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POST-CRISIS GLOBAL ECONOMY
RESTORATION OF EQUILIBRIUM

Monograph

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The monograph "Post-Crisis Global Economy: Restoration of Equilibrium" is a collection of scientific research papers of well-known Ukrainian and foreign scientists and experts in the field of international economics. It covers core issues of global economy development in the post-crisis period paying special attention to the restoration of equilibrium. The papers also include research results on the problems of different fields of development, including international capital flows, financial globalization, international integration, etc. The separate part of the monograph is devoted to the peculiarities of the post-crisis development of Ukraine.

The book target audience includes scientists, lecturers, Ph.D. students and students interested in the problems of global economy development.

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To the 180th Anniversary
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and

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Preface

The development of the global economy in the post-crisis period occurs under the influence of the steep drastic changes in financial and commodity markets, reorientation of trade flows, escalation of worldwide geopolitical and geo-economic tension, growth of unemployment and other discordant trends.

In this context, the priority task of the Monograph is to study the applied aspects of the post-crisis development of global economy and to define the ways to restore the equilibrium in the context of ensuring global sustainable development.

The logical structure of the Monograph comprises a comprehensive study of the main consequences of the global crisis and post-crisis development of Ukraine which both rely on advanced research methodology of economic and financial crisis.

The first part of the Monograph includes general methodological issues regarding global finances, neoliberal transformation and global imbalances.

The second part focuses on the study of the main consequences of the global crisis, such as: changes in capital flows, specificity of portfolio investments, competitive strategies, international labour migration and financial globalization.

The third part is dedicated to the study of a wide range of applied questions concerning the impact of the global financial crisis on the economy of Ukraine: competitiveness of Ukrainian business, results of Ukraine's economic integration with the European Union, direct foreign investment, energy security and strategy of cluster structures.

The practical value of this work lies in the fact that the conclusions derived by the authors could be used in further studies of the global economy in the post-crisis period, as well as during the construction of the complex strategies of restoration of economic equilibrium at the global and national levels.

The conclusions made by the authors are based on the analysis of vast empirical data, which also determines the practical value of the Monograph.

Oleksandr Shnyrkov

Part I

ECONOMIC
AND FINANCIAL CRISIS
RESEARCH
METHODOLOGY

Chapter 1
POST-CRISIS GLOBAL ECONOMY: TRENDS AND PROSPECTS

Financial globalization has started to dominate in the system of the international economic relations since the last quarter of the XX – beginning of the XXI century. Starting from 1970s, global financial markets have been developing at an unprecedented pace. This was caused by general liberalization of economy, especially capital flow and currency exchange regulation. As a result, the world economy received additional incentives for development and continued to grow like in the previous post-war years. However, against the background of general growth of a real sector of economy, its financial constituent started to acquire hypertrophied forms. The so-called financial bubble had been formed that burst from excessive inflation in 2007–2008. The world financial crisis broke out, which affected, though to different extent, practically all the countries.

Overall evaluation of such complicated global economic phenomena and processes as the current world financial crisis will be possible, apparently, only some time later. The information about the full cycle will allow analysing all its constituent parts, reveal deep-rooted reasons, social and economic consequences and improve preventive anti-cyclic mechanisms and instruments of "quick reaction"[1].

Meanwhile economic and financial statistics indicates that during the last 30 years the economies of 17 leading world states were negatively affected by 113 financial crises: 37 – in 1980s, 42 – in 1990s, and 34 financial crises, including the current one, at the beginning of 2000s. Stock market crises accounted for 45% of their total number, bank crises made up 38%, currency crises – 17 % [10][2].

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[1] However, it's worth mentioning that the main reasons and factors of the world economic crisis and the Great Depression of 1929–1933 still remain the subject of serious discussion among the experts [4; 6].

[2] Swiss economist W. Wittmann in his book makes a short review of the trade crisis of 1847–48, the first world financial crisis of 1857–59, depression of 1873, and the Great Depression of 1930s [11].

Broadly speaking, it is possible to single out three groups of factors that in total affected the character, defined the scope, path and devastating power of the first world financial crisis of the XXI century[1]. The first group of factors includes deep and universal civilizational geo-economic changes – global transformation processes. The second group of factors is connected with macroeconomic and microeconomic disproportions and turbulences, institutional traps that showed themselves first of all among the key players of the world economy. The third component of the world financial crisis correlates directly with starting mechanism, with the main source (core) that caused its wavy procession, which is difficult to predict from the economic point of view.

In its turn, the first group of geo-economic factors includes the following five main constituents:

- the exhaustion of the traditional industrial model of economic development in the context of resource supply, environment degradation, growing inequality in economic and social development between countries;
- the existing lag in restructuring the world economy, its regional and national subdivisions in accordance with the demands of modern scientific and technological revolution;
- deepening structural disproportions and global imbalances between the main world economic centres, synchronization of economic cycles under globalization;
- inability of the international financial system in its present shape and its regulatory and supervisory functions to react adequately to globalization challenges;
- lack of proper theoretical, methodological and applying concepts and models of optimal functioning and anti-cyclical regulation of the global economic systems.

Surplus liquidity in the economy of the USA became the key macroeconomic factor, caused by, firstly, general decline of confidence in the emerging markets after the crisis of 1997-1998; secondly, investments into American securities made by the countries which had accumulated currency reserves (China) and oil

[1] Many experts agree that theoretical grounds and explanation of the current financial crisis are most fully covered in the works of H. Minsky [8].

funds (the Persian Gulf countries); thirdly, the policy of low interest rates pursued by the Federal Reserve System, especially in the period of 2001–2003, trying to escape cyclic decline.

The main driving forces of the financial crisis at the microeconomic level are new financial instruments – credit default swaps. Their use resulted in camouflage of risks connected with low quality of substandard mortgages, on the one hand, and their non-transparent distribution among a wide circle of investors, on the other hand. Institutional dimensions of the world financial crisis manifested themselves in insufficient level of risk assessment both by regulators and rating agencies, as well as in asymmetry of information [7].

Reasoning about the world financial crisis in the narrow sense as a rule comes to the analysis of its starting mechanism, and therefore, to revelation of its primary source. Moreover, there is a consensus in the assessments that initially the present crisis was caused by the problems at the US housing market.

Among the key reasons of crisis processes in the economy of Ukraine one may mention the following: high degree of integration of financial sector into the world structures as compared to 1998; outdated structure of the economy, its hypertrophied orientation on foreign markets (energy sector, chemical industry, etc.); vulnerable, non-integrated and unbalanced fragmented domestic market; unfinished reforms of the economy (institutions, agriculture, municipal economy, public health, pension reform etc.); inadequate economic policy of the Government and the National bank facing the challenges of the world and domestic situation.

Let's pay closer attention to the system of factors of the first group, one of the main components of which indicates historical limitation of the industrial model of development that needs to be transformed into postindustrial, informational, noospheric model of human development. The industrial type of production led to unprecedented pace of economic growth based on large-scale use of natural and human resources. Thus, in the period from 1715 to 1971 the world industrial production increased 1730 times, and more than a half of this increase fell on the period after 1948. Such "aggressive" development has lead to the environment destruction, biosphere exhaustion, sharp decline of ecological parameters of vital activity.

Further raising and widening of the industrial type of production based on imperfect financial mechanisms and instruments would have disastrous consequences. At the same time modernized economic instruments including their financial constituent that have passed a singularity point in the post-crisis period have to be directed at total restructuring of both the world economy in general and its regional and national subdivisions, introducting a new model of development – the economy of knowledge, high technology and creative economy. The latter refers to the second geo-economic constituent indicating the fact that delay in solution of structural problems, conservation of archaic pre-industrial and early-industrial economies creates preconditions for repetition of similar but more severe crises. Data from Table 1 indicate the prospects of structural changes in the world economy.

Table 1

GDP structure by sectors in 2001 and 2030 (%)

	OECD		**BRIC***		**ROW**	
	2001	2030	2001	2030	2001	2030
Agriculture	2	1	9	6	8	6
Forestry and fishing	0	0	1	1	1	2
Energy and mining	3	2	6	4	9	7
Non-durable manufacturing	10	7	12	8	14	10
Durable manufacturing	23	17	32	29	24	21
Trade and transport	18	18	15	16	16	16
Services	44	54	25	37	28	38

Notes: 1. Source: [9]; 2. BRIC – Brazil, Russia, India, China.

Aggregated data given in the table shows that presently there are considerable differences in the structure of developed and developing economies. The key criterion is a ratio in production of goods to services. There is a tendency to narrow the existing gap, though striking structural contrasts between separate countries will remain in perspective till 2030.

The third geo-economic constituent of the world financial crisis is connected with global disproportions and imbalances and with the synchronization of economic cycles under globalization[1]. On the one hand, discrepancy between the global demand and global supply deepens and results in formation of disequilibrium in the world economy. On the other hand, the trade and investment relations between the key players of the world economy are worsening. Thus, relations between the USA and China become of great importance. One pole (the USA) has enormous balance of payment deficit; the other (China) has almost a comparable surplus. Besides, globalization involves the main world economic actors into the maelstrom of the world business cycle. A plan of reducing global imbalance was accepted for the post-crisis period, which stipulated reducing it from 6% of the world GDP to 1–1.75% within the four years. In particular, economic means and instruments were defined for the five main economic powers to exert decisive influence on the formation of global imbalances.

In China it was planned to reduce external imbalances, increase domestic consumption, especially personal, change the ratio of accumulation to consumption, speed up financial reform, improve exchange rate regime. Further reforms of the commodity, financial and labour markets are to be carried out in the Euro area. There are, at least, two main tasks for it. Firstly, Greek economic and financial situation and its consequences require support for the common currency. Secondly, budget deficit is to be cut to 7% of GDP to satisfy the Maastricht convergence criteria. Japan will carry out labour market reform, create conditions to attract foreign direct investment, develop competitiveness in the key sectors of economy, and ensure progress in financial consolidation. Saudi Arabia, as a member of G-20, should increase investment into the social sector and infrastructure development, as well as increase capacities of oil-producing industry. Finally, the USA, as the country with the greatest external and internal imbalances according to IMF

[1] M. Zombanakis, organizer of the Athens seminar, in his speech before the Russian Parliament members, graduate students and students of Moscow State University mentioned that the main problem of the world financial crisis "became enormous imbalances in the world economy that allowed rich countries, and first of all, the USA to live at the expense of savings of poor countries" [13].

recommendations, should carry out further fiscal consolidation in the medium-term perspective, reform the system of benefit payments in order to strengthen long-term fiscal stability, improve tax legislation, stimulate personal savings, increase energy efficiency, provide incentives for economic growth, carry out open investment policy, improve competition at the capital market [5].

The main reason of global imbalance is that global supply exceeds global demand. This problem has become acute recently as a result of excessive lending\borrowing for production. Thus, it is necessary to look for the ways and mechanisms of increasing the aggregate demand. Experts suggest radical and rather contradictory from economical point of view option, namely increase of salaries in developing countries where the majority of the world population live [1]. Contradiction of this concept lies in the fact that the level of salary is determined not by international agreements, as being proposed, but by its intensity, productivity and other important determinants. Nevertheless, it may be considered among other ideas in the general context of formation of a post-crisis economic architecture of the world. Solution of the problem of external imbalances lies in their leveling by re-evaluation of national currencies (devaluation or revaluation). Besides, other macroeconomic regulators should be used on the basis of fiscal consolidation, increasing savings and investment ratios. For the countries with external surplus the pressing task is to increase internal demand (absorption) on the basis of active monetary and fiscal policy, while the countries with external deficit have to curb internal demand and encourage export. For instance, according to the standard econometric model, in the USA in order to reduce ratio of current account to GDP by 1% in the long-term period it is necessary to devalue dollar by 10-20% [12, p. 105]. Within the system of measures directed at stirring up internal demand, it is proposed, on the one hand, to change proportion between state and private expenditures in favour of the latter, taking into account the fact that during aggravation of the crisis in many countries previously adhering to neo-liberal market positions the state took upon itself expenses aimed at improvement of banking and financial system, neutralizing consequences of crisis. On the other hand, it is a matter of stimulating aggregate demand (consumer and investment) by using instruments of monetary policy, in particular, by changing discount rate of a central bank[1].

Deepening synchronization of economic cycles is an important trait of the post-crisis world economy, which according to calculations exerts varied influence on the course of economic events in different countries. There are four determinants that facilitate synchronization of economic cycles: global, regional, national, and specific. Global factors largely synchronize economic cycles of developed economies, encompassing more than 15% of their GDP, and in the biggest countries – up to 20%. Emerging and developing economies feel the global influence to a smaller extent – less than 10% of GDP fluctuation. Regional factors reveal themselves more powerfully in North America, Europe and Asia, causing up to 20% of fluctuations in the production volume. National and specific factors dominate in the Middle East, Northern Africa, Sub-Saharan Africa and determine alterations of more than 80% of the gross output [12, p. 139–140].

The world financial crisis has revealed weaknesses of the Bretton Woods system, its monetary management and its leading subdivision – the International Monetary Fund. This system in its present shape has three main drawbacks. Firstly, it allows a number of countries to maintain surplus of current or financial accounts and capital flows for a long time (Japan, China etc.), which results in hypertrophied accumulation of international reserves. Thus, international reserves of Japan (total reserves minus gold) grew by 1146% from 1968 till 1978, while money supply – by 356%. At the present time large gold and currency reserves are concentrated in China ($2033,00 bln, $1557 per capita), in Russia ($435,40 bln and $3055 respectively), in India ($274,20 bln and $235), in Brazil ($197,40 bln and $1029 [3]. Secondly, this system makes economic growth of many leading countries dependent on the USA – the largest importer and debtor in the world. Thirdly, excessive lending and investment boom of the recent years at the expense of recirculation of US dollars through state securities resulted in violation of global proportion between

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[1] In September 2009 discount rate of the Federal Reserve System of the USA was 0%, and the forecasted annual inflation rate was 2 % [2, p. 11].

production and consumption, which may cause irreversible deflation processes with serious social and economic consequences.

Therefore in the post-crisis world economy it is necessary to change the present international finance architecture. The global nature of the financial industry and the current crisis underlines the necessity for both national regulatory structures and coordinating mechanisms at the global level. The simplest way to achieve this would be to have a single global financial authority. But this is not realistic option for the nearest future. So, in practice, coordination of regulation will have to be achieved through international organizations, like IMF, the Bank for International Settlements, the Financial Stability Board. Various sectoral standard setters may assist too (Basel Committee on Banking Supervision, International Organization of Securities Commissions, International Association of Insurance Supervisors, and International Accounting Standards Board) [2, p. 19].

The second element of the post crisis financial architecture is a global liquidity. The key point is to transform from the era of unipolar dollar domination to the multiple reserve system. Changes in reserve currencies come slowly but some scholars said about a tipping point. Between 1973 and 2009 the dollar depreciated 30% against the Federal Reserve Major Currency Index. The collapse of the U.S. housing market triggered the greatest upheaval in U.S. financial markets since the Great Depression. The U.S. maintains the privilege of dollar supremacy in particular by exploiting its comparative advantage in supplying high quality assets to the rest of the world. Despite the U.S. private assets have been tarnished, the basic idea of American exorbitant privilege is still alive. The dollar remains a world reserve currency due to the U.S. economic potential and history (inertia). The road to the multiple reserve system includes the use of Special Drawing Rights (SDR) (about 5 % of world foreign reserves). In August 2009 IMF has injected SDR 250 bln as IMF reserve asset. The euro is handicapped by several critical shortcomings. They include an antigrowth bias built into the euro area provisions for monetary and fiscal policy that tend to weaken Europe's output potential. A sluggish European economy can hardly be expected to make the euro a world currency and a rival of dollar. As for the Japanese yen, after two decades of economic stagnation the yen appears to face a gradual erosion of market standing but nevertheless it remains a hard currency. During the global financial crisis a lot of politicians and experts have paid attention to gold, and yellow metal has got a new impetus. For instance, Central Bank of China has increased its gold holdings.

In conclusion, there are three fundamental trends in the post-crisis world economy: convergence, interdependence and divergence. Convergence means that recently economic growth in emerging market economies narrowed the development gap between them and advanced economies. The second fundamental feature in the world economy is interdependence, and cyclical interdependence in particular. At the same time divergence between the richest countries in the world and the very poorest countries has increased.

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Chapter 2

GLOBAL FINANCE: SEVERE TIME OF INSTABILITY IN THE POST-CRISIS PERIOD

One of the challenges for the global economy is generated by the so-called financial globalization. Among the characteristics of financial globalization which set up a new situation in the world economy are huge financial resources of transnational corporations and transnational banks, unbelievably high level of cross-border financial transactions of these entities, the emergence of new mechanisms and instruments of international financial transactions and the formation of a global financial market through which redistribution of huge financial resources takes place along with others signs of globalization.

Financial globalization, on the one hand, has opened new opportunities for countries to get resources, money and capital they need and for corporations to get additional revenue from investing available resources effectively. On the other hand, these processes have greatly increased risks of global financial instability and, therefore, significant losses for all businesses that operate in the global financial environment [4].

The internationalization of economic life has become one of the most important fundamental factors of the global financial environment formation. The intensification of economic ties between the countries and national companies and active international production carried out by MNEs required the creation of new financial environment which led to (1) changes and qualitative shifts in international monetary and credit relations; (2) intersection and supplement of domestic loan markets; (3) integration and globalization of equity markets; (4) spectacular growth of international banking transactions and setting up of a worldwide network of transnational banks subsidiaries.

The severity and magnitude of the 2008-2009 global financial crisis witnessed serious contradictions and shortcomings of modern global finance system. This crisis has raised questions about the effectiveness of the Jamaican system of international monetary relations existing since mid 1970-s, with money having lost its commodity form and the policy of fixed exchange rate system replaced by "floating" currency regimes. The economists from different countries have drawn attention to the fact that dollar weight rotating within the country is two-three times lower than dollar circulation outside the USA. The world monetary system has absorbed huge volumes of the U.S. currency, but anxiety about how long this process can proceed is growing every year.

Hypertrophied speculative function has become one of such systemic weaknesses of the global financial architecture. Rapid development of global finance in the past 30 years has gradually increased disparities and contradictions of the global financial system, which generated the so-called "fictitious economy" which lives its life independent of the real economy. In other words, financial institutions profits do not actually depend on the state of real production, but are the result of complex financial transactions transforming financing of the real economy into secondary task. Only a small portion of transactions (5–7 %) of total daily volume of transactions in the global currency market relates to the real economy while the remaining operations are speculative in varying degrees which has extremely aggravated the virtuality of international finance. For example, oil futures have recently become a kind of alternative currency which has become a subject of huge surplus funds investments made by the financial speculators [32].

Explosive growth of a variety of highly profitable speculative financial instruments, especially derivatives, and financial institutions' overreliance on such operations has greatly increased financial markets volatility. Hypertrophied segment of highly speculative instruments with the opacity and complexity of many of these financial mechanisms and weakening control of the regulators on transactions of financial institutions inevitably gave birth to a significant risk of financial turmoil [15].

Thus, new specific factors can be distinguished among the factors that caused this financial crisis together with the ones that previously led to banking crises in the USA and other countries.

One should mention the following specific features and characteristics of the global financial crisis. First, current financial crisis has become truly global – it encompassed not only the United States and other industrialized countries with market economies but also many developing countries, especially those belonging to the group of countries with new dynamic markets. Taking into account the depth of financial turmoil and global consequences of the current financial crisis, we may say it will not only bargain away the 1929-1933 Great Depression, but also in some respects be even superior over it [48].

Second, financial crisis pushed many governments to unprecedented in volumes appropriation measures for saving national banking systems and stabilizing financial markets and other extraordinary measures of state intervention into the financial system. The financial crisis has dispelled the myth that competitive financial institutions acting in their own interests will take care of the interests and safety of their customers better than any government regulator does. For the first time after the decades of liberalization and the removal of barriers giving way to free movement of capital and financial flows, governments have increased control over financial markets and institutions. Thus, the global financial crisis has put on the agenda the issue of increasing government oversight of national financial systems [14, 15].

Third, current financial crisis has obviously led to weakening of the U.S. dominance in the international financial environment. The USA became the epicenter of the financial tsunami sending crisis impulses to geographically dispersed and distant areas of the world economy. Growing critical evaluations of the U.S. financial system effectiveness together with the strengthening of other international monetary and financial system actors such as China and Japan being

1st and 2nd in the world's largest foreign exchange reserves list (2.3 and 1 billion dollars in 2010, respectively) led to more appreciable erosion of the U.S. dominance in international finance. One of further possible scenarios of international monetary system evolution is increasing horizontal regionalization. In such a scenario of new global architecture, the dominance of one center is to be replaced with several centers of influence – dollar, euro, yuan, and ruble areas.

The course of the current financial crisis has revealed sharp differences in existing international finance system and the lack of effectiveness of existing institutions regulating the world economy, particularly the International Monetary Fund. The global financial crisis has put on the agenda the issue of reforming the current monetary system. Finding ways for reducing the risks of negative impacts of global financial markets volatility requires increased cooperation and coordination of efforts in many countries. Uncertainty has become the modern reality of global finance. Obviously, the reform will last for a long period during which the global financial system will gradually adapt to new conditions and challenges [32].

The weakening of the USA is a subject of discussion on the USA role in the new financial architecture or even the introduction of a new global reserve currency. The reduction of the role of dollar in foreign exchange reserves can be one of the consequences of the global crisis, according to some experts. Many countries will increase the volume of calculations in national and regional currencies, primarily in euro, yuan and national currencies of Latin America and the Middle East.

American economist Arvind Subramanian, for example, believes that yuan will substitute dollar as a reserve currency within ten years, as well as pound sterling gradually gave way to dollar after the Second World War. In his opinion, China does not have debt problems similar to those of the USA, so the country is a net international creditor [43].

Such ideas have long been put forward by Russian experts who predict the disintegration of the dollar system into separate currency zones. Recently, China has joined Russia by beginning to gradually reduce the role of the U.S. dollar in foreign exchange reserves. China's foreign reserves are the largest in the world. Although their structure is a state secret, it is estimated that 70 % of China's foreign reserves are in dollar-denominated assets (primarily in U.S. Treasury bonds and U.S. Federal Agencies bonds) with the rest 30 % accounting for assets denominated in yen and euro. Recently, China was trying to increase the share of gold in its reserves because of the fears that risky U.S. Parliament fiscal and monetary policy will lead to a significant drop of dollar and depreciation of currency reserves.

In late 2011, Japan and China announced their intention to gradually shift from the U.S. dollar to yuan in their mutual settlements. Such a decision was favorable for those Asian countries from a purely economic point of view. Under this agreement, Japanese companies are allowed to sell yuan-denominated bonds in China but due to the fact that Japan and China are the countries with the world's largest proportion of dollar in foreign exchange reserves their refusal to use dollar in their mutual settlements will probably hurt the U.S. currency. Similar decision was taken by Russia and China in 2011 when they announced to shift to national currencies in their mutual settlements. Due to the fact that there are no alternative to the U.S. Treasury bonds denominated in dollars yet, increasing pressure on the new industrial giants can have place – China and India begin to enter the global financial market with issues denominated in their national currencies.

However, we note that some analysts' predictions about the near dollar collapse or rapid loss of its positions are not true. On the contrary, the world economy after the global financial crisis has experienced long periods of strong demand for the U.S. currency, moreover even witnessed increasing dollar rate. What is paradoxical is that during periods of sharp aggravation in the world economy in 2009-2011 the demand for the U.S. currency rose due to the fact that dollar, like Japanese yen and Swiss franc, was still regarded by investors as a traditional haven to ride out of the financial storms. The U.S. dollar remains one of the most liquid assets continuing to mediate the bulk of economic circulation and denominating oil, metals, grain and some other strategic resources. According to the Bank for International Settlements latest statistics, yuan amounted only to 0.3 % of all global transactions in foreign currency, while share of the U.S. currency summed up to 85 % [43].

As of yuan, there is also a very important barrier to its conversion into the world reserve currency – restricted movement of capital in

China, lack of free convertibility of yuan and free access to Chinese financial markets for foreign investors. The state controls the banking system and capital flows harshly. Thus, liberalization of Chinese monetary policy and development of flexible models of modern financial system is a key precondition for increasing the dollar global role.

One should remember that the U.S. economy is 2.5 timesas big as the Chinese – economy of the nearest competitor – and dollar assets nowadays make up 3/5 of the international gold reserves. Consumption in the USA amounts to 15 % of the global consumption and growth of many countries and hence the welfare of their citizens still depends on the level of U.S. domestic consumption.

Eleven years of growing prices for gold (on the average, 20 percent per year) have increased the number of supporters of the idea of strengthening role of gold in international monetary and credit relations. There are motions to return to the gold standard among the models of reforming the global financial system. In retrospect, we can see a following pattern: when the stock markets are working well (e.g. 1982–2000), world economy witnesses slowly increasing or even decreasing prices for gold but when stock markets show weak dynamics (1967–1982 and last decade), prices for gold are skyrocketing.

In 2011, the global demand for gold has reached almost 4.1 thousand tons arriving at a maximum since 1997. In monetary terms, the level of demand also reached an absolute record – $205.5 billion. Global supply of gold now reaches approximately 4436 tons, of which new production is 2800 tons and the rest of gold is being reused. Industry, including jewelry industry, remains a major consumer of gold (62 %). Share of central banks, although it has increased, is still very modest (10 %). Speculative demand constitutes the rest of global supply – almost one third. The greatest increase in demand in nearest years is expected from central banks, particularly in countries with emerging markets. Although countries with emerging markets hold around two thirds of the world's currency reserves, the proportion of actual gold is extremely low. Therefore, increase in it is likely to take place [1].

Developing new rules for offshore areas, increasing their openness, transparency and oversight is another issue of reforming the global financial system. Such tax havens have huge financial resources (amounting to more than $7 billion) and governments (especially those of the USA, Germany and France) attempt to gain access to information about customers, particularly citizens of their countries of such zones [47].

International rating agencies which have recently had great resonance are also a matter of discussion. Due to the fact that there was so much criticism of rating agencies during financial crisis (even accusations that their activity has greatly exacerbated this crisis), the leaders of G20 during meeting in London in April, 2009, agreed to reach more effective oversight over the activities of credit rating agencies.

During 2010-2011, new pessimistic forecasts about the global economy and rising risks of the next wave of the global financial crisis were made. Many countries during this period witnessed stagnation and loss of previous economic positions (Table 1). Though the overall level of world savings is now at a record level of 24% of GDP, this figure hides considerable disparities of low savings rate in the U.S.A., on the one hand, and excess savings in three other major economies – China, Japan and Germany (as well as in many other exporting countries).

Table 1

Countries which in 2011 had lower GDP per capita than in 2007

Country	Quantity
EU	22 (27)
Other developed countries	6 (7)
Latin America	13 (32)
Other countries with emerging markets	20 (118)

Notes: general quantity of countries of the group is given in parenthesis. Source: [45].

Some scientists believe that the 2011 deterioration of the situation in international economy and global finance is an extension of the 2008 global financial crisis as the fundamental causes of the latter were not resolved and radical reform of global financial architecture has not been carried out. These old diseases are felt again and cause imbalances and sharp differences after a certain remission. Other researchers point out that, unlike the 2008 situation when the crisis pulses were generated by the mortgage crisis in the USA, they are now associated with the reduction of costs, investment, consumer demand, and ineffective measures used to stimulate growth and countries' budget deficits.

Although international financial markets in the past two years compensated offset part of investors' losses due to the 2008 global financial crisis, they were extremely unstable and gave rise to new risks of crisis evolving. Such expectations were intensified by a number of pressing problems: decreasing GDP growth rates in many countries, huge fiscal deficits, rising public debt, reducing consumption. High liquidity of stock markets has inflated the value of assets and detached them from the real economy that barely recovered from the crisis.

Increasing market volatility reflects growing instability and uncertainty. In 2011, such instability became a cause of huge volumes of capital shifting from securities to Japanese yen or Swiss franc, oil or gold, dollar or cheapened bonds not lingering in any of these assets for long periods of time. Market fever was sometimes caused not only by the actions of the Fed, central banks of countries or financial institutions but also politicians' statements and rumors.

Under such circumstances, some countries announced the continuation of the policy of quantitative easing. These measures were meant to stimulate increasing of money supply and stimulate demand on stock market, therefore giving impetus to the real economy growth. The ultimate goal of these programs was quite understandable but, in this context, gave rise to the core question – what is the extent to which additional issues comes to real sector and will it come to it? Programs for stimulating demand which included large injections of liquidity into the economy caused a significant increase in budget deficit. On the other hand, there were expectations that in the event of withdrawal of liquidity measures, the growth of real economy will slow down or even stop. The USA, Japan, UK, Australia, France, and even China demonstrated signs of scenario shown in a post-crisis period.

The debate among economists has identified two approaches to solving the problem of declining costs of debt pressure. The first one says that main countries with high levels of debt, such as the USA and UK, can use aggressive policy of quantitative easing to bring the costs for reducing debt to lenders, institutional investors and countries with a positive balance of trade without any hesitation. The policy of quantitative easing, for sure, indirectly stimulates the growth of export commodity prices and is therefore beneficial for the exporting country but such effects can be quite controversial and short-term. For example, if investors feel the threat of inflation, they will direct their resources to other countries, therefore increasing interest rates and therefore the costs of the U.S. debt borrowing.

Key expectations of the main group of high debt countries were directed at whether the USA will avoid the beginning of the next stage of emission stimulation of the economy. The USA chose another path and strengthened support of private demand by increasing budget deficit. Increasing the limit of public debt after the dramatic political debate in August 2011 has allowed President Obama's administration to send additional trillion dollars to welfare payments in order to increase real incomes of U.S. households by about 10 %, therefore stimulating additional demand and growth [40, p. 8–9].

Emission mechanism of stimulating economic growth carries the risk of increasing inflation, which in turn would cause devaluation of consumers' real income and thus limit future demand. There is one important question here –*who* gets a significant share of this issue? For example, almost all of the additional issues in the midst of the global financial crisis were focused on the financial segment of the economy. In contrast, the second stage of this process (QE-2) was mostly aimed at the budget. Redistribution of emission money was caused not only by sharp criticism of society ("why should we save those who are the culprits of the crisis using taxpayers' money?"), but also growing risk of real economy sector entering into recession.

Increasing number of countries that will issue money in order to stimulate domestic demand is likely to take place. The UK besides the USA now actively uses this instrument. In October 2011, the country began a new round of QE. The Bank of England announced its intention to purchase government bonds for 75 billion pound sterling in addition to the 200 billion pounds purchase that was carried out in 2009-2010 [38]. According to experts, Japan could also adopt a new package of quantitative easing. China, as well, has already started to use political mechanisms of quantitative relaxations and, later on, Pacific Asia countries can enter this group and, strange as it now appears, the sources of current criticism of this model of getting out of the crisis are Germany and France.

The second approach to solving the debt problems can be applied to another group of countries having excess savings, such as Japan and Germany. These countries can continue pursuing a tough fiscal policy maintaining positive real interest rates. Such policy (on request of one of its main ideologists – Germany) felt a partial response in Ireland but was stalled in Greece. As is has been noted, under certain circumstances it is possible that Japan (ageing of population causes savings reduction) and Germany (threat of further escalation of financial problems in the eurozone) may reconsider their attitude to the policy of quantitative easing and step on the USA's path [19, p. 2].

During the global financial crisis most experts and officials pointed out that the USA witnessing the most dramatic (except Ireland) events were the epicenter of the crisis but in the past two years the center of financial instability gradually shifted to Europe. Crisis in Greece, Portugal, Ireland, Italy, Spain and the relative deterioration of financial situation in some other countries of the Eurogroup demonstrated acute problems in Europe. This financial turmoil is just one of extremely serious and complex socio-economic problems arising in European Union.

We speak about the fact that the EU countries are entering a phase of painful and prolonged structural change stating that their social development model is no longer consistent with the need for strict oversight of public debt, trend of ageing population and low growth [20].

As, for example, Martin Raiser and Indermit Gill from the World Bank note, despite the significant increase in lifetime, Europeans retire on average 10 years earlier than in 60s. Huge expenditures on pensions included increasing costs on health care and medical care for the elderly. These costs raise the urgent need to reform pension systems, open labour markets and increase labor mobility [7].

Unemployment in European countries is a particularly acute problem. In most countries, its level has grown significantly during recent years. The average unemployment rate in the euro area is 10.7 %., but in some countries this figure has reached record levels over the past 10-15 years (Table 2).

Table 2

Unemployment in European countries (average monthly data)

	January 2011	January 2012
Austria	4,5	4
The Netherlands	4,3	5
Luxembourg	4,7	5,1
Germany	6,5	5,8
Malta	6,5	6,5
Belgium	7,3	7,4
Finland	8	7,5
Slovenia	8,1	8,2
Italy	8,1	9,2
Cyprus	6,3	9,6
France	9,6	10
Eurozone	10	10,7
Estonia	13,9	11,7
Slovakia	13,6	13,3
Ireland	14,4	14,8
Portugal	12,3	14,8
Greece	14,1	19,9
Spain	20,6	23,3

Source: [12].

A significant part of the assets of European banks is represented by investing in portfolios of government debt securities. Unlike the past, when it was considered to be a guarantee of bank reliability, today it has become a major destabilizing factor. The downgrades of European banks suggest that there are serious problems with liquidity and growing risks in the sector. For example, according to the Bank for International Settlements (BIS), total risk of French financial sector on sovereign bonds of the PIIGS (Portugal, Ireland, Italy, Greece, and Spain) is estimated as 157 billion dollars. Such high-risk load forces French banks to reduce assets in order to achieve compliance with new standards of capital adequacy [17].

As it was already mentioned, debt crisis has become particularly painful problem for European countries. This problem became so acute in 2011 really destabilizing European banking and financial system. Greece, Portugal, Ireland, followed by Italy and Spain are among the countries with the most critical situation. Even France and Germany are experiencing excessive burden of government debt, which reduces the possibility of economic growth in the medium-term prospect.

The reasons for such dramatic increase in the public debt differ within different countries. Greece and Portugal witnessed such increase as the result of long-term absence of fiscal discipline, dissent to reduce government spending or increase taxes. By contrast, Spain and Ireland could significantly reduce state debt before the financial crisis due to their relatively tight fiscal policy. Debt crisis in these countries was caused by the revaluation of the state of its ability to rescue troubled banks.

Taking into account the gravity of the situation in the troubled eurozone countries, EU countries set up the European Financial Stability Fund (EFSF) with a 440 billion euro in May 2010 in order to help countries with severe debt problems. Later on, it turned out that the Fund's resources are insufficient to deal with the European debt crisis and issue of increasing EFSF reserves to 780 billion euro was put on the agenda while some experts believed that in order to solve the problems of Greece, Italy, Spain, Portugal and Ireland, the Fund must have 1.5–2 trillion euro [44]. In July 2011, the leaders of the eurozone countries agreed to provide EFSF the right to open credit lines and buy government bonds of Currency union peripheral countries.

The decision to create a permanent fund to support European currencies exchange rates during the crisis, as well as legislatively give the European Commission the authority to do monitoring of member states national budgets was taken at the EU summit in Brussels in autumn 2010. Countries exceeding the limit of debt approved by the European Stability and Growth Pact by 60 % will fall under sanctions. The ESM Permanent stabilization fund (with resources amounting to 500 billion euros) in contrast to the EFSF will have own funds amounting to 80 billion euros. Initially, the EU countries planned to start the Fund's activities in 2013 but due to deteriorating financial situation in Europe it was decided to put it in action in July 2012. One should note that some EU countries (e.g. France) do not agree to bring their shares in to ESM at once so it may cause a delay in the Fund's full-scale work [44].

There are several scenarios of further EFSF and ESM funds performance under discussion in the European Commission. One of them is a plan of combining resources of both abovementioned funds in order to create a new fund with reserves amounting to more than

940 billion euros. Taking into account that 200 billion euros have actually been used to help Greece, Portugal and Ireland, the real resources of this Fund could amount to 740 billion euros [41].

The European Central Bank was there to help European banks giving in late 2011 three-year LTRO Loans (Long Term Refinancing Operation) amounting to 489 billion euros. Nearly 500 EU banks used this assistance mechanism, with Italian banks having borrowed nearly 120 billion dollars. Still, this money was not enough, so the ECB held a second auction of three-year long-term refinancing operations and gave almost 530 billion euros to 800 banking institutions. Thus, in just three months the amount of ECB aid to EU banking sector amounted to more than 1 trillion euros [11, 44].

As professor Louis Garicano of the London School of Economics said, "The LTRO program gave "oxygen" to banks for three years and averted an imminent disaster in financial and banking system" [36].

The ECB spent 217 billion euros to buy sovereign bonds of the most indebted eurozone countries between May 2010 and January 2012, but there is no unity regarding the advisability of such action in the EU countries. Germany strongly opposes the involvement of the European Central Bank in purchasing the debt of troubled countries because it considers that debt monetization will inevitably lead to a significant increase in inflation in the euro area [24].

Still, if the situation deteriorates and especially during exacerbation of problems in Italy, the ECB may step on the path of the U.S. Fed and begin large-scale purchase of government debt amounting to 2.1 trillion euros. If rates of return on government securities remain high, the ECB will still be forced to use quantitative easing program, i.e. massive buying of European securities without processing increasing liquidity (practically, printing money). This may reassure market participants who will see that their investments in government bonds still retain liquid, at least in the short-term prospect.

Even a group of Member States cannot reach unity in plans of preventing a new wave of the global financial crisis and recession in Europe. Unlike the main supporters of austerity policies (Germany and France) other countries are increasingly expressing doubts about the effectiveness of these measures in the long run.

In 2011, the EU countries held eight crisis summits, but none of them developed a clear plan of certain measures to overcome the

Eurozone crisis. Even approved decisions were not implemented quickly and efficiently which continued undermining confidence in markets and investors. For instance, decision reached on the July 2011 Summit on participation of private sector in debt relief of Greece had not actually been implemented until March 2012.

In order to overcome financial instability in the eurozone, Germany and France in the late 2011 proposed a special plan of strengthening budget spending and public debt control in all EU countries. The New EU budget pact was previously agreed by European leaders at the European Union summit in Brussels on 9 December 2011. On March, 2 2012, 25 EU member states signed an agreement on budget control.

The agreement provides legal liability of countries in case they fail to carry out requirements of coordinated program of tax and budget policy. Countries signing the pact must maintain their fiscal deficit at the level of less than 3 % of GDP and public debt should not exceed 60 % of GDP. Fiscal discipline violators (if budget deficit exceeds 3 %) will fall under sanctions – fines up to 0.1 % of GDP. Thus, no matter how paradoxically it may sound, the crisis in the eurozone has become a powerful source of moving forward to further integration and reforms.

Sovereign debt crisis in the eurozone forces to take another look at some of the issues of financial theory. Traditionally, financial theory considered that government bonds of industrialized countries with market economies is the basis for a conservative (low-risk) investment portfolios. All financial models, as well, assure that bond markets are able to maintain discipline among governments through the mechanism of increasing value of loans for countries with irresponsible policies. Basing on these postulates, quantity of investors in the government bond market was steadily increasing and the market itself was growing rapidly. According to Bank of America Merrill Lynch, at the end of 2001, there were government bonds amounting to 11 trillion dollars in circulation, while at end of 2011 – 31 trillion dollars. Central and commercial banks together with investment funds, pension and trust institutions and insurance companies have become key and largest investors in government bonds in many markets [40].

Risk-free rate of return (treasury bills of the U.S. government) has historically served as a solid foundation on which the entire financial system was based. Central banks of many countries met its level due to the fact that yield was a secondary factor of their activities, while reliability and liquidity of U.S. government bonds being a tool for managing exchange rate to the dollar was a main factor. Along with the central banks' increasing demand for government bonds, their yields were dropping steadily (together with inflation) and the default was out of question but the situation in the eurozone dispelled the myth about safety and reliability of government securities. Private investors suffered losses on sovereign bonds in the amount of 70 % of their investments. Banks and other investors suddenly realized that credit risks were associated with investments in government bonds of other countries. For example, when sovereign debt crisis began, French government urged its commercial banks not to sell Greek bonds. As a result, French commercial banks suffered huge losses.

Demonstration of the shortcomings of fixed rates system was another consequence of the debt crisis in Europe. It stroke supporters of the return to the international monetary system based on fixed exchange rate policy. Under the absence of possibility of currency devaluation, Greece was actually forced to declare default. In contrast, the USA and the UK having no such restrictions thanks to floating rates were increasing money supply and devaluing their currencies. Of course, foreign investors in this case, as well, have suffered losses but they cannot be compared to the losses in the event of cancellation of Greek debt.

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Chapter 3

FADE-OUT AND RESURGENCE OF SUBJECTIVITY IN MARKET ANALYSIS

Since the economic and financial downfall of autumn 2008, we have been obliged to see negative aspects of globalization of capital: as stocks, bonds and all possible kinds of securities were dealt with internationally, creditors became literally international and debtors, once their companies went insolvency, had to confront these international creditors beyond their national boundaries. Each nation-state as well, with 'limited' responsibility to save its own members, had to confront this situation. But there is enough historical evidence that 'financialization' was promoted thirty years ago by many nation-states in the world. It meant increased dependency of nation-states as well as respective members and companies, on non-productive sectors for their profits. The process has been structurally and institutionally constructed and maintained, so that we cannot think of the post-crisis global economy without taking these institutions and structures into consideration.

But it is also meaningful to keep in mind that this financialization is sometimes called as the rise of 'the ownership society'. It implies why so many people, not only of developed countries but of developing countries and of small open economies, became involved into the trend. This paper, thus, while taking those structural assumptions above as given, investigates the place of a concept, subjectivity, in the process of financialization. We look into this detail by focusing on a very popular book by Robert Shiller, "Irrational Exuberance". Published in 2000, this book warned the drastic fall down of stock price in America and got many readers with its right guess. Then the second edition in 2005, revised and updated by the analysis of real estate market, again anteceded our current crisis and has been getting still more readers. The term, irrational exuberance, was originally used by Alan Greenspan, the ex-chairman of the Federal Reserve Board, in 1996 in a dinner speech to describe the behaviour of stock market investors, which caused precipitous drop of stock markets immediately after the speech. With this episode Shiller has come to the idea of writing the book, he says.

According to Shiller who observes the data from 1870s to the present, the most recent bottom price was hit in July 1982 and since then the stock price has risen spectacularly until 2000 with especially rapid increase since 1992. To explain this phenomenon, he points out structural factors in Part One, cultural and psychological factors in Parts Two and Three respectively, and in the following Part Four, critically investigates the so-called efficient market model with random walk theory. Finally, he shows some advice taking the assumption of volatility of stock market as given. Shiller belongs to the group of behavioural finance theorists and focuses on the importance of irrational enthusiasm in human behavior. The reasoning by Shiller, a kind of universalism with psychology in spite of his emphasis on subjectivity, has endorsed the inevitability of bubbles in the phase of financialization since the 1980s: because psychological factor seems to be valid for everyone, his reasoning has functioned as an epistemological hindrance for many people, not to see the problems of globalization structurally. With this consideration, we clarify that the 'irrational exuberance' is not any principle of universal or natural law, but rather mere description or 'hindsight' of the bubble.

In 1930s and 1940s subjectivity was picked up and was discussed in connection to foresight, to risk and uncertainty, and to apperception, which turned out to be the foundation of analysis of stock markets. We could place Oskar Morgenstern in the middle of this discussion, as we could then grasp the constellation around the concept of subjectivity. Further, Morgenstern was also an early contributor to random walk theory, in his collaboration with Granger in the 1950s and 1960s, which is the connecting point to further development in the 1970s. We sketch the early arguments here.

Subjective value, as is written in the 'Whig' or the textbook-type of narrative of history, was taken into consideration by the marginal revolution of economics in the latter half of the nineteenth Century and one of the performers of the revolution was the Austrian School of Economists. The School was founded by Carl Menger, and one of two early followers, Friedrich von Wieser, contributed to explicit formulation of subjective value. Wieser explained that '… both exchange value and use value are subjective and vary according to personal circumstances. And everyone needs to have an exact subjective estimate of the value of money to oneself', but 'this personal attitude can have no effect on the movement of goods in the great economic exchange between one economy and another' [19, p. 50]. He then emphasized that '…the word value alters its original sense somewhat, when transferred from the subjective relation to wants to the objective relation to price' [19, p. 51]. Actually, this was common understanding of subjectivity until the beginning of the 20th Century. Subjectivity, in this understanding, vanishes in the process of price building, when respective individual comes to some market and shows his/her valuation, bargaining with sellers or buyers. Neither Wieser himself nor other Austrians after that explicitly asked whether it would hold true regardless of the number of participants in the market, focusing rather on the function of markets themselves absorbing individuals' subjective value.

Exceptionally, Morgenstern, who was trained under the tradition of the Austrian School, paid attention to the economic individuals hidden behind the subjective value theory. 'Böhm-Bawerk and Wieser have stated clear enough that prices result from different activities of separate individuals and their wills. But this side of price phenomena became soon out of consideration as "self-evident" and prices got to be operated as independent areas, separate from judgments and acts of economic subjects standing behind. … But it all matters for the theory of foresight, to come back to the actual behaviors of individuals and to find out the base for the direction of acts of households (*Wirtschafter* in German) and entrepreneurs. Further, it is necessary to prove whether the point of reference (*Orientierungspunkt* in German) which founds together in its system of subjective rationality of economic behaviors is eventually changeable or stiff' [12, p. 25–26][1].

This idea was shown in his treatise of economic foresight in 1928. According to Morgenstern, subjective value judgments of separate individuals of households and entrepreneurs become important in the theory of foresight and the changeability of the foundation of subjective rationality must be examined as the 'point of reference'. Then Morgenstern investigated this 'point of reference' and discussed that it is typically shown in prices of goods, but that these prices are resulting data of other individuals' acts, not fully given to individuals but only as some probability, corresponding to their 'subjective rationality' [12, p. 27–28]. Morgenstern then discussed, as the case of a household, this subjective rationality could stably be reached in equilibrium, but this equilibrium itself is usually grasped to have a system of rhythmical wave, and what is more, if there comes some change into unknown direction for an individual, it would lead to reduction of rationality of his behaviors, which consequently also affects the reduction of rationality of others' behaviors. According to Morgenstern, this kind of change in unknown directions or 'economic fluctuations' can occur not only by price changes, but also owing to many kinds of changes of particular quantities such as

[1] Tentative translation into English by Nakayama.

traffic, harvest, quantity of money, volume of production, for which all the people are responsible. These are causes for the possibility of falling into disequilibrium process.

In this connection, Morgenstern gave a footnote of reference to Pigou's book, "Industrial Fluctuation" (1927), and did not forget to add that the fluctuations could not necessarily be approached in psychological theories, but that there were also cases of fluctuations with objective circumstances like new method of production, inventions, or catastrophe. We can see that Morgenstern was conscious of English contributions as well as those of the Austrians, in thinking of subjective or psychological factors. Attempting to overcome a simple interpretation of subjectivity absorbed into objectivity of equilibrium, he also posed the question whether the equilibrium itself or its objectivity could necessarily be stable. Here the subjective rationality of producers or entrepreneurs also became important.

Thus, it deserves our attention that Morgenstern briefly mentioned the concept of speculation in his analysis of the impact of the change of subjective rationality on the objective rationality, though there was some confusion in his usage of the distinction of households and entrepreneurs. "… But the reduced subjective rationality of behavior of some household indicates the reduced objective rationality of the whole system, from which an 'error' giving further impact, arises. This 'error' can mean some 'profit' of another one, that is, it can result in an over-proportional transmission of purchasing power into another control power, or it can give rise to pure loss. … The (above-mentioned) possibility is that I have a monopoly over some knowledge in the change of data and the existence of this monopoly is unknown… But… the value of my monopoly continuously decreases. This case is not as hypothetical as it might seem: it plays a considerable role in the stock-exchange speculation".

Here, not markets in general but those of stock-exchange speculation were explicitly mentioned and with it, subjective rationality was connected to the chance of getting more profit from the inequality or monopoly of knowledge and information of changing data. If someone knows more about the change of some data, it would bring him more profit from the 'error' of someone else. There some disequilibrium would be caused by reduced subjective rationality. But as the title of his treatise shows, Morgenstern did not look into the issue of speculation itself in detail and focused on the problem or impossibility of foresight from this perspective. Still, it is worthwhile to notice that Morgenstern was led to the concept of speculation in relation to subjectivity.

Then, subjectivity became important in line with the time element or with future events in considering speculation. Morgenstern, after publishing the treatise above, developed his direction of research especially with the help of acquaintance with F. H. Knight who had made a famous distinction of concepts of risk and uncertainty[1], and published an article in 'Zeitschrift für Nationalökonomie', examining the relation between perfect foresight and equilibrium in 1935, where he argued that these two concepts did not come along together. As it is known, this article was translated into English by Knight and was published in a journal for English readers, which confirms Knight's high valuation of this article. According to Morgenstern, there would come no equilibrium but rather contradiction if more than two 'homo economics' had perfect foresight, who would seek for maximization of profit respectively for themselves. Seen in retrospective, what bothered Morgenstern most was the conflict of interests of those two homo economics, not being complementary. In this sense he came into an impasse, not being able to formulate mixed strategies of allocating probability for each economic player with opposing or cooperative interests. But he went deeper into the question whether subjectivity could possibly penetrate itself even in the 'social' economy with more than two individuals.

More importance of this article can be laid in that Morgenstern opened a way to look into the meaning of subjectivity: he articulated the problem of subjectivity into several categories of risk, uncertainty and expectation, in relation to the degree of foresight and to the degree of 'effectiveness' of foresight. In this sense, we can also observe some influence of J. M. Keynes and of Karl Menger, as well as Knight, on Morgenstern, whose names were explicit in the article. As to the influence of Keynes, Morgenstern, after classifying who of economic theorists had ever thought of perfect foresight with

[1] About the detail of this acquaintance and their mutual influence, see [15].

reservation, wondered critically whether Keynes, in his 'Treatise on Money', thought of imperfect foresight in his mentioning of 'correct forecasting' or 'accurate forecasting' [14, p. 170]. Morgenstern thought that it was not a problem of accuracy or correctness, if there was not an assumption of perfect forecasting. Morgenstern introduced the distinction between technical "foreseeability" and effective foresight instead and argued that the latter could be less or more than the former. This effective foresight could be seen as a variant of subjectivity. The difference of effective foresight came, 'from the technical data obtainable from time to time, … according to the degree of actual employment of the economic science' [14, p. 178]. This statement reminds us of his early idea that the degree of diffusion of knowledge or information on some data determined the degree of penetration of subjective rationality.

Furthermore, in exploring the meaning of imperfect foresight, Morgenstern managed to work out the concept of expectation, again as another version of subjectivity. 'With imperfect foresight, with the possibility of other prices, e.g., inability to eliminate factors of disturbance in my expectation, it is always conceivable that I, on the grounds of temperament, of caprice, of daring, etc. form my expectation differently than technical foreseeability would, perhaps, make it necessary for me. For example, I am inclined at one time and at another I am not inclined to undergo a risk. In other words, where really effective final foresight is lacking, the element of expectation appears … *Expectation depends, thus, only to a limited degree on foresight*'[1]. Here it is shown that 'effective' foresight could be determined not only by the knowledge of economic theory but also influenced by expectations of individuals, which were to be formed by respective attitude towards / against some risk in each case. In this connection, by the way, the contributive articles of Karl Menger on risk and uncertainty were mentioned, which showed direct influence on Morgenstern[2].

Next version of subjectivity was considered in relation to individuals' apperception. In 1940, Knight published an article, '"What is Truth" in Economics?". Apparently it was a critical review

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[1] Italics are given in the original text [14, p. 189–190].

[2] Morgenstern mentioned Menger's article of 1934 and his book of the same year [14, p. 175, 180].

article of a book by T. W. Hutchison, 'The Significance and Basic Postulates of Economic Theory' published in 1938[1]. The critic was sharply directed to the inconsistency of Hutchison's methodology, and if we take into consideration the fact that Hutchison investigated Morgenstern's article of 1935 considerably and explicitly there, we might be able to see Knight's article as the defense of Morgenstern from misleading interpretation by Hutchison. Actually, the chapter where Hutchison argued the distinction between 'subjective' and 'objective' rationality was originally published in the same journal 'Zeitschrift für Nationalökonomie' in 1937 under the title of 'Expectation and rational conduct', which implies his direct consciousness of Morgenstern's contribution two years before. For Knight, even though Hutchison attempted to annihilate or at least to ridicule Wieser's psychological method[2], the analysis was too naive and unsuccessful, so that Hutchison rather retreated to Wieser's position from Morgenstern's one.

But what is more interesting is that Knight developed his own view of subjectivity in this article. Without using the very term of subjectivity, he examined its meaning in the following perspective, '… what we perceive, or are able to perceive, is largely a matter of the "apperceptive mass" – and this involves both expectation and interests' [7, p. 11]. It means that for Knight the function of one's perception of external world and one's subsequent judgment must be explored when inner or psychological value theory is to be discussed. In so doing, as the title of this article implies, Knight asked the question, 'What is truth?' in relation to observation and inference in economics. For this purpose, he distinguished three categories of

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[1] Researchers on Hutchison, who evaluate this book positively, find Knight's article unfairly critical to him. 'At this distance of time one might say that Knight was perhaps too severe in his attack on such a young and promising academic. … However, Knight's criticism created a good deal of general interest, among fellow economists, in the book of a little-known economist from England!' [3, p. 164; 6].

[2] Knight quoted Hutchison's phrase where he picked up Wiser's sentence: 'We can observe natural phenomena only from outside, but ourselves from within'. (This sentence is taken from Wieser). The employment of this inner observation is the psychological method' (This phrase is given by Hutchison, following Wieser's own terminology)' [7, p. 15].

knowledge of economics that he was supposed to deal with. The first is knowledge of external world and the second is the 'truths of logic and mathematics', while the third, the most important here, being knowledge of human conduct. And he examined the meaning of subjectivity for the second and for the third categories, and came to understanding that the contrast of subjective and objective was neither self-evident nor absolute.

In connection to the second category Knight started with examining the most basic proposition of economics that individuals maximize their satisfaction or their utility and doubted the rigorousness of it, saying that '… in the absence of any technique of measurement, there is no clear differentiation between a subjective state and an objective quality, and the reference of an experience to the external world or to the mind is shifting and largely arbitrary'. Then he went on to the third category and also argued critically, that a really thoroughgoing laisser-faire individualism accepting individual preferences was even theoretically impossible under any conditions fundamentally. '…it is a fact to be kept in mind and recognized as a condition of talking sense about human interests, that everyone, habitually and inevitably, makes a distinction, which is vital, however vague it may be, between personal preferences and values assumed to be objective. … No discussion of group action can be carried on in propositions which merely state what "I want"' [7, p. 23].

As is shown here, individuals make a distinction between their preferences or satisfaction of their own wants on the one hand and social value on the other. Though this was rather an external critic, Knight fundamentally denied the idea that subjectivity in the sense of individual preference, once confronted with others and collected into a society, would naturally be absorbed or integrated into objectivity. Under these assumptions, he discussed the problem of prediction or the limitations of the possibility of prediction, and argued that the basis of prediction would be social psychology dependent not only on statistical extrapolation but also on individuals' insight and interpretation what was socially right answers and what they themselves could do with their competence. This corresponds to the idea of Morgenstern that expectation depends on the foresight to a limited degree.

As was discussed in the previous part, the concept of subjectivity itself was explored by a few economists to a considerable extent in

1930s and at the beginning of 1940s, and was recognized as an important issue in the analysis of fluctuations and disequilibrium. But this view was not taken over afterwards: main stream economics was formulated around the concept of equilibrium, including that of business cycles and fluctuations. In the Austrian School of Economics, for example, Hayek's version of market analysis became much more popular than that of Morgenstern[1], the former of which basically believed in the function of market to convey all the necessary information to achieve the objectivity and order of a society. This idea has survived for several decades and has got a name, the efficient market model, at the beginning of 1970s, which was discussed as an issue of capital market. In our perspective, this was the phase of fade-out of subjectivity in the market analysis, and we are going to draw some auxiliary line of its history from the previous chapter, since those who asserted this model did not take much care of the history of its development.

Before going into this detail, it would be useful to put a reservation that disequilibrium had been formulated and discussed much in the field of economic history, not the history of economics, especially after the Great Depression of 1929, using the concept of 'bubble' of speculation[2]. Rather exceptionally, H. P. Minsky took this idea over and made contributions to economic theory around the same time as the efficient market model arose, in his writing of interpretation of Keynes. Since this contribution has explicit analysis of expectation and speculation, we briefly sketched Minsky's idea in this part of the section.

According to Minsky, Keynesian theory rests on a speculative-financial paradigm with sophisticated view about uncertainty [10, p. 57–58]. Minsky mainly analyzed the representative work of Keynes, 'The

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[1] Morgenstern, at first glance, also seemed to give up his research interests in the collaboration with von Neumann in the 1940s and in its outcome, The Theory of Games and Economic Behavior published in 1944, where the authors decided themselves not to deal explicitly with the case of gambling. But in fact, Morgenstern did not lose his own interest and expressed it in his later works, such as in those which dealt with stock markets, especially with the focus on international comparison and mutual influences.

[2] For example, see several contributions by C. Kindleberger.

General Theory' of 1936, but saw some consistency since early writings like 'A Treatise on Probability' of 1921. What attracts our attention here is the statements concerning subjectivity and objectivity and we cannot dwell too deeply on the issue of how far Minsky's interpretation of Keynes was faithful to the original intention of Keynes or not. So we would just check the main idea of 'Keynes a la Minsky'.

In order to introduce the concept of speculation, Minsky brought in two kinds of subjectivity around Keynes' concept of probability shown in 'A Treatise on Probability'. The first was the case where 'no precise numerical value can be objectively assigned' but decisions need to be made, as if there were such a value, which was called, 'subjective probabilities' [10, p. 65]. Such subjective probabilities were inevitably assigned on some insufficient knowledge and said to be very changeable.

Then there was another kind of subjectivity, which reminds us of Morgenstern's idea of subjectivity. 'This is the weight or confidence with which the assigned probability is used as a guide to action or decision. … Keynes viewed an accretion of evidence as increasing the weight or confidence attached to a proposition. But in the context of the economic problems of decision-making for the future by households, firms, and banks, events, such as crises, discussed in 'The General Theory', can radically diminish the confidence with which views of the world are held' [10, p. 65].

Minsky then went on to say that this dual-decision scheme was not necessarily important and that what was essential here were rather elements of time and uncertainty, and a sophisticated philosophical framework of decision on the basis of imperfect knowledge. This assertion was further paraphrased that Keynes 'held that there was no way of replacing this uncertainty with certainty equivalents' [10, p. 65], and that the probabilistic propositions and the weight change in some consistent manner. It means that the weight or the second type of subjectivity cannot be represented by any fixed amount of value, just as the very idea of insurance would do. And it further implies that the second type of subjectivity can never be the same thing as the objective frame of reference of the first type.

According to Minsky, this 'decision-making under uncertainty' was the central theme of 'The General Theory' of Keynes and speculation came to the center of the analysis. At this point, Keynes's analysis became different from Morgenstern's mere mentioning of this concept and it was also separated from the analysis of subjectivity. And because of this uncertainty and changeability here, people rely on money –value in itself, Keynes claimed. '… The world is an uncertain world… Furthermore, this is a capitalist world in which units have portfolios – assets and liabilities which embody yesterday's views and both earn and commit today's and tomorrow's receipts. In a world with uncertainty, portfolios are of necessity speculative. The demand for money as a store of value exists because in a world where speculation cannot be avoided – where to decide is to place a bet – money is not barren. … Money in our world has attributes of an insurance policy, in that possession of money protects against the repercussions of particular undesirable contingencies' [10, p. 77].

In this connection, we mention Keynes' conception of expectation, which had been Keynes' version of subjectivity and which was not explicitly discussed in Minsky's interpretation. In a chapter where Keynes discussed the concept of long-term expectation, he listed up several factors that created problems for securing sufficient investment. This is particularly a very famous chapter where the example of so-called beauty contest or prettiest faces was explained. With these examples, Keynes asserted that professional investment with the best genuine long – term expectation was not necessarily successful and these considerations should be within the sight of economists. He put this explanation with the view that 'the risk of the predominance of speculation does increase', where speculation meant 'the activity of forecasting the psychology of the market', and enterprise was 'for the activity of forecasting the prospective yield of assets over their whole life' [6, p. 103][1]. By the way, it also has some relation to Knight's idea we discussed in the previous part that the value system in a society concerning expectation had to take social psychology in consideration.

Anyway, Keynes drew a strong claim from here that 'Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country

[1] Keynes 1936/ 2008, p. 103.

becomes a by-product of the activities of a casino, the job is likely to be ill-done' [6, p. 103]. Though this part had much been quoted in Keynes literatures, including Minsky's, it was not until recently that it was understood in line with Minsky's perspective. This was mainly because Minsky's writings drew much attention until recently.

Now we look into the idea of efficient market hypothesis. As a common understanding, it was said to have explicitly been formulated in a survey article by E. F. Fama in 1970, which summarized the presentation at a joint session with Econometric Society, in an annual Meeting of the American Finance Association at the end of 1969. Fama reviewed the theoretical and empirical literature on efficient market, mainly in order to examine 'the adjustment of security prices to relevant information subsets' [1, p. 383]. Here the conducting figure seems to be the price that adjusts itself to the market conditions. But we can see that the main idea of the model was shown at the beginning of the article as follows. 'The primary role of the capital market is allocation of ownership of the economy's capital stock. In general terms, the ideal is a market in which prices provide accurate signals for resource allocation: that is, a market in which firms can make production-investment decisions and investors can choose among securities that represent ownership of firms' activities …. A market in which prices always "fully reflect" available information is called "efficient"' [1, p. 383].

In these sentences, the idea was distinctly expressed that capital market was the one to efficiently allocate the ownership of some society and that the keystone of this efficiency was whether prices "fully reflect" available information. The main interested figure was the owners of the capitals (that is, investors) rather than price itself, as Keynes more directly considered, even though they were not appearing here in front of the analysis.

Fama, with some reservation that efficiency can be said to have been attained if 'sufficient numbers of investors have ready access to available information' [1, p. 388], introduced several conditions of the theory to test this efficiency empirically: expected return or fair game model, the sub-martingale model, the random walk, respectively. After brief explanation of these conditions, he entered into the survey of empirical research as the latter part, with types of weak, semi-strong and strong forms tests. But we check how the concept of subjectivity was hidden in these three conditions.

The first condition, expected return model meant a rather weak assumption that the conditions of market equilibrium can 'somehow' be stated in terms of expected returns, which was looser than a more rigorous theoretical meaning of 'full reflection' of information by market prices. As Fama admitted that, in the concept of expected returns, the purely mathematical concept of expected value seemed to get a higher status here than would be necessary, it meant that subjectivity in the idea of expected returns was 'somehow' excluded from this model. This model presumed that the investors would expect in advance the very returns which would lead to the market equilibrium.

Then the second condition, the sub-martingale model, 'is to say nothing more than that the expected value of next period's price, as projected on the basis of the information, is equal or greater than the current price' [1, p. 386]. Fama seemed to treat this as self-evident condition, giving one footnote that the holding of 'one security and cash' could be more profitable than 'buy-and-hold' of one security since the former could better avoid eventual losses, and that the second condition did not exclude this possibility. Even though there should be empirical possibilities that expected returns be negative, he did not find necessity to re-consider this theoretical condition.

The third condition, the random walk model, implied, that successive price changes – at least successive one-period returns – were independent and identically distributed. In a strong assumption it would mean that the distribution of expected returns on security be constant, independent of the available information. And Fama argued that it was best to regard this third condition as an extension of the first, which meant that the price change would be random but economic agents' expectation would correspond to the market in the long run and that markets could be seen to work automatically and efficiently. He added that '… initial large change at least represents an unbiased adjustment to the ultimate price effects of information, and this is sufficient for the expected return efficient markets model' [2]. This is of course in line with the assumptions of rational expectations[1].

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[1] We can see this connection explicitly in [16], which dealt with the rational expectation theories in a critical perspective.

Hence subjectivity did not have much meaning for efficient market model, neither in the random walk model nor in the assumptions of expectation as a definition, though it could be possible that subjectivity has some influence on the information treated as given, in making random walk and in forming expectations.

Here we would like to add one point of attention: Fama did not pay much attention to the pre-history of the development of this model or made a different narrative from the common history of economic thoughts. He mentioned such names as Kendall, Osbourne, Cootner, or Louis Bachelier as their precursors to have contributed to random walk model of stock markets, but the contribution was rather in empirical and technical senses. In the references, we certainly find an article by Morgenstern together with Granger, but it was not used explicitly. In order to fill this gap, we now consult with another contribution to random walk hypothesis made by B. Malkiel around the same time.

When Fama made a basic contribution to the definition of market efficiency theory and Minsky was reassessing Keynes's 'The General Theory', B. G. Malkiel published in 1973 his best-seller book 'Random Walk Down Wall Street', with which the concept of 'random walk' became very popular in the field of market analysis, not only for professional economists but also for the investing public. Seen from theoretical and empirical perspectives, he approximately followed the contributions of Fama, as has become clear in his other article of the same period [9][1]. But Malkiel made his own contribution to the development of the theory. In his writings, we can see more clearly the connection to the history of economic thought and to the concept of subjectivity. Further Malkiel showed a cleaer direction that the analysis of subjectivity in stock markets (including negative judgment though) was for the investors, and also sneaked some ethical implication in his analysis. Malkiel explained at the beginning of this book, a random walk is one, '…in which future steps or directions cannot be predicted on the basis of past actions. When the term is applied to the stock market, it means that short-run changes in stock prices cannot be predicted. … Taken to its logical extreme, it means that a blindfolded monkey throwing darts at a

[1] This is an article with which Malkiel rewrote his book in a more academic way.

newspaper's financial pages could select a portfolio that would do just as well as one carefully selected by the experts' [8, p. 24].

This humorous tone of the example of monkey's darts seemed to be strategically put, as this book was directed to the experts of finance and to general readers who want to enter into the world of portfolio from the side of an academic scholar who himself does well with it, how to do. This stance has been taken over until nowadays by those who have similar career as Malkiel. Since this time, in short, the random walk, which had originally presumed the limit of prediction as a legacy of Morgenstern, became in line with the efficient functioning of market and hence at variance with irrationality, and this implied the separation of the concept of subjectivity from random walk theory.

Actually, Malkiel gave a short survey of the history of economic theories around the concept of random walk concept: he made the theoretical contrast explicit between the 'Firm Foundations' and 'Castles in the Air', the former of which argued that investment instrument has 'firm anchor of something called intrinsic value' [8, p. 29], while the latter opposed to this kind of idea. He mainly mentioned Keynes as the representative of the second one of Castles-in-the-Air, with the very example of beauty contest. 'Keynes described the playing of the stock market…: It is analogous to entering a newspaper beauty-judging contest… The smart player recognizes that personal criteria of beauty are irrelevant in determining the contest winner. A better strategy is to select those faces the other players are likely to fancy. … The newspaper-contest analogy represents the ultimate form of the castle-in-the-air theory of price determination. An investment is worth a certain price to a buyer because she expects to sell it to someone else at a higher price. The investment, in other words, holds itself up by its own bootstraps' [8, p. 31–32].

What Keynes had described as the instability of expectations, became an example of good opportunity for speculation. In this connection, Malkiel classified Morgenstern as the early leader together with Keynes, as well as with Shiller who used mass (crowd) psychology in the 'so-called behavioral theories of the stock market'. Though it was an incorrect and rough understanding of Morgenstern by Malkiel from our perspective, it is remarkable that he made a grouping of theorists who took consideration of psychological or subjective factors together. It was classified as those who concentrated on irrational and illogical factors. As was written as follows, 'the psychological' was placed against 'the logical' by Malkiel. '…There have always been both logical and psychological theories of stock prices, and earlier generations of economists, such as John Maynard Keynes, stressed the importance of the fallibility of human decision making. The efficient-market theory was developed on the assumption that market participants are highly rational. But particularly during the 1990s and early 2000s, psychologists such as Daniel Kahneman and financial economists in increasing numbers have argued that the decisions of many investors are strongly influenced by behavioral characteristics such as overconfidence, overreaction, attraction to fashions and fads, and even hubris. …' [8, p. 243].

It is evident in this quotation that subjectivity in the sense of irrationality, shown in overconfidence, overreaction, attraction to superficial things like fashions, fads, or hubris, are important in defining stock prices, even though those kinds of prices are 'fallible' in comparison to rationality. Malkiel attributed this subjectivity to the dependent decision of the mass, as Keynes typically showed in his example of beauty contest above. But thinking back to the precursors' ideas in the 1930s, subjectivity itself contains individual factors like overconfidence etc., so it cannot be identified with irrationality of the mass, and should be seen as a different sort of rationality of individuals, independent of the mass. But this reasoning was in fact not unique in Malkiel but seemed rather to be shared by theorists of efficient market models, as well as those of behavioral science like Shiller. In this sense, the argument of subjectivity potentially went back to a simpler stage in this very phase of fade-out.

Furthermore, it deserves attention that Malkiel distinguished speculation from investment. According to him, what he clarifies in his book was the activity of investing, in the sense of 'a method of purchasing assets to gain profit in the form of reasonably predictable income (dividends, interest or rentals) and/ or appreciation over the long term' [8, p. 26]. In his classification, investment is a rational, logical and reasonable activity and is different from that of speculating, which is psychological, irrational and more directly, bad. He almost reproached speculative bubbles that they were manipulated by savvy institutions and pros and that too many investors were lazy and careless. For Malkiel, even though he did not use the very term, subjectivity was at the heart of this nasty phenomenon. For him, the more cautious investors are, the more predictable stock markets become, and hence the more efficient, which was the 'good' functioning of investment. This was, so to speak, an ethical version of efficient market model.

The writings of Shiller appeared as a symbol of just another side of the same coin as Malkiel's, but with explicit usage of psychological factors. Shiller posed the same questions as did theorists of efficient market models, whether stock market prices rightly convey all the necessary information and answered negatively. In a review article with the very title 'From efficient markets theory to behavioral finance' in 2003, Shiller remembered that the efficient markets theory reached at its 'height of dominance in academic circles around the 1970s using rational expectations, with Merton, Lucas, etc. But then Shiller went on to discuss that the volatility anomaly was so deep that many theoretical attempts appeared in the 1980s to revise the theory and still to show that some inefficiency of the stock market did not damage the theory as a whole. Shiller concluded that '… the level of volatility of the overall stock market cannot be well explained with any variant of the efficient markets model in which stock prices are formed by looking at the present discounted value of future returns. There are many ways to tinker with the discount rates in the present value formulas…' [18, p. 90].

This was the starting point for 'academic discussion' of economic theorists in the 1990s to have shifted away from econometric analyses of time series toward 'developing models of human psychology as it relates to financial markets' [18, p. 90]. From our point of view, it was the resurgence of subjectivity in the sense of psychology. The starting point of behavioural science and of Shiller's own contribution was opened up by the same dichotomy as efficient market theories, that is, the logical or the psychological. Shiller just shifted his emphasis on the other pole from that of efficient market theorists, and claimed that the volatility of stock markets exceeded the logical expectations so that the psychological – a different kind of universal character from logical universality – factor should become the only possible tool for analysis. Here the consideration for the empirical deviation was 'a priori' excluded in the assumption of rational expectation and was replaced by 'the psychological', supported by cognitive psychology. Hence, empirically refuting outcomes to the efficiency of stock markets did not negate the model itself but rather let theorists turn away from the previous type and motivated them towards some other type of model. This kind of attitude could be seen as science-oriented or as the belief that economics should be a branch of science.

Shiller placed his own best-seller book, 'Irrational Exuberance' published in 2000, as a following attempt of very old 'feedback models' which dated back to some book of 1637 (as was explained as the year of the peak of the tulip-mania) by anonymous author and which had never got any academic fame since then [17]. The feedback model was defined as the mechanism, 'when speculative prices go up, creating successes for some investors, this may attract public attention, promote word-of-mouth enthusiasm, and heighten expectations for further price increases. …The feedback that propelled the bubble carries the seeds of its own destruction' [18, p. 91]. This was evidently another version of Keynes' expectation, dependent of others' expectation shown in the example of beauty-contest. In this way, Shiller combined the concept of expectations with that of bubble explicitly, analyzed until then mostly in the field of economic history only. '… Human interactions, the essential cause of speculative bubbles, appear to recur across centuries and across countries: they reflect fundamental parameters of human behaviour' [18, p. 94].

In this connection, Shiller analyzed the Ponzi scheme which functioned as a further evidence to support feedback model. He explained that the speculative bubbles of real world stock markets resembled Ponzi schemes and that the success of Ponzi schemes implied the success of speculative bubbles. Indeed, this was the essence of 'irrational exuberance' which was amplified by the price rise itself, even though Shiller went on to the discussion of media or of cultural change more generally. By the way, though Shiller did not mention Minsky in his book or articles, the usage of the term Ponzi dated back to Minsky's analysis of speculation[1]. It was defined to be some finance 'in which the funds to pay interest and dividends are obtained by borrowing' [11, p. 225] and was classified in the final

[1] Remembering that the usage of the term was criticized by elder economic theorists, Minsky explained, 'The use of the term *Ponzi* for financing relations which involve the capitalization of interest was originally a joke that became a fixture in my way of describing things' [11, p. 225].

step following the first, hedge financing, and the second, speculative financing [11, p. 371–379]. Though Shiller's usage was not very rigorous in comparison to Minsky's formulation, Shiller embodied himself as the theoretical mixture of Morgenstern type of the Austrians and of Minsky type of Keynesian. And from our viewpoint of subjectivity, this concept re-appeared in the front stage of economic theories with Shiller, appealing its universal character as a scientific approach, while resorting also to a more general public than narrow academic circles, just like Malkiel did.

Following the historical transition of the narratives around subjectivity in this paper, we have confirmed that Shiller's reasoning was neither novel nor original, but rather some kind of resurgence of rather old ideas of subjectivity in the sense of Morgenstern-Keynes-a–la-Minsky type of irrationality and instability in stock markets. It was certainly better equipped with the conceptual devise for speculation in the capital market and more distinctly directed towards investors than those precursors had done, taking advantage of learning from ideas and assumptions of efficient market theorists including Malkiel. Shiller used the same dichotomy as these theorists did and regarded the psychological element as universal to all mankind, indifferent to the social status or to the quantity of property. In that sense, Shiller provided scientific character for his reasoning. It is, hence, almost no wonder that he, in a more recent book collaborating with Akerlof, went on to the analysis of animal spirit, which pointed out another psychological and universal nature of mankind for speculation or for economic activities in general.

As we have mentioned at the beginning, Shiller rather warned the dangerous aspect of irrational exuberance or of this kind of subjectivity, but he described it as a 'natural' psychological trait as to follow the natural law. Hence, it functioned to persuade that we could not avoid using this character and falling into the mechanism of feedback; which meant that he endorsed the inevitability of bubbles in the phase of financialization since the 1980s and that he gave the readers an epistemological hindrance, not to see the problems of globalization structurally. So, the resurgence of subjectivity in market analysis, not only in the case of Shiller but more generally, repeatedly supports 'the ownership society' as a result.

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Chapter 4
NEOLIBERAL TRANSFORMATION – FROM DEVELOPMENT TO CRISIS

The urgent question of a way out of the crisis presupposes tentative understanding of its characteristics. To this purpose, the analysis of the economic and political traits of the historical period commonly called 'neoliberalism' – from the crisis of the 1970s determining its genesis to the present crisis – can be helpful. Only on this ground, in fact, can we look for a reply to a series of questions: are the causes of the crisis still in force? To what extent is it possible to remove them? Which reforms would be desirable, and what are the scope and depth of the institutional change they imply?

On the one hand, in order to understand the present situation and organize a better future, the adoption of a holistic, open-system, and normative approach is indispensable. This approach has marked the 'institutional' tendency of economic theory, or at least its more radical representatives. On the other hand, if the solution of problems cannot but be political, the quality, indeed the very effectiveness of solution depends on the degree to which political life is democratic.

Neoliberal globalization has not allowed the countries traditionally constituting the "center" of capitalist development to resume their postwar pace of growth. The slowdown has continued in the last three decades, which has been punctuated by more or less dramatic crises, more or less postponed by various "bubbles", making the crash heavier. The globalization of the labour market has been going hand in hand with its fragmentation. Corporations have looked for cheap labour and convenient or, better, inexistent labour legislation all around the world. Lower levels of wages and harder conditions of work have been imposed in "central" countries too, in the name of the need to face competition. This sort of corporate strategy has obviously been embittered by the current crisis, together with competition; however, by depressing workers' purchasing power, it makes the crisis continue. The result is a vicious circle producing "social costs" [19], shifted from big industrial and financial corporations onto many small enterprises, the greater part of citizens, public administrations, weaker countries and future generations. Yet, not merely the crisis, which is also a result of the neoliberal policy, but the policy itself, have had devastating consequences on human beings, society and the natural environment.

An adequate political capacity to confront those consequences through effective reforms is at the moment missing. For example, a re-regulation of finance comparable to that realized by the Banking Act of 1933 (whose repealing began in 1980 and, in spite of the following savings-and-loan crisis, was achieved in 1999) seems improbable in the US or elsewhere. Many years passed between the 1972 United Nations Conference on the Human Environment (Stockholm Conference), when the environmental problem emerged as a global issue, and recent United Nations Climate Change Conferences (Copenhagen Dec. 7-18, 2009; Durban Nov. 28 – Dec. 9, 2011); but wise analyses and recommendations continue to fail to be implemented. An increase in poverty and starvation is recorded by annual FAO reports. In developing countries, the overall loss due to the lack of water and sanitation has been estimated, a few years ago, to be nine times bigger than the cost of providing universal coverage [46]. Among the consequences of insufficient and/or unclean water there are 1.8 million child deaths yearly [46].

UNPD Reports are significantly inspired by Amartya Sen, who observes that "despite unprecedented increases in overall opulence, the contemporary world denies elementary freedoms" to the majority of people [43, p. 3-4]. Living standards can be enormously higher in the case of richer strata and countries, but the use of resources is as inefficient. The astonishing increase in productivity has not made happiness (as utilitarian philosophers used to say) or well-being (as we say) easier to pursue.

There should be non-casual reasons for the persistence of such an irrational state of things, involving the entire globe. In "The Great Transformation", Karl Polanyi's analysis of the Speenhamland crisis applies a system theory and cybernetic method: when positive feedback systematically results from the system's attempts at solving problems, it is the organization of the system itself that requires to be changed. The development and crisis of neoliberal capitalism seems to have brought us to a similar situation.

At this point, it is necessary to call into question the ability of human beings to take care of their own destiny through a purposeful control of social institutions, and particularly of the economic system. This is firstly a theoretical problem, going beyond the closed playground of conventional economics. How can we evaluate the effects of the economic system on its human, social and natural environment? How would it be possible to overcome the inefficiency of the system, resulting from such reckoning?

These problems turn out to be also, or principally, political problems. The crisis increases the need to question the most fundamental characteristics of the existing social setup; but it also fuels the opposition to policies, surveys and social organizations trying to meet this need. Referring to the crisis of liberal capitalism and to the troubled interwar period, Polanyi maintains that, on the one hand, a "real" democracy, a widespread participation in relevant social choices, would have been the condition for enabling society to face its problems. On the other hand, the reaction of the ruling class implied so deep an attack against democracy as to determine a situation where "Capitalism and Democracy have become mutually incompatible" [32, p. 392].

We should be particularly worried about the state of democracy. In Polanyi's view, in fact, both individual freedom and our social ability "to enlarge our freedom of creative adjustment and thereby improve our chances of survival" [35, p. XLIII] depend on the degree of democracy.

The decay of democracy is a basic characteristic of the neoliberal transformation. The so-called 'privatization of politics' consists in the fact that big corporations, financial élites and technocratic international organizations enjoy an unprecedented and unaccountable concentration of power and are able to directly condition governmental policies. The consequence is that not only is the informed and responsible participation of the majority of citizens in choices concerning their life and their future are undermined, but also the institutions of formal democracy – parliaments in the first place, and the complex system of 'checks and balances' – are bypassed, or thwarted, and even destroyed.

The current crisis makes the reduction of freedom to its so-called "negative" aspect more obsolete than ever, and for a better reason, as Polanyi pointed out 68 years ago, to market freedom and to "a mere advocacy of free enterprise – which is today reduced to a fiction by the hard reality of giant trusts and princely monopolies" [36, p. 265]. However, the reaction of dominant élites succeeds in imposing 'market fundamentalism', in spite of any evidence. For example, the first legislative measures approved by the government installed in Italy on November 16, 2011 promote privatization of public utilities, "flexibility" of labour market, "liberalization" of economic activity. This government is rightly called "technical'. Formally, it is not composed of elected members of Parliament; substantially, its mission is to put a ready-cooked policy into practice, a conservative neoliberal policy, primarily corresponding to the interests of big financial institutions and rentiers. We could say, with reference to John K. Galbraith's "The New Industrial State" [12], that a new-style "technostructure" dominates, not simply on functionless shareholders and consumers, but on functionless citizens – in the absence of effective "countervailing powers".

The blind confidence in the virtues of the 'market' acquires – in the Italian case, but not only – marked illiberal traits. Both monopolistic powers and the thick interlacement of business and politics – which is always contrary to transparency and efficiency, and often deviates from legality – will remain untouched. Basic principles of the Italian Constitution of 1948 risk instead endangerment, such as that envisaged in the article 41, concerning limits to be imposed to free economic initiative for the sake of "security, freedom and dignity of people" and "public utility". The freedom of trade-union organization, sanctioned by article 39, has already been infringed: the January 2011 agreement imposed by the FIAT automobile industry includes a norm according to which unions refusing to sign are no longer allowed to propose their own candidates at the election of union representatives.

The very problem of defining general interest and, correspondingly, "the Agenda of government", raised by John M. Keynes in his pamphlet on "The end of laissez-faire" [20], is overlooked: this means, in fact, that it is tackled according to predominant and exclusive corporate interests.

Globalization, commodification, financialization. Compared to the postwar epoch of development, neoliberal globalization, on the one hand, continues the tendency to spread the practice and ideology of "free market" all over the world. On the other hand, neoliberalism is characterized by the erosion of the defenses by which both developed and developing countries might still be bound to the market mechanism. The ensuing irresponsible use of human and natural resources is highlighted, for example, in a report by various authors, entitled "Alternatives to Economic Globalization". The book begins by examining such "key ingredients of the globalization model" as: "unrestricted exploitation of environmental resources"; "privatization and commodification of public services" and "global and community commons"; "cultural and economic homogenization" and "consumerism"; conversion of national economies "to environmentally and socially harmful export-oriented production"; "corporate deregulation", "unrestricted movement of capital across borders" and "corporate concentration"; "dismantling of public health, social, and environmental programs"; the shift of decision-making power from "democratic nation-states and local communities" to "global corporate bureaucracies" [17, p. 19].

In the 1970s the crisis of the development era had to be acknowledged, together with the inherent contradictions of organized capitalism that postwar reconstruction and prosperity had masked. Inflation, and public and private borrowing began to grow as a consequence of such intertwined factors as the over-accumulation of capital, the slowing down of productive investment, and the unequal distribution of the wealth annually produced.

Remedies adopted have been lowering of costs and new opportunities of investment. These remedies have been the primary aims of globalization; however, the former reproduces depressive tendencies, the second creates new problems. Lowering labour costs and social expenditure – instead of augmenting taxation on higher incomes – cannot be a solution to over-accumulation, since the result is restrained aggregate demand. Moreover, to this first contradiction of capitalism, consisting in the tendency to capital over-accumulation, a "second contradiction" is added [28], as a consequence of business enterprises shifting costs onto their human and natural environment (Kapp's "social costs"). Economic growth has been supported, according to James O'Connor, by depleting and damaging the environment of the economic system, without taking these costs into account. This process gradually leads to a rise in costs for the economic system itself, and thereby to the need to increasingly shift costs onto the environment, so that there is the risk of a runaway process. In fact, the tendency toward a counter-adaptive relationship with the environment accelerated during the postwar epoch of development and has become ever more apparent in the neoliberal era.

As to the new fields of investment, they are of two kinds. Some only allow an illusionary or temporary increase of occupation and income, as is the case of financial and real estate speculation. Others actually widen the scope of capitalist investment. For this purpose, new regions have been included in the process of accumulation and in the world market, as well as new aspects of individual and social life.

Acquiring hegemony, neoliberalism asked for a 'de-regulation' of economic activity, beginning with labour and financial markets. The opening up of new fields for investment has concerned not only financial speculation, but also scientific research, leisure activities and commodities, real estate, public utilities, health care, education and social services. This kind of investment generally implies rent, monopoly positions, devaluation of labour power, inequality, and further commodification of individual life and social relationships. The "privatization" wave has not only jeopardized the "European social model"; it has also opened new and not necessarily legal opportunities for collusion between a political patronage system and private economic interests. David Harvey points out that the main achievement of neoliberalism has been "to redistribute, rather than to generate, wealth and income"; an "accumulation by dispossession" has been generated through various means which required state support, such as "the use of the credit system", the commodification of land and labour power, the privatization of commons (natural resources and knowledge) [15, p. 159].

Knowledge has been added to labour, land and money as a fourth "fictitious commodity" (see e.g. [1], [18]. The legislation on patents and intellectual property has been extended to new domains, from software to living entities. This tendency started in the United States in 1980. Patents have become easier to obtain, and can concern not only inventions, but also results, methods and fields of basic research. The privatization and commodification of commons has now reached knowledge itself. Not only can inventions, that are new technological devices, be privately appropriated and given a monetary value as commodities, but the absolute novelty is that the same thing also applies to discoveries, that are to the enlargement of the human knowledge of nature. This constitutes a new step in the process of privatization and commodification of commons beginning with land, at the dawn of capitalist development. Thus, whether knowledge consists of new scientific discoveries or old traditions, the power of big corporations increases, and the gap between developed and developing countries widens.

Intensified competition concerning the appropriation of natural resources, and the increasing 'land grabbing' by private enterprises and sovereign funds – a true agrarian counter-reform – have changed the frugality of millions of people into poverty [40], provoked irreversible damages in the natural environment, and, together with warmongering, augmented military expenditure.

After the 2007–2008 crisis, new food crises risk compromising living conditions and even the very survival of the poorest on the global stage. Such crises show that scarcity of food depends primarily on the social and political setup, and, in particular, on the dynamics of capitalist development. Huge masses of people have been made dependent on the world market through the expropriation of their resources and competitive prices on foodstuff produced industrially – and often subsidized by governments, as is the case of both the United States and the European Union. Subsequently, the increasing corporate investment in agriculture, in particular in view of producing agro fuel, caused prices to grow, to the point that people could no longer afford to buy their food (see [25], [13], and [9]).

Moreover, with regard to the food crisis, "financialization" and deregulation displayed their cruelest effects. The relevance is clear, for instance, of the Commodity Futures Modernization Act, passed by the United States Congress in December 2000, which replaced New Deal laws limiting and controlling speculation on agricultural products.

K. Polanyi [36] maintains that only in the market-capitalist society do labour, land and money generally and typically acquire the nature of commodities. In the course of this society's development, such unprecedented cultural innovation has been bound by a "countermovement". Neoliberal globalization tends instead to suppress political, socio-cultural, and geographical limits to the functioning of the market system. This does not involve fading of the state's role; indeed, it becomes clearer that governments are always constrained by economic powers and often subservient to them. It is also true, however, that the reforms starting in the 1970s have given rise to a new "mode of regulation" of capitalism, or, as Polanyi would say, to a new "institutional arrangement" of the market system. In the neoliberal era, labour, land, money and knowledge tend to be mere commodities, instrumentally employed in view of monetary gain, which constitutes – together with hunger, as Polanyi, and Max Weber before him, affirm – the basic motive of the economic activity in that system.

In the 1980s Structural Adjustment Programs were imposed on "developing" countries, as a remedy for the "debt crisis". International institutions undertook a sort of economic tutelage. Governments were asked to reduce public expenditure, to privatize government-owned industries, to keep wages low and to address production to export. Restrictions to capital investment and circulation were to be removed. In fact, putting these neoliberal prescriptions into practice reinforced the asymmetries and contradictions of capitalist development at the world scale. For example, opening its border to the penetration of international finance did not save Mexico from near bankruptcy in December 1994. A rescue plan was prepared by the IMF and the United States to protect foreign creditors (mainly North American). Budgetary controls and a mortgage on oil export further limited the sovereignty of Mexico.

Restrictive monetary and budget policies were also recommended to "central" countries, the purpose remaining that of reassuring international financial investors. Profits (and losses) of the latter – enormously augmenting together with a deregulated financial activity – were to be paid for by drawing resources from lower- and middle-income people and social expenditure, even at the risk of a deflationary runaway. The crisis started in the second half of 2007 made recommendations become impositions and grow harder. Presently they are imposed on the countries of the euro area, where monetary policies are again the stake of a class conflict, as during the long crisis of the gold standard.

In the neoliberal era, the governance of the world system mainly rests on the Washington Consensus, which is generally understood as the set of "development strategies that have come to be associated with the Washington-based institutions: the IMF, the World Bank, and the US Treasury" [42, p. 3]. That "consensus" began with an attack on state intervention in the economy, and in particular the state's role in initiating and addressing industrialization. Later, the focus shifted to privatization, price stability, and further liberalization, of labour and financial markets in the first place. Thus "market fundamentalism" has spread – that is, "the view that markets solve most, if not all, economic problems by themselves" [42]. "There Is No Alternative", Margaret Thatcher used to say. This political and cultural trend gradually received such a wide support from opinion makers, social scientists, and would-be progressive political groups, that it has been called "pensée unique" by Ignacio Ramonet [38]. Though becoming even more "obsolete", indeed unreal, the "market mentality" [34] remains effective as an ideological and political weapon.

Problems regarding international economic institutions have indeed been widely raised. Joseph Stiglitz points out, for instance, "the 'democratic deficit', and the lack of political legitimacy" affecting such institutions, as well as their "close links with financial markets" and therefore with dominant financial interests [44, p. 52]. The tendency Stiglitz names the "post-Washington Consensus" calls not only for a radical revision of "structural adjustment" policies, but also for "reforms in global governance" inspired by two basic requirements: 1) the goal of development policies should be the increase in GDP (Gross Domestic Product), together with "environmental and social sustainability" and a fairer distribution of income and wealth; 2) "countries should be given room to experiment, to use their own judgement, and explore what might work best for them" [44, p. 54]. Recently, commenting on the 2011 Spring Meeting of the IMF, Stiglitz has pointed out a little "switch" in the attitude of that organization: "the crisis showed that free and unfettered markets are neither efficient nor stable"; they "need regulation", especially financial markets [45]. (Unfortunately, on May 18, only a few days after Stiglitz's comment, Dominique Strauss-Kahn had to resign from Managing Director of the IMF, as a consequence of a scandal – probably, an organized plot. He was substituted by Christine Lagarde, who has a more conventional policy in mind).

Others go a step further than Stiglitz. For example, Vandana Shiva and Walden Bello interpret Stiglitz's requirement of "environmental and social sustainability" in a radical way, emphasizing the requirement of a democratic control of resources. In addition, they make reference to the growing opposition to the current global system by a series of movements and struggles.

The strategy of multiplying regional experiments in social organization and economic development was already envisaged by Polanyi during the Second World War. He conceived that strategy as a way of contrasting through democracy the project of "universal capitalism" supported by free-market ideology and implemented under the leadership of the United States (see [33]).

Shiva, in her 1993 book "Monocultures of Mind", analyzes the connection between the disappearance of varieties of plants, animals and productive techniques, and the disappearance of socio-cultural alternatives. Peoples lose the control of both resources and knowledge – that is to say, of their conditions of existence. In the neoliberal epoch, the market system's tendency to undermine self-government, and thereby liberty, becomes stronger and clearer.

Bello maintains that the crisis of global economic governance is a systemic one, and asks for a "deglobalization". Production – especially agricultural production – should be prevalently oriented to local markets and not to exports, within an alternative, pluralistic system of global governance and through a democratic "people-oriented sustainable development" [3, p. 117]. These requirements, in Bello's opinion, are not consistent with the maintenance of neoliberal globalization, understood as the "unsuccessful effort to overcome the crises of overaccumulation, overproduction, and stagnation that have overtaken the central capitalist economies since the mid-1970s" [4].

In fact, we can say with Michel Chossudovski, and with an obvious reference to the fundamental contradiction of capitalist accumulation pointed out by Karl Marx, that the global economic system is "characterised by two contradictory forces: the consolidation of a global cheap-labour economy on the one hand and the search for new consumer markets on the other. The former undermines the latter" [5, p. 17].

With "financialization" we make reference to important institutional developments, on which the crucial role played by financial markets depends. The new forms, relevance and unaccountability of financial activity are a typical development of the neoliberal setup; they have started the current crisis and continue to dominate the economic and political perspective. The enormous growth of finance compared to "real" economy has direct and indirect consequences on the latter. In particular, a high level of ROE (Return on Equity) is imposed on firms by the power of financial organizations and the primacy acquired by the so-called shareholder value. Managers are therefore compelled to limit investment to the most profitable opportunities in the short term and to cut down the cost of labour, by reducing both the number and wages of workers. Besides, non-financial big companies have diversified their activity; part – often a great part – of it is dedicated to financial business.

However, financialization has also to be understood as functional to capitalist accumulation in a situation of systematic tendency to stagnation. Not only it is impossible to limit the analysis of the present crisis to its financial aspect, but financialization itself can only be explained with reference to the deep and contradictory dynamics of capitalism. John Bellamy Foster [10] recalls that Harry Magdoff and Paul Sweezy raised in these terms the issue of a non-contingent shift toward finance in their 1987 book "Stagnation and Financial Explosion", but had already detected this tendency in the second half of the 1960s. Foster points out that the neoliberal ideology imposed itself together with "monopoly-finance capital", and is instrumental in justifying heightened exploitation and inequality, which provide money for financial speculation, and eventually to bail out financial corporations risking failure.

The result is that, throughout the neoliberal era, growth has remained low, unemployment has not diminished, and inequality has risen. Financialization has revealed itself as a paradoxical attempt at getting over stagnation, finally leading to the current dramatic crisis.

Polanyi also discussed economic crises and the crisis of democracy. In this section his thesis of the direct and tight relationship between democracy and efficiency will be tentatively demonstrated a contrario: in the course of the neoliberal transformation not only the risk of crisis persists, but both efficiency (in the sense of social utility) and democracy are growingly jeopardized.

Complex analyses of the crisis of the postwar development in the 1970s – such as that by James O'Connor's study [27] – raised the issue of necessary transformation, involving both economic and political institutions. But the change could have followed two opposite paths: either toward democracy or away from it. In reality, such an alternative constitutes a crucial aspect of the history of the twentieth century, continuing, for the moment, in the twenty-first. This thesis can be found, for instance, in the history of the twentieth century by Eric Hobsbawm [16], as well as in Polanyi's reflection.

The major and definitive crisis of liberal capitalism, culminating in WWI, made change inevitable: a "great transformation": but, which way? As the solution of a radical and therefore socialist democracy could not be realized, Polanyi maintains [32, p. 367], capitalism continued its existence under a new institutional arrangement: "in its non-Liberal, i.e. corporative forms". The Great Crisis, in Polanyi's opinion, involved the whole fabric of society; in particular, it made class conflict deeper, while cutting out economic means for a class compromise. The very need for incisive reforms led the ruling class to a stronger control of power in order to monopolize decisions about which reforms were to be implemented, and to what extent. Polanyi was aware of this aspect of the crisis, as is evident, for instance, in the article he wrote in 1931 when a coalition government, the National Government, was set up in the United Kingdom. The pound abandoned the gold standard the same day, September 19, of the publication of Polanyi's article, which is meaningfully entitled "Democracy and Currency". To sacrifice the Labour government in order to strengthen the pound did not save the pound, but allowed a more exclusive control by the ruling class on the anti-crisis measures to be taken. The damage to democracy caused by this political manoeuvre is not considered, Polanyi comments; what matters is to impose the dismantling of the unemployment benefit and thereby a reduction of wages and a balanced budget as the only possible strategy for economic recovery [31, p. 124].

The alternative between improvement and decay of democracy continues to be on the agenda, according to Polanyi, and becomes particularly evident in times of crisis and change. Soon after WWII, he foresaw again a possible evolution toward a "truly democratic society", where the economy would be organized "through the planned intervention of the producers and consumers themselves" [34, p. 117]. But he feared that the opposite tendency would prevail, supported by those who "believe in elites and aristocracies, in managerialism and the corporation". The resulting society would be "more intimately adjusted to the economic system", which would remain unchanged in its basic features (ibid.), while democracy would be damaged and depleted.

Otto Bauer [2] interprets "the crisis of democracy" after WWI as the crisis of the ruling class' hegemony. In "The Great Transformation" Polanyi speaks in the same sense of the crisis of "the liberal state". When the neoliberal transformation was in store, the Report to the Trilateral Commission [8] was issued. It confirms – not only implicitly, through "monetarist" arguments, but also openly – that this is again the case in the 1970s: wage and normative gains obtained by unionized workers, and democratic institutions allowing such achievements, are pointed out as the cause of "stagflation" and budget deficit. Not long before, in 1973, in Chile, the attack by Allende's government on transnational corporate power and North American rule roused a violent reaction. Augusto Pinochet took power and notoriously adopted neoliberal economic policies suggested by the Chicago School. Later, the turning point of the illiberal neoliberal solution to the crisis of the Seventies spread throughout the world. In 1978 Deng Xiaoping opened China to economic liberalization and capitalist accumulation, within an authoritarian political framework. Soon afterward, the basic purpose of both Margaret Thatcher's and Ronald Reagan's governments, starting respectively in 1979 and 1980, was to demolish the alarming power of labour, firstly, but not only, in industrial relations. In addition, the new "supply-side" model of accumulation, based on the priority of profit and rent, entailed a decrease of taxation for the wealthiest strata. If, then, the "fiscal crisis of the state" was to be faced, a greater cut of public spending was needed – the US military budget representing an important exception (plus 7% per year from 1981 to 1985).

The neo-liberal transformation was achieved in the 1990s by a series of reforms. Under Bill Clinton's presidency, for example, a Welfare Reform worsening the condition of the poorest and widening the working poor area was implemented, and the final liberalization of financial markets was realized by the repealing, in 1999, of the 1933 Glass-Steagall Act. In the same year the NATO bombing of Serbia achieved "deregulation" also in the field of international law.

We have seen in the previous section that the institutions of the Washington Consensus, and more generally the very conception of development, have been widely questioned, and democratic alternatives have been proposed. Similar issues can be raised concerning vast regional (in fact, continental) agreements and associations, such as the NAFTA (North American Free Trade Agreement) and the European Union.

The European Union – also through its enlargement, to former socialist countries in particular – has accentuated those aspects of its constitution and strategy that give its governance, and therefore its approach to the present crisis, a non-democratic character.

1) Technocratic and oligarchic decisional procedures set aside popular control through elected representatives.

2) There is a paradoxical fragmentation of member states' policies concerning wages, work regulations, taxation, welfare, control on financial activities, and industrial strategies. Besides, restrictive monetarist policies are imposed, while neomercantilist attitudes are allowed, exporting unemployment to other countries.

3) Privatization of public utilities and services, reduction of wages and pensions, and of taxes for higher revenues, freedom for financial investment, and green light for delocalization of industrial activities have been allowed and often recommended.

4) All this clearly coincides with the neoliberal creed to the advantage of big business, contributes to the counter-revolution against social reforms conquered by labour, increases economic and social inequality, and leads to a hierarchical structure of the market, as well as among member states.

Recent vicissitudes, in particular, but not only, of Greece, show that the EU is incapable of escaping from the menace of speculation on the sovereign debt of European states, which must borrow from private banks. Even the increase of public debt caused by the need to rescue financial corporations risking failure constitutes an opportunity for larger private financial gains through higher interest rates and speculation. Governments are obliged to cut public spending. The ensuing reduction in the number of jobs and salaries of civil servants, the cut of investments and social security benefits not only clashes with the increase of unemployment and poverty, but accelerates it. Moreover, given the deflationary effect of such a policy, overcoming the crisis becomes harder. The public debt will tend to increase, as a consequence of two combined factors: low growth, if not recession, causes the erosion of public revenue, while higher interest rates are imposed by the financial market. The financial market, in fact, is inefficient, not simply because of emendable "market failures", but by its very nature. Not only does it tend to cause positive feedbacks, but it is purposefully directed by a limited number of big financial investors. The risk of default and failure augments not only, as we have seen, precisely because of the measures imposed in conformity with the neoliberal myth of the efficiency of markets – that is, with the interest of big financial investors – but also because of the very logic of speculation. In conclusion, it seems absurd to entrust the destiny of entire nations to neoliberal strategies that proved to be ruinous, and to financial organizations that provoked the crisis and whose bailout is paid with public money: more than €4,000 bln according to the estimate concerning the EU, while the entire Greek debt amounted to €350 bln only.

What matters is that an increased dispossession of middle and lower classes corresponds to the "'rationality" of the current finance-dominated capitalism. The aim is to cover the losses of the banks, and to make high financial gains possible, even in case of economic stagnation or recession. Banks can borrow from the European Central Bank at 1%; interest rates paid – mainly to banks – by over-indebted states of the EU are much bigger. According to the statistics bureau of the European Central Bank, in January 2012 the "secondary market yields of government bonds with maturities of close to ten years" were 6.54% per annum for Italian bonds, and reached 13.85% in the case of Portugal and 25.91% in that of Greece. This throws some light upon the conditions imposed by the so-called Troika of the European Union-International Monetary Fund-European Central Bank on the countries of the Eurozone, which are temporarily rescued – to be further trapped in the vicious logic of indebtedness. Those conditions – massive layoffs in the civil service, the dismantling of social protection, increase in indirect taxes, the lowering of the minimum wage, privatization of public services, utilities and common goods – not only perpetuate economic troubles, but undermine people's right to self-determination. This tendency has been confirmed by the proposal of a balanced-budget constitutional amendment to be approved by EU members.

Moreover, the Fiscal Compact Treaty agreed on by 25 EU Leaders on January 30, 2012, which should come into force on January 1, 2013, takes fiscal sovereignty away from parliaments, to which it had been entrusted by bourgeois revolutions.

What has happened, and is going to happen in the foreseeable future, is that both the economic crisis and the decay of democracy will continue. It has widely been recognized that the very measures taken by governments to meet the interest of big finance make recovery harder. Even Standard and Poor's report of January 13, 2012 justified on this ground the lowering of long-term ratings of several European countries. But governments continue to turn a deaf ear. S&P's report argues that "a reform process based on a pillar of fiscal austerity alone risks becoming self-defeating, as domestic demand falls in line with consumers' rising concerns about job security and disposable incomes, eroding national tax revenues". This statement follows the recommendation that the "rising external imbalances and divergences in competitiveness between the Eurozone core and the so-called 'periphery'" should be amended.

Precisely because we can basically share the rating agency's argument, we have the impression of an insult added to injury. In fact, both the need for austerity measures and their ineffectiveness are also caused by the influence of rating on financial markets. Moreover, rating agencies are not independent of big financial corporations; how could they seriously recommend a policy which would be different from the austerity policy imposed by the neoliberal drift and big financial interests? Do these interests not constitute the "virtual senate" constraining governmental choices – and even determining the very composition of governments? To escape such "double bind" situation in which they are caught, governments should recover their sovereignty by breaking with their privileged relationship with big business and recovering their democratic constituency, citizens, who could in turn recover the sovereignty owing to them.

The gravity, resilience and paradoxes of the crisis lead us to question of not only the neoliberal transformation but also the most basic traits of the market-capitalist society. We cannot then avoid the problem raised by radical institutional economics – and eminently by

Polanyi: why does the specific social organization of the current economic system not allow a rational use of resources from the point of view of social well-being and ecological equilibrium, which is – or should be – the general purpose of the economic activity? Furthermore, if, as Polanyi maintains, the attainment of that purpose would only be possible through a democratic control of the economic system, the political dynamics inherent in neoliberalism has to be considered. In fact, the neoliberal transformation is inherently characterized by the dominion of managerial élites and technocratic and unaccountable institutions, while institutions trying to counterbalance asymmetries of power and information (e.g. trade unions) or of safety and "capabilities" (the welfare state) have greatly weakened. For instance, in the US, union membership has declined, especially since the early 1980s. According to a Report of the Bureau of Labour Statistics (Jan. 21, 2011), "in 2010, the union membership rate [...] was 11.9 percent", with a remarkable difference between public sector workers (36.2%) and private sector workers (6.9%).

Political representative institutions tend to be by-passed or undermined by a growing and more direct influence of economic corporate power on law-making and governmental policies. The removal of the institutional separation of the economic and political spheres, analyzed by Polanyi with reference to the decay of the 19th century utopia of self-regulating markets, is an irreversible achievement of the "great transformation". Neoliberalism, in spite of its name, does not mean free market, but a tighter intertwining of economic and political powers. Indeed, the neoliberal institutional setup enhances the role of the "power elite" analyzed by Charles Wright Mills [26] as the leadership by corporate, political, and military vested interests in the society. Capital concentration, deregulation, globalization and financialization give business the unprecedented power, not only economic, but also political, which is removed from democratic control, indeed opposed to it.

The decay of democracy is both a means and a consequence of this process. Many authors take this tendency into consideration; I shall limit myself to a hint to some of them, dealing in particular with the evolution of politics in the US. Robert Reich [39] calls for a "battle for democracy". Noam Chomsky more radically maintains, referring in particular to global finance, that democratic procedures are bypassed and jeopardized, since the "virtual senate" of lenders and investors generally prevails.

The opposition electoral control/business control concerning "The Policy-Making Process" is a central issue in the book so entitled by Charles Lindblom and Edward Woodhouse [23]. An important consequence is that the political power of business renders "the task of intelligent, democratic governmental policy making" – and therefore an efficient problem solving in the interest of society at large – "extremely difficult" [23, p. 102].

According to [6, p. 6-7], in the current "minimalist" model of democracy, which he calls "post-democracy", policies are decided within the interaction between elected governments and privileged élites, which prevalently represent economic interests. Moreover, in Crouch's opinion, the remains of formally democratic institutions are increasingly subjected to distortions and retrenchments, in the absence of such a substantive factor of democracy as wider, well-informed and responsible participation to political life. In a recent book [7] Crouch maintains that the financial crisis increases rather than diminishing the dominance of big, and in particular financial, corporations on both the market and the states. He sets his hopes on making corporations socially accountable. Vain hope for the moment, and till the evidence is that of a self-reinforcing contrary tendency.

Besides the concentration of power and the decay of representative institutions, specific state policies have also been relevant. For example, fiscal policy in the US increased inequality from Reagan's 1981 Economic Recovery and Tax Act to G.W. Bush's tax reduction for revenues exceeding $200,000 (see [14]).

Income inequality, rising in the 1920s also on account of fiscal policy, is considered by John K. Galbraith [11] as an important, perhaps the most important, cause of the Great Crisis. Paul Krugman [21] points out that eighty years later the situation was similar, with the richest 10% of the population receiving about 44% of US revenue. In a recent comment, entitled "Oligarchy, American Style" (NY Times, Nov. 3, 2011), Krugman observes that between 1979 and 2007 the income share of the top 1% and the bottom 80% of the population augmented and, respectively, diminished by about 10%. The term "plutocracy" is also sometimes employed in this connection (see, for example, [20]). According to a survey by OECD [29, p. 38], the income share of wage- and salary-workers underwent an average reduction of 10% from the second half of the 1970s to 2007 (US from 70 to 63 percent, France from 76 to 65, Italy from 68 to 53). From 2007 on, the crisis has reinforced this trend. A "growing income inequality" is the subject of a recent survey by OECD [30].

A crucial question could be raised at this point: Why has the democratic vote never been able to reverse this kind of social and political trend? A tentative explanation could refer to a series of factors, such as the following: economic troubles and cuts affecting social policies (education, health care, poor relief) have undermined not simply the equality of opportunities, but the very "capability" of the greater part of individuals to participate in social and political life. Other factors are the absence of real political alternatives offered by different parties, and the use of mass media and Public Relations techniques in view of "manufacturing consent" (to borrow Chomsky's expression).

In conjunction with "the liberalization of policy toward corporations" – Robert Prasch maintains [37, p. 279] – individual freedom is, on the contrary, directly endangered, and not only as a consequence of the decay of democratic institutions. While social costs are increasingly shifted onto society, corporations causing them obtain tax reduction and other benefits. Resources are correspondingly taken away from public utilities and welfare services. Prasch also points out that controls on citizens' public and private life have risen, together with job and income insecurity. Employees are asked to adopt the outlook and priorities of their employers, and to submit to longer and intensified work, and also to monitoring via closed-circuit cameras and to alcohol and drug testing.

The list of attempts to freedom could continue; suffice it to mention the criminalization of dissent and the underrating of social, political and even civil rights as a part of the general tendency to authoritarianism, which has spread in recent years, and has been often supported by instrumental justifications, such as the "War on Terror". There is the risk of a mass adhesion to extreme right-wing and populist movements, since, as has already happened, critical conditions of life added to propaganda can induce people to adopt self-damaging political attitudes.

To conclude, a further reference can be made to Polanyi, who maintains – in two manuscripts dating from the end of the 1930s, entitled "The Fascist Virus" – that the tendency to contrast democracy and freedom is deep and permanent in the market-capitalist system. In the neoliberal era, that tendency takes new shapes and grows stronger. Trying to strike a balance of the historical development of neoliberalism, David Harvey [15, p. 70] recalls "Polanyi's fear: that the liberal (and by extension the neoliberal) utopian project could only ultimately be sustained by resort to authoritarianism".

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Chapter 5
CAPITALISM AND DEMOCRACY: GLOBAL IMBALANCES AND THE POLITICIZATION OF ECONOMIC RELATIONS

As a result of the financial and economic crisis discussions about the origins and the consequences of global economic imbalances have intensified. Is the deepest crisis since the Great Depression a consequence of increasing global imbalances? What role did (or do) policy decisions play on the national and the international level? Who (or what) is responsible for the disequilibria which have built up during the last decades? The paper focuses on the question, if (or how) the conflict between democratization (national policy space) and economic liberalization is endangering the current international monetary arrangement. Can the development of the international monetary system be understood as the unfolding of the conflict between economic globalization and democratization? Do the difficulties to overcome the global imbalances confirm the idea that democratization is still in conflict with economic liberalization?

Global economic imbalances. During the last decade global economic imbalances turned out to be one of the most discussed topics in the area of international economics. The discussion started long before the financial crisis. But as a result of the events that shook the world in 2007/2008 the debate has intensified dramatically. Are the two events connected? Is the deepest financial and economic crisis since the Great Depression a consequence of increasing economic imbalances? What are the reasons? How will they develop in the future? What can be done in order to reduce the disequilibria?

Generally, global economic imbalances are measured in terms of current account deficits and surpluses. Indeed, if we have a look at the figures, the unbalanced current account positions of various countries have increased dramatically over the last years. It is not only the extent of the imbalances which is cause of anxiety. It is also the velocity at which the imbalances increased. At the beginning of the decade China, for example, was a country with relatively small surpluses. In the years before the financial crisis it became the biggest net-exporter of the world. Other Asian countries – even if on a lower scale – followed the example. And the oil-producing countries, too, increased their surpluses enormously. On the other hand, the United States of America moved in the opposite direction. In the year before the outbreak of the crisis the US-deficit amounted to more than $700 bln or 6% of US-Gross National Product (GDP). Never before in the history of modern capitalism had the key country of the global economic system developed a current account deficit of such an amount. Not only because of the economic and financial crisis are pressures building up for rebalancing of the global economy.

Current account deficits have to be financed. The increase of the imbalances has caused greater than ever capital flows – i.e. transfers of savings – from poor to rich countries. Normally we would have expected net flows of capital from the sluggish rich countries to the emerging ones which develop in a more dynamic manner. But in the last decade, capital moved primarily in the opposite direction. This 'uphill flow' of capital did not stop even in the aftermath of the financial crisis.

The consequences of the financial imbalances were manifold. The transfer of savings from the emerging to the developed countries did not only allow a surge of savings in the former greater than the rise in investment. It also permitted the fall of savings in the latter to historically unknown low levels. The need of these transfers created a strong stimulus for financial innovation, especially in the United States. Globalized finance responded with the creation of new instruments which combined higher yields with supposedly safe assets (Collateralized Debt Obligations etc.). As a result, real interest rates in the deficit countries, especially in the U.S.A., remained extremely low; asset prices (stocks, housing …) increased much quicker than the prices for goods and services; and a boom in residential construction followed. The correlation between the rise in non-performing loans during the crisis and the countries' *initial* current account positions is more than evident. This can be seen as a first indicator that the economic imbalances exerted influence on the global financial conditions.

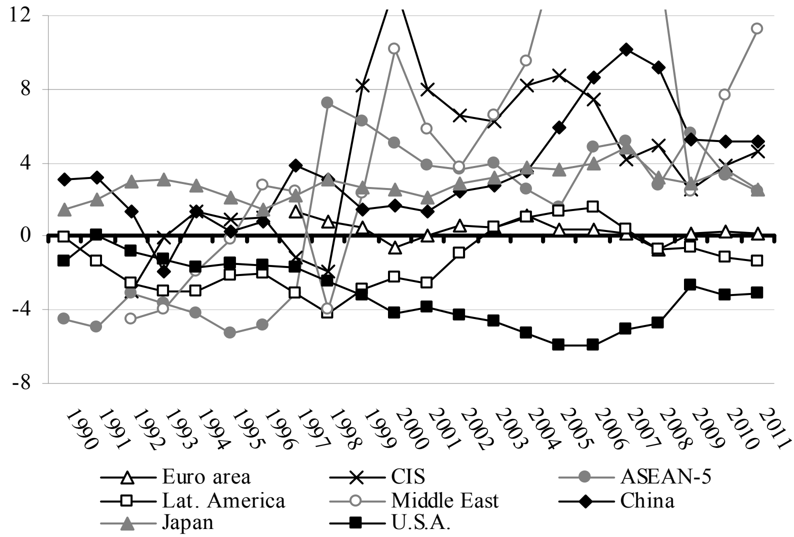

Fig. 1. Current account imbalances (% of GDP)

Note: Source – International Monetary Fund, World Economic Outlook Database, September 2011.

More controversial than the consequences are the explanations of the global economic imbalances. To mention only some of the most influential interpretations: The 'new economy' view [4; 5], the 'Bretton Woods II' view [6; 7; 8], the 'global saving glut hypotheses'[2], the interpretation which insists on 'deficient U.S. savings' [34], 'Chimerica' [11; 12], and the 'globalized finance' view [3]. All these interpretations emphasize important aspects of the mechanism which ended up in the disaster [22]. Nevertheless, the main weakness of all these interpretations is that they underestimate the importance of the political sphere – or more precisely – they underrate the role of the *conflict* between political decisions taken on a national level and the stability of the global capitalist system. Some authors recognize that the origins of the imbalances and/or the financial crisis have to be found in economic policy decisions [24]. But their approach is mainly normative. They regard the latter as a disturbing factor and/or as a reason of disequilibrium, not as a reality which the economic and social sciences have to take into consideration. I want to demonstrate in the following sections of the paper that the *conflict between global capitalism and democracy on a national level* plays a key role which has to be analyzed, if we want to understand the relation between the global imbalances of the 2000s and the recent global financial crisis.

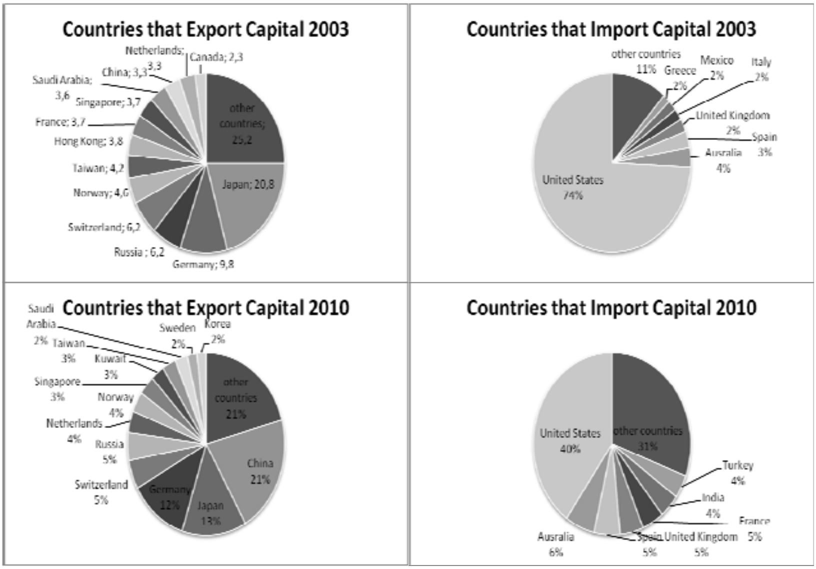

Fig. 2. Global capital flows in the years 2003 and 2010

Note: Source – IMF, Global Financial Stability Report 2004 [16; 18].

In 'normal times' the conflict is easily disregarded. But in periods of financial crisis it becomes a matter of public debate because – as Karl Polanyi stated more than 60 years ago – in the crisis "financial markets govern by panic" [30]. In these situations parliaments are not free in their decisions anymore. During the 2008/09 crisis, for example, the parliaments of the countries in crisis were forced to provide credits and/or debt guarantees in order to safeguard the financial system. The institutions on which democracy is based were taken hostage by the markets. We can observe a similar phenomenon in all the economic and financial crisis situations during the last decades. From Mexico to Thailand, from Argentina to Russia, from Brazil to Greece and Portugal: they all show how the conflict between capitalism and democracy weakens both, democracy and economic performance.

The conflict between capitalism and democracy. On the verge of modern capitalism the ruling classes firmly opposed popular vote (from Edmund Burke to Lord John Russell, Lord Macaulay …) [23]. In the 20th century neo-liberal authors hold this tradition awake, even if their approach has changed significantly. Friedrich Hayek is not the only neo-liberal economist who pleads not for the abolishment of democracy, but for a 'limited government'. There can be no doubt that Ludwig Mises, German Ordoliberalism, or the majority of Friedman's followers in Chicago support his ideas when he states: "I must confess preferring non-democratic government under the law to unlimited democratic government" [15, p. 154].

In the 20th century the *conflict* has been recognized by critical authors, too. Most of all: Karl Polanyi. Polanyi was one of the first authors who realized that the Great Depression was not a normal economic crisis, but the outcome of a fundamental conflict between the economic logic of the market society and democracy. Already in 1932 he stated in an article prepared for the Austrian journal 'Der Volkswirt': "Between the economy and politics an abyss has opened. … A society in which the political system opposes the economic system would necessarily be doomed or overthrown" [26; 31 p. 149]. In his analyses of fascism [27; 28; 32] he referred to the clash between the economy and the political sphere. And in his most famous analysis, published as 'The Great Transformation' in the year 1944, he summed up the destiny of his age: "Nineteenth century civilization … disintegrated as the result of … the measures which society adopted in order not to be, in its turn, annihilated by the action of the self-regulating market … the conflict between the market and the elementary requirements of an organized social life … ultimately destroyed that society." [30, p. 249].

Analyzing the nineteenth and the first decades of the twentieth century Polanyi distinguished three periods in the development of the conflict between capitalism and democracy:

1. Up to the 1880s: incompatibility of capitalism and democracy was taken for granted
2. Last decades of the 19th century: "illusion of harmony"
3. Interwar period: clash between capitalism and democracy [29, p. 278-295].

Referring to Polanyi's analysis Barry Eichengreen (in his book 'Globalizing Capital') posed the question, „whether Polanyi's thesis stands the test of fifty additional years. Can the international monetary history of the second half of the 20^{th} century be understood as the further unfolding of Polanyian dynamics, in which democratization again came in conflict with economic liberalization?" [9; 10, p. 5]. Eichengreen interpreted 1) the breakdown of the systems of fixed, but adjustable exchange rates (Bretton Woods and the European Monetary System) and 2) the subsequent reform of the international monetary system – the transition to more flexible exchange rates on the one hand and in direction of monetary union (European Union) on the other hand – as attempts to respond to the conflict between capitalism and democracy. Following up this approach, it may be illuminating to extend Polanyi's list and distinguish two further periods after World War II:

4. 1950s up to the 1970s: the age of Keynesianism
5. Since the 1980s: the era of the neoliberal credo

Let us have a short look at the last two periods.

The conflict between capitalism and democracy after World War II. The age of Keynesianism. In Keynes' thinking the conflict between capitalism and policy space played, first of all, an important role when he thought about political priorities and "the forms of government within a democracy … capable of accomplishing the *Agenda*" [20]. In Keynes' vision it was important that a democratic government would be able to control the capitalist system to a higher degree than ever before. The conflict should be contained by acting from both sides, by adjusting policy goals on the one hand and by limiting the market mechanism on the other hand. The interpretation of Keynesianism as a compromise between different class interests is misleading. Keynes' objective was to establish a new relationship between the economy and the political realm by a) containing the market forces and b) redefining the goals of economic policy. His *Agenda* was essentially an attempt to reform the institutional setup on a national *and* international level in order to overcome (or at least: to limit) the conflict between democracy and capitalism.

In the 'Treatise on money' he highlighted the conflict when he expounded the problems of the international system. Here he stressed explicitly "the dilemma of an international monetary system … to preserve the advantages of the stability of the local currencies … in terms of the international standard, and to preserve at the same time an adequate local autonomy for each member over its domestic rate of interest and its volume of foreign lending" [20, p. 272]. During the Bretton Woods conference the dilemma was one of Keynes' main concerns. From the point of view of the United Kingdom the preservation of policy space on the national level was seen as crucial. In order to achieve that goal Keynes proposed an arrangement which included the control of capital movements as a *permanent* feature of the post-war system [21, p. 31]. In case of 'fundamental disequilibrium' exchange rate adjustments were seen as a necessary instrument. And more than that: In order to distribute the burden equally between deficit and surplus countries the provisions should "aim at putting some part of the responsibility for adjustment on the creditor country as well as on the debtor" [21, p. 28].

I do not deny the differences between the Bretton Woods-system in the 50s and 60s and Keynes' original ideas. Nevertheless, the treatise negotiated during and after the War in Bretton Woods was based on a design which accounted for the interaction between the economic and the political sphere. It had the character of a political agreement between independent nations. It aimed at a minimum level of independence of all participating countries. In order to achieve that goal Harry Dexter White, John Maynard Keynes and their delegations did not only advocate a system of principally fixed exchange rates, but they also supported the perpetuation of controls of capital movements and the establishment of international institutions such as the International Monetary Fund and the World Bank in order to set limits to the market forces. Indeed, at least two fundamental ideas were safeguarded: 1) the establishment of controls of capital movements;

2) the proposal of increasing policy space on a national level by creating international institution, in particular the IMF, with the task of providing credits for deficit countries in need of reserves.

Till the end of the 1960s the Bretton Woods System was quite successful. It provided a framework which stabilized the economic and monetary relations in the western world for nearly two and a half decades successfully. The contractionary bias which had preoccupied Keynes was kept under control by 1) official aid ('Marshall plan'), 2) U.S. foreign direct investment, and 3) U.S. trade deficits which allowed for the creation of international liquidity. At the same time the national policy space was guaranteed by limiting capital movements.

The dilemma between capitalism and democracy emerged when the international financial markets were opened gradually. The consequence was that the rigidity of the system increased, and, therefore, the national policy space diminished. Tensions within the Bretton Woods arrangement became visible at the end of the 1960s when the hegemony of the USA was undermined. The trigger which finally resulted in the collapse of the system was a policy conflict between the U.S.A. on the one hand and some emerging economies in Europe and in Asia on the other hand. At the end of the 1960s the United States had to accept increasing fiscal deficits because of the Great Society program and the Vietnam War. At the same time some of the European and Asian partners gave top priority to monetary stability and low inflation rates. The resistance of European and Asian countries to follow U.S. policy provoked three speculative attacks on the U.S. dollar and put an end to the exchange rate system on which the Bretton Woods arrangement was built: 1) Nov. 1967 – March 1968: gold against $, 2) May 1971: German Mark against $, and again March 1973: German Mark against $. Under these conditions the end of the Bretton Woods exchange rate system was unavoidable.

When the Bretton Woods exchange rate mechanism broke down at the beginning of the 1970s the defense of policy space on a national level was initially regarded as an important goal. At least for the bigger and relatively closed economies of the United States, of Japan and of Europe the introduction of flexible exchange rates on a global level allowed for safeguarding national policy space. Within Europe regional exchange rate arrangements (first the monetary snake, then the European Monetary System) aimed at the same goal. By introducing rigid controls of capital movements, frequent realignments, and a mechanism for financing interventions the European countries created an arrangement which allowed recognizing different national conditions and policy priorities.

The era of the neoliberal credo. During the 'age of Keynesianism' policy space on a national level was seen as a historical achievement. The situation changed fundamentally in the middle of the 1980s when Keynesian ideas were replaced by the *neoliberal credo*. The core idea of the neoliberal credo is that the *market system* should be *strengthened*. The mechanisms of the international system are regarded as crucial instruments in order to achieve that goal by *reducing national policy space*.

The roots of the neoliberal credo go back to the 18th and 19th century. The fathers of economic liberalism were well aware of the fact that the market mechanism produces inequality, unemployment and economic recessions. They knew about the negative consequences for the majority of the population. And they opposed democracy because they understood that in a democratic system the oppressed majority has, at least in principle, the political power to outvote the liberal elite. The *neoliberal credo* differs from the classical liberal doctrine in one crucial point: its protagonists had learned that the expectation of a 'natural progress' in the direction of market solutions is misleading. Markets have to be created. '*Planning* for competition' is the slogan which Hayek had advanced in his 'The Road to Serfdom' in the 1940s [14, p. 42]. New is not the distrust in democracy, but the recognition that in the 20th century democracy has to be regarded as a reality. If democracy cannot be abolished, it can be contained. The neoliberal credo uses *consciously* the international financial system in order to limit policy space. By tying the hands of democratically elected governments through an objective and, apparently, impartial mechanism the influence of parliaments should be restricted forcefully.

The neoliberal credo regards policy space not as a historical achievement, but as a dangerous opportunity and as a threat to the liberal civilization because it creates the possibility that policy goals such as full employment, welfare state, and social security are substituted for 'planning for competition'. Have in mind that the neoliberal credo is *based* on the same insight which Karl Polanyi had expressed in the 1940s. But it turns upside down Polanyi's answer to the conflict. If Polanyi is correct and if the market society of the 19th century had been destroyed by the democratization of the policy space, then democracy should be limited. Economic globalization is seen by the neoliberal credo as an instrument to preserve the market economy by setting limits to democratic decision making.

The change from the age of Keynesianism to the neoliberal credo had been heralded by the sharp policy shift in direction of inflation control executed by Paul Volker (appointed Chairman of the Federal Reserve in August 1979 by President Jimmy Carter). Volker's policy shift to monetary restriction did not only prepare the conditions for a worldwide recession in 1981/82. It was also the starting point of a soaring US dollar and the so-called international debt crisis. During the 1980s deregulation, privatization and liberalization of finance, trade and FDI into a number of Third World countries accelerated. The unavoidable outcome was a combination of net capital inflows, current account deficits and increasing external debt in many developing countries. As a consequence the countries became highly vulnerable to changing sentiments on the global financial markets. At the beginning, i.e. as long as net capital streams moved in direction of the countries, economic growth seemed to be accelerated. But when capital flows changed their direction external debt and exchange rate crises were inevitable.

The political answer to the crises (first in Latin America, later on also in Asia) opened the path for a strategy which forced the indebted countries to apply a policy mix consisting mainly of fiscal policy discipline, trade liberalization (liberalization of imports, with particular emphasis on elimination of quantitative restrictions), liberalization of inward foreign direct investment, privatization of state enterprises, deregulation (abolition of regulations that impede market entry or restrict competition), and the guarantee of legal security for property rights [36; 37]. This combination of policy instruments has become known as 'Washington Consensus' [37, p. 1].

The conflict of capitalism and democracy was not resolved by the switch to the neoliberal credo. But the *power relation* between capitalism and democracy was turned around. National parliaments were overruled by the conditions determined by the creditors. The developed countries – i.e. the International Monetary Fund – forced the developing deficit countries to apply strict austerity measures, even if the consequences for the living conditions in the countries concerned deteriorated dramatically. The "lost decade" of Latin America started with the default of Mexico in August 1982. In the following year 27 nations (including Mexico, Brazil, Venezuela, and Argentina) had to restructure their debts and, therefore, were depending on the 'conditionality' of the IMF. The situation did not change for the better in the following decade. In the years 1994-95 Mexico was afflicted again ('tequila' crisis); in 1997-98 the Asian crisis followed; in 1998-99 we had a run on the Brazilian real and the Russian ruble, in 2001-02 the meltdown of the Argentine economy and the attacks on the Uruguayan peso. Note that there has always been a direct correlation between crisis and external deficits. The democratic institutions of countries with external current account deficits and the need of external finance had to accept the dictate of the international financial markets. If they tried to refuse, the IMF stopped to provide the financial resources. The danger of an immediate flight of capital worked as an effective sanction mechanism.

But not all the countries reacted in the same way. The Asian crises 1997/98 proved crucial for the further development of the world economy. As a result of the crisis some emerging Asian countries changed their strategy fundamentally. After 1998 their focus shifted in the direction of enhancing economic growth and development by export promotion, undervaluation of the real exchange rate and current account surpluses. This policy had already been successfully applied in Japan and Germany. The advantage of this strategy is that it allows combining the goal of economic growth and, at the same time, the establishment of a *net creditor position* which makes the countries independent of capital inflows. In order to achieve that goal it was necessary to keep the exchange rate undervalued. This could be achieved by increasing foreign currency reserves. Chart 3 shows that after the 1997/98 crisis not only the oil exporting countries, but also some emerging Asian economies started to build up enormous reserves in foreign currency.

It is important to keep in mind that this kind of policy shift was rational from the point of view of the single countries. Under the conditions of an open international financial system a country could effectively protect itself against the dangers inherent in the volatility of capital flows by increasing reserves. Nevertheless, on the global level it contributed to a new set of unintended consequences, the 'global imbalances'. If not only Japan and Germany, but China, Thailand, Malaysia and many other countries, too, run current account surpluses, there have to be other countries which run deficits. The U.S.A took over that position. Already in the decade before the U.S.A. had become by far the most indebted country in the world.

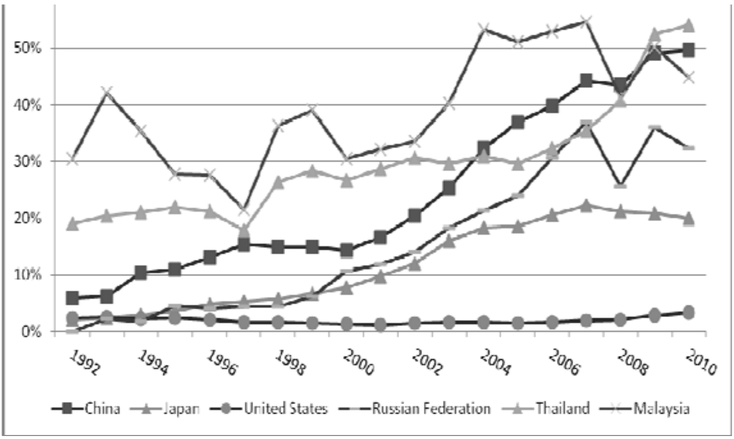

Fig.3. Foreign Reserves (% of GDP)

Note: Source – World Bank Databank.

The financial crisis of 2008/09. With the eruption of the financial crisis 2008/09 the loss of sovereignty is not limited to developing countries any more. The U.S.A. and the countries of the European Union are in the centre of the turmoil. The crucial question, which has not found a solution till today, is: *Who bears the losses* which unavoidably become visible when a bubble explodes? Popular sentiment points in the direction of the institutions which are responsible for the building up and the burst of the bubble: banks such as Goldman Sachs, Bank of America, and Morgan Stanley in the U.S.A., Deutsche Bank or BNP Paribas in Europe, and the institutions which form the core of the so-called 'alternative banking system' [3], i.e. the hedge funds, off-balance-sheet vehicles, specialized institutions like Fannie Mae or Freddie Mac. The functional logic of financial market system suggests that the governments, even if they endanger their own solvency, have to shoulder the greater part of the burden. The experience of the last years shows that the markets are in a rather strong position. The threat of panic of the financial markets does not leave much room for maneuver for the national parliaments.

After the breakdown of Lehman Brothers the Bush administration initially failed with its attempt to pass a rescue package consisting mainly of debt guarantees (including a $250 bln recapitalization program for the US banks, overall worth $700 bln, i.e. 20% of the US federal budget). On Sept. 29, 2008 the U.S. Congress *rejected* the Emergency Economic Stabilization Act (TARP). But less than a week later, on Oct. 3, 2008, the Congress was forced to *approve* TARP. Within a short period the European countries followed the same logic. On Oct. 17, 2008, the German parliament was forced to approve *without discussion* the creation of the Sonderfonds Finanzmarktstabilisierung (SoFFin) with a volume of €450 bln (150% of the German federal budget, 42% of total state budget). Great Britain, France, the Netherlands, Spain, Italy, Austria, Portugal, and Norway provided similar programs with an amount of far more than €1,000bn. The threat of panic forced the decisions. The parliaments adapted to the dictate of the markets.

Up to now the situation has not changed for the better. We can observe the prevalence of the markets over sovereign decisions till today. In summer 2011 the U.S. lawmakers were forced to raise the U.S. debt ceiling of $14.3 trln because otherwise the U.S. government would have been threatened by default on its debt. And in Europe the Council was *forced* to create, first the European Financial Stabilization Mechanism (EFSM), then the European Stability Mechanism (ESM). As Jean-Claude Juncker, the Head of the group of Euro-area Finance Ministers, underlined in an interview: "We have to observe a certain number of red lines – no default, no rating downgrades and the private-sector involvement has to be done on a voluntary basis" [19]. In the European Union the situation is even worse because the European Council is *neither* strong enough to oppose the market logic *nor* to follow economic rationality in a consistent way. The outcome is some form of 'muddling through' with the consequence that both the people and the market reaction is increasingly frustrated.

As time is passing the question arises: How long will the parliaments (and not only the parliaments of the member countries of the European Monetary Union) accept the dictate of the markets? What would be the consequence, if not only the people in the streets, but a parliament would respond negatively to the dictate of the markets?

Where do we stand? Where should we go? If we have a look at the steps taken after the financial and economic crises we have to admit that the answer has been rather weak. The global imbalances have been reduced to some degree, but no fundamental rebalancing has taken place. A fundamental reform of the financial system is still missing. The conditions for a revival of the old Bretton Woods arrangement do *not* exist today. To list up only the most important reasons: There is no political hegemonic power. Even if we cannot speak of a truly multi-polar international order, the United States of America do not play the dominant role anymore which they had played in the first decades after World War II. And more than that: The U.S.A. is not only one of the deficit countries; its net international indebtedness is also higher than that of any other industrialized country. Sure, the US dollar is still the global key currency. But the deficit undermines its credibility. And the twin deficit (external plus budget deficit) is endangering the 'exorbitant privilege' which it had had for more than six decades. It is not wrong to sustain that the relative strength of the dollar today is based mainly on the weakness of potential alternatives. Therefore, we are close to a situation of the international monetary system where no currency can really play the role of a key currency. Some kind of currency competition is emerging. In such a situation nor the Federal Reserve System nor the European Central Bank can accept the competing currency as an external anchor for their own monetary policy. The idea of a system of fixed exchange rates between the US dollar and the other leading currencies is out of reach in such a constellation. Even if the neoliberal credo has lost support, it still has a stronger influence than any other political attitude. The majority of economists may agree with Dan Rodrik when he states in his newest book 'The Globalization Paradox': „Democracy and national determination should trump hyperglobalization. Democracies have the right to protect their social arrangements, and when this right clashes with the requirements of the global economy, it is the latter that should give way" [33, p. 19]. Indeed, some small steps with the purpose of increasing policy space have been taken in the last years. But are they strong enough? Do they really enlarge the room for maneuver of the national governments sufficiently? From this point of view the most important measures have been: 1) the G20 initiatives to reduce the global economic imbalances; and 2) the introduction of controls of capital movements, i.e. the management of the financial account by an increasing number of emerging economies.

Ad 1) As for the first aspect, the G20 has started some initiatives during and after the financial and economic crisis. But the question is, if the measures which have been taken are sufficient. At their meeting which took place in April 2011 in Washington the finance ministers and central bank governors of the world's most important economies decided to establish a "mutual assessment process to promote external sustainability". The communiqué continues: "we agreed on a set of indicative guidelines that complete the first step of our work to address persistently large imbalances. We now launch the second step of this process with an in-depth assessment of the nature of these imbalances and the root causes of impediments to adjustment. Based on this analysis, the IMF assessment on progress toward external sustainability, as well as the other aspects of our mutual assessment process, we will ascertain for our next meeting the corrective and preventive measures that will form the 2011 action plan to ensure Strong, Sustainable and Balanced Growth, to be discussed by Leaders at the Cannes Summit" [13].

The explicit goal of the G20 initiative is the reduction of excessive global economic imbalances. G20 agreed upon 'indicative guidelines for assessing persistently large imbalances' that should allow determining which countries should receive special scrutiny by the International Monetary Fund. In the first stage of the two-step process indicators concerning a) public debt/private savings rate and debt and b) the external imbalance as well as reference values are developed. The indicators will be assessed against each of these guidelines. Subsequently those countries with persistently large imbalances "will be assessed in-depth to determine in a second step the nature and root causes of their imbalances and to identify impediments to adjustment" [13].

Even if G20 shows to be willing to take steps against the global economic imbalances there is no enforcement mechanism which would ensure that countries act in accordance with the recommendations. The main problem is, as it seems, not the intention to address persistently large imbalances, but the substantive actions taken by G20 to meet that goal. We cannot speak neither of real measures which would allow for the coordination of macroeconomic policies, nor of any kind of enforcement, if the countries act according to their national ideas and advantages. G20 does not have any effective instruments to induce an alignment of the real exchange rates. Especially surplus countries such as China, Japan and Germany are in a position which allows them to resist G20's recommendations and to follow their own priorities instead.

Ad 2) The management of the financial account as an instrument to limit capital inflows and currency appreciation and increase policy space has been used or newly introduced inter alia by China, India, Malaysia, the Philippines, Saudi Arabia, and Brazil. The latter, for example, established a 2% tax on capital inflows to equity and bond markets in October 2009. Iceland has set up the control of capital movements in order to limit capital outflows. The IMF, too, seems to be reconsidering its policy concerning capital controls. Two IMF studies published recently [25; 17] indicate clearly a change of strategy. The reports show that debt can contribute to crisis vulnerability and that capital controls can help to avoid financial fragility. The management of the financial account may be used in order to limit the appreciation of the exchange rate and crisis vulnerability due to excessive or risky forms of foreign borrowing.

But again we have to ask the question, if these considerations are sufficient. The IMF is taking into account the management of capital flows mainly as an instrument of crisis prevention, but not as a permanent feature of the international monetary and financial system. The IMF statements are still far away from the insights which had illuminated Keynes when he wrote in preparation of the

Bretton Woods treaty: "There is no country which can, in future, safely allow the flight of funds for political reasons or to evade domestic taxation or in anticipation of the owner turning refugee. Equally, there is no country that can safely receive fugitive funds, which constitute an unwanted import of capital, yet cannot safely be used for fixed investment. ... For these reasons it is widely held that control of capital movements, both inward and outward, should be a permanent feature of the post-war system" [21, p. 185]. If we consider the recent IMF statements, we have to recognize that there is still a long way to go to recognize that the management of the financial account is a necessary instrument in order to facilitate and to strengthen national sovereignty.

Controls of capital movements may increase national sovereignty on the global scale. At the same time it is difficult to imagine that similar measures could be applied in the context of the European Union. Even if the European problems have their roots in economic imbalances, too, another kind of approach seems to be required. The political dimension, the conditions of the Common Market and of the Single Currency are unique in the world. Strengthening of the political dimension of the European Union may be the only way out of the current crisis. The loss of competitiveness of countries like Greece, Portugal and Spain, the overvaluation of their real exchange rates and their dependency on foreign credits should be overcome not by committing European integration to the (imaginary) self-regulating capacities of the market mechanism, but by reinforcing the political and social processes which could support cohesion between the populations of different countries. The introduction of Eurozone bonds, the creation of a fiscal union (at least partially) as well as the effective coordination of wage (and income) policies and the establishment of a Eurozone treasury secretary could open the path in the direction of a more symmetrical European Union. That may be the only alternative to a default of one (or more) of the deficit countries, which would necessitate large fiscal transfers from the creditor countries and – as the consequence – a partial loss of their fiscal sovereignty in favor of the creditor countries.

What can we learn? What does this mean for our understanding of the nature of the global economic imbalances? What conclusions can we draw?

1. Today, as in earlier periods of capitalism, the society cannot be based on economic rationality alone. The conflict between capitalism and democracy is one of the underlying driving forces which shape the global economic world.

2. Whatever the starting points of the next crisis may be – if a bubble in stocks, in raw materials, in credit and asset prices of emerging market economies (as the Bank of International Settlements suggested in the Annual Report) [1], or even in farmland (as Robert Shiller predicted recently) [35] – the conflict between capitalism and democracy will be a crucial dimension of any imaginable scenario. The 2008/09 crisis has demonstrated clearly that the stability of the financial system depends on state guarantees, i.e. not only on the capacity, but also on the willingness of states to take over the debts which parts of the financial system have accumulated. It depends on the readiness of governments to take over the burden when the bubbles explode. But why the population should agree to socialize an ever increasing debt burden? Why the 'Main Street' should shoulder the debts which 'Wall Street' has accumulated? Why should the parliaments agree to take over the losses which some speculators have produced at the expense of the tax payers?

3. Today the danger of a new clash between capitalism and democracy is closer and more threatening than ever before in the last fifty years.

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Chapter 6
GLOBAL IMBALANCES BEFORE AND AFTER THE GLOBAL CRISIS

External imbalances are a crucial issue in international economics and a powerful driver of changes in economic history. Under the gold standard, trade balance adjustments were typically very slow and costly for deficit countries, which triggered a search for a better international monetary system. During the interwar period, growing imbalances ended in dismantling of international free trade and monetary arrangements, adding to geopolitical tensions in the run-up to the Second World War. In the early 1970s, tensions over external imbalances caused fundamental overhaul of the international monetary system, marking the end of the Bretton Woods system. In the 1980s, the widening of current account positions led to intensive international coordination with concrete policy commitments under the G5/G7 Plaza (1985) and Louvre (1987) agreements focusing on exchange rates.

In the 1990s, external imbalances in emerging economies were a key source of concern, with a series of financial crises sweeping across nearly all large emerging economies. Today, the world again faces large external imbalances. Aggregate current account positions as a share of global output are twice as large as in the mid-1980s. Gross foreign asset positions have increased fourfold since this period, while *net* foreign asset positions have increased threefold. Reserve accumulation has reached a never-seen pace in the past decade, a seeming paradox in a world of increasingly freely floating exchange rates. The fundamental operation of the international monetary system is again under discussion, and the strategic role of the IMF within that system is being debated.

Current external imbalances have appeared in a fundamentally new economic landscape with three key features. First, the global economy includes new players that were once at the periphery of global trade and financial flows. Ten years ago, international economics was not truly international. It was limited largely to a tripolar world consisting of the United States, Europe and Japan. Emerging markets were largely peripheral areas of production and in some cases exotic niches for financial investors. Economic liberalization and the post-cold war political transformation process have removed borders between the center and the periphery. Falling transportation costs, the growing use of information technologies and the deepening of financial markets integration have reduced spatial and temporal distances. The slicing up of production chains has allowed emerging economies to specialize in specific parts of the value-added chain.

Second, intensification of financial links has altered the character of globalization. Ten years ago, international financial flows, at least in the emerging world, were largely the counterpart of trade flows. Today, financial globalization has prompted the strong increase in gross financial flows. Gross international asset positions rose above global GDP in the early 2000s and are now around 1.3 times as large. This surge in international portfolios was made possible by a strong rise in overall financial wealth, coupled with a secular decline in investors' home bias and accelerated by financial innovation.

Third, the growing imbalances occurred at a stage of improving macroeconomic and financial conditions, with record high economic growth and record low financial market volatility. Ten years ago, the global macroeconomic environment was still surrounded by considerable uncertainty. High business cycle volatility, financial crises in emerging markets (Asia, Russia, Brazil, Turkey), instability in pockets of the developed industrial financial markets (Long-Term Capital Management) and concerns about inflation still plagued the global economy. From 2004 to at least until early 2007 the global macroeconomic environment looked very stable, with global economic growth around 5 % per annum over the period 2004-07. Business cycle volatility decreased, at least among the industrial countries. Inflation was tame in spite of the strong growth environment. Financial market volatility and risk aversion were at record lows. Having said that, a number of market corrections (for example in May 2006 and February 2007) as well as the financial market turmoil that started in August 2007 signalled that markets considered some repricing of risk necessary. Still, emerging markets appeared to have been more resilient to financial turmoil in the mid-2000s than a decade earlier.

The emergence of new players, the deepening of financial globalization and the stable macroeconomic environment complicate the assessment of imbalances. Large imbalances could be seen as an equilibrium, market-driven outcome in a world operating under a new paradigm.

The deep understanding and close monitoring of global imbalances are important for two reasons. First, large and protracted external imbalances can be linked to *distortions* in economic decision-making, especially to the extent that such imbalances deviate from the levels at which they would be in a world with full price flexibility and perfect competition. Such deviations may be caused by public policies or private sector decisions. One example could be the unprecedented pace of reserve accumulation – an anachronism in an era with a never-seen share of currencies with floating exchange rate and central banks targeting inflation – which may create distortions in asset prices.

Excessively easy global liquidity conditions may fuel unwarranted risk taking and lead to bubbles in global asset markets. Exchange rate pegging on the part of some emerging economies with large imbalances may lead to sustained deviations from equilibrium. These policy choices may have an impact on private sector decisions and on financial market prices, including on the returns on assets held by reserve accumulators.

Second, external imbalances entail *risks*, both under a scenario of unwinding (disruptive macroeconomic developments) and under a scenario of further increasing imbalances (protectionist pressures). An unwinding is likely to affect all areas of the global economy, given the unprecedented scale and unique geographical reach of the imbalances. The large stock of international financial portfolios increases the potential fall-out from large asset price changes. Financial transmission channels have become very important, as illustrated in February 2007, when a shock in a "remote" segment of the global financial markets (Shanghai's stock market) propagated to the entire spectrum of global financial markets, or in July-August 2007, when tensions in a specific sub-segment of the US financial markets (mortgage loans) triggered a generalized re-pricing of risk across nearly all asset classes.

But risks may also appear if the external imbalances remain at current level. For instance, the persistence of imbalances may have induced markets to take a complacent view of these imbalances and to take excessively risky investment positions. Also, the existence of imbalanced trade flows intensifies calls for protectionist responses.

At the outset, it would seem that one can define global imbalances simply as "widening current account deficits or surpluses". This notion seemed to underpin the early work on global imbalances, in particular in the late 1990s and early 2000s, when the academic and policy community focused mainly on understanding the drivers and sustainability of the US current account deficit. While such a definition would be convenient, the focus on current account deficits or surpluses does not fully conclude on the phenomenon of global imbalances. In particular, it misses out the important financial dimension of imbalances, as captured for instance by gross and net international capital flows and the build-up of international investment positions. Also, a focus on widening deficits or surpluses is not helpful in assessing whether trends are "unbalanced" or "balanced". The concept of imbalances suggests that positions are not in line with their long run equilibrium value. Therefore, a definition of imbalances should arguably contain some element to assess the "unbalanced" versus "balanced" nature of the external positions.

With these considerations in mind, we define global imbalances as: *External positions of systemically important economies that reflect distortions or entail risks for the global economy.*

The definition includes several elements:

- "External positions": this refers not only to current account balances but also to financial positions. It is crucial in sense of financial globalization, which implies that the financial dimension is more than the current account dimension with an inverted sign.
- "Systemically important economies": these are economies whose macroeconomic and financial developments may have a significant impact on the global economy. While the concept of systemic importance is not fully unambiguous, it is useful because it contains the notion that economies participate in global goods and financial markets, and that may have a global impact either because of their size or because of other factors (e.g. important financial centres, key regional players).
- "Reflect distortions": the build-up of external positions may (partly) reflect distortions, i.e. deviations from the equilibrium that would prevail in an environment of full price flexibility and perfect competition. The distortions can be introduced by economic policies, for instance fixed exchange rate policies, structural policies (e.g. lack of economic flexibility), or macroeconomic policies (e.g. public saving policy-induced distortions in private saving decisions or the influence of cartels on oil prices).
- "Entail risks for the global economy": the existence of external positions may pose risks for the global economy, both under a scenario of unwinding (risk of disorderly unfolding with disruptions to macroeconomic and financial stability) and a scenario of further increasing imbalances (risk of a protectionist backlash). The reference to distortions and risks captures the extent to which external positions are unbalanced, as opposed to

balanced. These two notions are particularly helpful from a policy viewpoint [9].

Since the outbreak of the world financial crisis, the phenomenon of global imbalances (the coexistence of large current account deficits and surpluses in the global economy) has become the core issue in the debates on the international economic outlook. Academic and policy scholars have pondered the nature of the imbalances and have offered contrasting views about their role in the inception of the crisis, their potential threat to future global economic stability, and the policy measures that should be taken towards what has been termed the "rebalancing" of the global economy.

Global imbalances are not a new phenomenon. In fact, the 1980s witnessed a situation qualitatively similar to that observed in recent years, characterized by large U.S. current account deficits that were persistently funded by other countries. There are two important differences, however. One is the magnitude: the U.S. deficits of the 1980s did not reach the scale of those observed more recently, and the episode was also briefer. The other is the geographic distribution: in recent years, the U.S. external deficits, as well as those of other advanced countries, have been funded primarily by emerging economies, unlike in the 1980s, when such funding came mostly from other rich countries (with Japan as the primary lender) [10; 18].

The global imbalances phenomenon has become the target of special attention since the middle of the current decade, because it reflects the whole set of problems which could not be explained by means of traditional economic theory. The problems we refer to appear as a structural break in international economic relationships at the beginning of the new millennium and can be described as follows: a) large and increasing deficits in the US current account balance; b) huge surpluses in the current account balances of China, Southern Asia and oil exporting countries; c) massive accumulation of reserves in the surplus countries, accompanied with resistance to appreciate their currencies; and d) massive capital inflows in the US economy and low world interest rates (Table 1).

Table 1 shows the evolution of the global trade balance since 1980. In 1980 the total sum of the global current account deficits rose to $173,200 mln, less than 1.5 % of the world GDP, whereas the addition of surpluses reached $115,000 mln, 0.98 % of the world GDP. Although during the nineties, absolute values of disequilibria increased, their relative values decreased. However, from the mid-nineties, the absolute and relative value of these disequilibria increased rapidly. In 2008, accumulated deficits rose to $1.6 bln (2.7 % the global GDP) and accumulated surpluses exceeded $1.8 bln (3 % the world GDP).

Table 1

Disequilibria in the current account balances, in billions of US dollars and % of world GDP

Year	Figure	–	+
1980	$	173.2	115.0
	%	1.48	0.98
1990	$	296.2	188.1
	%	1.30	0.82
1995	$	342.4	285.5
	%	1.16	0.96
2000	$	681.7	504.9
	%	2.12	1.57
2008	$	1641.0	1832.6
	%	2.69	3.00

Notes: source [3, p. 27].

Global imbalances are commonly presented as a generalized phenomenon of a global scale, where a large number of (developed) countries with deficits in their current account balances (surpluses in their financial account balances) have to confront with a large number of (developing) countries with current account surpluses (financial account deficits) [3].

In other words, recent global imbalances involve a flow of capital from poor countries to rich countries, against the prediction of conventional economic theory that developing countries should be net capital importers. These distinguishing features of the global imbalances of recent years raise the presumption that the factors behind them are likely different than those at play in the 1980s. Understanding such factors is important to assess how global imbalances may evolve after the global crisis.

In spite of their recent rise to prominence in the debate on the roots of the crisis, global imbalances are hardly a new feature of the world economy. The U.S. current account deficit grew virtually without interruption since the mid-1990s, to exceed 1 % of world GDP after 1999. It peaked in 2005 and 2006 at over 1.5 % of world GDP. Thereafter, the U.S. external deficit declined, to about 1.2 % of world GDP in 2008. The world economy is obviously a closed system, and the deficits of some countries have to be matched by the surpluses of others. During the late 1990s, the counterparts to the U.S. deficits were the large surpluses of Japan and emerging Asian countries, excluding China, as well as the surplus of the EU during the years of the Asian crisis (1996–1997). After 2000, however, the situation changed dramatically. While the U.S. remained the country with the largest current account deficit relative to world GDP, the biggest surpluses were now those of China and oil-exporting countries. In fact, since 2005 China's surplus has exceeded the combined surpluses of Japan and the rest of emerging Asia, and during 2007–2008 the bilateral deficit with China accounted for an increasing fraction (around 40 %) of the U.S. overall current account deficit [1; 2; 18; 19].

The main issue with large current account deficits is obviously their sustainability, that is, whether they will be met by sufficient, timely and affordable inflows of foreign capital. In the case of the US for instance, it bears on the questions of (i) the size of the financial obligations that the deficit reflects, (ii) the availability of income payments and receipts that will eventually be paid out of the economy's production – with the risk of reducing current consumption and investment, and (iii) the confidence in creditor nations or in the low probability of sudden swings in the mood of foreign investors. Macroeconomists usually come to one of the following two opposite conclusions.

The first is that global imbalances represent an anomaly and a major threat to the stability of the global economy. They may either reflect domestic problems or distortions (lack of social insurance, poor firm governance or financial repression in surplus countries and excessive public borrowing in deficit countries); or problems with international monetary system and exchange rate regimes (large accumulation of reserves for self-insurance purposes). Or they may lead themselves to significant domestic problems such as capital flows volatility, especially when the exchange rate is fixed. Action should therefore be taken to cut the US external deficit and China's external surplus. Both countries should adjust their saving rates (an increase in the US and a decrease in China). If one assumes that there is an upper limit to growth in China, an increase in the growth of domestic demand must be associated with a decrease in the growth of foreign demand, even not in the exact same proportion. This would require a change in relative prices.

And second is that global imbalances may not be as threatening as they appear because they reflect a general trend in world economic history and the structural changes associated with globalization. In a way, they are just the logical outcome of a world that is characterized by the increased integration of real and financial markets. The low U.S. saving hypothesis should be seen therefore as unconvincing, not least because the national account data underestimates savings by excluding purchases of consumer durables and expenditure on education and research and development from the definition, and because the U.S. current account deficit started in the 1990s – precisely when the external account balance swung into surplus [15].

Since the current account surplus is identically equal to the difference between savings and investments, the trends in these two variables in different countries and regions provide some information about the sources of changes in their respective external imbalances. In the case of the United States, the most remarkable factor is the uninterrupted fall in saving after 1997, at an accelerating pace since 2006. As a result, in 2008 the saving rate reached its lowest level in two decades, a full seven percentage points below its value in 1990. This reflected both declining public saving – owing to expansionary fiscal policy – and falling private saving – facilitated by financial innovation and improved access to consumer credit. In turn, investment followed a cyclical pattern, with peaks in 1999 and 2006. The comparison of the trends in savings and investments reveals that since the end of the 1990s to 2003 the fall in savings was the principal cause of the increasing of external deficits of the U.S., while after that year the trends in the current account were dominated by those of investment rates – increasing until 2006 and decreasing later. The low saving of the United States stands in sharp contrast with the extremely high levels observed in China, where saving currently accounts for over half of GDP. Since 2000 both savings and investments rates rose in China, but the former did so more quickly. The result has been a major increase of China's current account surplus, which peaked at 10 % of GDP in 2007. Aside from the U.S., in other industrial countries saving and investment rates have undergone only relatively modest changes. In the EU, the slightly decreasing trend in saving over the last decade led to the gradual reduction, and eventually a reversal, of the area's current account surplus. In Japan, both saving and investment rates followed a downward trend over the 1990s, but they remained fairly stable in the last decade, during which the current account continued to show a modest surplus.

The trends in savings and investments in industrial countries stand in contrasts with those observed in Asian and oil-exporting countries. In both groups, savings followed an upward trend. In Asia this reflected rising saving in the region's emerging markets, while in oil-exporting countries the reason was the persistent rise in world oil prices. Rising savings led to the widening of current account surpluses in both groups of countries – especially among oil exporters, whose combined surplus exceeded 15 % of GDP in 2008 [7; 18].

The causes of global imbalances have attracted massive interest from academics and policy analysts. We can distinguish between two basic views.

First, the disequilibrium approach considers global imbalances an unsustainable phenomenon, whose impending correction must entail the U.S. current account adjustment and a major depreciation of the dollar. These could come in the form of a *sudden stop* of capital flows into the U.S. and collapse of the exchange rate.

Excluding the possibility of default and abstracting from capital gains and losses on external assets and liabilities, the intertemporal budget constraint of a country dictates that its net liability position against the rest of the world at any given time cannot exceed the present value of its future current account surpluses.

Whether the deficits reflect intertemporally-optimizing behaviour or, as argued by many observers, excessive private and public spending, the fact is that the U.S.'s net foreign asset position has undergone a steep decline. From a creditor position amounting to 10 % of its GDP at the beginning of the 1980s, it has turned into a debtor position that was approaching 25 % of GDP in 2009. In absolute terms, this is the biggest debtor position in the world. According to the disequilibrium approach, this is an unsustainable trend, and the country at some point needs to change the sign of its trade balance. This, in turn, entails a depreciation of the dollar to increase U.S. net exports.

The disequilibrium view dictates that the correction of the external imbalances demands a *real* adjustment – a reversal of the trade balance. But recent literature has underscored a potentially important role that *financial* adjustment can play. Such role arises because the change in the net foreign asset position of a country consists of (1) the trade balance and (2) the total return on net foreign assets, inclusive of changes in the prices of assets and liabilities. This means that the depreciation of the dollar has a double effect on the external asset position of the United States. On the one hand, it generates a real adjustment, through an improving trade account balance. On the other hand, it generates a financial adjustment through capital gains (losses for the rest of the world) [11; 18].

Second, the equilibrium approach takes a diametrically opposed perspective, according to which global imbalances represent an equilibrium situation that, absent changes in its deep determinants, can be self-sustaining. The equilibrium approach explains global imbalances as the result of structural factors and/or policies adopted by economic authorities in other countries that have led to a steady accumulation of assets on the U.S. by the rest of world. Absent changes in such structural factors and policy choices, global imbalances could persist. Although details vary in different versions of the equilibrium approach, one feature common to all of them is the emphasis on the capital account, in contrast with the emphasis placed on the current account by the disequilibrium approach.

Under this general perspective, it is necessary to distinguish between two main versions. The first one underscores international asymmetries in the supply of and/or demand for financial assets. Its key ingredient is the financial underdevelopment of emerging countries, which prevents them from generating financial instruments attractive for their savers – because the yields on local assets are too volatile, or because of the expropriation risks that they bear, as made clear by the recurring financial crises of the 1990s. The result is that international savers tilt their portfolios towards assets of countries with more advanced financial markets – the United States in particular. A growth acceleration in emerging countries (or an oil price boom) that increases their wealth and saving – the ultimate causes of the so called 'global saving glut' – leads them to expand their holdings of U.S. assets. The only way this can be achieved is through U.S. current account deficits that raise the volume of U.S. assets available to international investors. This process can persist as long as its driving force – the underdevelopment of financial markets in emerging countries – remains unchanged. As a result, capital flows 'uphill', from poor to rich countries.

A similar line of reasoning stresses international asymmetries in the demand for assets, rather than their supply. These may arise from the limited appropriability of the returns on emerging-market assets or, alternatively, from the shortcomings of the social protection system of these countries, which force individuals to save more for retirement or to protect themselves from the risk of unemployment. In either case, the result is that savers in emerging countries tend to save more than those in industrialized countries. In a context of international financial integration, this leads to a global equilibrium in which emerging countries acquire a creditor position, whereas advanced countries are net debtors. If the ultimate determinants of this equilibrium – the underdevelopment of financial markets, or the weakness of the social protection system, respectively – remain unaltered, global imbalances and uphill capital flows can persist indefinitely [4; 5; 12; 18].

The second version of the equilibrium approach emphasizes on the policy makers' choices as the main cause of the accumulation of external assets by emerging markets. Again there are two variants of this argument. One attributes foreign asset hoarding to the so-called "new mercantilist" development strategy: the attempt of a number of emerging markets – particularly in East Asia, with China among them – to pursue export-led growth. Such objective calls for an undervalued real exchange rate to preserve export competitiveness. The best way is to achieve this is by compressing domestic spending, particularly consumption, which inevitably leads to persistent current account surpluses and foreign reserve accumulation. This strategy defines the so-called 'Bretton Woods II' system, in which emerging Asian countries play the role of producers of last resort, and advanced countries – led by the United States– are the consumers of last resort whose current deficits are financed by capital inflows from Asia.

Another alternative of this argument justifies the accumulation of external assets as a precautionary policy. In the absence of mechanisms for international diversification of aggregate risk, emerging countries integrated in the global financial system need to resort to self-insurance against external shocks such as disruptions of international capital flows – of the kind observed in the crises of Asia and Russia in the 1990s. They accumulate external assets, preferably short-term instruments, from which they can draw in the event of a 'sudden stop'. Unless the global financial system generates new international diversification mechanisms, this precautionary foreign asset accumulation is unlikely to stop. The massive accumulation of international reserves of emerging economies during the last decade seems to confirm that the policy of deliberate hoarding has played an important role. Between 1998 and 2008, reserve holdings of the latter, measured at constant prices, increased fourfold, while those of industrial countries rose by only 50 percent. As a result, the volume of international reserves held by emerging markets at present greatly exceeds that of industrial countries. For example, at the end of 2008, China's foreign reserve stock was almost as large as that of all industrial countries combined. The rest of emerging Asia has also increased its reserve holdings dramatically. But the phenomenon is not confined to Asia; Latin American economies (with Chile at the top) and oil exporting countries have also accumulated large volumes of international reserves over the last decade.

Net purchases of U.S. assets by official entities (central banks and other government bodies) from emerging markets in Latin America, Asia and the Middle East have grown increasingly in 2000s. After the onset of the crisis in 2007, they became the sole source of inflows from these countries. However, over the decade as a whole the total volume of emerging-market official inflows to the U.S. was roughly on par with that of private inflows.

Thus, the significant role played by private capital in the total flows from emerging markets in the run up to the crisis also seems to lend some support to the first version of the equilibrium approach summarized earlier, which explains global imbalances primarily on the basis of asymmetries in the supply and/or investors' demand for international assets.

The role of global imbalances in the inception of the world crisis has been hotly debated. Some observers view the imbalances as one of the key causes of the crisis, and make their elimination an urgent priority to safeguard the stability of the world economy. Others think that the imbalances have played, if any, a secondary role, and that the roots of the crisis have to be found instead in the shortcomings of financial regulation, and possibly also in misguided macroeconomic policies in rich countries, both of which may have caused, in turn, widening of global imbalances [18].

The literature has identified a number of channels through which monetary policy might have contributed to the build-up in financial imbalances. Most of these are thought to have worked through policy rates that were kept low for too long. Loose monetary policy (a low short-term rate) may have (i) reduced the cost of wholesale funding for intermediaries, leading those intermediaries to build-up leverage; (ii) may more generally have caused banks to take more risks, including credit and liquidity risks; and (iii) may have increased the supply of and demand for credit (mortgages), causing asset (house) prices to rise.

Rising global imbalances are associated with a greater dispersion of current account positions across countries and larger net flows of capital between countries. At the level of an individual country, a current account deficit is matched by net capital inflows, as foreign investors build up claims on the domestic economy.

Supervision and regulation of the financial system is a key instrument to prevent crises, by controlling moral hazard and discouraging excessive risk-taking on the part of financial institutions. Inadequate supervision and regulation are therefore prime candidates to have caused the global financial crisis [14].

According to the first view, global imbalances helped to trigger the financial crisis because they put international financial intermediation under stress. On the one hand, the financing of large international imbalances forced financial institutions to intermediate huge masses of resources. On the other, the imbalances caused a decline in world interest rates, which encouraged credit growth and investors' 'search for yield'.

Under weak financial regulation, these two forces fuelled excessive risk-taking by financial intermediaries and asset bubbles, whose explosion triggered the global financial meltdown. Upon closer scrutiny, however, these arguments seem questionable. It is not obvious why the stresses on financial intermediation system should relate to *net* capital flows, which are the counterpart of current account deficits. It seems more logical to think that such pressures depend, if anything, on the volume of *gross* resources intermediated, which bears no systematic relation with net flows. In this regard, it is important to note that the order of magnitude of the U.S. current account deficit (around of 5-6 % of GDP at its peak) is very modest in relation to the size of its financial system, so that changes in the deficit of a few percentage points of GDP are very unlikely to have any material effect on the pressures that the financial system has to withstand.

The geography of the financial crisis is not supportive of this view either. Banks in surplus countries, such as Switzerland or Germany, were as well as U.S. banks involved into the creation of supposedly risk-free assets through concentration of risks. A more plausible story is that banks that engaged in such strategies – with the help of weak regulation – got into serious trouble, whatever the sign of the current account of the countries in which they were based. It is also unclear how global imbalances would have caused the decline in world interest rates. The persistent decline in real interest rates is very likely related to the 'global saving glut' underscored by Bernanke. But it is not obvious how it should relate to the increased *dispersion* of current account deficits across the world, which is what global imbalances are about. Thus, while low real interest rates offer a fertile ground for the formation of bubbles, it is not obvious that they would necessarily rise if global imbalances were somehow eliminated.

Some observers have also argued that the ability of deficit countries, notably the U.S., to finance large imbalances through foreign borrowing at low cost allowed them to postpone the correction of expansionary macroeconomic policies that likely helped fuel asset price bubbles. More importantly, the boom in asset prices contributed to widening of the external gap in deficit countries, by encouraging consumption as well as residential investment – with the help of financial innovations that allowed households to increase spending in the face of rising net worth.

The theory implies that large current account imbalances are not any problem themselves. Current account imbalances can reflect the optimal responses of economic agents to changes in, e.g., the anticipated profitability of investment. In reality, however, the experience of past crises has shown that large external imbalances often represent a major source of aggregate fragility. Economies with large current account deficits may be left at the mercy of swings in capital flows. Also, large external imbalances facilitate international contagion when their funding takes the form of volatile short-term capital.

On a global scale, the crisis led initially to an abrupt fall of international capital flows, and to the collapse of world trade and oil and commodity prices. The latter in turn caused a large reduction in the surplus of oil-exporting countries, which is estimated to have fallen from over 2 % of world GDP in 2008 to about 0.5 % in 2009. But in some important ways the impact of the crisis was very different than expected. Instead of the depreciation that many had predicted, the dollar experienced an initial appreciation, as a result of international investors' 'flight to safety' that led them to shelter in low-risk U.S. Treasury debt, at the expense of all risky assets – from corporate debt to emerging-market assets. The dollar became the reserve currency of last resort, and the government of the United States became the borrower of last resort. Paradoxically, the United States, undeniably the source of the crisis, turned out to be also investors' last refuge.

Global imbalances may well be restored after the crisis. To the extent that the deep determinants of the imbalances remain largely unchanged, the post-crisis configuration of current account deficits might not be very different from the pre-crisis situation. Several ingredients contribute to make this a likely scenario. First, from a global perspective, the crisis has underscored the effectiveness of the self-insurance strategy pursued by emerging markets, as countries that had amassed big volumes of external assets managed to weather the global storm better than the rest. In fact, this may encourage these and other countries to intensify their accumulation of foreign assets, especially given the fact that – even at the height of the turmoil – some emerging economies were reluctant to use up their vast reserves because they feared weakening the confidence of international investors. This in turn may prompt them to hold even larger stocks of liquid foreign assets in the future.

Second, in the same vein, barring deep – and, to date, unforeseen – reforms to speed up the development of emerging countries' financial markets, savers from those countries will very likely continue to demand large volumes of financial assets from more developed markets. Moreover, while international savers may increase their degree of diversification away from U.S. assets, a massive sell-off of dollar assets by large investors (such as China) is unlikely, as they would incur big capital losses on their asset holdings. These global factors imply that the "uphill" pattern of capital flows is likely to persist. In turn, from the U.S. perspective, a quick rebound of the economy from the crisis could lead the way to the recovery of world trade and commodity prices, and firm up the comeback of capital flows from emerging countries. Further, the record-high U.S. public deficits could well prevail over the rise in private saving prompted by the fall in asset prices and household net worth, halting (although perhaps not reversing) the decline of the current account deficit.

For small developing countries, this scenario would come close to 'business as usual', at least for some time. In a context of rapid recovery, Asian emerging countries could continue to pursue their export-led growth strategy based on currency undervaluation, fuelling further the return of global imbalances. However, one potentially important difference is that, in the post-crisis world, improved financial regulation, as well as enhanced investor awareness, will likely bring to an end the underpricing of risk that characterized the run up to the global financial crisis. This means that the cost of capital, especially for developing countries, is likely to be higher than it was in the pre-crisis world, so that the efficiency of investment will become a more pressing concern from the perspective of developing-country growth.

Though less likely, other forces might push to significantly narrow global imbalances. From an international perspective, the new mechanisms of international risk diversification (such as the contingent credit facility recently established by the IMF) might begin to reduce the incentives for self-insurance and stop the buildup of foreign reserve stocks in emerging economies. This in turn would bring a double benefit. It would relieve these economies from the need to hold low-yield short-term foreign assets and allow them to diversify their portfolio into more profitable investment opportunities. Moreover, for the global economy a reduction in developing-country reserve holdings would help limit the excess demand for safe assets that many observers place at the core of the crisis. It would also contain the buildup of global systemic risk arising from the 'fire sale' externality that liquidation of major-currency assets by countries in distress would impose on other countries.

A shift in portfolio diversification by international savers away from U.S. assets would also contribute to a narrowing of global imbalances. While such trend has been at play since the late 1990s, it could accelerate in the face of investors' renewed doubts about the future performance of the U.S. economy and the dollar, or if the recent turmoil in the U.S. financial system – which rendered worthless a great volume of assets – were to weaken the perceived appeal of U.S. assets. However, there is little indication that such accelerated shift is taking place. An early withdrawal of the fiscal stimuli by the economic authorities in the U.S. and other advanced countries would have similar consequences. Such course of action, however, could also delay the world recovery, and put in jeopardy the export-led growth strategy pursued by a number of emerging markets. Although China and other major emerging countries have so far weathered the crisis reasonably well, they did so in the context of aggressive fiscal stimuli in advanced countries. A reversal of the fiscal expansions in rich countries, and a longer-lasting global slump, would imply a further slowdown in global demand for developing country exports.

From the perspective of low-income countries, the increase in import demand from middle income economies could pick up some of the slack, and help them offset, at least in part, the slowdown in advanced economies' export demand. However, the export-led growth strategy pursued by a number of middle-income emerging countries, notably in East Asia, would come under stress in a context of reduced global demand [13; 16; 18].

One way out of this impasse would be for surplus emerging markets to rebalance their economies through an increased reliance on inward-looking growth. Such shift may have already started, as shown by the massive fiscal stimulus implemented by China in 2009, one of whose stated objectives was to ease the economy's dependence on world export market growth. In the short run, the stimulus has helped China maintain its high growth rate, but mounting concerns have arisen recently regarding the (in)efficiency of the expenditures involved, as well as their possible contribution to the emergence of asset bubbles. In general, an orderly rebalancing of emerging economies with strong external positions and sound macroeconomic frameworks would likely to involve an exchange rate appreciation upfront to reduce the accumulation of foreign assets and encourage domestic demand. Policy measures attacking entrenched distortions, such as those causing excessively high saving rates in both the household and corporate sectors, and those hampering financial development would help in this regard. The high saving rates of China and other emerging Asian countries do not just reflect frugality and hard-to-change cultural values – although these factors surely play a role. They are also partly attributable to the weak social protection system. In this respect, the strengthening of social safety nets under way in China and other emerging countries is likely to reduce their astronomical household's saving rates and increase their consumption. The process may take a considerable time, but it should eventually allow a substantial increase in domestic demand [6; 18].

Although global imbalances have diminished to some extent during the ongoing financial crisis, the phenomenon of high and persistent current account imbalances will stay since the structural reasons behind them have mostly not been resolved. In East-Asian countries like China financial markets will remain underdeveloped and precautionary saving will continue to play an important role in the medium term and may reinforce the 'saving glut'.

Oil exporting countries are likely to be net savers in the foreseeable future as well. Conversely, in countries that have run large current account deficits so far, structural reasons such as relatively favourable demographic trends or particularly flexible and dynamic economy may remain relevant. In addition, unsustainably high levels of domestic absorption in some countries may be supported to some extent by governments running large fiscal deficits for an extended period of time [8].

All in all, government policy should probably not try to focus on the external balance of a country or on global imbalances in general as net exports and associated changes in net foreign assets can be seen as the natural outcome of individual agents' economic decisions with which governments should only carefully interfere. However, high and persistent current account imbalances may indicate structural problems in an economy which should be approached in the interest of the economy. For example, in the case of China the extremely high level of the household savings ratio which is behind the high current account surplus suggests that there may be policy options available which increase the welfare in the Chinese economy and at the same time work in the direction of more balanced external accounts. In particular, improvement of social security systems could decrease the need for private savings and provide a rather quick alignment of current accounts. However generally, emerging market economies need investment to build up a suitable capital stock.

Thus, a more important step is the improvement of financial institutions in emerging markets. The inability of emerging markets financial systems to provide suitable assets and thereby to intermediate savings and investments on a national level increased the demand for assets denominated in dollars contributing to the phenomenon that we got used to call "savings glut". Building a more developed and integrated financial system in emerging economies could change the situation.

Probably even more important is the regulation of financial markets on a global scale and in particular in countries with highly developed financial markets where it is necessary to reduce the probability of re-occurrence of asset price bubbles. Apparently financial institutions took on too much risk. Some of the underlying faults that led to financial crises also supported global imbalances to rise. Therefore an institutional framework that stabilizes financial markets at a global level could be the cornerstone in preventing unsustainable global imbalances as well as global financial crises in the future. Reasonable steps towards a better regulation of financial markets are a ban of off-balance-sheet liabilities, implementation of a new structure in the field of rating agencies in order to prevent moral hazard, or introduction of a compensation scheme for bank managers orientated at sustainable developments, among others.

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Part II

MAIN CONSEQUENCES OF THE GLOBAL CRISIS

Chapter 7
INTERNATIONAL CAPITAL FLOWS UNDER POST-CRISIS GLOBAL REBALANCING

Since financial crisis of 2008-2009 the global economy and financial markets are still on the way of restoring economic and financial balances, overcoming slow pace of recovery in developed economies and recreating conditions for sustainable growth. Post-crisis picture looks like a complex interaction of the double- or multi speed recovery, global imbalances, sovereign debt and budget crises, commodities and asset price volatility, and structural changes of international capital flows. Post-crisis period shows changing patterns of financial globalization, capital flow redirection, international contagion implications, mixed trends on commodity and financial markets, and contradictory prospects of financial stabilization.

Changing structure of the international capital flows makes the link between international capital flows and post-crisis rebalancing important. Restoring and adjustments of global balances are playing a systematic role in the achieving more sustainable economic growth and financial stability. We aim to estimate current factors and trends in international capital flows and their influence on the post-crisis rebalancing. We pay particular attention to studying structural changes in the international capital flows to transitional economies, specifically to Ukraine as a country among the most affected by crisis in Central and Eastern Europe.

We base our research methodology on the application of international macro- and microeconomic approaches in line with structural comparative analysis. The focus is on factors and structural changes in international capital flows with respect of their implications on the global re-balancing.

The neoclassical approach explains the international capital flows as motivated by the difference of the interest rates on capital between countries. But such factor could be considered under relative homogeneity of capital flows and similar risk of the capital placement in different countries. At the same time capital interest determinants could be assessed based on the sum of an interest on the so called "risk free" assets (typically interest on the government bonds) and risk premium. But application of the neoclassical approach is not enough for explanation of the factors and structure of the cross-country and cross-sector capital flows in the modern global financial system under its imbalances, instability and structural changes.

Neokeynesian theory looks at the country's balance of payments misbalance as a factor of the international capital flows. On the other side, capital inflows influence a country's external balancing. Capital import impacts the economic growth with increasing overall investment, production and consumption.

Modern research literature takes interest in a complex nature of factors, structure and impact of international capital flows. Scholars note that the economic factors like marginal profitability of investing capital abroad or deficit of domestic investment may not be judged as a comprehensive explanation of cross-border capital flows. Some research focuses on the inter-relation of various factors of capital flows as well as mixed impact of capital inflows and outflows. Among known hypotheses are "Lukas Paradox" noted that high profitability of foreign capital in developing countries featured along with relatively low capital inflow to them is due to the recipients' countries' institutional weakness [13]. Another proposition is "Trilemma" argued by Obstfeld and Taylor and focused on contradictory co-relations between exchange rates regimes, capital flows and monetary policy [14, 15]. Capital flows reversals during crises have been named as "sudden stop" – unexpected switch from external capital inflows to their outflows [5; 6].

A focus in the noted research approaches is on the systemic causes of the structural changes in international capital flows and their global implications.

Capital flows, exchange rates, financial assets value and monetary policy remain the key drivers of the international financial markets. The last global crisis has shown that international financial markets fluctuations were interrelated with changes in cross-border capital movements.

International capital flows are forcing financial integration and globalization. But they were threatened by global imbalances during last two decades.

Global imbalances are often considered as the opposite current account balances of different countries: 1) permanent current account negative balance in USA and developed Europe and positive balance in oil-exporting and export-led emerging economies; 2) related concentration of foreign exchanges reserves in emerging economies [1]. Current account imbalances reflect trade surpluses and deficits, but they are influenced by de-facto fixed exchange rates in many export-oriented countries. Such interpretation of global imbalances focuses on the fact that export-led countries accumulate excessive foreign currency stocks and their currencies exchange rates are not market driven, they are undervalued and accumulate revaluation potential. Imbalances, foreign reserves and financial assets accumulation in such countries lead to growing capital outflows from oil-exporting and emerging economies.

Balance of payments approach to exchange rates states that negative current account will determine limited supply and an excessive demand for foreign currency; such imbalance will make devaluation pressure on the domestic currency. Such devaluation pressure may be offset by positive capital account such as foreign direct and financial investment net inflow.

Current account deficits in the USA and other industrialized countries stimulate capital inflows in order to keep external and monetary balance. Thus US and many other developed countries are net importers of capital.

US dollar position as a leading currency for global trade and financial markets enforce the holders of dollar assets to invest the American economy. A large part of the emerging economies' official reserves are denominated in US dollars, they are invested into US government securities and other assets, and constitute a capital inflow to the US. Growth of sovereign wealth funds (SWF) – government-sponsored investment institutions accumulating governmental financial liquidity in oil-exporting and Asian emerging economies – plays the same role – to redirect the excessive financial liquidity into assets in developed countries. Excessive liquidity stimulates capital outflow and investing into US securities, Eurobonds, internationally quoted shares and other liquid financial assets.

External financial imbalances in many countries emerged due to the substantial changes of financial asset and liabilitiy value during financial crisis, which lead to re-composition of the countries' international investment position. Another dimension of external financial imbalances was rapid accumulation of the government and corporate external debt during the crisis. It was primarily due to emergency spending by the governments on the financial and banking systems bailing-out, financial institutions lending for restoring liquidity, acquisition of bank shares by the governments.

Fiscal imbalances and budget deficits in many developed and transitional economies have resulted out of opposite causes – drop down in budget revenues during the crisis and government's extra expenditures for managing crisis impact. External borrowing for financing budget deficit were widely used, which increased sovereign debt in many countries.

Therefore global, external financial and fiscal imbalance accumulation during the crisis as well as post-crisis rebalancing are related to the international capital flows.

International capital flows have various components such as foreign direct investments, portfolio investments and other investments. Each of them has specific factors and trends. But some common, systemic factors and features are becoming more obvious during last decades due to market liberalization, cross-border liquidity movements, financial integration, hybrid financial instruments and innovations. For example, traditionally cross-border mergers and acquisitions (M&A) statistically are reported as a form of foreign direct investments (FDI). In fact a cross-border M&A financially could be structured as a direct cash purchase of a foreign company, international bank loan for a foreign corporate shares purchase, cross-border shares swap, pledging shares to a specially created international holding company in a third country and others.

Structure of capital flows becomes more flexible, while financial infrastructure allows better conditions for financial liquidity. Major international financial markets are increasingly integrated and interdependent.

Therefore the cross-border capital movement structure is characterized not only with concentration, internationalization, competition, but with systemic features such as integration, volatility, co-movements and substitution of different types of international financial flows.

A complex structure, systemic features and implications of international capital flows require to use not only traditional profit-measured and institutional approaches, but to apply a multifactor analysis – to identify major factors of international financial flows, their structure and trends, contradictory implications of capital inflows and outflows.

International capital flows have various factors, risks and implications. It means that cross-border capital flows as well as financial market trends result out of combination of different factors:

1) global factors;
2) international contagion;
3) domestic factors;
4) internal volatility of capital flows.

The first group of factors (the global ones) constitute global economic and financial environment, international financial liquidity, interest rates and risks.

Post-crisis global economic environment is characterized with the pace and stability of economic recovery. Restoring the pre-crisis levels of the economy and growth rates is most important for financial market stability. The economic growth determines demand of countries for external financing and capital inflows, which influences post-crisis re-balancing.

International organizations and researchers consider dual-speed or multi-speed economic recovery as post-crisis phenomena [7]. Advanced economies have low or moderate growth rates along with excessive sovereign debt and large unemployment, which could be considered as "weak" or "fragile" recovery. While emerging economies demonstrate much higher growth rates, increasing official reserves and financial assets, some of them face "overheating", elevated inflation and banking system problems.

Economic growth differences affect capital flows re-direction in two major aspects – steady inflows to emerging markets and increasing outflows from them.

Global financial liquidity composition and value is another factor of cross-border capital flows. The current trend is a relocation of financial liquidity from global financial centers to emerging economies. The last are becoming an important source of capital outflow directed both to developed and developing economies. International liquidity volume and structure, stock exchange indices, financial asset value, exchange rate composition of financial assets are changing permanently in response to global and national factors. They influence financial market volatility and investors' preferences, provoke large-scale speculative movement of money in various segments of financial markets and countries. They especially affect export-led and emerging economies that are sensitive to the changing conditions of global markets.

Table 1

Major international benchmark conditions of external financing for Ukraine, 2003-2010

	01.2007	02.2008	02.2009	03.2010
LIBOR	5.4%	2.38%	0.99 %	0.87 %
EMBI+ Ukraine	122	2024	1005	468
Sovereign rating FITCH	BB-/Positive (25.10.2006 – 14.05.2008)	BB- /Negative (25.09.2008)	B-/Negative (12.11.2009)	B-/Stable (17.03.2010)
UAH/USD	5.05	7.56	7.98	7.92

Note: Source – National Bank of Ukraine, Fitch Ratings, IMF Data and Statistics.

In case of Ukraine the situation before the crisis looks as a combination of high benchmark rates on international financial markets (such as LIBOR) and improving sovereign rating trend resulting in positive market perceptions, relatively low spreads and favorable conditions for attracting external financing.

But after the crisis the combination of external and domestic factors has changed – low LIBOR and stable investment grade sovereign rating were accompanied with higher market risk expectations, tightening lending conditions and therefore higher than the pre-crisis interest rates for Ukrainian borrowers.

Differences of interest rates on the national markets remain an important factor of cross-border financial inflows. Interest rates and currency risk are taken into account for medium-term cross-border interbank loans, private flows such as bonds and lending facilities for financial and non-financial corporations. Post-crisis changes in interest rates reflect a controversial picture in different countries.

Table 2

Pre-crisis and post-crisis lending conditions of domestic banks for typical borrowers in selected countries, weighed average interest rates in national currency, 2006-2009

	2006	2007	2008	2009
USA	7,96	8,05	5,09	3,25
Canada	5,81	6,10	4,73	2,40
UK	4,65	5,52	4,63	1,63
Italy	5,62	6,33	6,84	4,76
India	11,19	13,02	13,31	12,19
China	6,12	7,47	5,31	5,31
Russia	10,43	10,03	12,23	15,31
Ukraine	15,47	13,90	17,49	20,86

Note: Source – World Bank statistical database // Electronic source: http://data.worldbank.org/indicator/FR.INR.LEND

As it appears from the data, post-crisis interest rates have fallen substantially in developed countries, for example in the USA, UK, Canada and Italy as a result of central banks' monetary policy and historically low refinancing rates. It would improve lending conditions for economic recovery and financial institutions' liquidity. But in many emerging economies when central banks lowered refinancing rates, it did not effect lending rates. Examples of India, Russia and Ukraine show post-crisis increase of interest rates which reflect remaining risks in these countries, resulting from the large fall in GDP during the crisis, domestic currency volatility, institutional weakness and structural problems. Higher interest rates in many emerging and developing economies had a negative effect but were accompanied with higher rates of economic growth.

Interest rates are driven by national financial market macroeconomic and monetary conditions, rate differential influence on the cross-border private flows with respect to the global and national market risks.

Global risks influence the international commodity and financial market conditions and volatility. The impact of global risks on the international financial flows depends on the financial institutions' capability to hedge or to offset risk using risk-taking and risk-mitigating financial innovations.

Rapid spread of the innovations since early 2000s has encouraged financial institution risk appetite, large increase of risky domestic and cross-border lending, leads to asset price boom in developed countries, has provoked global credit crunch and financial crisis in 2008. One of such instruments – credit default swaps (CDS) – provides lenders with insurance protection for the debt outstanding repayment in case of the borrowers' default.

Table 3

Credit Default Swaps (CDS): outstanding amounts on the international financial markets, billions of US Dollars

	06.2005	06.2006	06.2007	06.2008	06.2009	06.2010
CDS outstanding	10211	20352	42580	57403	36046	30261

Note: Sources – BIS Quarterly Review. December 2007. – BIS, Basel 2007. A103; BIS Quarterly Review. December 2010. - BIS, Basel 2010. A121.

As to BIS data, CDS volumes had increased dramatically before the global financial crisis and reached an amount of $57 trln in 2008 slightly below the global GDP value. The CDS increase did allow international banks to hedge a larger volume of credit risk and therefore to ease credit conditions. It fed the credit boom and asset price bubble in 2002-2007 which were important causes of the global financial crisis. After the crisis the CDS volumes decreased almost twice, which became a factor of tightening international credit conditions.

Such situation helped to re-balance demand and supply of credit internationally as well as to impose stronger controls for effective allocation of financial liquidity. But at the same time it limited access to external borrowing for post-crisis recovery and modernization, especially of transitional economies such as Ukraine.

Contagion covers the second group of factors of global crisis, post-crisis sovereign debt crisis and post-crisis rebalancing. Contagion nature could be explained as result of international financial links and financial integration. Capital flows and global financial integration push up international financial links in various forms – accumulated FDI, cross-border holdings of financial assets, international bank claims, flows between global financial centers, global payment systems, international financial exchanges etc.

Integration and financial linkages led to growing interconnectedness and interdependence of financial markets and institutions, which, in turn, makes it possible to generate contagion effect while some national markets are getting into high volatility or crisis.

The effect of contagion is mostly obvious in the times of crises, but the nature of contagion has a broad interpretation in research. Sometimes the term "contagion" is used as a synonym to other term – "spillover" – meaning spread of some market signals, products, innovations, and technologies across national borders.

Contagion could be considered as a specific mechanism of cross-border transposition of the national or international financial market trends, fluctuations, risks, change in financial asset value and exchange rates to other national financial markets or other segments of international financial markets. For example, in case of large unexpected value change (beyond the normal market volatility) of internationally quoted shares or bonds this will affect not only their issuer, but also owners, holders and traders in other countries, and international exchanges.

The extent and effect of contagion are driven by the international financial links, financial integration, international investment position of a country, location and foreign financial market exposure, external debt, and servicing capacity.

Domestic factors constitute the third group influencing international capital flows. They represent macro- and micro economic fundamentals such as growth rates, inflation, exchange rates regime and volatility, fiscal and monetary balances, current account of BOP, country investment climate, and access to finance.

Internal volatility of capital flows represents the fourth group of factors influencing on structure and dynamics of international capital flows. Internal volatility includes factors, which could be considered as systemic causes of changes in capital flows arising out of the structure of capital flows. Major factors of this group are: capital inflow and outflow asymmetry, net balance of capital flow, balance of payment capital account structure, external financial shocks, "sudden stop" of capital inflow.

International capital flows have played a significant role in origination of pre-crisis imbalances, injection and spillover of global financial crisis of 2008-2009.

Global financial crisis originated out of a set of economic and financial asymmetries, excessive market risk-taking and accumulated financial imbalances. Major of them include:

- credit boom in major developed countries in 2003-2006 and related increase of the international bank claims;
- boom in the major financial and real estate markets;
- rapid increase of structured financial products based on securitization and their cross-country holdings;
- financial and credit risk hedge instruments increase, which softened lending conditions;
- international risk accumulation with cross-country holdings of structured financial instruments.

Schematically the 2008–2009 global financial crisis could be explained as interaction of current account, trade, financial and fiscal imbalances, thus the crisis leads a way to adjust the balances:

- excessive growth of liquidity, financial and credit boom: money and credit expansion, asset value growth, consumption growth;
- overheating and imbalances in economy and financial sector;
- financial correction – asset value and share prices drop, currency devaluation, loosing market confidence, loosing liquidity, bankruptcy;
- financial crisis impact on economy – borrowers' defaults – less credit supply – slowdown – recession.

Cross-country spillovers have channelled global crisis impact on the national economies and financial systems via generating external shocks through foreign trade and financial channels. External shocks, contradictory movements of asset and commodity prices have added to the global imbalances and volatility. All the aforementioned have influenced structural changes in international financial markets and capital flows.

Therefore global crisis spillovers and capital flows have been asymmetric and affected developed and emerging economies to a different extent.

Post-crisis global rebalancing should cover the easing the following imbalances and bringing them to fundamentals:

- current account imbalances in order to keep foreign reserves and exchange rates at the optimum levels and to avoid excessive over- or undervaluation of major currencies;
- financial imbalances to downsize external governmental debt in developed countries and reserve accumulation in export-led economies;
- fiscal imbalances to minimize budget deficit to GDP ratio in developed countries, which has increased as a result of extra government spending during and after the crisis.

Current economic and financial trends reflect the specific post-crisis economic and financial asymmetries and imbalances such as:

- phenomenon of "two-speed" economic recovery as assessed by IMF – moderate economic growth in developed economies and much higher rates of growth in emerging and transitional economies, which leads to changes in structure and volatility of international markets and balance of economic and financial power;
- two-speed economic growth would lead to global economic shift, and during the current decade China potentially may overcome USA by GDP volume;
- alongside with the crisis the financial systems of the EU countries and USA have accumulated large external liabilities, while the emerging Asia is rapidly concentrating external assets and foreign exchange reserves;
- various economies could be able to reach pre-crisis levels of GDP at different time and conditions, for example Ukraine would reach the pre-crisis GDP in 2012;
- banking and financial systems in many countries have been stabilized during the crisis with governmental financial support, but in post-crisis times it leads to accumulation of budget deficits,

overlapping with large external debt in several European countries and the USA, which influences the US dollar and Euro instability;

- post-crisis recovery has demonstrated fragility of "catching-up" and "export-led" development models for transitional economies and have foreseen a need for shifting towards fast modernization and innovations;
- obsolete infrastructure in some developed and transitional economies may become the major challenge for their economic development in the future since its modernization may require large investment.

Post-crisis international rebalancing could be considered as a combination of market adjustments, regulatory measures and capital flows directed to easing the major accumulated imbalances and asymmetries:

- current account imbalances – negative in the USA and developed Europe and positive in emerging Asia;
- exchange rate asymmetries with respect to macroeconomic fundamentals and purchasing power parity, since some currencies are largely undervalued or overvalued;
- external assets and liabilitiy imbalances are asymmetric in different countries;
- fiscal and budget imbalances in major developed economies;
- excessive volatility in commodity and financial markets.

Pre-crisis, crisis and post-crisis global economic and financial imbalances are interrelated with structural changes in the international capital flows.

Before the crisis capital flows have influenced deeper integration and interdependence of global and national financial markets.

During the crisis such international interdependence and capital flows (including asset cross-listing and cross-holding, financial liquidity speculative movements) have brought about spillovers of crisis and external shocks.

After the crisis international capital flows influence post-crisis asymmetries and at the same time is playing significantly towards global rebalancing.

During and after the crisis capital flows were interconnected with the major external shocks which affected developed and emerging economies:

➢ combination of supply and demand shocks due to drop down of international trade in major commodities (steel, other metals, oil, etc.), quick shift from fast growth to decline and stagnation of prices for oil, steel, agricultural commodities, which generated large shifts in the flows of speculative commodity-linked capital on international financial markets;

➢ unexpected and substantial movements in exchange rates, which influence the terms of trade, value of international assets and liabilities, domestic market prices, international competitiveness, investment attractiveness, outflow and inflow of capital;

➢ decreasing market interest rates such as LIBOR as a result of the central bank coordinated policy for extremely low basic rates, increasing monetary liquidity and support for capital flows;

➢ large volatility of international financial market indices which causes deleveraging, influences capitalization and borrowing capacities of companies, terms of borrowing, structure of international capital inflows and outflows;

➢ large volatility of international credit ratings, which determine price and accessibility of international borrowing, international and domestic credit market conditions;

➢ changes in international capital flows affect the financial capital inflow-outflow balance, capital flight, balance of payments, exchange rates, and economic activity.

External financial shocks influence the countries' balances of payments and international investment positions, and foreign capital inflows.

Table 4

Current and capital account balances during financial crisis, balance of payments of Ukraine, 2008-2009, quarterly, $ mln

Year, Quarters	2008 I	2008 II	2008 III	2008 IV	2009 I	2009 II	2009 III	2009 IV	2010	2011 I
Current Account	-3362	-3313	-2078	-3710	-654	-181	-68	-878	-2884	-1300
Capital account	3527	5723	6058	-5754	-4571	-1865	-4834	-655	7914	2409

Note: Source – Balance of Payments 2009, 1 quarter 2011 (analytical form). – National Bank of Ukraine.

Current account deficit in Ukraine originated in 2006 as a result of excessive demand for import supported by high credit expansion and changes in terms of trade. The negative current account was balanced by positive capital account – mainly by large FDI inflow. As a result it made possible to increase foreign reserves and revalue slightly the national currency in mid-2008.

In the autumn of 2008 export revenues fell dramatically due to the international market drop. Consequent corporate (financial and non-financial corporations) external debt servicing problem put strong pressure on the exchange market causing rapid devaluation of national currency. Balance of payment data show the coinciding peaks of negative current and capital accounts in the IV quarter of 2008 and reflect the rapid switch from substantial inflows to large capital outflow from Ukraine since end-2008. Such switch is known as "sudden stop" of foreign capital movement, when net inflow changes to net outflow.

Structural changes in the international capital flows have been provoked by external shocks and drops in financial assets value during the crisis. Changes in capital flows could be defined as structural due to the quick change to opposite/reversal movements as well as substantial change of qualitative and quantitative composition of foreign capital inflows and outflows.

Table 5

Structural changes in capital flows balances during financial crisis in Ukraine, 2008-2009, quarterly, $ mln

Year, Quarter	2008 I	2008 II	2008 III	2008 IV	2009	2010	2011 I
FDI balance	2430	3091	3324	1058	4654	5759	867
Loans, bonds Balance	3247	4595	5516	-1045	-9137	6762	-242

Note: Source – Balance of Payments 2009, I quarter 2011 (analytical form). – National Bank of Ukraine.

Major crisis-caused changes in capital flows would be considered as structural since they reflect the substantial changes in value, composition, major forms and directions. In Ukraine the FDI balance has dropped in 2009 by 54 % with continuing decline in 2010. The drop affected the financial sector most of all.

The long term loan balance switched from positive to negative due to: 1) new loan provision contraction; 2) accumulated loan servicing cost increase. In 2009 the overall government external debt increase affected the balance of payment and budget deficit, and limited domestic consumption and economic growth.

Major crisis-caused structural changes in the international capital flows are:

- financial asset value dilution, increasing share of "infected assets" due to the international financial market downturn and rising risk transfer cost;
- divestments – outflow of foreign portfolio and short-term investments due to the asset value decreasing, currency devaluation, and investment losses;
- reversal flows – quick switch from net inflows to net outflows of the specific type of capital movements, especially as for short-term private capital flows;
- negative equity – drop down of the specific assets market price below the liability value related to long-term external debt, underlined asset value decrease in case of securitization.

External capital flow structural changes have macro- and macroeconomic implications on transitional economies.

Macroeconomic impact could be assessed as the financial globalization development, balance of payment adjustments, international investment position structural changes, changes in external financial conditions for economic growth.

Microeconomic impact could be considered with changing foreign trade and investment patterns, revising access conditions to international financial markets, tightening credit standards, better comparative performance of foreign-owned banks during crisis and post-recession time.

The global financial instability continues, the economic recovery in developed countries is still weak, the sovereign debt crisis in the USA and Europe remains hard to manage, central banks' monetary policies are bringing limited results. Therefore, a probability of financial crises in the near future is still considerable.

Financial globalization as a macroeconomic result of cross-border capital flows could be defined as a complex process of increasing interdependence of the national financial systems and international one, deeper structural integration of financial institutions and markets, broader access of economic agents to international financial markets, growing influence of the global driving forces on the national finance.

International capital flows and stocks of foreign assets and liabilities reflect a scale of cross-country financial linkages and therefore play a key role for financial interconnections and financial globalization. Financial globalization extent and effects for different countries could be influenced by combination of systemic financial and macroeconomic conditions such as:

1) Type of financial system – market-based or bank-based; liberalized market-based systems are more open to capital flows and have broader access to international markets.

2) Developed economic and financial systems would be a background for effective allocation of financial liquidity and banking stability.

3) Economic and financial system capacity to absorb external financial shocks, manage capital inflows and outflows will balance external financial linkages.

4) Political stability, institutional development, rule of law and contract enforcement will insure foreign investor rights and external debt settlements.

5) Flexible exchange rate regime and capacity to withstand international currencies fluctuations would absorb speculative financial attacks.

Financial globalization under noted conditions would bring positive effects. Benefits of financial globalization are for balancing cross-country financial linkages and effective utilization of external financial resources. Major effects of financial globalization could be considered in connection with national banking and financial system development, such as international competition and preserving financial stability:

1) More effective allocation of financial liquidity through competitive access to international markets.

2) Access to international financial markets gives a possibility to overcome the liquidity constraints of the domestic banking system in terms of debt provision (size, maturity, interest, risk hedging).

3) Debt and liquidity risk diversification through hedging and transfer to international financial markets via securitization.

4) Better international borrowing would support national economic growth.

5) Domestic financial infrastructure development in line with the international one.

Financial globalization benefits are in attraction of additional financial liquidity from the international markets under more competitive conditions. But it also sets certain dependence on international funding which may turn into risks if international markets will go into excessive volatility or crisis.

Therefore along with its benefits, financial globalization risks should be considered:

1) Contagion and international spillover are a specific mechanism of cross-border transposition of the national or international financial markets distresses to other national financial markets.

2) Market speculative movements – changes in financial asset prices or investor preferences resulting from the changes in international market behavior which target short-term gains and could not be explained by the market fundamentals or policy conditions.

3) Monetary and macroeconomic impact of capital flow volatility: large capital inflows could cause excessive monetization of a host country economy, credit boom and revaluation pressure. Large capital outflow may slowdown an economy and put devaluation impact on domestic currency.

4) Macroeconomic problems in home countries such as economic depression or bank credit crunch may call for capital reversal or divestment – call back investment, which would slowdown the host country economy.

Financial globalization impact may be measured using capital flows or external investment position of a country for calculation of financial globalization index as international investment position (a sum of external assets and external liabilities) divided by GDP, all nominated in the current US dollars.

An assessment of the factors of the financial globalization index for Ukraine is influenced by both capital flows and increase in external liabilities in order to manage domestic financial problems.

Table 6

Financial globalization index of Ukraine

Year	2005	2006	2007	2008	2009	2010
Financial globalization index	1,06	1,24	1,49	1,40	2,25	1,98

Note: Source – calculations based on IMF data.

For example, the increase of index in 2006-2007 may be explained by the large inflow of capital mostly due to foreign acquisitions of the shares of large Ukrainian banks. It could be attributed to financial globalization and reflects interdependence of domestic and international banking. But index movements in 2009 have been caused by the emergency IMF lending and respective increase of foreign liabilities at the time of crisis-driven large GDP decline.

Financial globalization influence onto the CEE and Ukraine banking developments would be studied in several directions with taking into consideration actual rebalancing of cross-border financial flows, foreign capital penetration in the banking sector, structural changes in banking, external financing of the foreign affiliates, and Eurozone debt crisis impact.

Cross-border capital flows rebalancing. Capital flow trends in 2009-2011 would be considered as rebalancing since they reflect the substantial changes in value, composition, major forms and directions. The period before the global crisis was characterized as asset price bubble which stimulated excessive growth of FDI, stock and debt market. Since 2009 capital flows have declined in volumes and changed in patterns.

Rebalancing of the international capital flows could be considered as:

- financial asset value change due to the international financial market slowdown and financial risk hedging cost;
- changing balance of inflows and outflows of capital in many countries, increased outflow of foreign portfolio and short-term capital;
- switch from capital inflow in some countries to "sudden stop" of capital movement during global crisis and due to the debt crisis in several Eurozone countries;
- spread of negative equity as a result of drop down of some asset prices below the related liabilities, such as real estate market

price below residual mortgage debt, underlined asset value decrease in case of securitization;

- post-crisis slowdown of capital flows in developed economies and financial flow growth from the emerging economies;
- rising cost of the foreign-currencies denominated external and domestic debt servicing for economies with devaluated currencies and lower demand for external debt;
- bad loan accumulation on the banks' balance sheets and limited possibilities for their restructuring;
- rising "dollarization" of deposits in emerging economies with high currency volatility expectations.

External financial shocks and capital flows structural changes have affected the countries' balance of payments, international investment positions, exchange rate excessive volatility, stability of national banking systems and therefore have worsened financial conditions for economic recovery and growth.

Stability of national financial and banking systems could be considered as a capacity to allocate effectively financial resources from savers to borrowers, to manage financial risks and to absorb external financial and economic shocks. Banking stability is a systematic capacity which is largely dependable on the banks' capitalization, asset quality and liability management. Financial globalization influences the stability of national banking systems foremost via presence and performance of foreign owned banks.

Foreign capital penetration in the banking sector of the CEE countries and Ukraine is considered my many researchers as a key form of financial globalization and European financial integration.

European banks mostly have used a centralized liquidity provision model to finance their affiliates in the CEE and CIS. Liquidity has been channeled from the parent banks to the foreign affiliates as interbank lending facilities, subordinated loans, syndicated loans, affiliates' note and bond investments. Low liquidity costs on the European markets have provided an opportunity to raise higher margins on foreign markets and expand foreign currencies denominated lending. But during the global crisis it has turned into accumulation of bad loans and asset price deterioration in foreign affiliates.

European bank affiliates in the CEE and Ukraine have faced the problem of external financing in order to withstand global financial crisis and Eurozone instability. Such problem has several aspects:

1) foreign-owned banks' currency denominated bad loans and external liabilities problems;

2) decrease or withdrawal of liquidity provision by parent banks to foreign affiliates, therefore they should go to other liquidity sourcing;

3) overall limitation of the banks' access to international financial liquidity. Such situation certainly affects performance of foreign-owned and domestic banks.

Table 7

Ukrainian banks' external loans and bonds – a balance of received and paid amounts a year, mln. USD

	2005	2006	2007	2008	2009	2010	2011
Banks – external loans and bonds balance	1625	4079	10526	7586	-3272	-2010	-3600

Note: Source – compiled based on data NBU balance of payments data

The data show that amounts of external loans and bonds to Ukrainian banking system have grown significantly since 2005 at the time of massive development of foreign-owned banks. Capital inflow has fed rapid credit expansion, increased asset and real estate prices in Ukraine. The trend has changed as a result of the global financial crisis and turned to negative balance of capital flows to banks in the country. It has substantial implication on the bank liquidity and performance and Ukrainian banking system stability.

The balanced approach to managing capital inflows and outflows, external sourcing of liquidity for the national banking sector, capitalization and performance of foreign banks on the domestic market should be set forth in order to limit negative and support positive impact of financial globalization on the emerging economies' banking systems.

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Chapter 8
FOREIGN CAPITAL INFLOWS: INTERNAL AND EXTERNAL EQUILIBRIUM IN CENTRAL AND EASTERN EUROPE

Foreign capital is an important source of economic growth, so to study its structure and its impact on the recipient country takes considerable relevance. Over the years, CEE tried all sorts of ways to attract foreign capital in the form of private and official loans to improve the economic situation and increasing living standards, i.e. for the good of the country. Attracting foreign capital can both positively and negatively effect internal and external balance of the CEE countries. Very important is the simultaneous achievement of internal and external equilibrium.

The research object is Central and East European (CEE) countries (Poland, Slovakia, Slovenia, the Czech Republic, Hungary, Romania, Bulgaria, Estonia, Latvia, Lithuania, Russia, Ukraine, Moldova, and Belarus). The subject of the study is to determine the foreign debt and especially its influence on the equilibrium in the CEE countries during transition process from plan to market economy.

Globalization processes in the financial services industry manifested in the form of the dynamic development of international financial integration and liberalization of financial markets, increasing international capital flows, widening the range of currency and financial transactions as well as international competition, cross-border nature of international banks. These processes have an impact on the development of national financial markets that are interdependent with the international financial system, and thus experiencing positive and negative impacts [1].

The term globalization was put into practice relatively recently, about 20 years ago against the backdrop of scientific discussion at the expense of processes occurring in the economy, society, technology development during this period. Most definitely globalization is evident in financial markets. Investors form their portfolios of financial assets of not one but many countries and companies that conduct their operations in one country, can list their securities in other countries. The speed of formation of international capital markets, currencies, securities is a real pivotal driving force of globalization.

Liberalization of financial sector increased regional integration. In particular, one of the points of economic summit communiqué of the Group of Seven in Halifax (1995) was a requirement of permanent members encourage the IMF and World Bank to eliminate restrictions on capital markets, the establishment of the free convertibility of currencies and the introduction of floating exchange rates.

Since 1990 the IMF increased the impact on member states to adopt the obligations under Article VIII of the IMF. The article prohibits imposing restrictions on payments and transfers for current international transactions, engagement in discriminatory currency arrangements, practice of multiplicity of exchange rates. In 1996, the IMF included the surveillance systems with which policy members can assess the role of capital movements. This provision is relevant to most developing countries and countries with emerging economies that have recently embarked on the path of liberalization.

In December 1997 the World Trade Organization signed a multilateral agreement to liberalize financial services market. WTO member countries that acceded to the Convention, pledged to ensure that its financial markets will embrace the rules of removing barriers in the banking, insurance operations and transactions in securities of non-residents, free admission to the national bank, insurance and stock sectors.

As for the causes of globalization of capital markets, there are several factors for this phenomenon:

1. The economic factor. Great concentration and centralization of capital, growth of large companies and financial groups in their activities increasingly transcend national borders.
2. The state borders are gradually losing their importance, becoming more transparent and providing more opportunities for free movement.
3. The dynamics of globalization is associated with dates of major international events. These are, above all, the Conference of the European Communities in Luxembourg in 1985, which adopted European Act (effective in 1987), declared free movement of goods, persons, services and capital. Next, a GATT conference in Punta del Este in 1986, which launched the Uruguay Round negotiations (to reduce tariffs and other restrictions to trade).

Also, the scientific-technical revolution has become one of the factors that stimulate capital market development. Development of the Internet and communication technology (including satellite and fiber-optic) technically allowed organizing work of financial markets in the real time. This has led to sharp reduction of transaction costs and has become one of the main factors of global financial market formation.

Today, globalization of financial markets includes the following trends: growth, lenders' competition in international financial markets; integration of international capital markets. In recent years one of the most important developments in this field was the introduction of euro and convergence of international financial markets.

The transnational financial organizations constantly search profitable areas for capital investment. While the profitability of operations in the financial markets of developing countries is much higher than the ones of developed countries, the risks of such operations are also significantly higher. Consumers of financial resources – governments, multinational and local companies need large amounts of funding.

The main driving forces of financial globalization of the decade were: exchange control relaxation and expansion of financial deregulation in order to enhance the competitiveness of national financial institutions, the transition to floating exchange rates, which stimulated the development of the international market for financial derivatives, different yield on investment in different countries; volatility and instability of markets, especially in developing countries, increased role of institutional investors who tried to diversify risk through investments in a number of different countries, standardization of products, financial innovation, rapid development of communication technology and information processing, reduced communication costs and other aspects of economic globalization.

The main causes of external financing of transition economies are:

- ➢ structural changes with decreasing output and public and private savings;
- ➢ current account deficit due to huge demand for import consuming and investment goods and old debt obligations;
- ➢ liberalization of control of the capital mobility according to IMF membership.

In a conversion period of most transition countries in open economy macroeconomic equilibrium involves not only the "full employment" at the minimum level of inflation, but also balanced external accounts. Unbalanced state of current account, significant and long-term deficits, rising external debt may affect the internal state of the economy in a very unfavourable way, causing economic recession, financial and currency crisis. That, in the state of increasing interdependence of national economies in turmoil, threatens the entire system of international economic relations.

The process of financial globalization needs huge efforts to maintain general equilibrium of the economy through internal and external balances. The internal balance involves the government efforts to attain growth, full employment and price stability to avoid inflationary pressure. The internal balance is achieved through the use of government spending, taxation, interest rates and money supply.

The external balance involves achieving favorable balance of payment where a country aims at achieving high levels of exports; the balance of payment depends on the terms of trade and also the exchange rates.

The internal balance is a situation in which aggregated demand is equal to potential output. External balance is a situation for a country when the current account of the balance of payments is zero. Imports of a country are nation's spending on foreign goods and services, and should be financed by exporting the country's own goods and services. If imports exceed exports, this must be financed by borrowing money or by running down savings held abroad. When imports exceed exports it is called current account deficit. A deficit problem starts when foreign banks may refuse to lend any more money. This leads to cutting domestic spending to curb the demand for imports. Side-effects of this include reduced economic growth and rising unemployment. This is known as a "credit crunch". When exports exceed imports current account surplus occurs. Firstly, surpluses reduce resources available for consumption. Without them, resources could be diverted to produce consumer goods or to increase exports. Secondly, a surplus reduces the amount of resources available for other countries. Therefore, for every surplus, there will be a deficit somewhere down the line. Countries with current account deficits would require another country to reduce its surplus in order to remove its debt. This second example can sometimes cause political friction.

It is important for an economy to maintain both internal and external balances, due to external pressure the internal balance may be affected. Increased exports, political factors, exchange rates, oil shock and capital flow and outflow can affect the economy.

An increase in exports will result in higher foreign income into a country, which can lead to what is known as a boom. In case of a boom the government will try to move the economy to the new potential level of output through an increase in interest rates, a failure to increase the interest rates will result in high inflation in the entire economy.When the levels of export increase there is a high level of foreign earnings that enter the economy. This will cause the necessity to increase the interest rates in order to reduce the effect of high liquidity level which is inflation. The increase in interest rates will ensure that the economy moves to a new potential output through increase in savings. The higher the interest rates are the higher is the savings level and the higher the savings level is the higher is the level of investment.

A sudden increase in the level of oil prices will cause a rise in prices in the entire economy, thus high inflation rates will arise which will lead the economy into a recession. The government may choose to allow inflation to rise and then fall and then facilitate the recovery of the recession through lowering the interest rates. However the government may choose to lower the interest rates immediately to avoid recession, the choice of these two actions depends on the level of interest rate and inflation in an economy. By lowering interest rates the aggregate demand will increase shifting back the potential output to the original level, therefore, from the above, the economy can avoid recession but not inflation.

An increase in the level of domestic interest rates will increase the level of capital inflow. This is due to the fact that people will obtain funds from the sources other than domestically obtained funds. The reduction in interest rates will increase capital outflow and at the same time reduce capital inflow. The capital inflow and outflow are important since they determine the exchange rates, every economy wants to have strong currency and this is achieved by high capital inflow and low capital outflow. Therefore economies will ensure that their interest rates are high. When the exchange rates change in a way that the currency of a country devalues then the level of exports increases while the level of imports reduces, this is due to the fact that the imports become relatively expensive while the exports become relatively cheap.

In this study we will focus on identifying links between savings, investment, current account balance, budget deficit, economic growth and external borrowing on the basis of theoretical hypotheses and empirical testing.

The basic model of open economy Keynesian type macroeconomic equilibrium situation is described by such equations:

$$S_P + S_G = I + CA \qquad (1)$$

or

$$CA = (S_P - I_P) + (S_G - I_G) = (S_P - I_P) - DEF, \qquad (2)$$

where CA – current account balance; S_P, S_G – private and government savings, respectively; I_P, I_G – private and public investment and total investment, respectively; DEF – budget deficit.

American economists M. Obstfeld and K. Rogoff [2, p. 6-17] defined the current account balance for the period as the change in net foreign assets and formulated it as follows:

$$CA_t = B_{t+1} - B_t = Y_t + r_t B_t - C_t \tag{3}$$

where B_{t+1} - net foreign assets of the economy, end of period t; $r_t B_t$ – interest income from the previous foreign assets; CA_t – current account of the country for period t in the absence of capital accumulation and government spending; Y_t, C_t – the total income and consumption in period t respectively.

This model can be modified by adding investment and government spending:

$$I_t = K_t + 1 - K_t \tag{4}$$

S_t, as national saving, can be written as:

$$B_{t+1} + K_{t+1} - (B_t + K_t) = Y_t + r_t B_t - C_t - G_t = S_t \tag{5}$$

where G_t is public spending in period t.

Under a positive current account balance can be written:

$$CA_t = B_{t+1} - B_t = Y_t + r_t B_t - C_t - G_t - I_t = S_t - I_t \tag{6}$$

Thus, in a simplified model, adding the time component we have shown a third generation model of country's current account. In our opinion, these models allow to analyze the internal and external shocks in countries with economies in transition in the context of macroeconomic equilibrium.

Capital inflows in CEE countries tended to increase since 1990. Need for inflow of foreign capital in these countries has been associated with large current account deficit.

Unlike other regions (Asia and Latin America) the surge in capital flows in these countries has been associated with large current account deficits.

Table 1 reports the average deficits in relation to GDP in 1995-2008. Estonia and Latvia stand out with deficits exceeding eight percent of GDP, Lithuania and Hungary follow with deficits of 7 percent of GDP. While Bulgaria's current account deficit has not been supported by high real GDP growth rates in recent years, it has been accompanied by a high investment rate. Only Slovenia, the first country in this group to join the Euro area, has kept its current account close to balance on average in recent years. Most new member states experienced sizeable real appreciations of their currencies in recent years.

Table 1

Current Account in CEE countries, 1994-2008, % GDP

Country	Year								
	1994	**1996**	**1998**	**2000**	**2002**	**2004**	**2006**	**2008**	**2010**
Albania	-14,3	-7,3	-6,7	-4,6	-9,5	-4,0	-5,6	-14,5	-10,1
Belarus	-9,1	-3,6	-6,7	-3,2	-2,2	-5,2	-3,9	-8,4	-15,5
Bulgaria	-0,3	1,7	-0,5	-5,6	-2,0	-6,8	-17,9	-25,2	-0,8
Estonia	-6,9	-8,6	-8,6	-5,3	-10,7	-11,8	-16,8	-9,4	3,6
Latvia	5,0	-4,9	-9,7	-4,7	-6,7	-12,8	-22,7	-12,9	3,6
Lithuania	-2,2	-8,8	-11,6	-5,9	-5,2	-7,6	-10,7	-11,9	1,8
Macedonia	-7,8	-7,7	-7,5	-1,9	-9,5	-8,4	-0,9	-12,7	-2,8
Moldova	-8,4	-11,1	-19,7	-7,6	-4,0	-2,2	-11,7	-16,7	-10,9
Poland	1,0	-2,1	-4,0	-6,0	-2,8	-4,0	-2,8	-5,5	-3,3
Russia	2,8	2,8	0,1	18,0	8,4	10,2	9,5	5,8	4,9
Romania	-1,4	-7,3	-6,9	-3,6	-3,4	-8,4	-11,8	-12,4	-4,2
Slovakia	4,3	-9,9	-9,2	-2,4	-5,5	-5,9	-6,2	-6,3	-3,4
Slovenia	6,3	0,3	-0,7	-3,2	1,1	-2,7	-2,6	-5,4	-1,1
Hungary	-9,4	-4,0	-7,2	-8,4	-7,0	-8,6	-7,5	-8,5	1,6
Ukraine	-3,2	-2,7	-3,1	4,7	7,5	10,5	-1,5	-7,2	-1,9
Croatia	4,7	-4,2	-5,8	-2,5	-7,5	-4,4	-6,9	-8,6	-1,9
Czech	-2,0	-6,7	-2,1	-4,7	-5,7	-5,2	-3,2	-2,9	-2,5

Note: Source – Economic Outlook Database, IMF, 2011

Thus, their large current account deficits are not an indication of weak currencies; on the contrary, they reflect the large capital inflows these countries have attracted in recent years.

Following their entry into the EU in 2004, the experience of these countries has been diverse. Those countries that followed hard exchange rate pegs, namely Bulgaria, Estonia, Latvia, and Lithuania, saw widening of their current account deficits, while those adopting floats, namely the Czech Republic and Poland in particular, kept their current account deficits at smaller rates of GDP. Capital inflows rose in the former and fell in the latter. Slovenia, which adopted an intermediate peg, had the smallest capital inflows during that period.

Well known development economist P.N. Rosenstein-Rodan in his famous article "Problems of Industrialization of Eastern and South-Eastern Europe" in far 1943 had described two fundamentally different ways of industrialization of that area: "(i) Eastern and South-Eastern Europe should industrialize on its own, on the "Russian model" (by which we do not mean communism), aiming at self-sufficiency, without international investment. That would imply the construction of all stages of industry, heavy industry, machine industry, as well as light industry, with the final result of a national economy built like a vertical industrial concern. This way presents several grave disadvantages: it can only proceed slowly, because capital must be supplied internally at the expense of a standard of life and consumption which are already at a very low level. It implies, therefore, a heavy and, in our opinion, unnecessary sacrifice. ... and building up heavy industries in Eastern and South-Eastern Europe at a great sacrifice would only add to the world excess capacity of heavy industry, and would constitute from the world's point of view largely a waste of resources. (ii) The alternative way of industrialization would fit Eastern and South-Eastern Europe advantages of an international division of labor, and would therefore in the end produce more wealth for everybody. It would be based on substantial international investment or capital lending... It could proceed more quickly and at a small sacrifice of consumption of this area" [3, p. 203]. Central and East European countries after institutional revolutions of 90's return to this old plan of P.N. Rosenstein-Rodan, but Ukraine, Russia, Belarus and other post-soviet countries mainly stand on the domestic investment not foreign, thus worsening living standards of people, slowing technological reconstruction of industry.

Statistics show that the difference between savings and investment is very low for the negative current account balance according to our model (6), which, in turn, is associated with a high proportion of investment in GDP (28-32%) and high economic growth. This allows us to formulate the hypothesis that the technological reconstruction of the developed economies of Central Europe was financed by foreign savings. Capital flows can affect domestic investment in several areas.

1. Foreign direct investments directly contribute to new machinery and equipment.

2. FDI may be undertaken without direct capital increase, and by developing links between firms. For example, multinational corporations can purchase inputs from domestic suppliers, thereby encouraging new investment to local firms. Foreign direct investment may also crowd out domestic investment, if multinational corporations increase productivity and competiton in the local market. This usually happens when multinational corporations use imported materials or expand into sectors, previously dominated by state enterprises.

3. Finally, foreign direct investment, international loans and portfolio investment may reduce interest rates while increasing credit funds for new domestic investment. In addition, foreign capital can have an indirect impact on domestic investment. To attract foreign investors, governments of developing countries have to implement sound macroeconomic policies, develop their institutions and improve governance. Loans and portfolio investment also contribute to the deepening and broadening of the financial markets.

We have analyzed dynamics of savings and investment in different regional groups (Table 2). During last five years in advanced economies, especially in the Central and Eastern European Countries, the difference between savings and investment has grown, since the share of investment in GDP is higher than savings in these regional groups.

We have compared savings and investment in CEE countries and Asian New industrial countries (Figures 1, 2) and seen quite a different picture in these groups of countries, where the latter show the positive difference between savings and investment and, therefore, surplus in current account. So, Central and Eastern European countries need huge inflows of foreign capital to cover their deficit in current account.

This is the main factor of increasing the amount of foreign debt in the last two decades. The last eight-year acceleration in mounting foreign debt also caused the decreasing international interest rate LIBOR (Table 3).

Table 2

Savings and Investment in Regional Groups 1989-2010

Regional groups Variables	Averages		
	1989-96	**1997-2004**	**2005-2010**
Advanced Economies			
Savings	21,9	20,8	19,2
Investment	22,5	21,2	21,9
Net Lending	-0,6	-0,4	-2,7
Central and Eastern Europe			
Savings	20,7	17,8	16,7
Investment	22,4	21,3	22,4
Net Lending	**-1,5**	**-3,5**	**-5,7**
Commonwealth of Independent States			
Savings		25,9	28
Investment		20,3	22,5
Net Lending		5,6	5,5

Note: Source – Economic Outlook, IMF, April, 2011.

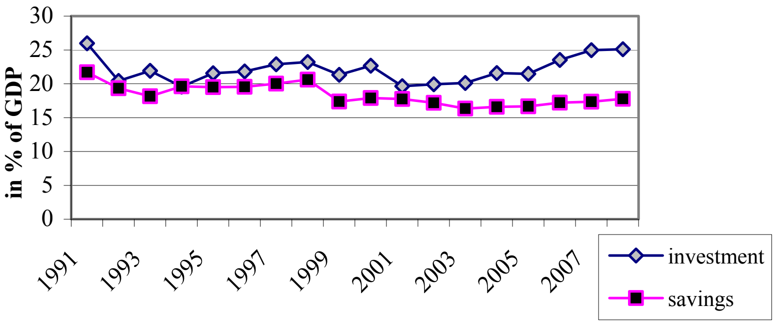

Fig. 1. Savings and Investment in CEE in 1991-2008

Note: Source – International Financial Statistics, IMF

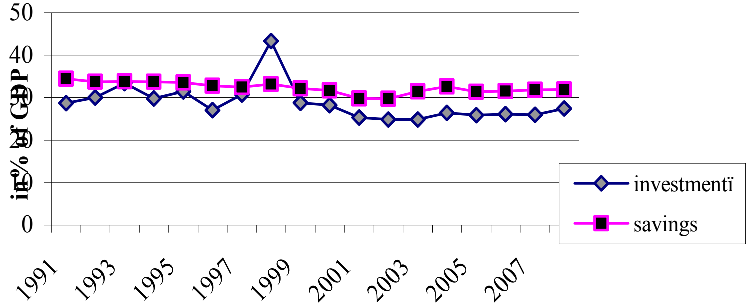

Fig. 2. Savings and Investment in NIC in 1991-2008

Note: Source – International Financial Statistics, IMF

Table 3

Interest Rate LIBOR, 1992-2009

1992-2000									
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000
LIBOR	4,63	3,75	3,70	7,25	5,20	5,95	5,77	5,11	6,66
2001-2001									
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
LIBOR	5,28	2,42	1,48	1,46	3,27	4,94	5,44	4,22	2,00

The evolution of debt-creating inflows (net foreign borrowing excluding exceptional financing) in CEECs can be related to a few domestic fundamentals: first, fiscal balance to GDP ratio viewed as a proxy for the public sector's contribution to the imbalances between national savings and domestic investment; second, an index of the stock of foreign debt relative to the resources available for its service; and third, the growth rate of exports. The fiscal position has been interpreted as a proxy of the demand for external credit, while the other two variables approximate the incentive to lend to CEECs.

Accumulation of foreign debt in the short term is often associated with state deficit, growth of international currency reserves, deficit of current account balance, outflow of domestic capital abroad, little income and removal of foreign direct investment. The problem of external financing in such countries as Poland, Hungary and Bulgaria is also growing because of the significant costs of foreign debt service, accumulated during the communist regime.

One of the reasons of external debt growth for transition economies is enhanced cooperation with Bretton Woods institutions. Potential sources of financing the budget deficit are external borrowing on international markets and foreign loans of official creditors. Moreover, savings of the state is a component of national savings and therefore the budget deficit leads to reduction by an appropriate amount in national savings, which, under certain economic conditions, impels state and private actors to mobilize savings of non-residents. Government deficit becomes a factor of current account deficit extension, implementing income redistribution between present and future generations.

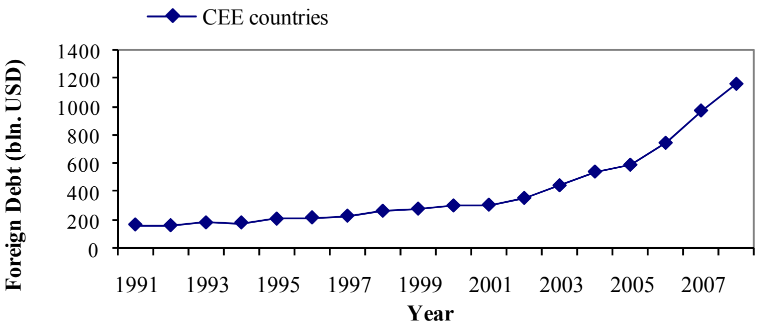

Fig. 3 Foreign Debt in Central and Eastern European Countries in 1991-2008

Note: Source – author's estimation of the data from www.ebrd.org

Generally, this can be said about the foreign debt growth rate in all countries of Central and Eastern Europe in recent years, especially after 2002. This trend can be seen on the graph below (figure 3). Average foreign debt in the countries of Central and Eastern Europe in 2008 was $1165.3 bln, in comparison with approximately $400 bln in 2003.

Rapid growth in credit market of the private sector continues is a major problem for most CEE countries. The fast pace of credit expansion is part of the so-called financial deepening. Credit expansion also stimulates the growth of expected revenues due to improved economic prospects, which are frequently associated with the prospects for EU accession. All this, however, does not mean that the process is safe. In fact, the experience of other countries shows that excessive optimism about future earnings growth has led to the overvaluation of assets and capital flows.

From the macroeconomic perspective, loan growth is mainly related to inflation and worsening of the current account. From a financial standpoint, it is unknown whether bank credit risk rating system in the markets of the CEE countries will be able to cope with potential credit growth. In most CEE countries prudential indicators do not indicate any significant vulnerability of the banking system, but most of them are lagging, not leading indicators.

The impact of the credit boom can be compared in three different countries. In Bulgaria and Romania rapid loan growth contributed to increasing trade deficit and current account. This assumption was tested and confirmed by regression, which also noted the important role of fiscal policy to neutralize the impact of rapid credit expansion. In Ukraine, the credit boom has largely been associated with the vulnerability of the financial sector. However, the analysis of macroeconomic indicators shows that another problem associated with deficit trade balance and inflation has occurred recently.

The response in these three countries was aimed at reducing identified risks, but there is obvious need for further action. Bulgaria and Romania may continue tight macroeconomic policy, but supervisors will be careful to preserve stability in the financial sector. In Ukraine, besides strengthening prudential and supervisory policies that have recently remained the main objective to reduce financial vulnerability, attention should be paid to measures aimed at improving the macroeconomic situation. In these countries, efforts at maintaining macroeconomic stability and financial sectors will be part of a broader system of prudent fiscal and monetary policies and structural reforms.

Macroeconomic and financial risks are closely interrelated. On the one hand, macroeconomic instability (inflation and external imbalances) may facilitate the emergence of financial instability - especially when banks and their borrowers are largely exposed to interest rate risk. On the other hand, financial instability (fragile financial system) may facilitate the emergence of macroeconomic imbalances, as markets in response to such signals. Thus, a set of necessary policy measures should include a combination of macroeconomic and prudential measures to manage the risks of both kinds.

For analyzing interrelations between external debt and indicators of internal and external indicators we estimate the correlation matrices for different country groups of CEE.

In our research we used the following indicators of internal balance:

govbalan – deficit or surplus of state budget to GDP;

cpi1 – index of consumer prices;

unemploy – level of unemployment in %;

gdprate – real rate of GDP growth and indicators of external balance;

cagdp – current account balance ratio to GDP;

er1 – exchange rate.

For CEE countries which are not members of EU we obtain that the foreign debt worsens economic growth, unemployment and budget deficit, and also does not compensate the deficit of current account and leads to appreciation of national currency (Table 4).

Table 4

Correlation table between foreign debt and indicators of internal and external equilibrium for nonEU countries (obs=83)

Variables	debtgdp	govbalan	cpi1	unemploy	cagdp	gdprat	er1
debtgdp	1.0000						
govbalan	**-0.1888**	1.0000					
cpi1	**-0.0350**	-0.0468	1.0000				
unemploy	**0.0283**	0.1360	-0.0429	1.0000			
cagdp	**0.4032**	-0.3219	0.1295	-0.2172	1.0000		
gdprate	**-0.1862**	0.2659	-0.3826	0.2207	-0.6069	1.0000	
er1	**-0.1502**	0.0876	-0.0784	0.2730	-0.0165	0.1492	1.0000

In European Union members we see quite a different situation, foreign debt supports economic growth, reduces inflation and budget deficit and effectively compensates the deficit of current account but leads to revaluation of national currency (Table 5).

In post-soviet countries such as Belarus, Ukraine and Russia we can see very negative influence of external debt on employment and no influence on reduction of the budget deficit (table 6). The positive effect on economic growth and strong influence on the appreciation of national currency is very small. So, foreign debt does not have positive impact on the internal balance in post-soviet countries.

We can conclude that foreign debt is positive for the internal equilibrium only in transition countries that entered European Union, but it slightly worsened the external balance through exchange rate.

Table 5

Correlation table between foreign debt and indicators of internal and external equilibrium for EU countries of CE (obs=104)

Variables	debtgdp	govbalan	cpi1	unemploy	cagdp	gdprat	er1
debtgdp	1.0000						
govbalan	**-0.1270**	1.0000					
cpi1	**-0.3560**	0.1578	1.0000				
unemploy	0.0314	-0.1443	-0.1193	1.0000			
cagdp	**-0.4586**	0.0813	0.4044	-0.1105	1.0000		
gdprate	**0.3006**	0.2073	-0.5784	0.1710	-0.4028	1.0000	
er1	**-0.3262**	-0.3408	0.1252	0.0985	0.1801	-0.3704	1.0000

Table 6

Correlation table between foreign debt and indicators of internal and external equilibrium for Belarus, Russia and Ukraine (obs=35)

Variables	debtgdp	govbalan	cpi1	unemploy	cagdp	gdprat	er1
debtgdp	1.0000						
govbalan	**0.0867**	1.0000					
cpi1	**-0.1137**	-0.2596	1.0000				
unemploy	**0.6930**	-0.0455	-0.3143	1.0000			
cagdp	**0.6088**	0.3588	-0.4908	0.6509	1.0000		
gdprate	**0.1416**	0.6691	-0.5982	0.1873	0.4230	1.0000	
er1	**0.3266**	0.1016	-0.2920	0.4392	0.4172	0.4470	1.0000

At last we research the influence of the components of foreign capital: foreign debt ($DEBT_t$), foreign direct investment (FDI_t) and foreign portfolio investment ($PORTF_t$) on the process of achieving internal and external equilibrium in different country groups in Central and Eastern Europe. We estimate panel regression of impact of these components of foreign capital on the current account (CA_t), budget deficit (DEF_t), exchange rate ($EXRATE_t$), consumer price index (INF_t), unemployment ($UNEMPL_t$) and economic growth (GDP_t).

Foreign capital is an important source of financing for countries with economies in transition, and it is an important resource to help cover budget shortfalls. Direct and portfolio investment is very important and has positive influence on the internal and external balance of CEE countries. Foreign investment supplements inadequate domestic public resources.

Table 7

Foreign Capital and Internal and External Equilibrium for EU countries (1995-2008)

Independent variables	Dependent variables					
	CA_t	DEF_t	$EXRATE_t$	GDP_t	$UNEMPL_t$	INF_t
Constant	-1,449	-4,854	41,500	3,072	12,057	33,863
FDI_t	**-0,627**	**0,089**	-0,193	0,121	**-0,150**	**-5,814**
(t-statistics)	**-6,796**	**2,839**	-0,322	1,334	**-2,053**	**-1,590**
$PORTF_t$	**-0,408**	0,074	0,497	**0,243**	-0,035	-1,775
(t-statistics)	**-3,281**	0,963	0,615	**1,991**	-0,352	-0,360
$DEBT_t$	0,013	0,080	-0,023	-0,024	**-0,063**	1,917
(t-statistics)	0,274	1,475	-0,072	-0,490	**-1,632**	0,984
R^2	0,670	0,468	0,943	0,147	0,754	0,077
F- statistics	9,013	4,476	66,751	1,679	13,088	1,328

Note: Source – author's estimations (1995-2008).

It can be concluded that in EU countries the current account is inversely proportional to portfolio investment Table 7). Unemployment rate increases with the decrease of direct and portfolio investment as well as debt inflows. Regarding economic growth, direct and portfolio investment is inversely proportional to its influence, while debt reduction leads to economic growth.

Following this study, we conclude that the debt, deficit, inflation and unemployment are inversely related to the current account, as direct and portfolio investment, exchange rate and GDP are directly proportionate to affect the current account. Thus, the scope and pace of GDP growth determine the financial capacity of the country, thus directly affecting the state of the national currency. But on the other hand, the most important prerequisite of economic development is sufficient financial capacity and appropriate investment in its development, including public finance deficit, which is usually followed by inflation.

In Baltic countries, the most heavily debt countries, foreign debt statistically significant influenced the reduction of unemployment and inflation, much better than foreign direct and portfolio investment (Table 8).

Table 8

Foreign Capital and Internal and External Equilibrium for Baltic countries

Independent variables	Dependent variables					
	CA_t	DEF_t	$EXRATE_t$	GDP_t	$UNEMPL_t$	INF_t
Constant	-0,581	-2,322	5,578	3,278	12,142	12,464
FDI_t	**-0,502**	0,056	0,056	0,184	**0,210**	0,371
(t-statistics)	**-2,784**	0,285	0,507	1,015	**1,403**	0,854
$PORTF_t$	**-0,464**	-0,068	0,073	**0,164**	0,061	0,315
(t-statistics)	**-3,990**	-0,537	1,022	**1,403**	0,632	1,124
$DEBT_t$	**-0,160**	0,051	-0,018	0,041	**-0,092**	**-0,325**
(t-statistics)	**-3,146**	0,923	-0,582	0,810	**-2,165**	**-2,651**
R^2	0,813	0,239	0,955	0,742	0,830	0,740
F- statistics	10,875	1,717	49,755	7,548	12,105	7,497

Note: Source – author's estimations (1995-2008).

The type of foreign capital and its influence on the internal and external balance is quite different in the post-soviet countries, which depended on economic and political characteristics of the state. So, from 1995 to 1999 Belarus significantly increased its share of FDI to GDP (from 0.14% to 3.65%) and the number of portfolio investment, on the contrary, decreased. In 2000 and 2001 the share of FDI to GDP ratio in Belarus decreased and reached the same level as in 1996.

Table 9

Foreign Capital and Internal and External Equilibrium for Belarus, Russia and Ukraine (1995-2008)

Independent variables	Dependent variables					
	CA_t	DEF_t	$EXRATE_t$	GDP_t	$UNEMPL_t$	INF_t
Constant	-0,065	0,681	410,032	3,468	5,985	42,002
FDI_t	-0,298	**-0,422**	**-86,893**	0,210	0,114	5,637
(t-statistics)	-1,339	**-1,767**	**-2,067**	0,639	0,488	0,735
$PORTF_t$	**-0,425**	**0,224**	-6,670	**-0,398**	**-0,268**	5,434
(t-statistics)	**-3,565**	**1,752**	-0,296	**-2,255**	**-2,149**	1,322
$DEBT_t$	**-0,039**	**-0,061**	**8,938**	-0,028	0,002	-0,132
(t-statistics)	**-2,147**	**-3,134**	**2,626**	-1,059	0,089	-0,213
R^2	0,912	0,595	0,614	0,648	0,513	0,487
F- statistics	30,892	5,246	5,599	6,331	4,047	3,752

Note: Source – author's estimations (1995-2008).

Ukraine and Russia also observed various trends in the inflow of foreign capital and debt. It is interesting that in Ukraine, unlike Russia, the share of FDI to GDP was slightly higher. For example, in Russia in 1999 the share of foreign direct investment amounted to 0,56% of GDP ($1102 mln), and in Ukraine it amounted to 1,55% of GDP. This is due to the fact that Ukraine's GDP was only $31 582 mln compared to Russia's $195 908 mln.

The share of debt in recent years has increased significantly. For 2006, the share of debt in Belarus was - 48.89%, in Moldova - 56.29%. But in 2006 the leaders were still Russia and Ukraine where the share of debt was up 84.19% and 66.37% respectively.

Finally we note that the problem of increased inflows of foreign capital in the economy of post-soviet countries is extremely important, especially in the context of increased competition in capital markets. Foreign debt, in the long run, will lead to huge devaluation of national currency and external disequilibrium (table 9). The use of foreign capital is ambiguous in its consequences for the recipient country. The strategic objective of each country is to attract foreign capital to the economy and focus on ensuring its national interests. Under these conditions, foreign investment will enhance the living standards of the country and will provide additional impetus for economic growth.

While considerable imbalances exist in CEE, our study makes the general conclusion that external financing has a positive impact on the achievement of external and internal balance in countries that are more advanced in economic reforms, but has higher growth potential while encouraging only foreign direct investment and portfolio investment restrictions, lower budget deficit and stimulation of domestic savings and investment.

Having analyzed the dynamics of indicators of internal and external equilibrium in the CEE countries, we have found patterns of distribution of foreign capital between the CEE countries that experience significant changes and vary from year to year depending on the internal situation of the country and financial situation in the world. The key factor of structural change of exports in the CEE countries was foreign capital inflows, contributing to economic restructuring and more efficient use of resources.

After calculating the share of foreign capital to GDP in CEE, we have evaluated the impact of foreign capital on macroeconomic performance of these countries. We used annual data on capital flows in 1995–2008 for each group of EU countries (Poland, Hungary, Slovakia, Slovenia, Bulgaria and Romania), Baltic (Estonia, Latvia, Lithuania) and post-soviet countries (Ukraine, Russia, Belarus, Moldova). We have evaluated the impact of capital inflows and debt change for each of the indicators of internal and external equilibrium. As a result, we have concluded that the inflow of foreign capital into CEE countries affects the stability of nations differently. On the whole it contributes to the economic growth in CEE, but its involvement must be within certain limits, since excessive inflow of capital over time can lead to undesirable consequences, such as inflation, which, in turn, will lead to instability of the economic situation in the country.

Financial globalization has a positive impact on countries with economies in transition in terms of financial development, investment, savings and technology transfer.

The main advantage of financial globalization for developing countries is the development of their financial systems, which includes deeper, more complete, stable and efficient financial market regulation. There are two main channels through which financial globalization affects financial development. The first allows countries to increase the degree of market discipline and deepen financial markets. The second channel means that financial globalization leads to better financial infrastructure, which in turn reduces information asymmetry. As with other developing countries, capital flows in emerging economies can make the significant contribution to economic growth in these countries.

The effectiveness of the financial sector can be measured as the difference between deposit rates and credit rates (Table 10). High interest rates for loans at the beginning of the transition process and low deposit rate is the situation of insufficient competition in the banking sector. This explains the poor efficiency of the financial sector. This difference in many transition countries has increased since 2002. The high difference between lending and deposit rates indicates inefficiency of financial intermediation sector, which can lead to reduced investment. These differences reflect some features of monetary policy regime, such as the minimum rate on deposits and capital control.

Table 10

Spread between the credit and deposit rates in countries with economies in transition, 2002–2008

Countries	2002	2003	2004	2005	2006	2007	2008
Poland	7,3	6,7	7,4	4,2	4,1	4,5	3,6
Czech Rep.	7,1	2,7	4,1	6,2	3,6	4,2	5,1
Slovakia	3,6	3,1	4,9	4,2	4,1	4,3	-
Slovenia	4,9	4,8	4,8	4,6	4,6	2,3	2,6
Hungary	2,3	2,5	1,9	2,3	1,8	2,0	2,4
Estonia	2,9	2,7	4,1	6,2	3,6	4,2	5,1
Latvia	4,3	2,4	4,2	3,1	3,6	3,8	4,8
Lithuania	5,1	4,6	4,5	2,9	2,1	1,5	0,8
Russia	10,7	8,6	7,6	7,1	6,4	4,9	-
Ukraine	17,5	10,9	9,6	7,5	7,5	5,7	7,7

When we consider the period of four years (2005–2008) for the EU member countries, one can see that the level of financial globalization and deposit rates have an inverse relationship. This dependence means that the growing level of financial globalization decreases deposit rates. The same trend is observed when considering the relationship of financial globalization and lending rates, but lending rates have a greater impact on financial globalization than the deposit.

It is also interesting to consider the relationship of interest rates and capital flows to EU countries. Since 2002–2003 foreign capital inflows to the EU have increased considerably. However, this growth does not lead to lower interest rates in these countries, contrary to their growth.

We concluded that all CEE countries which join the EU and the countries that due to different criteria could not join the EU, are still trying to stabilize their balance sheet, reduce inflation, stabilize exchange rate, reduce the budget deficit and so on. After 2004 the situation has got out of control in a way, it especially has not improved in recent years in connection with the global recession. The further strategy for each country is to attract foreign capital to the economy and focus on providing its national interests. Under these conditions, foreign investment will enhance the living standards of a country and will provide additional impetus for economic growth.

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Chapter 9

INTERNATIONAL PORTFOLIO INVESTMENTS: THE SPECIFICITY OF POST-CRISIS RENEWAL

The global economic and financial crisis that covered the world during the latest several years has led to a great number of functional and structural changes in the global financial architecture. All fields of international financial system have changed dramatically during the crisis and have acquired new features and peculiarities after it. A lot of trends that took shape before the crisis were broken by it. But some of them were confirmed after the crisis, though some trends were completely broken or even changed their direction. All in all the influence of the global financial crisis on the world economy and international finance is difficult to be overvalued. It covered the real sector, the finance, the humanitarian field etc.

Being the part of international financial environment the field of international portfolio investments is one of the most vulnerable and sensitive to such economic and financial shocks. International portfolio investments much more quickly response to market drops than, for instance, foreign direct investments (FDI). They are in this sense much more mobile and represent a great many of transactions in comparison to FDI, that are not so mobile taking into account the large amounts and small number of transactions. International portfolio investment business was one that largest losers in the global financial crises. Portfolio investors together with banking institutions felt the drop in their liquidity almost at once after the mortgage crisis in the USA in 2006. To meet the private investors' requirements they had to sell their assets that in turn brought about the drop in prices and that drop again led to the sharp cut of investors' assets.

Analyzing the current stage a lot of scientists argue if it can be called the post-crisis period or not. To our mind this question can be answered on several key levels. First, if we consider the field of manufacturing industry or machine building the question may be considered to be opened, since the post crisis recovery may take some time and the current period cannot be completely viewed as the post-crisis one. Not all industries have completely recovered nowadays with a lot depending on the industry and good life cycle. Moreover the current stages of business cycle in different countries differ as well, thus making the post-crisis period identification on the global level even more difficult. Furthermore, the second wave of the crisis is expected by some experts and it will obviously make the recovery period even longer.

Second, when we consider the financial sector especially the quick, mobile and 'aggressive' international portfolio investing business the situation appears to be rather different. The world stock market which is one of the most active platforms for portfolio investors has completely renewed after crisis. The record before crisis level of its cap reached almost \$64 trln in October 2007 and then fell to its bottom of \$28.8 trln in February 2009. In April 2011 its level is almost back to its highpoint – \$59.2 trln[1]. The situation on the money markets and long-term debt papers is similar. This gives us the ground to state that the current period can be regarded as the post-crisis, for financial markets at least, since all data in the field show the signs of recovery. Moreover for quick and mobile international portfolio investments the crisis period can finish as quickly as it can start. But again this situation can be changed by the expected second crisis wave which will be able to give us other grounds to think about the explored processes.

Third, now we can observe a completely different than during the crisis character of markets' behavior and their investment

[1] According to the data of the World Federation of Exchanges.

characteristics. We mean first of all the markets risk and return trade-off and their return correlation structure. This issue will be the object of our particular attention in this article later. Fourth, the portfolio flows themselves have almost recovered after the crisis extreme drop and show confident upstream trends nowadays. And, fifth, institutional investors, first of all investment funds, have recovered their activity and have almost resumed their assets and individual investors' money, trust and confidence.

All this shapes the structure of our current research. We focus on the mentioned core international portfolio investment business components: markets and flows and intend to confirm (or disprove) that for this field the crisis is over and the present period can be completely regarded as the post-crisis. The main goal of this research is to discover main functional changes that occurred in international portfolio investment flows during the crisis and in the post-crisis period and to reveal core changes in its dynamics. We are also to discover main changes in different markets risk and return trade-off as well as shifts in their correlation structure. If we analyze the total global volume of international portfolio investment before the crisis we can see that since 1997 till 2007 the total assets grew permanently and rather rapidly (Fig. 1).

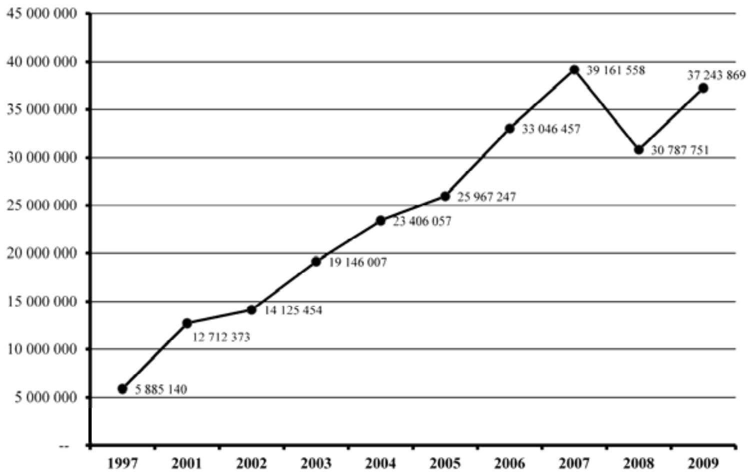

Fig. 1. Total International Portfolio Assets, mln. USD[1]

[1] According to the IMF Coordinated Portfolio Investment Survey data.

There was a great drop in portfolio assets in 2008 by almost 25 % – from $39.2 to $30.8 trln. In 2009 the total assets almost recovered to their pre-crisis record level of $37.2 trln. In this case we must pay attention to the year 2007 that is formally considered to be the crisis year but the portfolio flows were still increasing. The matter is that the markets ceiling in 2007 was in October and since then they began to fall. Though the cap began falling rapidly the global industry did not feel the decline in the whole year since the decline of November and December didn't override the 10-month growth. Thus the whole year showed the increase although the decline began in late fall.

The analytical data on the structure of the global international portfolio investment assets is represented in Table 1.

Table 1

Dynamics of the Global International portfolio Assets Structure, by Instrument[1]

Year	Total Assets		Equity Securities		Debt Securities			
					Short-term		Long-term	
	Trillion	%	Trillion	%	Trillion	%	Trillion	%
2004	23.4	100	8.7	37	1.9	8	12.8	55
2005	26.0	100	10.6	41	1.9	7	13.5	52
2006	33.0	100	14.2	43	2.3	7	16.5	50
2007	39.2	100	17.1	44	2.6	7	19.4	49
2008	30.8	100	9.8	32	2.7	9	18.3	59
2009	37.2	100	13.7	37	3.1	8	20.5	55

This data allow us to make several important conclusions. First, the crisis brought about the sharp decrease in the share of equities in the total figure of international portfolio assets. We can see that during the pre-crisis period the share of equities increased from 37 % in 2004 to 44 % in 2007 with permanently growing absolute figures. Then it fell to 32 % in 2008 and recovered a little in the post-crisis 2009 – to 37 %. Such situation can be explained by the fact that the extreme rise of risks (without adequate rise of returns) on equity markets during the crisis brought about the shift of international portfolio investors to less

[1] All percentage figures are rounded to whole numbers according to the data of the IMF Coordinated Portfolio Investment Survey.

risky debt securities. In other cases lots of investors just refused to invest or withdrew their investments. Many investors driven particularly by home bias shifted their holdings from international to domestic assets. As the risks diminished after the crisis the share of equities began to go up. Furthermore the 2009 returned the trust back to the global financial industry that attracted new capital.

Second, the crisis brought about the growth of money market instruments investment share. Its pre-crisis level varied on the level of 7-8 %, but rose to 9 % in 2008. In 2009 it reached the status quo on the level of 8 %. Such shift can be explained by lower risks in the short term instrument markets and the growing popularity of international money market in general. But all in all the difference between the pre-crisis, crisis and post-crisis absolute figures is not significant so we cannot state that the decrease in the equities share is reflected in the growth of money market instrument investments. Though if we analyze the relative figures, the growth from 7 to 9 % means the 28.6 % percentage rate that is almost one third.

Third, the most part of equity instrument share decrease reflected on the share of long-term instruments. It increased by 10 percentage points in 2008 – from 49 to 59 % and fell to 55 % in the post-crisis period. The pre-crisis share varied from 49 to 55 % permanently decreasing. That is because the global situation with indebtedness worsened lately, especially after the mortgage crisis in the USA when major rating agencies lowered their sovereign ratings. The 2008 increase of this figure is by 20.4 % and in 2009 it decreased by 6.8 %.

This structure data also allow us to notice that in 2006 and 2007 the rates of equity securities share growth and the debt securities shares decrease slowed down if compared to early years. Thus we can see that these figures began to change somewhere before the crisis and assume that their dynamics can be used to predict the crisis. We mean the sharp necessity to notice when these growth and decrease rates begin to slow down so that to expect the crisis. The main task then is to correctly estimate the time lag and the rates of increase and decrease slowing down so that we could state that the shock is approaching. But this issue requires further closer look and deep research in order to be proved or denied.

One more important thing we must explore is the geographic structure of international portfolio assets and liabilities. By geography we mean first of all not the geography in the traditional sense but the geography of markets such as developed markets, emerging markets, etc. The level of a market development is meaningful in this context. The reason is the following. During the crisis (especially in its early phase) major capital flows changed their direction from developed markets to less developed countries, since the risks in the first rose extremely without respective rise of returns. Instead less developed markets as well suffered from risk growth but still had much higher returns. Such shifts in capital flows changed the usual situation in the balances of payments of the countries. That's why the analysis of these changes during and after the crisis is important and timely.

Thus we actually come not to market geography but to market classification. We base our study on the traditional classification of stock markets used for international portfolio capital flow research. This classification is conducted by Morgan Stanley Capital International (MSCI) and is mostly supported by Standard and Poor's (S&P) and other rating and analytical agencies. According to this classification all stock markets are divided into 3 groups depending on the level of their development: developed, emerging and frontier. This classification differs from that one of economies conducted by the IMF or World Bank but for most countries they coincide. Moreover MSCI do not classify all markets of the world but only those that are rather important from the point of view of their capitalization. So there are 24 developed markets, 21 emerging and 25 frontier markets identified. Other markets that are not covered by this classification are included into the separate group "Others" in our research. This group accounts for a pretty small portion of global portfolio flows (less than half percent) and thus doesn't have any serious methodological and practical meaning. And we explore one more group of markets that are in off-shores. The geographical structure of global international portfolio investment assets is represented in Table 2.

Table 2

Geographical Structure of the Global International Portfolio Assets, in millions of USD and %[1]

Investment from:	2002	2003	2004	2005	2006	2007	2008	2009
Developed	12023587	16385496	20118649	22331891	28663037	33711666	25443727	31366735
	85.1	85.6	86.0	86.0	86.7	86.1	82.6	84.2
Emerging	78871	119100	153862	219159	340413	489934	348748	491344
	.6	.6	.7	.8	1.0	1.3	1.1	1.3
Frontier	33520	57541	100774	134837	193934	295269	264807	329009
	.2	.3	.4	.5	.6	.8	.9	.9
Off-shores	545577	711153	855093	1019281	1222108	1467713	1028519	1157364
	3.9	3.7	3.7	3.9	3.7	3.7	3.3	3.1
Others	14798	22934	32666	40942	68606	87606	58872	81871
	.1	.1	.1	.2	.2	.2	.2	.2
Int. org-s and reserves	1429101	1849783	2145013	2221136	2558358	3109369	3643077	3817546
	10.1	9.7	9.2	8.6	7.7	7.9	11.8	10.3
Total value	14125454	19146007	23406057	25967247	33046457	39161558	30787751	37243869
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Analyzing the data of Table 2, we can state that the structure of global portfolio assets did not change significantly under the crisis impact. If allowed we can say that in this sense portfolio investments were rather stable in their instability. Anyway one should note that the share of developed markets decreased from 86.1 % in 2007 to 82.6 % in 2008 and then rose to 84.2 % in 2009. That's because developed market investors cut their assets in absolute figures and partially shifted to domestic assets reducing risks. The share of frontier markets was permanently growing since 2002 and the crisis did not change this upstream movement, though the absolute and relative figures are now pretty small, just .9 % of the global assets' volume. The share of emerging markets and off-shores dropped a little like the share of developed markets.

The noticeable thing in this structure dynamics is the increase of the share of international organizations' holdings and the share of securities held as reserve assets. This figure was confidently decreasing before the crisis, and its growth in 2008 can be explained

[1] The poured figures are percentages. Calculated by the author on the basis of the IMF Coordinated Portfolio Investment Survey data.

by the actions of international organizations to save the industry and to prevent the securities from sharp drop. The 2008 gave us the increase of this figure by 49.4 % – from 7.9 to 11.8 % and this share remained on a rather high level in 2009.

The consequences of the crisis in the sense of global portfolio liabilities are that the share of more risky emerging and off-shore markets dropped and the share of less risky developed markets and other markets rose as well as the share of international organizations. The situation with frontier markets is the same as in previous case – their share did not change at all.

The next step of our research is to investigate the structure of global portfolio liabilities (Table 3).

Table 3

Geographical Structure of the Global International Portfolio Liabilities, in millions of USD and %[1]

Investment in:	2002	2003	2004	2005	2006	2007	2008	2009
Developed	12029008	16342100	19820457	21662467	27292598	31632394	25595607	30583997
	85.8	85.4	84.7	83.4	82.6	80.8	83.1	82.1
Emerging	482422	809431	1041215	1466093	2011773	2810561	1543509	2582067
	3.4	4.2	4.4	5.6	6.1	7.2	5.0	6.9
Frontier	34852	55031	76359	86648	141757	172577	114468	147581
	.2	.3	.3	.3	.4	.4	.4	.4
Off-shores	866371	1225129	1603032	1855953	2420662	3201010	2115826	2416770
	6.2	6.4	6.8	7.1	7.3	8.2	6.9	6.5
Other	272200	332373	410023	393703	624336	727130	784762	857038
	1.9	1.7	1.8	1.5	1.9	1.9	2.5	2.3
Int. org-s and reserves	337847	381921	454477	495102	558633	626656	633586	656393
	2.4	2.0	1.9	1.9	1.7	1.6	2.1	1.8
Total value	14022699	19145985	23405563	25959967	33049758	39170328	30787759	37243845
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

We must as well notice some more significant structural changes in international portfolio flows. The crisis brought about the shift from privately issued securities to public sector debt papers. And this trend is valid for all market segments, we mean for money market as

[1] The poured figures are percentages. Calculated by the author on the basis of the IMF Coordinated Portfolio Investment Survey data.

well as for notes and bonds markets segments. This shift occurred not only because of the tendency to reduce risks but as well because investors searched for higher liquidity. This is as well because of the tendency to reduce extremely grown risks. The Euro area portfolio investors disinvested a lot and repatriated their funds during the crisis while their liabilities grew because foreign investors decreased the risks by investing in European assets. And if we recollect the mentioned home bias it was even more typical for European developed market investors.

In all cases we can observe that all figures show confident signs of post-crisis recovery. If we again take into consideration the close to Ukraine region – European Monetary Union (EMU) the present dynamics of its total international portfolio assets also shows confident signs of post-crisis renewal (Fig. 2).

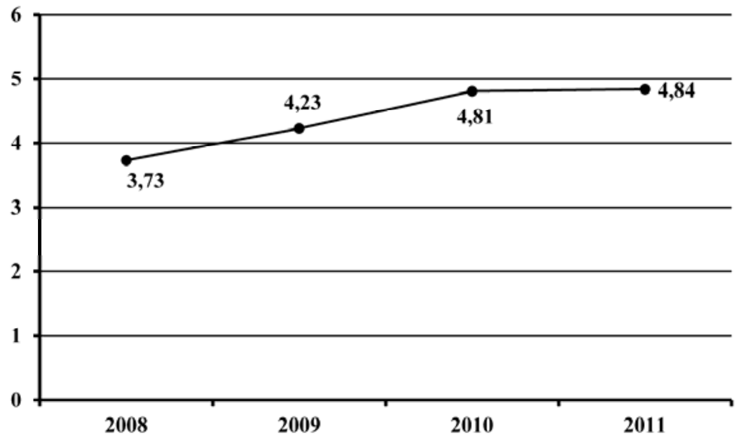

Fig. 2. Total International Portfolio Assets of the countries of EMU, trln euro[1]

We can see that in 2009 and 2010 assets increased from €3.73 trln in 2008 to 4.81 in 2010, and in the first quarter of 2011 they as well went up from €4.81 trln in 2010 to €4.84 trln. Most global crisis and after-crisis trends can be completely confirmed by the example of the EMU (Table 4).

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[1] Figure for 2011 represents the data as of Q1 of 2011 according to the European Central Bank data.

Table 4

Securities breakdown of portfolio investments assets of the EMU, in billions of EUR[1]

Year	Total	Equity			Bonds and Notes			Money Market Instruments		
		Total	MFI[2]	Non-MFI	Total	MFI	Non-MFI	Total	MFI	Non-MFI
2008	3727.6	1128.6	68.4	1060.2	2164.2	964.8	1199.4	434.8	358.1	76.7
2009	4226.3	1488.7	76.2	1412.5	2339.5	917.5	1422.0	398.1	327.3	70.8
2010	4809.7	1900.9	96.9	1804.0	2510.8	800.7	1719.1	398.0	312.9	85.1
2011[3]	4838.6	1900.0	88.7	1811.3	2538.4	813.7	1733.7	400.2	308.6	91.6

We can see that all absolute figures of international portfolio assets are growing since 2009 till the first quarter of 2011. Moreover one can notice the growth in any taken observed period even in the first quarter of 2011. Only one figure decreased a little – the total volume of equities investment. The figure for the end of 2010 was €1900.9 bln and it dropped a little in 2011 – to 1900.0 bln. Still further investigation is required in this sense in order to explore the structural changes in the total assets (Table 5).

Table 5

Securities breakdown of portfolio investments assets of the EMU, in %[4]

Year	Total	Equity			Bonds and Notes			Money Market Instruments		
		Total	MFI[5]	Non-MFI	Total	MFI	Non-MFI	Total	MFI	Non-MFI
2008	100	30.3	1.8	28.4	58.1	25.9	32.2	11.7	9.6	2.1
2009	100	35.2	1.8	33.4	55.4	21.7	33.6	9.4	7.7	1.7
2010	100	39.5	2.0	37.5	52.2	16.6	35.7	8.3	6.5	1.8
2011[6]	100	39.3	1.8	37.4	52.5	16.8	35.8	8.3	6.4	1.9

[1] Calculated by the author on the basis of ECB Data.
[2] MFI – Monetary and Financial Institutions.
[3] The data for 2011 represent the figures for the Q1.
[4] Calculated by the author on the basis of Table 4 data. In some cases the sum of the shares may not be equal to 100 % because of the rounding.
[5] MFI – Monetary and Financial Institutions.
[6] The data for 2011 represent the figures for the Q1.

The relative figures of Table 5 show us that the post-crisis period is characterized by the following core trends. First, the rates of equities investment growth are increasing. They went up from 30.3 % in 2008 to 35.2 % in 2009 and 39.5 % in 2010. Second, the reverse side of the same coin reflects the drop in the respective rates of debt securities. The figures for bonds and notes investments in the respective years are 58.1 %, 55.4 % and 52.2 %. Third, the share of the money market instruments investing is also decreasing. All these shifts in the EMU confirm the above outlined global trends and all in all practically support the idea that the post-crisis risk profile has changed. The decreased risks and the increase in business activity brought about the investors' come back to more risky equity securities. Less risky bonds, notes and money market instruments that were much more popular during the crisis now have given way to stocks. This in turn verifies that the present period can be considered as the post-crisis.

Notwithstanding the year 2011 showed some opposite shifts though the only quarter cannot be completely representative in this sense. We can see that the share of equities (the rate of growth) dropped a little – from 39.5 % to 39.3 % with the simultaneous growth of the respective figure for bonds and notes – from 52.2 % to 52.5 %. The rates for money market did not change in the first quarter. The mentioned issues give us the ground for the following substantial assumption. If we take that our thesis about the definite changes in the risk profile and the respective structure of international portfolio investment flows changes before, during and after the crisis is right then we can forecast the instability in the global financial market especially concerning the problems with liquidity. In order to make such forecasts further research is required but still the idea looks successful. The two core issues in this sense are to define the parameters of such structural changes and the framework for the different types of risk profiles. And, second, we must determine the appropriate time lags in order to clarify the time period since the structural changes and till the instability itself.

And that completely corresponds to the dominating nowadays expectations of the second crisis wave. Most scientists and practitioners agree that the second wave of the crisis is coming but nobody knows its chronology for sure. And again if our assumption is true and if we accept that the second crisis turn will actually occur, then such method of crisis forecasting can be correct and is obviously true though the problem of time lags and figures values still remains unsolved. Anyway we have pointed the directions of substantial interrelation between international portfolio investment market and the global financial market and these markets mutual co-influence.

The next significant question we are going to explore and that is of great importance for international portfolio investment is the market risk and return trade-off and the interdependence between markets themselves. In order to conduct such a research we arbitrary take three different countries representing three different groups of markets (according to the above mentioned MSCI classification) – the USA (developed markets), China (developing markets) and Ukraine (emerging markets)[1]. For every one we take the 5-year period from 2007 to 2011 and calculate the monthly returns for every period[2]. So we finally get 12 returns for 4 full periods and 6 returns for 2011. The methodology of the data array formation is the following. To calculate any given return we use the MSCI standard country index that includes large and mid-cap companies. All indices are converted into euros, which allows making correct comparisons and imply complete reinvesting of dividends on stocks underlying. All index data are monthly with the figure itself representing the last trading day of the month.

Moreover we investigate the world market that is represented by MSCI All Country World Index (ACWI Index). It consists of 45 country markets and includes 24 developed and 21 emerging market country indices and is free float-adjusted market capitalization weighted index. We calculate the returns for the ACWI as well as for three above mentioned country indices. The next step of our research is to calculate risks and average returns for all ratios in all periods. And finally we measure the correlation between the country indices

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[1] The respective indices are China Standard (Large + Mid Cap) Index, Ukraine Standard (Large + Mid Cap) Index and USA Standard (Large + Mid Cap) Index.

[2] The data for 2011 are for the first 6 months only (6 period from January to June including).

and the World Index in all periods. These figures will be later analyzed and their dynamics will be explored.

So first is the returns' calculation. The returns are calculated on the basis of the index figures using the simple return formula (1) and are often expressed in percentage:

$$r_i = \frac{I_i + (P_{i1} - P_{i0})}{P_{i0}}, \tag{1}$$

where r_i is the index *i* return for the period, I_i – index *i* dividends cash flow for the period (it is already included into the index value and thus not used in the calculations directly), P_{i0} – index *i* value at the beginning of the period, P_{i1} – index *i* value at the end of the period (this figure includes the gross reinvesting of dividends for the period).

The results of the returns calculations are represented in Table 6.

Analyzing the data of Table 6 we must pay attention to the following core substantial issues. First, the years 2009 and 2010 show complete post-crisis returns renewal in all markets and in the global market. All returns are positive and rather high. In the crisis 2008 all returns in all markets were negative with the highest negative value for Ukraine of -13.034 %. And we must as well notice that the developed USA market always had the most stable return figures that were closer to the figures of the global market (we hope to support this idea later when exploring the global market correlation structure). Actually the basic idea to be explored later is that the more developed the market is the closer it will behave to the global market. Second, less developed markets like developing or emerging group showed less stable returns' dynamics. For example, Ukraine had a very substantial returns' drop in 2008 and the highest average return of 4.793 % in 2010. China's returns were not very stable as well and in 2011 had the lowest negative value of -1.063 %. And finally third, the years 2010 and 2011 showed worse dynamics than 2009. All returns in 2010 (except Ukraine) were lower than in 2009 and all 2011 returns were negative at all. That can be again considered as the additional evidence of the changed risk and return profile before the second wave of the crisis. Though again we had only half a year statistics in 2011.

Table 6

Markets monthly returns, in %[1]

№	Year	Month №	ACWI Index	China	Ukraine	USA
1	2007	1	2.509	-2.823	16.354	3.317
2	2007	2	-2.107	-3.356	-4.961	-3.426
3	2007	3	1.267	3.058	3.452	.307
4	2007	4	1.911	1.208	.670	1.719
5	2007	5	4.538	9.061	1.931	4.971
6	2007	6	-.620	11.130	-5.448	-2.029
7	2007	7	-2.821	8.874	3.453	-4.391
8	2007	8	.175	7.645	-11.478	1.935
9	2007	9	1.035	14.972	-6.711	-.503
10	2007	10	2.154	14.612	7.348	-.044
11	2007	11	-5.755	-14.758	-9.381	-5.598
12	2007	12	-.688	-4.068	6.515	-.177
13	**2007 – AVERAGE**		**.133**	**3.796**	**.145**	**-.327**
14	2008	1	-9.318	-22.544	-8.214	-7.246
15	2008	2	-2.148	8.044	-.719	-5.502
16	2008	3	-5.557	-15.860	-13.896	-4.546
17	2008	4	7.528	17.663	-6.510	6.813
18	2008	5	1.863	-4.782	7.341	1.782
19	2008	6	-9.431	-13.339	-11.398	-9.404
20	2008	7	-1.610	3.308	-17.060	-.174
21	2008	8	3.739	-2.695	-10.477	7.428
22	2008	9	-8.245	-16.557	-35.049	-4.802
23	2008	10	-11.150	-14.420	-28.435	-8.171
24	2008	11	-6.569	4.481	-17.788	-7.440
25	2008	12	-5.362	.869	-14.199	-7.532
26	**2008 – AVERAGE**		**-3.855**	**-4,653**	**-13,034**	**-3.233**
27	2009	1	-.764	-.536	-1.458	-.367
28	2009	2	-8.916	-2.300	-20.530	-9.439
29	2009	3	3.590	9.174	2.304	3.855
30	2009	4	12.115	11.322	26.703	9.816
31	2009	5	3.057	9.894	27.644	-1.233
32	2009	6	.387	5.081	-4.120	1.141
33	2009	7	7.679	9.653	-3.821	6.393
34	2009	8	2.369	-8.151	-7.391	2.230

[1] Calculated by the author on the basis of MSCI index data.

Ending Table 6

№	Year	Month №	ACWI Index	China	Ukraine	USA
35	2009	9	2.712	2.768	5.224	1.985
36	2009	10	-2.443	5.451	22.257	-2.850
37	2009	11	2.361	.690	-10.249	4.121
38	2009	12	6.840	5.124	-2.138	6.799
39	**2009 – AVERAGE**		**2.416**	**4.014**	**2.869**	**1.871**
40	2010	1	-1.218	-5.691	11.876	-.398
41	2010	2	3.185	4.084	12.341	4.993
42	2010	3	7.396	6.320	25.360	6.897
43	2010	4	1.988	1.425	11.229	3.394
44	2010	5	-1.817	2.554	-21.179	-.376
45	2010	6	-2.876	1.448	6.885	-5.151
46	2010	7	1.701	-1.871	.108	.591
47	2010	8	-1.037	-.315	-9.360	-2.047
48	2010	9	2.035	1.566	-7.202	1.560
49	2010	10	1.793	2.046	-4.850	2.091
50	2010	11	4.440	4.232	16.305	6.891
51	2010	12	4.167	-3.660	16.000	3.523
52	**2010 – AVERAGE**		**1.647**	**1.012**	**4.793**	**1.831**
53	2011	1	-.590	-2.657	6.149	.198
54	2011	2	2.193	-2.529	16.660	2.589
55	2011	3	-2.728	2.509	-7.269	-2.554
56	2011	4	-.379	-2.794	-3.265	-1.421
57	2011	5	1078	3.575	-5.392	2.081
58	2011	6	-2.368	-4.480	-7.433	-2.526
59	**2011 – AVERAGE**		**-.466**	**-1.063**	**-.092**	**-.272**

Now we must have a look at the risk of the investigated markets. The risks are the standard deviations of the monthly returns and are represented in Table 7.

The risk and return data analysis gives us the following results. First, the risks rose extremely in the crisis 2008. In some cases the growth figure was almost twice as big – from 3.00 to 5.58 (the USA) and even more than twice – from 2.65 to 5.58 (the world market). Second, the post-crisis period can be described by the risks' drop for all (except Ukraine in 2009) cases. In 2009 the drop for the world market was .5 percentage points – from 5.58 to 5.08, it was more than twice for China and .73 percentage points for the USA. The next post-crisis year 2010 showed much more violent drop in risks – almost twice for the world and China and a little less for Ukraine and the USA, thus again showing the post crisis-renewal of the field. And, finally, third, but probably the most important in the part of risks is that the 2011 did not demonstrate the increase in risks in spite of the decrease in returns. Moreover, the risks again decreased and the decrease rates were rather high – by 39 % for the world market, by 8.8 % for China, by 31.4 % for Ukraine and by 40 % for the USA. Thus we can state that these figures do not let us to surely confirm the second crisis wave though most figures suggest this idea. We must again keep in mind that the array includes only half a year indeed but if our figures are true then the conclusion is that the crisis and before crisis risk-return profile has not developed yet. Therefore either the second wave of the crisis is not coming yet (or will not come at all) or the time lag before such structural changes and the crisis is much wider and requires further identification.

Table 7

Markets risks (average returns) dynamics, standard deviations (%)[1]

№	Year	ACWI Index	China	Ukraine	USA
1	2007	2.65 (.133)	8.53 (3.796)	7.70 (.145)	3.00 (-.327)
2	2008	5.58 (-3.855)	11.54 (-4.653)	10.82 (-13.034)	5.58 (-3.233)
3	2009	5.08 (2.416)	5.57 (4.014)	14.51 (2.869)	4.85 (1.871)
4	2010	285 (1.647)	3.28 (1.012)	12.81 (4.793)	3.44 (1.831)
5	2011	1.74 (-.466)	2.99 (-1.063)	8.79 (-.092)	2.06 (-.272)

Ukraine looks to be an exception from the generally common risk and return profile dynamics. The matter is that the economics is rather unstable and risky especially from the point of view of political situation. And this is the issue which is rather typical for domestic investors who have already got used to operating in such environment. But for foreign investors this situation can be scaring and unusual and they respond to such instability rather quickly and so do their international portfolio flows thus influencing the market substantially. Moreover the sovereign ratings of Ukrainian debt more often worsened during the past years bringing about portfolio

[1] Calculated by the author on the basis of Table 6 data. For the convenience of analysis the average returns figures from Table 6 are represented in brackets.

disinvestment by foreign investors. That is why this country had strange figures in all observed years except the 2007 that was the market top before the crisis.

Finishing our risk-return research we must explore the correlation of the markets under consideration and the world market as well as their correlation between themselves. So basing on the above organized data array we calculate the simple correlation between the Chinese, American, Ukrainian and world markets in any of the years given and present the results in a correlation matrix in Table 8.

Table 8

Different markets correlation matrix, in ratios[1]

Market	USA					China					Ukraine					World				
	07	*08*	*09*	*10*	*11*	*07*	*08*	*09*	*10*	*11*	*07*	*08*	*09*	*10*	*11*	*07*	*08*	*09*	*10*	*11*
USA						.30	.50	.44	.47	.20	.40	.36	.25	.57	.69	.92	.93	.96	.92	.95
China											.01	.36	.65	.10	-.34	.54	.73	.57	.43	.06
Ukraine																.47	.57	.44	.65	.71
World																				

Analyzing the correlations we must keep in mind two well-known ideas. First, the further we go the higher the correlations between different markets are. This can be explained by the issue that developing the world becomes more integrated, different markets become more integrated, and they have more and more common features and mutual procedures. Globalization brings about closer ties between all segments of global economy particularly between financial markets and their different segments. The further integration is developing the more unified the trading procedures and pricing systems become, and the more stock prices depend on themselves. It means that the correlations are getting higher taken all others equal. And second, during crises markets become more volatile and much more dependent. There is some evidence that during crises and different market shocks markets can behave almost in the same way, even markets from different market groups. It means that during crises and shocks different markets have higher than normal correlations. And this, in turn, opens gates for crisis transmission thus making the world even more global and the crisis

[1] Calculated by the author. 07, 08, 09, 10 and 11 – represent the years 2007, 2008, 2009, 2010 and 2011 respectively.

itself even more overwhelming and its spread speed much higher. So with the correlation decrease after the crisis the post-crisis period is coming and the gates for crisis transmission are closing.

The correlations testify that the more developed the market is the more it correlates with the global market. The respective figures for the USA vary from .92 to .96. For China and Ukraine the figures vary respectively from .43 to .73 (if not taking into account the abnormally small figure of .06 in 2011) and from .44 to .71 with average figures being higher for China. It means that the USA (and developed markets in general) is much more deeply integrated into the global financial market, that is also supported by risk and return data.

From the correlation dynamics we can see that in 2008 all correlations rose with only one between Ukraine and the USA fell a little – from .4 to .36. And this completely corresponds to the idea of correlation increase during the crisis. In 2009 almost all figures dropped with only two exceptions – one for abnormal figures for Ukraine in 2009 and the second for the USA – from .93 to .96 that is not important in this case since American figures were extremely high even before the crisis. Thus the correlation structure of the global market testifies to the post-crisis renewal.

Concerning the expectations of the second crisis wave the correlation dynamics shows us the following. In 3 of 6 cases the correlation in 2011 did not rise. All these 3 cases include correlation with Chinese market that behaved very untypically in 2011. All other cases confirm the correlation increase thus supporting the idea of approaching shock that in our case can be the second crisis wave. If we take China as an exception rather than a rule then we can accept the general case or correlation increase. Hence we can again predict the increased volatility at least, though final and definite conclusion requires much wider data array and countries set.

The last issue we shall explore in this research is the post-crisis specificity of international portfolio investments in Ukraine. The data of Table 9 demonstrate that seeking for liquidity during the crisis foreign residents were actively selling their Ukrainian portfolio assets in 2008 and 2009 with respective figures being -1292 and -1551. The post-crisis recovery came rather quickly in 2010 when foreign residents invested $4334 mln in Ukrainian assets but still have not achieved the pre-crisis level of $5782 mln. The figure for the first six months of 2011 is 3008. That is pretty high and looks like exceeding the previous one in the year end. As for assets we are not going to draw any conclusions since the absolute figures are extremely small but the positive figure of 12 for 2008 confirms the residents will to get their liquidity back by selling assets. Anyway the 2009-2011period shows clear signs of post-crisis recovery.

Table 9

International portfolio assets and liabilities operations of Ukraine, in millions of USD[1]

Balance of Payments Article	2006	2007	2008	2009	2010	2011 (half year)
ASSETS	**-3**	**-29**	**12**	**-8**	**-17**	**-4**
Equities	-2	-21	10	-6	4	...
Debt Securities	-1	-8	2	-2	-21	...
Bonds and Notes	-1	-8	2	-2	-21	...
Money Market Instruments	0	0	0	0	0	...
LIABILITIES	**3586**	**5782**	**-1292**	**-1551**	**4334**	**3008**
Equities	322	715	388	105	290	266
Debt Securities	3265	5067	-1680	-1656	4044	2742
Bonds and Notes	3190	5143	-1680	-1684	4039	2776
Money Market Instruments	74	-76	0	28	5	-34
TOTAL PORTFOLIO INVESTMENTS	**3583**	**5753**	**-1280**	**-1559**	**4317**	**3004**

But what is more important is the portfolio assets and liabilities structure by instruments that can predict the increasing volatility as we have pointed above. To analyze this structure we shall use the international investment position statistics of Ukraine that is again provided by the National Bank of Ukraine. Unlike the balance of

[1] The National Bank of Ukraine balance of payments statistics. Assets are with "minus" as they appear in the balance of payments and liabilities are with "plus". Positive assets operation means that existing foreign assets were sold (disinvestment from the point of view of Ukrainian residents). In the same way negative liabilities operation means that foreign residents sold Ukrainian assets.

payments data that reflect the flows position data represent the investment stock that has been accumulated on a certain date. The flow structure can actually be much more sensitive to shocks than the flows themselves. The structure data are represented in Table 10.

Table 10

International portfolio assets and liabilities of Ukraine, in millions of USD[1]

Balance of Payments Article	2007	2008	2009	2010	2011	2011 (1 Jul)
ASSETS	**63 (100,0)**	**103 (100,0)**	**49 (100,0)**	**79 (100,0)**	**94 (100,0)**	**99 (100,0)**
Equities	56 (88,9)	88 (85,4)	45 (91,8)	73 (92,4)	67 (71,3)	73 (73,7)
Debt Securities	7 (11,1)	15 (14,6)	4 (8,2)	6 (7,6)	27 (28,7)	26 (26,3)
Bonds and Notes	7 (11,1)	15 (14,6)	4 (8,2)	6 (7,6)	27 (28,7)	26 (26,3)
Money Market Instruments	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)
LIABILITIES	**12861 (100,0)**	**18618 (100,0)**	**17059 (100,0)**	**15567 (100,0)**	**20034 (100,0)**	**23279 (100,0)**
Equities	1248 (9,7)	2082 (11,2)	2304 (13,5)	2421 (15,6)	2773 (13,8)	3171 (13,6)
Debt Securities	11613 (90,3)	16536 (88,8)	14755 (86,5)	13146 (84,4)	17261 (86,2)	20108 (86,4)
Bonds and Notes	11515 (89,5)	16536 (88,8)	14755 (86,5)	13117 (84,3)	17200 (85,9)	20080 (86,3)
Money Market Instruments	98 (.8)	0 (.0)	0 (.0)	29 (.2)	61 (.3)	28 (.1)

Considering the portfolio investment flow structure we must note several core issues. First, foreign assets of Ukrainian portfolio investors' structure changed during the crisis and after it in the direction opposite to that one observed for the global market. Instead of decreasing the share of equities jumped up a little in 2008 (from

[1] The National Bank of Ukraine international investment position statistics. Percentage figures are presented in brackets and are rounded to one tenth. The cited data are on the 1[st] of January of the given year except the last column.

85.4 % to 91.8 %) and in 2009 (from 91.8 % to 92.4 %). And then it dropped in 2010 and 2011. But we are still not going to draw final conclusions on this basis since the absolute figures are pretty small and to our mind cannot be considered as representative. Almost all changes in equities share were reflected in respective (opposite) changes in debt securities' share with the money market of Ukraine being almost undeveloped and thus it attracted no foreign portfolio investment.

And, second, liabilities structure changed oppositely to the global market trend as well. In 2008 and 2009 the share of equities increased from 11.2 % to 13.5 % and from 13.5 % to 15.6 % respectively. The debt securities showed opposite to equities changes with the money market being pretty small. Unlike the case with assets this situation is more representative and it moreover shows the attitude of foreign investors to Ukraine as the part of the global portfolio investment market. Such unusual behavior can be explained by the following reasons. First, as we mentioned above the crisis brought about the global shift in the geography of international portfolio flows. Seeking for lower risks with low and negative returns being observed everywhere investors moved to less developed markets. Actually Ukraine was not very popular from this very point of view. It was rather not so favourable to attract investment than to promote their structure change. And this is the second reason. The risks of default on debt securities (even sovereign and guaranteed) rose so high, that even high traditional risks of stock became more acceptable for foreign investors. Thus many of them preferred to invest rather in risky Ukrainian stocks than in highly probable defaultable debt papers. And, third, the shift from debt securities occurred particularly because of the permanently unstable political situation that made sovereign papers totally unacceptable for foreign investors. All this means that Ukrainian market substantially differs from the global market from the point of view of the portfolio flows structure. Thus the typical methods and approaches to global market analysis can slightly be used in Ukrainian realities.

And it is valid for the above used approaches to crisis and shocks forecasting. We cannot define for sure if the current period is the post-crisis one in Ukraine, or the second crisis wave is approaching. The data for 2010 and 2011 do not again confirm the typical trends observed for the global market. We have the decreased figure for liabilities in 2010 (from 15.6 % to 13.8 %) and it has almost not changed in the first half of 2011 and is 13.6 %.

Summing up the current research we can draw the following most important conclusions and outline the most substantial findings. First, the field of international portfolio investment and the global international portfolio investment market are very sensitive to different shocks and crises. The investment industry rather quickly responded to the crisis beginning in 2007 and not less quickly responded to its end in late 2009 and 2010. Most data and analysis conclusions confirm that the global portfolio industry has recovered from the crisis but the second crisis wave is quite possible. The post-crisis recovery is also confirmed by the dynamics of the global portfolio assets that fell in 2008 from \$39.2 to \$30.8 trln and then again increased to \$37.2 trln in 2009.

Second, the crisis brought about some substantial changes in the structure of global portfolio assets and liabilities. One of the most important is the sharp decrease in the share of equities in the total figure of international portfolio assets in 2008. Later this figure recovered a little in 2009. This is because the extreme rise of risks without respective increase in returns on equity markets during the crisis brought about the shift of international portfolio investors to less risky debt securities or investors just refused to invest or even withdrew their investments. Many investors driven particularly by home bias shifted their holdings from international to domestic assets. As the risks diminished after the crisis the share of equities began to go up. On the other hand the opposite shift took place. The money market and the bond and notes market shares increased.

Third, in 2006 and 2007 the rates of equity securities share growth and the debt securities' shares decrease slowed down if compared with early years. Thus we can see that these figures begin to change somewhere before the crisis and assume that their dynamics can be used to predict the crisis. There is the sharp necessity to notice when these growth and decrease rates begin to slow down so that to expect the crisis. The main task thus is to correctly estimate the time lag and the rates of increase and decrease slowing down so that we could state that the shock is approaching.

But this issue requires further closer look and deep research in order to be proved or denied.

Fourth, during the crisis major capital flows changed their direction from developed markets to less developed countries, since the risks in the first rose extremely without respective rise of returns. Less developed markets as well suffered from risks' growth but still had much higher returns. The crisis also brought about the shift from privately issued securities to public sector debt papers in all market segments.

Fifth, the close to Ukraine European Monetary Union has also recovered after crisis. Most global crisis and after-crisis trends can be completely confirmed by the example of the EMU. The structural changes also correspond to global trends and structural changes in the world market. The shifts in the post-crisis risk profile have brought about the decrease in risks and the increase in business activity. This in turn brought about the investors' return to more risky equity securities. Less risky bonds, notes and money market instruments that were much more popular during the crisis now have given way to stocks.

In 2011 we observe some opposite shifts. The share of equities (the rate of growth) dropped a little – from 39.5 % to 39.3 % with the simultaneous growth of the respective figure for bonds and notes – from 52.2 % to 52.5 %. This allows us to make the following assumption. If our thesis about the definite changes in the risk profile and the respective structure of international portfolio investment flows' changes before, during and after the crisis is right then we can forecast the instability in the global financial market especially concerning the problems with liquidity. In order to make such forecasts further research is required. And that completely corresponds to the dominating nowadays expectations of the second crisis wave. If our assumption is true and if we accept that the second crisis turn will actually occur, then such method of crisis forecasting can be correct and is obviously true though the problem of time lag and figure values still remains unsolved.

Sixth, from the point of view of risk and return behaviour of different markets we can confirm that the years 2009 and 2010 show complete post-crisis returns renewal in all markets and in the global market. All returns are positive and rather high. Risk and return data also support the idea that the more developed the market is the closer it behaves to the global market. The years 2010 and 2011 showed worse dynamics than 2009. Most returns in 2010 were lower than in 2009 and all 2011 returns were negative at all. That can be again considered as the additional evidence of the changed risk and return profile before the second wave of the crisis.

All market risks rose extremely in the crisis 2008. The post-crisis period can be described by the risks drop for all cases (except Ukraine in 2009). The next post-crisis year 2010 showed much more violent drop in risks, thus again showing the post crisis-renewal of the field. But 2011 did not demonstrate the increase in risks in spite of the decrease in returns. Thus we can state that these figures do not let us confirm the second crisis wave.

Seventh, the correlation structure of the global market testifies that the more developed the market is the more it correlates with the global market. It means that developed markets in general are much more deeply integrated into the global financial market that is also supported by risk and return data. The correlation dynamics confirms that in 2008 most correlations rose and this completely corresponds to the idea of correlation increase during the crisis. In 2009 almost all figures dropped. As for the expectations of the second crisis wave the correlation dynamics shows us the following. In 3 of 6 cases the correlation in 2011 did not rise. All these 3 cases include correlation with Chinese market that behaved very untypically in 2011. All other cases confirm the correlation increase thus supporting the idea of approaching shock that in our case can be the second crisis wave. If we take China as an exception rather than a rule then we can accept the general case or correlations' increase. Hence we can again predict the increased volatility at least though final and definite conclusion requires much wider data array and countries' set.

Eighth, seeking for liquidity during the crisis foreign residents were actively selling their Ukrainian portfolio assets in 2008 and 2009. The post-crisis recovery came rather obviously in 2010 when foreign residents invested $4334 mln in Ukrainian assets but still having not achieved the pre-crisis level of $5782 mln. The figure for the first six months of 2011 is 3008 that is quite high and looks like exceeding the previous one in the year end. The 2009-2011period shows clear signs of post-crisis recovery.

The portfolio investment flows' structure shows that foreign assets' of Ukrainian portfolio investors' structure changed during the crisis and after it in the direction opposite to the one observed for the global market. Instead of decreasing the share of equities jumped up a little in 2008 and in 2009. And then it dropped in 2010 and 2011. Liabilities' structure changed oppositely to the global market trend as well. In 2008 and 2009 the share of equities increased. Such unusual behaviour can be explained by the following reasons. The crisis brought about the global shift in the geography of international portfolio flows. Seeking for lower risks with low and negative returns being observed everywhere investors moved to less developed markets. Actually Ukraine was not very popular from this very point of view. It was less favourable to attract investment than to promote their structure change. And this is the second reason. The risks of default on debt securities (even sovereign and guaranteed) rose so high, that even high traditional risks of stock became more acceptable for foreign investors. Thus many of them preferred to invest rather in risky Ukrainian stocks than in highly probable defaultable debt papers. The shift from debt securities occurred particularly because of the permanently unstable political situation that makes sovereign papers totally unacceptable for foreign investors. All this means that Ukrainian market substantially differs from the global market from the point of view of the portfolio flows' structure. Thus the typical methods and approaches to global market analysis can slightly be used in Ukrainian reality.

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Chapter 10

GLOBALIZATION AND INNOVATION-BASED COMPETITIVE STRATEGIES

Globalization and innovation have caused significant transformations on all levels of social and economic systems of modern society. We can observe the acceleration of system processes on the global level resulting in changes of fundamental characteristics of the world economic system, growth of its organization efficiency and integrity. The world economy is moving towards a new state that can be called the global economic system.

Unlike widely and deeply analyzed problems of global development, the nature of the global economic system, its structure, factors of its formation and mechanisms of development have been studied insufficiently.

The mechanism of the world economy systemic development has been described in interdisciplinary concepts of globalization. The civilization theories of Fernand Braudel and Alvin Toffler, the world economy system analysis approach developed by Giovanni Arrighi, Immanuel Wallerstein and Andre Gunder Frank, the concept of quantum consciousness elaborated by Ervin László, the integral theory of structural constructivism by Pierre Bourdieu and others constitute the basis for the system-defined analysis of the global economy. Nevertheless, the complexity and multi-structural character of the research object, continuous swift changes in the dynamic world environment predetermine the necessity of further scientific development.

The concept of the global economic system is relatively new to have been included into the contemporary academic vocabulary. Therefore, its theoretical and methodological foundation is being developed now. Some researchers are still using the terms "world economy" or "world economic system" as the basic ones taking into account the global properties, new features and characteristics acquired by both terms. At the same time, Z. Adamanova, I. Adelman, L. Allen, O. Bilorus, V. Lomakin, Yu. Makogon, I. Rodionov, N. Povazhna, O. Shvydanenko, A. Filipenko, Sh. Hall and other scholars are actively introducing the concept of the global economic system into the modern academic lexicon.

The peculiarities of innovation process in the global economy taking into consideration the trends of cyclical economic dynamics have been actively studied by A. Akaev, K. Freeman, M. Hirooka, A. Kleinknecht, G. Mensh, A. Poletaev, I. Savelieva and others. However the conceptual approaches to development the innovation strategies for the countries integrated into the global processes in different ways need to be improved.

The current research focuses on the development of the concept of the global economic system, and also suggests conceptual basis for designing the innovation strategies at different stages of long-term economic cycle for economies with different levels of integration into the global economy. It is based on the system-defined approach as well as at historical, logic and statistical methods.

Realizing the fundamental character of modern globalization processes, researchers admit that new phenomena and processes influencing the global economic system formation have not acquired general economic value yet and are at different stages of their evolution [9].

Therefore, researchers interpret the global economic system through the concepts of the world economic system, international (world) economy, etc. So, N. Povazhna defines the global economic system as the world economic system where national processes of production, exchange and consumption of wealth lose their autonomy and take place as an integrated planetary process [5, p. 6].

The study of mechanisms of the global economic system formation requires the clarification of its essence, content and structure through the systemic methodology and the results of academic research devoted to the development of the world economy under globalization.

From the point of view of system approach, the development of the world economy is a profound qualitative change of its components, connections (i.e. structure in general) and the way of functioning. It causes system changes on the world economy level that takes place with a definite periodicity. In spite of the diversity of interpretations of the concept of development itself, most researchers consider the development of the world economy system to be equal to progress, or complication of the economic system.

We consider the essence of globalization, on the one hand, as a continuous and discrete nonlinear process directed at achieving maximum integrity of the economy and society. On the other hand we consider it as a result of such process – a number of new states of the world social and economic system which arise with the increase of its integrity [7, p. 84]. Such interpretation enables to examine the contradictory impacts of the world development basic characteristics on the globalization dynamics, and the world system advancement in time and space dimension along the nonlinear trajectory in the direction of the global economic system formation.

To our mind, the concepts "world economic system" and "global economic system" are not equal despite the closeness of their meanings. Each of them is to be clarified from the point of view of terminology and content.

We define the *world economic system* as a set of international economic and essential non-economic (political, legal, socio-cultural, etc.) relations; their agents such as countries, regional integration groupings, international organizations; legal and physical entities like producers and consumers of goods who operate on the world markets of commodities, capital and labour, including enterprises, multinational corporations, strategic alliances of companies that function and co-operate through corporate, national, over-national organizational, economic and institutional mechanisms and use the world labour, capital and natural resources.

In other words, the dominant component of the world economic system is the subsystem of international economic relations between the participants of the world economy on the world markets of commodities, capital and labour. It is to emphasize on the multi-level character of organizational, economic and institutional mechanisms that provide functioning and co-operation of the world economic system participants.

According to T. Orekhova [4, p. 11], we consider the modern world economic system as complex heterogeneous poorly-organized system whose sub-systems and elements interact mainly within the area of international (foreign economic) relations. Most local economic actors operating within national economies with relatively low level of socio-economic development is insufficiently involved in such relations. If developed national economies are competent participants of the world economic system, local level of peripheral and semi-peripheral countries is only partly involved in the world economic relations.

In turn, *the global economic system* is to be considered in the temporal and special context, as a new quality of the world economic system. This quality is characterized by high level of closeness and institutionalization of relations between subsystems and elements, and accordingly by the high level of organization, which leads to the change of the system structure for maximum integrity.

In other words, *the global economic system* is a completely new qualitative state of the world economic system that arises as a result of its movement to the maximum integrated state (which is a scientific abstraction itself).

In our opinion, unlike the world economic system where the participants interact mostly in the field of international relations, in the global economic system the internal connections are also of great importance. It means that interaction on the national and local markets between the participants who are involved in the system of global relations is getting the global character. The constituent subsystems and elements of the global economic system are not only the direct participants of the international (world) market, but also the actors operating within national economies and local markets, and directly or indirectly are the agents of global demand and global supply, producers (or participants of supply chains) and consumers of the "global product".

The transformation of the world economic system from its previous states to the new condition takes place in time and space, in a continuous-and-discrete manner, through the accumulation of the changes represented by the indexes of internationalization and global integration [7].

The global economic system arises within the world economic system as a result of some kind of "maturity" of globalization processes and a higher level of institutionalization of connections between separated subsystems (elements) of the world economy. It is a "nucleus" or the field of very close interconnections within the world economic system which appears on a definite stage of globalization and in the process of the world economic system evolution it grows due to involving its components (subsystems and elements of different levels) into new system integrity.

Thus, the global economic system is a new modern quality of the world economic system, a form of existence of the latter which is in the process of formation. As the process of the global economic system formation is gradual and non-linear and it is carried out in a continuous and discrete manner, its bounds are not clearly expressed but blurred out towards the outside part of the world economic system where the substantial quantitative changes will be transformed into qualitative ones in future.

Let's note that there are no criteria for determining the global economic system's bounds existing at a definite period of time. The author makes an attempt to define conceptually the modern dimension of time and space limits of the global economic system through the KOF Index of Globalization.

The analysis of dynamics of integral KOF Index of Globalization [17] for the world economy, and its constituents – Indices of Economic Globalization, Political Globalization and Social Globalization has been conducted for the period 1980–2008 (Table 1).

In 1980–1990 the value of Integral Index of Globalization rose insignificantly by 0.2 points. In early 1990-s slight growth of the Index can be observed. By 2000 the Index had increased almost by 13 points. The Index of Globalization value for Eastern Europe and Central Asia demonstrates higher growth in the period 1990–2000 as compared to the World Index value due to the transitional reforms in post-socialist countries and the rise of their economies openness.

Table 1

Integral KOF Index of Globalization, 1980–2008

	Index values							
Index	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**	**2008**
Integral Index of Globalization	38,82	40,43	40,90	47,30	53,09	56,38	58,12	58,03
Index of Economic Globalization	42,80	44,89	46,40	51,13	57,45	61,23	63,49	62,52
Index of Political Globalization	38,51	40,03	39,57	50,28	53,40	57,14	60,19	61,00
Index of Social Globalization	35,43	36,57	37,54	41,58	47,91	50,19	50,33	50,18

Note: source – KOF Index of Globalization 2011. Press Release [17].

The early 1990-s is the period of intensive integration process and formation of regional organizations – the Ands Common Market (1990), MERCOSUR (1992), Organization of Asia – Pacific Economic Cooperation APEC (1989–1993), signing the Agreement on Free Trade between ASEAN countries (1992), the Treaty of Maastricht in 1992, North-American Agreement about Free Trade (NAFTA) and the completion of the Uruguayan round of GATT/WTO in 1994. It should be assumed that international globalization processes and institutionalization of international relations as well as socio-economic transformations in the CEE countries and former USSR caused the huge rise of the World Index of Globalization. It enables us to consider the early 1990-*s* as a starting point of global economic system separation in the general structure of the world economic system, or *global economic system scopes in temporal dimension.*

The conceptual defining of *spatial limits of the modern global economic system* as a part of the world economic system should be done by classifying countries according to the degree of their integration into the globalization processes on the basis of the KOF Index of Globalization. It is worth noting that the achieved results are relative due to conventional character of quantitative estimations of countries' integration into the global economy.

The author presents her substantiation of countries' grouping according to their KOF Index of Globalization value.

The grouping was made by using statistic method of standardization. Construction of the distribution curve demonstrates the type of distribution close to the normal one. Accordingly three levels of globalization were separated:

- high level (Index of Globalization value is higher than 70,00);
- medium level (Index of Globalization value between 50,00 and 69,99);
- low level (Index of Globalization value is between 20,00 and 39,99).

The data for 186 countries classified according to KOF Index of Globalization in 2011 are presented in Table 2.

Forty one countries that form the first group (Index of Globalization is 70,00 and higher) are on a high stage of the globalization in economic, political and social dimensions and present a *relative spatial border of the modern global economic system*. The interconnections between the above mentioned countries are characterized by a high degree of closeness. The high level of institutionalization of the interrelations within the group is testified by the following facts: 27 countries are EU members, 28 are in OECD, the USA and Canada cooperate within NAFTA Agreement, all countries of the group are WTO members.

Countries of the second and the third groups have lower level of integration into the globalization processes. It differs from rather high for countries with Index of Globalization between 60.00 and 69,99 show their dynamic movement to the integration into the global economic system, as well as the countries – outsiders with very low Index of Globalization value (between 20,00 and 39,99).

Table 2

Classification of countries according to the KOF Index of Globalization – 2011

The countries' groups	**The value of KOF IG**	**Countries**
Countries with high IG KOF	70.00 and more	Total 41 countries
including:		
Countries with a sufficiently high value of IG KOF	80.00 and more	Belgium, Austria, Netherlands, Sweden, Switzerland, Denmark, France, Hungary, Portugal, Ireland, Finland, Czech Rep., Luxembourg, Slovak Rep., Germany
Countries with moderately high value of IG KOF	70.00–79.99	Spain, Singapore, Norway, Cyprus, United Kingdom, Australia, Italy, New Zealand, Slovenia, USA, Poland, Greece, Malta, Croatia, Bulgaria, Chile, Israel, Iceland, Lithuania, Malaysia, Jordan, Romania, United Arab Emirates, Latvia
Countries with medium IG OF	50.00–69.99	Total 76 countries
including:		
Countries with high medium IG KOF	60.00–69.99	Bahrain, Qatar, Japan, Panama, Montenegro, Mauritius, Uruguay, Serbia, South Africa, El Salvador, Russian Federation, Ukraine, Rep. of Korea, Peru, Lebanon, Kuwait, Jamaica, Turkey, Thailand, Costa Rica, Bosnia and Herzegovina, Moldova, Tunisia, Macedonia FYR, Oman, Morocco, Brunei Darussalam, Honduras, Guatemala, Saudi Arabia, Argentina, China, Georgia, Mexico

The countries' groups	The value of KOF IG	Countries
Countries with low medium IG KOF	50.00–59.99	Egypt, Kazakhstan, Brazil, Colombia, Grenada, Trinidad and Tobago, Azerbaijan, Guyana, Indonesia, Philippines, Kyrgyz Republic, Paraguay, Albania, Namibia, Dominican Republic, Nigeria, Ecuador, Fiji, Zambia, Bolivia, Barbados, Nicaragua, Libya, Venezuela, Gabon, Samoa, Armenia, The Gambia, Algeria, Mongolia, Botswana, Sri Lanka, Antigua and Barbuda, Pakistan, Senegal, Cote d'Ivoire, Mauritania, Ghana, Cuba, The Bahamas, India, Belize, Belarus
Countries with low KOF IG	Below 49.99	Total 68 countries
including:		
Countries with moderately low KOF IG	40.00–49.99	Aruba, Djibouti, Seychelles, Mozambique, Zimbabwe, Surinam, Vietnam, Saint Lucia, Cambodia, Togo, Papua New Guinea, Guinea, Kenya, Vanuatu, Swaziland, Angola, Cape Verde, Yemen, Rep. Uganda, Mali, Cameroon, Benin, Syrian Arab Republic, New Caledonia, Saint Vincent and the Grenadines, Madagascar, Lesotho, Dominica, Burkina Faso, Rep. of Congo, St. Kitts and Nevis, Macao China, Malawi, Tajikistan, Uzbekistan, Maldives, French Polynesia
Countries with very low KOF IG	20.00–39.99	Chad, Bangladesh, Rwanda, Turkmenistan, Iran, Guinea Bissau, Nepal, Ethiopia, Sierra Leone, Haiti, Tanzania, Sudan, Niger, Cayman Islands, Burundi, Sao Tome and Principe, Central African Republic, Congo, West Bank and Gaza, Netherlands Antilles, Jamaica, Liberia, Afghanistan, Yemen, Bhutan, Lao PDR, Tonga, Equatorial Guinea, Kiribati, Solomon Islands, Myanmar

Note: arranged by the author on the basis of source [17].

For the group of 22 countries and territories such as Andorra, American Samoa, Bermuda, Channel Islands, Faeroe Islands, Micronesia, Greenland, Guam, Isle of Man, Iraq, Liechtenstein, Monaco, Marshall Islands, Northern Mariana Islands, Mayotte, Palau, Puerto Rico, Korea, Dem. Rep., San-Marino, Somalia, Timor-Leste, Virgin Islands (U.S.) the KOF Index of Globalization is not determined because of the lack of necessary data for calculation caused by different reasons such as very small dimension of economy, special status or a sort of isolation from the global processes.

As it was mentioned above, the borders of global economic system are indistinct and cannot be clearly described in terms of quantity. The additional subdivision of each group into two sub-groups proves heterogeneous character of their composition concerning the closeness of global interconnections between countries and permanent rise of the closeness from "periphery" of the world economic system to its "nucleus" that is the global economic system. Therefore, a number of countries with high medium value of Index of Globalization – between 60,00 and 69,99 that includes Ukraine as well, can be considered as sufficiently involved into the global economic system by most sectors of their national economies, or as those which will be involved there in the nearest future. There is some evidence of the availability of their potential and the necessity of keeping the attained positions by using and developing the advantages of globalization.

Special attention should be paid to BRICS countries (Brazil, Russian Federation, India, China and South Africa) which are characterized by middle value of the Index of Globalization. According to the 14-th Annual Global CEO Survey PricewaterhouseCoopers experts named the above countries as future "locomotives" of the world economic development [19]. It is also expected that business activity will move to new regions of the world such as Asia, Africa and Latin America. The growth in the Middle East and in Eastern Europe is expected as well.

Countries with low Index of Globalization (Chad, Guinea, Madagascar, Uzbekistan, Bangladesh, Turkmenistan, Ethiopia, Rwanda, Tanzania, Tajikistan and others) are characterized by very low closeness of relations with other subsystems and elements of the world economic system and mostly make up periphery of the latter.

The establishment of relative temporal and space limits of the global economic system enhances further development of the available approaches to the division of globalization processes into periods. The principle stages and historical types of globalization interpreted by British historian Antony Hopkins [15], Ukrainian researcher of globalization problems Anton Filipenko [8, p. 19], experts of the World Bank [13] and Organization of Economic Cooperation and Development (OECD) are generalized in Table 3.

Table 3

Generalization of the points of view to the stages and types of globalization

Antony Hopkins	Anton Filipenko	World Bank	OECD
Archaic Globalization	Archaic (Low-intensity) Globalization: trade of ancient civilizations and middle-age states	-	-
Proto-Globalization 1600 – 1800	Proto- Globalization: the period of Great Geographic Discoveries, World market formation, beginning of industrialization (XV–XVI cent. – till the beginning of XIX cent.*	-	-
Industrial Globalization: 1800 – middle of XX cent.	Modernistic Globalization: transition of the society to modernization and industrialization as a result of scientific and industrial revolutions (first quarter of XIX cent. – second half of XX cent.)*	First wave of Globalization: 1870-1940	First stage of Globalization – internationalization (activization of export flows): from the middle of XIX cent.
Post-colonial Globalization: 1950 – 1970 -s		Second wave of Globalization: 1950 – 1980	Second stage of Globalization – transnationalization (activization of FDI flows): after 1945
Modern Globalization: after 1970	Post-colonial (organic, consistent) form of globalization: elimination of colonial system (1950-1970-s), disintegration of USSR and East Block (1990-s.)*	Third wave of Globalization: from 1980-s	Third stage – exactly Globalization: from 1980-s

Notes: 1. The time limits of the stages of globalization are defined approximately according to Filipenko's conceptual approach. 2. Arranged by the author on the basis of sources [8, 13, 15].

Swift acceleration of globalization processes in early 1990-s and the separation of bounds of the global economic system which includes the group of countries with high level of socio-economic development and high closeness of interrelations with other subsystems and elements of the world economic system indicate the appearance of a new form of globalization – ***systemic globalization***.

The systemic character of modern globalization is predetermined by qualitative changes in the structure of the world economic system, by the increase of closeness and institutionalization of relations between the separate subsystems (elements) of the world economy. The global economic system is being formed due to gradual involvement into the new integrated system integrity of the countries which are able to realize efficiently the competitive advantages of globalization and to minimize its negative externalities using the potential of the economy of knowledge and innovative development.

Globalizing economy is characterized by favourable conditions for innovative development. In turn, the countries with innovation-oriented economies are more actively involved into the globalization process. This fact is proved by generalized results of measuring the innovative potential and the degree of globalization of different economies. Such measuring is regularly carried out by international organizations and research centers.

The calculation of correlation within the groups of countries with high, middle and low Indices of Globalization made by the author [3], has shown that the closeness of relations between the levels of globalization and innovative development was the highest for the countries with the high index of global connections and lower for low globalized countries.

The significance of innovative advantages in providing stable competitiveness of the global market players is sharply increasing. Nowadays, the accumulated knowledge, innovation in all the activities, technologies of the 5^{th} and 6^{th} generations are becoming exceptionally significant, act as "generators" for most of new competitive advantages and bring about the success in competition.

Thus, the system synergetic interaction of globalization and innovative development processes lead to gradual formation of innovative economy in the world and is a driver of the global economic system formation. In turn, the complex interaction of innovative and integrative competitive advantages is the basis for countries' competitiveness on the stage of systemic globalization.

Under the conditions of the world system's transition to the globalization and innovation stage of post-industrial development at the turn of the XX century, the strategies of countries' competitiveness based on the formation and realization of innovative and integrative competitive advantages should be developed taking into account the cyclic world dynamics, particularly in the context of "long cycles" theory. A prominent sociologist and economist Nikolay Kondratiev established linkage between the long cycles and the processes of stock accumulation and the dynamics of innovation [10]. Joseph Shumpeter found the reasons of long cycles in the waves of technological innovation and substantiated the assumption about the principal role of innovation and entrepreneurs' innovative activity fluctuations in the mechanism of long cycles [20]. The explanation of Kondratiev's "dynamics of cycles" through Shumpeter's "waves of technological innovations" was developed in works of Alfred Kleinknecht, Gerhard O. Mensh, George Modelski, Christopher Freeman and others.

Although Kondratiev waves' time limits are still being under the discussion [1, 3], it is important to separate Kondratiev cycle upwave and downwave stages to compare them with globalization periods. So the upwave stage of the 1st Kondratiev cycle (1785/90–1844/51) covered the period from the end of 1780-s – beginning of 1790-s till 1810–1817. Ascending stage of the 2nd Kondratiev cycle (1844/51–1890/96) is marked as 1844/51 – 1870/1875. The prosperity stage of the 3rd long cycle covered 1890–1896/1914–1920 years. Kondratiev's followers suggest determining the limits of the 4th and 5th cycles' ascending stages accordingly as 1939–1950/1968–1974 and 1984–1991/2005–2008 [19, p. 190].

The comparison of Kondratiev's long cycles' time limits with the stages or "waves" of globalization from Table 3 demonstrates the considerable coincidence of globalization process acceleration with upwave stages of Kondratiev's cycles. It can be explained by high correlation between the globalization and innovative development. So, the calculation of correlation between the KOF Index of Globalization and the Global Innovation Index published by the analytical center of Lauzanne Business School INSEAD, Switzerland [12] demonstrated high closeness of relations between the analyzed parameters (Pearson's correlation coefficient is equal to 0,8244). This dependence has to be considered through the prism of J. Shumpeter's thesis about the exclusive role of innovation in causing long cycles of business activity.

Such a statement leads to an assumption that innovative process expands in different ways in different phases of a long cycle. Modern scientists have substantiated the fact that innovations are not always perceived by an economy but only in definite periods of its development [1, p. 230]. A. Kleinknecht presents a substantial body of data on the relationship of radical innovation to growth of international output and long waves since the later part of the nineteenth century. He suggested that the incidence of radical product innovation declines in the late prosperity phase, and rises again in the late depression phase of the long wave. Moreover, the radical innovations in the late depression phase are followed by a stream of "related" innovations, within the innovating industries, during the early prosperity phase [10, p. 385]. G. Mensh has determined that an economy is most sensitive to innovation in the period of depression [18]. According to the research of C. Freeman, the development of innovative processes takes place in the period of recovery [11]. The research carried out by A. Poletaiev and I. Savelieva shows that the periods of maximum number of basic innovations coincide with the depression phases of the world long cycle [6, p. 45]. The study of dynamics of the world leading companies' expenditures on research and development (B. Yaruzelskiy and C. Dehoff) showed a 5,7 % growth of such expenditures during the world financial and economic crisis in 2008-2009, in spite of a 8,6 % decrease of operational income and a 34 % fall of net profit [16, p. 3]. We can assume that the time of "starting" the innovative process covers a considerable period during the depression and recovery phases. In turn, the Japanese scientist M. Hirooka proved that the diffusion of innovation takes place simultaneously with the upwave stage of Kondratiev's cycle [14]. His ideas were generalized and developed by A. Akaev who studied the diffusion of innovation along ascending stages of Kondratiev cycles [1, p. 236].

The results of scientific research by A. Akaev, K. Freeman, M. Hirooka, A. Kleinknecht, G. Mensh, A. Poletaev, I. Savelieva and others testify to the fact that innovative competitive advantages are formed on the descending (downwave) stage of Kondratiev's large cycle, whereas the diffusion of innovation takes place on the ascending (upwave) stage of the "long wave" and reaches the stage of "saturation" in the peak of the cycle.

The coincidence of ascending stages of Kondratiev's long cycles with the acceleration of globalization processes was clearly revealed in the sharp growth of indices of globalization on the upwave stage of the Kondratiev last (fifth) cycle which is considered to last from 1984 to 2005-2008. This coincidence proves that the ascending stage of Kondratiev's long cycle is characterized by favourable conditions for profiting from competitive advantages provided by integration and globalization.

The discovery of the relations between the dynamics of globalization and innovation processes in the world economic system, the determination of a correlation between the periods of globalization processes acceleration and definite phases of Kondratiev – Shumpeter's "long waves", as well as determination of peculiarities of innovative processes implementation on particular phases of the long cycle lay down the foundations for developing strategies of competitiveness for economic entities' – enterprises (companies), regions, countries and international integration groups.

On the descending stage of the long cycle the formation of innovative competitive advantages through companies' management and government's assistance to the innovation process is of particular importance.

More than two thirds of the companies included in 2009/2010 Global Innovation 1000 maintained or increased R&D expenditures in 2008. Furthermore, the analysis revealed that innovation investment is increasingly viewed as essential to corporate strategy. More than 90 percent of executives surveyed said that innovation is critical as they prepare for the upturn. "Innovation is what drives our competitive position in all three of our markets – automotive, professional, and consumer – and therefore we can't back off," says Robert Lardon, corporate vice president for strategy and investor relations at Harman International Industries Inc. Adalio Sanchez, general manager of IBM's System X server business, echoes that point of view: "I would argue that the recession is a catalyst for increased innovation" [16, p. 4].

The activation of early phases of the innovation process on the decline stage requiring investment in research and development creates the necessary conditions for a wide diffusion of innovation on the ascending stage of the cycle. The success of innovation policy depends significantly on the management's readiness and ability to take into account the above mentioned cyclic tendencies when elaborating long-term strategies of competitive development, and to provide the necessary assistance to the innovation process on the depression and recovery stages.

Such policy will result in the creation of conditions for an "innovation jump" and efficient implementation of innovative model of economic development for the countries which are highly integrated into the global economy, on the ascending stage of the cycle. The realization of innovative competitive advantages, in turn, creates conditions for stimulating the participation of separate companies and countries in the process of global integration on the basis of partnership on the growth stage. Thus, the integration competitive advantages can be used most efficiently on the ascending stage of Kondratiev's cycle. The data of the world globalization dynamics for the period of 1980–2000 proves the above mentioned statement.

The economists argue that the ascending phase of the Kondratiev's fifth cycle ended in 2005–2008 whereupon the world economy entered the depression phase which will probably last from 2010 to 2020 [3, p. 237]. This period is the most favourable for "starting up" a new wave of innovation activity directed at the development and implementation of innovation at the global level.

The conducted research allowed to come to a conclusion about the formation of the global economic system in the early 1990-s within the group of countries with high Index of Globalization value, and about the definition of modern stage of globalization as a systemic globalization.

Strategies of competitiveness for economic agents – enterprises (companies), regions, countries and international integration groups under the conditions of systemic globalization are to be developed taking into account the peculiarities of the world cyclic dynamics and the implementation of innovative processes on particular stages of the long cycle.

The special attention to the formation and realization of innovation competitive advantages by supporting innovative process, especially on its early stages, is to be paid mostly on the descending stage of Kondratiev's long cycle. At the same time, integration and globalization competitive advantages can be used most efficiently on the ascending stage of the long cycle.

The period from 2010 to 2020 considered as a descending stage of Kondratiev's fifth long cycle is the most favourable for stimulating the innovation activity, especially in the countries integrated into the global economy. Taking into consideration the position of Ukraine within the group of countries with high medium value of Index of Globalization the approach proposed above may be applied for Ukrainian economy to develop the innovation strategy in post-crisis period.

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Chapter 11
INTERNATIONAL LABOUR MIGRATION UNDER THE GLOBAL ECONOMIC CRISIS

The current global financial and economic crisis has brought economic recession and increase of unemployment in the first instance in construction, financial sector, tourism and other services. International labour market, being an important part of the world economy, is affected by the crisis as well as other parts. In 2009 there were about 212 million unemployed people in the world, the figure increased by 4.4% in Western Asia and more than by 10% in Central, Eastern and South Europe (non-EU), CIS, and North Africa. In 2009 the rate of unemployment was 8.4 % in developed countries and EU [19]. Unemployment increased higher among foreign citizens than among nationals. At the end of 2009 28.3% of foreigners were unemployed in Spain and more than 15% in Belgium, Ireland, Finland and France [4].

Various problems of the world migration processes are considered in the papers of foreign authors: K.F. Zimmermann, K. Koser, G. Beets, F. Willekens, P. Krugman, G. Friman, M. Todaro, K. Makkonnell and O. Toffler. Some issues of international labour migration are investigated by the CIS authors: A. Kireyev, I. Tsapenko, G. Zayonchkovska, O. Reznikova, S. Ryazantsev, G. Ovchinnikova and K. Scherbakova. Among Ukrainian researchers, we can name V. Priymak, A. Filipenko, O. Poznyak, M. Romanyuk, A. Rumyantsev, V. Savchuk, O. Vlasyuk and others.

The author of this article bases the research on selected studies of the mentioned experts and also on the reports of the World Bank, the United Nations, International Organization for Migration and International Labour Organization.

Although a lot have been said and done to overcome the current global financial and economic crisis on international and national levels, still many gaps need to be fulfilled and problems must be solved. One of them is regulation of international labour migration. Under the global crisis the issues of international migration become more crucial. As globalization of the world economy develops and the borders of national economies open up, national labour markets become more dependent on foreign labour. During the last decades national labour markets of developed countries haven't been able to satisfy the demand for labour force, and so they have had to import high-skilled workers for IT, engineering, biotechnology and other high-tech sectors, and low-skilled workers for construction, tourism, housekeeping, etc. On the one hand, international labour migration helps emerging economies that have high fertility rate and high increase in labour force to balance their labour markets, and to fulfill the gaps of workforce for developed countries; on the other hand, it takes away the best skilled workers from emerging economies and provokes xenophobia among resident population in receiving countries

International labour migration trends undergo changes during the crisis, thus they must be analyzed carefully. As far as international labour market is represented by migrant workers, and nowadays the receiving countries need immigrants' work while the sending ones depend on inflows of remittances.

The aim of the paper is to investigate the features of international labour migration during the global financial and economic crisis and develop policy recommendations.

The impact of the current crisis, as well as the previous major crises of the twentieth century, was significant on migration patterns and processes. It has influenced migrant workers, sending and receiving economies and societies. In the history of the past century we can find five crises, which affected international migration the most: the Great

Depression, Oil Crisis, Asian financial crisis, financial crisis in Russia, and Latin American financial crisis [13, p. 6].

The Great Depression of 1930-s resulted in massive unemployment, that reached over 25% in the USA, Canada, Australia, Germany [13, p. 7], and in decline of international labour migration. At the same time, the researchers point out the fact of de-globalization, that was provoked not only by the crisis of 1930-s but also by the First World War and high inflation in the 1920s [4, p. 6]; [18, p. 1]. In any case, those events and political instability brought more restrictive migration policies in receiving countries. In Canada, for example, the number of immigrants was reduced more than ten times from 1928 to 1933. Hundreds of thousands migrants were repatriated from USA and France [13, p. 11].

The Oil Crisis of 1973–74 was connected with rise in oil prices and recession in oil-importing countries. That crisis affected international migration but in a distinct way. Before the crisis the governments of Western European countries conducted the policy of attracting foreign workers ("guest worker migration") by simplifying the visa regimes and allowing family reunion. In the crisis those receiving countries made an attempt to reduce the number of attracting foreign workers and to facilitate return migration, which happened to be a difficult task because of ongoing process of family reunification [4, p. 6]. Higher fertility of migrants and in-flows of refuges and asylum seekers redounded to increase in quantity of migrants in Western Europe. In 1970-s net migration to this region was on average 240 thousand people annually [9, p. 5]. In order to protect national labour markets, governments of some Western European countries provided extra restrictions on foreign labour force and marginal status for them (e.g., Germany). However, such measures didn't meet the needs of labour markets [1]. The recession after the crisis stimulated relocation of production from developed countries to developing countries in Asia and Latin America, as far as corporations were seeking for cheaper ways of production.

The Asian financial crisis of 1997-99 was followed by reduction in oil prices, slumping currencies and rapid inflation, which affected standards of living in Asian economies including Indonesia, the Republic of Korea, Hong Kong, Thailand, Malaysia, Philippines (although Hong Kong didn't experience currency devaluations during that crisis) [6, p. 1-2]. At the same time, the crisis was relatively short-lived, having enabled the economies of the region to recover quickly. As for labour market, it had wage decline and significant increase in unemployment, several governments applied policy restrictions toward migrant workers [4, p. 6]; [13, p. 8]. Vodopivec M. and Pacireturn P. [20, p. 4] point out that the crisis brought significant return migration and emigration in the region, while Koser K. [13, p. 12-13] didn't find significant impact of the crisis on migration (between 1997–2000 the stocks of foreign workers in Asian economies kept growing).

The Russian financial crisis of 1998 was triggered by the Asian crisis, particularly the reduction in oil revenue, and also by speculative attack on the ruble [7, p. 11, 16]. Russian economy faced high inflation (84% in 1998), devaluation of the ruble, and considerable increase of prices. The crisis was followed by emigration and "brain drain" from the country (an 18% increase by the end of 1998). It increased irregular migration as well, although it's not a feature for all crises [13, p. 8-13]. The researchers state that the crisis pushed the government to provide reforms in migration policy.

The Latin American financial crisis of 1998 – 2002, as well as the Russian financial crisis of 1998, was followed by "brain drain" from the region. Therefore, the governments of several countries (e.g., Argentina) implemented measures to reduce that tendency. Also, it brought a decrease in remittances to Latin America but they rebounded relatively quickly [13, p. 29-31].

During the current financial and economic crisis we observe changes in patterns and processes of international migration and slight reduction in quantity of international migrants in certain regions and sectors, although the general number of migrants keeps increasing year after year. In 2010 there were 214 million international migrants in the world. Among the largest migrant stocks the United States of America takes the first place and Ukraine – the tenth (Fig. 1).

In the European Union the in-flows of migrants to the countries with positive net migration decreased in most of the countries in 2008–2009. Insignificant reduction was from about 1 to 10% in Denmark (-9.7 %), Finland (-8.3 %), Malta (-9.8 %), the United Kingdom

(-4.0 %). The reduction of migrants from about 10 to 20 % was in Cyprus (-17.2 %), Italy (-17.2 %), Netherlands (-10.2 %); and the most decrease was in Austria (-33.4 %), Germany (-50.4 %), Luxembourg (-11.3 %), and Spain (-31.3 %). In several migrant-receiving countries the quantity of immigrants kept growing – in Belgium (1.4 %), Portugal (8.7 %), and Sweden (1.1 %) (Calculation based on [12]).

In the research of International Organization for Migration [13, p. 28], Koser K. states that the impacts of previous and the current crises on international migration are significant but they are not necessarily equal because of different national and regional circumstances, conditions of the labour markets and dependency on migrant workers. The political situation, attitude towards migrants in society and potential for growth of irregular migration are also important. The author doesn't put unemployment among migrant workers on the first place in the reasons of the changes in migration flows. Castles S. suggests, based on his analysis with other researchers, that impacts on international migration are different depending on whether the crisis is short- or long-lived.

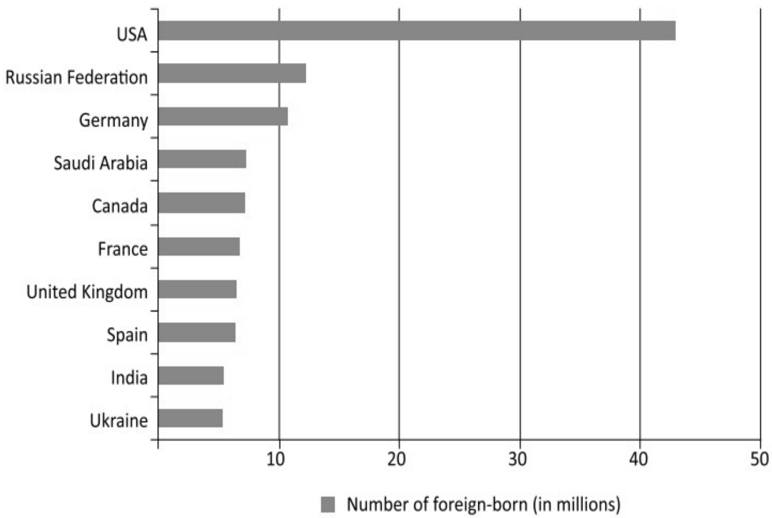

Fig. 1. Countries with the largest foreign-born populations in 2010, millions

Note: Source [21, p. 115].

Beets G. and Willekens F. [4, p. 2-4] suggest (with the reference to the migration theory) the intention to migrate is lower during recession, since there are fewer opportunities of finding a job; at the same time lower wages in destination countries are not the case in changing the migrant flows. The authors consider migrant workers to be one of the most vulnerable categories of workers in a period of the global crisis. In the beginning of the crisis it was assumed that many migrants would return to their home, but it didn't happen on a high-scale.

Martin P. [14] assumes that migrant stocks would stop growing or even decline in receiving countries because of less demand for labour force. There also should be decrease in migrants' flows if settled migrants would advise the newcomers not to enter the country considering the situation in labour market.

According to "push – pull factors" theory, when there are fewer job opportunities in one country, people tend to leave and search elsewhere. They will likely go to the states with higher employment and wage rates, but the point is that typically the economic recession brings an increase in unemployment and worse working conditions in both origin and destination countries. In that case push and pull factors "cancel each other out" [4, p. 4]. In the US the unemployment rate went up from 4.8% in Q4 2007 to 10.0% in Q4 2009. This level is only comparable with the end of the Great Depression [16, p. 22]. For more than ten years unemployment in US was significantly lower than in EU, it almost matched European level during current recession.

In the European Union unemployment rate was 9.6% in 2010 compared with 7.2% in 2007. Having being affected by the crisis, this rate increased in all EU Member States except Germany. Unemployment rate raised most of all in Lithuania (13.5%) among migrant-sending Member States and in Spain (11.8 %) among migrant-receiving Member States. As the governments try to cut expenditures, immigration integration funds are one of the most vulnerable. Economists project a long-term recession in labour markets and suggest extra job creation is essential for future growth [16, p. 2-3].

According to the buffer theory, migrants are considered as a buffer for the economy of an immigrant-receiving country. Foreign workers are likely to enter the country when it experiences economic growth and return home when economic downturn comes up

[4, p. 3]. The evidence from the current and past crises suggests that only small part of workers would leave the host country.

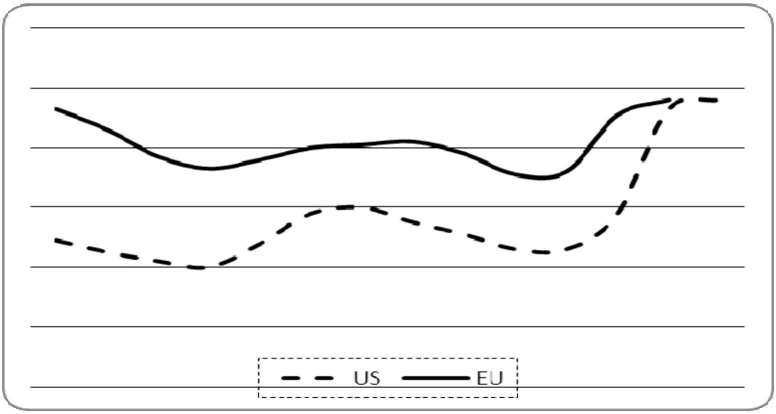

Fig. 2. US and EU unemployment rates, 1998–2010, %

Source: [12].

The migration theory explains why people sometimes prefer to stay rather than get back: if there are fewer opportunities of finding a job in home countries, if migrants assume they might not be able to return, and if they invested a lot in movement, they choose not to change the destination location. Nevertheless, if foreigners have social security and networks in host countries they are likely to stay [4, p. 2-3].

In order to control and optimize the quantity of migrants, who intend to settle in host countries, governments use immigration policy, which goal is to prevent intervention of large in-flows of people of active working age to their national labour market, and at the same time to encourage in-flow of labour force of the qualification and education level demanded in the market. In the period of rapid economic growth, governments provide open policy, and vice versa they provide higher quotas or other measures, when the national labour market needs protection from extra workers. Such measures are [5, p. 5]:

- to require a job offer from a potential immigrant, especially for categories of workers that are not in high demand in the labour market;
- to reduce quotas of migrants;

- to raise the number of points required to enter the country in case of countries with points systems (Australia, Canada, Great Britain, etc.);
- to promote return migration;
- to make the procedure for prolongation of staying and getting visa for the family members more difficult artificially;
- to implement more deportations for illegal foreign workers.

In any case, during all crises the governments tend to provide more restrictive regime for international migration and it is hard to say whether migrant flows are lower due to worse economic situation or measures implemented by the governments. Foreign workers employed in the sectors where economic recession is felt the most (construction and some services) and workers with temporary contracts are affected by the crisis more than other categories of migrants [5, p. 17]; [4, p. 2-3]. The majority of EU member states (Czech Republic, Great Britain, Ireland, Spain, etc.) provided additional measures of migration policy in order to protect national labour markets from foreign workers of non-EU members, offering financial help for those who decided to return to their native countries. In the UK the protest started demanding to employ British workers not foreigners, as employment among Britons dropped by 1.8 % from September 2007 to September 2008, while employment of foreign workers rose by 4.9 %. The government reacted to the strikes against migrant workers immediately [3].

Such measures are feasible; however international organizations (ILO, OECD) and researchers point out that closing the doors for migrants may affect the economies of receiving countries [10]. All EU countries (both sending and receiving) are more or less dependant on migration. For instance, in 2010 natural population growth in EU-27 was 0.5 million people, while net migration was 0.9, including Euro zone 0.3 and 0.6 million respectively [11]. According to research [17; 2], demographic problems of Europe, such as life expectancy increase, population aging, and taxation pressure might be decreased due to migrants' in-flows. Nowadays Europe has become dependant on migrant workers in IT, engineering, tourism, health care, agricultural sector, and it's not temporary.

According to projections [16, p. 15], the current crisis is going to reshape patterns and processes of international migration. Foreign born populations have already slowed down in their growth in more developed countries, although they still hold the majority of international migrants. There seems to be a turning point for the immigrant-receiving countries – some of them, such as Ireland and Greece are experiencing increase in emigration. In 2009 net migration in Ireland was -7,878 people, although it had remained positive for fourteen years [8].

Although we observe reduction in migrant movements all over the world due to the crisis, migration in-flows into the receiving countries are still high. Despite the recession, the globalization process goes on and will definitely lead to increase of international migrants in future. According to International Organization for Migration [21], by 2050 their quantity in the world may reach 405 million people consequent on growing demographic differences, climate change, new political and economic dynamics, technological revolutions and social communications. New centres of migrants' attraction may arise. In any case, the governments of sending and receiving countries must be ready to new trends and dynamics in international labour migration, taking into consideration short-term as well as long-term perspective.

Massey [15, p. 23-26] warns (based on synthetic theory) that migration process occuring all over the world is not a simple pursuit of economic benefits. It is rather a "natural consequence" of integration in social, political, and economic life across borders. Besides, many migrants tend to migrate temporarily in order to solve their problems in origin country, but not to have a permanent relocation. Their motivation towards relocation may change over time and they might either return or search elsewhere. The author suggests the government officials and societies shouldn't base their conclusions on false assumptions; policy responses are not to be only within neoclassical economics – either open or closed borders.

In these conditions, on the one hand, the latest emigration trends in the world require more attention and control from the government to this issue, on the other hand, reasonable and agreed migration policy is required in destination countries. Migration policy should take into account interests of sending countries, meet the needs of national labour markets, provide harmonization and coordination of the legislation on foreign workers, and determine quotas for migrants. The authorities of sending and receiving countries should have a shared vision of migration flows regulation and coordinated actions.

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Chapter 12
FINANCIAL GLOBALIZATION AND CRISIS OF FINANCIAL INNOVATIONS

Under financial globalization the main profit of economic agents is formed exactly in a financial system that is why financial globalization determines vector of world economy development. Accelerated growth of capital and production concentration in various spheres of economic activities is the most essential feature of modern national markets' development and world economy in general. Forming different types of integrated business-groups, financial-corporative structures which have substantial production capital and expanding possibilities for accumulating financial resources is an indicator of massive concentration and centralization of capital.

Characteristics of global integration processes in the world economy include their financial component, which is connected with financial innovations of finance-crediting institutions, their transnational strategies of positioning, stock market and profitable transfer of stock instruments.

According to the definition by Y. M. Osipov, professor of Lomonosov Moscow State University, financial economy is creation of financial capital, which became an engine of modern world economy. Professor Y. M. Osipov emphasized specifics of global financial economy as a system of financial relations in which financial institutions are the leaders and financial operations account for the main proportion of all transactions in the world market [2, p. 81].

Basic features of financial economy are the following:

- ➢ turning national financial markets into open systems united in a common global financial market;
- ➢ enormous volume of deals in financial market and high level of its liquidity;
- ➢ boost in capital movement and variety of applied financial instruments.

Deepening cooperation of reproduction structures of various countries on different levels and in various forms is one of the most significant tendencies in developing global world economy, and transnational companies' activities encourages it greatly. International production is connected with development of international division of labour as well as with its new forms. Agents of international manufacturing are transnational corporations (TNC) and transnational banks (TNB), which are "locomotives" of global financial economy and international production. Substantial volume of international production accounts for various activities of world economy agents in the frames of international production cooperation.

An important feature of global financial economy is, in Y. F. Avdokushin's opinion, is dominance "in monetary volume of financial markets over tangible products and resources' markets, and speculative part of world finance over investment component" [1, p. 29].

Processes of internationalization, regional integration, globalization and localization in spite of their interdependence and interaction are different in their specific laws in modern conditions. Integration becomes deeper in developed countries – countries of financial core – where localization processes limiting integration and stimulating global processes in world economy also develop because governments of national states are interested in attracting foreign investment and capitals of TNC for economic development. Developing internationalization processes is a result of TNC activities.

Global financial services provided by TNB accompany international economic relations on all levels. World finance connects national economies in a common interdependent system. Export-import operations entail international settlements and lending. During international migration of labour force transfers of wages are made. It is necessary to remember that there is an independent world financial market with its own mechanism and specific development.

During the pre-crisis period foreign investment increased, and this made financial markets more dependent on each other. Access to information and new technologies stimulated creation of global banks and financial intermediaries. They allowed investors to transfer money just by pressing the button while minimizing deals' costs.

Global financial economy is based on real capital – direct investment – but it appears most obviously in derivative financial instruments. Taking into account fast increasing complexity of derivative instruments and high speed of copying financial technologies in the market, it is rather actual to ask a question how well state regulators and professional associations understand new financial products and services which can be called financial innovations. These innovations are used by investment banks and investors connected with them.

Before the global crisis growth in financial depth of the market was associated with substantial economic development and in this case it was considered that financial innovation influenced the market well. For example, securitization instruments allowed investors to diversify their risks and relieve themselves from need to have expensive bank capital.

The crisis demonstrated failure of these affirmations. Growth of financial assets in developed markets to a large extent reflected growth of financial bubbles instead of effective distribution of assets. Securitizing assets was just illusionary since major investors were intermediaries during securitizing of instruments which they produced themselves.

Global financial centers (GFC) should be considered as complex structured systematic formations which have global and subglobal coverage providing modernization of financial institutions integrated inside them. Balance of financial economy can be reached through crisis. The financial center as a system of financial control allows controlling through crisis. Modern economy is transcendent because of using financial innovation, and under financial globalization one can say about the crisis of complex financial instruments.

The essence of modern financial-economic crisis is that besides identified disproportions in economic life of a country it also showed significant shortcomings of modern economic policy and first of all – of financial sector which particular feature was dominance of speculation in financial instruments and technologies.

Financial globalization development is determined by using information-financial technologies. This phenomenon is a controversial process of implementing new instruments, which has dichotomic character depending on vector of financial and investment area development and objective social-economic results of innovation financial instruments' use.

Financial innovation in the global market is a complex process of making new financial instruments and financial technologies on the basis of innovation technologies and the goal is to earn profit and to decrease risks. Financial innovations can be destructive and "toxic" triggering a reaction of risk strategy of financial capital in the global market and they manifest themselves in their dichotomic character.

Dichotomic kind of influence of financial innovations on the development of financial-investment complex of national economy is connected, on the one hand, with formation of new instruments of risk evaluation, redistribution and decreasing, and, on the other hand, with predominance of speculative virtual deals in the interests of enriching economic agents on the market instead of redistribution of money capital into priority innovation projects providing modernization growth of national economy.

From this point of view financial innovations under unstable monetary policy "close" some negative information about economic agents, "washing away" their risks with the help of new financial instruments, which leads to risk accumulation and triggers crises on local and global markets. Because of the risks' outsiders, emitters developing value strategies structure the information about their company trying to make information flows positive. In opinion of a number of well-known experts, it is dichotomic character of innovation financial product which in due time accelerated the crisis in financial sector of the USA and caused contagion to emerging financial markets of other countries.

As financial product, as a type of financial innovation in investment banking, is a material part of established service of a financial institution and is to be sold on a financial market (mortgage bonds, complex risk insurance policy, credit card, deposit certificate, securities, derivative financial instruments), all banking products in explicit or implicit form involve risks and their amounts greatly differ depending on types of financial products.

Financial innovations under modernization of banking policy in Russia must mean making new financial instruments as forms of redistribution of money resources which involve a certain level of risks, liquidity and profitability corresponding to needs of creditors (investors) and borrowers.

Now banking system in Russia cannot offer itself such innovation products which allow eliminating misbalance in monetary and foreign exchange areas. However, it is necessary to make products which will motivate using their own sources of investment and thus creating a system of internal financing for the country development with the prospect of its innovation growth and making progressive structure of national manufacturing in which science-intensive branches of economy play a leading part.

As the result of global economic crisis demonstrated, dichotomic character of complex financial instruments directed to the growth of liquidity of the operators of financial market, first of all, banks and insurance companies, dramatizes disproportions of reproduction process and limits dynamics of forming national innovation development strategy.

Modern global crisis (more exactly – its current wave because in the prospect one can predict the second and even the third waves of the crisis) is not an occasional but typical event connected with long-term trends (megatrends) of world political and economic development. At the same time modern crisis has its special features connected with the far-going processes of globalization, regional political and economic integration, global migration and so forth. It is an important divide in the world development and in many ways it has been caused by these particular processes.

Events in housing mortgage lending (when mortgage banks in the USA were on the verge of bankruptcy because of defaults in payment of their borrowers) became an accelerator of crisis phenomena. There was doubt if it would be worth giving the population not only mortgage loans but also other consumer credits. Commercial banks in the USA and some other countries were alarmed and in fact folded operations in the sphere of consumer lending. This immediately influenced the branches of automobile industry and house building. As other branches of economy are connected with these two, decline in production touched them, too. That is how the world economic crisis originated.

Risky financial innovations such as default swaps on mortgage lending agreements and securitization are also considered as a source of the world economic crisis. Default swaps are used as a mechanism of credit risk hedging. Banks that protected themselves this way (having sold a risk) started decreasing responsibility level towards their investors – real creditors of banking operations. The problem of "moral risk" as a kind of post contract opportunism appeared. Securitization of assets is an instrument which allows turning long-term investment into liquidity assets (money). Mechanism of the deal is the following: banks which provide a loan on security of property rights make a pool of liabilities from mortgage bonds. This pool is sold to a certain financial company (intermediary) which issues homogenous and highly liquid securities (shares, as a rule) based on this diversified secured loan and places them on a stock market. Having sold his/her own shares, financial intermediary attracts money to buy a new pool of mortgages from a bank. As a result, a bank gets rid of long-term liabilities (that allows it to hold long-term liquidity ratio H4) and gets a constant source of financing credit agreements while an intermediary diversifies its own risk and increases liquidity of financial instruments. Securitization of assets also means that a stock market turns into a source of credit resources for banking system. Bank involved into the scheme of securitization is a hostage of investors' moods on world stock markets, which decreases its stability.

We should notice that securitization of assets also began to spread on leasing agreement, automobile lending and commercial mortgage lending. But in fact, because of advance of the financial crisis in developed countries this kind of activity in Russia could not spread substantially. Financial innovations similar to credit default swaps and securitization seemed to be interpreted as an instrument of developing financial system, changing assets' and liabilities' structure and quality, adjusting offer of financial resources to demand. At the same time risks of such innovation institutions seemed to be greatly underestimated and "fragility" of the world financial system (term by H. Minsky) became more obvious.

And, of course, the more common problem is a rather big volume of speculative capital in world economy which is ready to move from one economy to another in search of arbitrage profit, to overflow from some instruments to the others deepening financial instability both nationally and internationally. The world financial market is becoming an object of regard not only by excess savings owners but by a certain stratum of population which stakes on reckoning and luck and sees it as an exciting gamble. Activities of financial speculators, on the one hand, suppress current volatility and stabilize markets for a short-term period but, on the other hand, they deform the long-term trend ("bear" and "bulls" rallies and so on) giving rise to big financial cycles. Thus, a financial cycle itself has a behavioral, that means institutional, nature.

In a post-crisis period new system risks may appear. The market of government debts under European debt crisis in 2010 put global finance on the verge of renewal of world financial crisis, while stock markets of developing countries overheated in 2009 with growth dynamics more than 80-100% a year (including Russia).

That is why it is quite likely that concentration of credit, market and interest risks additionally accumulated during the crisis period of 2008-2009 will lead to market shocks in some countries (new industrial countries, developing economies of Asia and Latin America), which then can – in a form of financial pandemic – spread them to financial systems of similar countries or the countries located in the same regions, or to the countries with similar risk concentration.

Thus, the Russian financial system, as one of the assets of world finance closely connected with it and correlated to international financial markets, is one of the most vulnerable economies to financial contagion because of its low competitiveness and sensitivity to speculative operations.

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Part III

POST-CRISIS DEVELOPMENT OF UKRAINE

Chapter 13

COMPETITIVENESS OF UKRAINIAN BUSINESS IN THE CURRENT INTERNATIONAL TRADE FRAMEWORK

During the current global financial and economic crisis and post-crisis periods the modern international trade architecture is facing new challenges in the world market of goods and services. New trends and approaches in economic relations demand new configurations to replace economic institutions operating within the international trading system in the pre-crisis period. The post-industrial world takes a dominant role in shaping the supply and demand curves on the world commodity markets, but the development of the emerging market economies causes significant pressure on the redistribution of the international trade balances.

The world trade activity during the post-war period of the twentieth century was distributed remarkably unequally among the participants of the international flows of goods and services, clearly reflecting the political transformation of the historical period. Developed countries were the leading force of the world exports while the rest of the world served as raw materials' appendage following the tradition of the colonial system. This was the environment of global division of labour that Ukraine faced after the collapse of the Soviet Union. Heavy industry and engineering were considered to be the most competitive sectors of the economy in the first years of independence. However, the failure to implement new institutions for research and technological development in the traditionally competitive sectors hampered successful growth of the existing research and technical potential. It is still hindering the transition of Ukrainian economy to a better technological model that would increase its international competitiveness.

The purpose of this paper is to study the international competitiveness of Ukrainian business, to determine the necessary conditions of sustainable business culture and institutions for the national economy development, and to discuss prospects for international trade activity of Ukraine under existing and potential obstacles to its implementation.

Research of the international competitiveness is a core activity of the World Economic Forum (WEF), which covers the issues of the competitiveness growth in the world on the regular basis. The main factors of competitiveness and principles of their formation are covered in its annual Global Competitiveness Report [1]. Another essential component is competitiveness analysis in the context of technological waves, within which the actors operate. Research by Joseph Schumpeter and his linking of technological progress to the Kondratiev wave theory found support in the recent work by Daron Acemoglu and James Robinson [2]. The authors relate political and economic environment through the development of extractive and inclusive institutions and obstacles to the Schumpeterian creative destruction process in the transformation of the external business environment. Clayton Christensen covers the transition patterns to the latest technology solutions at the micro level in the framework of the "Resources-Processes-Values" model, which analyzes existing obstacles to development under awareness of threats and rewards of passive behavior [3].

The current system of international trade is influenced by a number of new challenges arising from globalization and integration processes, it receives new quantitative and qualitative measures including the dynamism and expansion of the international trade, changes in the object, the subject and the structure of international trade, contradictory interactions between liberalism and protectionism, competition and monopoly. The growing influence of modern integration on functional and institutional levels of international trade, as well as increase of shady and illegal trade change the role of international trade governing institutions. Further complexity of the system is stimulated by the competition of goods and services in the global market driven by innovation.

The present dynamics of international trade is concentrated around the international business centers. The lion's share of foreign trade turnover falls on a limited number of countries involved in international trade operations. According to the latest report by the World Trade Organization 10 countries account for 51% of world merchandise exports [4] and are potentially capable to lock economic exchange and growth within a limited number of actors of the international economic system. According to the indicators of international business and trade, post-industrial countries occupy leading positions. The fact of these disparities raises issues to the international community about the need to discuss the principles of long-term sustainable economic development. The fundamental basis of international economic and trade policy determination requires the conformity to the principles of non-discrimination regardless the difference in socio-economic systems. This close concentration is caused by objective reasons, such as poor efficiency and relatively low economic potential of the rest of the world where Ukraine is located. Human Development Index ranks Ukraine the 77th among UN-members. Thus the country's advantages such as developed industrial infrastructure, high levels of human and research potential weaken, and its economic impact within the international division of labour and international trade reduces [5].

Last year showed there was a negative balance of trade in Ukraine [6]:

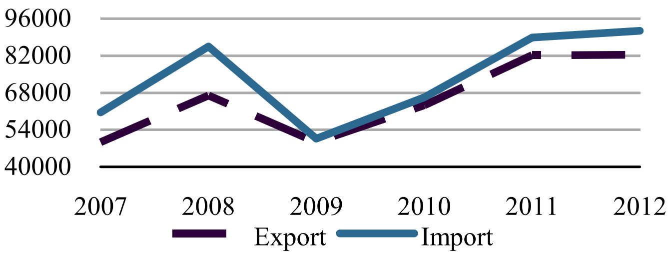

Fig. 1. Ukrainian balance of trade dynamics (2007–2012)

Balance of trade is the indicator of the economic system stability. Thus the deficit reduction improves exchange rate stability and population welfare, and therefore heals domestic consumer markets. Structural analysis of Ukrainian exports suggests that its main trade partners are the CIS countries (38%) and the EU (25%). It is dominated by products and services primarily related to the third technological wave, while the share of knowledge-intensive goods and services remains low (3-4%) [6].

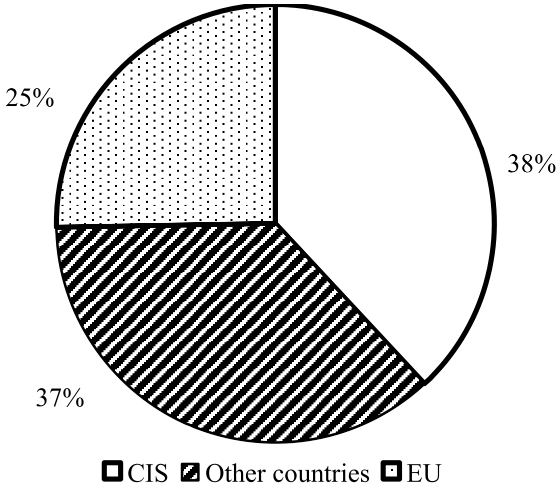

Fig. 2. Geographical distribution of Ukrainian export

Sustainable development is another methodological approach that requires special attention in defining the principles of foreign policy. It refers to a human development model in which resource use aims to meet human needs and to preserve the environment both for the present and future generations. The paradigm was adopted by the international community at the United Nations Conference on Environment and Development in Rio Earth Summit 1992. It was supported by international organizations: the UN, World Bank, and resulted in a number of intergovernmental agreements [7]. However today it is often performed nominally. Under the global financial crisis economic actors tend to prefer rapid rewards after achieving short-term goals at the expense of the long-term sustainable growth. The problem is particularly acute in the new emerging economies on the verge of crossing the hypothetical border of $5,000 GDP per capita. Shift of consumption patterns brings about social changes that occur unpredictably. The existing system of values could become distorted and bring detriment to the long-term growth and establishment of sustainable consumption institutions.

Randomness and unpredictability of modern global economic development puts Ukraine in a vulnerable situation while the concentration of exports clearly relies on a limited choice of trade movement directions. This disproportion can be observed in the mentioned above geographical distribution of exports of the country.

Apparently, Ukraine's foreign trade is focused on two major areas, which in turn compete for the influence in Ukraine: the European Union and the CIS countries, with the latter being the traditional area of influence of the Russian Federation. Thus loss of support of one party and export movement logistics disruption will cause significant changes in the volume of foreign trade in Ukraine.

Structural analysis of Ukraine's exports indicates that the basis of trade potential is made up by high-tech engineering as well as by traditional areas like agricultural products and natural resources export [6].

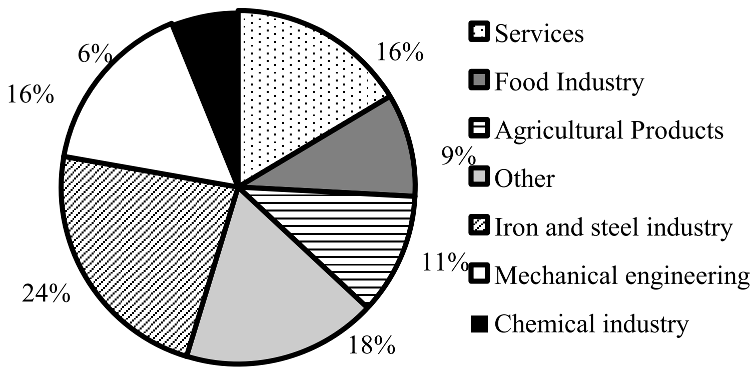

Fig. 3. Product distribution of Ukrainian export

Modern competition is influenced by a number of factors. Though traditional sectors of economy, like agriculture and mining, are unlikely to provide additional impetus to the demand for the products generated by technological development, knowledge-intensive industries have to evaluate conformity of their products to the present market conditions.

Ukrainian exports mostly rely on the 3-rd and 4-th technological waves according to Schumpeter's systematization. Even the most advanced enterprises face a problem of efficient modernization institutions implementation relevant to external challenges of foreign economic activity. Despite the existing threat from modern update of international economic relations, the global financial crisis of 2008-2009 is a catalyst of change and therefore creates the room for new solutions in the new technological wave of industrial production for the economies of BRICS. By avoiding modernization, Ukraine loses opportunities for exports on the one hand, and for improvement of production and employment conditions that could fuel its economic growth on the other hand.

These trends are clearly structured through the system of competitive factors offered by the WEF. 12 pillars for competitive economy development that comprise the aggregated growth competitiveness index set up three groups of factors: Basic requirements, Efficiency enhancers, Innovations and sophistication. WEF classifies countries according to the development of various factors and their influence on competitiveness. Ukraine is now in the group of countries that compete in efficiency, thus competing principles of development are higher education, efficiency of product and labour markets, financial market development, basic technological complexity and size of the consumer market. However Ukrainian business is not able to compete within the third group of factors – innovation and complexity. Respectively it is necessary to develop technological innovation and further complexity of the business environment.

The following competitive factors influence business environment in Ukraine most significantly:

- ***Political environment and economic diplomacy***. Uncertain strategic course of Ukrainian political and economic integration threatens the development of foreign economic activity and allows the largest partner countries to press its economic policy. The nature of domestic political competition also adversely affects the quality of political institutions, which is a fundamental factor of competitiveness. The interconnection of economic and political power in Ukraine is a major obstacle, according to the WEF survey. Corruption in Ukraine is considered to be the greatest threat to development. The signing of the Association Agreement with the European Union would not only bring clarity and definition to the issue of European integration course of our country but also would provide additional incentives to enhance foreign trade, and increase the international competitiveness of domestic business.

- ***Energy***. Growing price for energy is the most obvious challenge and it threatens Ukrainian steel exports. Technological backwardness of Ukrainian production makes it extremely dependent on fuel prices. The share of energy in the cost structure can be up to 80%, while competitors face significantly lower share due to the introduction of energy-saving technologies and thus they are less dependent on fluctuations in energy prices. The solution of Ukraine's energy dependence on Russia, including the reverse energy supply from the EU, would also have a positive impact on the international competitiveness of Ukrainian companies.
- ***Education.*** The level of education and employment is in decline as the surveys of employers illustrate. Today's talk is on the gap between the business needs of the labour market and the quality of educational programs. The report of the McKinsey Center for Government for the year 2012 proves the trend at the global scale concerning the interaction of education and employment [8], but the dynamics of Ukrainian education needs more attention, because the educational sector is the basis of the long-term growth and its failure results in the long-term decline. Lack of effective employment institutions leads to the fact that the most promising employees massively migrate abroad, contributing to competitiveness of other countries.
- ***Shadow econ***omy. It is an integral and dangerous part of the Ukrainian economic environment. Large scale of unregistered economic activities and tax evasion is caused by several factors including lack of quality public institutions, administrative burden for economic relations, and development of informal relations in the society. Imbalance arising in the shadow sector distorts social system and substitutes the values of sustainable economic development. Another dangerous consequence is that higher technological waves cannot develop in the illegal economy, causing additional intellectual capital outflow from the country and thereby adversely affecting international competitiveness of the state.

The significance of these factors grows further with the development of BRICS research capacity and export growth. Today these states increase the share of their participation in international trade of goods and services. This is performed in accordance with due economies unable to become competitive today and in the future. Obviously the largest concentration of capital is in the areas of high-tech products and it is necessary to establish the principles of research development and increasing technological complexity of the economy.

Joseph Schumpeter singled out the phenomenon that remarkably illustrates the current problems of the Ukrainian industry – creative destruction [9]. It is obvious that the transition from one technology to another requires destruction of the current system. History shows us examples of creating obstacles to progress, such as The Luddites who were English textile artisans in the XIX century who violently protested against the machinery introduced during the Industrial Revolution that made it possible to replace them with less-skilled, low-wage labourers, leaving them without work at the turn of the XVIII-XIX century. The process of creative destruction in Ukraine and the transition to a more high-tech and efficient production involves transformation of existing economic relations, new format of business processes, establishing coordination with new suppliers, changes in distribution channels, training staff, etc. However, the most important is that the profit from sales is expected to be invested in modernization of production, which means a significant reduction in capital movements. In a free market economy one cannot afford to delay modernization, good governance involves planning investment in the modernization of production and operational support of innovation policy. However, given the close relationship of political and economic elites in the country, rent relations distort competition, thus providing additional benefits to individual businesses. In this scenario a company cannot maintain active innovation policy and the principles of free competition do not work on the domestic markets.

A leading expert on the business innovation management – Clayton Christensen explains the "Resources-Processes-Values" model. The resources of a company influence the established processes according to the tasks and goals. Since established processes lose their flexibility and response to the changing market environment, stability and repeatability of actions result in the development of the organization values. Values create the system of priorities that members of the organization identify while they make managerial decisions. Such priorities often include a stable income, and the institutionalization of such orders significantly reduces the awareness of investing in modernization and the development of science intensive industries that are profitable in the long run.

Daron Acemoglu and James Robinson offer dummy classification system of economic and political spheres – inclusive and extractive institutions, where the inclusive ones provide general public access to the interaction with the institutions and the extractive ones – limited access to interaction for a narrow elite circles. Thus they consider the principles of development of various institutional environments.

Inclusive economic institutions (i.e. free market) support economic development, ensure rational decisions and effective use of entrepreneurial talent, protect property rights, and promote economic exchange and technological progress.

Extractive economic institutions over time can provide rapid economic growth, but their effectiveness is reduced in the long run. Extractive political institutions support such a system as the limited access allows the elite greater control over economic processes. At the same time, the overall economic potential and living standards deteriorate in such an environment since extractive institutions restrict economic competition and upgrade of production to sustain control, leading to inhibition of entrepreneurship motivation, decline of small businesses, and slower adaptation to the economic competition in the global markets.

Given this approach, the economic strength of such a state as China relies on the organization of the economic system and systematical support of exports within the current technological wave. Political authoritarian regime will maintain the existing economic system thus institutionalizing a number of processes that would be followed by the corresponding principles until capital-intense competition does not move in the direction of a new technological wave. Ukraine today is in an institutional trap of the earlier technological wave establishment.

Thus, under current conditions the new economies of China, India and Brazil are powerful and dangerous competitors of Ukrainian exports as their technological fundamentals meet the needs of the global economy. Ukraine should develop own research capacity within the WEF criteria by supporting long-term foundations of education and research. With the concentration of political and economic power the responsibility for the development of competitive processes depends on the political will that can enter into conflict with the current short-term economic output and the principles of long-term sustainable socio-economic development, environmental protection, and innovation. Only efficient market conditions and reduction of the political influence on the business will foster effective participation of Ukrainian companies in the international trade, improving their international competitiveness.

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Chapter 14
THE MACROECONOMIC IMPACT OF AN FTA WITH THE EU ON THE UKRAINIAN ECONOMY

The end of the XX and the beginning of the XXI centuries can be defined by fundamental changes in the international division of labour and development of the world integration processes. One of the distinctive features of this period is intensive development of global production networks, with their producers from different countries specializing not only in final goods but in intermediate goods and services as well, which are the chains of separate technological processes. In the last 20 years the import component of export has increased from 20% to approximately 40%. Nowadays more than half (56%) of the world manufactured imports are intermediate goods, and 73% of the world services imports are intermediate services. At the same time non-tariff barriers and regulatory divergence in regional trade agreements are increasingly becoming obstacles to the performance of the global production chains.

The quantity of regional trade agreements as the mechanism of liberalization of international flows of production factors in the global production networks is increasing significantly. Thus, in the beginning of 2013 the WTO notified 546 regional trade agreements. In contrary between 1948 and 1994 the WTO notified only 123 regional trade agreements [1, p. 146]. The main part of all notified regional trade agreements are free trade areas. Customs unions and other developed forms of international integration comprise only 5% of all regional trade agreements.

Modern regional trade agreements cover not only elimination of tariffs and quantity barriers in trade but they also deal with regulatory convergence and liberalization of international flows of other production factors (services, labour force, capital, intellectual property). Deep and comprehensive forms of international integration (mostly free trade areas and customs unions) define the structure of the new generation of regional trade agreements. It is related to the changes in demand in the international markets, limitedness of the resources in the countries, wide diversification and complexity of final and intermediate goods, services, technological processes, especially in the most developed technological modes, starting from the III mode. Preferential trade agreements increase mutual trade of intermediate goods within the global production networks at least by 35%, deep and comprehensive trade agreements trigger the increase of trade of such goods by another 8%.

The main "hubs" of free trade areas have already formed in the modern international economy. Namely they are the USA, the EU and CAFTA. In particular, at the beginning of 2013 the EU participated in 29 free trade agreements and initiated or continued negotiations concerning other 23 free trade agreements including a free trade agreement with the USA and Japan[1]. In this relation we can observe the new phenomenon of international competition. Countries compete for the access to the capacious internal markets of the mentioned centres. Producers of the countries that do not have respective preferential trade agreement with trade "hubs" obviously are discriminated in comparison to producers of the countries that are members of such preferential trade agreements. On the other hand, liberalization of the access to the markets of these countries or their unions which also have diversified system of free trade areas with third countries may have a multiplied effect for exporters who get such "doubled" access.

Transformation of international division of labour and development of integration processes on this base diversify national economies for integrated and peripheral. International integrated economies have branched network of regional and multiregional trade agreements which liberalize the flow of production factors, especially for technological modes with high level of added value. Peripheral economies with advantages in GDP structure and export of production of I-II technological modes have less necessity of creation of deep and comprehensive free trade areas. They also carefully treat narrow free trade areas as the creation of such area may lead to decrease or even elimination of export tariffs for energy and mineral resources. Thus, Russia and Kazakhstan have essential exceptions from the free trade

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[1] Note that in the first decade of XXI century only Russia, Belorus and Kazakhstan from all European countries didn't have the FTA agreements with the EU or didn't take part in the negotiations on their performance.

regime especially for these sectors and some CIS countries didn't join the Agreement on the free trade area of CIS (2011) at all.

There are many researches of economic effects of liberalization of trade between Ukraine and the EU. They differ according to the methodology of research, assumptions concerning the depth of integration processes and uncertainty of the dynamic and structure of liberalization of economic coordination. Therefore the results of such researches often do not match one to the other and even are contradictory[1]. Moreover it is worth to remember that the existing models of estimation of effects from the different forms of international integration often include the following assumptions: elimination of custom duties, insufficient consideration of changes in the elasticity of demand and supply after the opening the markets, imperfect correlation of different factors of the economic growth, sometimes statistical error is proportional to the amounts of the effects, etc. On the other hand developed forms of international integration (starting with the deep and comprehensive free trade areas and customs unions) shall be observed as a part of the regional model of social, economic and political development in general. Thus, the decision to participate in the developed forms of international integration shall not be taken by only measuring the effects from economic liberalization.

One of the first researches of consequences of the creation of free trade area of Ukraine with the EU suggested that the sector of agriculture of Ukraine will benefit the most from such integration (approximately 50%). At the same time manufacturing industry will achieve less benefit from such integration (15%) [2].

The other analysis basing on the gravity model finds that had Ukraine acceded to the EU in 2004, it would have enjoyed a doubling in manufacture as a share of exports by 2007 compared to what it actually achieved over this period. This result is attributed to

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[1] It also deals with estimations of economic consequences of the possible Ukraine's joining the Customs Union. See for example: De Souza L.V. An Initial Estimation of the Economic Effects of the Creation of the EurAsEC Customs Union on its members/ Economic Premise/ The World Bank. – 2011; V.V. Ivanter, V.M. Geets, V.A. Yasinskiy, A.A. Shyrov, A.M. Anysimov Economic Consequences of the CES Creation and Adherence of Ukraine to It. Eurasian economic integration Vol. 1(14), February 2012.

factors including trade diversion – that is, Ukraine suffered as a result of being "left out" from the process of EU integration that included some accession countries that were, in effect, competitors to Ukraine in some export sectors [3, p. 676-702].

Studies of the benefits of EU – Ukraine trade agreements tend to focus on the possible gains from "deep integration". A 2006 paper (based on an older version of GTAP) found no significant benefits from a simple FTA but large gains from deeper integration – perhaps increasing Ukraine's growth rate by 1.5% per year. Potential welfare gains were estimated at 4-7% taking into account only statistic effects, and with dynamic effects, two to three times as large. More recently, as an EU – funded trade sustainability impact analysis found benefits proportional to the extent of the FTA, with long – run gains from an extended FTA of 5,3% of GDP [4].

The most pessimistic study, which includes the CIS region, projects negative welfare impacts of both simple and deep FTA's. The deep FTA results in real income losses of 0.4% stemming from deterioration in the terms of trade. In this analysis, the positive effect of removing non-tariff barriers is overwhelmed by negative trade effects [5].

In other studies, the benefits of harmonisation and reform are so large that they outweigh other issues. For instance, a study projecting falls in consumption in some Ukrainian households following a simple FTA nonetheless projects large net benefits from a deeper agreement [6]. A 2011 study focusing solely on non-tariff barriers estimates welfare gains of removing NTBs at 5.8% in the long run. Another 2011 study estimates net welfare gains of 4.3% from static effects, and long run gains of 11.8% [7].

One of the recent researches of economic consequences of different forms of integration of Ukraine with the EU was made by the Oxford Economics with participation of Ukrainian experts. Three main scenarios of liberalization of economic relations between Ukraine and the EU were observed, namely classic free trade area (FTA), deep and comprehensive free trade area (DCFTA) and customs union of the EU and Ukraine (CU) [8]. All three variants show essential positive effects of integration for the economy of Ukraine (Table 1).

Table 1

Effects of the different forms of integration of Ukraine and the EU

Changes in comparison to the base period (%) FTA Ukraine - EU				
Year	**Level of consumption**	**Real level of income**	**Real level of earnings**	**Employment**
2013	0,23	0,29	0,16	0,12
2015	0,58	0,65	0,20	0,47
2017	0,71	0,93	0,28	0,78
2025	1,83	1,74	0,55	1,39
Changes in comparison to the base period (%) DCFTA Ukraine - EU				
Year	**Level of consumption**	**Real level of income**	**Real level of earnings**	**Employment**
2013	0,24	0,31	0,16	0,13
2015	0,79	0,92	0,27	0,65
2017	1,59	2,00	0,59	1,46
2025	5,67	6,56	2,21	4,58
Changes in comparison to the base period (%) CU Ukraine - EU				
Year	**Level of consumption**	**Real level of income**	**Real level of earnings**	**Employment**
2013	0,41	0,25	0,06	0,15
2015	1,19	0,75	-0,11	0,79
2017	2,18	1,90	0,06	1,83
2025	7,82	7,40	1,51	6,14

Notes: The Impact of an FTA between Ukraine and the EU, Oxford Economics.2012. p. 89, 94, 102.

Among all actually possible scenarios of integration of Ukraine into the EU (FTA and DCFTA) the latter is the most effective, so far as it provides essential growth of positive effects for Ukrainian economy in comparison to the classical FTA. On the other hand the authors emphasize that it is possible only in case of carrying out effective economic reforms and convergence with regulatory system of the EU. In other words, the Agreement on DCFTA of Ukraine and the EU shall trigger the reforming of Ukrainian economy and lead to essential positive effects for Ukraine in case of implementation of the effective state economic policy[1]. Slow and superficial economic

[1] Existing project of the Agreement on association envisages the implementation of more than 500 regulations of the EU into to the regulatory sphere of Ukraine.

changes substantially minimize the positive effect from DCFTA. By the way one of the driving forces of the economic crisis in the South European countries is weak and inefficient policy of respective governments as to its prevention, slow adaptation of real and financial sectors to the new conditions of regional and global competition.

As a result of economic integration into the EU Ukraine shall experience structural changes of the economy. The percentage rates of such changes were estimated by the authors in the General Trade Analysis Project Model of GTAP version 6.2., RunGTAP version 3.59 and GTAP DataBase version 7.

The current GTAP database has 57 economic sectors, which for the convenience of estimation were aggregated into 15 sectors (agriculture, light industry, manufacture, raw materials, food, chemical industry, metals and metal products, machine manufacturing, electronics, construction, infrastructure, trade, financial services, transport machinery and others). The total number of countries now covered by the GTAP model stands at 113, but this figure was aggregated into the set of 4 countries/regions, namely Ukraine, the EU, RBK (Russia, Belorussia, and Kazakhstan) and the RoW (rest of the world).

The results of estimations showed that due to integration into the EU Ukraine shall experience essential changes in structure of export and import from the EU (see Figure 1 and Figure 2).

Such changes shall mainly deal with the growth of export rates in sectors of agriculture, light industry and food. Chemical industry, metals and metal products, machine manufacturing and electronics shall also experience growth, although rates of such growth shall be perceptibly smaller. At the same time such sectors as construction, infrastructure and financial services shall experience reduction.

As to the import to Ukraine from the EU, due to the analysis it will grow in sectors of agriculture, light industry and food and reduce in machine manufacturing, chemical industry and financial services.

The EU countries shall also experience changes in their structures due to integration with Ukraine. However such changes will be less than 1%. The main growth of export rates shall be experienced by light industry, construction and raw materials.

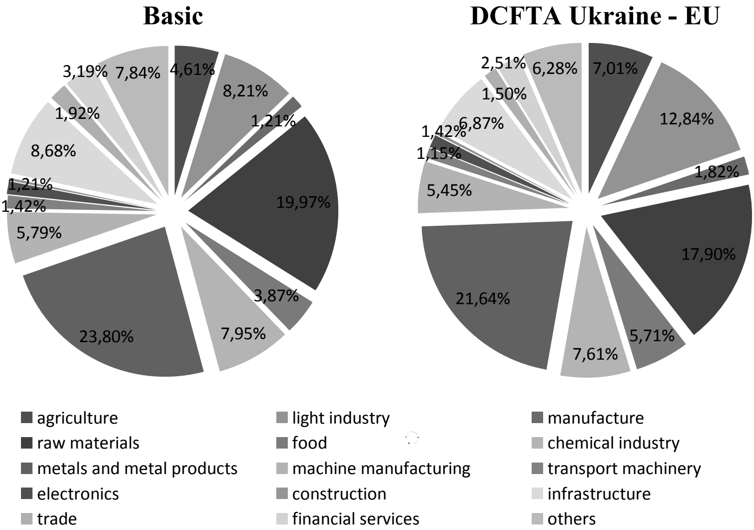

Fig. 1 Changes in structure of export of Ukraine to the EU after creation of DCFTA between Ukraine and the EU

Note: Author's estimation basing on the GTAP

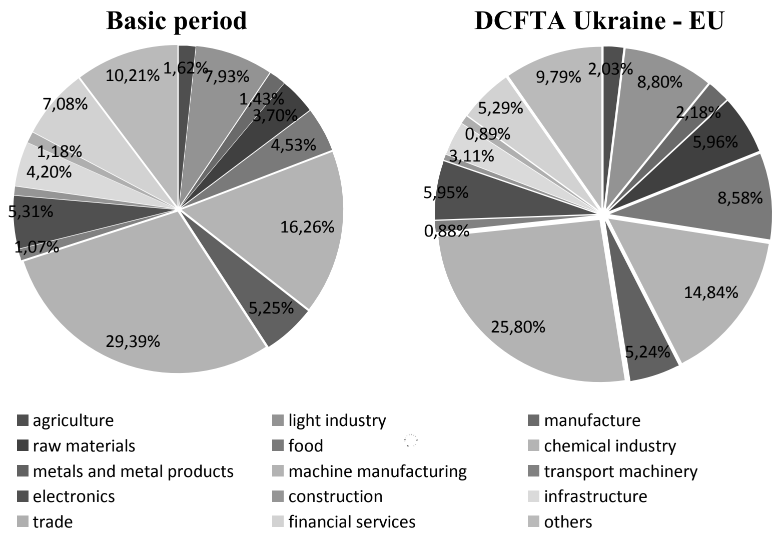

Fig. 2 Changes in structure of import of Ukraine from the EU after creation of DCFTA between Ukraine and the EU

Note: Author's estimation basing on the GTAP

Figure 3 shows changes in trade balances of Ukraine, the EU, the Customs Union of Russia, Belorussia and Kazakhstan, and the rest of the world in the result of creation of DCFTA between Ukraine and the EU. The results of the analysis show that the most positive effects for Ukraine shall take place in agriculture and light industry and for the EU in food and raw materials.

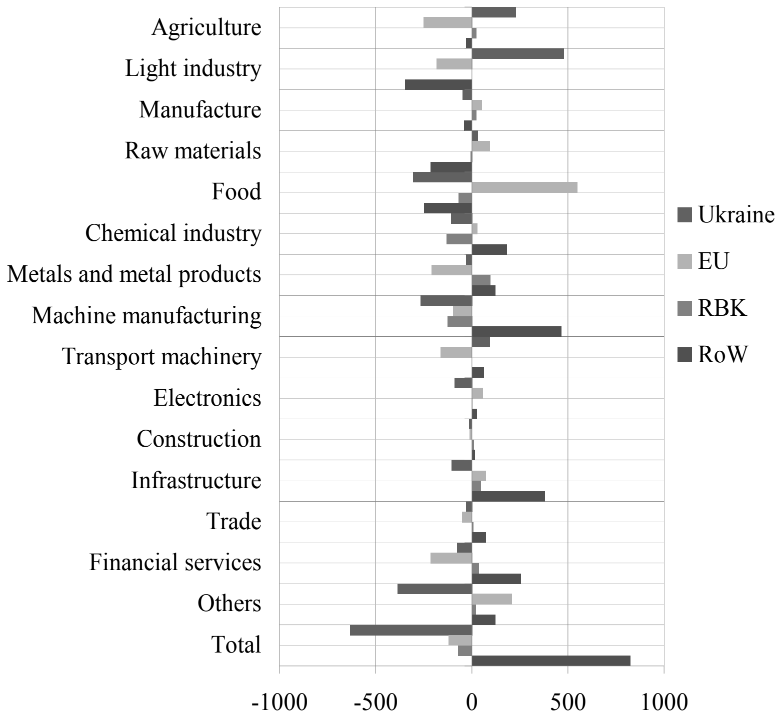

Fig. 3 Changes in trade balances as the result of creation of DCFTA between Ukraine and the EU

Note: Author's estimation basing on the GTAP

General conclusions about the macroeconomic impact of an FTA between Ukraine and the EU may be the following. Mostly all the researches of this matter show that creation of free trade area between Ukraine and the EU shall have positive effects for welfare of Ukraine. Among all possible variants of integration of Ukraine into the EU creation of DCFTA between Ukraine and the EU is the most efficient. In case of such form of integration to the EU Ukraine might by 2025 increase its level of consumption by 5.67%, its real level of income – by 6.56%, its real level of earnings – by 2.21 and its real level of employment – by 4.58%.

Apart from the positive welfare effects that Ukraine may experience in the result of creation of DCFTA with the EU such integration will influence the structure of the economy of Ukraine. Possible changes in the structure of the economy of Ukraine were estimated using GTAP CGE model. The results of analysis showed the growth of agriculture, light industry, metals and metal products, machine manufacturing and chemical industry and reduction of food, infrastructure, financial services and construction.

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Chapter 15

ECONOMIC SITUATION IN UKRAINE – IMPACT OF GLOBAL INTEGRATION PROCESSES

At the current stage of Ukraine is being increasingly integrated into global financial and credit space. The main and most developed forms of such integration in the last few years are: the integration processes in the banking system and financial resources of external financial markets, economic actors in Ukraine through the implementation of external loans.

As a part of internal processes of integration in the banking system there is an active entry of foreign banks into the Ukrainian market. Specifically 180 banks were operating under license from the NBU in the domestic market in 2008. Of these, 49 (27.2 %) were banks with foreign capital and 18 banks (10 %) - with 100-percent foreign capital. As of November 1, 2010, the number of registered banks in Ukraine, which had a license, dropped to 178, whereas the number of banks with foreign capital increased during to 53, including a 100-percent foreign capital of 20.

From 2008 to 2010 (January 1, 2008 to 01.11.2010) the share of foreign capital in the registered capital of Ukrainian banks increased from 35.0 % to 39.5 %. The total assets of banks increased from \$599.396 bln to \$927.122 bln, more than 50 %.

Another evidence of increasing activity of foreign banks to acquire domestic financial institutions (non-residents' purchases of Ukrainian banks) are quantitative and qualitative characteristics of foreign direct investment in Ukraine. Thus, in recent years they were the most attractive for investment in the financial sector. Despite the recession, in 2008 the increase of foreign capital in the financial sector amounted to $2285.7 mln. And financial institutions accumulated $7154.8 mln at year-end (20.0 %) equity [1]. In 2009 the increase of total foreign capital in the economy, given its revaluation, losses and exchange differences amounted to $4410.4 mln. That was only 72.6 % the previous year. However, the increase of foreign capital in enterprises engaged in financial activities amounted to $1813.7 mln and reached $8968.4 mln which led to an increase in share to 22.4 % [2]. In January-September 2010 gain on foreign capital enterprises engaged in financial activities amounted to $1684.3 mln. [3].Given the exchange rate difference on January 10, 2010, financial institutions accumulated $14115.4 mln or 33.2 % of total foreign investment.

Attention should be paid to the discussion of conditions and rules for opening branches of foreign banks in Ukraine. Since foreign banks are interested in the Ukrainian market, they will go towards acquisition of Ukrainian banks with the existing system of branches and customer base.

As for foreign banking integration (from domestic banks to foreign financial markets) we have a significantly lower activity. Expansion of the Ukrainian financial institutions to foreign markets is still episodic and regional. For example, the Ukrainian banks buy banks in Latvia and Georgia. Ukrainian banks opened offices in Russia, Kazakhstan and Baltic countries. In particular State Export-Import Bank of Ukraine (New York), for "Private" (Beijing, China), Forum Bank (Kazakhstan) opened their affiliations abroad.

The second form of participation of actors of the Ukrainian economy in the global financial and credit space is the use of external borrowings.

Global financial crisis has caused the growing needs of the state in leveraged resources. In this regard, and by a significant devaluation of the currency during 2008-2009, the total public and guaranteed debt increased more than three times [4].

If in 2002 the ratio was 28.6 %, and then decreased in 2005 to 14.3 %; in 2006 it was 12.1 %; at the end of 2007 it amounted to 9.9 %; and at the end 2008 it was 13.8 %. The score level of the public debt to GDP at the end of 2009 was 23.2 %, and state guaranteed debt to GDP was 33 %.

The ratio of public debt to GDP in Ukraine is relatively low compared to other countries, including developed countries, despite the fact that Ukraine's capabilities in public debt management suffer significant limitations.

The gross foreign debt of Ukraine in 2008 grew by 27 % or $21.7 bln. And on January 1, 2009 it totaled $101.66 bln. The gross foreign debt of Ukraine in 2009 increased by 2.3 % – to $103.97 bln. That was 88.9 % of GDP.

The emphasis in the debt structure by sector of the country significantly changed: 2009 was marked by debt in lieu of the banking sector debt and public sector management of monetary, whose share in gross external debt has grown over the financial year from 16.4 % to 23.1 % and the bank - fell from 38.8 % to 29.6 %. The share of other sectors amounted to 47.3 % against 44.8 % at the end of 2008.

According to the National Bank, the public administration sector debt as of January 1, 2010 reached $17.8 bln. (17.1 % of gross external debt and 15.2 % of GDP), which is $5.8 bln (48.9 %) more than at the beginning of 2009. The increase was due to debt: income in the accounts of the Government of Ukraine trench stabilization loan program the IMF stand-by in the amount of SDR 3.1 bln (special drawing rights) in the second and third quarter of the previous year, the use of the additional allocation of special borrowing rights (SDR 1.2 bln) committed by the IMF in the interests of Ukraine within its quota in the fourth quarter of 2009, as well as income credit from international economic development organizations (World Bank, EBRD and European Investment Bank) amounting to $0.2 bln.

In 2009, Ukraine repaid $1.2 bln obligations on foreign government bonds in 2004 and denominated in Swiss francs of government securities in 2006.

The sector debt of the monetary regulation increased by $1.5 bln (by 31.4 %) to $6.2 bln in 2009. The growth was at the expense of the second tranche of the IMF stabilization loan (SDR 875 mln) and additional borrowing allocation of special rights carried out by IMF (SDR 81 mln).

One of the most important parametres that characterize the efficiency of debt policy of the country and its ability to meet debt obligations is the ratio of total payments to service and repay debt to the state budget revenues and GDP. After the debt crisis of 1998, when the total debt payments reached 71.4 % of annual revenues of the state budget implementation during the 1999-2002 debt restructuring allowed to reduce the burden on the state budget. Although in recent years, a gradual increase in payments on public debt in absolute terms, the budgetary cost of servicing debt and public debt has stabilized within 2.0-5.0 % of GDP and the end of 2009 this indicator amounted to 4.33 % of GDP.

At the end of 2009 external debt of the banking sector of Ukraine returned to the level of 2007 and amounted to $30.8 bln. (26.3 % of GDP), which is $8.7 bln, less than at the beginning of the year.

As of October 31, 2010 the guaranteed public debt of Ukraine amounted to $51.2 bln, including public and publicly guaranteed external debt – $32.5 bln (63.43 % of the total public and guaranteed debt), external public debt was $21.9 bln. During this period the state foreign debt increased by 27.68 %.

The main forms of foreign borrowing entities of the Ukrainian economy are the issue of Eurozone bonds and loans (medium and long). The main investors, buyers of Ukrainian Eurozone bonds on international markets are investment companies and banks. For example, Funds – 68 %, investment banks – 17 %, insurance and pension companies – 8 %, other banks – 7 % are among investors of Eurobond Kyivstar. In geographical terms, investors of Eurobond Kyivstar are Great Britain – 47 %, USA – 30 %, France – 5 %, the Netherlands – 5 %, Asia – 4 %, others – 9 %.

Let's discuss the quantitative characteristics of forms and processes of integration of subjects of the Ukrainian economy into the global financial and credit market; we also select the qualitative features of these phenomena.

First, it is positive that Ukraine is a party to financial and credit integration, including banking integration and entry into international credit relations of all subjects of the national economy through foreign borrowing. Participation in the global financial and credit space has positive benefits for Ukrainian economy, as increased opportunities for financial resources and its subjects: businesses and individuals in the short term.

Second, the financial risks that may occur in the domestic economy can have negative effects in the long run. National experts characterized the Ukrainian economy the following way:

1. One-way integration processes prevail in the banking sector. Modern banking integration is mostly internal. The Ukrainian market is full of foreign financial institutions. But domestic banks and their services on the world market are presented in a very limited form. And the active dynamics of foreign bank integration has not yet been observed.

2. The subjects of the Ukrainian economy focus mainly on short-term benefit instead of implementation of large-scale foreign borrowing.

Financial resources that get the subjects of the Ukrainian economy to foreign markets have a positive short-term outcome. But in terms of long-term prospects and value for foreign loans the situation is opposite. In particular, the macroeconomic context of large-scale foreign borrowing of banks and non-financial enterprises in Ukraine rise to a number of negative processes.

Thus, the rapid growth of corporate sector external debt is not accompanied by adequate increases in export earnings. Disparities in the rates of accumulation of external debt of Ukraine and the national growth rate of exports are dangerous. In case the positive dynamics of receipt of external loan is violated the debt that has accumulated will have to be served due to reduced domestic capital formation and reduced consumer spending entities of national economy. This hinders the development of production and raising living standards and puts pressure on the national currency (by eliminating international reserves).

Moreover, foreign loans, which involved Ukrainian state enterprises and commercial banks, are mainly of consumer orientation, which also violates one of the key performance criteria for external borrowing.

Mobilized by banks foreign loan capital has become a source of credit boom in the domestic market, which has not stimulated the domestic production. We should keep in mind that growth of consumer credit itself is very dangerous, because the scale of national economy consumer spending does not create a trusted source for repayment of accumulated debt (especially if the additional demand is met through imports), and large volumes of external commitment transactions generate high currency risks.

3. The formation depends on the situation on international capital markets. After crisis events in the U.S. mortgage bond market the value of foreign loans to Ukrainian banks has grown to 8-12% per annum. End of 2007, several large banks abandoned plans for syndicated bank loans, referring to the high cost of borrowing. The long stagnation of the international capital market will slow down the growth of external debt of Ukraine, although the degree of instability of the banking system will increase. Therefore, significant deterioration in trading conditions or a sharp devaluation of the national currency can be simply disastrous.

Thus, falling prices for products of export or domestic sharply higher import prices will deepen the current account deficit and lead to narrowing the income base to pay off past debts. Currency devaluation will substantially increase the burden of external debt service for companies that have revenues in foreign currency. In case of devaluation not only the load of external payments for banks will increase, but it will dramatically worsen asset quality: non-payment borrowers who received loans in foreign currency may be a mass phenomenon. In macroeconomic terms, these processes will cause narrowing the domestic demand, lowering the level of economic activity and decline in international reserves in Ukraine.

Given the above, we can conclude that Ukraine is a party to the integration processes unilaterally. That is the object, not the subject of global financial and credit space, taking advantage of global financial environment, taking into account mainly short-term perspective and missing the trends of the future. This, in turn, determines the need to take measures to improve the competitiveness of Ukrainian economy by improving the internal market in financial services, as well as reducing the financial risks arising from financial and credit integration.

Evaluating the stability of the domestic financial market we note that the low share of Ukraine in the global financial system makes its financial market safe from the transnational financial speculators, but creates a permanent threat to the financial sustainability of national finances and a deteriorating financial situation of Ukrainian joint stock companies. Acute questions about how to protect the national economy from the risk of outflow of foreign capital in the form of repatriation of profits or "escape" of short-term assets abroad due to the decrease in confidence in domestic economic policy.

The current state of the national financial market of Ukraine shows a low level of integration into global financial processes. No matter how paradoxical, but they actually helped the country survive on lower losses as global financial crisis of 1997-1998 or the events September 11, 2001. Another thing that this points to is the minor scale of domestic financial market in the world economy nature.

Events of 2008 allow us to conclude that the policy of accelerated integration of Ukraine into the global economic and financial community, which is manifested, particularly in liberalizing access to foreign capital on domestic financial market and offering residents many opportunities of access foreign debt markets, was premature.

This is Ukraine's position in global competitiveness rankings for 2010–2011, comprising experts from the World Economic Forum, a group of indicators that describes the sophistication of financial markets. The latest ranking shows estimates for 139 countries of the world [5]. For the year, Ukraine has lost 13 points in Financial market sophistication – 119 against seat 106 in 2009; Reliability of the banking system estimated by the authors of the report (138 place – last figure among the countries in the ranking), Ease of getting credit (130-something), Stock Market Regulation (127), Restrictions on capital flows (125), Accessibility (affordability) Financial Services (122), Availability of venture capital (121), Funding through local market Securities (120). Ukraine has received the highest estimation by the "Availability of (institutional) financial services" – 108.

Despite globalization of world economy, countries with emerging economies, especially those which have not yet completed the formation of the effective national market institutions should not be overestimated in development opportunities by attracting foreign financial resources as foreign investors are uncertain about the political and economic future of most post-soviet countries. The institutional environment of financial market could prevent the development of negative tendencies, but in countries with emerging economies in this transformation is far from complete.

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Chapter 16

FOREIGN DIRECT INVESTMENT IN UKRAINE AFTER THE CRISIS

Economic, social, political and cultural development of countries in the last quarter of the twentieth and the beginning of XXI century takes place under the influence of globalization. The issue of economic globalization was studied by both Ukrainian and foreign scientists: Galchinsky A. S., Lukyanovich N. V., Makogon Y., Filipenko A. S., Rumyantsev A. P., Yakovets J., Bransky V. P., Anilionis G. P., Bilorus O. G., Nikitina M. G., Golikov A. P., Seleznev A. Z., Blank N. V., Varnaly Z. V., Burns B., Brom M., Keynes J. M., Markvin R., Allai M. et al., but their views are ambiguous and require further investigation and solution.

Manufacturing industries and service sectors, where the flow of capital and skilled labour is primarily brought into effect, dominate in the world economic space. The criteria of economic globalization are the growing interdependence of economies of various countries, openness of national markets and deepening of international division of labour. The main economic components are:

- foreign trade increase;
- growth of the role of knowledge, new technologies, management, marketing used in the economic systems of developed countries;
- labour migration;
- international direct and portfolio investment [6; 12; 13].

Considering the global economic development, regional integration processes are the most essential factors for development of a national economy. The main task of the Ukrainian economy is the reorientation of its international specialization from primary export-oriented industries to science-intensive ones. Taking into account the development priorities of the world economic leaders – the EU, U.S., Japan, China and new industrialized economies (NIEs), development of integration processes within a single economic space is a promising direction for Ukraine. Prerequisites for improving the competitiveness of domestic goods and increasing the volume of Ukrainian exports not only to CIS countries, but also to other countries are created and thereby the conditions for transition of Ukraine to the innovation model of economic development are provided [2].

There is a risk of displacement of domestic producers by foreign competitors in Ukraine, both in the internal and the external markets. Under the concept of national competitiveness proposed by M. Porter, competitiveness development of regions or countries is carried out via four stages:

- competition on the basis of production factors;

- competition on the basis of investment;
- competition on the basis of innovation;
- competition on the basis of wealth.

The first three stages provide economic growth, while the last one – the stagnation and decline [7].

Modern researchers have proposed to evaluate regional economic development per capita income indicators: the size of the gross regional product (GRP), the value of productive resources (fixed assets, etc.), the value of the natural resources and human resources (education level).

Taking into consideration the significant deterioration (physical and moral) of assets it is necessary to add foreign direct investment (FDI) to the indicators mentioned above, including science intensive manufacturing. Competitiveness is estimated by the level of essential services based on international standards and other indicators.

We'll discuss the role of foreign investment and the problems of attracting it to Ukraine. In the modern era of market relations availability of investment potential is a basis for successful development of the country's economy. Attracting FDI into Ukrainian economy is an effective way of overcoming the economic crisis at the state level. Effectiveness of attracting foreign investment depends on many factors, namely:

- political;
- legislative;
- economic;
- demographic;
- resort;
- environmental and others.

Interactions of all these factors create a country's investment climate [1; 3].

The effects of attracting investment into the economy of Ukraine are:

- increase in domestic savings;
- the role of FDI in providing know-how;
- the role of FDI in the access to foreign markets.

The Ukrainian economy has a relatively high investment potential and it has caused considerable interest of foreign investors in the market with 47 million consumers. In 2010 according to the State Statistics Committee of Ukraine the investment increased despite low business ratings. In the economy of Ukraine received $5.986mln, that is 6.2% more than in 2009 ($5.634 mln). The total volume of FDI stock in Ukraine on January 1, 2011 amounted to $44.7mln, that is 11.6% more than in 2010 per 1 person ($978.5) [4; 10].

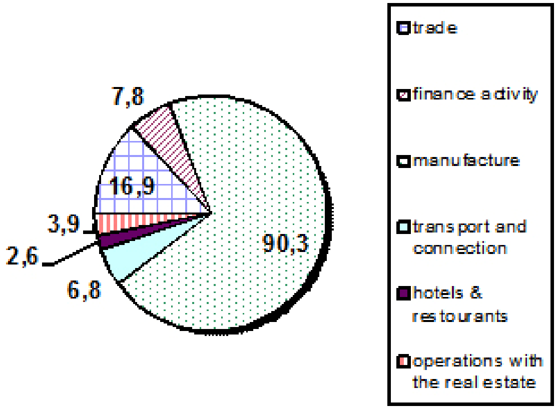

Fig. 1 The structure of foreign direct investment in Ukraine according to the economic activities in 2002 [14]

Note: Source [14]

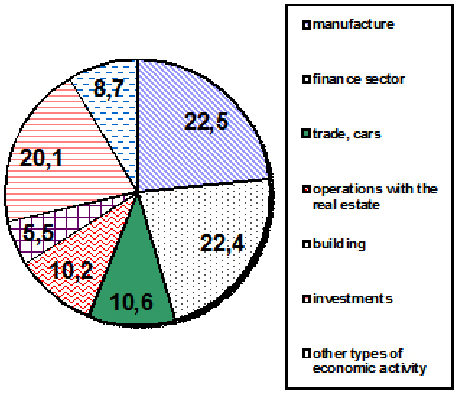

Fig. 2 The structure of foreign direct investment in Ukraine according to the economic activities in 2010 [14]

Note: Source [14]

According to State Statistics Service of Ukraine the main investors in Ukraine were in 2002: the USA – 17.1 %, Cyprus – 10.8 %, the UK –

9.1 %, the Netherlands – 8.2 %, Russia – 6.9 % and other countries – 47.9 % and in 2010 these countries were: Cyprus – 21.5 %, Germany – 16.5 %, the Netherlands – 10 %, Russia – 6.7 %, Austria – 6.5 %, which provided almost 90 % in foreign capital increase [5; 17].

Table 1

The structure of foreign direct investment from Ukraine to the economies of the world in 2010

Country	Index, %
Cyprus	92,9
Russia	2,7
Poland	0,8
Georgia	0,5
Latvia	0,5
Other countries	2,6

Note: Source [14]

Constraints of FDI inflow into Ukraine are:

- low international rating of Ukraine;
- underdeveloped domestic financial market;
- weak political responsibility of the state;
- low level of political and legal stability (weak legal framework);
- lack of government guarantees for foreign investment;
- weak innovative component of the economy and outdated technologies;
- corruption;
- lack of competitiveness of products.

Total foreign direct investment stock in Ukraine in 2009 was $35723.4 mln, which is 20.9% more than in 2008 or $775.3 per capita, investment came from 124 countries of the world. The ten major investor countries were: Cyprus – $7682.9 mln, Germany – $6393.8 mln, the Netherlands – $3180.8 mln, Austria – $2445.6 mln, Russia – $1851.6 mln, the USA – $1471.5 mln, Virgin Islands – $1316.1 mln, Sweden – $1263.0 mln, France – $1226 mln [7; 14].

Foreign direct investment to industry was structured the following way: manufacturing – $6928.0 mln and mining – $1001.8 mln, production of metal products – $1353.7 mln, engineering – $1090.4 mln, chemical and petrochemical industry – $952.8 mln and others.

In 2009 foreign direct investment from Ukraine to other economies amounted to $6198.6 mln, including to the EU countries – $5949.0 mln (96 % of the total), the CIS countries – $195.7 mln (3.1 %) in other countries – $53.9 mln (0.9 %). Direct investment from Ukraine came to 51 countries, most of them – to Cyprus. Total direct investment in the economies of other countries, given the borrowing, amounted to $6321.9 mln [8; 17].

In general, we can conclude that foreign countries, like Ukraine, under crisis need to attract foreign investments that contribute to the formation of national investment markets, macroeconomic stability and makes it possible to solve social and economic problems of a country and its regions.

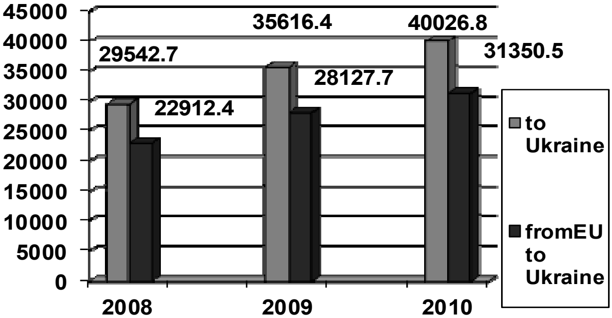

Fig. 3 Foreign direct investment to Ukraine, mln. $

Note: Sources [9; 14]

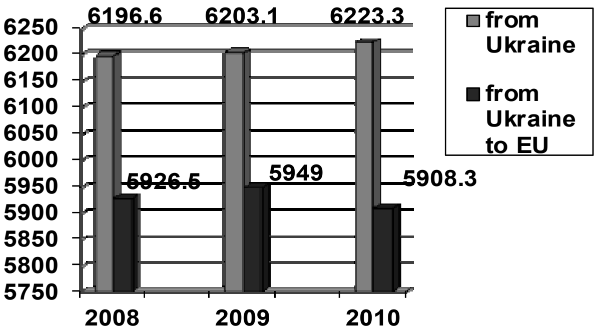

Fig. 4 Foreign direct investment from Ukraine, mln. $

Note: Source [14]

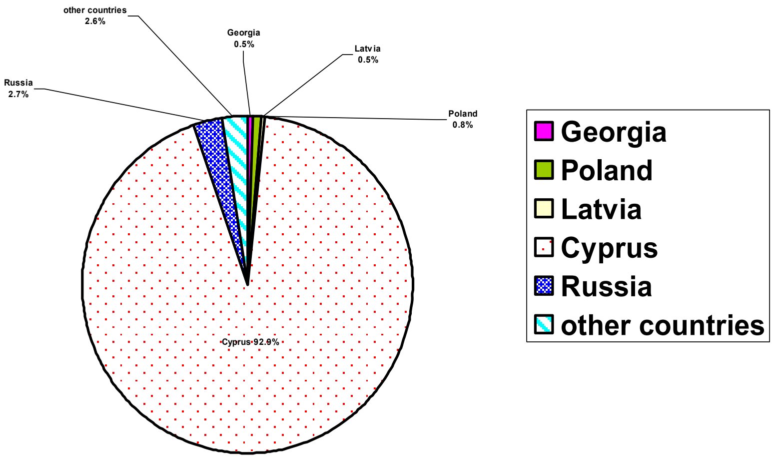

Fig. 5 The structure of foreign direct investment from Ukraine to the economies of the world in 2010

Note: Source [14]

It is rather difficult for foreign investors to work in Ukraine under the circumstances. European Association measured the index of investment attractiveness of Ukraine in the first quarter of 2011 and noted the decline. Thus, 37% of the EBA experts interviewed noted implementation of Tax Code, which entered into force on January 1, 2011. The rating conducted by Transparency International organization in 2010 ranked Ukraine 134th by corruption among 178 countries [10; 14].

Despite significant investment potential for foreign investors, there are a number of problems constraining FDI inflows:

- political and economic instability;
- inadequate legal and regulatory framework;
- high level of taxation and foreign trade duties;
- weak privatization;
- inflation;
- hryvnia exchange rate volatility;
- acute crisis of the population purchasing power;
- low wages;
- semi-criminal nature of many enterprises, etc.

In order to improve policies to attract foreign investment in Ukraine a system of benefits for foreign investors in certain sectors and regions should be created, foreign trade and economic legislation should be improved, the tax burden should be reduced and the structure of taxes should be simplified. Thus, the abolition of quotas should be provided, land reform should be carried out and the government must guarantee implementation of major investment projects and reduce the cost of loans for investors.

FDI into Ukrainian economy in 2011 is expected to reach $7 bln., which exceeds the rate of 2010 by 16.7 % or $1 bln. The main income is expected in the financial sector, capital injections into Ukrainian banks are expected as well [11; 14].

Due to the huge investment potential and public policy, Ukraine has all chances to attract FDI and to succeed in economic development. At the present stage for effective investment management companies apply mechanisms of planning, coordination, and investment controlling. Controlling is widely used by Western companies and brings good results, though in the management of domestic enterprises, it does not find any proper application.

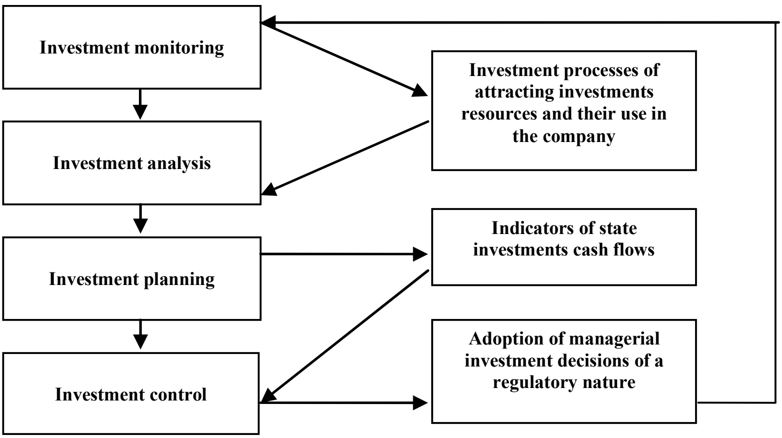

Fig. 6 Block diagram of the investment controlling organization system at the enterprise

Note: Source [14]

The figure shows that controlling as the system of decision-making on investment management in a company is an integral part of modern investment management, which provides a complex approach in dealing with crisis management issues.

The investment controlling functions are:

- monitoring;
- analysis;
- planning;
- control and coordination;

Thus, investment controlling should be an integral part of crisis management of an enterprise [4; 9].

The problems of innovation activity development in Ukraine are varied. Under modern conditions advanced economies are innovative, i.e. they actively apply new knowledge and modern information technologies. Ukraine's entry into the World Trade Organization (WTO) and the prospect of joining the EU requires modernization of enterprises, a complex approach to the effective use of high technology.

The assessment of innovation activity in a country is made by using a rate of innovation, which is the average 5% for Ukraine, which indicates low competitiveness of the country. In order to assess the level of innovation the term "Global Innovation Index" is used, the technique developed by Boston Consulting Group, the National Association of Manufacturers, and the Institute of production [15].

Currently, Ukraine is the 64th in the rating of countries by the global innovation index, despite the fact that the country has a fairly developed infrastructure, innovative enterprises and research institutes, and rich natural resources. Most enterprises use old production lines and they are not involved in new developments. The enterprises are engaged in the assembly of finished products from imported components or produce low-tech "half-finished products" for further manufacturing in more developed countries.

Much of the research on improving the innovation process has no practical application, e.g. due to the lack of equipment at the nano-level. Scientific developments are funded only by public funds; local businesses are not interested in the development of innovative technologies, it is cheaper to buy foreign developments. There is no moral encouragement of young professionals working in innovation area. Many foreign discoveries have "Ukrainian roots", thus it is more sensible to solve the existing problems.

It is possible to create a park of high technologies, benefits and tax simplifications for domestic and foreign companies operating in the innovation field. The introduction of innovative technologies in traditional sectors of the Ukrainian economy should increase their competitiveness at domestic and foreign markets [4; 16].

Competitiveness of a country is largely determined by production of innovative technologies. An analysis of statistical data shows that the number of employees in the innovation area has achieved 3.3-fold decrease since 1990, while in the EU and the U.S. it has increased 2 times and in the Southeast Asia 4-fold; the number of scientists in the field of technical sciences has fallen 3.5-fold, the development of new technologies has gone down – 14.3. The proportion of innovation active enterprises in Ukraine amounted to 12.8%, which is 5 times fewer than in 1990. The density of sales of innovative products – 4.8%, the share of exports is negligible.

According to analysts of the OECD scientific and technological progress (STP) determines 75 % of the annual global industrial production growth rate, and the share will grow up to 90 % in the future. In Ukraine it is less than 1 %, and the growth is based on resource- and energy-intensive production using outdated technologies and obsolete equipment.

In the world innovation rating Ukraine was the 88th in 2010; and in 2011 it went down lower than the 90th; in the rating of competitiveness it was 89th. The low level of innovation activity in Ukraine is due to the following factors:

- unstable economic situation;
- costs of financing research and education are less than 1 % of GDP and make 9.2 bln UAH embodied in the state budget for 2011, while in the world the figure is 2-3 %;
- imperfect legal framework;
- lack of expertise, certification assessment and patent protection;
- absence of management and marketing knowledge of most managers and researchers;
- low level of interaction between enterprises and science;
- lack of own funds in organizations .

Overcoming the existing problems is possible under implementing the national innovative development policy. B. Geyets and B. Semynozhenko consider innovative component of the investment processes as the essential prerequisite for economic strategy development, which would give Ukraine the opportunity to take its worthy place in the global economy [2; 17].

Given the current state of development of Ukrainian economy and its desire to recover from the deep crisis, as well as Ukraine's integration into the EU, we can conclude that innovation can be a driving force for improving competitiveness at the domestic and international markets. The experience of industrialized countries can be an example of innovation strategy increasing production volume and sales, improving productivity, increasing the circulation of capital invested, and supplying high quality innovative products to the market. The range of products and technologies for their production is being constantly updated, while scientific and engineering developments for production-oriented innovation are being implemented. Thus, the fusion of science, technology and production takes place, creating technoparks, business incubators, etc. For any country, there is a parameter – the coefficient of innovation implementation. This is the share of company profits, which is allocated for the modernization and new technology introduction. If it is below 15%, the enterprise is doomed to failure, although machinery and plant shops can be used for many years. The products of such companies are forced out from the market by foreign competitors. For Ukraine, the average implementation indicators does not exceed 5 %, many enterprises have been closed for this reason. Each state must pay great attention to innovative activity. Innovation is the weapon of competition in the XXI century.

Table 2

Distribution of total innovation expenditure, %

Indicator	2008	2009
Internal research and development	8,0	8,0
External research	2,4	2,7
Purchasing of machinery, equipment and software	63,9	62,6
Acquisition of foreign knowledge	3,5	1,4
Other costs	22,2	25,3

Note: Sources [5; 14].

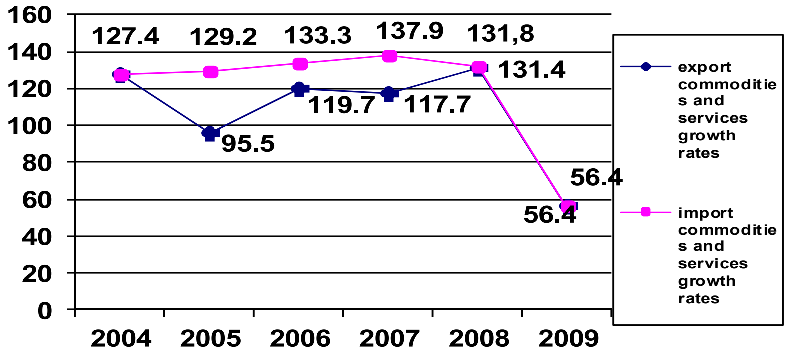

Fig. 7 The dynamics of foreign trade with the EU

Note: Source [3; 14].

Export activities of Ukraine. Export potential is an integral part of the national economy. Its strategic role is to activate the existing and potential competitive advantages of Ukrainian economy in the international division of labour. It is a means of stable economic growth in Ukraine in comparison with developed countries.

Ukraine has a well-developed industrial base and rich agricultural complex, and a lot of mineral resources for local use and export. The main exports from Ukraine are ferrous and nonferrous metals, chemicals, machinery, fuel, petroleum products, transport equipment and food products. Currently, the country's GDP is estimated at $136.6 bln. The major export partners are Russia, Germany, Italy, Turkey, and the United States. In the table below we consider the basic indicators of the export potential of Ukraine for 2006–2010 years in the dynamics.

Table 3

The dynamics of the Ukrainian export potential

Indicator	2006	2007	2008	2009	2010
Foreign trade turnover, $ bln	83,3	109,9	152,5	85,1	170,7
Exports of goods, $ bln	38,3	49,2	67,0	39,7	116,3
Imports of goods, $ bln	45,0	60,7	85,5	45,4	54,4
Balance, $ bln	-6,7	-11,5	-16,9	-5,7	61,9
The coverage ratio of export over import	0,85	0,81	0,78	0,87	2,14

Note: Source [14].

In 2009 the exports fell by 40 % and the imports decreased by 47%, and the foreign trade turnover went down by 44 % respectively. This decline is associated with the global financial and economic crisis. The coverage ratio of export over import was more than 1 (positive trend) up to 2006 and after 2010, and less than 1 (negative trend) from 2006 till 2009, which means the country's dependence on imported goods and reduces the export potential of the region. Promising groups of Ukraine's exports are goods of vegetable origin, mineral products, chemicals and related products, nonprecious metals and articles thereof, mechanical equipment.

Based on the analysis of export activity in Ukraine it has been determined the moral and technical wear of material and technical basis, which accounts for more than 50 % material consumption of production and the irrational pattern of export flows; debt of Ukrainian companies to foreign investors made up $6615.2 mln at the end of 2009 (according to the State Statistics Service of Ukraine).

High risk of financial losses, unprofitable terms in export credit, and export duties increase the cost of export and thus lead to its decline in comparison to the domestic sales.

On the Day of Unification of Ukraine V. Yanukovych stressed in his speech that Ukraine was threatened with gaining the status of "poor quality products and cheap raw materials market" (News RBC-Ukraine, 2011).

At the Ukrainian-Japanese Business Forum (18.01.2011) Viktor Yanukovych noted that the Government of Ukraine was "to solve hard but realistic problems" to reduce the tax burden on business, to reduce the licensing system. According to the approved program of economic reforms (2014), macroeconomic stability, growth of social standards, improving the business climate, and modernization of the main sectors must be provided. Ukraine is working currently at the implementation of the economic reform program for 2010-2014. "A Prosperous society, a competitive economy, an effective government and the National Action Plan for 2011" will implement economic reform programs in the relevant directions [15].

The Ukrainian foreign trade turnover in 2008 was $170.7 bln that is 5 times more than in 2000. Due to the crisis in 2009 foreign trade turnover decreased by almost 2 times up to $98.8 bln. The foreign trade balance from 2000 till 2005 was positive and since 2006 it was negative, which indicates that import prevails over export.

Table 4

Indicators of the Ukrainian foreign trade

Foreign economic indicators	2000	2004	2005	2006	2007	2008	2009
Export of goods and services, $ mln	18059.3	37980.2	40363.1	45873.2	58237.2	78695.7	49223.6
Import of goods and services, $ mln	15106.9	31054.6	39071.3	48846.9	61478.2	92003.3	50604.4
Economic openness, %	57.8	58.5	46.9	42.6	40.8	43.6	53.1
Import dependence, %	48.3	47.9	45.4	45.3	43.1	51.0	54.6
Balance of foreign trade, $ mln	2952.4	6925.6	1291.8	-2973.7	-3241.0	-13307.6	-1380.0

Note: Source [13]

Following the analysis of the indices of foreign trade of Ukraine in 2000-2009, a conclusion can be made that the economy is characterized by high openness (53.1 %) and the increase of import dependence on foreign producers (53.6 %). This demonstrates the shortcomings of the state regulation of foreign trade conditions [2].

Developed countries export high-tech products. As for Ukraine, exports steel products constitute 40% its exports, while mineral products – 32.8 % of its imports (89 % from the CIS countries).

It is the international investment activity that defines the basic mechanisms of long-term economic growth of national economies. The Ukrainian economy needs to attract foreign investment for 3 important reasons:

1) low investment activity of domestic producers;

2) technical and technological modernization of production, market and social systems;

3) introduction of new management and marketing techniques.

It is possible to forecast the inflow of investment of fixed capital in 2011-2015. Ukraine remains attractive for foreign investment in the medium term (2011-2015). This is facilitated by implementation of programs of public investment policy:

1) the adoption of the regulatory framework for public and private partnership in Ukraine; legislation on the use of natural resources, the concession activity, and industrial parks; clustering of Ukrainian economy in order to introduce new and to improve the existing instruments to attract investment in the economy;

2) government support for innovation and investment projects implemented at the enterprises of aviation, space industry, defence industry, mechanical engineering, agriculture, energy, coal mining and construction industries through the system of cheaper loans;

3) concentration of budget funds for the investment and infrastructure development aimed at contributing to weakening inflationary indicators, supporting the demand for domestic goods in manufacturing industry and retention of employment [3, 18].

Table 5

Projected FDI volumes distributed from 2010 till 2015 (millions of US dollars)

Indicator	2008	2009	2010	2011	2012	2013	2014	2015
	Forecast							
FDI (capital gains) according to the inertial (pessimistic) scenario	6073,7	4410,4	4500	5000	5500	6000	6500	7000
Dynamics of the change over the previous period, %			-	11,1	10,0	9,1	8,3	7,7
FDI (capital gains) according to the investment activity (optimistic scenario)	6073,7	4410,4	5000	5500	6000	6500	7000	7500
Dynamics of the change over the previous period, %			-	10,0	9,1	8,3	7,7	7,1

Note: Sources [2; 13].

The main factors of the projected investment inflows are:

- improving Ukraine's place in the system of international popularity rating;
- stable hryvnia exchange rate over the forecast period;
- stabilization of the banking system;
- overcoming the raise of inflation;
- development of the insurance and capital markets;
- FDI inflow for the implementation of projects under the State program for the European Football Championship 2012 preparation and holding the finals [4].

According to the investment projects implemented in Ukraine on January 1, 2011 (191 projects), the investment worth $2044.0 mln were received. Ukrainian investors provided 1426.0 mln (69.8 % of total), foreign investors – $618.0 mln (30.2 %) [5, 14].

The biggest shares in investment since the beginning of the projects implementation are:

- Germany – $237.0 mln (38.3 % of total FDI);
- Cyprus – $62.2 mln (10.1 %);
- Japan – $44.9 mln (7.3 %);
- Poland – $43.6 mln (7.1 %);
- France – $29.6 mln (4.8 %);
- USA – $23.8 mln (3.9 %);
- Italy – $22.7 mln (3.7 %);
- New Zealand – $19.9 mln (3.2 %) [17, 19].

Ukraine's joining the WTO has increased the role of external economic factors. Under recovery of Ukraine from the crisis it will need gradual diversification of foreign economic activity and accelerated development of the industries producing final consumption goods.

Science and technology programs and projects related to the development, introduction and adaptation of complex technological systems in production can be accepted as a basis to contribute to the competitive product output.

Thus, in the context of the global crisis, under the pessimistic assessments of the economic situation in Ukraine, the only strong point is the high investment attractiveness of Ukraine for foreign investors.

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Chapter 17
THE POST-CRISIS ECONOMIC RECOVERY OF UKRAINE: ENERGY SECURITY ASPECT

Global recession of late-2000s provoked a significant downturn in the economy of Ukraine especially in such sectors and industries as: banking, construction, metallurgy, chemical, machine-building, retail, transport. The crisis resulted in price rise, payment delays and salary reduction. These factors caused decline in purchasing power of the majority of the Ukrainian population and general deceleration in economic growth. It is important to emphasize that the above processes took place against the background of political instability in the country.

The Ukrainian economy recovered slightly in the first quarter of 2010 due to stronger-than-expected growth in the global economy and stabilization in the banking sector. The increase in world food prices and the availability of a great harvest of wheat, corn and sunflower seeds which were exported became a weighty factor in the Ukrainian economic recovery. It should be noted that Ukraine's economy developed steadily in 2011, but the poor harvest in southern regions and the deepening recession in the euro zone in 2012 raise questions about the further sustainable development of the country.

Unrest in North Africa and in the Middle East in the first quarter of 2011 and continuation of growth of geopolitical tension in the aforementioned regions in 2012 triggered the world oil and gas price increase and also made adjustments in the recovery process of Ukrainian economy.

Global oil markets are in a period of increased scarcity, reflecting rapid growth in oil demand in emerging economies and downshift in oil supply growth [8, p. 107]. Structural transformations placed oil and gas prices in a new high path: erosion of spare capacity in entire oil supply chain (upstream, refining); emergence of new large consumers; new geopolitical uncertainties; re-emergence of resource nationalism in many oil-producing countries; shift in oil pricing towards the futures market and growing importance of financial investors and traders. If oil prices surge further, they could even threaten recovery of the global economy, which is already complicated due to a variety of risks [6]. Thus we can say that hydrocarbons price stabilization is possible only in the medium or long term period.

Analysis of these processes is very important to the economy of Ukraine considering its high dependence on imported hydrocarbon resources. In this regard, it is important to note that volatility in oil and gas prices directly affect the post-recession economic recovery and development of the country.

Every time oil and natural gas prices rise, economic activity – e.g. people's income and the value of their assets – declines by some measure. Price volatility creates uncertainty in investments and reinforces shifts in labour market sectors.

Another important relationship is the one between oil prices and real prices of primary commodities. The analysis shows that the non-stationary behaviour of real commodity prices is caused by the non-stationary behaviour of real oil prices. This impact depends on the commodities. This is also the case even if oil is not being used directly in the production of commodities. A change in the oil price may affect the prices of primary commodities through the impact of the oil price changes on real exchange rates [7].

Rise in oil prices automatically leads to higher prices for natural gas which is one of the basic components of chemical and metallurgy industries. There is also negative indirect influence on agriculture (chemical fertilizers and fuel) and utilities (energy and gas supply, water heating). Thus raising prices of fossil fuel leads to higher prices for export goods produced in Ukraine that ultimately affects their competitiveness on the global market and neutralizes them as the leading drivers of economic recovery.

The influence of the volatility of world hydrocarbon market on the investment process in Ukraine is an important aspect of this analysis. Increasing volatility creates market uncertainties that induce companies to postpone their investment in most sectors of national economy. Uncertainty in investment means that volatility in oil prices is more important than the level of oil prices, as regular changes in oil prices increase uncertainty whether to invest or not.

Examining the overall effect of volatility of the global market of hydrocarbons on the post-recession recovery of the economy of Ukraine it is necessary to identify major problems arising in this process: GDP decline; increasing the exchange rate; increasing the discount rate; inflation growth and inflationary cost-pushing effects; reduction in industrial and service production; price rising for the basic products and services; postponing or rejection of the investment projects; scarcity of the petroleum products; negative economic expectations in the society; general slowdown in economic development.

Thus in the process of ensuring sustainable post-recession development of Ukrainian economy under conditions of the permanent global hydrocarbon market volatility at the forefront is the task of ensuring the energy security. Since not all the countries have the appropriate access to the deposits of hydrocarbon resources within their national borders they have to solve the question of ensuring economic growth by importing oil and gas resources. That immediately makes the governments of these countries seek the ways of safeguarding supplies and guaranteeing their continuity under any external and internal circumstances, especially in terms of reducing access to the oil and gas reserves all over the world.

The issue of energy security in such conditions is crucial for the country's successful development. In this context, economic and geopolitical success of the country will be provided not only through the direct access to energy resources. In terms of global instability, some of the countries that have oil and gas reserves, attempt to provide energy self-sufficiency combined with energy efficiency and power saving.

For Ukraine, as a net importer of hydrocarbons, energy security has always been a priority for all governments since gaining independence in 1991. In order to develop effective practical recommendations of ensuring energy security of Ukraine, we consider it appropriate to clearly define the scope of the scientific concept of energy security in the current conditions of development of the world economy.

It should be mentioned that *energy security* as a concept is widely used in different scientific research papers and mass media, but its definition is often vague, and, in most cases, limited only by economic or political aspects of the phenomenon. Very often energy security is defined as an attempt of oil and gas importers to protect themselves from supply disruptions that might be caused by technological accidents, terrorism, and insufficient investment in energy infrastructure or inefficient functioning of energy markets. While determining energy security economists usually emphasize ensuring uninterrupted supplies of hydrocarbons at economically grounded prices, which must comply with economic conditions and predetermine the opportunity of the country economic development [1, p. 1; 4, p. 4]. However, in our opinion, the concept of energy security is broader than the definition of limited economic aspects of energy supply and energy prices and may include the interdependence between importers and exporters of oil and gas, including political issues that threaten the economic security of the state. Therefore, energy security should combine both economic and political aspects, and outline the prospects for exporters and importers of energy resources. From the above, we can conclude that energy security is not only the extremely important part of the integrated system of economic security, but also an important element of government policy.

The process of ensuring the energy security should be based on systematic comprehensive approach that includes economical political and military (defense) aspects (Fig. 1).

The main objectives of energy security of Ukraine are:

- ➢ reliable supply of energy resources according to the requirements of national economy and the population at objectively necessary extent;
- ➢ reliable and efficient operation and development of industries and enterprises of fuel and energy complex (FEC);
- ➢ providing at the state level the socially-oriented energy policy;
- ➢ reducing harmful effects on the environment and population caused by activities of FEC facilities according to national and international requirements [5].

The main challenges currently confronting the state in oil and gas industry include:

- ➢ possible loss of control over the gas transportation system (GTS);
- ➢ minimizing the oil transit function across the territory of Ukraine;
- ➢ total degradation of the oil refining;

- collapse of unified energy system;
- fragmentation of energy complexes.

Fossil fuels and products of their processing have a critical impact on functioning of the entire national economy. In the energy balance of Ukraine by some estimates oil takes 18 %, gas 43 %, adding up to 61 %, and the other estimation 16.9 %, 35 % and 51.9 % as total, respectively, indicating the extremely important role of hydrocarbons for the country (it is necessary to note, that this paper investigates oil and gas component of energy security).

Lack of hydrocarbons may lead to a significant slowdown in economic growth as well as to negative social consequences. At the same time, additional volumes of extraction and processing (higher than consumption within the country) can provide the steady flow of export earnings.

In order to work out practical proposals concerning the development of the oil and gas industry for providing energy security of Ukraine and guarantee the sustainable development, we consider it appropriate to analyze the state of affairs prevailing in the industry.

The current situation in the oil and gas industry is as follows – Ukraine buys most of the required volumes of oil and gas at the world market prices beyond national borders. We consider it appropriate to emphasize that the political assessment of the situation is not one of the objectives of this study, but we believe that the economic effects arising in this context are extremely important for the national sustainable development. It should be noted that the reorganization and restructuring of the energy sector after gaining independence only deepened energy dependence on imported energy resources. Despite oil, gas, coal, shale gas and methane hydrate deposits on the territory of the country – Ukraine is the energy deficit nation because it satisfies its own energy needs only halfway: oil production – 10-12% of total consumption; natural gas production – 20-25% of total consumption.

In spite of sufficient reserves of gas in Ukraine the volume of its production has reduced dramatically due to lack of exploration expenditure. It is important that Ukraine also does not have a terminal for liquefaction of natural gas. Capabilities and resources of the Black Sea shelf are not used in full power. The developments of unconventional hydrocarbon fields, that can provide Ukraine with gas for 30-50 years, have not even started yet.

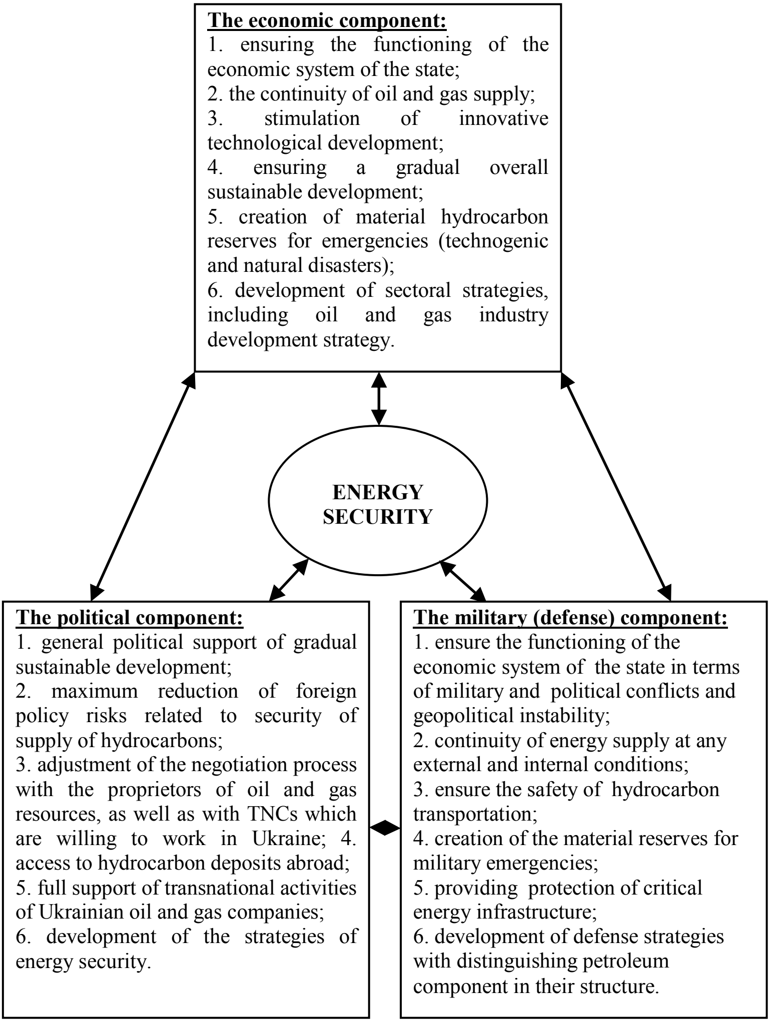

Fig. 1. Integrated system of energy security of the state

Note: Source – The chart was developed by the author.

Over the last decade, oil production in Ukraine has decreased. Oil fields are depleted by 85-90%, but exploration is not financed properly. The quality of Ukrainian oil and gas reserves is permanently decreasing. In connection with the riskiness of further exploration and adjusting the production, private companies are allowed to sell extracted commodities, while the state does not fully participate in the profits through the mechanism of resource rents. There has been hardly any foreign investment for almost 20 years. The Black Sea deposits are being developed slowly and haphazardly. The refining technology at Ukrainian refineries is outdated and ineffective. Production of fuel oil, which was previously used for thermal power plants, is unprofitable in modern conditions. Deep oil processing does not perform any refinery, although partially-modernized Odessa refinery can do it. Meanwhile the state has no impact on the work of refineries because they are owned by private companies [2, p. 22, 24].

At the same time, Energy Strategy of Ukraine to 2030 includes the paragraph about providing population of the country with oil and gas of own production [3]. This task is assigned to the National Joint Stock Company "Naftogaz of Ukraine", which is the leading fuel and energy company of Ukraine and one of the largest companies in the country. The company carries out a full cycle of operation in exploration and development, production and exploration drilling, transportation and storage of oil and gas and also supplies customers with natural gas and liquefied petroleum gas (LPG).

SC "Ukrgasproduction", SJSC "Chornomornaftogaz" and OJSC "Ukrnafta" (structural units of "Naftogaz of Ukraine") produce natural gas (approximately 90 % of total gas production in the country). Enterprises of "Naftogaz of Ukraine" are operating 233 gas, oil, gas condensate and oil/gas condensate fields. A significant share of them is in the final stage of development and is characterized by complicated geological and technological conditions of operation. For example, about 70 % of deposits, developing by SC "Ukrgasproduction" have been in operation from 10 to 60 years and have been utilized by 80 %. To maintain energy independence of the state "Naftogaz of Ukraine" is forecast to increase onshore gas production, to develop oil and gas enterprises and grow its own hydrocarbon reserves due to increasing the production volumes and efficiency of geophysical research; enhancing oil recovery from existing fields and modernizing oil and gas drilling equipment. Prospects of increasing oil and gas production by "Naftogaz" are also associated with active involvement in developing Ukrainian reserves of marine shelf and implementing the projects of extraction of fossil fuel abroad. For the diversification of energy resources supply it is planned to import them from Kazakhstan, Azerbaijan, Turkmenistan and other countries and to build a regasification terminal for liquefied natural gas. In the conditions of aggravation of competition at the hydrocarbons transportation market the first priority is to strengthen the transit capacity and ensure the reliability of piping systems. The analysis of "Naftogaz of Ukraine" activity says that the company is not fully discharging its strategic commitments. It also should be noted that some of the Government steps in the sphere of ensuring energy security are declared and gradually implemented. Among the most significant for the industry are the following: reforming "Naftogaz of Ukraine"; developing unconventional hydrocarbon resource base; construction of an LNG-terminal; subsequent diversification of supply.

The analysis of the priorities of the Government policy in the sphere of ensuring energy security and independence, as well as the status of their implementation, suggests that at present conditions the only effective instrument for ensuring energy security is transnationalization of "Naftogaz of Ukraine" activities and increasing interaction with the oil and gas TNC's in global carrier manufacturing, unconventional hydrocarbon production and state-of-art technologies and financial resources (Fig. 2).

In order to ensure energy security and sustainable post-crisis development we have developed practical proposals for improving existing energy strategies for oil and gas industry. Our approach is based on comprehensive development of the two priority directions: developing domestic resource base and exploration and production abroad.

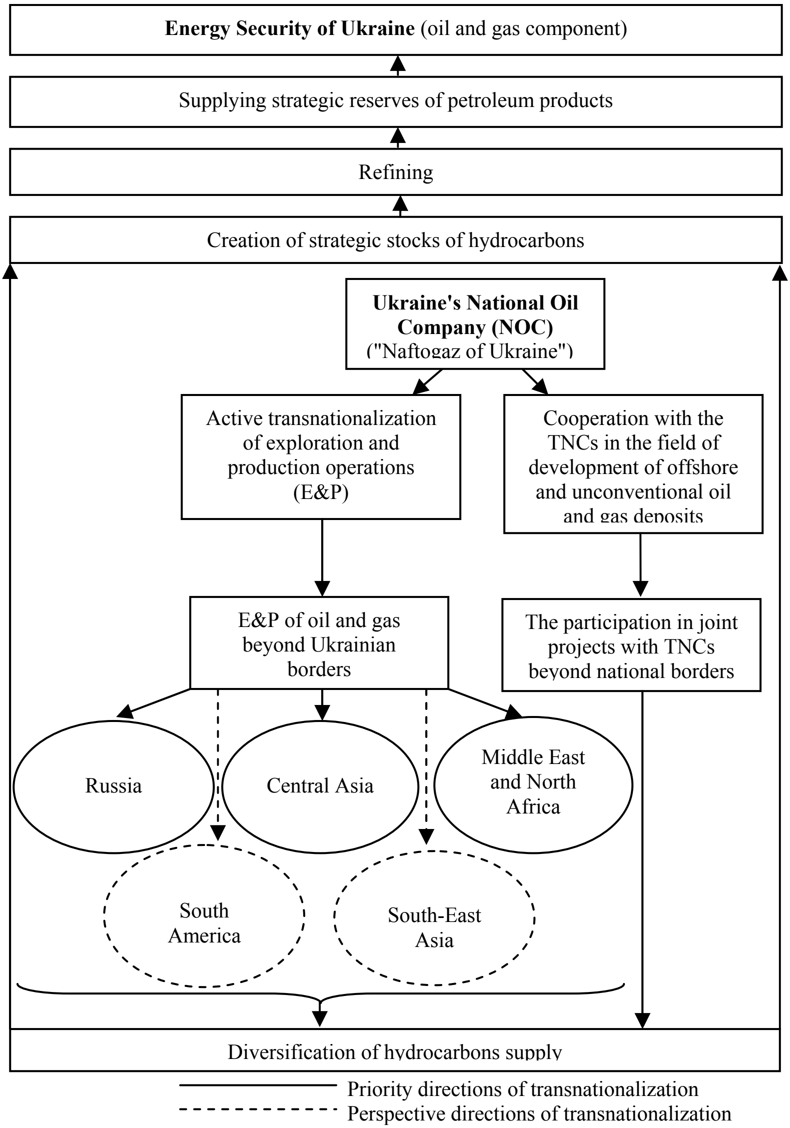

Fig. 2. The chart of ensuring energy security of Ukraine on the basis of transnationalization

Note: Source – The chart was developed by the author.

Development of domestic resource base is an important part of ensuring energy security under any conditions (military conflicts, embargo, violations of supply chain, etc.), which should provide sustainable socio-economic development or, in the worst case, to ensure functioning of the basic industries and social infrastructure. It is also worth noting that reproduction of complete and effectively operating oil and gas industry value chain encourages the development of related manufacturing industries in the country. The further development of domestic resource field should be based on comprehensive assessment and audit of all hydrocarbon reserves in Ukraine (including deposits that are being developed). It is connected with the necessity of a clear long-term investment planning process and the dynamics of production and processing within the vertically integrated company.

Improving the efficiency of production on explored fields through the implementation of enhanced oil recovery (EOR) technology, which should stimulate scientific and technical cooperation component at the NOC-IOC (international oil company) and NOC-service company levels.

The solution of the issue of restructuring "Naftogaz of Ukraine" (including its financial restructuring) is one of the primary objectives of the national oil and gas industry developing in this country, which directly affects the entire value chain within national borders, as well as the exploration and production outside Ukraine. The main tasks of the restructuring are: improving company's financial stability; ensuring transparency of operation; further development of public-private partnership; ensuring a steady stream of budget payments; creating conditions for an adequate response to the challenges of energy security.

Ukrainian national oil and gas enterprises should develop and implement a comprehensive program of transnationalization on the basis of joint ventures with IOCs and NOCs for oil and gas production on the territory of Ukraine and abroad.

They should participate in tenders for exploration and production in Africa, South America, South-East Asia and the Persian Gulf (including Iraq, Egypt and the UAE). These directions are promising both in terms of existing stocks and due to the opportunity to enter the market of technological equipment and services. In our opinion, it is appropriate to use the experience of Russian and Belarusian oil and gas companies which have intensified their activities in the aforementioned geographical areas over the past years by creating strategic alliances with NOCs.

Another crucially important geographical area is the Russian Federation. Cooperation with Russia's TNCs and petroleum production on its territory is the essential component of the all-round development of the Ukrainian oil and gas industry. It will allow further participation in major international projects, like Eurasian transport corridors, tenders for supplying industrial equipment, production of significant volumes of oil and gas necessary for Ukrainian economy and for the possible export of oil and gas production surplus, as well as guaranteeing partial or full scale use of the transit potential of the Ukrainian GTS.

Ukraine should form the basic concepts of public policy in the sphere of diversification of hydrocarbon supply sources in the long-term perspective distinguishing their directions and required material and technical support, including construction of tanker and gas carrier fleet and required port infrastructure.

The Energy Strategy of Ukraine to 2030 should be revised and updated, taking into account the features of current stage of transnationalization of global oil and gas industry.

Focus should be made on production of conventional hydrocarbons with the simultaneous significant research of ecological, economic and social impacts of shale gas production in Ukraine in connection with a possible large number of negative effects including: disruption of the groundwater regime; poisoning of water reservoirs and agricultural lands; environmental deterioration for the residents of a number of districts of East and West Ukraine; the growth of the overall anthropogenic pressure on the environment of the country.

The country should direct its resources (financial, intellectual, industrial) on research and development of effective methods of extraction and processing of methane hydrates in the Black Sea; as well as analyze the possibility of participation in joint research projects with the specified problems of methane hydrate resources development.

All parts of the Ukrainian oil and gas industry value chain need retooling with an emphasis on procurement of technological equipment designed or manufactured in the country.

"Naftogaz of Ukraine" needs to elaborate the concept and strategic program of full-fledged national oil and gas servicing company in its structure.

Realization of proposed policy measures intended to accelerate the recovery process and to decrease dependence and vulnerability of Ukrainian economy from the world oil and gas market volatility. The post-recession economic recovery of Ukraine in the context of volatility of global hydrocarbons market requires a full-scale integrated action on the part of government, business and society. This process can be characterized as mid-term and its successful implementation will provide the foundation for the further stable development of the country.

In the conditions of the current stage of transnationalization of global oil and gas industry Ukraine has a unique opportunity to fully meet domestic demand for hydrocarbon resources and get rid of political pressure associated with the energy dependence. The active participation of public and private Ukrainian oil and gas companies in the process of transnationalization can also completely solve the problem of energy security by ensuring uninterrupted supply of economic with required volumes of hydrocarbons and thus positively affect the post-crisis recovery of the country.

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Chapter 18

STRATEGY OF CLUSTER STRUCTURES IN THE GLOBAL DIVISION OF LABOUR

Creating innovative technology (high tech) clusters is a new form of association of enterprises and organizations due to globalization trends of the world economy (global economy). High-tech cluster is a unique combination of companies and organizations where information and technology are interconnected and geographically localized. Their activity is aimed at expanding technical and technological capabilities of the participants and enhances economic development priorities of production. The object of this study is especially the formation and operation of high-tech clusters in the global economy.

There was a need for scientific understanding of the merits of the integrated system of knowledge of clusters, about their formation, operation and management. Research in the field of clustering based on the fundamental work of the famous economists, like Mr. Weber and his theory of industrial dislocation [22] and the theory of "industrial districts" A. Marshall [12]. These were the first attempts to explain the nature of economic clusters by well-known economists. But some scientists, such as Vaughn Tumen, find even deeper roots of this phenomenon.

A French scientist Francois Perry, the author of the theory of growth poles and the founder of the theory of regional growth, argued that in order to understand the sources of growth and change, analysts should focus their attention on the role of industries that are rapidly developing in areas that dominate other sectors due to its large size, significant market potential and its leading role in innovation [16]. Another famous economist Darvent believed that industries that are developing rapidly constitute the so-called "growth pole" [6], which can attract to its sphere of influence other firms to determine their range of interests or other control structures and resource economics.

But the current interest in clusters has emerged through the research of Harvard Business School Professor Michael Porter discussed in his book "Competitive Advantages of Nations" (1990). Porter introduced the definition of "cluster" in the economic literature. "Cluster – a concentrated geographical group of interconnected companies, specialized suppliers, service providers, firms in related industries, as well as activities related to their organizations (universities, agency for standardization, trade associations) in particular areas (regions) that compete, but at the same time are working together" [18, p. 206]. High-tech cluster is a system of close links between firms, their suppliers and customers, as well as institutions of knowledge that contribute to the emergence of innovations [7, p. 85].

This work started lively a debate among economists. Research, establishment, development and efficiency of the new territorial-production systems in a globalizing economy engaged many scientists and specialists of the world. Many scientists tried to identify the formation and development of clusters in their studies. Among them are E. Bergman, E. Fezera who studied the identification and evaluation of clusters; Enrayta M., S. Rosenfeld and their theory of industrial integration and organization of productive forces; B. Milnera, E. Toffler: the theory of industrial, regional and scientific-technical policy; [14] De Bresson, L. Kemeni, J.-L. Pozhe, G. Postlta, W. Price, L. Pullola, T. Roelanta, M. Steynera, M. Todaro, I. Tolenado, P. Fisher,

M. Feldman, J. Hertoha, P. den Hertaha, I. Horvath, J. Shreplera, V. Shroydera, Joseph Schumpeter and others who whose research was devoted to practical experience in the formation of clusters. In turn, S. Rosenfeld studied the role of size and level of employment in clusters, clusters and networks difference. [19, p. 12] M. Porter criticized him because he does not take into account the influence of social environment and culture in clusters.

In turn, Lawrence E. Young, said: "Clusters of firms - a group of companies located nearby. In some cases, these clusters form a group of companies belonging to the same field." [11 p. 3] While discussing the conditions of cluster system formation it is important to establish the relationship between the factors and outcome, so the correlative approach is necessary. Correlation concept of E. Limera is based on considering clusters with high correlation in the analysis of the export trade at the national level [17].

The need for technological linkages between industries and sectors to realize their potential benefits is interpreted in the "Industrial filieres" approach of French scientists I. Tolenado and D. Solye. They used the term "network" (from Fr. Filet) for the analysis of groups of technological sectors. Formation of "Machinery" identified the dependence on one sector to another scientific-technological level [16]. "Machinery" is more narrow interpretation of the cluster, because it is based on one of the criteria of the cluster – just the need for scientific-technological linkages between industries and sectors to realize their potential benefits and opportunities.

Also, cluster approach is widely used in the research of Swedish scientists-theoreticians. Their theory is formed on the cluster structure of the national economy, to study the relationship of large Swedish multinational corporations. Clusters in Swedish economy are based on the thesis by the scholar E. Dahmenom "blocks of development" [5]. The basis of competitive success for E. Dahmenom is the link between the ability to develop in one sector and the ability to progress in another. Development should occur in stages or "vertical action" within the same area associated with other sectors that provide the ability to create competitive advantages for the industry.

The most modern theory of competitiveness based on clusters is developed by V. Feldman. The advantage of this theory is that it is based on empirical studies of large diversified business forms in different countries [9]. The essence of the theory is as follows: diversification often requires the presence of matrix "input-output" or links between areas that are relevant relationships and purchasing supplies. This agrees with the mechanisms that lead to the formation of clusters. The most viable clusters of innovative activity or high-tech clusters are formed on the basis of diversification.

In turn, the theory of high-tech industrial groups or clusters can be seen in the work of the American scientist M. Enrayta (1990) (1996), who created the theory of "regional clusters". According to the theory of M. Enrayta, competitive advantages are created not at the national level but at regional, where the main role is played by the historical background of regional development, cultural diversity of business, production and education. The scientist noted that clustering occurs even in the sub-sectors, do not think of it as a subject of clustering, such as telemarketing and processing credit cards. M. Enrayta starts the connection with the theory of spatial clustering business externally, agglomerative economics, labor unions and overflow economy [17]. In our opinion, the regional clusters require targeted support from government agencies and research organizations.

A German expert on innovation and investment policies of foreign countries Mr. Fisher proposes instead of "growth points" centers of crystallization – a group of interrelated industries that have high market potential, companies which are united by the sign of the branch. The specific area that attracts investment cannot be considered separately from the others and should be developed within the cluster vertically interdependent sectors.

Most scientists who analyze the nature, functions, principles and character dynamics or cluster development, emphasize that the key competitive advantage of clusters is the organization of the interactive system of circulation of knowledge (knowledge economy). According to American researcher A. Saksenian effective system of innovation among mutual cluster members is the key factor in global innovation leadership in the U.S. Silicon Valley. The author of the concept of regional innovation systems F. Cook confirms the presence of positive interaction between geographic proximity and cluster efficiency of technology transfer and innovation between companies cluster [4].

In contrast, representatives of the European School of Economics (E. Limer, D. Solye, I. Tolenado, M Porter, etc.) brought proof of why the economy should be viewed through the prism of clusters, rather than through the traditional grouping of companies by industry. Cluster system interacts better with the nature of competition and sources to achieve competitive advantage and better than the industry covers the important relationships, complementarity between industries, marketing, understanding customer requirements and the spread of technology, skills and information.

We believe that one of the most significant and structured approaches is the view of E. Bergman and E. Fezera that were presented by scientists in the "Industrial and regional clusters" (1999). Because the authors identify five basic theoretical concepts to support cluster theory: outside of the economy; innovative environment; cooperative competition; intercompany competition; dependence of the path [8].

The interrelated theories also arose from the theory of clusters mainly in the 90-s of the twentieth century. In our opinion, the following theory is of scientific interest:

- poles of growth and structure of direct connection and feedback, which emphasized the formation of branches associated with other sectors;
- economic agglomeration, where the emphasis is on minimizing costs and specialization, possibly due to the wide range of local market as well as the advantage of localization agglomerations near the area;
- economic geography, where attention is paid to the geographical concentration of enterprises of the sphere;
- economy of urban areas and the region with highlighted formation of urban agglomerations, which appears on the infrastructure, communication technology, the availability of investment, industrial diversity of opportunities and markets available in urban areas with high concentration. [1, p.8-9] Scientific works by P. and D. Derinhera Terkla are of special interest.

Scientists have conducted a detailed analysis of the characteristic trends of the clusters, for example, marketing niches, traffic liability and competition and ability to generate the major driving forces of industrial clustering. Among them, noteworthy are: strategic and operational opportunities intercompany alliances of specific type, the traditional regional factor market advantages (pools of labor markets, local sources of unique skills and talents), the specific role of nonprofit institutions such as universities, colleges, trade unions and professional association [21, p. 90].

In our opinion, the ideas of M. Porter, A. Weber, A. Marshall, J. Schumpeter, M. Enrayta, De Bresson, Fuchs-Williams, S. Rosenfeld, Scott and other foreign specialists are the theoretical core, which allows to explain the dynamics of clusters and logic to justify the legality of policy and economic clustering [12; 22].

Formation and development of clusters also were studied by Ukrainian economists E. Bezvushko, I. Brizhan, S. Bushuev, M. Wojnarowski, B. Voropayev, V. Vorotin, M. Nether, S. Dorohuntsov, C . Kunitsyn, AS Moskvin, S. Mochernyy, M. Petrushenko, V. Saw, K. Poychenko, D. Stechenko, S. Sokolenko, S. Sutyrin, V. Chevhanov, O. Chmyr, A. Yudanova and others. The Russian economic science is known for N. Afanasyev, L. Myasnikov, S. Sutyrina [20, p. 323]. They focused their studies on the features of the clusters in the industry and efficiency of their services.

Theoretical aspects of public administration cluster structure, formation of competitive clusters and implementing effective mechanisms for managing the region are reflected in publications by L. Alexandrov, I. Zapatrina, A. Kucherenko, A. Mihranyan and others. In Ukraine clustering research organizations and government agencies are the International Foundation for Development Research Economic Institute of the Ministry of Economy, the individual structures of the European Economic Commission, the UN and the EBRD/ The main direction of their research is to develop the theoretical and methodological foundations of creating and developing cluster competitiveness in the modern conditions of economic development of Ukraine [15, p. 54].

Domestic researchers have determined that the clusters – a new form of sectoral and territorial associations – are an effective form of organizational support for innovation development of territorial - economic complex. The cluster researcher S. Sokolenko believes that membership of enterprises in cluster structure can increase the level of their innovation. In turn, A. Asaul shows that the formation of a single innovation space is among the basic principles of enterprise integration in territorial-production complexes (clusters).

A scientist and economist V. Chuzhikov exploring the genesis of clusters considers a holistic concept of a cluster as a competitive form of territorial organization - hierarchical models of production with different levels of localization, which gives the maximum economic and social impact through the minimization of costs compared to similar areas. [3, p. 164] the works of the abovementioned scientists are a significant contribution to the theory of regional economic development and economic and legal operation of commercial complexes in the region.

The work of the above analysts has created significant theoretical grounding for many processes and phenomena that are associated with clustering of the economy, agglomeration economies and the creation of common pools of labor, the principles of knowledge activation centers for the purpose of establishing an innovative orientation of clusters in the development of their business. In our opinion, the current policy of clustering in industrialized countries has been taking place during the last 30-35 years due to the restraint potential competitiveness of large integrated companies in the dynamic global markets. The scale of areas covered by the cluster structure, has particularly increased in recent years with the rise of globalization, increasing competition and complexity of the situation on world markets. Clusters occur mainly in the following industries: automotive, agriculture, high-tech areas, industrial and commercial areas of activity, service, social sectors and others.

The centers for the formation of network-territorial production systems could also be universities (institutes, schools of different grade levels) or a group of research and scientific institutions. Different clusters have different degree of interaction between firms of which they consist. The forms of such interactions range from relatively simple (network-type associations) to complex (multi-level cooperative-competitive entities). The formation of clusters may be both in terms of scale (industrialized countries) and small volume of the economy (developing countries). They arise at the national, regional and municipal levels. A wide range of forms and types of cluster structures clearly creates significant complexity in the formation of clusters required in this area of deep research. Clusters, as a kind of complex multi-organization, today in the era of globalization, are a typical market structure of the world economy.

Creating new forms of association of enterprises and organizations of innovation and technology (high tech) clusters is determined by trends in the global competitive economy (global economy). A high-tech cluster is a unique combination of companies and organizations that are information-technology-linked, geographically localized, which are aimed at expanding the technical and technological capabilities of participants and improve regional or sectoral competitiveness. Innovative sectoral and territorial associations are the most effective form of high level of competitiveness and an informal association of efforts of various organizations: industrial companies, research centers, individual entrepreneurs, government bodies, universities, etc.. Such clusters can take advantage of the most effective ways of coordinating the economic system (corporate hierarchy, market mechanisms, partnership, outsourcing, etc.). That allows transferring new knowledge, scientific discoveries and inventions quickly and effectively. Combining the innovation cluster (high tech), based on vertical integration, forms non-spontaneous concentration of various technological inventions, and clearly oriented system of dissemination of new knowledge, technologies and innovations.

Formation of persistent network connections between all participants of innovation and technological cluster is essential for efficient transformation of inventions into innovations, and innovations into competitive advantage. Clusters of innovation create a new product or service efforts of several companies or research institutions to help streamline their distribution across a network of business relationships. The signs of the emergence of innovation and technology clusters are at a favorable combination of these factors of production: scientific and technical potential, skilled workforce, communication and information technologies, and access to foreign markets, organizational and economic links between economic clusters.

The main result of the implementation model of high-tech clusters is the cost of each resource companies and institutions in the region (government agencies, academic institutions) that are involved in the innovation process. First, it saves existing jobs and creating new, and secondly, it gives significant increase in labor productivity, and thirdly, it provides a rational use of all types of resources that are involved in the production process. Formation of innovation and technological clusters causes significant changes in the division of labor based on innovation, thus contributing to the development of innovative clusters of entrepreneurship in regions with high concentration of intellectual, industrial, scientific, technical and information capacities.

Model development of innovative network-territorial forms of production systems "area growth" for the region becomes a means of improving production efficiency through management of all types of resources and thus promotes the growth of competitiveness in domestic and foreign markets. In turn, the cluster model of innovative development results in: formation of flexible goals and strategies of regional development based on economic and statistical modelling, detection of viable enterprises by nature of innovation and decision-making on further restructuring, investment, diversification, establishment of quality communication between participants in the innovation process, forecasting and evaluation of innovative activity in the region [2].

Using the model of network-territorial production system gives the regions the following perspective: new opportunities for innovation in existing businesses, creating new jobs, increase in employment of highly skilled workers, expansion of production competitive in the global market for goods and services. In developed countries, international competitiveness was initially stronger within individual clusters. Each country is characterized by a separate model of high-tech cluster. Select the following models of clusters:

- American model: cluster located in one region and the maximum use of its natural, human and integration potential. Typically, production is export oriented clusters;

- ➢ Scottish model: the core of co-production is a large enterprise which unites around a small firm. This model is chosen by the European Union;
- ➢ Italian model: A more flexible and equal cooperation of small, medium and large businesses. Experts believe that for countries with economies in transition it is the most suitable form of cluster of production.
- ➢ French model. Conducted since 2004 by the state policy of formation "poles of competitiveness".

High competitiveness and economic stability of cluster systems identify factors that stimulate the proliferation of new technologies, the nature and structure of the interaction between science, public policy and industry. The most viable clusters of innovative activity are formed on the basis of diversification of inter-branch relations. This in turn proved the famous scientist Victor Feldman, who said: "... the most viable clusters of innovative activity or high-tech clusters are formed on the basis of diversification ..." [10]. Therefore the diversity and relative availability of different sources within the cluster of technological knowledge and connections facilitates combining factors of production and becomes a prerequisite for effective innovation. Based on the above, are the following features of clustered systems:

- ➢ The presence of large enterprises – the leader that determines the long-term economic, innovation and other system-wide strategy;
- ➢ The territorial localization of economic agents – members of cluster system;
- ➢ Stability of economic ties among participants, sectoral and territorial integration;
- ➢ Long-term coordination of interaction of the participants as part of its production programs, innovative processes, basic control systems, quality control and others;
- ➢ Targeting production clusters for export or import substitution.

An important feature of high-tech cluster is its innovative orientation. The most successful clusters are formed in the areas of "breakthrough" technology and production technology, followed by entering new market niches with new products or services. In this regard, many countries (developed economies, transition economies) all actively use the cluster approach in the formation and regulation of their national innovation programs.

Special attention should identify and support innovations that provide long-term business development. Industry-territorial approach provides the favorable basis for the creation of new forms of knowledge. Industrial policy encourages the emergence of new combinations of inputs and supports them, especially in education and research through the mediation centers that introduce innovation.

A high-tech cluster, being the most effective form of high level of competitiveness, is an informal association of efforts of various organizations (industrial companies, research centers, individual entrepreneurs, government bodies, universities, etc.). Cluster approach is a good basis for creating new forms of knowledge, stimulating the emergence of new scientific and technical fields. Promising area of development of the world and the Ukrainian economy is the formation of regional innovation and technology clusters – complex enterprises (industrial companies, research centers, academic institutions, and government) on the basis of territorial concentration of networks of specialized suppliers, main producers and consumers associated in technological chain. Clusters positively affect the state of regional economy around the world. Companies that try to use the advantages of clustering, in terms of increasing the profitability of the merger of separate businesses into a single system, usually get the synergistic effect. Clearly coordinating their actions, they have the opportunity to take a more advantageous competitive position, and ultimately achieve sustainable benefits. Such companies can gain greater market share through low prices, can afford to spend more funds for R&D and advertising or increase profitability, thereby attracting investment capital. The most important synergetic effects of the cluster include the following:

- the effect of flow of knowledge in the cluster,
- the effect of increasing cash flow by combining the cash flows of companies that comprise the cluster,
- the effect of sharing infrastructure facilities,
- the effect of reducing transaction costs.

In the transition of a country to innovation (high) model of economic development, the formation of clusters is of particular strategic importance for the state, and this should be reflected in national programs of development as the whole country and a region (Regional Development Programmer). Cluster economy as a result of properly designed government programs promoting a dynamic, balanced, effective regional development, will provide a high level of regional competitiveness and therefore increase the country's competitiveness index. It should be noted that the development of clustering processes must consider the general areas of operation, the world market in the given situation and the possibility of increasing the competitiveness of the structural units of each individual cluster. In addition, high-tech clusters should effectively integrate into the global systems of the world economy. In particular, the need for their interaction with existing structures through the development of joint activities. This can be achieved through market research and monitoring to determine the main directions of global commercial complexes.

The activities of high-tech clusters of the "generators of new technologies' type are characterized by radical innovative processes creating the world of innovation. Such clusters are oriented toward a "value added" innovation as the main development strategy. Creating a high-tech cluster accelerates the process in some areas, causing a surge of innovation and strengthens the ability to compete globally. Development of Information Technology, Bioengineering, production of new materials, create conditions for innovation and change in almost every high-tech industry.

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Chapter 19

TRANSFORMATION OF LEGAL REGULATIONS IN THE FRAMEWORK OF UKRAINE AND THE EU ASSOCIATION AGREEMENT

In the present study we intend to inquire into the main problems on Ukraine's way to an association with the EU in the post-crisis global economy, as well as to study of recommendations and legislation adaptation measures in the process of association agreement conclusion and, in particular, in the establishment of the deep free trade zone.

The Ukrainian Government set a strategic objective to conclude a new basic agreement with the European Union (Association Agreement). The progress achieved in the negotiations regarding the Agreement is conspicuous. The signed document, however, is to become a starting point of a more ambitious task, i.e., the introduction of European standards in Ukraine through the implementation of undertaken obligations.

The Association Agreement between the EU and Ukraine can further serve as the model of relations between the EU and other partner states within the framework of the Eastern Partnership initiative, in particular, with Moldova, Georgia and Armenia, with which the EU would also like to commence negotiations, in perspective, concerning the establishment of a profound free trade zone for the parties to be able to move on along the political association line. If the free trade zone fails to be established, the parties shall have no association agreements at their disposal, as a free trade zone is the constituent of such documents.

Nowadays ongoing are negotiations between Ukraine and the European Union (EU), commenced in February 2008, concerning the conclusion of the Agreement on the "profound and comprehensive free trade zone" (FTZ+), which is an integral and one of the major parts of the Association Agreement Between Ukraine and the EU, and which refers not only to goods trade tariffs, but also to bringing Ukrainian legislation and rules in more than 20 different fields in compliance with EU standards.

Compliance with the liabilities undertaken under the Agreement, especially those concerning legislation adaptation, will require not only political responsibility, but also the development and realization of a well thought-out system of planning and implementation of these liabilities.

The Association Agreement sets forth particular relations of the state with the EU, since it establishes special privileged ties with a non-member state, which must, at least to a certain extent, participate in the Commonwealth system. The intensity of a country and the EU relations is an important fundamental principle in determining regulatory capacity of international agreement norms in the law and order of EU and its member states, namely their capacity to have direct effects [13, p. 10]. In the long run, this will allow Ukrainian natural persons and legal entities to protect their rights prescribed by the Agreement more effectively.

In the initial European Neighborhood Policy (ENP) documents, the European Union proposed Ukraine and other neighbour states "fully-fledged participation in the Internal EU market". In return, EPS states would follow the example of the European Economic Zone (EEZ) member states and adapt a great part of acquis that regulates the EU Internal market. Since 2006, the EU has not put forward such proposal; instead, the EU documents started emphasizing on long-term perspective of an economic community that will be formed between the EU and partner states, also providing that these countries will selectively adopt respective parts of EU legislation [3, p. 11].

Therefore, this process may be perceived as a backward step since selective harmonization instead of complete adoption of acquis can provide some of the Ukrainian enterprises that are closely connected with Ukrainian politicians with the opportunity to opt for those parts of acquis only that will cater to their specific business interests.

On the other hand, "selective harmonization" can be deemed as a pragmatic approach, whereas Ukraine is not a candidate for the entry into EU and has weaker stimuli than those with the candidate status. Thus, currently, Ukraine lacks the possibility, for example, to adopt EU Environmental Directives completely, since this is to bring about extensive expenses. First, this is not the basis for signing the EZT+ Agreement. And, second, Ukraine shall not be granted access to EU structural funds that would reduce harmonization expenses in the field. For these stimuli have played an important role in initiating, legitimization, and assertion of changes in the candidate countries of Central and Eastern Europe of the time.

Legally, harmonization of Ukraine's national legislation with EU legislation is outlined in Article 51 of the Partnership and Cooperation Agreement between Ukraine and European Communities (European Union) and Their Member States dated June 14, 1994 (PCA) in the following fields: customs law, companies legislation, banking law, companies accounting, taxes, including indirect ones, intellectual property, labour safety, financial services, competition rules, public procurements, healthcare and life protection of humans, animals, plants, and environment, consumer rights protection, technical rules and standards, transportation, energy use, including nuclear energy [12, p. 6].

Ukraine's European integration procedure possesses certain signs that make it different from the structures of former and present candidates for joining the EU. This is primarily manifested in the existence of parallel processes, namely, the Ukraine-EU Action Plan 2005 in the framework of the European Neighborhood Policy (ENP) and the National Legislation Adaptation Program (NLAP) regulated by the Law of Ukraine No. 1629 "On the National Program of Adaptation of Ukrainian Legislation to European Union Legislation" dated March 14, 2004. The measures set forth by the NLAP are the "voluntary" component, whereas the ENP is Ukraine's obligation before the EU.

Despite the discrepancies in expert evaluations and official claims, Ukraine has mainly honoured its obligations in the framework of the Action Plan. On the other hand, NLAP measures demonstrate low realization level. NLAP compliance indexes throughout 2005–2007 were 50 %, 25 %, and 10 % correspondingly [5, p. 6]. Moreover, if under the term "implementation" one understands not only legislative acts' adaptation, but the everyday application of EU norms as well, then Ukraine appears to lag behind in terms of both the Action Plan and the NLAP. Very frequently this is manifested through the shortage of lower-level acts aimed at the compliance of adapted legislation norms and insufficient understanding of the essence of new norms. In this course, as well as taking into consideration the ever more intense complication of the nature of obligations in the legislation adaptation field in the framework of the New Enhanced Agreement, the necessity to seriously review the procedure of Ukraine's European integration arises.

As of the pre-crisis period, an agreement was arrived at by Ukraine and the EU that prior to the conclusion of the Association Agreement, the cooperation between the parties shall be based on the PCA terms and conditions. Thus, with the aim of providing for proper financing and sustainability of the process of Ukrainian legislation adaptation to the EU legislation, the creation of conditions for further advance of Ukraine's integration in the Internal EU market and the taking of necessary steps for the acceleration of the EU Association Agreement conclusion, the Supreme Council of Ukraine (SCU) approved entirely Law of Ukraine No. 852-IV "On Introducing Changes Into the National Program of Ukrainian Legislation Adaptation to EU Legislation" on January 14, 2009, that provides for the prolongation of the first stage of Program for the period until the termination of APC effect" [1].

All in all, during the period between 2005 and 2009, out of the general volume of acquis communautaire that adds up to over 100,000 pages, nearly 60,000 pages have been translated into Ukrainian [6-11]. Constantly the translation of the database "Electronic system of European Union documentation" into Ukrainian is being carried out.

All the countries within the last EU expansion wave and Western Balkan States heading towards EU integration developed a rather unified implementation strategy that served as the main instrument for obligations planning, monitoring, and performance. In case with Central and Eastern Europe, the national programs of acquis implementation, whereas for Western Balkan States (most of which are not official candidates for EU-membership), the title of National Program of Stabilization and Association Agreement are more common. The outlined approach to the performance of obligations is coordinated by the center and is rather transparent.

In a number of studies, such as, for example IED (2006), CEPS (2006), CASE (2007), the profound and comprehensive agreement on free trade zone between the EU and Ukraine is proved to be useful in the long-term perspective, as it stimulates the increase of the actual GDP and the growth of economic welfare.

In order to allow a country to capitalize on all free trade zone benefits, attention ought to be shifted away from tariffs towards non-tariff issues, in particular, to technical barriers in trade, the issues of trade procedures simplification, intellectual property rights' issues, etc. A survey conducted by the International Financial Corporation (2008), demonstrated that technical barriers, in the entrepreneurs' opinion, constitute the major obstacle for business. Moreover, cumbersome technical regulation holds back innovation, commerce and economic growth. Therefore, the maximum full approximation of standards, procedures of compliance valuation, accreditation and market monitoring effective in the EU by all means belongs to the field of primary importance in the process of negotiations regarding the free trade zone. It should be emphasized, however, that much progress has been achieved in this field in the context of the WTO membership, since Ukraine undertook to develop all of its technical regulations on the basis of respective international standards. Moreover, since Ukraine joined the WTO, all standards in Ukraine are voluntary, except those set forth in technical regulations designated, in particular, for the protection of national security interests, prevention of fraudulent actions, protection of health and life of citizens, animals or plants, as well as environmental protection.

The experience of new EU member states and Western Balkan States having performed or performing under minor agreements with the EU testifies to the fact that their governments were preparing for the management of the change implementation process with the aim of successful compliance with respective agreements. Such preparation possessed multiple common features on different states. In particular, the governments of these countries resolved the following issues [2]:

- Establishment and operation of a centralized mechanism (that most often possessed the format of a special executive authority) securing political and administrative coordination of governmental activities aimed at Agreement implementation.
- Implementation as a governing instrument of a national program of Association Agreement introduction. The governments of all states performing under similar EU agreements organized their work precisely around the all-national strategic documents – detailed action plans aimed at performance of all obligations undertaken in the context of the association agreement, composed in accordance with a uniform structure featuring the division into short-, mid- and long-term priorities.
- Building-up the institutional capacity of the executive power in all fields embraced by a state's obligations under the agreement with the EU, which includes respective central,

territorial (regional), and local executive bodies, to develop sector-based parts of the national program and secure their implementation.

At the same time, it is noteworthy that the process of adaptation of domestic legislation to acquis communautaire is connected with the following issues [12, p. 60]:

1. The present-day acquis communautaire implementation state testifies to the fact that this matter is not paid sufficient attention on the national level. Therefore, it failed to find stable social legitimization and to become the subject of extensive discussion among scientists, non-government organizations, political associations, mass media and the public on all levels.

2. Implementation supposes establishing priority adaptation sectors in the framework of a certain type of politics. However, in the process of national legislation adaptation planning, despite the clear establishment of its procedure, central bodies of power demonstrate insufficient initiative.

3. A significant challenge to the adaptation process is the provision of due quality of translations. According to the experience of the states that have recently joined the EU, it is very difficult to secure uniform approaches to terminology under the conditions of excessive translation volume and lack of respective experience. Moreover, the acquis communautaire acts are the result of multilateral negotiations and contain specific terminology. And the lack of knowledge of foreign languages, English in particular, hinders the negotiations on important sector-specific issues and familiarization with EU legislative acts [6, p. 26].

4. The process of EU regulatory acts translation and interpretation is rather slow, in comparison with Poland, Turkey, and Croatia. The main reason for such delay lies in the necessity to overcome difficulties of legal systems incompatibility of the EU states and Ukraine. Thus, the recommended source of translation into Ukrainian is the German variant of acquis communautaire, since its terminology is approximated to the continental system of law. However, these arguments are too weak. Thus in the process of adaptation, one should take advantage of the possibility of using the official translations of EU regulatory acts into the languages of some

member states (Poland, Bulgaria), the legal system and language structure of which is much related to Ukrainian one [4].

5. The translation and processing (interpretation, terminology concordance) of acquis communautaire is accompanied by low priority level of the implementation of its norms on the part of the SCU to the national legislation (certain bills implementing EU norms in the national legislation have been under review of SCU committees since 2006, and the State Department for Legislation Adaptation conclusions regarding the compliance of bills with the acquis communautaire norms have no impact upon the process of their adoption).

6. There exists incompliance of regulation fields of normative, technical and regulatory acts of Ukraine and the EU. Thus, a rather wide range of relations regulated in the EU on the level of directives, are regulated in Ukraine by voluntarily used interstate standards.

For the acceleration of the process of adaptation to acquis communautaire, we deem the following measures necessary [12, p. 60]:

- ➢ To grant the measures connected with the acquis communautaire norms implementation the National status in order to increase the significance of the issues of national legislation adaptation to the EU legislation and the involvement of a wider range of public, institutions, and organizations in the process.
- ➢ To oblige central executive bodies of power authorized to effect trade policies submitting proposals with the aim of forming "Tentative plan of acquis communautaire acts translation into Ukrainian in the respective year" (in conformity with the acquis communautaire acts translation into Ukrainian procedure approved by Order No. 56/5 of the Ministry of Justice of Ukraine dated June 08, 2005).
- ➢ To allot the State Department for Legislation Adaptation with guiding and coordinating functions by way of introducing changes into respective regulatory acts.
- ➢ Taking into account the transparency principle to involve non-state structures, public organizations and higher education institutions financed within the projects administered mutually with the EU into the process of adaptation.

- ➢ To train respective professional staff for the performance of translations of proper quality in view of the difficulty of providing uniform approaches to terminology and in the conditions of excessive translation volumes (translation of acquis communautaire and informational and analytical materials, legislative acts and their drafts into English).
- ➢ To change the process of bills consideration by the SCU so that each bill package submitted for consideration to the SCU contains a conclusion regarding its conformity with acquis communautaire; and prior to its direct consideration, the conclusion should be read to the deputies by the SCU chairperson.
- ➢ To establish the order of cooperation with national manufacturers regarding standards, norms and rules harmonization that will allow to preserve funds during the adaptation of the most important standards, in particular, the standards on the basis of export goods groups (as opposed to general harmonization). It is considered expedient to replace the normative-technical documents with regulatory acts, in the cases of fields the regulation of which is performed on the EU directives level.

Under the analysis of harmonization costs and benefits for a number of acquis sections, it has been established that:

- ➢ coordination of the law on companies and state assistance rules regulation supposes rather considerable expenses for certain companies, yet, as it appears to be, shall be of benefit for the entire society as such;
- ➢ liberalization of capital flows is useful for the state, though there exist liberalization risks pertinent to market imperfections;
- ➢ there are high expenses connected with the introduction of Basel II rules in Ukraine, which makes the approximation of these norms questionable. It is more doubtful at present, when the global economic crisis revealed considerable gaps in the system;
- ➢ enactment of stricter ecological standards shall pose biggest challenges to companies that have previously positioned themselves in cheap sectors or produced low-quality products.

At the same time, in view of Ukraine's aim of gaining EU membership, the approximation with European standards and practice must be thoroughly planned. At this, the following consideration should be taken into account.

First, global economic crisis changes the regulatory field of activity worldwide and in the EU states in particular. These changes must be taken heed of in the adaptation of EU norms.

Second, since Ukraine shall affect essential reforms in the process of securing the performance of obligations under the Free Trade Zone Agreement with the EU, it is within the scope of Ukraine's interests to secure interest on the part of the EU in lending financial and technical support to these reforms in the country.

Under the given post-crisis conditions of the bodies of power functioning, the government can experience the following issues with organizing its performance [2]:

- absence of an effective centralized coordination mechanism. This is manifested in the fact that not a single body for the coordination of European integration policy has been established in Ukraine. Nowadays there exists a set of detached processes in separate bodies of power that are often performed simultaneously. Most European integration policy aspects are coordinated by the Ministry of Economics, the Ministry of Justice, and the Cabinet of Ministers of Ukraine Secretariat (the European and Euroatlantic Integration Coordination Bureau in particular, or presently the European Integration Bureau, the latter being a subunit of the former). Thus, due to such duplication, the entire coordination system appears to be ineffective, and the responsibility for certain problems and failures is difficult to be found.
- Unpreparedness for the development of the national program for Association Agreement performance. Due to the absence of standards and quality control procedures in the existing governmental planning system, particularly strategic and budget planning, it is impossible to use such management tool as the performance of the Association Agreement in accord with procedures and patterns implemented by all countries that are performing or have performed upon the similar agreements with the European Union.
- Institutional incapability of central executive authorities. As of now, no clear-cut tasks have been assigned to central executive

authorities to be fulfilled for the successful implementation of programs and plans regarding integration with the EU. At the same time, their internal structure hinders the performance of such tasks, whereas no precise conditions have been established as to who is responsible for separate results needed for the preparation and execution of the national program for the performance of the Association Agreement. Frequently, different structural units undertake the same functions and none bears responsibility for the final outcome.

A separate aspect of central executive authorities' activities is effective functionality of structural units concerned with European integration. At present no single vision exists regarding the role and objectives of the structural units for European integration in the bodies of state power: European integration is undertaken chiefly by departments that combine this type of activities with international cooperation. In this respect, the following problematic issues can be pointed out:

- The number of employees undertaking European integration issues within the body is inconsiderable (2-3 persons).
- Heterogeneous list of types of activities of the European integration units.
- European integration units perform varied functions (coordination, planning, policies development etc.), often duplicating the work of other departments. Being in imbalance, such units have multiple tasks and scarce resources, human resources, for instance.

The negative experience of Ukraine being compliant with prior agreements with the EU in the post-crisis period testifies to a great risk of the failure to comply with new obligations under the Association Agreement. The European party definitely aims at comprehensively harsh control of the Agreement performance. That is why even the best imitation of intense activities cannot conceal real achievements or lack thereof.

Post-crisis phenomena have made the question of negotiation process acute; and the process is still ongoing. Therefore, the political management must realistically evaluate the government's capacity to secure the performance of the Agreement. And for this, the scope of issues causing the risk of failure must be determined, as well as immediate action ought to be taken with the aim of providing a complex resolution of these. Thus, we have come to believe that there is a necessity to take the following steps on the way to government preparation for the EU Agreement performance:

- Developing a centralized model of European integration coordination by way of the Cabinet of Ministers issuing an order on the establishment of a centralized coordination body. Its chief objective will be to coordinate the central executive bodies' activities in the field of preparation and execution of the National Program of EU Association Agreement Implementation, and the powers of the majority of bodies should be redistributed in order to concentrate them in the hands of the central coordination body.
- Performing transfer to centralized planning of Association Agreement performance through the preparation and adoption of a legislative act that will define the status and place of the National Program of EU Association Agreement Implementation in the state programs and plans system that must receive the priority status in respect of other programs. The mentioned legislative act must contain a reliable definition of objectives, manpower and material needs for achieving the objectives with forecast results, the functioning of the regular program review mechanism, control of performance of the program development and implementation tasks by respective bodies, as well as proper liabilities for failures to comply.
- Creating institutional capacity of the bodies by virtue of not only regulatory list of obligatory objects and products, reforming of the internal structure of central executive authorities, but also on the basis of changing the role of European integration units in the bodies of power and establishing professional requirements to personnel. This means the necessity for determining the knowledge and skills that officials commissioned with the tasks regarding Agreement performance should possess; also, relevant requirements in typical state servicepersons' professional and qualification role profiles should be established.

Concluding the research results we should note the following. On the basis of the undertaken research, one can ascertain that, nowadays, in terms of peculiarities of institutional provision of bilateral relations between Ukraine and the EU, as well as taking into consideration the quality and level of acquis communautaire implementation, the quantitative approach to determining the adaptation scope provides no idea of the directions and volumes of implementation work on the national legislation; and all fields mentioned in the present paper require taking into account the provisions of acquis communautaire acts.

The key and top-priority direction of work in the legislation harmonization field is the preparation for Association Agreement implementation as a legally binding international agreement that will establish all issues of cooperation with the EU, in the field of trade primarily, and will provide for economic integration in the internal EU market by way of constant adaptation of Ukrainian legislation to that of the EU.

The process of preparation for the implementation of the Agreement between Ukraine and the EU must necessarily include the development of a centralized coordination model of European integration, the shift to centralized planning of the Association Agreement performance, as well as the creation of institutional capability of central executive authorities.

The delineated solutions are but a part of state administration reforms that call for implementation both at the preparation stage and at the stage of performance under the Association Agreement with the EU. They can mark the commencement point, as they require neither radical institutional changes nor hefty financial expenses, nor much time. However, it is obvious that such commencement can be secured solely by complete implementation of an integral system of European standards of democratic governance into the Ukrainian system of state administration.

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