



Munich Personal RePEc Archive

The Global Economic Crisis - What Should NOT be Forgotten

Trenovski, Borce and Tashevskaja, Biljana and Makreshanska,
Suzana

Ss. Cyril and Methodius University in Skopje, Faculty of Economics
- Skopje, Ss. Cyril and Methodius University in Skopje, Faculty of
Economics - Skopje, Ss. Cyril and Methodius University in Skopje,
Faculty of Economics - Skopje

2015

Online at <https://mpra.ub.uni-muenchen.de/76323/>

MPRA Paper No. 76323, posted 20 Jan 2017 16:07 UTC

The Global Economic Crisis - What Should Not Be Forgotten

Borce Trenovski, PhD

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje
e-mail: borce@eccf.ukim.edu.mk

Biljana Tashevska, PhD

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje
e-mail: biljana@eccf.ukim.edu.mk

Suzana Makreshanska, PhD

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje
e-mail: suzana@eccf.ukim.edu.mk

Abstract

The global economic crisis opened a new chapter in economic policy and awakened economic science. Its severity, the various negative financial and economic shocks and the impotence of the economic policy response revealed new questions about the background and the causes of the economic crisis – what led to the emergence of the global economic crisis, are the causes new or already known, are there similarities with previous crises? The great number of analyses regarding these questions reveals different aspects that complete the whole picture of the causes, factors and lessons about the crisis that need to be remembered. This paper tries to offer an analysis of the causes and factors that contributed to the global economic distress by analyzing the global economic events that accumulated in the pre-crisis period. The main purpose is to synthesize and define the key direct and indirect economic events and developments that need to be considered by economic science and policy and that must not be forgotten in further analyses of the global economic development in the future.

Key words: *global economic crisis, financial system, global economic imbalances, real estate bubble.*

1. Introduction

For almost three decades, the macroeconomic theory and policy had developed in an environment characterized by: maintaining macroeconomic and price stability; rational expectations of economic agents; limited incentives for real economic activity provided by active economic policy (especially fiscal policy); creation of macroeconomic models that incorporate policy creators' credibility, time inconsistency, rational expectations, monetary rules etc; development of the theory of public choice (political macroeconomics) and criticism of the government involvement in the conduct of economic policy. This was all strengthened by the shorter and milder cyclical fluctuations after the II World war, and by the transition of many countries from centralist to market oriented economic systems. As a consequence, the

economists began to believe in the omnipotence of the market mechanism and in the “invisible hand” and glorified capitalism, liberal ideas and market based economic system more and more. The global economic crisis emerged in an economic and social environment where economic theory and policy was dominated by neoliberal macroeconomic theories. In the autumn of 2007 the crisis announced changes in these relations.

Economic history has recorded a large number of economic crises. However, after the Great Depression of the early 1930s and the Second World War, the economists seemed to have forgotten about the consequences of economic crises and considered that Keynesian economic policy measures had defeated the crises. However, the fact is that every economic crisis has its own specifics, and hence, economic science once again stood confused before the global economic crisis. It took some time to implement the measures that point to history, to the Great depression and to Keynes. The debate about the role of the state in the society and economy and about a balancing approach between market and government was revived. On the other side, some authors point to reaching other extremes and to the consequences from the implemented measures (over borrowing, inefficient allocation of resources, tightened protectionism and regulation etc.) (see Schneider and Kirchgässner, 2009).

The global crisis began in 2007 opened a new chapter in economic policy and awakened the economic science. The various negative financial and economic shocks and the impotence of the economic policy response revealed new questions about the background and the causes of the economic crisis and about the market mechanism that supports and propagates them: what led to the emergence of the global economic crisis; are the causes new or already known, are there similarities with previous crises, have the economists forgotten the lessons that needed to be learned in the past?

The remainder of the paper is structured in the following way: the second part provides a short analysis and comparison of the recent global economic crisis with previous crises, followed by a detailed analysis and systematization of the specific reasons and factors behind the Global economic crisis of 2007. In the end the picture is completed with an elaboration of the evolution of the Global economic crisis, its transmission channels and mechanism.

2. Similarities with previous economic crises

The economic crisis that distressed the world economy was caused by a mixed set of factors, some of which are similar to past financial/economic crises, while others distinct the recent global crisis. Four characteristics link the recent crisis to previous crises: rise in asset prices up to unsustainable levels; credit booms that lead to excessive borrowing; appearance of systemic risk and the failure of regulation and supervision to keep pace with the crisis and to react in the moments of “eruption” (see Claessens et al., 2010).

Real estate and asset price bubbles – There was a sharp rise of prices on the real estate market in the USA and other markets before the crisis. This pattern of price bubbles is similar with the episodes of large financial crises in history. The real estate market boom in the USA during the five pre-crisis years, reaching the peak six quarters before the start of the crisis, is incredibly similar to past large banking crises in developed economies: Spain in 1977; Sweden in 1991; Norway in 1987; Finland in 1991 and Japan in 1992 (see Reinhart and Rogoff, 2008).

Credit booms – The lasting credit expansion in the USA before the crisis is similar to other crisis episodes, with the difference of the expansion now being concentrated in one

segment – the mortgage market. The lasting episodes of fast credit growth mainly coincide large fluctuations in economic activity – real output, demand and investments grow above their long run trend during the credit boom and fall below the trend after the boom. In the credit growth phase, the current account deteriorates, often accompanied by a wave of private capital inflows, growth in real estate and real exchange rate (see Mendoza and Terrones, 2008). In such circumstances, the indebtedness (the debt compared to disposable income) of households in the USA increased sharply after 2000, mainly headed by mortgage growth, accompanied by historically low interest rates and support from financial innovations. Credit expansions are linked to crises through a rising leverage of borrowers (and investors) and falling credit standards – which was the case in several countries affected by the crisis (Spain, Iceland, Great Britain, some East European countries etc.).

Marginal loans¹ and systemic risk – The household credit expansion was supported by the favorable macroeconomic conditions before the crisis. In the USA, a large portion of the mortgage expansion consisted of loans approved to users with limited credit history. That made credit institutions and credit users extremely vulnerable to adverse developments of credit and monetary circumstances and to changes in asset prices. In other countries, the large exposure to foreign currencies of the corporate and financial sector is a feature that is common with the Asian crisis. For example, some East European countries denominated a large portion of their domestic loans (including household loans) in foreign currencies (euro, dollar, Swiss franc, yen etc.), which made them especially vulnerable to the stability of their exchange rate and to macroeconomic shocks. We need to mention here also the enormous growth of financial derivatives markets (mortgage based securities etc.), the prices and payment of which depended on the assets they were backed by and on their price movements.

Regulation and supervision – The crises throughout the history have often been accompanied by expansions caused by financial liberalization without appropriate regulation and supervision. Like in the past, in developed economies in the recent crisis financial companies, investment banks and off budget securities were not subject to banking regulations. Shadow banking provided extremely large financial intermediation and grew without an adequate surveillance which led to higher systemic risk. As has happened before, during the recent crisis, the focus of the authorities was mainly on the liquidity and solvency of individual institutions, while the financial system as a whole (the global financial system as well) was neglected and the possibility and costs of systemic risk were underestimated.

3. Causes of the Global economic crisis – what should not be forgotten

The biggest financial and economic crisis in the last 80 years caused a wide debate. A significant number of studies, books and conferences analyze the causes for its emergence and search for a response of economic policy that would efficiently address the crisis. What can be concluded from the vast literature is that the causes that influenced the emergence of the Global economic crisis are similar, although there are disagreements about the relative importance and the order of their appearance and dependence.

¹ Marginal loans are loans taken to finance an acquisition of securities (or in this case real estate or other assets). They are usually provided by companies (broker firms and other forms that work with securities and real estate) that are hired by the users to trade with the assets.

According to Taylor (2009), the global crisis was caused by the expansive monetary policy in the USA and in Europe (where there is a correlation between the movements of interest rates of central banks), the relationship between monetary policy, stimulating government policies and the mortgage market problem, as well as the complicated financial architecture – securitization, rating agencies, financial innovations etc. Other authors find and empirically prove that imbalances in the world economy are the main cause of the crisis, accompanied by the inadequate regulation and supervision, while monetary policy according to them did not cause the decrease of interest rates and the emergence of the crisis (see Merrouche and Nier, 2010). A third group of authors seek the reasons in the changes on the financial markets since 1998, which were supposed to have beneficial effects for reducing the risk and for an efficient allocation of resources, but instead caused the opposite – a deep international integration of capital markets, the process of securitization, growth of hedge-funds and other private capital funds, financial derivatives and innovations – which reduced the transparency, increased the leverage and the systemic risk (see Swagel, 2009). Similarly, a fourth group of authors include three elements: the battle between financial innovations and regulation, the consumption boom from 2002 to 2007 and the financial internationalization accompanied by deregulation and global imbalances (see Schneider and Kirchgässner, 2009). A fifth group of authors include an expanded set of determinants – imbalances in the world economy, unsustainable credit boom, financial innovations and architecture, monetary policy, deregulation, speculations (see Carmassi, Gros and Micossi, 2009). Another group of authors discuss macroeconomic factors (global imbalances and monetary policy) and microeconomic factors (financial innovations, inadequate regulation, credit boom and low credit standards, inadequate corporative governance and motivation system in the financial sector) (see Mohanty, 2010). Some authors seek for wider reasons for the crisis (crisis makers) – economic experts that see the world through economic rationalism and neoliberalism, policy creators that implement that vision and popular interpreters that persuade us to believe in that vision (see Snooks, 2000). The most detailed structure of the causes of the global economic crisis is provided by Jickling (2010) and the members of the Congress Committee in the report for Congress titled *Causes of the Financial Crisis*, where they name 26 different causes. The causes detected by Jickling (2010) are placed in four main groups: global imbalances in the world economy; deregulation and regulation of financial markets and institutions; new financial architecture and the real estate market bubble. (see table 1).

| Table 1 – Structure of the causes of the Global economic crisis | |
|--|---|
| Key causes | Structure |
| Global imbalances in the world economy | Global financial flows in the recent years have been characterized by movements that are unsustainable in the long run: some countries (like, China, Japan, Germany) have current account surpluses, while other countries (USA, UK) have not only current account deficits, but also domestic deficits in the household and government sector. |
| Deregulation and regulation of financial markets and institutions | Legislation on deregulation; Relaxed leverage regulation (allowing investment banks to work with companies with high leverage); Fragmented regulation of financial institutions; Absence of a regulator of systemic risk (shadow banking, hedge funds, non-bank dealers of financial derivatives etc.). |
| New financial | Securitization; |

| | |
|----------------------------------|--|
| architecture | Rating agencies; Shadow banking; Off balance financing; Financial innovations and their complexity; Failure of risk management systems: Excessive leverage. |
| Real estate market bubble | Incautious approval of mortgages; Price growth (creation of bubbles) on the real estate markets to unsustainable levels; Lack of transparency and accountability in the mortgage finance; Directing the banks to become involved in imprudent mortgage finance by the government, aimed at helping low income groups. |
| Other causes | Human weaknesses (limited rationality) Inadequate computer models „Black Swan“ theory |

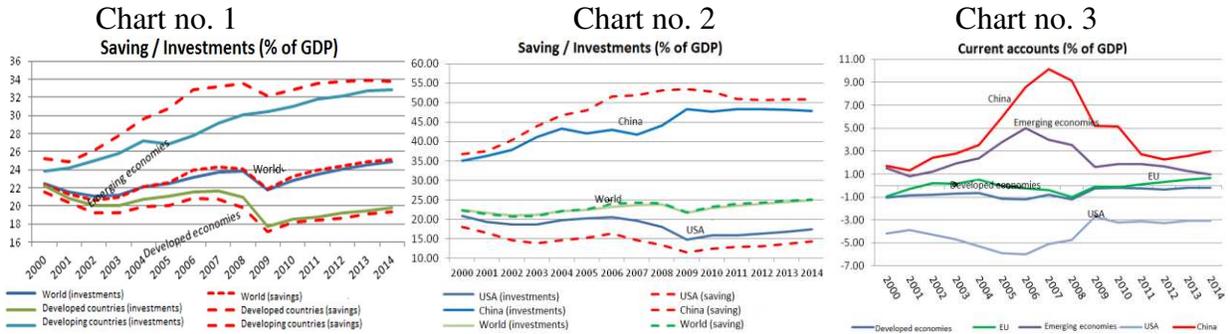
Source: Classification by the authors, based on Jickling (2010).

Based on the literature review on the different groups of causes that initiated the Global economic crisis, we can synthesize five groups of causes for which there is a consensus in the majority of the literature: macroeconomic causes (imbalances in the world economy and relaxed monetary policy) and microeconomic causes (deregulation and inadequate regulation and supervision of the financial system, real estate market bubble and the modern financial architecture).

3.1 Imbalances of the global economy

The expansion of global imbalances is accompanied by a larger dispersion of positions of the current account and larger net foreign capital flows. The high capital inflows can reduce the financing costs of banks on international markets; they can decrease the long term interest rates, causing financial institutions to increase their exposure, and investors to “pursuit higher yields” and increase the aggregate credit supply in the domestic economy, causing higher asset (real estate) prices in the domestic economy. Even before the beginning of the crisis, some authors claimed that global imbalances, i.e. the global excess of savings over the excess of intended investments (so called „savings glut“), decrease the long term interest rate on a global level, including the USA (see Bernanke, 2005).

The excess liquidity on the global capital markets supports the large the current account imbalances among the dominant economies and regions in the world. In this case, current account deficits in the developed economies (the USA has the largest gap between savings and investments) are covered by large current account surpluses in the emerging economies (see chart no. 1, chart no. 2 and chart no. 3). The dominant share of the assets on the global capital markets come from the falling investments in the Asian economies, and from the growth of oil prices, which caused asset/finance inflows to the Middle East, Russia and other countries, that should have been spent rationally (see more in Obstfeld and Rogoff, 2009; Servén and Nguyen 2010).



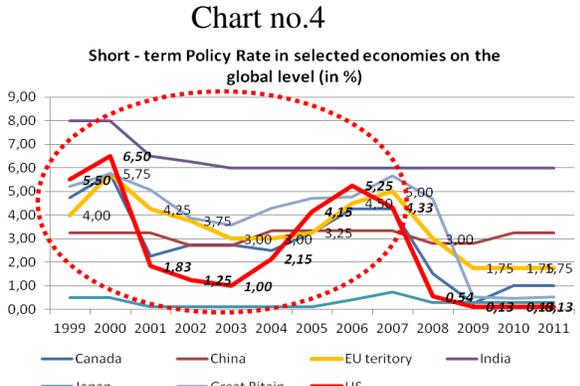
Source: International Monetary Fund, World Economic Outlook Database, April 2012.

Numerous analyses confirm the relationship between global imbalances and low global interest rates and their connection to financial imbalances in the economies (see Merrouche and Nier, 2010). Contrary to this opinion, other analyses claim the opposite, i.e. that the “key problem of the explanation is that there is actually no real evidence about the existence of savings glut” (see Taylor, 2009).

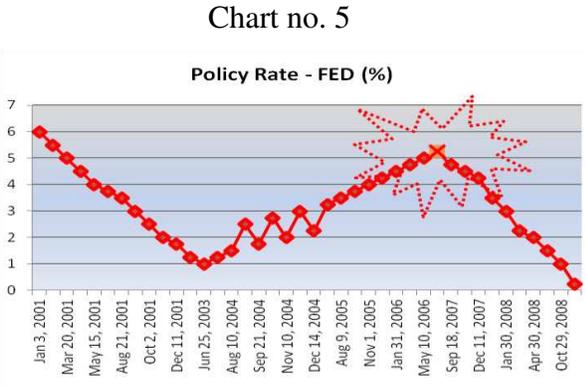
3.2 Relaxed monetary policy

The literature acknowledges numerous channels through which monetary policy can influence the enlargement of financial imbalances and risks, i.e. can contribute for banks and other financial intermediaries to undertake larger risk (credit and liquidity risk) and to increase the supply and demand for loans (mortgages), causing a growth in asset prices.

In many developed countries, central bank interest rates remained below the level considered neutral. The monetary policies of the USA and Japan were too expansive for too long. After the “dot-com” crisis in the USA and the September 11 attacks, the policy interest rate in the USA was reduced to a very low level (1% in June 2003), and then was gradually increased to a maximum level of 5,25% in June 2006. This level was maintained until the beginning of the crisis, when the policy interest rates started to decline drastically. In Japan, the policy rate reached 0,1%, which was maintained until 2006 and was followed by a mild increase. The situation was similar in the EU, China, Canada, Great Britain and other countries, where after a longer period of low policy rates, they substantially increased in the period 2005-2007, followed by a drastic drop of interest rates (see chart no. 4 and chart no. 5).



Source: IFS, Principal Global Indicators, IMF Stat.



Source: Board of Governors of the FED, <http://www.federalreserve.gov/monetarypolicy/openmarket.html>.

Taylor's (2009) analyses show that the policy interest rate in the USA was below the level implied by experience throughout history (the experience during the Great Moderation beginning from the 1980s). The unusual substantial deviation of the federal rate from the Taylor rule (followed by the policy since the turbulent 1970s), since 2001 (see chart 5) is a proof of the expansive monetary policy, leading to credit expansions and growth of real estate prices (see Taylor, 2009). The same analysis estimates the depth of the cycle if the Taylor rule is followed and confirms that the fall in economic activity would be smaller in that case. The analysis was extended to Europe where the same is confirmed – the policy interest rate of ECB was below the level suggested by the rule and the largest deviation is found in Spain (which has the biggest rise in real estate prices), while the smallest in Austria (which has the smallest growth in real estate prices).

Cooper's (2008) analysis of the monetary policy of the USA is also important. It points that the monetary policy of the USA continuously intervenes and fights negative bubbles, while remaining passive when facing an accelerated rise of crediting and asset prices. This relaxed monetary policy pursued for almost a whole decade substantially influences the convergence of expectations that asset prices would keep rising. This asymmetric monetary policy also creates a huge problem of moral hazard, where all subjects expect to be rescued from their mistakes and they stop caring about the concentration of risk, thus significantly deteriorating the systemic risk (see Carmassi, Gros and Micossi, 2009).

Contrary to the research on relaxed monetary policy as a cause of the crisis, there are also studies that empirically confirm the absence of a significant relationship between the interest rate of central banks and the financial imbalances in the countries. There is strong evidence that the high interest rates in some countries during a longer period did not impact strongly the decrease of financial imbalances in the system (see Merrouche and Nier, 2010).

3.3 Deregulation and inadequate regulation and supervision of the financial system

The Great depression of 1929-1933 triggered the need for financial regulation in order to stabilize the economies (the American above all) and to restore savers' confidence in banks and the financial system. The significant social and technological changes during the time served as a catalyst that pushed deregulation. The large banks and financial institutions also put efforts to eliminate and modify the regulation that restrained them, while the individuals strived to get larger control over their savings and investments on the financial markets. This led to high confidence in the market discipline and in self-regulation and hence many regulations were eliminated/отстранены/suspended. More prominent examples of deregulation are: the Law on deregulation of deposit institutions and monetary control (DIDMCA), which enabled banks and other saving institutions to set the interest rates themselves, thus encouraging competition; the Law on alternative mortgage transactions (AMTPA); the BASEL II standards that allowed banks to keep their capital in several forms, according to the riskiness of certain groups of assets; the relaxation of the regulation in the USA on the leverage of financial intermediaries in 2004 and the abolishment of the net capital principle in 1975; the abolishment of the articles in the Law on banks in the USA (Glass-Steagall Act) from 1933, that separated commercial from investment banking and the adoption of the Law on modernization of financial services (Gramm-Leach-Bliley), which allowed commercial banks to connect with investment banks, insurance companies and other financial institutions etc. Another element, that added "fuel to the fire" and was directly related to the estate bubble, was the initiative of the USA government for

“affordable-housing mission” and Community Reinvestment Act at the beginning of the 1990s, which put pressure and influenced banks and government sponsored companies to relax their standards for approach to mortgage loans. On the other hand, the regulation and supervision was dispersed among several institutions responsible for separate financial institutions, while there was a lack of regulatory bodies and institutions responsible for the problems that emerged from the systemic risk (see in more detail Silvers and Slavkin, 2009; Tymoigne, 2009; Calabria, 2009).

The global trend of deregulation of financial systems and the relaxed regulation of financial institutions created a favorable ground for “profit seeking” and for creation of the new financial architecture (shadow banking, securitization, rating agencies, financial derivatives etc.) and relationships (belief in the power for self-regulation of markets, taking higher risks, moral hazard, speculation, fall of transparency etc.), that evolved with the growth of the real estate bubble.

The analyses of the impact of regulation and supervision as key causes for the financial imbalances show that the expansion of the balances of financial institutions, the effects of capital inflows and moral hazard, the spread between short term and long term interest rates are less pronounced in the economies where the supervision and regulation have been strong, where the central bank was responsible for the supervision and regulation and where the entrance barriers were higher (see Taylor, 2009).

3.4 The modern financial architecture and relations

As the crisis spread globally, it became clearer that the modern financial architecture, which was supposed to manage risk and make capital cheaper and more reachable, ultimately led to the creation of the Global crisis. The modern financial architecture and relations include the fast development of off balance activities, financial innovations that manifested through complex derivative instruments created in the securitization process, shadow banking that remained out of the reach of regulation, and confidence of regulators and investors in the rating agencies.

One of the key innovations was the process of securitization, which led to an expansion of complex securitized credit arrangements that promise high returns with low risk, thanks to the complex techniques for arranging and distributing the created financial instruments and the complicated mathematical models for their evaluation (see in more detail Tymoigne, 2009). Parallel to the securitization, there was a prevalence of off balance activities in the banking sector based on the model „*originate to distribute*“, where the loans were quickly sold to other investors, while the monitoring of the initial credit quality was substantially neglected due to the collective fallacy that the risk is hedged, i.e. transferred to somebody else. This caused, on one hand, banks to create more loans in the expansion period, and on the other hand, to keep less capital to potential losses and to provide limited transparency of their financial positions to the investors (see Carmassi, Gros and Micossi, 2009).

In addition to securitization, we should mention the fast growth of the number and size of hedge-funds (that owned assets in amount of approximately 1,3 trillion \$ before the crisis). They were among the first participants in the financial globalization, however with the growth of their size, of the number of clients, of the new services they offered and of the various schemes for risk diversification based on new technologies, they also joined the “hunger for returns” and the new financial architecture (more extensively in Stromqvist, 2009).

When we talk about securitization, we must mention the financial innovations that presented a “blood flow” of the global crisis. The new financial instruments were developed so fast that the market infrastructure and systems were not prepared when they found themselves under pressure. The new financial instruments should have been left to “mature” before letting them grow enormously, that is regulators, rating agencies, investors should have been given time to better analyze their role and behavior (see more details Stulz, 2009).

Credit agencies awarded highest ratings AAA to numerous financial instruments (mortgage securities) most of which proved to be with lowest ratings (junk status) at the beginning of the crisis. The reasons for the failure are usually searched for in the conflict of interests, the effective regulation and inadequate economic models. Another factor that put a larger pressure on rating agencies is the excessive relying of market operations on ratings, imposed by various laws and regulations as a condition for realization of investments in those instruments or as a factor in complying with the legislated level of capital (see more extensively White, 2010).

An addition to the modern financial architecture are the relations that emerged between the institutions and subjects in the market – lack of transparency and accountability in the financial system (mortgage market), where banks used to sell “toxic” mortgages, intermediary financial institutions sold the “toxic” assets to investors without fear and accountability in case those agreements failed, and the chain continued with brokers, rating agencies and other market participants that transferred the problems further until the collapse of the system. This was complemented with the expansion of shadow banking – migration of different financial activities from banks and regulated financial spheres to unregulated institutions (see Jickling, 2010).

The combination of low interest rates, system liquidity, market confidence, new technologies and models, continued growth of asset prices, triggered the speculative financial powers that had an important influence on the behavior of all market participants and on the creation of the crisis. The optimism, the excessive risk taking and the increase in leverage replaced the cautiousness and rationality. Speculation is a human feature that accelerates the development of a herd mentality. The analysis of this type of behavior in finance shows that investors do not always make optimal choices: they think and reach rational decisions in a restricted environment (they suffer from “limited rationality” and “limited self-control”) and follow and coordinate their behavior and decisions, i.e. they behave like ants (Kirman, 2011).

3.5 The real estate bubble

It can be said that one of the main problems that was an initial capsule for the global economic crisis was the real estate bubble in the USA and in many other countries, like Spain, Ireland and UK. The reasons behind the bubble can be analyzed in a narrow and wide context. In a wider context, the reasons behind the bubble are identical to the main causes of the crisis, while a more concrete observation locates the reasons in (see more extensively Kiff and Mills, 2007; . Taylor, 2007; Taylor, 2008; Carmassi, Gros and Micossi, 2009):

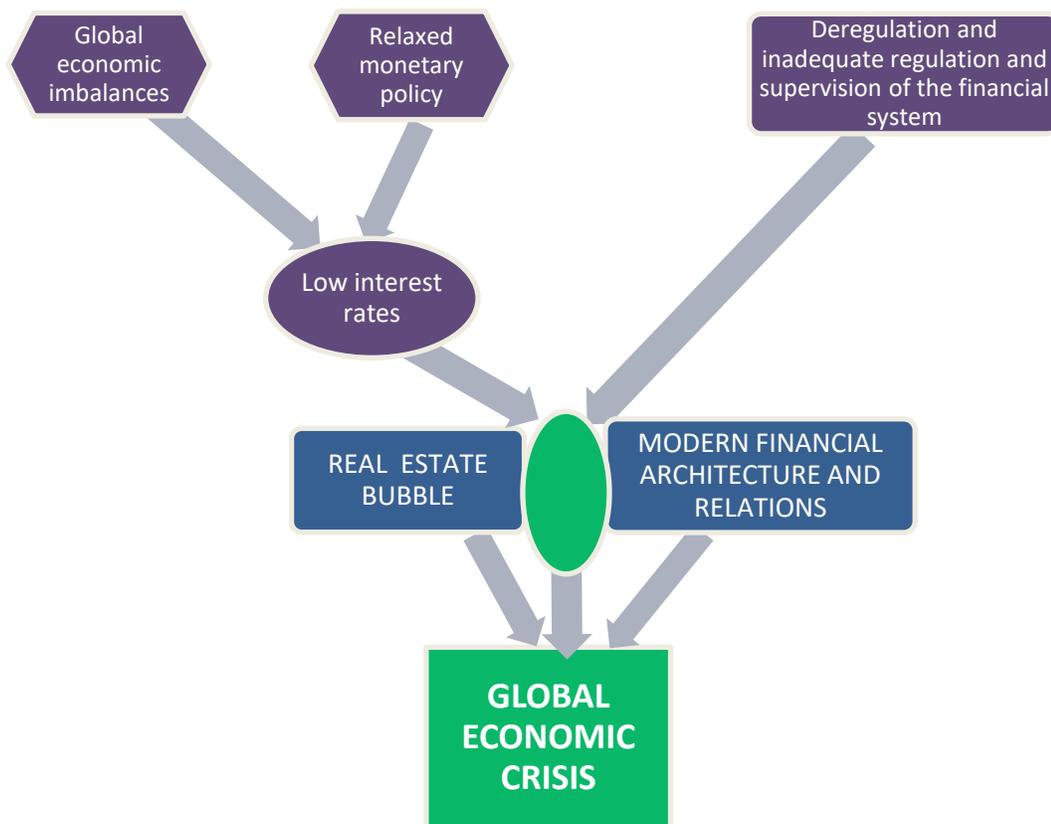
- the low interest rate trend, caused by global imbalances and expansive monetary policy. The mechanism that connects credit expansions to crises includes an increase in the leverage of borrowers (and creditors) and falling credit standards – which was the case in several countries affected by the crisis (Spain, Iceland, UK, some East European countries etc.);
- the USA government policy aimed at providing a home for everyone, thus putting pressure on banks and government sponsored companies (Fannie Mae and Freddie Mac) to relax the

standards for approachability to mortgage loans and to issue various types of mortgage loans, the tax exemptions for the amount of the interest paid on mortgages etc.;

- the key characteristic of the speculative bubble – the anomaly of convergence of expectations that emerges in the given environment, when a rising share of investors believed that real estate prices can only keep growing, while the risk of their drop had somehow disappeared.

The analysis of the causes of the Global economic crisis presents a specific challenge, considering the complexity of the issue and the disagreement in the literature on the relative importance and the order of their emergence and dependence. Hence, Figure no.1 gives a schematic presentation of the causes of the global economic crisis and the relations among them.

Figure no.1 - Causes of the global economic crisis



Source: authors' systematization.

4. Evolution of the Global economic crisis – *transmission channels and mechanisms*

The global economic crisis evolved in several phases and expanded through many transmission channels. A catalyst of the crisis was the “overheated” real estate market in the USA (supported by the relaxed monetary policy, the global imbalances and the deregulation trend). A trigger was the big and fast fall in real estate prices in the USA, partly caused by the monetary policy tightening cycle. The mortgage market (the new financial architecture) was a key initiator for the consequent crises that expanded through all sectors of the economy. The

crisis first hit the mortgage market in the USA, soon spread to other real estate markets and other financial markets in the USA (especially infecting asset-backed securities markets etc.). What was surprising was the level and speed with which the crisis spread globally, which evolved through several phases and various transmission mechanisms² (see Claessens et al., 2010; BIS, 2009).

The first phase was through direct exposure. This phase was limited to banks (and other financial institutions) that were directly exposed to the USA financial markets. The direct exposure of financial markets and instruments created on those markets allowed the problems of European banks to soon appear (for example, in the German IKB in July 2007 and the French BNP Paribas in August 2007). These events caused inter-bank and liquidity problems on many markets, having in mind the problems that appeared in several real estate markets in Western Europe as a result of the stress on the mortgage market in the USA. The higher than expected deterioration of the situation on the mortgage market in the USA was followed by a quick drop in the ratings by rating agencies, who had been criticized for not being able to exactly determine/estimate the rating of complex mortgage securities and their close relations to the issuers of those securities. These falls further shook the markets and investors' confidence (counterparty risks), which caused a sharp increase in interest rates (expansion of the interest gap) of mortgage securities, a deterioration of inter-bank markets and markets of commercial securities and a sharp contraction of the mortgage markets.

The second phase of the international expansion of the crisis was through asset markets. This effectuated through the lack of liquidity, freezing of credit markets, a sharp decrease in securities prices on the world exchange markets, and through exchange rates fluctuations (the euro, the Swiss franc, the pound). The initial response of economic policy was strong and quick (without precedent in the history) – the main central banks provided liquidity to commercial banks. Even though the policies differed from country to country (liquidity injections, the range of collateral taken into account and other measures), they exhibited only short run effects and showed that it is difficult to handle the evolving situation – stabilization of the financial sector and reducing the effects on the real sector. The rushed, inconsistently implemented interventions of economic policy and their weak results created even more disturbances, loss of confidence of creditors and investors and downfall of the market mechanism that was based on it (which prolonged the crisis – see in more detail Taylor, 2008).

The third phase was characterized by big liquidity problems that followed the collapse of the “Lehman Brothers”. In October 2008, the solvency problems started to manifest in the systematically important global financial institutions, which led to massive sales and increase of the risks of financial collapse. In this phase, the risks and worries about liquidity began to be replaced by worries about solvency, having in mind the large exposure (leverage) of the financial systems. The high leverage level, especially of investment banks in the USA and of commercial banks in Europe, made the financial system vulnerable to the efforts for forceful deleveraging and increased the pressures for solvency. The financial institutions started to experience big losses and to write off illiquid securities, there was a sharp increase in asset sales (real estate and securities based on them), which caused a further decline of asset prices, increase in the needs for recapitalization and a further erosion of market confidence. In the solution of this situation a role had the late establishing of the solvency problems, and the measures for their overcoming which proved inefficient and unpredictable in practice. The weaknesses of the measure packages of

² For a detailed elaboration of the evolution of the crisis and its global see BIS 79th Annual Report, Chapter II “The global financial crisis”, June 2009. Available from: <http://www.bis.org/publ/arpdf/ar2009e.htm>

developed economies, including the limited scope (e.g. investment banks and insurance companies were not covered), the limited coordination (e.g. between deposit insurance and lending of last resort) and the untimely and slow reaction (due to undefined frameworks for the functioning of banks in certain situations) led to a further intensification of the problems. In this phase, the numerous channels of global transmission of the crisis effectuated through banks and non bank institutions that tried to quickly deleverage. Despite the coordinated cut of interest rates of the main central banks, the expansion of guarantees in certain market segments in some countries and the implementation of a large number of unprecedented measures and policies, the market confidence continued to worsen, leading to a spiral of adverse effects in: the financial sector (the work of bank and nonbank financial institutions), the real sector (economic activity, consumption, unemployment, the standard of living, the global prices of goods and services etc.), the foreign sector (foreign trade, balance of payments and current accounts, foreign direct investments, foreign exchange positions etc.) and the fiscal sector in many countries (the debt crisis in Europe), which are still present.

The presented evolution and transmission channels of the crisis are differently structured in different analyses, depending of the depth of analysis, however those structures do not differ significantly. We would like to mention here the evolution according to the Bank for International Settlements (BIS), which structures the evolution of the crisis in five phases (see BIS, 2009): the first phase (from June 2007 to middle march 2008u) when the primary focus was on liquidity problems, bank losses and asset value deterioration. This resulted, in the second phase (from middle march to middle September 2008), in larger solvency problems and risks form failure/bankruptcy of banking institutions. On such collapse – the bankruptcy of Lehman Brothers on September 15th drag the global economy into the third, most intensive phase, characterized by a global loss of market confidence, supported by numerous interventions by policy creators. In the fourth phase (from the end of October 2008 to middle March 2009) the markets slowly adapted to the negative trends in the global economic development, while the fifth phase (beginning in middle March 2009) brought the first signs of optimism in the global markets, but in terms of still present adverse macroeconomic and financial news on a global level.

An especially important part of the analysis of the evolution and transmission mechanisms of the global crisis is the transfer of the crisis to Europe and the emergence of the debt crisis. Research usually relates the transmission of the crisis to Europe to: the connection and direct exposure to the contaminated securities in the USA, the influence of the fall in confidence and wealth on consumption, global trade and the specifics of the European economies (indebtedness, credit expansions and booms on real estate markets) etc. (see more in European Commission, 2009; Dadush et al., 2010; SESRIC, 2011).

5. Conclusion

The analyses on the causes of the global economic crisis are always interesting, but it is especially intriguing that the history shows differing opinions among economists. This is one of the main reasons that each crisis is analyzed and observed as a relatively new event, without reaching for the “bag” of experiences about factors, causes and lessons for the past. However, even though the new economic disturbances have their own specifics, we find that a large part of these disturbances are related to determinants and causes that are already known, neglected or for

which there had not been a consensus among economists. In our paper we try to point to some factors and causes that strongly influenced the emergence and transmission of the economic crisis of 2007 to the global scene. These factors can be changed, supplemented, expanded, but they must not be forgotten!

Based on the literature and on our analysis and view-point, we can name five groups of causes for which there is a relatively strong consensus about their importance and role in the emergence of the global economic crisis. The economic analysts should keep them in mind in light of future global economic disturbances:

- Macroeconomic causes: imbalances in the global economy; relax monetary policy;
- Microeconomic causes: deregulation and inadequate regulation and supervision of the financial system; real estate market bubble; modern financial architecture.

The global expansion of the crisis is another lesson to be remembered about the way in which national economic disturbances in favorable economic conditions can turn into global economic “tornados”. Generally, this unraveled during several phases and with different transmission mechanisms:

- The first phase was through direct exposure. This phase was limited to banks (and other financial institutions) that were directly exposed to the financial markets in the USA;
- The second phase of international transfer of the crisis was through asset markets. This effectuated through a lack of liquidity, freezing of credit markets, a sharp decline in securities prices in the world exchange, markets, and fluctuations of exchange rates (euro, Swiss franc, pound);
- The third phase was characterized by big solvency problems, after the collapse of the Lehman Brothers. In October 2008, solvency problems began to manifest in the systemically important global financial institutions, which led to massive sales and higher risks from financial collapse.

References

- Azar, G., Kamran, and Mansori. (2011), “2008 Economic crisis analysis”, MPRA Paper No. 33160, posted 04. September 2011 / 23:46.
- Barro, J.R., Ursúa, F. J. (2008), “Macroeconomic Crises since 1870”, NBER Working Paper 13940, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138.
- Bernanke S, B. (2005), “The Global Savings Glut and the U.S. Current Account Deficit”, Remarks at the Virginia Association of Economics, Richmond, Virginia.
- BIS (2009), “The global financial crisis”, Chapter II in *79th Annual Report*, June 2009. Available from: <http://www.bis.org/publ/arpdf/ar2009e.htm>.
- Calabria, A.M. (2009), “Did Deregulation Cause the Financial Crisis”, Cato Policy Report.
- Carletti, E., and Allen, F.(2009), "An Overview of the Crisis: Causes, Consequences and Solutions" , *International Review of Finance*, 10(1), 1-26.

- Carmassi, J., Gros, D. and Micossi, S. (2009), “The Global Financial Crisis: Causes and Cures”, *JCMS*, Volume 47. Number 5. pp. 977–996.
- Carmen, M. R., and Kenneth S. R, (2009), *This Time is Different: Eight Centuries of Financial Folly*, Princeton University Press, 41 William street, Princeton, New Jersey
- Claessens, S., Dell Ariccia, G., Igan, D. and Laeven, L. (2010), “Lessons and Policy Implications from the Global Financial Crisis”, *IMF Working Paper* WP/10/44.
- Cooper, G. (2008), *The Origin of Financial Crisis: Central Banks, Credit Bubbles, and The Efficient Market Fallacy*, Harriman House Ltd., Hampshire, United Kingdom.
- Crotty, J. (2008), “Structural Causes of the Global Financial Crisis: A Critical Assessment of the ‘New Financial Architecture’”, University of Massachusetts – Amherst Economics Department Working Paper 2008-14.
- Cukierman, A. (2009), “The Great Depression, the Current Crisis and Old versus New Keynesian Thinking What have we Learned and What Remains to be Learned?” Paper Prepared for Symposium on Perspectives on Keynesian Economics, Ben-Gurion University, July 14, 15 2009.
- Dadush, U. et al. (2010), “Paradigm lost: Euro in crisis” 2010 Carnegie Endowment for International Peace, available at: www.CarnegieEndowment.org/EuroCrisis
- European Commission, (2009) “Economic Crisis in Europe: Causes, Consequences and Responses” *European Economy* 7|2009.
- Even, S., and Feldman, N. (2009), “Implications of the Global Economic Crisis”, Institute for National Security Studies (INSS).
- Furceri, D., and Mourougane, A. (2009), “Financial Crises: Past Lessons and Policy Implications” preliminary version, OECD, *World Commodity Trends and Prospects*. Note by the Secretary-General, United Nations, A/63/267, p.11.
- Jickling, M. (2010), “Causes of the Financial Crisis”, CRS Report for Congress, Congressional Research Service, Service, R40173.
- Kiff, J., and Mills, P. (2007), “Money for Nothing and Checks for Free: Recent Developments in U.S. Subprime Mortgage Markets” *IMF Working Paper* WP/07/188.
- Maurice, O., and Rogoff, K. (2009), “Global Imbalances and the Financial Crisis: Products of Common Causes,” Paper prepared for the Federal Reserve Bank of San Francisco Asia Economic Policy Conference, Santa Barbara, CA.
- Mendoza, E., and Terrones, E.M. (2008), “An Anatomy of Credit Booms: Evidence from Macro Aggregates and Micro Data,” NBER Working Paper No. 14049, Cambridge, MA: National Bureau of Economic Research.

- Merrouche, O., and Nier, E. (2010), “What Caused the Global Financial Crisis?—Evidence on the Drivers of Financial Imbalances 1999–2007”, *IMF Working Paper* WP/10/265.
- Mohanty, D. (2010), “The global financial crisis – genesis, impact and lessons “, Speech by Mr. Deepak Mohanty, Executive Director of the Reserve Bank of India, at the international conference on “Frontiers of interface between statistics and science”, *BIS Review* 15/2010.
- Reinhart, C., and Rogoff, K. (2008), “Is the 2007 U.S. Subprime Crises So Different? An International Historical Comparison,” *American Economic Review* Vol. 98 No. 2, pp. 339-44.
- Romer, D.C. (2009), “The Economic Crisis: Causes, Policies, and Outlook”, Testimony before the Joint Economic Committee.
- Servén, L., and Nguyen, H. (2010), “Global Imbalances Before and After the Global Crisis “, *The World Bank Policy Research Working Paper* 5354.
- SESRIC, (2011a), “European Debt Crisis and Impacts on Developing Countries?” SESRIC reports on global financial crisis, SR/GFC/11-9, July – December 2011
- SESRIC, (2011b), “The Eurozone debt crisis: a second wave of the global crisis?” SESRIC reports on global financial crisis, SR/GFC/11-8, 2011 – 1 issue.
- Silvers, D., and Slavkin, H. (2009), “The Legacy of Deregulation and the Financial Crisis-Linkages Between Deregulation in Labor Markets, Housing Finance Markets, and the Broader Financial Markets “, *Journal of Business & Technology Law*, Vol. 4 No. 2, pp. 301-47.
- Stiglitz E, J. (1993), ‘The role of the state in financial markets’, *Proceedings of the World Bank Annual Conference on Development Economics*, World Bank: Washington D.C.
- Stromqvist, M. (2009), “Hedge funds and financial crises”, *Economic Review* 1/2009 available at: http://www.riksbank.se/upload/Dokument_riksbank/Kat_publicerat/PoV_sve/eng/stromqvist_2009_1_eng.pdf
- Stulz, M. R. (2009), “Financial derivatives: Lessons from the Subprime Crisis” *The Milken Institute Review*. Available at: <http://www.cob.ohio-state.edu/fin/faculty/stulz/publishedpapers/financial%20derivatives-Lessons%20from%20the%20subprime%20crisis.pdf>
- Sturzenegger and Zettelmeyer (2006) *Debt Defaults and Lessons from a Decade of Crisis*, MIT Press.
- Swagel, P.(2009), “The Financial Crisis: An Inside View”, *Brookings Papers on Economic Activity*, Conference Draft.

- Taylor B, J. (2009), “The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong”, *NBER Working Paper* No. 14631.
- Taylor, B.J. (2007), “Housing and Monetary Policy”, *NBER Working Paper* 13682.
- Temin, P. (January 2010), “The Great Recession and the Great Depression” *NBER Working Paper* 15645 <http://www.nber.org/papers/w15645>
- Tennant, D. (2010), “Global Financial Crisis to Real Sector Contraction: Exploring Transmission Mechanisms in a Small Open Economy – Business Coping Strategies in Jamaica”. *Global Development Studies*. 6(1-2): 235-290.
- Tymoigne, E. (2009) “Securitization, Deregulation, Economic Stability and Financial Crisis, Part I – the Evolution of Securitization”, *Levy Economics Institute Working Paper* No. 573.1.
- Trenovski, B. (2013). The Key Macroeconomic Policies In Terms Of The Global Economic Crisis. Center for Economic Analyses–CEA, Skopje, 296.
- Trenovski, B. (2013). Optimal Macroeconomic Policy In Macedonia–in terms of the global economic crisis. Center for Economic Analyses–CEA, Skopje, 165.
- White, J.L. (2010), “Credit-Rating Agencies and the Financial Crisis: Less Regulation of CRAs is a Better Response”, *Journal of International Banking Law and Regulation*, Vol. 25, Issue 4, 170.
- White, N.E. (2006), “Bubbles and busts: the 1990s in the mirror of the 1920s”, *NBER Working Paper* 12138.