet, which reflects the amount of money that the company owes to suppliers of goods and services.

payments, i.e. payments within the corporation between its enterprises for the products that they supply each other.

Price changes in settlements between branches and subsidiaries of the same corporation, as well as increased rates of contributions of these units in the maintenance of the central leadership, are made to increase total corporate profits.

Finally, corporations in many industrialized countries use free trade areas for stockpiling in order to defer payment of import duties and taxes and to export this stockpiling when market conditions are more favorable.

## **16.4. Transnational financing**

One of the objectives of TNC's financial management is to withdraw funds for financing foreign branches.

Depending on the goal financing of TNC can be short-term or long-term [5, p. 749; 15, p.334].

### **16.4.1 . Short-term financing of TNC's foreign affiliates**

The purpose of short-term financing is working capital replenishment, meeting current obligations.

Sources of short-term financing are divided into internal and external.

Internal sources are retained earnings and depreciation. Their redistribution within the firm is carried out with the help of in-house international loans. Thus, corporate short-term financing - currency loans given by different divisions of a company to each other, currency loans given by parent company to a subsidiary and vice versa.

Intra-firm international loans can be given in such forms:

- direct international corporate loan. The parent company provides subsidiary with temporary free funds in the form of promissory note;
- compensative internal loan. The parent company puts trust funds on term deposit in international bank of its country, the foreign branch of bank uses these funds to give loans to a subsidiary of the parent company;
- parallel intra-firm loan, the participants of the agreement give each other loans in the currency of their country for a specified period of time.

The external sources of short-term financing are bank financing and obtaining funds through the stock market. Bank financing can be done in such forms:

- credit line. This is a credit agreement between the bank and its client, which contains the bank's promise to provide the client with a certain amount of money up to a certain limit for a specified period;
- revolving credit. These are lines of credit that are renewed over a long period of time, the legally formalized contracts;
- term loan. This is a direct, unsecured loan for a period which does not exceed 90 days. It is issued in the form of a promissory note;

▪ overdraft. When providing overdraft bank transfers the funds from the customer's account in amounts greater than the balance on the account, thus opening the credit.

Bank financing can be done in national and foreign currencies. So there is national, foreign and Eurocurrency financing (eurocredits). Financial manager decides which currency it is better to use on the given market at the definite period of time in order to reduce the risk of loss, to which level currency risk should be covered by forward contracts and "swap" agreements, manager chooses the optimal portfolio of foreign exchange assets, i.e. how much money and in which currencies should have company at the moment.

Financing by means of securities includes commercial securities issue, which represent promissory notes of a company. Promissory notes, issued by the company, are unsecured and are traded between 30 and 90 days, their face value is from \$ 100,000 up to \$ 1 million. There are foreign, Eurocurrency commercial securities and euronotes (short-term securities issued and guaranteed by a bank).

The advantage of commercial securities is that its interest rates are generally lower than the rates of first-rate loans.

#### **16.4.2. Long-term financing of TNC's foreign affiliates**

The aim of long-term financing is to obtain funds to finance long-term investment and other projects of the company, to create a profitable long-term securities portfolio, which leads to an increase in the market value of the company and its share capital.

Long-term financing is divided into internal and external according to its sources.

Internal sources of financing of the company are accumulated net cash flows that appear when international transactions are made. They are based on retained earnings and accumulated depreciation.

Net cash flows of the company (NCF) are calculated by the formula:

$$NCF = NP - DIV + A_m, \quad (16.4)$$

where NP – net profit of the company;

DIV – dividends paid;

$A_m$  – amortization;

$$NP = TR - OC - IP - T, \quad (16.5)$$

where TR – total revenue;

OC – operational costs;

IP – interest payments;

T – taxes.

The main external sources of long-term financing:

- bank financing in such forms as: bank loan, and in form of a buying by bank long-term securities of the company that are not offered to the public, but that are privately offered to the large investors. Bank lending usually takes the form of syndicated Eurocredits, but the role of this source of financing is decreasing because of more attractive financing through securities;

- raising funds by issuing shares and bonds. Non-banking financing includes foreign bonds, Eurobonds and Euroequities.

While solving the problem of long-term financing of TNCs, financial manager should find out:

- which kind of financing is best for the company: financing investment in the strong currency at low interest rates or in a weak currency, but with a high interest rate;

- how it is possible to accumulate loans in different currencies in order to reduce or eliminate currency risk;

- to what level multicurrency loan can be hedged from risk.

Thus, the task of international financial management on issues of long-term financing is to minimize interest rates, taking into account specific level of risk.

The choice of TNC's financing sources is influenced by the following factors:

- the need for maintaining or strengthening the control over subsidiaries;
- need to obtain regular cash inflows from affiliates;
- selection financing objects (primary or working capital);
- the desire to minimize the amount of all taxes paid worldwide;
- business contacts with national and international financial institutions;
- the changes in interest rates, exchange rates and other financial costs that

TNC can consider as a source of financing;

- the desire to minimize the monetary, financial and political risks.

## **16.5. International trade financing**

### **16.5.1. The methods of financing exports and imports**

International trade finance is an important element of economic development of the country, since a loan, such as the quality of the product and its price are important means of competition in the global market. Financing of export-import operations eases the sale of goods for the exporter and its purchase for the importer. Foreign trade agreements are financed by banks, government, exporters, importers, financial organizations.

The classification signs of trade financing are:

1) the stage of production of financed goods:

- The manufacture of goods for the exporter;
- The storage of goods in the exporting country;
- The transportation of goods;
- Storage in a warehouse in the importing country;
- The sale of goods;
- The use of goods in the process of production and its depreciation;

2) the terms of credit, or financing, may be:

- Short-term (working capital financing);
- Mid-term;
- Long-term.

**Export finance** - different ways of getting funds from various financial institutions by an exporter until he obtains payment from the importer.

All forms of credits are used in export financing, as in domestic trade, as well as other forms of financing, which are connected with the importer's payment terms [17, p.419]. Thus, the forms of export financing include:

- credit financing, which includes the cash loan (short-and long-term) and opening of the line of credit (guarantees, the accepted loan);
- requirements transmission (forfaiting and factoring).

Funding can be obtained by conventional (traditional) methods of bank financing or by non-traditional methods.

Traditional methods of short-term financing of export:

- unsecured overdraft in national or foreign currency. The probability of credit in local currency increases if the exporter has an insurance policy on export credit in order to mitigate the risk of losses in case of importer's payment failure;

- the letter of credit with advance payment. It is used when it is necessary to finance the exporter before shipment of goods;

- advances under collection of payments. Bank provides the exporter with such advances when the latter asks the bank to carry out the collection on his behalf. Advance payment is determined in each case depending on the value of the credit risk. Usually it is 80-85 % of the bill of exchange;

- the account or the purchase of bills of exchange / checks by a bank. Such working capital financing is carried out if an exporter sells its products on the open account, collection or documentary letter of credit with the accepted bills of exchange. The client immediately receives credit, but he must provide a bank with a collateral letter, in which he mortgages all his bills of exchange as a collateral for bank;

- the acceptance of the lines of credit, which represent an agreement under which the bank agrees to accept bills issued by an exporter against the collateral in the form of trade bill. The term of payment of trade bill should be earlier or match the term of payment of loan bill that has been accepted by the bank. The advantages of the accepted loans are in fact that the accounting of bills is done at the lower discount rate than the accounting of trade bills. Therefore, the accepted credit lines are cheap sources of short-term financing. The disadvantage of this method of financing is a significant amount of the accepted credit - at least \$ 1 million, and the right of recourse to the exporter by the bank;

- advances from customers. The importer agrees to pay the part of the cost of goods (sometimes 100%) prior to its actual delivery. Advance payments generally constitute 10-30% of the contract value.

Non-traditional methods of short-term financing are export factoring, credits from export intermediaries, finance by using commission fees of the company.

Such methods are usually used in the *medium term exports financing*: bank loans in local and foreign currency, loans that are guaranteed by a special government agency. Non-traditional financing methods include forfeiting, counter trade, international operations of credit unions.

International Credit Union – is an association of finance companies or banks in different countries that conclude reciprocal agreements to provide financing with partial payments. When a foreign buyer wishes to pay for imported goods through partial payments, the exporter may apply to the credit union in his country, which will give the order to provide financing through the credit union in the country of the importer. Exporter will receive immediate payment without the right of recourse to him. Importer will receive financing with partial payments.

*Long-term export financing* involves the issue of shares and bonds, buyer's credit, project financing.

Buyer's loans are given by the bank that serves exporter. It is provided by a bank in the exporting country to importer or to his bank in the amount of the contract. The forms of such credits: loans under certain contracts for the supply of machinery and equipment; lines of credit; loans for the construction of entire objects with the supply of equipment and the provision of construction and installation services. Contractual relationships between the parties of the agreement based on buyer credit are formalized in the following agreements: a contract between the exporter and importer, the loan agreement between the bank that provides a loan and the borrower (importer's bank); guarantee provided by the insurance agency of the bank that gives a loan. Such loans generally constitute 80-85% of the contract value.

Project financing is understood as all kinds of large long-term loans for large projects in construction, extraction of raw materials, infrastructure and communications.

Non-traditional method of long-term financing is leasing.

*Import finance* - different ways of obtaining loans from financial institutions by an importer to make the payment to the exporter if there is a problem with a lack of cash [17, p.427].

Funding sources for importers are basically the same as for exporters and the ways of financing include:

- Bank overdraft in national or foreign currency;
- A loan in national or foreign currency;
- Payments via the accepted letter of credit and the letter of credit with deferred payment, compensatory letter of credit;
- The financing of the buyer's credit, guaranteed by the government agency;
- Bank acceptance (the acceptance credit). Exporter draws a bill of exchange for acceptance not to the importer, but to the importer's bank. Formally, the credit is provided by the exporter, but the acceptor is a bank that changes the relations between the parties.

Non-traditional methods of import financing include leasing, forfeiting, countertrade, finance by using commission fees of the company.

### 16.5.2. The state support of export

The state institutions which support export are divided into two groups: those, who provide financial resources and those that provide guarantees and insurance policies, which help to obtain loans from the foreign bank [17, p.429].

To provide financial support of the development of export-import operations of the country, most governments have initiated the creation of specialized banks, institutions, the main functions of which include:

- Short-term and long-term lending to exporters;
- Guarantees and export credit insurance;
- Long-term loans from foreign governments and companies.

These banks provide loans to foreign buyers of goods of a certain country on more favorable terms than other organizations. The most important condition of such loans is guarantees of governments of the borrowing countries. These bank loans are regulated and controlled by the state. Although the credit agreements are concluded between banks, they are approbated by governments and in many cases are the parts of international agreements. That's why conditions of these loans differ from the conditions of ordinary commercial loans. These are target (export) loans that can be used only for purchasing goods in the country of the lender, not for general corporate purposes.

Activities of specialized banks are generally subordinated to economic development trends. It's better to illustrate their operations on the examples of the major trading countries.

Export-Import Bank of the United States is engaged in foreign trade financing, apart from commercial banks in the **United States** (Export-Import Bank, Eximbank). This is a corporation that is in full possession of the U.S. government. The Bank performs the following functions:

- provides direct loans to exporters and importers;
- assistance to commercial banks and other financial institutions that provide export;
- export credit insurance and guarantees.

The ensuring of short-term (up to 180 days) export sales by Eximbank is based on export insurance program, which is carried out together with the Foreign Credit Insurance Association (FCIA), where more than 50 leading insurance companies in the United States take part. The Association conducts short-and long-term policy to cover commercial and political risks. Insurance coverage is provided at a rate of 90% or 100 % of the total loan amount of an exporter or importer.

Private Export Funding Corporation (PEFCO) is working closely with Eximbank on direct lending operations. It has equity participation in more than 60 banks and industrial companies as well as their own investment office. The aim of PEFCO is to provide U.S. firms with an additional source of financing of export transactions. All PEFCO loans are provided under Eximbank guarantee of principal and interest. This allows refinancing loans on long-term capital markets. With the help of mid-and long-term loans the purchase of goods and services by foreign

buyers, which are produced or provided by the United States, is financed (e.g., power plants, industrial buildings, railroad equipment, etc.).

Eximbank and PEFCO offer such export finance programs:

- Long-term export transactions are provided with direct loans to foreign banks (importer's banks) and it is funded up to 61 % of the contract value. If the exporter is involved in financing, the quota of funding increases by 10 %;

- On the medium-term financing Eximbank may pay a subvention to the exporter if foreign competitors are also proposed subventions.

Eximbank gives guarantees to private banks (cost - 0.5 % per annum) on the provided export loan. The part of the loan, provided by a commercial bank, is to be returned in the first place, that's why exporter's participation in financing has no risk.

Each year, Eximbank provides export financing in the amount of almost 13 billion dollars. Particular attention is paid to small businesses in the U.S., whose support accounts for \$ 2 billion. [6, p.457, 899].

In **Japan**, the financing of foreign trade is done by Eximbank (financial institute of the Japanese government) together with commercial banks and trade houses. Export financing is agreed with the general strategy of Japanese exports of machinery and equipment. Eximbank usually finances about 60-70 % of the loan at reduced interest, the remainder is provided under the terms of the commercial banks, depending on the market situation.

In the **UK** the financial support of export- import operations is done by Exports Credits and Guarantee Department (ECGD). Bank receives the difference between the loan interest rate and the rate of refinancing through subsidies that are paid by the ECGD. While production of export goods ECGD does not provide financial support. It is given only in exceptional cases when the period of production is more than one year and the amounts of the contract exceed one million pounds. Commercial banks, which provide export credits, are given guarantees by the ECGD.

Export financing in **France** is carried out by the French Central Bank (Banque de France), the French Foreign Trade Bank (Banque Francaise du Commerce Exterior, BFCE) and commercial banks.

Banks provide short-term loans at market conditions, mid - under conditions that meet the OECD agreements (the loans are financed both to exporters and importers). Long-term export transactions are financed through BFCE loans to contractor or refinancing of supplier's loan in BFCE. BFCE refinances itself by issuing securities; the difference between refinancing and loans interest rates is covered by the state budget. Mixed credits can be used, that is joint financing of large projects by several credit institutions - both international and national. Such funding programs are a means of promoting national export. Loans are available for up to 25 years, interest rates are minimal due to subsidies and government [17, p.432].

In **Germany**, most of the export financing is provided by two special institutes: consortium of German commercial banks "Export-credit" (Ausfuhrkredit GmbH / Frankfurt am Main, AKA), and Credit Institution for Reconstruction (Kreditanstalt fuer Wiederaufbau, KfW) [17, p. 432].

AKA provides medium and long-term loans to finance only German export transactions on the basis of three lines of credit:



- Fund A that was created without government support. Loans from this fund are available only through the banks-participants of the Consortium;

- Fund B, which amount determines the maximum amount of financial bills of AKA. German bank accounts it at a lower rate, and these bills are drawn on the basis of the export transaction through participation of any German bank;

- Fund C, which provides loans to customers of deliveries, but the loans are paid to the exporters. These loans are guaranteed by governments and are available only through the banks-participants of the Consortium.

The amount of the loan that is provided by AKA depends on the value of the export credit which is covered by the insurance company «Hermes».

KfW finances the export of German products of long-term investments (buildings, equipment, etc.), telecommunications, aircraft production and shipbuilding, and related engineering services, financial consultations. Credit is given in the amount of 85% of contract to customers of deliveries or to customer's bank. Prerequisite for obtaining the loan is a government guarantee.

KfW provides loans to the contractor, financed from its own funds. Loans to suppliers are provided by the bank-exporter. Interest rates on KfW loans are fixed in the agreement and are irreplaceable.

In **Italy**, state financial support of export transactions is done by the state credit institution Mediocredito Centrale, which receives funds from the state export fund, government subsidies to cover losses and by loans on the capital market under the guarantee of the government. Form of Mediocredito support depends on the type of export credit, the availability of funds in the bank. Interest rates on loans are low. When there is not enough funding to finance transactions, the state subvention is given. The period of the production of export goods more than 1 year is financed at low interest rates.

The services of state export credit insurance are carried out in all countries where there are special institutions, which funds are managed by the state (second group of institutions of state export support). Typically, these types of risks are insured: foreign policy risk; the risk restrictions on the transfer of funds, including the risk of a moratorium; currency risk; credit risk if a customer or debtor is a public institution.

This provides the accepted level of funds profitability to creditor banks with the standards and requirements of the OECD. This group of institutions includes Export Credit Agencies, ECA.

Thus, ECA - is accepted in international practice common name of institutions (some insurance companies, banks, or departments of ministries) that implement state export support policy through the insurance of export, political and commercial risks and guarantees.

Now the ECA operates in more than 70 countries, including Germany (Hermes), Spain (CESCE), Czech Republic (EGAP), Poland (KUKE), France (COFACE), Hungary (MEHIB), USA (US Ex-Im), Italy (SACE) and others. Sometimes these functions are performed by the National Development Bank.

As a result of export credit insurance by ECA, bank that serves producers, gets reduces of risks. Accordingly loan terms are mitigated: terms increases, the interest rate decreases.

Funding under warranty of ECA has two schemes. According to the first scheme, credit is given to domestic bank for financing the contract of domestic importer. Domestic bank concludes an individual credit agreement with a foreign bank, by which the credit is granted to domestic bank under the guarantee of the ECA. This loan is targeted and the bank does not receive this money, because money are received by an exporter, manufacturer. The foreign bank pays for supply contract and domestic bank must repay the credit debt. Domestic bank, in turn, conducts a credit agreement with the company. According to the second scheme, a foreign bank-creditor provides a direct loan to the domestic importer under the guarantees of domestic banks. Thus, in the first case the borrower is a national bank, and in the second - a domestic enterprise. The particular choice of scheme depends on who (bank or importer) is trusted more by the financing bank, and Export Credit Agencies. The main condition for obtaining ECA guarantees for banks - is the availability of a client with a large import contract of equipment. For banks with which the ECA has a positive experience, the formalities are minimized. In order to obtain approval of ECA, the national bank must meet the standard requirements;

- the availability of financial statements according to international standards and international audit for the last three years;
- the adherence to the standards that are set by the Central Bank;
- corresponding share capital structure and ownership structure;
- relevant economic mission of guarantor bank in the country, the availability of development strategy;
- availability of bank ratings by international rating agencies.

In addition to the standard requirements the ECA has additional rules. Thus, according to the "rules" ECA should serve export of industrial equipment. However, sometimes they provide guarantees for loans to enterprises for the purchase of semi-finished products (such as chemical raw materials, which are not produced in the country); according to the other rule, the amount of ECA guarantees must not exceed 50 % of the equity of domestic bank.

Terms of funding under ECA coverage are standard and meet the requirements of the OECD:

- *period*: from 1 to 5 years in exceptional cases up to 8.5 years (depending on the subject of the delivery and consent of the lending bank);
- *currency*: U.S. Dollar, Euro and other currencies, depending on the currency of the contract and on consent of the lending bank;
- *credit covers*: up to 85% of the value of foreign trade contract and consent of the lending bank;
- *advance payment*: up to 15% of the value of foreign trade contract is paid by the importer to the exporter under the terms of the contract;
- *interest rate*: has to be agreed with the lender for each project separately (the rate will depend on the borrower's credit rating and credit project);

- *additional costs*: the commitment fee (about 0.5% per annum), the fee for the organization / management (one time, approximately 0.5% of the loan amount), legal costs (possible, but not mandatory).

- *insurance premium*: its size is set by ECA of the creditor country and depends on the importing country, loan amount, loan term, the subject of the contract and so on. Payment of insurance premiums can be made using the credit (fully or partially), by the importer or, if agreed, together with the exporter

## **16.6. Dividend policy of the corporation**

Dividend policy of the corporation is directly related, on the one hand, with the policy of financing its activities, on the other - with the assessment of activity of firm by shareholders in order to define how dividend payments affect the welfare of shareholders and the value of the firm.

One source of corporation funding is refinanced profit. Since a percentage of profit paid to shareholders in cash dividends (index dividend yield) reduces the amount of refinanced profit the decision to pay dividends is at the same time funding decisions. Refinancing profit determines the possibility of the distribution of income (both in magnitude and maturity) between shareholders as dividends.

How can investment decisions be agreed with the decision to pay dividends in the interest of shareholders and strengthening the position of firms in the financial markets?

There are two views on corporate dividend policy: 1) the passive role of dividend policy in ensuring of the welfare of shareholders and the impact on firm value and 2) the active role of dividend policy.

### **16.6.1. Passive and active dividend policy**

In the passive role of dividends, dividend rate of withdrawal does not affect the welfare of shareholders and firm value. If the dividend policy is considered only as a funding decision, the payment of dividends is given the place of passive balance. The value of dividend output will change from period to period according to the fluctuations in the number of eligible firms in terms of investment projects. If the company has many opportunities for investment, the dividend yield will probably be equal to 0. On the contrary, if the firm does not have opportunities for profitable investment, the dividend yield can be equal to 100%. Thus, the value of dividend output depends on favorable opportunities to invest and can vary from 0 to 100%.

According to the first view, investors themselves by their actions alone make decisions about dividends. These solutions are thoroughly substitutes of corporate dividends that mean dividend payments may be compensated by other means of financing. If dividends are paid lower than expected, shareholders may sell part of their shares in order to obtain the desired amount of money. If dividends exaggerated expectations, investors can spend it to buy new shares of the company. Thus, investors can regulate their income regardless of corporate dividend policy.

According to the second view, dividends play an active role. Investors may care whether they receive their income in the form of dividends or in the form of sale of shares. For them dividends is the main criterion for evaluating stocks. Since dividends are related to diversity of current income and the prospect of receiving other income from equity is driven to the future, because payment of dividends by company gives investors a sense of certainty. All other things being equal, they are willing to pay a higher price for the shares, which are entitled to receive current dividend. The practice gives sufficient number of examples that investors prefer not to make a decision on dividends alone, and get a real income directly from the company.

The active role of dividends is manifested in the fact that firms use dividends increase in terms of market imperfection of financial information in order to inform about the expected change in the tendency of growth profitability and if the value of the shares does not reflect adequately the situation and prospects of the firm development. Accordingly, the value of stocks may react to this change of dividends and may increase.

In order for payment of higher dividends, than that is dictated by amount of money remaining after paying the financing of investment projects, was justified, it is essential that investors prefer dividend.

### **16.6.2. Payment of dividends**

Developing a dividend policy, corporation takes into account many different criteria and analyzes a number of factors that affect the success of dividend policy. First, the financial manager must assess the financial needs of the company and the source of funds to analyze the factors that affect the state of the company's cash balances: possibility of long-term investments, an increase in inventory and the amount of accounts receivable etc. He has to include in the analysis forecast of risks and prospects of company development on a reasonable number of years and, therefore, to determine the ability of the company to maintain a stable level of dividends and the possibility of regular payments.

The higher liquidity of the firm is, the higher is its ability to pay dividends. If the reserve of liquidity is insufficient for the payment of dividends on the expected level, the firm must find a way to get the borrowed funds: obtain credit or to enter the capital market with a package of their bonds. The larger the firm opportunities to attract borrowed funds are the greater is its ability to pay out dividends and the concern about the impact, which makes payment dividends in cash liquidity of the company, is smaller.

Carrying out dividend policy, company uses the information effect of dividend payments, solving the question of what kind of information on current dividends and their changes it would like to spread.

Decisions on dividends may not always be well-founded, but many corporate executives believe that dividend payments affect the value of shares and create their own activity, by attaching great importance to issues related to the payment of dividends. The company may pay dividends by coordinating the interests of

accumulation of dividend payment with limited funds and for purposes of accumulation it may issue new shares. This option of dividend policy is applied frequently. However, financial manager must ensure that the issue of new shares as a source of dividend payments would not lead to the erosion of a controlling stake. It is on one hand. On the other hand, it has to keep in mind the possibility of dragging the shareholders by competing firms if the dividend yield is reduced.

Besides the percentage of dividend exit, investors are interested in the stability of dividends not only because they receive a steady income, but also because, other things being equal, the stock price will be higher if it gives a stable current dividend for some period. Maintaining the stability of the dividend payment, the company may affect the positive attitude of the stock market in its shares.

One alternative of dividend policy may be payment of dividends with new shares, i.e. by transferring additional shares to shareholders. The company may resort to the use of this option if it wants to save money, which is in its possession.

The company may increase the actual level of dividend payments to shareholders and attract new investors by splitting of shares. For example, company may carry out splitting of shares in relation 2 to 1 and set the interest rate at 1.20 dollars per share. Before splitting shareholder that owns 100 shares of the company, of dividend rate of \$2 per share, got \$200 per year. After fragmentation the same shareholder has become the owner of 200 shares and its dividends amounted to \$240 per year.

The announcement of dividend payment in shares or splitting of shares has information effect, which is formed by the idea of favorable forecast of firm management regarding situation in the future and often results in increasing the value of shares of companies that have announced dividend payment in shares or shares fragmentation. However, duration of such effect in the end depends on the actual increase in the firm's profits.

Another element of dividend policy of the company is the share repurchase in the secondary market in order to remove them from circulation. Of course share repurchase is a signal to the market about the low score for shares of the company, prompting market to a reassessment of their value. The repurchase of shares as part of dividend policy is especially useful in situations where the firm has a significant amount of money that should be placed.

## Chapter 17. Risks of company's international activity

### 17.1. Foreign exchange risk

#### 17.1.1. The essence and types of foreign exchange risks

**Foreign exchange risk** – is the possibility of financial loss in the implementation of various international economic transactions due to changes in market conditions and in accordance with market fluctuations in exchange rates.

The objective basis of foreign exchange risk is that in the long run exchange rates depend on the economic situation of different countries, and in short - on decisions of state bodies about economic issues, speculative operations, rumors and expectations, political events, and finally on wrong decisions of dealers.

Operations of international financial management to finance international trade, long-term investments, current capital policy, forming the securities purchase and sale of foreign currency are linked to foreign exchange risk caused by the need to exchange currencies and currency fluctuations. Thus, exporters suffer losses with a decrease in the exchange rate of price in relation to the currency of payment because they receive lower real value compared with the contract. For importer risks arise if the exchange rate of price increases in relation to the currency of payment.

Fluctuations in exchange rates for companies engaged in international activities, is one of the most significant risks. Although exchange rates - is an external factor, on which the financial manager has no power, but effective financial management requires manager to analyze the risks associated with exchange rate fluctuations and, if possible, control them.

The main elements of the evaluation of foreign exchange risk is to determine the kind of foreign currency, according to which calculations are carried out; sum of currencies; duration of the period of the exchange rate risk; kinds of currency payment.

Foreign exchange risk management assumes its detailed analysis, evaluation of possible consequences and the choice of insurance methods. The financial manager must use all available means to avoid risks and control it; carry out a number of measures to minimize the amounts of probable losses, if there is not any possibility to avoid it completely; insure foreign exchange risk if it's not possible to avoid it.

There are three types of foreign exchange risk:

- Recalculated (accounting);
- Operational;
- Economic.

**Recalculated foreign exchange risk** refers to the transfer operation of the financial statements of the company from one currency to another. Change in rates affects the financial statements of the company, which reflect its financial position. This risk arises from the fact that international and transnational firms should periodically (at least once a year) combine the financial statements of its subsidiaries located in different countries in a single group reports in the national currency.

For example, an American firm that has a branch in England should translate the income statements and balance sheets of the branch compiled in pounds sterling - in dollars, and combine them with the financial statements of operations in the United States. To illustrate transferred insecurity let's assume that a firm that has a hotel chain of U.S. origin in different countries, decided to expand its overseas operations by buying a London hotel. Purchase took place in the beginning of the year at a price of 3.0 million pounds. According to the current exchange rate of 1.5 dollars for 1 pound, investment firms were 4.5 million dollars. At the end of the year firm must integrate all financial reports in local currency (USD). However, at this time, the dollar rose to 1.3 per 1 pound. Consequently, the general balance sheet shows the price at 3.9 million. (3 pounds x 1.3). Decline in value of the pound against the dollar expressed in transferred loss of \$ 600,000.

However, this loss is only on paper, the actual outflow of cash will not happen. The hotel can even go up in price at market value. However, the financial statements show a loss as a result of the appreciation of the dollar. The data of financial statement are interesting to shareholders, creditors and investment bankers. They play an important role in the relationship of the company with these entities financial relationships. In addition, management evaluation and compensation of employees is often based on financial statement data. Therefore, financial managers pay much attention to the destabilizing impact of changes in the value of currencies on the financial statements and take measures to control transferred vulnerability. One such measure is insurance of balance sheet, i.e., using the method of counter currency flows, the essence of which lies in the fact that currency liabilities or claims of the company are covered. For any cash flow should exist counter-flow in the same currency, which will close the open position of the company. For example, a firm buying a London hotel, in the same time borrows from British bank 3 million pounds. This operation creates a pound liability equal to the cost of the asset in pounds. As a result of balance sheet insurance in the end of reporting period net deferred loss reaches zero.

During the transfer of financial statements in the national currency firm should follow any universally applicable principles. In the U.S. accounting rules established by the Committee of Financial Accounting Standards Board (FASB), the U.S. company must determine for each of its subsidiary's functional currency, i.e. the currency in which the majority of operations of the firm are done. This can be a local currency or dollars. If inflation exceeds 100% per year, the functional currency can only be dollar.

If local currency is used, all assets and liabilities are transferred at the current exchange rate. In this case, the gain or loss from transfer is reflected not in the income and loss statement, but in articles of equity as a correction of transfer. The fact that this correction does not affect the value of profit is attractive to many countries.

If the functional currency is dollar, gains or losses are recognized in the income statement and losses of the parent company for the so-called time method. In this case, there are large fluctuations in the balance sheet profit and lower fluctuation of balance sheet value than in the account in local currency.

During the transfer of financial statements in national currency articles of balance sheet (assets and liabilities) must be transferred at the exchange rate dominating at the end of the reporting period. Revenue articles in the statement (annual income and expenses) shall be transferred in exchange rate active on the date of receipt of income or expenditure, or at the average exchange rate of the reporting period.

**Operational foreign exchange risk** - is the risk, which affects firms and individuals in international economic transactions when future payments or receiving funds must be made in the currency, the future value of which is not defined. Foreign exchange risks caused by changes in exchange rates may be related to the cash flow and assets. They can occur in the short run and in the long run. Changes in exchange rates may lead to changes in the factors of production necessary for the production company, as well as changes in income derived from production. The risk of long-term (current) affects the entire investment. Thus, the operating insecurity occurs as a result of the fact that the exchange rate may change during the time from signing agreement for making payments. In contrast to these risks, operational risk leads to the actual inflow or outflow of cash.

To illustrate, let's consider the following example. American firm ordered goods in France. The parties agreed that payment will be made in the amount of 12,000 euros if the goods will be shipped within 90 days. According to the current exchange rate of 0.8 euros for 1 dollar it will make a payment of \$ 1,500. However, if within 90 days of the euro increases, the payment will be larger in dollar terms, and if it falls, the payment will be lower. Thus, the operating insecurity reflects the uncertainty associated with the final volume of liability in national currency.

For the company, there are several ways to control operating insecurity. The easiest way is to change the operational foreign exchange risk - its transfer to another company. The exporter of a product can establish sales prices in the currency of his country. In this case, the importer faces operational foreign exchange risk associated with the conversion of foreign currency into the national. The method of requirements for immediate payment is also possible. Then export value will be determined by the current spot rate. However, these methods are often end with disrupted contracts or hidden costs.

The company may insure the forward or option on the market. For example, the French company plans to hedge. With forward transactions it expects payment in the amount of \$ 2,000 and decides to conclude the three-month forward contracts for the sale of two thousand dollars. At the time of conclusion of the contract the spot exchange rate was 0.8 euro per 1 USD., and three-month forward rate for a contract - 0.9 euro per 1 USD. Consequently, the cost of buying two thousand dollars for the spot rate up EUR 1,600 ( $2,000 \times 0.8$ ) and under contract - EUR 1,800 ( $2,000 \times 0.9$ ). If after 3 months on the day of contract execution the spot exchange rate will rise to € 1 per \$ 1, it costs of the company to purchase foreign currency in the amount of 2,000 euros. If the company has not entered into fixed-term contract, the cost to purchase foreign currency amounted to EUR 2,000 ( $2,000 \times 1$ ). Economy of money resources or potential income will be 200 euros. If after three months, the spot exchange rate



will fall to 0.7 euro per 1 USD, then the cost of 1800 euros per term contract lost benefits (potential losses) amount to EUR 400  $[1800 - (2000 \times 0,7)]$ .

Another example - a hedge on futures market. U.S. company sells equipment to French firm for 1 million euros through its branch in Paris with delivery in 90 days. After paying the company intends to convert euros to dollars. At the time of the transaction rate of the euro in dollars were: the spot exchange rate - 1.20 USD; 90 days futures rate - 1.15 USD.

Since the forward price of euro is lower than the spot, it means that the euro is sold with forward discount.

If an American company wants to avoid the risk of international exchange, it should sell 1 million euros in 90 days. When it sets the euro after 90 days, then it gets 1150000 USD (1 million euros for the price of 90-day futures - 1.15). If the spot rate will remain at 1.2 USD, the company probably will not sell euros for forwards.

The company would sell 1 million euros in the spot market for USD 1,200,000. In this regard, it pays 0.05 USD per euro (1,20-1,15), or in the amount of \$ 50,000 to secure the ability to convert euros into dollars. In terms of the year the cost of this protection will be  $(0.05 / 1.2) \times (360/90) = 16.7\%$ .

For stable couples exchange loss or gain on the difference between the forward rate and the spot rate ranges from 0 to 3% on annual growth rates. For less stable rates it is higher. For unstable loss rates can reach up to 20%. With a significant exceeding of instability level forward market for such currency stops to exist.

The advantage of forward transaction is expressed in the absence of previous expenses and protection from adverse changes in exchange rates. The downside is the potential losses are connected with the risk of lost benefits.

It is possible to minimize the foreign exchange risk or to avoid it by using currency options. For example, the firm provides to make payments in 3 months in amount of 2 thousand dollars and to fix the minimum exchange rate of the dollar. It buys the option for buying dollars according to the following parameters:

sum	2 th dollars
term	3 months
rate of option	0,7 euro per 1 dollar
Premium	0,025 euro per 1dollar
Type	europian

This option gives the company the right to buy two thousand dollars for three months at the rate of 0.7 euro per 1 dollar. The company pays the seller the currency option premium of 50 euros  $(2,000 \times 0,025)$ , i.e. the price of the of option is 50 euros. If in three months on day of execution of option dollar spot falls to 0.5 euros per \$ 1, the company will give up option and buy the currency on the spot market, paying for the purchase of currency in 1050 euros  $(1000 + 50)$ .

If within three months dollar exchange rate spot rises to 0.8 euro per 1 dollar, the future costs to purchase foreign currency are already insured. The company sells an option and will spend on buying currency 1400 euros. If it bought the currency on the cash market at spot exchange rate of 0.8 euros per 1 dollar, the cost would amount to 1600 euros  $(2,000 \times 0.8)$ . Economy of money resources or potential benefit while using option is 150 euros  $[1600-(1400+50)]$ .

The advantage of currency option is protection against adverse changes in exchange rates. The downside is the cost of paying option premium.

Managing long-term operational risks is a more complicated process. Long-term forward contracts with a term of up to 7 years of large transnational banks are concluded only with the most known and creditworthy corporations. Thus TNCs for mutual reduction of long-term operational risks often conclude an agreement among themselves - parallel or compensatory loan. The essence of this method is as follows. For example, if an American company that wants to invest a certain amount in France is able to find a French company that is prepared to invest the same amount in the USA, it allows arranging mutually compensating loans. The French company provides U.S. company credit in euros and U.S. to French - in dollars. After the expiration of investment U.S. company is paying for obtained credit earned in France in euros and French - received in U.S. dollars. Thus, companies do not have to exchange currency in the foreign exchange market. However, both companies are at risk of non-payment of loans. To avoid the risk of non-payment loans (credit risk) associated with the loan compensation, companies can use the currency "swap" (the agreement between the two companies on the exchange of currencies reservations number at the moment and about reverse exchange of it at a certain time in the future). Exchange rates may change, but significant credit risk is eliminated. Non-use of currency "swap" means that in the future there will be no predicted currency exchange, while the failure of compensation loan means that the loan will not be returned. The only consequence of not using currency "swap" is that companies need to exchange their currency in foreign exchange markets under the new exchange rate. Non-use of compensation loan by one company leads to the loss of another company and the nominal value of investments and the income from it.

Apart from the use of forward contracts, currency futures, options and swaps to hedge and to minimize the operational exchange market a method of "*Leads and Lags*", method of allocating risk, re invoicing centers are used.

The method of "*Leads and Lags*" implies freedom to choose the date of payment. Two firms that are closely connected one by one, find the best option for billing. This method makes it possible to calculate the volume of financial flows between firms at a specified date and thus indirectly affect the solvency of each of the firms. The most effective method of "*Leads and Lags*" is used when the parent company has full control over its branches and subsidiaries.

The method of risk allocation implies concluding an agreement between the companies in the form of a contract, in which exporter and importer agree to take on a certain share of losses related to foreign exchange rate fluctuations, regardless of the loss which the company actually suffered. Such strategy of risk allocation increases the trade turnover between companies, predicting of cash flows under the terms that between companies long-term and mutually beneficial relationship is established and that currency fluctuations will not significantly affect their financial situation. Such agreements are very economical and efficient.

TNCs sometimes create re invoicing centers, which are their branches and are centrally dealing with all foreign exchange risks that arise in international trade. For example, a branch of X in country X sells goods that produces Y branch in country

Y, which is engaged in distribution. However, the sale takes place through an intermediary - re-invoicing center in the country Z. Goods are sold firstly to the center and then the center sells goods to Branch Y. Meanwhile, the movement of goods is carried out directly between the branches of X and Y, and re-invoicing center is actually involved only in the document circulation. Branch X directs funds in the currency X to re-invoicing center and receive according to its bills national currency X. Branch Y buys goods through the center in currency Y, i.e., in the currency of their country. Therefore, all questions, connected with transfer of currencies are settled in the center. The advantages of using re-invoicing centers are:

- In case of internal corporate trade foreign exchange risk management collects in one place. Center managers choose the best strategy for hedging and a large volume of transactions in different currencies allows to select best exchange rates by covering one agreements by others;

- managers of the center on the basis of forward rates determine price of goods on a specified date, which allows branches to calculate their future costs. Due to this branch - distributor have the ability to set fixed prices for the product and not worry about the problems that are related to changes in exchange rates;

- branches of TNCs are able to keep payments in the national currencies as the center is involved in the management of funds between them.

The main disadvantage of re-invoicing centers is high costs for their maintenance [20, p. 243].

Operational insecurity - is a difficult problem for small firm involved in random export and import. Large TNCs engaged in many operations simultaneously in different currencies, are less affected by operating insecurity. Since the degree of currency fluctuations is intersecting, losses and gains tend to balance each other every time. Furthermore, TNCs are able to have assets and liabilities denominated in various currencies, which also reduces operational insecurity.

For both large and small companies insurance costs must be balanced with benefits.

***Economic foreign exchange risk***, in contrast to the above items and operational, is long-term phenomenon. This type of risk influences TNCs and firms engaged in export-import operations. Economic risk stems from the possibility of a significant impact of changes in the value exchange earnings or competitive firms in the long run. Economic exchange risk is connected with changes in the value of companies that depend on changes in exchange rates. Changes in exchange rate affect the market value of the company when their action is applied to the expected cash inflows.

The example of economic insecurity may be Japanese export of industrial products in mid 90s. During this time a great and lasting growth of the yen against the dollar happened, making Japanese exports uncompetitive. Japanese firms that export goods to the United States, have a choice between two undesirable alternatives. If they keep dollar prices at the same level to maintain the competitiveness with U.S. companies, the amount of their income in yen drops. If they raise prices in dollars to offset the yen rise, then competitiveness will fall. Otherwise, the drop in revenue is

difficult to avoid. In addition, for companies that were producing goods in Japan, operating costs in yen were not reduced in proportion to the reduction of income.

What are the possibilities for control over the economic foreign exchange risk? Quick response and adaptation to changes in the economic environment. It can have the following features: change of the export market to market, where the yen is not quoted too high, giving the priority to national market, an increase in direct investment, merger with other firms and so on.

Economic foreign exchange risk includes operational and recalculating foreign exchange risk and the extent of change in the accounting value of the firm affecting its market value.

Accounting and market value of firms often differ. The market value of assets may decrease quickly due to their removal, and accounting cost at the same time remains unchanged. Market conditions can increase the market value of certain assets, such as real estate. Transfer of the company's value from one currency to another may either increase the differences between market and accounting values, or decrease it. It depends on economic factors associated with changes in foreign exchange rates.

In order to reduce the economic foreign exchange risk such methods are used: leveling of currency payments to company with currency cash inflows; diversification of financing activities abroad etc.

### **17.1.2. Methods of foreign exchange risk estimation**

International financial management differs from national by the fact that comparative cost indicators of production performance depends on the exchange rate, the most important decisions about strategy of international corporation primarily on the direction and size of investments are made by a careful study of forecasts of exchange rates. Continuous adjustment of plans takes place on the basis of conjuncture variable conditions, including currency ones. Therefore, the focus of international financial management is the analysis and control of foreign exchange risk.

Economic foreign exchange risk can be determined numerically by the using regression analysis of previous prices of the company's shares and the relevant exchange rates that affect these prices. The coefficients of a unit change in the cost of any particular currency give linear estimations of economic foreign exchange risk of the company for each currency.

Approach to measuring economic foreign exchange risk is as following. Assuming that the market value of the company (V) is linearly related to the value of currency \$/X:

$$V = b_0 + b_1 (\$/x) \quad (17.1)$$

where  $b_0$ — a part of the company's value, which does not depend on changes in the value of currency;

$b_1$ — change of company's value per unit of change in the value of currency X

If the value of the company linearly related to the cost of several currencies (\$/X<sub>1</sub>, \$/X<sub>2</sub>, \$/X<sub>3</sub>, and so on.), the previous expression can be as follows:

$$V = b_0 = b_1 (\$/X_1) + b_2 (\$/X_2) + b_3 (\$/X_3) + \dots + b_n (\$/X_n), \quad (17.2)$$

where b<sub>n</sub>– change of the company's value per unit of change in the value of currency X<sub>n</sub>.

Economic foreign exchange risk for a particular type of business is represented by corresponding coefficient (b<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub>, and so on).

If the company is not related linearly with the value of currency, then they resort to other, more complex methods of nonlinear regression and analysis of temporal lines.

Recently, the most widely used statistical method for estimating the degree of foreign exchange risk on the basis of **VaRindex** (value at risk), i.e. “cost of risk”. VaR –expressed in monetary units the estimation value, which is not exceeded by the expected during this time losses with a given probability [1, p.135; 8; 31].

Method of VaR analysis is used by such international institutions as the Bank for International Settlements, Banking Federation of the European Community, as well as a standard instrument of financial managers of large corporations, especially those whose work is related to the world markets of raw materials and capitals, export and import operations. Using this technique, the financial manager establishes the maximum loss that the company risks to incur for a certain period of time with a given probability. In other words, the determination of the VaR allows formulating a statement: “We are sure of the X% (with a probability of X%) that our losses will not exceed the value of Y for the next n days”. Unknown value Y is VaR.

The key parameters of VaR are as follows:

- time-level - the time period for which risk is calculated. Often the calculation is done with a time-level of 1 day for calculation of capital value (which covers possible losses, the time-level is 10 days);

- the level of acceptable risk (confidence level) - the probability that losses will not exceed a certain value (confidence level can be 95 - 99%).

Without these parameters, no calculation or interpretation of VaR values is possible. Consider the example of how VaR reflects the expected loss with a given degree of reliability. The meaning of the risk value of \$10 millions for a time-level of one day and the confidence level of 99% means that: the probability that in the next 24 hours firm will lose less than \$10 millions is 99%; the probability that losses will exceed \$10 millions in the nearest twenty-four hours equals to 1%; losses that exceed \$10 millions are expected averagely once every 100 days of haggling.

For the evaluation of the “cost of risk”, it is used several methods to calculate this indicator, the main ones are:

· *Parametric (analytical) method* that is based on two components:

- The models of dependence of portfolio income on factors of risk changes;
- The models of volatility and correlation of factors of risks.

Because of its relative simplicity, this method has become the most common of all the methods for calculating VaR, but it does not allow using other distributions,

despite of normal, and proper risk assessment of nonlinear tools.

2. *Historical simulation method.* This method estimates cost of risk beyond normal distribution of risk factors probabilities and provides availability of significant statistical base by each factor. Method comes of assumption about stationary fluctuations of financial market conjuncture and factors of risk that generated by them. In other words, the calculation of VaR is based on assumption about stationary behavior of market prices in near future.

The method allows estimating not only the standard, but also unusual fluctuations of financial market conjuncture, i.e. better reflect the real risk factors. The calculation of VaR by historical simulation method is very labor-intensive in terms of the amount of necessary calculations, as it requires the revaluation of each tool for each single day of the chosen historical period. Limitations are connected with the fact that historical data cannot serve as the basis for a reliable prediction of future results.

- *Monte Carlo method (imitation of simulation method).* In the process of implementation of this method, a special computer program generates large volumes of variants that imitate real possible results of price changes of separate security (on the basis of defined by user set of scenarios) and then statistically classifies them according to their probability. Then program assumes the value of VaR, linked to given confidence interval. For example, for fixation of risk by 95% confidence interval can be re-evaluated the whole portfolios to million times in order to determine the entire range of possible values of the gain/loss and then set a value of VaR as the value of 95% of the observations were less than this figure, and those 5% remaining – more than that figure. Artificial simulation of risk factors allows you to select any kind of distribution of their probability and get the greatest accuracy of the VaR calculations [1, p.140].

Thus, the basis of foreign exchange risk management is a clear determination of the tasks facing the financial manager at the initial stage of insurance and minimization of foreign exchange risk. They are:

- assessment of the need to manage foreign exchange risk. It depends on the position of the company's management. Taking into account all “for” and “against” the insurance of foreign exchange risks;
- determining the range of problems that are related to the prediction of the dynamics of exchange rates. Finance manager have to be able to use methods of exchange rates forecasting;
- the determining of the hedging purpose, depending on the overall strategy and objectives of the company. Thus, exchange rate management can be carried out by the purpose of long-term planning of their financial resources or to maximize profits from the alleged price change of currency;
- choice of insurance means(compare alternatives);
- working out of optimal strategies of insurance.

## **17.2. Risks of making decisions about foreign direct investment**

International investment projects hide the number of special risks, the main of

which are:

- the risks, arising from international investment issues;
- the risks, associated with the alternative choice of the ratio of different types of financing investment.

### **17.2.1. Risks arising from international investment issues**

The risks, arising from international investment issues related mainly to two circumstances. First – structure of TNC– the parent company in the home country and subsidiaries (branches) – other (host) countries. In evaluating investment projects, conclusions may be different depending on the position from which it is drawn: from the standpoint of FDI efficiency or from the standpoint of revenue growth opportunities of cash (income) in the parent company. These differences may be caused by several factors. Firstly, the host country may impose restrictions on the repatriation of funds of the parent company. Therefore, FDI can be highly profitable, but money will not flow to the parent company. Secondly, the home country may establish collecting taxes on foreign operations with specific goods or services, which lead to a rise in prices of foreign operations. Thirdly, changes in exchange rates may adversely affect the value of the profits that are transferred. For example, in country with high inflation, the profit, which transferred to the parent company, will decrease along with the dropping of exchange rate of the host country. So there is always question: what to put as a base when determining the NPV: cash flow caused by foreign investment or cash flow received by the parent company. Typically, when making decisions about investment international firms guide by results of analysis conducted from the standpoint of the parent company as cash flow to the parent company can serve as a source of shareholder dividend payments, possible investments elsewhere, paying interest on the debt of the corporation, etc.

An important aspect is the ability of immediate obtaining of cash by parent company, because any delay will lead to devaluation, and the second – the additional risks arising from the international character of the totality of relations that mediate investment activity of international firms.

These risks include:

- unfavorable exchange rate movements;
- unexpected changes in inflation;
- freezing (blocking) funds or exchange controls;
- expropriation;
- measures for the control of foreign currency;
- the changes in tax legislation.

Implementation of FDI without risks is impossible. Effective management of risks associated with FDI – is not avoidance of risk, and their analysis, comparison of utility investments and risks, finding ways to eliminate or reduce risk.

Consider this example of decision-making by “General Motors” company due to investments in Egypt. At the end of the twentieth century, Europe had a tendency to increase the value of currencies. It became an obstacle to plans of “General Motors” to expand production of vehicles in Europe. “General Motors” developed a

plan for assembling cars in Egypt with the details received in Europe, which helped “General Motors «to overcome “Peugeot”, “Fiat” and “Nissan” in the competition for becoming a major collector of cars in Egypt together with Egyptian state-owned company “EL Nasr”. However, the rising cost of long-term concerns of European currencies, suspended the implementation of the investment plan. Representative of the “General Motors” explained that obstacle in the implementation of the project “turned out exchange rates, which caused a number of risks and problems that are intractable at the moment.” Financial management of “General Motors” did not want the presence of exchange risk in the project. That was the solution. But there is another possible alternative decision – to adapt to risk. The most common way to adapt to the exchange rate risk is considered the increase of the requirements to the rate of investments turnover. For example, the company raises the requirements to the turnover rate, determining the expected rate of turnover due to the investment for international process in 20% versus 10% for relatively safe domestic investment. In this case, the manager can get more bound on the error.

#### **17.2.2. Risks connected with alternative choice of correlation of different investment financing types**

The financing of foreign investment has a number of alternatives. First of all, the financial manager must choose an appropriate mix of financing through loans and financing through the issuance of new shares. This combination is known as the capital structure. Analysis and choice of capital structure is similar to other solutions in financial management, based on the ratio of turnovers and risks.

Using mainly financing through loans with respect to financing through the issuance of new shares is determined by the strategy of “high risk, quick turnover”. The firm, which mainly uses financing through loans, exposed to greater risk than a firm that uses mainly financing through the issuance of new shares. Unlike shareholders, lenders may lead the firm into bankruptcy if the company does not meet its engagements of the loan (interest and debt payments). However, the manager goes to the risk if he hopes that acceleration of turnover is greater than the compensation of increased risk. He also takes into account two circumstances. Firstly, the use of financing through loans reduces shareholders’ investment and thereby increases the rate of turnover of these investments. Secondly, the tax systems of many countries prefer financing through loans rather than by issuing new shares. For example, in the United States all interest costs, associated with the business, are not the subject to taxation, while dividends paid out of disposable income. Tax legislation such as this, significantly reduces the cost of financing through loans.

After the study was carried out and the choice of capital structure was made, financial manager must choose the type of investment through loans and by issuing new shares. Recently, there are many new forms of financing international investments on the financial market. The main ones are:

- long-term investment by issuing new shares of the home country and the host country;
- bond issue by home country, i.e., the parent company;



- issue of Eurobond and foreign bonds.

Bond issue of home country will dominate when the firm wants its bonds were exchanged for its national currency. In addition, in many countries (e.g. USA), legislation allows firms to issue bonds faster and easier than they could do on foreign markets.

Large and creditworthy international firms have access to the funds on the Eurobond market. Issue of Eurobond has several advantages (see paragraph 11.4.2). Firstly, the company may issue bonds in any major currencies and simultaneously in several countries. Secondly, the cost of a bond issue on the Eurobond market is usually lower than the costs in the same currency on the domestic market. This is due to intense competition between subscribers of Eurobonds and savings associated with large-scale of bond issues and low credit risk Eurobond borrowers.

For financing of international cooperation, firms often use foreign bond issue. Foreign bonds are issued by foreign borrowers on the domestic markets in the currency of the country where they are sold (see paragraph 11.4.1). Of course, this is the country (and the currency of this country) in which the company plans to expand its production. For example, the Swedish company that produces cars “Volvo”, for some reason, decided to revise production of vehicles creation for the American market in the United States and published estimates of possible direct investment to the United States. To finance these investments, it could issue bonds on the U.S. market in dollar face value. Issue of foreign bonds provides funds in the currency required to make debt service on these bonds and reduces the foreign exchange risk to minimum.

Factor determining the use of bonds to finance investment of host country is also support from the government of this country who is interested in attracting direct investment.

FDI is partly financed by the issuance of new shares. Shares may be issued in the country of the parent company, if the company wants to receive funds in the currency of the home country or to the market of the host country if they want to make the financing of investment in the currency of the country where it conducts its operations.

The investment of international projects is more risky than the same investment of domestic projects. It has an additional risk – regional risk, i.e. the adverse effect of factors that are beyond the control of the foreign subsidiary company and its branch. Of course this risk is associated with changes in policy and the impact of these policies on the operating environment of branch or subsidiary of TNC at the microeconomic level (inflation, imports control, changes in foreign policy, tax law, etc.).

Theoretically, the most appropriate way of consideration the elements of risk of investment estimates and their recoupment is the inclusion of all known indicators of the value and impact of risk through adjustments in cash flow ( $C_i$ ), i.e. obtaining a deterministic equivalent of cash flows.

The method of inclusion of risk indicators in calculation is illustrated by the following formula:

$$NPV_{de} = -I_0 + \sum_{i=1}^n \frac{P_i \times C_i}{(1+K)^i} + \frac{q_n \times T_n}{(1+K)^n}, \text{ where } 0 \leq P_i \leq 1 \text{ and } 0 \leq q_n \leq 1$$

(17.3)

where  $NPV_{de}$  – deterministic equivalent of net present value;

$P_i$  – factors of deterministic equivalent in year  $t$ , applied to the cash flows of the respective years;

$q_n$  – factor of deterministic equivalent, used as a residual or liquid value of investments in year  $n$ ;

$K$  – the value used for the implementation of capital increase;

$T_n$  – residual or liquid value of investments in year  $n$ .

Uncertainty factor ( $P_i$ ) very often increases as the inclusion in the equation of more and more number of future periods, therefore,  $P_t > P_{t-1}$ .

The method of deterministic equivalent of net present value is used successfully in situations connected with commercial or credit risks when the result of some forecasted events on the activity of company can be predicted with reasonable certainty.

Changes in exchange rates and inflation rates, which are called “monetary changes” relate to economic risk of potential losses. Evaluation of the economic effects of monetary changes can be carried out because of difficulties of technical and economic expertise only by managers of TNCs. At the level of subsidiaries, some financial managers in the management of risk use the analysis of CFC as the final figure before a final decision on the investment project.

To reduce the risk of unpredictable fluctuations in the value of currencies in which foreign bonds issued, currency cocktails are used – denomination of any combination of any number of currencies. It may be denominated bonds in units of the average value of currency basket in SDR and euro. The major amount of currency cocktails denominated in euro. So-called indexed bonds also can be used – bonds that provide the payment of interest and face value according to the value of goods or any established index. Most of indexed bonds are tied to the value of gold. It is also issued eurobonds – bonds of foreign or domestic companies denominated in foreign currencies, which include payments from any indicator of the company’s activity, such as indicator of income or profits.

### 17.3. Political risk

Political risk – is integrated, the combined interaction of political, economic, social and psychological factors that are changing the economic situation in the country. Companies that do business in foreign countries are more exposed to political risk than domestic companies. Political risk refers to the consequences that arise as a result of future changes in the policy of country, the uncertainty and instability of government policy in relation to the business or investors. Changes in laws and business rules can affect the conduct of affairs that is why the function of

international financial management includes evaluation of the influence of political risk on the financial position of the company and the development of methods for its reduction.

Possible changes in policy towards international business and investors may be:

- the implementation of accounting rates control, limiting or blocking the ability of the branch to transfer its profit to the base company;
  - the implementation of price controls;
  - changes in currency legislation that prevents the execution of international contracts or repatriation of currency earnings;
  - changes in the legal framework that prevents conduct business;
  - the amendments to arbitration law;
  - expropriation or nationalization;
  - government intervention in business or management of the assets in the open form (formal regulation, licensing, price controls) and hidden (bureaucratic red tape, extortion, the difference in payments for infrastructure services, converting currency by discriminatory exchange rates, etc.);
  - changes in taxation as corporate profits or income, as well as personal income.
- Changes in tax laws can have a greater impact on firm value than nationalization and expropriation. And as the probability of tax changes is much higher, they represent the main source of political risk.

Political risk is the most important component of country risk. Summarized assessment of country risk gives the magazine «Euromoney», which publishes an annual “rating of countries’ risk”. Overall rating (100%) includes three groups of indicators:

1. **analytic (50%)**: economic growth (25%) and political risk (25%);
2. **credit (30%)**: indicators of debt – servicing of debt/export, current account/GNP, external debt/GNP (10%); defaults and restructuring of debt (10%); credit rating (10%);
3. **market (20%)**: access to bank finance (5%); access to short-term finance (5%); access to market of bonds and syndicated loans (5%); forfeiting discount (5%).

Since political risk refers to events that may occur in the future, the exact methods of its measurement do not exist. Subjective and quantitative methods are used.

Subjective: 1) visit the country by leaders of company, which is being considered (“grand tour” method) and 2) appeal to the advisory firms (“Delphi” method).

Quantitative methods: 1) statistical, based on historical correlations between some measurable variables and subsequent losses due to political risk and 2) conclusions based on socio – political –behavioral theory that takes into account the factors that lead to actions the results of which are losses because of political risk.

Remove or completely control the political risk is impossible, but companies can take certain measures to reduce the adverse influence of political actions on the company. First of all, the company must achieve an understanding of the host party (government, citizens) the mutual benefit of the investment. Formal procedure of this

understanding is the concession agreement, which cautioned the rights and obligations of foreign companies. However, it should be borne in mind that the accomplishment of conditions of such agreement for the host country is not obligatory. Strategy of political risk management may be the receipt of insurance policy in any government agency concerning political risk insurance. For example, the American government corporation of foreign private investment (CFPI) of political risks insurance of U.S. companies that deals with foreign direct investment, offers four types of insurance:

- 1) against the implementation of restrictions on the transfer of funds in dollars from profits of foreign branches and subsidiaries;
- 2) against expropriation and nationalization;
- 3) against losses in profits caused by political conflicts and unrests;
- 4) against loss of property incurred as a result of acts of war, social unrest, etc.

The parent company can reduce the impact of political risk, if it is oriented on the market of local creditors in foreign investment activity or through the distribution of its shares among local investors. The agreement on joint activity also reduces political risk. The possible transmission of moot points solution to the International Centre for Settlement of Investment Disputes that provides the mediation for arbitration, whose decisions become compulsory for members of controversy.

In any case when companies are doing business with sovereign governments, their guiding principles should be the achievement of mutual interest.

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