CHAPTER 21

SOVEREIGN DEBT IN EUROPEAN COUNTRIES - "PIIGS" CRISIS*

Ismail Musabegović[1], Aleksandra Bradić-Martinović[2], Aleksandar Zdravković[3]

Abstract

The late 2000s recession leaves many countries in EU with high budget deficits, as well as public and external debts. In this paper we analyze countries in eurozone which recently attracted a lot of concerns due to the problems with debt and increasing sovereign risk, popularly abbreviated as "PIIGS" (Portugal, Ireland, Italy, Greece and Spain), and fear from the further deepening of sovereign debt crisis which can considerably damage European Monetary Union. Sovereign debt crisis especially hard affected Greek economy, which is currently in the deep economic and political crises, and bailout mechanism is still hot debate among eurozone mechanism. At our opinion, future of the eurozone is not at risk, but EU policy creators will face a lot of challenges to find a one-size-fits-all formula which enables further stability of EU economy.

Key words: *financial crises, sovereign default, Greek crisis, eurozone*

FINANCIAL CRISES - PAST AND THE FUTURE

The term financial crises describe variety of situations in which financial assets lose large part of their value in the short period of time often followed by collapse of important financial institutions. Throughout the history a lot of financial crises occurred with very different causes like heard behavior, speculative attacks, lack of market regulation, underestimation of the risk, leverage financing, asset-liability mismatch etc. The most typical financial crises include banking crises, market bubbles and crashes, currency crises and sovereign defaults.

Banking crisis. Bank crises are related to the situation known as bank run - unexpected and widespread withdrawals of the deposits. Having in mind that major loans issued by banks are financed by deposits, significant short-term withdrawals of the deposits leads the bank to problems with liquidity and could end up with bankruptcy of bank and loss of the money of deposits holders. If this situation expands across whole banking sector, systematic bank crisis could emerge and turn to the general financial crisis. Famous examples include run on the Bank of the United States in 1931 and run on Northern Rock in 2007.

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[1] Ismail Musabegović, PhD, Assistant Professor, BBA - Faculty for Banking, Insurance and Finance, ismail.musabegovic@bba.edu.rs

[2] Aleksandra Bradić-Martinović, MA, Research Associate, Institute of Economic Sciences - Belgrade, abmartinovic@ien.bg.ac.rs

[3] Aleksandar Zdravković, BSc, Junior Researcher, Institute of Economic Sciences - Belgrade aleksandar.zdravkovic@ien.bg.ac.rs

Speculative bubbles and crashes. High level of securities trading at prices considerably above their intrinsic values leads to economic phenomena known as speculative bubble. The speculative bubble emerged when trading of the majority of the market participants is motivated by capital gain instead of investing objectives. Existence of bubbles in the market eventually ends up with bubble bursting and crash of the security prices. The trigger for crash is major turn in trading direction from security buying to selling. However, in practice is pretty hard to identify the bubbles regarding the issues of intrinsic values determination. Famous examples of bubbles are tulip mania in Netherland in 17th century, Wall Street crash in 1929, dot-com bubble in 2001 and recent US housing bubble.

Currency crisis. A currency crisis occurs when country faced with sharp devaluation of its currency. This type of crisis could damage ability of local currency to serve as a medium of exchange or a store of value. Currency crises are often interlinked with **sovereign debt crisis,** which emerge when risk of sovereign default increase (due to the change of investors' sentiment), making the debt more expensive to service. The governments of the economies with unstable exchange and inflation rates often issue bonds denominated in stable foreign currency to avoid inflation and currency risks in favor of enhanced credit risk. If country faced with unexpected sharp devaluation, lack of foreign currency for debt servicing could force government to default on its debt. Asian Financial Crisis in 1997 is the most famous currency crises, while 1998 Russian financial crisis was attributed to both currency and sovereign debt crisis.

Financial crisis often emerged locally, but could extend abroad and even turn into recession or depression, like Great Depression from the beginning of thirties following Wall Street Crash of 1929 and recent global recession following the collapse of US housing bubble. The late 2000s recession forced governments of many countries to increase budget deficits and public debts in order to stimulate aggregate demand, increasing the dangerous of sovereign debt crisis escalation. In this paper we analyze countries in eurozone which recently attracted a lot of concerns due to the problems with debt and increasing sovereign risk, popularly abbreviated as "PIIGS" (Portugal, Ireland, Italy, Greece and Spain), and fear from the further deepening of sovereign debt crisis together with impact on the European Monetary Union.

CONCERNS ABOUT "PIIGS" BUDGET DEFICITS, GOVERNMENT AND EXTERNAL DEBT

The euro convergence criteria concerning government finance impose that the ratio of the annual government deficit to GDP must not exceed 3% at the end of the preceding fiscal year as well as that the ratio of gross government debt to GDP must not exceed 60%. However, throughout the financial crisis, many national economies have looked to their government and foreign lenders for financial support, which translates to increased spending, borrowing and in most cases, growing national debt. Deficit spending, government debt and private sector borrowing are usual in most western countries, but due in part to the financial crisis, some economies are in considerably worse debt positions than others. The ongoing economic crisis is now being painfully felt by a few member countries of the European Union (EU), specifically Greece, Ireland, Italy, Portugal and Spain in terms of considerable increase of budget deficits above the line set by convergence criteria. Table 21.1 shows dramatic increase of government deficit for abovementioned countries in the last three years, leading to impressive values of the government deficit to GDP ratio, especially in the case of Greece and Ireland.

Table 21.1. "PIIGS" government deficit to GDP ratio

Country	2007	2008	2009	Growth rate
Greece	3.7	7.7	12.7	85.27%
Ireland	0.3	7.2	11.75	525.83%
Spain	1.9	4.1	9.49	123.49%
Portugal	2.6	2.7	9.3	89.13%
Italy	1.5	2.7	5.3	87.97%

Source: Eurostat and our calculations

High budget deficits are followed with further rise of public debt and worsening of debt to GDP ratio, which is presented in Table 21.2.

Table 21.2. "PIIGS" gross government debt to GDP ratio

Country	2007	2008	2009	Growth rate
Italy	103.5	105.8	115.2	5.50%
Greece	95.6	99.2	113.4	8.91%
Portugal	63.6	66.3	75.2	8.74%
Ireland	25.1	44.1	63.7	59.31%
Spain	36.1	39.7	50	17.69%

Source: Eurostat, CIA world factbook and our calculations

Situation with selected countries is even worse if we consider the fact that they are placed to the top of the list of countries with highest external debt. According to Table 21.3, which gives the list of countries with highest external debt, Ireland is world leader of external debt to GDP ratio, followed by Portugal, Spain, Greece and Italy ranked 10th, 15th, 16th and 17th, respectively.

Table 21.3. The list of countries with highest external debt

Rank	Country	External debt (as % of GDP):	Gross external debt: (2009 Q3)	2009 GDP (est):
1.	**Ireland**	1352	$2.39 trillion	$177.3 billion
2.	United Kingdom	427.6	$9.26 trillion	$2.17 trillion
3.	Netherlands	395.6	$2.58 trillion	$652 billion
4.	Switzerland	390	$1.23 trillion	$316.1 billion
5.	Belgium	345.6	$1.32 trillion	$381.4 billion
6.	Denmark	315.2	$627.6 billion	$199.1 billion
7.	Sweden	275	$916.42 billion	$333.2 billion
8.	Austria	268.9	$869.13 billion	$323.2 billion
9.	France	247.2	$5.22 trillion	$2.11 trillion
10.	**Portugal**	231.5	$538.1 billion	$232.4 billion
11.	Hong Kong	218.8	$659.27 billion	$301.3 billion
12.	Norway	208.9	$577.80 billion	$276.5 billion
13.	Finland	205.7	$376.8 billion	$183.1 billion
14.	Germany	189.4	$5.33 trillion	$2.81 trillion
15.	**Spain**	184.7	$2.53 trillion	$1.37 trillion
16.	**Greece**	175.3	$594.60 billion	$339.2 billion
17.	**Italy**	154.6	$2.71 trillion	$1.76 trillion

Source: CNBC

The worsening of the debt positions and especially budget deficit of selected countries reflects in the deterioration of credit rating of the countries. Table 21.4 gives current sovereign ratings by the Fitch, Standard & Poor and Moody's ratings. German sovereign debt instruments are commonly set to be the benchmark for other EU countries, regarding that Germany is considered as the strongest and most stable country in the EU.

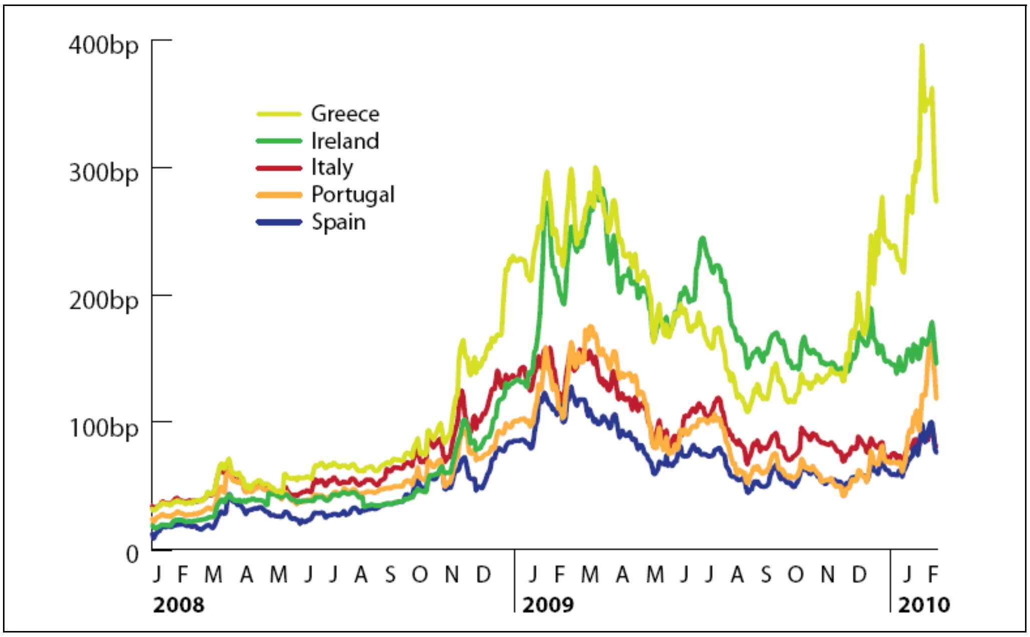
Table 21.4. "PIIGS" Sovereign ratings

	Fitch	**S&P**	**Moody**
Greece	BBB+	BBB+	A2
Ireland	AA-	AA	Aa1
Italy	AA-	A+	Aa2
Portugal	AA-	A+	Aa2
Spain	AAA	AA+	Aaa
Germany	AAA	AAA	Aaa

Source: Fitch, S&P, Moody's ratings

Low credit ratings relative to most developed European countries and increasing fear of further worsening causes the widening of the spread between long-term debt rates. Figure 21.1 shows the interest rates on 10-year government bonds of Greece, Ireland, Portugal, Spain and Italy, versus 10-year government bonds of Germany from January 2008, through early February 2010.

Figure 21.1. "PIIGS" 10 year interest rates spreads relative to German (bps)



Source: Bloomberg

For each country involved, cost of borrowing rose widening the spreads over German bonds. Greek and Ireland governments experienced the highest increase in borrowing costs, corresponding to their largest government deficits and sovereign risk. The Greece borrowing cost peaked at nearly 4% over Germany at the beginning of the 2010, but lowered to fewer than 3% due to the recent news of possible assistance. Ireland and Portugal are currently just under 1.5%, while Spain and Italy are still under 1%

The cost to insure government debt also has increased. The costs of five year senior debt for each of these countries over selected time periods relative to Germany can be seen in Table 21.5.

Table 21.5. "PIIGS" five-year senior debt credit default swaps (bps)

Country	Dec.08	Jun.09	Dec.09	Feb. 10
Greece	232.1	130.5	283.4	356.4
Ireland	181	185.7	158	152.8
Italy	156.9	83.5	109.2	129.3
Portugal	96.3	67.6	91.7	191.6
Spain	100.7	81.3	113.5	140.4
Germany	45.9	30.8	26.3	45.9

Source: Bloomberg

Even while economic conditions in much of the world were improving in the second, third and fourth quarters of 2009, cost to insure the Greek debt rose significantly in 2009 and nearly doubled by February 2010, while costs have doubled or tripled in Italy, Portugal and Spain from June 30, 2009, to early February, 2010.

GREEK DEBT CRISIS

Sovereign debt crisis especially hard affected Greek economy, which is in the deep economic and political crises. Years of unrestrained spending, cheap lending and failure to implement financial reforms left Greece badly exposed when the global economic downturn struck. After the autumn election, new government whisked away a curtain of partly fiddled statistics to reveal debt levels and deficits that exceeded limits set by the eurozone, revealed that Greece in fact has been in recession during 2009 and blamed the previous Conservative government for misreporting data.

The world's three main credit ratings agencies, Fitch, Standard & Poor's and Moody's, downgrade Greece's sovereign debt in December 2009. At the beginning of December, Fitch Ratings, which had cut Greece to A- when the government revealed the higher deficit, cuts Greek debt to BBB+ with a negative outlook; for the first time in 10 years a ratings agency has put Greece below the A investment grade. Standard & Poor's cuts Greece's rating by one notch on December 16, to BBB-plus from A-minus. Moody's cuts Greek debt to A2 from A1 on December 22 over soaring deficits, the third rating agency to downgrade Greece, but still two notches above that of Fitch and S&P. Eventually, Greece's credit rating has been downgraded to the lowest in the eurozone.

Papandreou, leader of the new Socialist government, outlined sweeping public spending cuts to bring down the deficit after EU pressure which eventually resulted in January 2010 Greece's Stability and Growth Programme (SGP). SGP represents the government's response to the challenges that country faces: consolidate the country's fiscal position through effective fiscal and structural policies aimed at drastically reducing the large budget deficit and lowering the public debt to GDP ratio; SGP include several points concerning growth, deficit, fiscal adjustment, strategy and reforms, issue of credibility, reforms of budget process and long run sustainability of public finances. The most important part of the SGP concerns government’s program to bring public finances under control in three years by cutting the deficit from 12.7% of GDP to 8.7% this year, 5.6% next year, 2.8% in 2012 and 2.0% in 2013. This gives rise to a fiscal adjustment path in the deficit as a share of GDP, with the fiscal adjustment corresponding to 4% of GDP in 2010, 3.1% in 2011, 2.8% in 2012 and 0.8% in 2013. Debt is forecast for 2010 at 120.4 % of GDP and is projected to peak in 2011 at 120.6% and gradually decline to 117.7% and 113.4% in 2012 and 2013, respectively. Table 21.6 gives the fiscal projections based on SGP.

Table 21.6. SGP fiscal projections

		2010	2011	2012	2013
Deficit	(eur bln)	21.18	14.22	7.24	5.56
	(% GDP)	8.7	5.6	2.8	2
Revenues	(eur bln)	102.4	109.9	118.1	124.1
	(% GDP)	41.9	43.5	45	45.3
Spending	(eur bln)	123.6	124.2	124.4	126.7
	(% GDP)	50.6	49.1	47.8	47.3
Fiscal adjustment	(eur bln)	9.37	6.95	6.98	1.68
	(% GDP)	4	3.1	2.8	0.8
Public debt	(% GDP)	120.4	120.6	117.7	113.4
GDP	growth	-0.3	1.5	1.9	2.5

Source: Reuters

Key facts about current situation with sovereign debt comprise:
- Total borrowing need in 2010 is 53.2 billion euros or 21.8 percent of GDP. This is down by 13 billion from 2009 and includes 12.95 billion in interest payments, a primary deficit of 10 billion euros and redemptions of 30.23 billion.
- Weighted average maturity profile of Greek debt is 7.8 years, the second-highest in the euro zone after Austria.
- The average financial duration of Greek debt is 4.2 years.
- Rollover risk in 2010 (defined as redemptions as a percent of total outstanding debt) is less than 10 percent.
- The refinancing ratio of Greek debt in the next 5 years is lower than 55 percent.
- Greek government bonds make up 82.6 percent of total outstanding debt with T-bills accounting for just 3.1 percent. The remainder is syndicated loans. Only 0.4 percent of Greek debt is in foreign currency - Swiss francs, U.S. dollars, yen, sterling.
- Expected privatization proceeds of about 2.3 percent of GDP in the next 3 years will be used to retire debt.
- Repayment of 3.8 billion euros of capital injections to Greek banks under a government liquidity support scheme will also be used to reduce debt.
- Refunding hurdles in 2010 include 8.2 bln euros of 5-year, 3.1 percent bonds at April 20 and 8.5 bln euros of 10-year, 6 percent bonds at May 19.

The Greek plan of deficit reducing was considered with skepticism both by markets and EU officials. The European Commission gave its approval to Greece's austerity plans and unveils a system of unprecedented controls to monitor progress at the beginning of the February 2010, but called for additional steps to avoid slippage from key fiscal targets, saying this was necessary as risks related to macroeconomic and market developments were materializing. Pressured by the EU and markets, Greece announced measures of fiscal stabilization additional to SGP. The package of additional measures, approved by the Ministerial Council on March 3 and adopted by the Greek Parliament on March 5, signals the determination of the Greek government to ensure a sustainable fiscal path and to restore confidence in the Greek economy. The new package includes permanent measures on both the revenue and expenditure sides of the budget, which together will contribute to a reduction in the fiscal deficit by 2% of GDP or 4.8 billion euros.

Although EU officials consider the additional measures announced by the Greek government on 5 March as sufficient to safeguard the 2010 budgetary targets, issue of bailout was intensively debated during the last days. Options for shoring up Greece include selling bonds guaranteed by euro region governments or having individual governments grant Greece loans. Obstacle for financial help to

Greece is EU rule that neither the bloc as a whole nor individual member states can assume the debts of other countries. However, in the meeting held on 15th March, EU officials generally agreed that they would help Greece, "if needed", with bilateral loans as the likeliest method (guarantees are excluded), but offering no bailout plan. Ministers stressed that the aim of possible assistance would not to enable Greece to borrow at average eurozone interest rates and to allow interest-rate arbitrage, but to ensure the stability of the eurozone. Although bailout plan is not revealed, they announce that "final decision" on an aid package would be taken at a summit of EU leaders on 25-26 March.

On the other side, Greece warned that it will be forced to turn to the International Monetary Fund if the EU can't agree to a bailout plan next week that will help reduce its market borrowing rates. Greece is paying a high price to sell bonds and it needs to borrow some euro54 billion ($74 billion) this year and euro20 billion of that in April and May. Prime Minister Papandreou said he expects European Union leaders to decide at a March 25-26 summit on a blueprint of aid from the 16 eurozone countries. He also stated wasn't asking for money but a clear mechanism for financial help in case Greece can't afford to borrow from markets. An IMF bailout for Greece is considered as a huge embarrassment for the 16-country eurozone and proof that the structural flaws that surfaced during the debt crisis are beyond the nations' control.

The Greek debt crisis also raises concerns of south-eastern European countries, especially Romania, Bulgaria and Serbia, where Greece is major investor. All of these countries had considerable growth in previous years, based on foreign direct investments and expansion of banking loans. However, in 2009 it was stopped as FDI and loans contracted due to global crisis worsening the economic situation in these countries and even force Romania and Serbia to look for IMF rescue loans to avoid deep recession. Investment from Greece to Bulgaria declined last year to just 48.5 million euros in 2009, or around 2 percent of FDI, from around 7 percent, or 400 million a year earlier. FDI almost halved in Romania to 4.9 billion euros in 2009, from 9.5 billion a year earlier, with Greek FDI share of 6.5 percent ranked sixth at the end of 2008. In Serbia FDI also fell 60-70 percent last year, and while Greece's part was roughly flat at 46 million euros, it was well below the pre-crisis 336 million euros seen in 2007. Greek banks make up four of Bulgaria's top 10 with 30 percent of banking assets, three of top 10 in Serbia with 15 percent share and two of Romanian to 10 with 15 percent share.

Greek problems have so far had only a limited impact on these countries and it is unclear how much of a drag it may create. Greece's troubles are too recent to show up in actual data. Regarding that Greek firms are not expected to invest heavily in their usual target areas as they digest severe government cost cuts at home, it could direct investors looking to invest in emerging Europe's countries to switch money from south-eastern European countries exposed to Greece to more stable countries with limited Greek exposure like Poland and Czech Republic. Central banks of Bulgaria, Romania and Serbia are concerned from a possible liquidity drain and monitor carefully situation in Greece. If Greek banks or other lenders that have been hit by the crisis withdraw their money, one of the possible scenarios saw Austrian banks closing this gap.

IMPACTS OF THE SOVEREIGN DEBT CRISES ON THE EUROPEAN MONETARY UNION

While the public are currently focused primarily on Greece, contagion is a very real threat. Portugal's and Spain's external debt position is worse than that of Greece with considerably higher household debt. Spain, apart from a nearly 10% deficit, has unemployment close to 20% and a banking system burden by a massive amount of overvalued real estate. Italy's and Ireland's external debt obligations as well as GDP and unemployment rates are also worse than those of Greece.

If Greece's debt crisis is giving the European Union a headache, it is minor compared to the pain it will suffer if a large member state such as Spain sinks into similar trouble. A Greek debt default would increase pressure on the euro but the damage would likely be limited since Greece accounts for less than 3 percent of the 16-country currency area's GDP. A Spanish debt crisis would be much harder for the EU to handle because its economy is the euro zone's fourth-largest, accounting for nearly 12 percent of euro-wide GDP.

At the beginning of February 2010, a €500 million government bond auction in Portugal only successfully raised €300 million. The failed Portuguese bond auction further intensified the fear that the emerging sovereign debt issues could become a global contagion. These fears led to a weakening of the euro at the beginning of 2010. The movements of EUR/USD exchange rates for last twelve months are given in Figure 21.2.

Figure 21.2. EUR/USD exchange rates

Source: European Central Bank

The one-size-fits-all monetary policy of the euro is considered as the root of the problem, regarding large differences among economies of EU countries. It is reasonable to believe that monetary policy set for the big developed economies like German or French was inappropriate for the less developed economies of the periphery countries. Greece, Spain, Portugal etc. gained high credit rating thanks to the EMU access and used the extremely low interest rates to finance growing public sectors and generous welfare systems instead of adopting stricter fiscal discipline. The fiscally unstable states benefited from low rates because, from the perspective of investors, their bonds enjoyed an implicit guarantee of the stronger eurozone members. Once investors finally started paying attention to their fiscal situation, increasing of this country's debt servicing costs was inevitable.

For now, there is a little doubt that EU monetary union will be disintegrated. However, having in mind that global economic crises differently affected EU countries, there are incentives for the countries to give up from the mutual monetary policy and to break up with monetary union, i.e. Ireland would be able to devaluate own currency and to make export more competitive. Consequently, European Central Bank will be strongly tempted to come up with interest which will stimulate economic growth without increase in inflation.

CONCLUDING REMARKS

Current Greek debt crisis open a lot of question about future destiny of European Monetary Union. Greece government provided plan for Greek economy rescue based on fiscal consolidation, but we are very skeptical about Greek capability to reduce debt without external financial help. Although EU ministries of finance on the recent meeting announce that EU will financially support Greece if needed, bailout plan is still missing. This can be explained partly due to possible speculative attack on euro partly due to lack of general consensus about mechanism of financial support having in mind that under EU rules, neither the Union as a whole nor individual member states can assume the debts of other countries. However, bailout probably will be in the form of loans rather than guarantees for new debt in order to disable any kind of interest-rate arbitrage.

Although Greece is now the only EU country where crisis escalated, concerning about large deficits and debts of Spain, Italy, Ireland and Portugal raises the fear from the further rising of default risk and crisis contagion. At our opinion root of the debt problem is centrilized monetary policy in eurozone, which neglected particular economic situation, fiscal policy and economy structure of its members. We don't believe that eurozone is putted at dangerous, but sovereign debt crisis shows that monetary union is more vulnerable than it was taught and that EU policy creators will face a lot of challenges in the future to find a one-size-fits-all formula.

Greek crisis is probably not to affect only the countries of eurozone, but also south-eastern Europe's countries, especially Bulgaria, Romania and Serbia, which are exposed to Greece. Although so far Greek crises had limited impact on these countries, it is reasonable to suppose that impact will increase during 2010. Some of the possible scenarios include shift of the investors to the other emerging EU economy less exposed to Greece and strengthening of the position of Austrian banks within these countries.

For now, sovereign debt crisis is still the hot issue. Although EU officials insist that everything is under control, fear from the deeper crisis is still present. We expect that culmination of the story will happen in the April and May, when Greece is supposed to pay about twenty billions of the outstanding debt. It should be turning point to show if EU is determined enough to solve eurozone if Greece failed to solve debt problems on its own.

References

[1] Erić, D, (2003), Financial Markets and Instruments, Čigoja štampa, Belgrade
[2] Malović, M, (2006), International Financial Crisis, Faculty of Economics, Belgrade
[3] Musabegović, I, (2008), *World economy crisis, financial hurricane or structural breakdown*, Conference book "Challenges of Economic Sciences in 21st century", Institute of Economic Sciences, Belgrade
[4] ec.europa.eu/eurostat
[5] www.bloomberg.com
[6] www.cnbc.com
[7] www.ecb.int/
[8] www.reuters.com