Did the European debt crisis come from the financial crisis?

Oleksandr Lysenko

Université Paris 1 Panthéon-Sorbonne, FTD

Abstract

This article argues that European sovereign debt crisis was rather endogenous to the monetary union. Introduction of the single currency resulted in interest rate convergence and drastic reduction of borrowing costs for some of the countries. Governments were fully enjoying the comfort provided by the single currency, leaving out the accumulation of some crucial imbalances unnoticed. Nevertheless, an important role in the unravelling of widespread financial imbalances, which contaminated fiscal balances was played by the financial crisis.

1 Introduction

The Eurozone crisis which broke out in May 2010 had many severe consequences for the monetary union countries. Evidently, it had long-term effects on the economic performance of the Eurozone countries. "Five years later, growth is miserable and is forecasted to remain miserable as far as the forecasters' can see. Governance is in disarray as the tragic Summit of July 13 – the last of an incredible series of official meetings – showed"[1]. Put it bluntly the event has basically questioned the plausibility of the monetary union existence. At least in the current design.

The Eurozone crisis is considered in official circles essentially as a sovereign debt crisis. However, a quick look on the pre-crisis debt statistics brings up a simple question: How could a relatively small country's debt degenerate into generalized government debt crisis in Eurozone?

One would argue that sovereign debt crisis was an inevitable consequence of the 2008 financial crisis. Indeed, several nations, notably Ireland, had to unleash 'big bazooka' and bail-out their 6 major banks hooked on mortgage

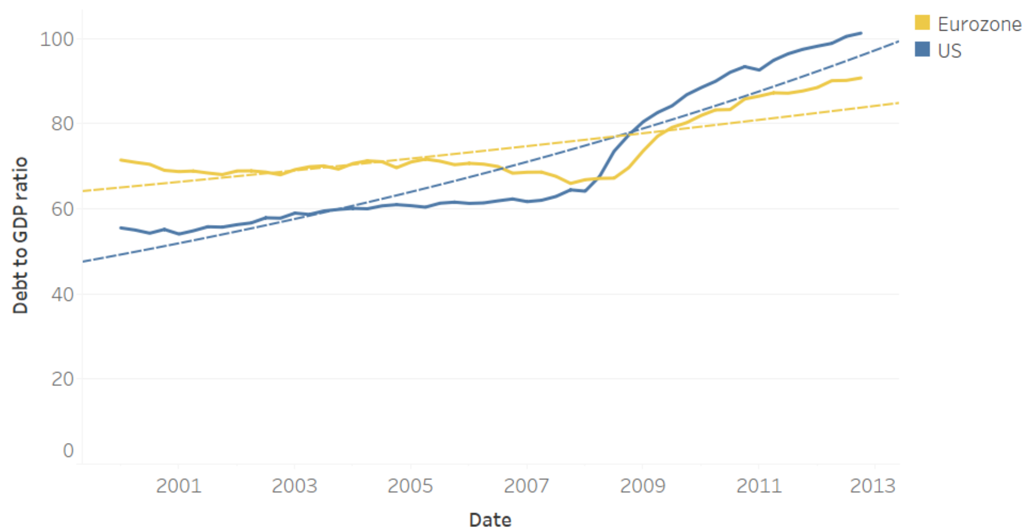


Figure 1: Government debt ratios in US and Eurozone

loans who risked to become insolvent otherwise. That counterattack was rather a Pyrrhic Victory as the announcement of financial sector bailouts was associated with an immediate, unprecedented widening of sovereign CDS which increased countries' sensitivity to future sovereign shocks [2].

However, then the question asked earlier should be followed by the additional one: Why debt crisis in Eurozone and not in US? US had higher debt ratio after its extensive 'whatever it takes' policy and in the end was the epicenter of the financial crisis outbreak. Therefore, the causes are rather complex and do not boil down to one specific reason. The main purpose of this paper is to investigate what was the role of 2008 financial crisis in the recent sovereign debt crisis and what are the root causes of it.

2 Eurozone imbalances

Essentially every economic crisis in the history should be considered as a rapid unwinding of built up economic imbalances [3]. The scale and duration of a crisis usually directly depend on the size of the initial imbalances, respond of the policy and a number of amplifiers. Eurozone countries despite the crucial precondition for successful monetary union existence had a large number of built up asymmetries and imbalances to effortlessly withstand the crisis.

2.1 Financial flows

The first structural problem which lies in the heart of the Eurozone and is one of the important reasons of the debt crisis is related to large imbalance of the financial flows.

It has been extensively argued in the academic literature that the Eurozone economies are barely satisfying the well-known optimal currency area criteria [4, 5]. The problem was aggravated not necessarily by the enlargement but rather by the absence of a mechanism to correct the divergent economic developments. This fact materialized in diametrically different signs of Eurozone countries' current account [6].

	Year										
Country	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Austria	2,10	1,50	2,10	2,30	3,30	3,80	4,50	2,60	2,90	1,60	1,50
Belgium		3,50	3,30	2,10	1,90	2,00	-1,00	1,70	1,60	-1,90	-0,10
Cyprus			-5,10	-6,00	-8,20	-11,80	-14,70	-6,70	-10,70	-2,30	-3,90
Finland	8,20	4,60	5,80	3,00	3,90	4,00	2,50	2,00	1,50	-1,40	-2,10
France	1,10	0,80	0,50	0,10	0,30	-0,10	-0,70	-0,60	-0,60	-0,90	-1,00
Germany (until 1..	1,90	1,40	4,50	4,70	5,80	6,90	5,70	5,80	5,70	6,20	7,10
Greece	-6,80	-8,50	-7,70	-8,90	-11,50	-15,20	-15,10	-12,30	-10,00	-8,60	-3,50
Ireland	0,20	0,50	-0,10	-3,50	-5,40	-6,50	-6,20	-4,70	-1,20	-1,60	-3,40
Italy	-0,50	-0,80	-0,50	-0,90	-1,50	-1,40	-2,80	-1,90	-3,30	-2,80	-0,20
Luxemburg	9,30	6,50	11,80	11,00	9,90	9,70	7,60	7,20	6,70	6,00	5,60
Netherlands			7,60	7,10	9,10	6,90	5,00	5,40	7,00	8,60	10,20
Portugal	-8,50	-7,20	-8,30	-9,90	-10,70	-9,70	-12,10	-10,40	-10,10	-6,00	-1,60
Slovakia			-10,10	-10,60	-9,50	-5,90	-6,40	-3,40	-4,70	-4,90	0,90
Slovenia	0,90	-0,80	-2,70	-1,80	-1,80	-4,10	-5,30	-1,10	-0,70	-0,80	1,30
Spain	-3,70	-3,90	-5,50	-7,30	-8,90	-9,40	-8,90	-4,10	-3,70	-2,70	0,10

Figure 2: Heat map of the Eurozone countries' current account balance in % of own GDP

There are several risk factors arising from running large and sustained external deficits. The one that stroke Europe the hardest was classic problem of large capital reversals. Since we are in the monetary union the only instrument a government could use was fiscal policy. However, given the size of inter-border capital flows the sudden break in inflows would be just too big to be tolerated by means of fiscal resources. Such reversal are usually associated with greater risk of a banking crisis, especially if precedent capital flows have been intermediated through the domestic banking system. Governments,logically will be interested in saving their highly leveraged banking sector, bank and sovereign risks will start to feed each other at the national level and, thus, additional multiplier to turn the crisis into systemic is provided.

Years preceding the crisis was the period of the most intense phase of dispersion accumulation in the current account imbalances. Measured in billions of euros the overall Eurozone current account was virtually at zero. However, country-by-country breakdown shows some dramatic polarity.

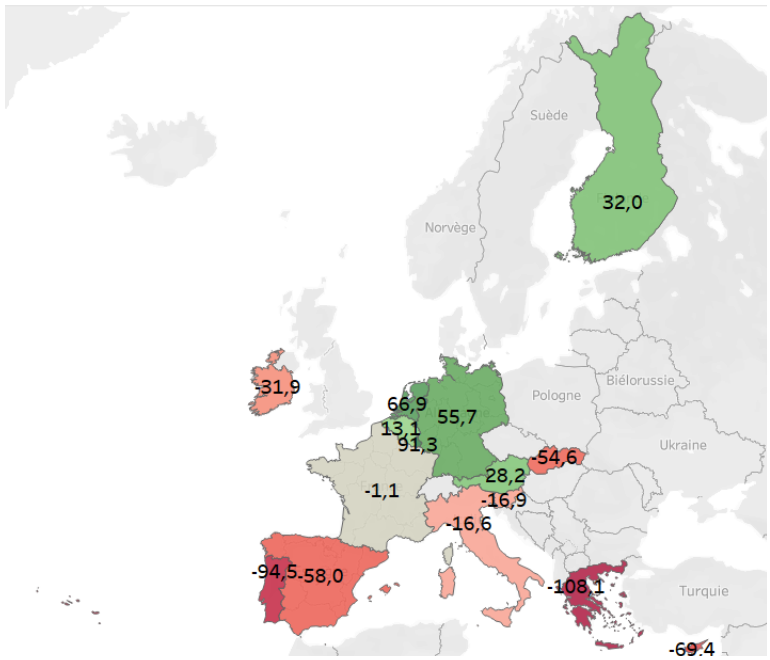


Figure 3: Cumulative current account balance in % of own GDP for the period of 2002-2012

Simple look on the figure above arms us with an important conclusion: no country which for a long time prior to the crisis ran current account surpluses had to undergo large stress from the sovereign debt crisis, regardless of its public debt level.

All the countries who eventually ended up in bailouts: Greece, Ireland, Portugal, Spain as well as Italy[1], who miraculously avoided the danger - all for a long time ran significant current account deficits. On the contrary, Belgium, who at a dawn of the crisis had nearly same level of public debt as each of the GIIPS countries[2], has successfully handled the crisis with risk premium never climbing above 90 basis points. The simple reason is that in the years prior to the crisis Belgium had accumulated a positive net foreign creditor position.

[1]From now on referred as GIIPS

[2]Except for Greece

2.2 Private and public debt buildups

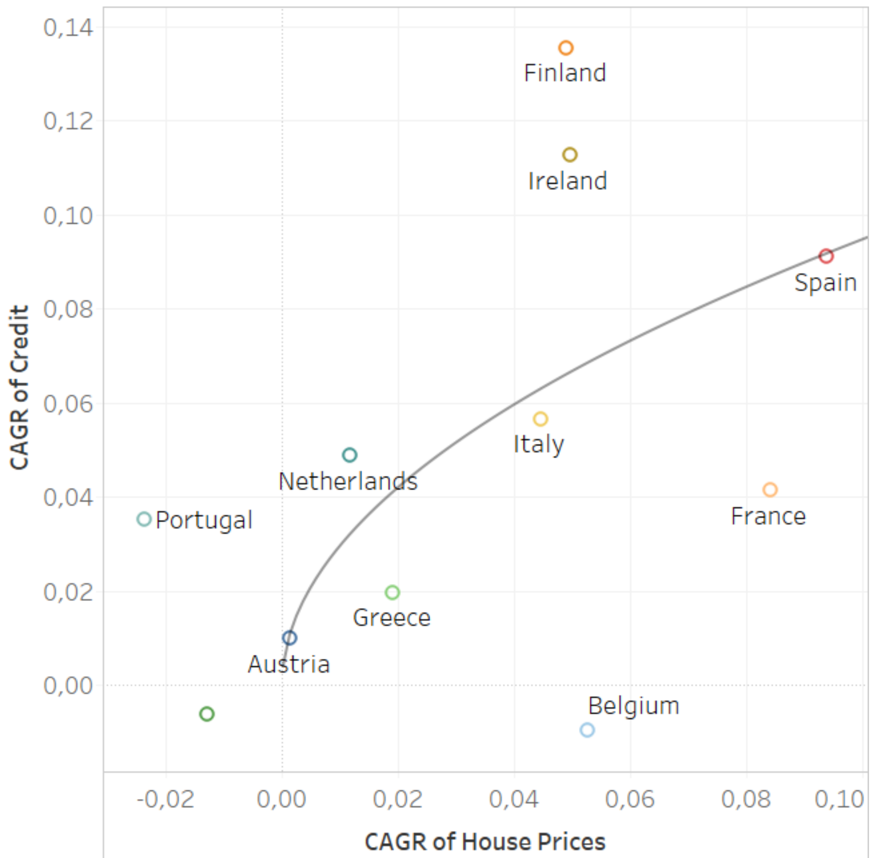
The underlying reason that made many Eurozone countries happily ran consistent current account deficit was interest rate convergence. Earlier in the 90's turbulence of exchange rates, possibility of defaults and relatively weak macroeconomic performance had made the market to demand far higher risk premiums on debt of Spain or Portugal comparing to Germany or Netherlands. That has changed in the common currency era. Government bond yields has started descending and converged to the risk-free German level even before the euro has started circulating. The magnitude of changes for some countries was stupefying. In a decade Spain has seen a drop from around 15% to 3%. Both Italy and Irelad experienced similar changes. Basically, despite substantial differences in macroeconomic conditions and fiscal policies, member countries were able to access financial markets at almost identical yields between 2001 and 2007 [1]. Borrowing was largely encouraged. Some public and some private.

2.2.1 Private debt

General perception that interest rate convergence is one of the fundamental signs of real convergence between member states was only partly correct. Indeed, to the extent that current account imbalances accelerate income convergence by reallocating resources from capital-abundant high-income countries to capital-scarce low-income countries, this would be a positive sign of a monetary union [7]. Similarly, lower interest rates and easier credit availability stimulate consumption-related borrowing and, thus, might facilitate consumption smoothing in time by the catch-up economies [8]. However, for the mechanism to work correctly large capital inflows should be invested in industries with significant effects on future productivity growth, which can also quickly adjust to possible structural shocks [9].

Vastly engaged in borrowing banks have accumulated large amounts of debt during the pre-crisis period in basically all OECD countries. However, for some Eurozone countries the speed was remarkably overwhelming. Ireland's total bank assets has soared from 360% of GDP in 2001 to 705% in 2007. Spain's jumped from 177% to 280% over the same period. Similar increase was also observed in Italy and France [1].

The credit boom in Ireland and Spain was primarily due to private sector borrowing. Significant net accumulation of financial assets by the private sector was also the case in other Eurozone countries, notably, Greece and Portugal [10]. Therefore, the arising question is whether the borrowing had served as a fresh fuel for faster convergence, as discussed earlier. Or, rephrasing, where did the money go?



Data for credit rates is from World Bank matched with OECD real house price indicator. Trend is fitted with a power model, $R^2 = 0{,}63$.

Figure 4: Scatterplot of average CAGR of credit and real house price in 2002 - 2009

Figure 4 is a scatterplot of average Compound Annual Growth Rate in 2002-2009 period of domestic credit provided by financial sector versus real house price in the respective country. CAGR is used to dampen the effect of volatility of growth among Eurozone countries and more efficiently compare the growth rate of credit and house price.

What had been happening during that period is probably the best described by Keynes' "animal spirits" [11], which in Eurozone have largely a national component. A huge wave of optimism held by strong decline of real interest rates and simultaneous securitization boom in international financial markets gripped countries like Ireland and Spain and led to heavy investments in assets. Lack of bank credit controls has made private sector choose to leverage and invest in tempting real estate instead of productivity inducing sectors. Once again, despite the fact that similar applies to Finland - strong accumulated net financial position has allowed the country to subdue the effect after the bubble burst. On the contrary, pessimism prevailed in Germany, Belgium or Austria, thus, making the reverse true. Therefore, the increase in liabilities of the receiving countries not only was unsustainable, but even worse - it contributed to house price bubble that would inevitably detonate at some point.

Moreover, such an injection of money inevitably caused major wage increase and higher inflation in the receiving countries. Due to these factors domestic manufactures started suffering from a loss in price competitiveness and consequently lost market shares. Essentially the key factor in favour of lagging behind economies to join the monetary union has been smashed by low risk premiums.

2.2.2 Public debt

Today there can hardly be any disagreement on the issue of too much debt accumulated in the Eurozone. Nevertheless, even through 2008 and 2009 there was a little concern about the size of Eurozone sovereign debt. As seen in Figure 1 overall pre-crisis level of public debt was relatively stable and lower than that of US. Once again, average debt to GDP ratio of the Eurozone hid large differences between the countries. Figure 5 shows the evolution of public debt for countries who subsequently got in trouble. Each of the country had quite different debt history. To guide its members the Eurozone had a large set of fiscal rules, directly or indirectly touching upon the topic of sovereign debt.

Firstly, the Maastricht criteria on public debt. Among the countries who eventually got in trouble, three of them: Italy, Portugal and Greece were consistently violating the rule. Italy and Greece who were allowed to enter despite failing to satisfy the criteria never in the history have complied with 60% debt/GDP limit. Portugal have achieved some significant declines of the debt ratio but from 2000 the ratio has begun to climb again. With largely elevated debt level these countries had quite vulnerable fiscal position to face the changes of market sentiments.

Secondly, budget balance. The success of some countries in satisfying that rule should not be as misleading for the reader as it was for the authorities

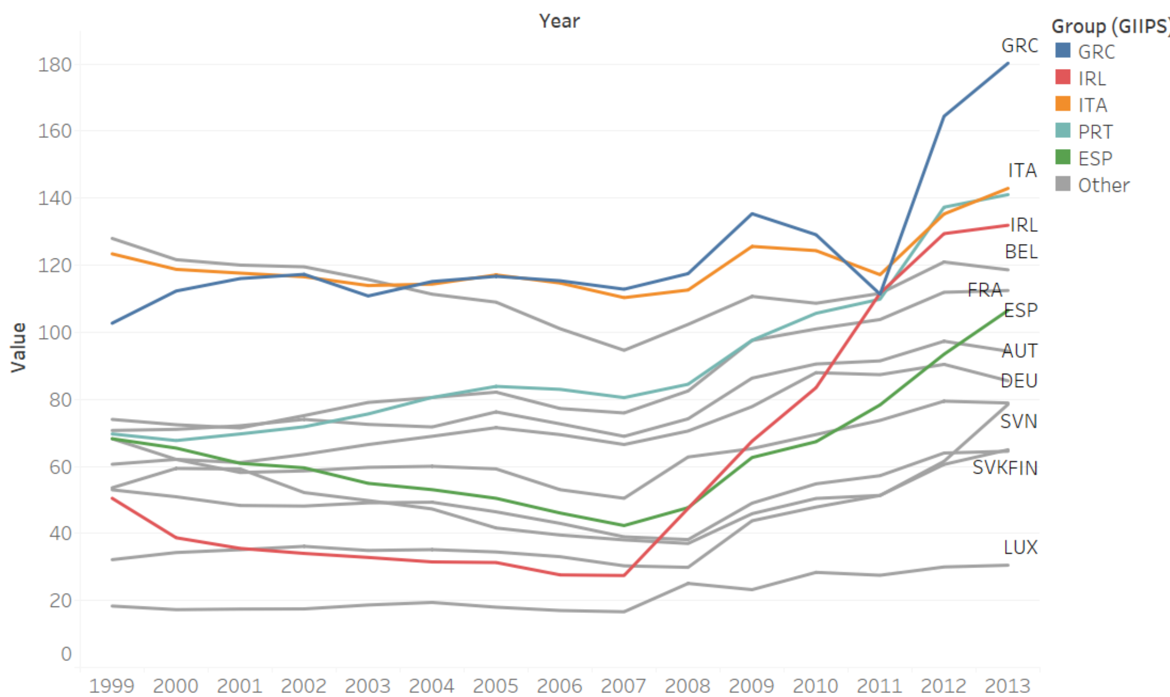


Figure 5: Eurozone countries debt to GDP ratio, GIIPS highlighted

at the time. In Ireland and Spain the credit and housing booms directly generated extra tax revenues to the budget through higher takes from capital gains taxes, asset transaction taxes and expenditures taxes [10]. Furthermore, interest rate convergence in the monetary union meant that countries had a significant cut on the debt servicing costs. The positive forecast of feasibility to control the debt level and keep it safe was only true under that level of interest rate, far lower than the historical average. With the private sector taking on more risk, the 2002-2007 period could have been a perfect chance for governments to reduce its public debt. However, that manna of budget profits was only partially used to improve fiscal position or accumulate a safe buffer that might help if or when the boom ended in a sudden and disruptive fashion [12]. Rather, countries were cutting taxes and increasing the level of public spending to offset the increase in revenues. Overall, governments had not only failed to tighten fiscal policy but rather engaged in procyclical activities [13]. The latest was also supported by the framework used to asses the sustainability of fiscal position. Primary focus was on estimation of output gap and "cyclically adjusted" budget balance - for the current macroeconomic, financial and fiscal conditions [10]. That mistake has paid them back in a severe manner, as soon as the crisis commence.

3 Institutional framework failures

The fundamental pillar of the monetary union is based on the simple idea that convergence of the economies would assure symmetry of macroeconomic shocks which are going to be smoothed by the single monetary policy. The residual asymmetry is to be handled by fiscal policies. The rule of thumb at the time of Maastricht treaty was that a 1% fall in GDP would deteriorate the fiscal balance by around 0.5% of GDP through automatic stabilisers [14]. The Maastrict "order" to keep the budget balance with 3% deficit allowance has, thus, allowed to offset 6% of the fall in GDP. It was hard to imagine such a drastic drop in GDP of any EMU member under the symmetry condition. Therefore, the architects concluded, the government would be free to largely deploy its fiscal instruments in tackling an asymmetry.

Firstly, we have already seen how the Eurozone failed to ensure the first condition. There was no real convergence between the economies of the union. Secondly, despite the large set of fire code regulations, cemented in treaties governments did not restrict themselves in breaking them.

From the initial set up of the EMU fiscal profligacy was correctly viewed as a risk to the stability of the union [15]. To ensure due diligence and help each member state to keep its house in order European authorities developed the Stability and Growth Pact. Basically, SGP was an elaborated set of rules abiding by which will guarantee smooth functioning of the Eurozone. An additional stimulus to commit to prudent fiscal policy was given by the Maastricht "no bailout" clause.

Article 125 TFEU explicitly states that each country is on its own in managing the sovereign debt. Even if a bail out did happen, the European Central Bank would not be the main agency involved; rather it is the IMF and national governments that would have to organize any rescue package. The main reason was that, as with any insurance mechanism, there is the risk of moral hazard. This problem, nevertheless serious, has received too much attention in Eurozone. Countries like Austria, Germany and Netherlands were reluctant to automatically transfer resources to deficit countries which in their line of thought would encourage unsound fiscal policies. Thus, Eurozone had no institutions to deal with crises or to help avoid crises.

Obviously, the most shocking example of an extreme violation of the euro's fiscal rules is Greece. After the reelection in October 2009, the new government revised 2009 budget deficit forecast and advertised the number of 12.7% of GDP - double the estimate of the previous government. Additionally, the fiscal position for previous years has also been revised to show significantly larger deficits than previously reported [10]. Ergo, on top of underlying macroeconomic and financial imbalances Greece has also shown complete lack of discipline and ended up with vastly contaminated fiscal balance. This revelation has shaped an influential political narrative of the crisis which became dominated by "moral hazard" diagnosis and led to the proposals that have only intensified the crisis.

On the contrary problems of Ireland and Spain which, as already discussed, were related with private sector, had nothing to do with running irresponsible fiscal policy, hoping to be bailed out by the others. Risks originating in the banking sector were largely neglected by the SGP. It can be argued that the European monetary authorities are largely responsible for the development of unsustainable private debt levels. However, ECB had only one instrument to deal with credit driven asset bubbles. What was more astonishing is the absence of literally any mechanism to help after the outbreak.

One of the numerous consequences of an absence of a safety net in the monetary union is the possibility to generate a vicious circle between public and banking sector [6]. Since national sovereign bonds are frequently overrepresented in some banks' balance sheets the deterioration of the first would lead to the solvability problems of the second. In that simple manner the sovereign debt crisis transforms into the banking crisis. Ireland has proved that the reversed is also true. In that case internal banking crisis rises "too big to fail problem" and forces government to intervene to save the banking system, thus, endangering its own solvability. Eurozone had no peacemaking mechanism to use in case of such problems.

Overall, Growth and Stability Pact proved to be a poor instrument to prevent fiscal profligacy in Greece, and irrelevant to prevent sovereign debt crises in other countries.

4 The Financial Crisis

August 2007 marked the first phase of the global financial crisis, with the initiation of liquidity operations by the European Central Bank. Major European banks have had deep connections with the US market of asset-backed securities and therefore were highly exposed to losses [16]. With the crisis becoming more severe through 2008 - 2009 period ECB have been extending its presence on the financial markets. Alike central banks of all other countries hit by the financial crisis ECB drastically cut its key policy rates starting with 3,25% in mid October 2008 and ending by 0,25% at the begging of April 2009. Additionally, ECB provided extensive euro-denominated liquidity, and entered into currency swap arrangements to facilitate access by European banks to dollar-denominated liquidity [10]. Overall, the actions of the ECB was quite standard for the period of a large financial distress. Lately, when the stability is reached ECB would withdraw excess liquidity from the market, hence turning the page overwritten by the crisis.

However, the main problem of the Eurozone laid in asymmetry of shocks. In late 2008 cross-border financial flows has started drying up with investors repatriating funds to home markets and reassessing their international exposure levels [17]. This process disproportionately affected the countries whose banks, like Irish, had relied greater on external funding, especially international short-term debt markets. Moreover, the financial crisis has caused a real estate bubble burst and cessation of the credit boom, which was especially troubling for Ireland and Spain, where the construction sectors had grown rapidly. The decline in construction was a major shock to domestic economic activity, while abandoned projects and falling property prices indicated large prospective losses for banks that had made too many property-backed loans [10]. The banking sector of these countries had risked to become insolvent.

On September 30, 2008 the government of Ireland announced that it had guaranteed all deposits of the six of its biggest banks. The immediate reaction that grabbed newspaper headlines the next day was whether such a policy of a full savings guarantee was anti-competitive in the Euro area. Such protection on Irish banks has caused their CDS fee to fall overnight from around 400 basis points to 150 bps. However, this was achieved at the cost of sharp rise of the CDS fee for the Government of Ireland's credit risk. Over the next month, this rate rose more than 4 times to over 100 bps and within six months reached 400 bps, the starting level of its financial firms' CDS. The risk of the financial sector had been substantially transferred to the government balance sheet [2]. This has been particularly dangerous for Ireland, whose fiscal revenues has started to descend quickly as a result of the high sensitivity of tax revenues to declines in construction activity and asset prices, brought by the financial crisis.

In the meantime Greek government came with advertising its "deficit deceit". What followed was a six-month attempt by Greece at "self-rescue". This failed. Greece was caught in a classic public debt vortex. As the situation worsened credit agencies repeatedly downgraded Greek government debt and its borrowing cost leapt from 1.5% to 5%. There was no way for Greece to stop the public-debt vortex except for default. Europe's leaders decided it was unthinkable for a Eurozone member to default, so Greece had to be bailed out. In the event, the Troika: European Commission, IMF and ECB became the "lenders of last resort" who provided rescue package for Greece. It did not work. Greece's package was too little too late [1]. The rushed and politically charged way in which the package was put together did nothing to assure market confidence in the authorities' ability to handle fast-moving crisis.

Even before the first bailout happened markets started wondering whether Greece's inability to save itself might also apply to other nations. These doubts drove up the yields in other Eurozone nations. This was the beginning of a "sudden stop" and capital reversals for the Eurozone nations that relied on foreign capital, namely, Ireland, Portugal, Spain and Italy. When the Eurozone failed to respond - investors fears had been reassured. Markets, already leery of lending across borders, became even more reluctant. Nevertheless, given the worldwide recession, all Eurozone governments were running deficits and, thus, had to borrow more internationally. However, the problem as discussed earlier, was that in years prior to the crisis these countries had already accumulated a large negative net foreign creditor position and therefore now had problems with international borrowings. Investors who lost money with Greek government bonds feared losses in other sovereign bond markets. Sovereign-sovereign contagion has become evident. The borrowing costs of Portugal and Ireland continued to rise while the decade-long accumulation of unnoticed problems has been brought up. The results of an ascending risk premiums were starting to pull down these nations.

In July 2011 sovereign tensions spread not only to Italy and Spain, but also to banks exposed to the sovereign debt of these countries. As I had discussed earlier, domestic banks are often major holders of the national sovereign bonds. But even more their over-representation have been propped up during the financial crisis. European Central Bank have valued government bonds as zero risk assets and largely used them as highly rated collateral to provide banks with short-term loans in order to inject additional liquidity on the markets. When the price of bonds fell sovereign-bank contagion has also started to spread instability [?].

At this point Europe has barely entered the first stage of the sovereign debt crisis. The peripheral countries has just started going through downward spiral, being pulled into a debt vortex, with worse news to come in the future.

5 Conclusions

Questionable initial optimality of the European Monetary union had become even more doubtful after the financial crisis revealed that after the regime change countries has acquired large set of additional imbalances. Interest rate convergence which at the begging was seen as a sign of real economic convergence between Eurozone countries turned out to induce some important by-products. Governments had enjoyed the comfort provided by the single currency, ignoring a number of caveats which came jointly. Led by a wave of optimism they failed to tighten fiscal policy, did not closely monitor its balance of payments and the underlying reasons of the credit boom. Instead of boosting productivity growth and financing structural reforms money had been used to inflate the real estate bubble. When the financial crisis broke down governments got in trouble.

European Monetary Union in turn has shown complete unpreparedness to intervene and break the chain of events that eventually ended up in the Europe's sovereign debt crisis. There was no institution to deal with crises or to help avoid crises. How powerful such institution would be was proven by a forceful intervention of ECB President Mario Draghi in his famous July 2012 speech. He told markets that the ECB would do "whatever it takes" to keep the Eurozone together. That was enough to switch market expectations from "we are all doomed" to "we will get through this together". As a consequence of the speech government bond yields have returned back to their pre-crisis levels. Instead, when one fell others started pointing the finger at him, thus, igniting the fear and aggravating debt vortex. In the end, monetary union forces member countries to show some solidarity, whether they like it or not.

References

[1] R. Baldwin, F. Giavazzi, The Eurozone Crisis A Consensus View of the Causes and a Few Possible Solutions, CEPR Press, 2015.

[2] V. Acharya, I. Drechsler, P. Schnabl, A Pyrrhic Victory? - Bank Bailouts and Sovereign Credit Risk, NBER Working Paper 17136, June 2011.

[3] F. S. Mishkin, Asymmetric Information and Financial Crises: A Historical Perspective, NBER Working Paper 3400, July 1990.

[4] P. D. Grauwe, Governance of a Fragile Eurozone, CEPS Papers 5523, 2011.

[5] B. Landais, La théorie des zones monétaires optimales à l'épreuve des crises européennes récentes, AIELF, 2017/3.

[6] P. de Grauwe, Y. Ji, L'avenir de l'euro, Revue de l'OFCE 13 (2018/4) 171–182.

[7] O. Blanchard, F. Giavazzi, Current account deficits in the euro area: The end of the feldstein-horioka puzzle?, Brookings Papers on Economic Activity (2002) 147–186.

[8] G. Fagan, V. Gaspar, Adjusting to the Euro, ECB Working Paper, 2007.

[9] R. Chen, G. M. Milesi-Ferretti, T. Tressel, External Imbalances in the Euro Area, IMF Working Paper 12/236, September 2012.

[10] P. R. Lane, The european sovereign debt crisis, The Journal of Economic Perspectives 26 (Summer 2012) 49–67.

[11] J. M. Keynes, The General Theory of Employment, Interest and Money, London: Macmillan, 1936.

[12] P. R. Lane, Some lessons for fiscal policy from the financial crisis, Nordic Economic Policy Review (2010) 13–34.

[13] A. S. Bénétrix, P. R. Lane, Fiscal cyclicality and emu, Journal of International Money and Finance (2013) 164–176.

[14] M. Buti, A. Sapir, G. Ravasio, Economic policy in EMU : a study by the European Commission services, Oxford: Clarendon press, 1998.

[15] B. Eichengreen, C. Wyplosz, C. Bean, S. Gerlach, The stability pact: More than a minor nuisance?, Centre for Economic Policy Research 13 (1998) 65–113.

[16] V. V. Acharya, P. Schnabl, Do global banks spread global imbalances? the case of asset-backed commercial paper during the financial crisis of 2007-09, IMF Economic Review 1 (2010) 37–43.

[17] Milesi-Ferretti, M. Gian, C. Tille, The great retrenchment: Iernational capital flows during the global financial crisis, Economic Policy 26 (2011) 37–43.