## Tomislav Brzakovic¹, Miodrag Zlatkovic², Miodrag Brzakovic³ CAUSES, SCOPE AND DIRECTIONS FOR SOLVING GLOBAL FINANCIAL CRISIS

The financial crisis of 2008 that primarily occurred in the USA quickly spread onto the entire world and has in addition to the financial sector also affected the real sector. There are many causes of the crisis. Notable is the appearance of separation between the real and financial sector, where financial transactions exceed by far the value of world trade. Measures taken to ease the crisis are of historic significance, because their effectiveness will determine the future configuration of the global financial and economic system.

Keywords: financial crisis, budget deficit, financialization, risk.

JEL: G01, E20, E44.

### Томіслав Брзаковіч, Міодраг Златкович, Міодраг Брзаковіч ПРИЧИНИ І МАСШТАБИ СВІТОВОЇ ФІНАНСОВОЇ КРИЗИ ТА ОСНОВНІ НАПРЯМКИ БОРОТЬБИ З ЇЇ НАСЛІДКАМИ

У статті показано, як фінансова криза 2008 року, що почалася у Сполучених Штатах Америки, швидко поширилася на весь світ і вплинула як на фінансовий, так і реальний сектор. Для кризи існувало безліч причин. Показовою є поява поділу між реальним і фінансовим сектором, в якому фінансові операції набагато перевищували масштаби світової торгівлі. Заходи, що вживаються для пом'якшення кризи, мають історичне значення, тому що їх ефективність визначає майбутню розстановку сил у світовій фінансовій та економічній системі.

**Ключові слова:** фінансова криза, дефіцит бюджету, монетизація, ризик. Літ. 10.

# Томислав Брзакович, Миодраг Златкович, Миодраг Брзакович ПРИЧИНЫ И МАСШТАБЫ МИРОВОГО ФИНАНСОВОГО КРИЗИСА И ОСНОВНЫЕ НАПРАВЛЕНИЯ БОРЬБЫ С ЕГО ПОСЛЕДСТВИЯМИ

В статье показано, как финансовый кризис 2008 года, начавшийся в Соединенных Штатах Америки, быстро распространился на весь мир и повлиял как на финансовый, так и реальный сектор. Для кризиса существовало множество причин. Примечательным есть появление разделения между реальным и финансовым сектором, в котором финансовые операции намного превышали масштабы мировой торговли. Меры, принимаемые для смягчения кризиса, имеют историческое значение, потому что их эффективность определяет будущую расстановку сил в мировой финансовой и экономической системе. Ключевые слова: финансовый кризис, дефицит бюджета, монетизация, риск.

#### Introduction.

In the XX and XXI centuries financial crises since the Great Depression that lasted from 1929 to 1933 occur more frequently: the collapse of Wall Street of 1987, Scandinavian crisis (Sweden, Norway, Finland) of 1991, Mexican Tequila crisis of 1994, Great Asian crisis (Japan, Thailand, Indonesia, South Korea) of 1997, Russian crisis of 1998, Brazilian crisis of 1999, IT sector crisis of 2000, Argentine crisis of

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2001–2002 and the latest global crisis of 2008. The majority of crises since the Great Depression had local or regional character, while the most recent crisis of 2008 that primarily originated in the US spread and engulfed almost the whole world.

#### Views of the economic science onto the crises throughout history.

According to classical economic theory the founder of which is Adam Smith, "invisible hand" of the market is sufficient to ensure economic stability and full employment. Economy is governed by rational active participants who carry out transactions earning them economic benefits. The mechanism of the free market is perfect and stable, therefore there is no need for government involvement. Smith believed that government can bring great benefit to economic life, especially in the area of contract and patent protection, public education for the poor, infrastructure projects, together with providing peace, low taxes and proper administration of justice. Everything else, according to Smith, is provided by the natural order of things. According to the neoclassical school of economics, which originated in the last third of the XIX century<sup>4</sup>, the crises in real and financial sectors, i.e. macroeconomic imbalances are not possible because rational behavior of economic entities and perfect functioning of commodities and financial markets automatically remove such imbalances. In the environment with perfect competition the general equilibrium is guaranteed in the economy that does not require governmental intervention. Since according to the neoclassical assumption of markets are perfect, the recessions are by definition short-lived.

In his study of the devastating effects of an until that time unprecedented economic crisis called the Great Depression, John Maynard Keynes challenged in his capital work "The General Theory of Employment, Interest and Money" the neoclassical general equilibrium model. Keynes believed that economy is not governed only by rational individuals and he has divided the whole (aggregate) consumption into personal, investment and government spending. According to him, investments are undertaken on the basis of how much profit entrepreneurs expect. The fall in market demand leads to the fall in consumer product sales, and therefore to decrease of profits, which leads to reduction in demand for investment goods. Less investment leads to lower production, less employment, population becomes poorer, which further leads to a decrease in personal consumption. Since insufficient aggregate demand for a prolonged period is the main reason why unregulated capitalist economies are prone to crises and depressions, each initial stimulus coming from government in the form of consumption produces a multiplier effect on the increase of consumption, i.e. increase of aggregate demand. Keynes has also studied shortterm effects of economic factors, which can be illustrated by his famous saying that "in the long run, we're all dead."

Modern financial theory is based on the assumption that market is a perfect mechanism that always seeks equilibrium. The key assumption, based on which the conclusion of modern financial theory of efficient markets was derived, as formulated by Eugene Fama in the 1960s, is that the prices of financial instruments in the long run properly reflect the fundamental value of capital goods for which they were issued

<sup>&</sup>lt;sup>4</sup> This school was independently developed by Carl Menger in Austria, William Stanley Jevons in England and Leon Walras in Switzerland.

and that instability is not inherent to "omniscient" free markets. The long reigning capital asset pricing model — CAPM also derived from the rational investor who adjusts return and risk in his firm belief that financial markets function perfectly, which means that the price of financial assets is unmistakably formed on the basis of all available information.

Since theoretical conclusions predominantly depend on the assumptions of the model, this implies that false or unrealistic assumptions lead to wrong (unrealistic) conclusions. In the world dominated by transnational companies, in which products are heterogeneous, oligopolistic, information asymmetric decisions are made under high uncertainty. Accordingly, it can be concluded that the assumption of perfect competition under modern market conditions is unrealistic or non-existent, and that therefore its theoretical conclusions are inapplicable.

#### Causes and extent of the financial crisis of 2008.

By its characteristics the financial crisis that began mid-2008 is the deepest crisis since the Second World War. Primarily it occurred in the US by the mortgage loan market collapse, the crisis quickly spread to the whole world and has engulfed in addition to the financial, also the real sector, thus making the ones who are not to blame for the occurrence of the crisis also victims of the globalization.

According to many, the main reason why the current financial crisis was not predicted on time and therefore why adequate measures were not taken lies in the erroneous assumptions of economists about the rational behavior of manufacturers and consumers and perfect competition. The crisis has shown that the risk assessment methods based on price fluctuations of financial assets in a given period are insufficient. It turned out that the causes of the crisis lie in the systemic risk that economic entities themselves cannot eliminate with usual techniques on financial markets. According to the opinion of Jeffrey Friedman initially for the crisis were responsible rating agencies (Standard & Poor's, Moody and Fitch) which obviously gave mortgage-backed securities too high rating of AAA, i.e. which assessed that these securities were less risky than mortgages themselves. Banks have, in order to meet Basel 2 standards, sold mortgages and bought mortgage-backed securities. The lack of trust at financial markets, initiated by the drop in property prices, produced insolvency, jump in interbank interest rates, that caused a sharp decline of many stock market indices. Given the fact that financial markets of today's world are intertwined and integrated, the crisis was quickly transferred through trade and financial channels from the US onto the rest of the world. The causes of the crisis lie in the systemic characteristics and institutional characteristics of the economy. The financial and economic crisis is the result of deterioration in the real sector of highly developed countries, which in the last decade recorded slower growth in GDP. So in the period 2002–2011 the average GDP growth rate in the US was only 1.6%, in Japan about 1%, in the Eurozone the growth amounted to only 1.3%. During that time, China recorded the average growth of almost 10%, India -7.2%, Russia -5.3%. The decline in productivity in highly developed countries was recorded well before the onset of the crisis, also the decline in employment and wage levels. During that time, China has seen a major growth in real average annual earnings in the last decade of 16%, India 5%. The huge trade and fiscal deficit of the United States, financed by issuing governmental securities, of which China is one of the largest buyers, indicates a gradual but steady economic and geopolitical redistribution of political power from the West to the East.

From another perspective, the crisis was caused by inadequate economic policy and the greed of certain groups, particularly financial institutions and companies. In the relentless pursuit of profit, companies are looking only after their own interests, without taking into account the interests of others. The competition among financial institutions in the international environment practically forced such organizations to take excessive risk and letting them into excessive leverages which was the reason for the "bursting bubble" created by excessive housing loans not backed by mortgages in the US. As in the past 30 years the narrow circle of the rich became even richer while the so-called middle class became poorer, in order to alleviate this problem the expansion of cheap loans without sufficient collateral was permitted. The effort to try to justify the crisis by the greed of individuals is quite unconvincing, especially since greed and selfishness are the characteristics of the human race since ancient times. Blaming greed for the crisis is like blaming gravity for a plane crash.

The depth and extent of the global financial crisis is illustrated by the following information:

- The financial crisis and general economic recession have halted the expansion of capital markets and banking markets, which have lasted for last 3 decades. In value terms, global financial assets<sup>5</sup> in 1990 were worth 54 trln. US\$, a decade later they were worth about 114 trln. US\$, or more than double. Furthermore, from 2000–2007 the value of global financial assets has increased from 114 to 202 trln. US\$, i.e. it grew 1.8 times. After nearly 3 decades of growth in financial assets, in 2008 the trend was interrupted and the value of financial assets dropped from 202 to 175 trln. US\$. Total financial assets increase at the end of 2010 to 212 trln. US\$, exceeding the peak reached in 2007<sup>6</sup>.
- The total value of all debt instruments amounted in 2007 137 trln. US\$, in 2008 142 trln. US\$ and in 2009 153 trln. US\$. The total value of debt instruments in 2010 was higher by 5.5 trln. US\$ over the previous year. In the period 1990–2009 the highest growth of almost 13% p.a. was recorded in the socalled securitized securities (especially due to the growth in securitized mortgage housing loans), while their issue in 2010 decreased by 5.6%. The greatest growth in 2010 by almost 12% had debit securities issued by governments, which indicates the growth of budget deficits and growth of these debts relative to GDP (from 55% in 2008 to 69% in 2010).
- Global debts more than doubled in the last 10 years, i.e. rose from 78 trln. US\$ in 2000 to 158 trln. US\$ in 2010. The debts were growing faster than GDP growth, so that the global debt / GDP ratio increased to 266% in 2010. The majority of the increase represents the growth of government and financial institutions' debts. Securitized debts had the highest growth rate of 13% annually over the period 2000–2008 (increased from 6 to 16 trln. US\$), of which over 80% of these instruments were issued in the United States. Mortgage-backed securities sponsored by government institutions (Fannie Mae, Freddie Mac, Ginnie Mae) had the highest growth in 2002, when they quadrupled compared to 2000.

<sup>&</sup>lt;sup>5</sup> Comprising market capitalization of shares and issued bonds and loans in 79 countries worldwide.

<sup>&</sup>lt;sup>6</sup> Mapping global capital markets 2011, McKinsey Global Institute.

- Global public debt has since 1990, when it was 8.9 trln. US\$, risen to 16.5 trln. US\$ in 2000 and to over 41.1 trln. US\$ in 2010. For the past 10 years, U.S. public debt rose from 42 to 76% of the GDP and in Western Europe from 48 to 72%.
- One of the biggest consequences of the global financial crisis is the decline in cross-border capital flows, which are included in the FDI (foreign direct investment), buying and selling of foreign equity and debt securities and cross-border loans and deposits, by about 85% (from 10.9 trln. US\$ in 2007 to 1.9 trln. US\$ in 2008 and only 1.6 trln. US\$ in 2009), which negatively affected capital supply.
- Despite the fact that emerging markets participated at the end of 2010 only with 18% in total global financial assets, they are slowly turning into a significant player at the global financial market. Characteristic for these countries is that their total financial assets to GDP ratio is about 197% of GDP (161% if China is excluded), in contrast to developed countries, whose average is 427%. The value of corporate bonds and securitized assets in these countries is about 7% of GDP, while in Europe it amounts to 34% and in the United States 108%. Also capital markets in these countries have strong growth potential, where the total volume of transactions in relation to GDP is much lower than in developed countries.
- In particular, a sharp drop in capital markets, where the market capitalization in the included 79 countries fell in 2007 from 65 trln. US\$ to 34 trln. US\$ in 2008, or almost double. During the last two years the growth has resumed. The growth of 14 trln. US\$ in market capitalization in 2009 compared to the previous year and the growth in market capitalization of 6 trln. US\$ in 2010 are the result of expected profit growth and new issues, primarily of companies in emerging markets. However, in 2011 market capitalization dropped by over 8% to 47 trln. US\$.

#### Separation between real and financial sector.

Contrary to the ruling modern financial theory, according to which the basic function of financial markets is efficient risk diversification and efficient allocation of resources, we are witnessing a situation where financial markets have become a purpose for themselves. The volume of financial transactions is today well above the value of productive investments. During the first 8 decades of the twentieth century financial assets grew at the same pace as the global GDP. However, after this period, the ratio of the value of global financial assets, which includes the equity securities, public and private debt securities and bank deposits and the annual global gross domestic product has increased from 109% in 1980 to 316% in 2005 and almost 442% in 2007. Transaction volumes at global financial markets have by far exceeded the value of world trade, which suggests that the real sector has become an "appendage" to the financial sector.

In literature the separation of the real and financial sectors is called financialization. Financialization is the phenomenon of the growing importance of financial markets, financial motives and financial institutions in daily functioning of developed world economies. The consequences of financialization are growing transfer of income from the real into the financial sector, increasing income inequality and the growing impact of financial motives onto management of companies.

#### Directions for solving the global financial crisis.

When the insolvency of large US banks and other financial institutions in the United States occurred, a series of measures was attempted to stabilize financial mar-

kets. Government intervention included the provision of guarantees for interbank transactions and loans to large companies, increase in the amount of guaranteed deposits, issue of government bonds. By rescuing big banks and other financial institutions by capital increase and in some cases by nationalization, actually the systemic risk was increased because they increased the size of these organizations in relation to the US gross domestic product. Also, bank recapitalization and fiscal stimulus of demand in the real sector has led to the growth of the budget deficit in relation to gross domestic product of the United States. Due to the fact that USD remains the major world currency in international payments and part of foreign exchange reserves of many countries, as well as the fact that over 70% of the issued \$ 100 notes never return to the US, it is possible to finance huge trade deficits by printing dollars without the risk of inflation. Thus the dollar has somehow become the most important American export product and the US thanks to its huge market the largest trading partner of many countries. In other words, the US can allow itself large trade deficits and balance of payments because other countries like to make surplus with them, thus increasing its foreign exchange reserves.

It can be said that after the Great Depression fiscal policy incentives (public spending, taxation and debt management), which were then promoted by John Maynard Keynes, have also in this crisis once again gained in importance. Fiscal policy in many countries in this crisis is aimed at stimulating economic activity by increasing demand, employment and investment in infrastructure facilities (roads, energy, gas etc.), fostering the development of SME encouraging consumption by reducing taxes and contributions on personal income, subsidizing consumer credit loans to citizens and the economy, granting social benefits to the unemployed and socially vulnerable groups. In some countries, an important part of recovery plans represent an allocation of significant resources to R&D, technology and education projects.

The crisis has shown the necessity to reform the institutions such as the World Bank and International Monetary Fund in order to increase accountability and has indicated the need for the constitution of new global representative bodies at the level of heads of state and governments, to coordinate the functioning of the global economic system (to direct economic and social development, competition, financial markets regulations, environmental protection, global warming etc.). It is also necessary to establish the minimum common provisions to be included in the regulatory systems at the country level to ensure the reliability of financial products, particularly derivatives. Particularly important is the regulation of financial markets, which is necessary to adequately protect investors, particularly from under-regulated financial innovation, providing control, but not stifling the "creativity" at these markets. A comprehensive and more effective regulation should also include credit rating agencies, whereby also voices are heard pointing out the necessity for forming a respectable institution of its kind in the Eurozone. The causes of financial instability lie in the loose monetary policy, inadequate regulation and poor control, and also in the area of decision-making in companies and in the competition policy. All these factors and/or their inadequate implementation have contributed to the current pressure on financial deregulation. In order to provide a better system of protection against risks than foreign exchange reserves, a new global reserve system based on significantly increased role of special drawing rights is proposed. In particular, the focus lies on the role of central banks in ensuring price stability, maintaining financial stability, capital flows, adequacy of exchange rates of national currencies with the achievement of long-term sustainable economic growth. To reduce the volume of issues in the international financial system it is necessary to establish a general acceptable mechanism for governmental debt restructuring and to harmonize national regulations on the resolution of disputes regarding cross-border investments.

#### Conclusion.

The world today is facing the consequences of the global financial and economic crisis. The crisis has brought a lot of trouble: huge drop in production in many countries, especially decline in housing construction and its associated industries, decline in employment, foreign capital outflow, decline of confidence in financial markets and the consequential drop in prices, stagnation of growth and decline of GDP in many countries. Since the financial and economic crisis has affected many countries, in the removal of its consequences global solutions have to be sought. In this regard, questions are raised of the type of body that should be constituted and the types of measures that should be taken aimed at remedying the current crisis and preventive action, i.e. to prevent its recurrence.

It is evident that many countries immediately after the outbreak of the crisis have promptly reacted by rescuing insolvent banks and other financial institutions by pumping in large amounts of money with very low interest rates, followed by vast increases in budget deficits and public debt. By fiscal policies economic activity was stimulated, but for a long-term recovery comprehensive stabilization of financial system, creation of conditions for faster economic growth and its incentive by investment in infrastructure and human resources as key factors of long-term growth and reducing unemployment are necessary. Elimination of macroeconomic imbalances is essential in order to reduce the possibility of recurrence of the crisis in future. Without exaggeration it can be said that the measures taken to ease the crisis are of historic significance because on their effectiveness future configuration of the global financial and economic system will depend.

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