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European Sovereign Debt Crisis

Master Thesis

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Abstract

Financial crisis exposed the bad state of European public finance. Budget deficits are so domesticated in Europe, that it is hard nowadays to encounter a budget surplus, or at least a balanced budget. Greece once again entered the history, but this time Greeks have absolutely nothing to be proud of. Financial crisis has reintroduced phenomenon known only from war periods – heavily indebted rich countries. European Union never imagined such situation could occur and threaten the existence of the Eurozone, so there was no plan B prepared.

In the thesis we would like to analyze the process of finding the plan B. Hundreds of billions euro were spent on bailouts of heavily indebted Eurozone Members. Using case studies of the most affected Eurozone economies we want to decide if the Euro was the cause of the European debt crisis. In the last part we will discuss institutional changes of the EU designed to strengthen economic stability of the Eurozone.

Key words: European Union, debt crisis, Eurozone, PIIGS, Euro, fiscal policy, Ireland, Greece, sovereign debt, austerity measures

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Abstrakt

Finanční krize odhalila špatný stav Evropských veřejných financí. Rozpočtové deficity v Evropě natolik zdomácněly, že už se dnes prakticky nesetkáme s rozpočtovým přebytkem nebo alespoň vyrovnaným rozpočtem. Řecko znovu vstoupilo do dějin, ale tentokrát nemají být Řekové vůbec na co pyšní. Finanční krize znovu nastolila fenomén známý pouze z období válek – těžce zadlužené bohaté země. Evropská Unie si nikdy ani ve snu nepředstavila, že by taková situace mohla nastat a ohrozit existenci celé Eurozóny, takže nebyl nachystán žádný plán B.

V práci bychom chtěli analyzovat proces hledání plánu B. Stovky miliard euro byly utraceny na záchranu těžce zadlužených členů Eurozóny. Za pomoci případových studií nejhůře postižených ekonomik Eurozóny chceme rozhodnout, zda bylo Euro příčinou dluhové krize. V poslední části budeme diskutovat institucionální změny v EU určené k posílení ekonomické stability Eurozóny.

Klíčová slova: Evropská Unie, dluhová krize, Eurozóna, PIIGS, Euro, fiskální politika, Irsko, Řecko, státní dluh, úsporná opatření

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Declaration

The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.

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Prague, 28 July 2011 Michael Bořuta ____________________

Signature

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Master Thesis Proposal

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Proposed Topic:

Threat of bankcrupcy in EU countries

Topic Characteristics:

During the last decade, world economy was thriving and most economists predicted a longterm growth. Then, all of the sudden, world economy was hit first by a food crisis, and consequently with the financial crisis. The financial turmoil combined with a severe recession in United States resulted in the crisis , which is by its extent unprecedented since the major crisis in 1930's. Thanks to globalism of financial markets, the reaction of European markets was immediate. Shortly after the outbreak of the crisis in United States, the crisis came to Europe. One of the early victims was The Republic of Iceland, which didn't survive the collapse of its three major banks and after the unsuccessful bank nationalization it found itself incapable of facilitating its external debt and went bankrupt.

Banking sector was a source of troubles for numerous European economies. Many of them sustained extreme losses and some of them like Royal Bank of Scotland, Fortis bank, or Anglo Irish had to be nationalized or bailed-out. As a result of recession in Europe and costly state interventions, some EU countries are in despair and facing serious risk of bankruptcy. Those countries were nicknamed "PIIGS". The case of Ireland is probably the most sad one, because it was considered a Celtic tiger just a few years ago and nowadays they have to cope with an unemployment rate similar to Turkey.

In my work, I would like to propose some economic policies and institutional changes in order to stop the situation from repeating. Those theoretical findings will be backed by the case study of PIIGS countries and Hungary. I chose Hungary, because it is a non-Eurozone country, facing similar problems. The emphasis will be put on the role of Euro in those economies. The other important aspect of my study will be the role of budget deficits and relevance of Maastricht criteria in the framework of contemporary European Union. I would like to discuss the idea of revision of Maastricht criteria and the possibility of excluding problematic countries from the

Hypotheses:

2. **Financial crisis is the main cause of fiscal problems of sample countries:**
3. **Maastricht criteria and membership in Eurozone needs to be revised:**
4. **EU countries in Eurozone were better-off during the crisis than other EU members:**
5. **There is a need for an independent EU body, that would supervise fiscal policies of member**

Methodology:

For a purpose of my research I will use mainly a theoretical approach. My theories will be based in particular on the case study of six EU countries.

Outline:

- **Introduction**
- **Financial Crisis**

3. **Case study**

   3.1. Portugal
   - **Italy**
   - **Ireland**
   - **Greece**
   - **Spain**
   - **Hungary**

4. **Debt Crisis in Eurozone**

   4.1. Maastricht Criteria

   4.2. Budget Deficits

5. **Conclusion**
6. **Sources**

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Author **Supervisor**

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Acronyms

AIB	Allied Irish Banks
bn	billion
bp	basis point(s)
BoP	Balance of Payments
CAC	collective action clause
EBA	European Banking Association
EEC	European Economic Community
EFSF	European Financial Stability Facility
EFSM	European Financial Stability Mechanism
EMS	European Monetary System
ESM	European Stability Mechanism
EU	European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
MFA	Macro-Financial Assistance
OEEC	Organization for European Economic Co-operation
OECD	Organization for Economic Cooperation and Development
PIIGS	Portugal, Ireland, Italy, Greece, Spain

Introduction

Until the outburst of Sovereign debt crisis in Europe, sovereign defaults were typically associated with poor and developing countries. Rich and developed countries defaulted only during war periods and the Great Depression in 1930's.

At the beginning of the financial crisis no one imagined the recession being so hard. Financial crisis immediately spread worldwide. Europe suffers from a poor state of public finance, and thanks to the financial crisis this problem got even more exposed. Recession caused a high unemployment and the increasing unemployment rate created pressure on social security systems. Many European economies encountered high primary deficits and the sovereign debt started to rise sharply. It was the start of the European sovereign debt crisis.

The First European of financial crisis was Iceland, which had to default on part of its banking liabilities. Insufficient banking sector regulation combined with the high foreign exposition of banks lead to catastrophic results after the credit crunch in the United States. Icelandic banking sector was many times bigger than the economy of Iceland. The situation of Iceland repeated in Ireland, but with several differences. Ireland made an unfortunate guarantee for banking deposits after fall of Lehman Brothers, as nobody imagined the financial crisis being so serious. Moreover similarly to the United States there was a real estate bubble in Ireland. Thanks to bank guarantees Ireland ended up paying around 50% percent of GDP for a bank rescue and had to apply for emergency lending from the EU and IMF. In a short time Ireland turned from the economic miracle of Celtic Tiger to one of the biggest European debtors.

Investors soon started to doubt sustainability of public finances in several Eurozone economies and the market panic spread like a fire. Some countries experienced sharp increase in cost of lending and became unable to rollover the maturing debt, thus facing a risk of bankruptcy. Those countries were nicknamed "PIIGS" according to their names. Portugual, Italy, Ireland, Greece and Spain. As the market panis spread, soon economies of Italy and Spain became vulnerable. European Union together with the IMF decided to perform an unprecedented bailout in order to stop the sovereign debt crisis from further spreading, because economies of spain and Italy are too-big-to-fail, but at the same tim too-big-to-be-saved. Eurozone is both an economic and political project. It is na unprecedented project and important step in the process of European integration. Failure of Eurozone would have serious economic consequences and would set the integration many years back. EU officials are prepared to save the Eurozone virtually at all costs.

In my work, I would like to analyze by analyzing case studies why those Eurozone countries became so heavily indebted. There was a lot of pointing of fingers and accusing of different people and institutions, blaming them responsible for the ongoing crisis. Naturally as all of PIIGS countries are Eurozone Members the Euro is being blamed for the crisis. I would like to determine in my work if the Eurozone caused the ongoing European sovereign debt crisis, or it is just a coincidence. My findings will be backed by the case study of PIIGS. The emphasis will be put on the role of Euro in those economies and in two in-depth case studies of Ireland and Greece I will also analyze historical consequences. In the last part of my thesis I will analyze institutional improvements, which were implemented to protect the Eurozone and EU from repetition of the sovereign debt crisis.

1. European sovereign debt crisis

Credit crunch in the United States in 2007 triggered a financial crisis less than a year later. The financial crisis has risen to such extent that it in some aspects exceeded the Great Depression in the 30’s. Thanks to globalism of the world economy and interconnectedness of financial markets, crisis had a severe impact all over the world, including Europe. Crisis has reintroduced a phenomenon typical only for war periods - highly indebted rich countries. Weakened financial sector and unsustainable public finances in Europe worsened by recession gave birth to the European sovereign debt crisis.

Political heterogeneity of Europe has to step aside and the whole European Union needs to unite in order to stop the threat of contagion of the debt crisis and its further deterioration. Politicians can’t decide who should bear costs of the sovereign crisis – debtors, creditors, or wealthy Eurozone Members.

1.1 Why has Eurozone problems

How troubled economies became heavily indebted differs from country to country. In most cases the main reason was a bad state of public finance and/or irresponsible fiscal policies. There is nothing wrong about the sovereign debt itself, but he most important is whether those debts are sustainable. Financial crisis caused a market panic and the market panic made the previously sustainable debts unsustainable. Because single Eurozone countries can't undergo currency devaluation, they have to undergo the so-called “internal devaluation”. Unlike the external devaluation, which uses inflation to ease up the debt problem and to restore competitiveness, internal devaluation restore competitiveness by strict austerity measures. Deficits can be financed through higher GDP growth, but in the present situation of recession followed by stagnation, alternatives needs to be used. Government can cut spending through budget cuts and fiscal reforms, and/or increase taxes. This makes the European Sovereign Debt Crisis different from all previous sovereign debt crises. During the previous crises could be used combination of both the currency and internal devaluation.

Euro area is an unprecedented political project, which had some weakness, especially a lack of plan B. Stability and Growth Pact was supposed to deliver convergence and stability within the Eurozone. As a result, politicians had an impression that Eurozone is protected from severe problems and prepared no backdoor plan in case of systemic crisis. SGP pact failed to protect Eurozone from unsustainable fiscal policies. In the end the Maastricht criteria were only to be followed by prospective Members, not the current ones as can be seen in the table bellow.

Table 1: Deficits and debt

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Greece	**-3.4**	**-3.7**	**-4.5**	**-4.8**	**-5.6**	**-7.5**	**-5.2**	**-5.7**	**-6.4**
	102.5	**103.4**	**103.7**	**101.5**	**97.3**	**98.8**	**100.3**	**106.1**	**105.1**
Italy	-1.7	-0.8	**-3.1**	-2.9	**-3.5**	**-3.5**	**-4.3**	**-3.4**	-1.5
	113.7	**109.2**	**108.8**	**105.7**	**104.4**	**103.9**	**105.9**	**106.6**	**103.6**
Germany	-1.5	1.3	-2.8	**-3.7**	**-4**	**-3.8**	**-3.3**	-1.6	0.3
	60.9	59.7	58.8	**60.4**	**63.9**	**65.8**	**68**	**67.6**	**64.9**
France	-1.8	-1.5	-1.5	**-3.1**	**-4.1**	**-3.6**	-2.9	-2.3	-2.7
	58.9	57.3	56.9	58.8	**62.9**	**64.9**	**66.4**	**63.7**	**63.9**
Ireland	2.7	**4.7**	0.9	-0.4	0.4	1.4	1.6	2.9	0.1
	48.5	37.8	35.5	32.1	30.9	29.6	27.4	24.8	25.0
Spain	-1.4	-1.0	-0.6	-0.5	-0.2	-0.3	1.0	2.0	1.9
	62.3	59.3	55.5	52.5	48.7	46.2	43.0	39.6	36.1

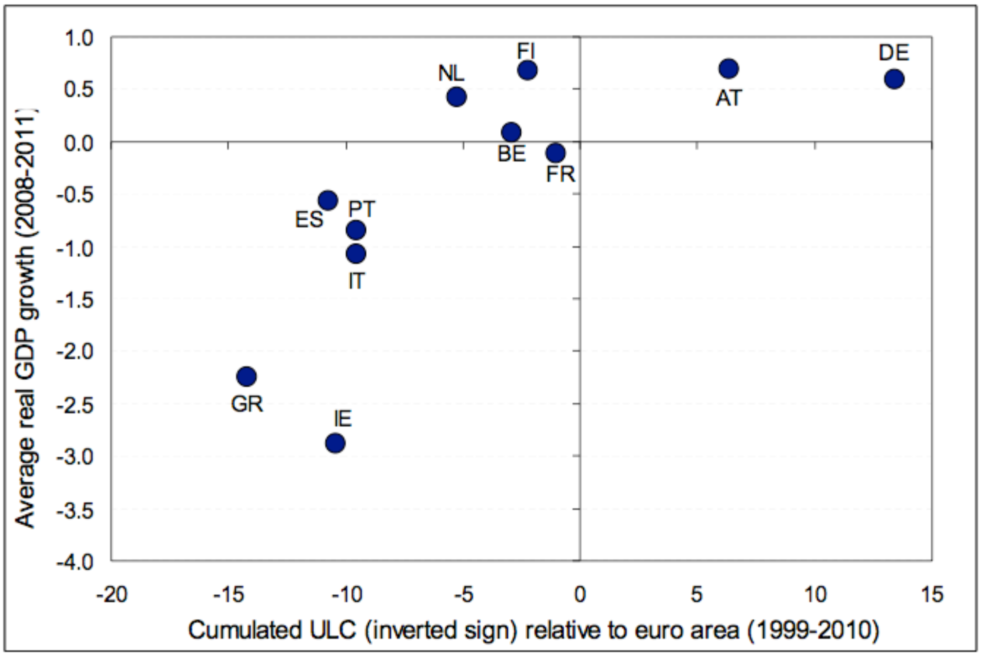
Source: Eurostat, IMF; (% of GDP)

As a benefit of Eurozone accession, countries like Greece, or Portugal gained access to much cheaper funding than they were used to. Low interest rate and poor fiscal moral was a dangerous combination. The perceived risk by investors for Eurozone countries was lower, because all countries were supposed to follow monetary and fiscal rules. Because there was never any actual punishment for violating Maastricht criteria, those countries borrowed willingly. In 2010 only 5 countries didn’t breach the Maastricht criteria.

Populism is one of the most typical features of European politics. The reasons are historical, as Europeans are used to big public sectors and extensive welfare state. In most European countries the term “budget surplus” was unheard of for decades. Buying of voters is a common feature across Europe and people got used to the fact that deficits are somehow natural and inevitable. It is hardly possible to liberate the fiscal policy from the political cycle. Debt ceilings are not an ideal solution as there is virtually no safe level of debt. Also sometimes the debt increase might be a result of some natural disaster for example. Any fiscal restriction would need to factor in reasons for debt growth.

Another European weakness is competitiveness. Many European economies suffer from high labor cost and low productivity. High labor costs are caused either by a high inflation, or a strong position of unions. Moreover in some countries wages are indexed, which further worsen the competitiveness and thus the economic growth. Another reason can be the inflation differential between the country and the Eurozone, because Euro area is not an optimal currency and some countries like Ireland or Spain were exposed to asymmetric positive shocks, as they rose faster than the rest of Eurozone. These positive asymmetric shocks can be evaded through restrictive fiscal policies.

Figure 1: Growth and competitiveness

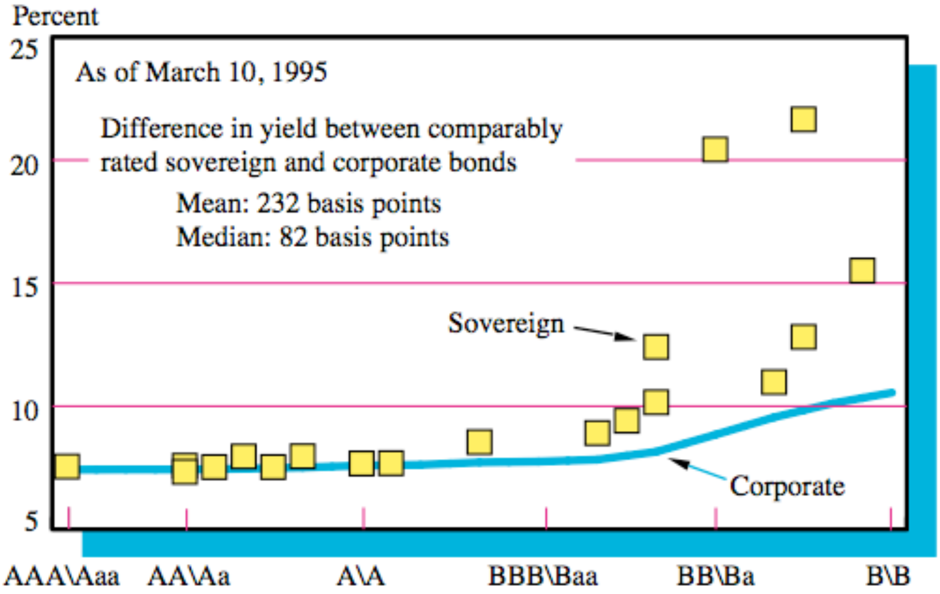


Sources: Eurostat and European Commission. For GR ULC growth starts in 2001
Note: Cumulated ULC growth relative to the euro area average (1999-2010) and average real GDP growth (2008-11) in %.

Source: Smaghi (2011), pp.5

Somehow controversial is the role of rating agencies in the crisis. The question is why they didn’t act sooner. Bad state of Greek public finance has been known at least since 2004, but nothing happened and it took five more years until it was recognized how serious are problems of Greek economy.

Figure 2: Sovereign ratings



Source: Cantor and Packer (1995), pp.2.

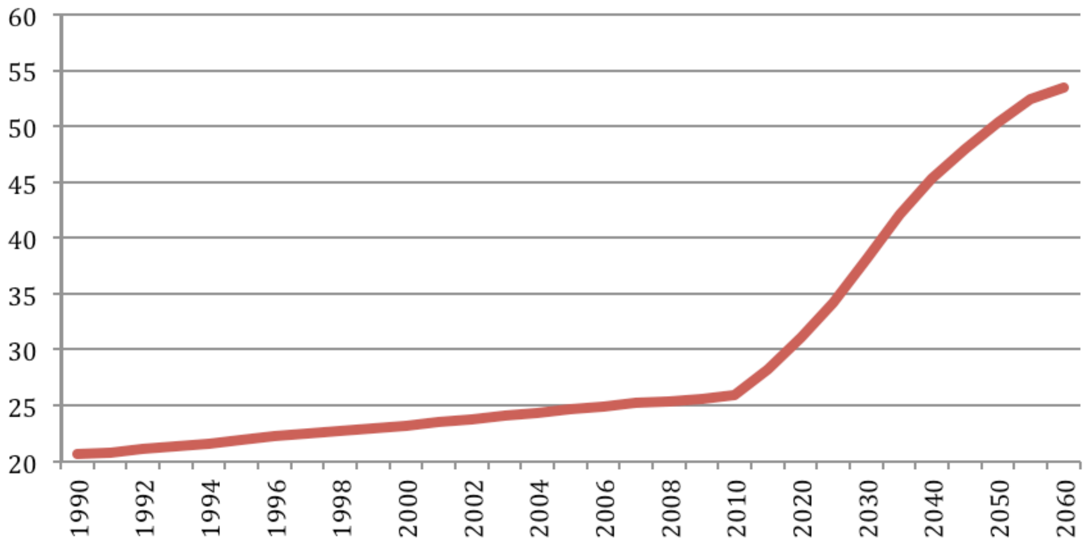
Sovereign ratings are by its nature much more complex than corporate ratings. Markets penalize equally rated bonds issued by sovereigns compared to corporate bonds. With the rating downgrade penalization rises sharply. (Cantor and Packer 1995)

Financial crises causes a destabilization of financial markets and caused a deep recession, which deteriorated sovereign debt

1.1.1 Ageing population

Ageing population became a common feature of the modern capitalist civilization. It seems like a rule of thumb that with increasing GDP natality decreases. Despite some exceptions like Nordic countries or religious Ireland, majority of Western cultures suffer from a demographic implosion. Such a phenomenon is probably a result of rising standard of living, which in most cases is only attainable if both partners focus on building careers rather then raising a child. In order to earn sufficient income to keep a high standard of living, women especially work longer and harder than ever before. Simply put, nowadays they have a much less of time to have a child. Countries now rely heavily on immigrants, who have usually enough offspring to compensate for a low natality of native population. Apart from the low natality the average life span is increasing. Those two factors combined create an immense pressure on pension and healthcare systems. Most of the European pension systems don't factor in the demographic development, which will result in further worsening of primary deficits across Europe.

Figure 3: Old age dependency ratio - projection



Source: Eurostat, (EU-27) [Accesed 27.6. 2011].

In the graph above, depicting old age dependency ratio in the European Union can be noticed severity of the European ageing. According to estimates of the Eurostat, dependency ratio is going to double over following 50 years. EU will need to introduce an intensive family support program, or increase immigration to compensate for demographic implosion.

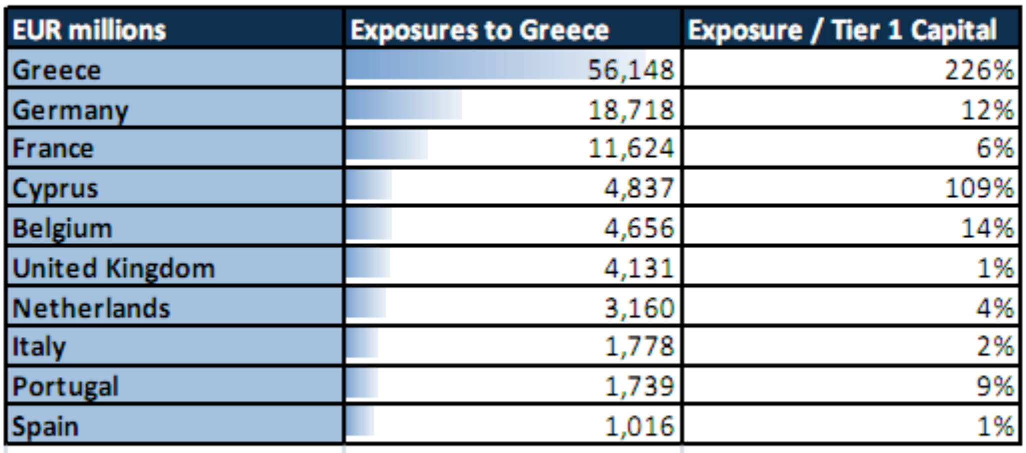
2. Saving the Eurozone

"*We have shown that where there is a will there is a way. And it is the European way. We have solved this in the European family, in the euro area.*"

(José Manuel Barroso, Brussels, March 23th 2010)

Financial crisis almost immediately spread from the United States and the world economy was hit by a deep recession. Soon after the burst of real-estate bubble in the US, the credit crunch repeated in Europe as several European economies also had an overheated property market. The most exposed economies to the property bubbles were Spain, Ireland, and the United Kingdom. European banks had expositions in subprime mortgages both in the US and Europe. Credit crunch combined with recession further affected the state of the European financial sector. Deep recession also caused deterioration of already weak European public finances. Investors started to doubt the sustainability of some of the Eurozone Members' economies. As the banking sector holds a large amount of the European sovereign debt, market panic started to spread and sovereign bond yields rapidly started to grow. Even though the ECB rate were set to a minimum value of 25 basis points. The recession was so deep that the monetary policy turned out to be ineffective. Economic recession caused an increase of unemployment and the increased unemployment further increased the pressure on public finances through social securities, which accounted for a large primary deficits. It was an outbreak of the sovereign debt crisis. The first victims were economies of Hungary, Latvia, and Romania, which applied for the Balance of Payments assistance. Financial problems of those countries were soon dwarfed by Greece. Once again Greece entered the history, but this time Greeks have nothing to be proud of. Greece was in a deep recession, facing high deficits and as the concerns about sustainability rose, it soon became unable to refinance the sovereign debt. Greece was facing a threat of sovereign default. Unlike other indebted countries, Greece couldn't undergo currency devaluation, as it was a Euro area Member. The Eurozone and EU decided they would provide a financial assistance to deter the risk of default. The main reason behind was the risk of contagion to other Members.

Table 2: Greek debt exposition



EUR millions	Exposures to Greece	Exposure / Tier 1 Capital
Greece	56,148	226%
Germany	18,718	12%
France	11,624	6%
Cyprus	4,837	109%
Belgium	4,656	14%
United Kingdom	4,131	1%
Netherlands	3,160	4%
Italy	1,778	2%
Portugal	1,739	9%
Spain	1,016	1%

Source: Blundell-Wignal and Slovik (2010), pp. 8

Apart form directly exposed France and Germany there was a high risk that the crisis might spread to Italy and Spain, which would mean an end of the Euro project. It is absolutely crucial to save Euro at all costs - both in political and financial sense, as it is symbol of the European integration and its end would set the integration many years back.

Because of the weak banking sector, there was a fear that the sovereign default coultd trigger a domino effect and a cascade of defaults as was seen in the United States after the credit crunch. European politicians decided to avoid even using of the word default. It became unspeakable and was replaced by restructuring, and reprofiling.

2.1. Bailing-out Europe

Bailout is the easiest way how to protect country from sovereign default. European Union decided to extinguish a fire, yet it didn't bother to handle the source of fire. European politicians chose to muddle through the crisis as it is more comfortable than negotiating and solving the problem. One way or another, bailouts will be always paid by taxpayers. The only thing to decide is witch taxpayers should pay.

European Union have several emergency financing mechanisms, but none of them was intended to be used by Eurozone Members and definitely not it the extent of hundreds of billions Euro as we see today. Politicians were so confident in success of the Eurozone project, that he European Union had no plan B. Financing needs of indebted economies were so high, that it was beyond capabilities of the IMF. Politicians had to react fast. For the simplicity reasons they chose to continue offering a financial assistance in order to protect Italy, Spain, and the whole banking sector.

2.2 Existing EU financial assistance instruments

In this section will be explained why the European Union couldn’t use any of the existing facilities to bailout troubled economies. Surprisingly, before the debt crisis, there was no financial program designed to help Eurozone Member states. Until the European Financial Stabilization Mechanism (EFSM) was created as a reaction to Greek crisis, all other programs were setup to help non-Eurozone, and non-EU countries. Nowadays, there are several different programs of financial assistances varying by its scope.

European Commission may provide loans or lines of credit as a financial assistance to troubled Member States and in some cases to third party countries. All loans provided by The Commission are made on behalf of the European Union. If the assistance is needed, European Commission rise funds by issuing debt instruments in the capital markets. The reason why it is financed through capital market and not the EU budget is because the EU is not allowed to run a budget deficit (i.e. take a loan to finance budget). European Union has the highest credit rating by all three major rating agencies and in case of default the repayment of loans issued is backed by the EU budget. Primarily all the loans issued through these facilities are designed as a medium-term aid. Maturity can differ from 3 years up to 15 years for the longest maturity. All the loan arrangements regarding maturity, interest and total amount are decided jointly by the Commission and the Council, and finally negotiated with the beneficiary country. Furthermore, all loans are denominated solely in euro currency. In the similar fashion like IMF, installments are conditioned by achievement of various conditions negotiated jointly with the loan. (European Commission 2011c)

2.2.1 Balance-of-Payments assistance

Balance-of-Payments assistance (BoP) is a program for non-Eurozone countries. Under the Article 143 of the Lisbon Treaty, EU can offer loan to a country suffering from severe problems related to its balance of payments. Even though EU can lend affected countries on its own, it often cooperates with other institutions, for example IMF. Prior to any negotiation of the loan, beneficiary state has to offer an adjustment plan. If the plan is found viable, Commission and other lenders will decide on financial conditions. Specific steps of the adjustment program are summarized in Memorandum of Understanding.

Following targets set in Memorandum is obligatory and a prerequisite to obtaining regular installments of the financial aid. If the economic situation changes significantly, those conditions can be renegotiated and readjusted in order to reflect a new situation.

In reaction to recent financial crisis, aggregated lending limits of this facility had to be increased from initial amount of EUR 12 billion, to 25 billion in December 2008 and, as it have proven to be insufficient, up to 50 billion in May 2009. Unlike IMF loans, under BoP assistance program EU doesn't charge any extra margin to troubled countries, so the same interest charged for a loan to EU is charged to the recipient.

In the following table is an overview of Member States drawing funds from Balance-of-Payments program. (European Commission 2011b)

Table 3: BoP Assistance

Country	**Total international financial assistance / of which EU**	**Period covered by EU assistance**	**Status of the programme** **(as of June 2010)**	**Main areas of policy conditionality**
Hungary	**€ 20.0 bn / € 6.5 bn**	Until November 2010	Quasi-precautionary (the authorities decide on a case by case basis whether to draw)	Fiscal consolidation Fiscal governance reform Financial sector regulation and supervision reform Other structural reforms (mainly related to transport sector)
Latvia	**€ 7.5 bn / € 3.1 bn**	Until January 2012	Active (disbursements continue), although part of bilateral funding will be treated as credit lines	Fiscal consolidation Fiscal governance reform Financial sector regulation and supervision reform Structural reforms, business environment Absorption of EU funds

Romania	**€ 20.0 bn / € 5.0 bn**	Until May 2012	Active (disbursements continue)	Fiscal consolidation Fiscal governance reform Reform of public wage system Pension reform Financial sector regulation and supervision reform Absorption of EU funds

Source: European Commision (2011b), [Accesed 3.6. 2011]

From the above table is apparent, that the policy conditionality is very similar to the ones included in Eurozone Members' bailouts, even though the amount of necessary funding is about four or five times lower. Crucial role plays fiscal consolidation, fiscal governance reform, and improvements in a financial sector regulation and supervision. Moreover as in many new Member States it is important to reform pension system and undergo structural reforms. It must be noted, that non-Eurozone countries asked for financial assistance much earlier, prior to the start of debt crisis.

Council agreed on balance of payments loan for Hungary in November 2008. Hungary received total amount of EUR 5,5 bn in three installments, so it didn't use the whole limit of EUR 6,5 bn. The rest of the 20bn aid Hungary received from IMF (12,5bn) and the World Bank (1bn). Nowadays Hungary undergoes post-program monitoring and surveillance by IMF and European Commission.

Balance-of-payments loan for Latvia was agreed in December 2008. Total amount of EUR 3,1 bn provided by EU was split in 6 tranches. So far, Latvia has received first four of them and remaining two should be paid out in 2011. The remaining amount of EUR 4,4 bn was provided by multiple countries and institutions, including IMF and World Bank. Latvia should start repaying the loan in 2014.

Financial assistance for Romania was agreed in May 2009. Out of 5 installments by EU, four have been paid out and the remaining one should be paid in 2011. The remaining amount was paid by multiple institutions. The largest part comes from IMF. Loan should start being paid back in 2015.

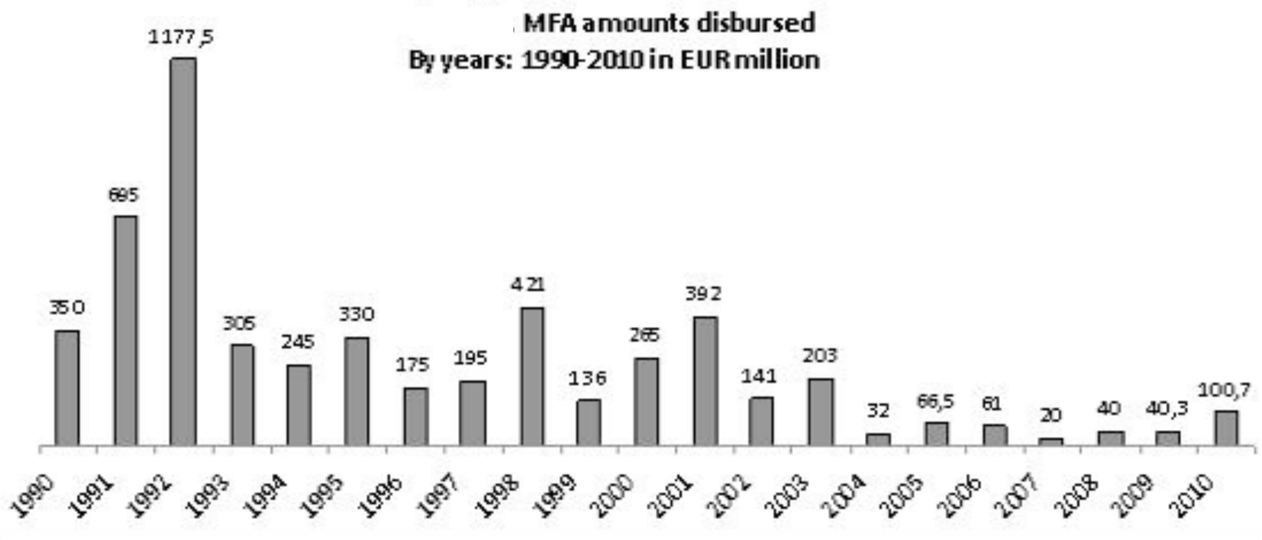
As of May 2011 the total outstanding amount of BoP fund was about € 12 bn. (European Commision 2011b)

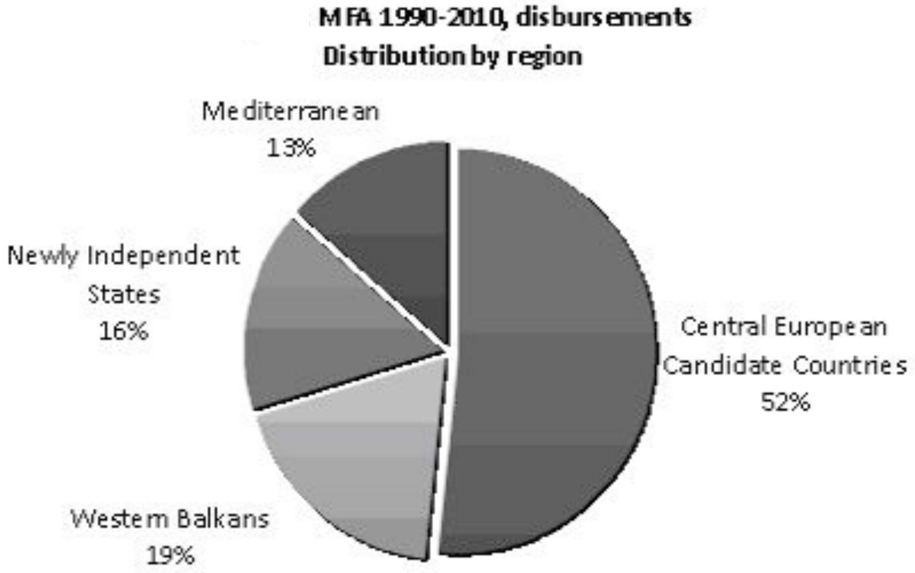
2.2.2 Macro-Financial Assistance

Macro-Financial Assistance (MFA) is an instrument designated only to non-Member countries. It operates with medium and long run scope. Macro-Financial Assistance is a complementary facility designed to help other EU or IMF programs. It can have a form of a loan or even of a contribution. Unlike most other financial aids, the whole amount of financial assistance is transferred to recipient's central bank. Also another feature, which makes it different, is the fact that it is mostly up to the recipient how it spends the money. MFA is primarily designed as a help with short term balance-of-payments deficits and/or to support structural reforms. It is based on ad-hoc nature decided case-by-case.

As in other cases, recipient country needs to agree on a set of conditions stated in Memorandum of Understanding. Nowadays (July 2011) the total financial exposition of MFA facility is approximately € 497 million. As can be noted in graphs bellow, MFA facility was most active in years following the breakup of the Soviet block. European Union was helping with the process of economic transformation and after about a decade the activity of MFA declined. In the second graph can be noted that over the years Central and Eastern European countries has received most (52%) of MFA funds. As the macroeconomic conditions in Central and Eastern European region improved, MFA shifted its support towards Mediterranean and Western Balkans countries. Since 2001, those regions has received about 66% of the whole MFA support. Most of the remaining part was received by new independent states, which have problems with funding. In future the ad-hoc nature of the program should be replaced by a formal framework. Regular support, especially for prospective EU members, is provided by another designated fund, for example the European Development Fund or the Pre-Accession Instrument. (European Commission 2011a)

Figure 4: MFA activity





Source: European Commission (2011a), [Accessed on 15.7.2011]

2.3. New EU Financial Instruments

After the occurrence of Greek crisis, it became clear that European Union has to step in and bailout all troubled Eurozone Members, in order to stop the contagion from spreading and protect the existence of the Eurozone itself. Neither the Eurozone, nor the European Union were prepared for such situation, because they felt protected by the Stability and Growth Pact. There were no institutions or facilities capable of provision of financial assistance in such extent, so they had to be immediately created.

Certainly there is always the IMF designed for such occasions, so naturally there were many question asking why is the EU creating new institutions if it can use services of IMF. Financing requirements of the Eurozone exceeded the capacity of the Fund. Moreover the profit of IMF is dispersed all over the world, whereas a profit of the similar European fund would stay in the EU.

European Union is willing to protect its Single market and the Eurozone project virtually at all costs. European integration has a rich history and the possible failure of Eurozone would rapidly slow down the integration and set it many years back.

2.3.1 EFSM

European Financial Stability Mechanism (EFSM) is a brand new institution providing financial assistance by EU in position of a borrower. It was established in May 2010 as a reaction on Greek crisis and deteriorating state of banking sector and sustainability of public finances across Europe. Quite surprisingly, before the outbreak of the European Debt crisis there was no institution designed for a financial help to Euro Area Member States. Even though it is primarily a substitute for the Balance-of-Payments Assistance program, which is designated to non-Eurozone Members only, EFSM is open for all EU Member States in distress. Similarly to BoP assistance, European Commission borrow money through a bond issue in the capital market or take a loan from a financial institution. Financial assistance can also take a form of a credit line, but it has not been used so far. The loan is then transferred to the recipient Member state. Even though the whole loan is passed down, the default risk is borne by European Union, as the loan is backed by EU budget, despite it has no collateral. The existence of EFSM is based on and justified by the Article 125(2) of Treaty of Lisbon. That is rather controversial as the Article 125 was intended as a “no-bailout clause”.

Member state applying for funding from EFSM has to provide an assessment of its financial needs and a macroeconomic and adjustment program. European Commission together with ECB decides on set of conditions and terms of financial assistance including the target amount, interest, number and frequency of installments. As with other EU loans, those conditions are summarized in Memorandum of Understanding and its fulfillment is reviewed on a regular basis (at least semi-annually) by an EC and ECB committee. Release of every installment depends on findings of the committee.

As the existence of EFSM is based on presence of serious threats or financial disturbances beyond control of Member States, the Commission has to decide every six month if those conditions for existence of EFSM program are still viable. Last review was made in November 2010 and it was concluded, that EFSM program should continue, because there are still present severe threats beyond control of Member States. Sovereign debt crisis in Europe continues and it is still many years from being tamed and solved.

So far the program has been activated for Ireland and Portugal. The reason why Greece is not using this facility is quite simply because EFSM didn't exist by the time a rescue plan for Greece was negotiated. In fact Greek Crisis was a trigger event for creation of safety net to bailout troubled EU countries. Until then there was a negligible political will to solve the problem of a long-term sustainability of public finances in Europe.

Table 4: EFSM activity

Date	Beneficiary country	Amount	Amount disbursed	Coupon rate	Maturity	Amortization
2/1/2011	Ireland	€5 bn	€5 bn	2,5%	12/4/2015	Annual
3/17/2011	Ireland & Romania	€4,6 bn	€3,4 bn €1,2 bn	3,25%	4/4/2018	Annual
3/24/2011	Ireland & Portugal	€4,75 bn	€3 bn €1,75 bn	3,5%	6/4/2021	Annual
6/1/2011	Portugal	€4,75 bn	€4,75 bn	2,75%	6/3/2016	Annual

Source: European Commission (2011f)

Until May 2011, four bonds were issued to finance EFSM program and EFSM gained total of €17,9 bn for Ireland and Portugal. There was a high demand for all issues and books were oversubscribed. The highest demand came from investors in Germany, France, UK, and Asia, whilst biggest investors were a banking sector and central banks. (European Commission 2011f)

2.3.2 EFSF

Face to face with the sovereign debt crisis in European Union, it became apparent that some of Eurozone members will need to use emergency lending facility to stop the imminent threat of bankruptcy. There were many political disputes whether EU needs its own body that would just double one of the core functions of International Monetary Fund (IMF). Unfortunately, amount of funding required by affected Eurozone countries greatly exceeded capacities of the IMF. On May 9th 2010, it was decided by EU's Economic and Financial Affairs Council (Ecofin) that will be created Economic and Financial Stability Facility (EFSF). This facility is meant to be solely a transitional body. It was founded in June 7th 2010 and should cease to exist in June 2013. In case there will any unpaid loan provided by EFSF by June 2013, the tenure will be prolonged until the maturity of the debt instrument or its full repayment. The structure of EFSF is a joint-stock company based in Luxemburg. All Eurozone members are equal stock holders. Due to the shared nature of risk, EFSF fund was given the highest possible rating (AAA / Aaa) by all major rating companies – Moody's, Fitch Ratings, and Standard & Poors. In order to maintain AAA rating, guarantees will be 120% of total value of loans, because only 6 Eurozone Members have the highest rating (Fitch). Repayment of any bond issued by EFSF is granted by all member states. EFSF doesn't have any collateral, but as collateral are used Member States’ shares in the capital of ECB. The very first issue was a major success. The amount of € 5 billion in 5 years bonds was sold just in 17 minutes and the demand from investors was almost nine fold higher than then the book value of the first issue. The main reason for such demand is the prime rating of those bonds issued by EFSF. Moreover, they had about 40bp risk premium compared to benchmark Bundesbonds with the same rating. EFSF targets the amount of €16,5 billions of funds to raise this year (2011) and another €10 billion in 2012. (EFSF 2010) Despite the emission being a great success, it raises concerns about future demand of investors for sovereign bonds, because Eurobonds issued by EFSF have a good premium whilst bearing a negligible risk and prime rating. In theory the fund in cooperation with IMF and EU (European Commission) could provide loans in total value of up to € 750 billion.

Table 5: Capacity of the safety net

€ 750 bn Total amount	€ 60 bn	**EU (EFSM)**	**€ 560 bn** Loanable
	€ 250 bn	**IMF**	
	€ 440 bn	**EFSF**	

Source: Author

The problem was that in order to keep the highest rating, EFSF has to keep large reserves, so the total amount € 750 billions of loanable funds was significantly reduced. EFSF had only about €250 bn of effective capacity. Because of that, there were pressures to increase the capital ceiling of the fund and in June 2011 the capital of EFSF has been increased to make the effective lending capacity € 440 bn instead of € 250 bn. In near future the fund will have to provide a further emergency funding to highly indebted Greece, which is nowadays financed through other means. It seems that the worst case scenario is going to happen and Italy or Spain will have to seek a bailout. ECB nowadays persuades EU politicians to increase capacity of the safety net up to € 1,5 trillion to make the bailout of Italy or Spain possible. Also there is a possibility that EFSF might start buying Greek sovereign bonds to help Greece rollover its huge debt. (EFSF 2001)

The very first and certainly not the last country, which used the emergency funding from EFSF was Ireland. Without EFSF, Ireland would have to borrow money to facilitate debts at a staggering rate of more than 9% p.a. for 10-year bonds. Investors were afraid of the state of Irish banking sector and economy, so that the risk premium rose to unsustainable levels. Without the help from EFSF during several months, Ireland would have been forced to declare a bankruptcy. Ireland was given a loan of € 85 billion. From this amount EFSF share is only € 17,7 billions. The rest composes of € 22,5 billion from IMF, the same amount from EU reserve fund, € 4,8 billion from United Kingdom, Sweden and Denmark. Remaining € 17,5 billions is covered by Irish pension fund and Treasury reserves. There is major disapproval in Ireland regarding the height of interest it has to pay for the loan (5,83%), which is much higher than 2,75% EFSF pays for the loan. Apart from the risk premium, the purpose of such a high interest is also motivational. In case the cost of borrowing for EFSF remains lower than the cost of lending, the profit will be equally distributed among all Eurozone members. In 2011 the second country using EFSF emergency funding became Portugal. Total value of Portuguese bail-out package is € 78 bn distributed evenly between EFSF, EFSM and IMF.

Table 6: Activity of EFSF

Date	Beneficiary country	Amount	Amount disbursed	Effective lending cost	Maturity	Amortization
6/29/2011	Portugal	€3 bn	€2.2 bn	5.32%	12/5/2016	bullet
6/22/2011	Portugal	€5 bn	€3.7 bn	6.08%	7/5/2021	bullet
1/2/2011	Ireland	€5 bn	€3.6 bn	5.90%	7/18/2016	bullet

Source: EFSF (2011)

The reason why the disbursed amount is lower than the total value of issue is because EFSF needs to keep certain cash reserves to maintain the highest rating of the fund and consequently all bond issues.

In 2013 EFSF should be superseded by the European Stability Mechanism. Opposed to EFSF’s ad hoc nature, the superseding body is meant to be a proper institution to cope with excessive government debts and other financial problems that might occur in the Eurozone.

2.3.3 ESM

Both EFSF and EFSM facilities are just of a temporary nature and will be replaced with a proper institution. They were created only as special-purpose-vehicles to cover the period until European politicians negotiate all particular details and a functioning of a successor institution. After June 2013, both EFSF and EFSM will be merged under the European Stability Mechanism (ESM). EFSF will continue to exist even after June 2013 until all outstanding debt is repaid. Combined lending capacity of EFSF and ESM shouldn't exceed €500B. After June 2013, all proceedings from debt issued by EFSM will be transferred to ESM.

ESM will be located in Luxemburg and its financial assistance will be available only to Eurozone members. Functioning of ESM will be based mainly on EFSF facility, but it will have several unique features compared to EFSF. Member States can apply for emergency funding if they are facing severe financing problems and stability of the whole Eurozone is threatened. Similarly to EFSF, any funding provided by ESM will be subject to strict conditionality. Decision on providing financial assistance will be subject to unanimity of Eurogroup Ministers and it will be based on an assessment of Member's debt sustainability by the Commission, IMF, and ECB. Assistance will be always followed and conditioned by stringent austerity measures and the fiscal sustainability will be monitored. If the country is deemed insolvent it should attempt to negotiate debt restructuring with private creditors according to IMF standards. If it succeeds and the country is found solvent again, it would be eligible for liquidity assistance from ESM. (Siert 2010)

Eurozone's Ministers of Finance creates a Board of Governors. President of the ECB and European Commisioner for Economic and Monetary Affairs will participate in meetings as observers. Part of all decisions will be made by a qualified majority, the rest will be decided by a mutual consent. Unanimous decision will be needed for an agreement on financial assistance including its terms and conditions, changes on total landing capacity, and use of financial instruments. Qualified majority voting will be used for less important decisions. By qualified majority is meant at least 80% of all votes. To respect different capital subscriptions to ESM, each voting member will be assigned proportionate voting right. Next to Board of Governors, ESM will have also a Board of Directors, one for each member state. Decisions made by Board of Directors will be made according to qualified majority voting. Board of Governors will appoint several Managing Directors that will be operating under Board of Directors.

On March 24th 2011 it was decided that the European Stability Mechanism will have a total capital of € 700bn. In order to maintain the highest rating, only € 500bn will be effectively loanable. Effective capital will be a mix of paid-in capital, callable capital and guarantees. Paid-in capital will consist of € 80bn paid in 5 annual installments starting on June 2013. Those installments might be accelerated if it would be necessary to keep 15% ratio of loans to paid-in capital. Prior to activation of ESM, profit from investment of a paid-in capital will be distributed among Members after all operating costs are paid. After the activation of ESM, proceedings from investments will be kept in ESM. Board of Directors can decide on paying of dividend. After June 2013, all proceedings from sanctions given by violating Stability and Growth Pact or Macroeconomic Imbalance procedures will be paid to ESM and increase the paid-in capital. Member States will pay a proportional share of capital according to a modified ECB key shown in Appendix 5.

ESM will be closely cooperating with IMF in offering the assistance. IMF will be necessary to assist with its expertise and financial resources. Compliance with conditions of macroeconomic adjustment program will be monitored by the Commission, ECB and IMF on regular basis it will be reported to the Council and Board of Directors. Board of Directors will decide by mutual agreement if it releases another part of the loan. The Council might decide after a discussion with Board of Directors, that it will monitor the member state until the loan is fully repaid.

ESM offers the stability support, which is either a short-term or medium term support to renew macroeconomic stability of euro-area member state experiencing severe financial difficulties. Length of the help and other conditions are subject to the state of problems the country is experiencing. It is designed to help countries until they regain access to financial markets.

ESM can also provide primary market support facility as a part of financial assistance. Under certain conditions given by terms of financial assistance, ESM might intervene on the primary sovereign bond market to support further effects of the loan. It is subject of mutual agreement in the Board of Governors.

Pricing will be decided by Board of Governors, but the interest should be lower than the current interest required for EFSF loans. ESM can lend both on fixed or variable interest rate. Pricing should follow IMF guidelines and while being above funding costs of ESM and bearing an adequate risk premium. Pricing should be calculated as follows: ESM operating costs + 200 basis points. If the maturity exceeds 3 years the pricing will be increased by another 100 basis points p.a. And the final interest rate will be calculated as a weighted average.

After the assessment of debt sustainability and possibility of threatening Eurozone's stability, involvement of private investors in the bailout will considered. If the country is considered solvent after it undergoes the macroeconomic stabilization program, private investors will be advised to hold their position. If the country determined is no longer solvent, government will have to negotiate adequate commitment and cooperation from private investors. This agreement with investors will have to precede obtaining of the financial assistance. Negotiation with creditors should bear IMF principles. The involvement of private investors should be proportional to the extent of country's insolvency. Government should keep investors informed and negotiations should be open. On the other hand, under fairness an option to decrease the net present value of the debt should be kept as last resort. Because of the potential spillover effect and a risk of contagion, effects on other countries will be considered during the negotiations with private sector.

After July 2013, all euro bonds with maturity over 1 year will have an identical standardized collective action clause (CAC), aggregation, and disenfranchisement clauses. CACs should be consistent with US and UK law. These clauses are designed to help in the process of negotiation between creditors and debtors in case of a default. Such clause allows bondholders to negotiate debt restructuring under qualified majority voting and thanks to aggregation clause, all debt securities will be negotiated together. All decisions made under qualified majority are binding for all bondholders under CAC. Disenfranchisement clause is there to protect voting rights of bondholders.

Compared to EFSF, ESM has another feature, which started a heated discussion over its justification. Similarly to IMF, debt issued by ESM will have a preferred creditor status over all other loans, except for loans provided by the IMF. Claims of private investors will be subordinated under the European Stability Mechanism, even those bearing a senior status. This feature of ESM might backfire quite badly, because investors in the senior bonds will require a higher risk premium, to compensate for subordination. Also during a future sovereign debt crisis, investors will preface investing in ESM eurobonds, because they have a decent premium and a pooled risk. In the future, the yield differential on sovereign bonds of a troubled Member State might rise at a much higher rate, when investors start to anticipate activation of ESM support.

Another discussed problem is a clause, which allows Board of Directors to automatically increase capital of the fund, which was strongly opposed by Germany, which will be the main contributor to the fund.

The European Commission and ECB will evaluate functioning of the ESM in 2016.

2.4 Controversy

As was mentioned earlier the whole process of the Eurozone bailout is a to some extent distorted by the political bias. Even though IMF only contributes to the bailout, during the sovereign debt crisis it became overly exposed to the European Union. For example exposition of the IMF to Greece exceeds 1234% of Greek quota. (IMF, 2011) Possible explanation might be Strauss-Kahn's candidacy for a French president as he might to be tempted to protect French investments in Greece.

Bailout itself is a rather controversial as it is not in accordance with Treaty, which specifically contains a "no-bailout clause" – Article 125.1.

"The Union shall not be liable for or assume the commitments of central governments,

regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project."
(Treaty)

The bailout is being justified by the Article 122.2, which allows a financial assistance under certain extreme conditions.

"Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control, the Council, on a proposal from the Commission, may grant, under certain conditions, Union financial assistance to the Member State concerned. The President of the Council shall inform the European Parliament of the decision taken." (Treaty 2010)

Existence of the permanent bailout fund should be properly justified by a proposed amendment to the Article 136 of the Treaty.

"The Member States whose currency is the euro may establish a stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole. The granting of any required financial assistance under the mechanism will be made subject to strict conditionality". (Euro Parliament 7.3.2011)

Even though the legal grounds behind creation of the financial fund or the bailout itself are at least questionable, it was absolutely essential that the fund was created, because offering a financial assistance through multiple bilateral loans is rather cumbersome and choices of financing would be quite limited. Thanks to the extraordinary high risk of contagion, default was not an option in the beginning of the sovereign debt crisis.

2.4.1 Political bias

Development of the European sovereign debt crisis indicates that bailouts are to some extent politically biased. President of each of the European institutions involved in bailouts is subject to a conflict of interests. Arising principal-agent problem is more than obvious and it might influence finding of a permanent solution protecting the Eurozone in the future.

Table 7: Conflict of interests

Institution	President	Nationality
IMF	Dominique Strauss-Kahn Christine Lagarde	French
European Parliament	José Manuel Barroso	Portuguese
European Commission	Herman Von Rompuy	Belgian
ECB	Jean-Claude Trichet Mario Draghi	French Italian

There is also a controversy of the role of German Chancellor Angela Merkel, and the French President Nicholas Sarcozy during the EU negotiations. There is no doubt that the biggest creditors of sovereign bailouts should have a superior authority over the rest of Eurozone Members. On the other hand, the power of the French-German coalition is a little extreme and unfair to the rest of Members. They even had the impertinence to pre-negotiate some acts and present them to others like a closed case. For example this way they prepared the Pact for Competitiveness and argued to pass the tax harmonization clause as mandatory, even though it was primarily targeted against Ireland. Irish Prime Minister refused to sign the tax clause deeming it is non-negotiable, and in return France and Germany blocked the possibility of interest rate cut on the bailout loan.

European Union and the whole integration is a political project, but it can’t work if everything would be decided by two biggest nations and the rest of Members will be on the meetings just to fill empty seats.

Also it might be a little hard to understand a devotion of the IMF to European bailouts, because all of recipient countries have exceeded their quota in the fund and the exposition of IMF towards Europe reached over 50%, which raises concerns about its bias. It all fits in the frame of principal-agent problem as we realize that the former President of IMF, Dominique Strauss-Kahn was a French presidential candidate in the upcoming elections. He wouldn't hesitate for even a minute to do something, which pleases his potential voters. Decisions of a former Portuguese Prime Minister about the bailout of Portugal are highly questionable. Quite ironical sounds the speech of José Manuel Barroso, who got angry over the recent downgrade of Portugal by Moody's rating agency:

"The commission is looking into the regulation of rating agencies to determine whether there are some measures that need to be taken with regard to the prevention of possible conflicts of interest and other matters." (Stearns 2011)

If the handling of the sovereign debt crisis is biased, it can be expected that the final outcome will be just a product of political lobby and thus not optimal.

3. Ireland

Ireland managed to develop from seriously a under performing economy to a growth miracle in the 90’s. Until the end of 1980’s, Irish per capita GDP was the second lowest in non-communistic Europe. Yet since the start of 90’s Ireland managed to perform a sustainable growth over 7% comparable to Asian Tigers and soon became one of the top European economies. Ireland had for the last decade extraordinary public finances and one of the lowest debts in Europe. Unfortunately none of this managed to protect Ireland from impacts of its banking crisis and in just two years time the economic miracle was ruined and Ireland faced a serious threat of sovereign default.

3.1 History of Ireland

The history of the Republic of Ireland is quite remarkable. Before the creation of republic, Ireland was a part of United Kingdom of Great Britain and Ireland. Unlike Britain, the position of Ireland within the Kingdom was rather inferior. Even though the Great Britain thrived during the Industrial Revolution and Victorian era, by that time in Ireland was struggling with poverty related to major underdevelopment. In the period of 1840's, there was a major outbreak of famine caused by the unprecedented spread of potato blight, which decimated Irish crops. Potatoes were the main component of a diet for almost one third of population and United Kingdom decided not to help them as a punishment for separatist tendencies. Ironically, during the famine, Irish farmers had a lot of sheep, cattle and crops, but they had to all give it to British landlords as a payment for land. As a result, almost one fourth of population died or emigrated, mostly to the United States and the United Kingdom. In total between 1845 and 1925 population in Ireland decreased by 65% - from 8,5 million to only 3 million. (Historical Statistics) Nowadays, despite the highest natality rate in Europe, population of Ireland has reached only 4,5 million.

After famines Ireland got better quite soon and the output per capita was just slightly below the European average. During the First World War Ireland economy got better as a result of growing food price in Great Britain, since high percentage (most) of the Irish export production was agricultural. Declaration of the independence and creation of Free Irish State in 1922 was preceded by two consequent wars – Anglo-Irish War and the Civil War. Unlike other European countries, by the time of declaration most farmers were already landowners and the republic inherited good banking and educational systems and decent infrastructure (Sweeney 1999). Majority of Irish exports was dependent on British demand. In order to help domestic economy, Ireland attempted to take advantage of Britain. Since 1932, under de Valera administration, previous laissez-faire policy was abandoned and there was imposed a high level of protectionism, which lasted until the end of 1950's. British retaliation was imminent and after several years the tariff war ended by a settlement "coal for beef" and Britain returned to Ireland three "Treaty ports". During the Second World War Ireland decided to remain neutral. The main rationale behind it was a public opinion after two Irish wars and simply a lack of resources to enter the war. After the war, Ireland was one the founders of OEEC (OECD) and also participated in the Marshall Plan. Mainly the long-term protectionism accounted for Ireland missing the post-war economic boom in Europe. Both OEEC and United States exerted pressure upon Ireland to make it retire the protectionism and comply with the post-war free trade development in Europe.

In 1948 the Republic of Ireland was enacted by the Republic of Ireland Act, so Ireland was no longer a British dominion. As a result, Ireland formally left Commonwealth and never rejoined. Because of the aforementioned protectionism, the post war economic growth was sluggish. Main problems were ineffective agriculture and continuing sky-high emigration.

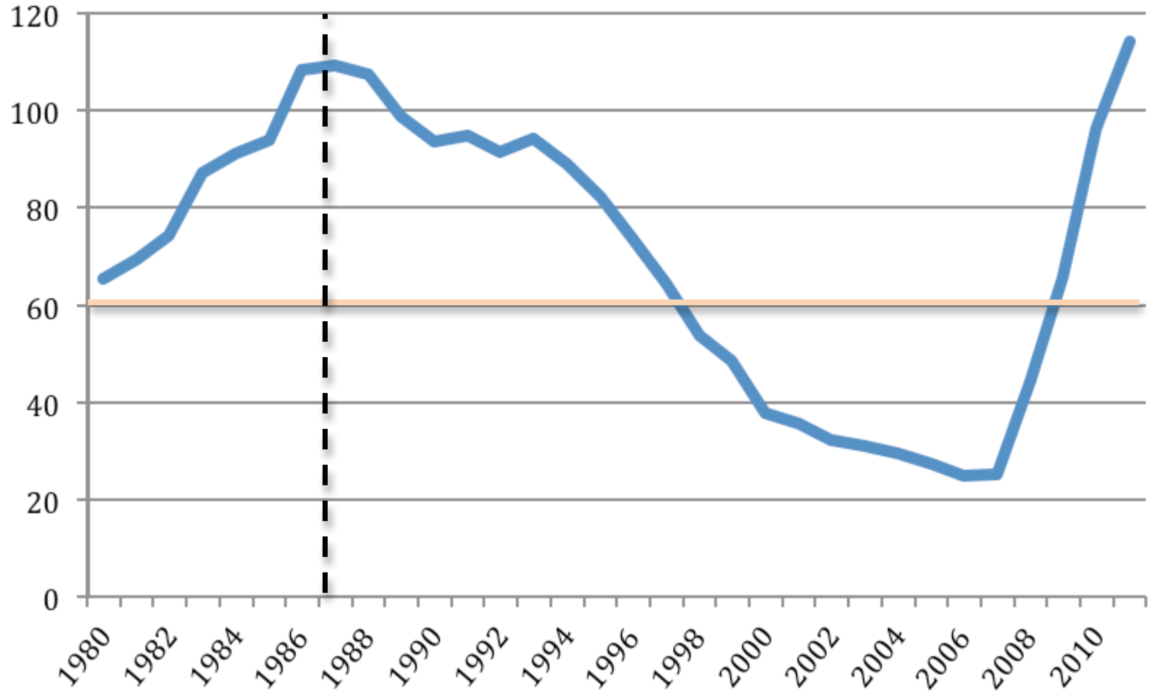
More than 400 thousand people emigrated from Ireland during the decade of 1950's. If we consider that the total size of population of Ireland was merely 3 million people, the ratio of emigrants is shocking for a modern-day European country. (Sweeney 1999)

In order to give boost to the weak economy and stop the emigration, government decided to carry out an indicative four-year plan for economic expansion by the end of 1950's. Mainly it composed of tax incentives for foreign investors and gradual decrease in tariffs and quotas. Industrial Development Agency (IDA), founded by Irish government in 1949, played an important role in attracting foreign investors. In the year 1957 Ireland joined IMF and World Bank. The most notable step in the process of opening economy was the Anglo-Irish Free Trade Agreement signed in 1965. After more than twenty years of fierce protectionism, Irish industry was lacking behind the world in terms of quality of products and productivity. (O'Hearn 1998) As a result of introduction of free trade, Irish entrepreneurs were hit quite hard in following years. On the one hand, consumers benefited from cheaper goods, but on the other hand unemployment rose sharply in the meantime. Along with the free trade, there were large subsidies for farmers and in following decade exports rose rapidly.

In the year 1961 Ireland, Britain, Norway and Denmark applied for a membership in European Economic Community (EEC), but the accession was vetoed by French president

Charles de Gaulle, who perceived Britain as a potential threat. All member candidates had to wait for almost twelve years until the next EEC enlargement took place. De Gaulle's successor, president Charles Pompidou lifted the veto, and in 1973 Ireland finally became an EEC member. The decade of 1960's was the heyday of Irish economy surpassed only in the era of Celtic tiger. Ireland was successful in attracting foreign investors by tax incentives and opening the economy. On the whole, the growth of Irish GDP per capita until mid 70's was slightly below European average. But then the growth in 70's was above the average in the rest of Europe, because the first oil shock did not affect Ireland as much as other countries. Ireland was hit hard by the second oil shock and was badly affected in terms of high inflation and unemployment. Unlike most countries, Irish economy kept on growing. However, this was solely a result of massive public spending initiated by Fianna Fáil, which came to power in 1977. In Ireland was Keynesian approach rather successful and thus popular, but it wasn't recognized by the government, that it is not an universal solution. As it was financed mostly through debt, Ireland became rapidly heavily indebted and it took a long time to reinstate Irish public finance.

Figure 5: Irish debt



Source: IMF annual data, (% of GDP).

The Keynesian expansion worked quite well and helped the Irish economy to get over the crisis. Unfortunately, following governments were not willing to make unpopular budget cuts and the debt burden rose to unprecedented levels. Before the massive spending, public finance of Ireland could be presented as exemplar among European countries. They had a low foreign debt combined with negligible budget deficits. After the untamed fiscal expansion Ireland rapidly became the most indebted European country. In 1987 the debt-to-GDP ratio reached shocking 109% compared to just 53% in 1973. Debt service in 1986 was almost 95% of all indirect tax revenues. (O'Hearn 1998) It called for an imminent action and fortunately the deficit of following year's budget was cut below 2%. Luckily for Ireland, from 1987 on, all budgets had a low deficit and also the central bank managed to keep the inflation low.

Until 1979 Irish pound was pegged to sterling. After the turbulent 70's, which caused high inflation in the United Kingdom, Ireland decided to leave the peg and entered the supposedly safer European Monetary System (EMS). Despite the later crises of EMS, Ireland remained in the system and consequently became the Eurozone member. Thanks to tight budgets Ireland manage to sanitize its public finance and had no problems with passing Maastricht criteria.

3.2 Celtic Tiger

In response to a staggering emigration and relatively poor performance of Irish economy, politicians started to call for major changes of the economic model in order to stabilize and improve the current state of public finance and the whole economy. Ireland suffered from low productivity both in agriculture and industry, which was mostly accounted to underdevelopment. High level of tariff barriers protected Ireland from foreign competition and thus helped domestic producers, but it also repelled foreign investors and worsened market competition and product quality.

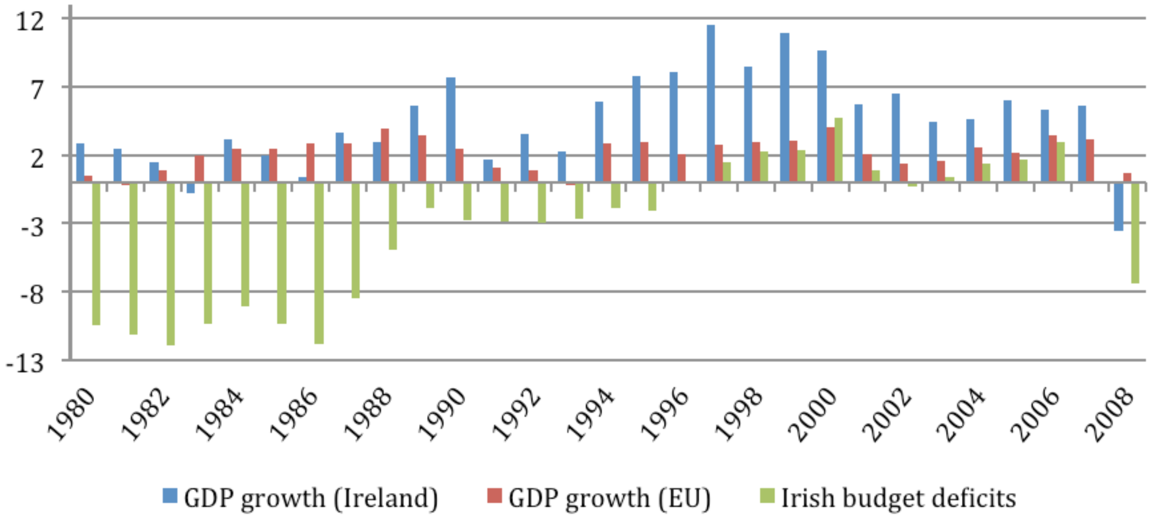
The most important period of the transformation of Irish economy started in late 1950's. During decades, Ireland gradually changed from predominantly agricultural producer to an industrialized country. Until 1972, agricultural products namely beef, wool and cotton created the majority of Irish exports. At that time, agriculture was dwarfed by industry in most of developed European countries. Opening of the economy combined with various incentives lured many foreign investors and the number of transnational companies was quickly growing. The most important wave of transnational companies were American investors, which came to Ireland after 1973, when Ireland became a member of the European Economic Community. Due to various tax incentives and especially tax breaks and low 12,5% corporate tax, Ireland became a tax heaven for foreign investors. There were other powerful benefits of setting up Irish subsidiary. The most significant were free imports of intermediate goods under the incentives program and re-export of their final products into the European Single Market. Moreover, the extent of governmental regulation was very low in Ireland.

Ireland was lucky, that it managed to attract a number of American computer and pharmaceutical companies, which belongs to the most profitable and leading industrial sectors nowadays. Irish government invested heavily in order to attract foreign investors. It was hoped that transnational companies would develop a supply chains for intermediaries among domestic companies in Ireland. On the other hand, transnational companies crowded out majority of domestic producers. According to estimates, about 44% of Irish companies bankrupted as a result of opening economy. (O'Hearn 1998) Transnational companies didn't use as much labor intensive processes as domestic firms, they have replaced, which resulted in one of the highest unemployment in Europe at that time reaching 17,3% in 1985. Government supported emigration, which served as a tool to solve the unemployment problem. Almost half million people emigrated in the decade of mid-80's to mid 90's.

Unfortunately, as those foreign investors could freely import all the intermediaries, buying of Irish goods appeared to be less profitable for them. The rate of reinvestment was very low and if those transnational companies spent some money in Ireland, it was mainly for basic services and goods. Minimum percentage of their profits were used for capital investment. The capital investment appeared only with the initial investment, when those companies came to Ireland. Most of their profits were repatriated and, as a result, the effect of foreign investors on domestic economy, notably domestic industry, was smaller than expected. Government invested a lot of money to attract investors, but the multiplication effect of foreign investment on domestic economy was far lower than was hoped for. More than half of profits of transnational companies was repatriated between 1980's and mid-1990's, in terms of GDP it was as much as 12%. (Sweeney 1999)

The problem with repatriation of profits started to be actively solved in 1985, when Irisih Development Agency employed “National Linkages Programme”. It was targeted mainly on American subsidiaries and the main aim was to “link” those subsidiaries with domestic suppliers during following 5 years. Despite the low percentage of Irish materials bought by TNC's they used local services almost as much as domestic firms, which led to the growth of services sector in 80's and 90's.

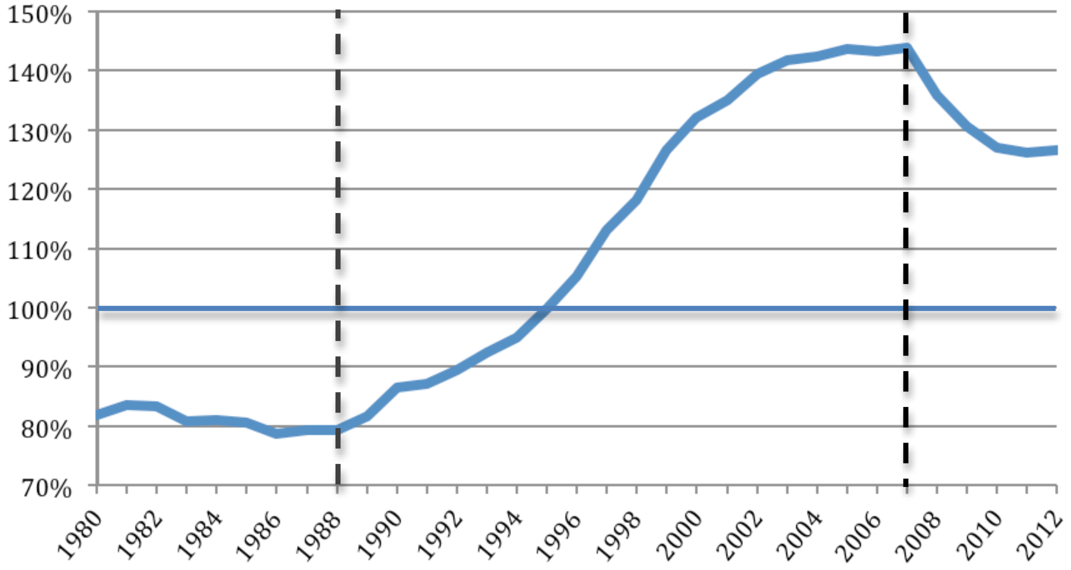
Figure 6: Irish economic growth



Source: IMF, (%, constant prices).

Since the beginning of 1990's, Ireland witnessed an era of spurred economic growth. This was a true miracle, if we take into account problems of Ireland with an immense external debt and not so convincing performance of the economy in 70's and 80's. Until then was such a growth observed only in several Asian emerging economies – Asian tigers. Yet Ireland manages to attain annual real GDP growth of more than 8% for almost a decade. For the rapid economic growth was Ireland nicknamed the Celtic Tiger. It was first used in a report by American investment bank Morgan Stanley, but it fast became popular and it was a pregnant description of the Irish economy. The high tempo of GDP growth surpassed the EU average as early as in 1980's. Whereas the economic growth in 80's was caused to large extent by fiscal expansion (see the figure above), the growth since the late 80's was rather different. The nature of the economic boom and rise of the new Tiger could be described in one word – America. United States was the source of almost 80% of all foreign direct investments in Ireland. There are many reasons why United States invested so intensively in Ireland. Ireland is closer to America than other European countries. As it is a EU Member, there are another benefits in form of access to single European market and Ireland is a good entry point for further expansion into Europe. Other reasons were skilled and well educated labor force and relatively low wages by that time. The other important factors were common language, low governmental regulation and significant tax incentives. For all those aforementioned reasons, the boom in United States was a major pull factor and cause for Irish economic miracle in 90's. For the first time in decades, there was a net immigration to Ireland, compared to over 200 thousand Irish citizens emigrating in 80's. Long-term high unemployment reaching 17% percent in 1986 plummeted way below the EU average. Before the boom, Ireland was lacking behind the rest of Europe both in GDP per capita and standards of living.

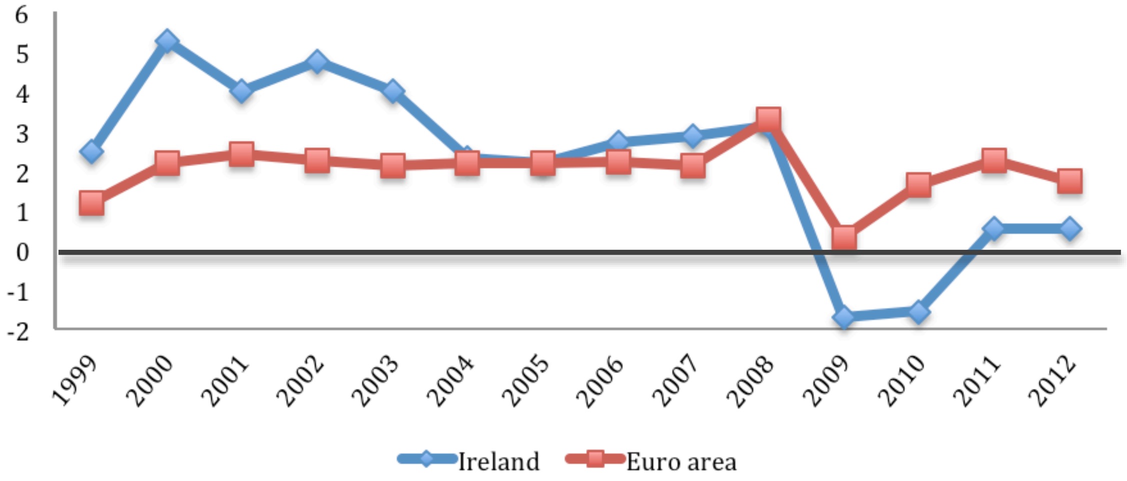
Figure 7: Irish GDP per capita as a percent of EU average



Source: IMF, (PPP adjusted; 2011 and 2012 figures are IMF estimates).

As there are many positive social and economic effects of unprecedented economic growth it brought about also some problems. Because the growth brought about the demand for labor, wages rocketed up nationwide. As common people got wealthier, obviously also the consumption rose rapidly, inflation increased and there was an increased demand on the real-estate market. The economic growth of several leading industries spilled over to housing market and there was a massive increase in construction industry. Excessive demand was responsible for creating a housing bubble. It had several positive impacts too. Increase in housing demand caused higher construction, which further decreased unemployment and fostered the growth of GDP. As the economic growth was so spurred it necessarily resulted in high inflation pushed mainly by real estate and rapidly increasing costs of services. Economy was clearly overheated and would have been good to slow down the economy a little. Because Ireland is a Eurozone member, it has to follow common monetary policy.

Figure 8: Irish Inflation



Source: IMF, (Average consumer prices; 2011 & 2012 figures are IMF estimates).

The era of Tiger was a good example of a positive asymmetric shock. The business cycle of Ireland is much more correlated with the American one, rather than European. Irish government had tied hands and wasn't able to decrease inflation by means of monetary policy. Era of Celtic Tiger lasted only until 2001. United States was hit by recession. The slow down started after a burst of the Dotcom bubble and the ill-famous terrorist attacks in September 2001. After 2001, Irish economy was growing mainly due to the momentum gained in 90's, but the growth was much smaller than it used to be. Growth increased again during the economic boom period between 2004-2006.

3.3 Credit Crunch

When the financial crisis came to Europe, Irish banking sector was hit really hard. The reason for problems of banks was more or less the same as in the United States – credit crunch after a burst of the real-estate bubble. After fall of Lehman Brothers, there was a fear of possible bank run and Irish government decided to guarantee for €400 bn of obligations in 6 “backbone” banks as a precautionary measure. Guarantees were extended in September 2008. The reason for this unfortunate decision was the fact that no one by that time imagined the crisis being so deep and losses so high. Recapitalization was expected to be only €4bn. Despite some protest, Allied Irish Banks (AIB) was included in guarantees, even though it wasn’t perceived as a backbone bank. It was the AIB, who had the highest exposition to construction and real estate sectors and couple month it became a huge money pit.

Before the crisis, Ireland used to have debt-to-GDP lower than Germany and budgetary surpluses. Irish public finance was much healthier than in most of the European countries. During the crisis, all major Irish banks sustained huge losses and Irish government became quickly heavily indebted. (Figure 20) Once a country of the Celtic Tiger soon became troubled economy like Greece. Despite the burst of property bubble, Irish banks suffered from other problems, especially granting of subprime mortgages like in the US and in case of the Anglo Irish even frauds. The most iconic is a hidden loan of € 87 million by its chairman Sean FitzPatrick, who managed by accounting tricks to hide the loan from shareholders and spend all the money. He managed to transfer all the money on his wife and declare personal bankruptcy himself. This is just a tip of the iceberg and vivid illustration how Anglo Irish became one of the worst bank in modern history with negative 20% return on equity in 2010 and € 24 billion net loss. (Barr 2011)

Benevolent mortgage policy was based on the assumption that Irish economy would continue to grow in the similar pace as it did before. Unfortunately granting of subprime under-collateralized mortgages was a general lending practice in the whole Irish banking sector.

When the recession hit United States, Irish economy slowed down almost immediately, because most of the key companies in Ireland are American owned. Another reason was a sudden drop of demand in Europe, because about 80% percent of Irish GDP depends on exports and the recession expanded also to Europe. Economic slowdown led to sharp increase of unemployment and a lot of people became unable to repay their mortgages.

Table 8: Irish unemployment

	2007	*2008*	*2009*	*2010*	*2011*
Unemployment	4.6	6.3	11.8	13.6	14.5

Source: IMF, (% of total workforce).

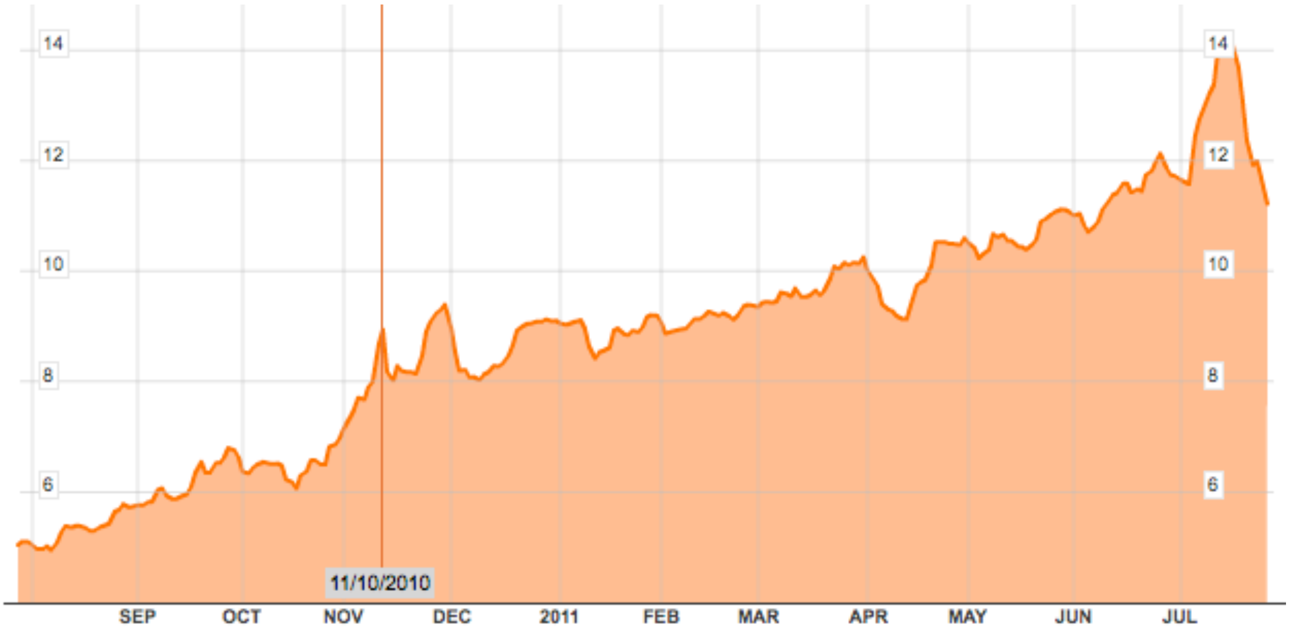
After the bubble burst, the most troubled banks were the Anglo Irish bank and Allied Irish Banks. Both of them were over-exposed to developers and housing mortgages. In 2008 the banking sector looked safe as the overall solvency ratio was 11,98% and the Tier 1 capital 9,81%. The biggest issues of Irish banking system were the exposition to real-estate sector and similarly to Iceland size of the banking sector. According to ECB, in 2008 were total assets of Irish banking sector reaching €1579 bn, which was almost nine times the size of Irish economy by that time. Ireland had over €900 bn in loans and receivables. When the Irish credit crunch broke out, Anglo Irish bank had to be nationalized and government hoped that capital injection would help the rest of troubled banks. As of March 2011, the bill for bank rescue program exceeded €46,4 bn and it is still not the final figure. In March 2011 it was decided that the banking sector would need to be reduced in size and restructured. Anglo Irish bank was merged with Irish Nationwide Building Society. AIB was merged with EBS Building Society and recapitalized by €1,5 bn, but it has to deleverage by €23 bn until 2013. Bank of Ireland will be recapitalized by €5,2 bn and until 2013 it will reduce its assets by €30 bn. Irish Life and Permanent was nationalized and its insurance division will be sold. Furthermore it will sell €10bn of its non-core assets and will be recapitalized by €4 bn. According to Michael Noolan, Irish Minister of Finance, total cost of bailout will exceeded €83 bn, which is about half of Irish GDP. (Irish Times 31.3.2011)

3.4 Financial Assistance

Because of generous government guarantees Irish banking crisis turned into the Irish sovereign debt crisis and put Ireland into the similar position like other PIIGS countries. Banking crisis in Iceland was almost identical, as the size of banking sector was not in scale with the economy. The main difference is that the government of Iceland didn't guarantee for bank obligations. Unlike Ireland, Iceland could hope for extensive international financial support. Icelandic government tried to save banking sector by nationalization, but as the financing requirements sharply rose, it had to default on part of banking obligations.

Thanks to the Irish bank rescue program, and negative outlook of the economy, investors were losing confidence and rating agencies cut Irish AAA rating. Risk premium on government bonds was increasing fast.

Figure 9: Irish 10-year bond yield



Source: Bloomberg [Accessed 27.7. 2011].

It was a vicious circle. Every rating downgrade caused yield increase on capital markets, and every yield increase pushed Irish government closer to the risk of default, which resulted in further downgrades. Banking sector rescue combined with high unemployment rate, which makes a huge pressure on social security system, increased budget deficit to a record level. By the end of 2010 budget deficit reached 32% and yield on Irish 10 year bonds flew over 9%. During the November 2010 Ireland lost access to capital market and was forced to ask for a financial assistance by EU and IMF.

Ireland was given emergency 3-year funding in total amount of €85 bn, with a maximum maturity of 7,5 years and average 5,83% interest. Of this amount €67,5 bn was provided by EU and IMF, the rest was covered through Irish pension fund reserves. EFSF, EFSM, and IMF have equal €22,5 bn share in the bailout package, but the part of EFSF will be lessened by bilateral loans of UK, Sweden, and Denmark. (ECOFIN 7.12. 2010) Similarly to Greek bailout, Irish loan was conditioned by strict austerity. Firstly Ireland was required to nationalize troubled banks. There was also a pressure on Ireland to increase its 12,5 % corporate tax, but Ireland strictly refused to change it, because it is one of the foundation stones for Irish economic model. Out of the €85 bn bailout package €35 bn was set for bank recapitalization. The remaining part serves to facilitate sovereign debt.

Austerity measures were included in Irish four-year National Development Plan covering period of 2011–2014. Apart from austerity measures it also includes exit strategy to support economic growth in following years. Following the bailout Irish Prime Minister

Brian Cowen resigned and dismissed the parliament. Opposition criticized bailout package for being to strict and the next Prime Minister Enda Kenny promised to negotiate decrease of the interest, which was on average 5,83% p.a.. Kenny's attempts were blocked by France and Germany, because Kenny refused to support a tax clause in the Euro Plus Pact. (Irish Times 20.4. 2011)

National Development Plan is designed to save up to € 15 billion over four year period, of which 40% should be raised in 2011. Most of the amount (10 billion) should be saved by fiscal expenditure cuts. Cuts will be achieved by reduction of employment in public sector and limiting social security benefits. Remaining 5 billion should be gained by increased taxes and other means. Increased taxes will influence multiple areas except for corporate tax, which is sacred for Irish economy and will remain on the same 12,5% level. In 2013 value added tax (VAT) should increase from 21% to 22% and from 2014 even to 23%. Moreover, Ireland will introduce property and water tax. Until now, water in Ireland was for free, except for large factories. Furthermore, college tuitions should almost double and retirement age should increase from 66 years to 67. Strict austerity measures led to a series of massive protests countrywide.

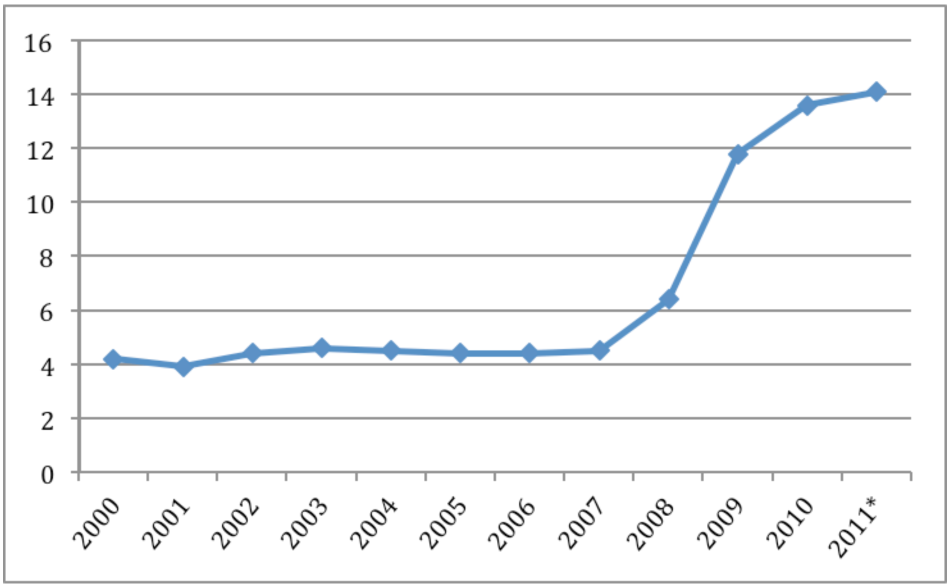
National Development Plan is meant to stabilize Irish public finance, but there is also criticism that it is too strict and might threaten economic recovery. Last, but not least it is build around the assumption of 2,75% annual growth till 2014 and decrease of employment from current almost 14% below 10%, which turns out to be overly optimistic as the real economy contracted by 1% in 2010 and the IMF estimate for this year is 0,5% real GDP growth.

3.5 Outlook of Ireland

Even though the banking and debt crises in Ireland are far from being over, the economic outlook looks optimistic. If the United States won't enter a double dip recession and European economic recovery continues, it will improve Irish export economy. Secondly, about 20% of GDP is created by three technological giants - Microsoft, Intel and Google, and if the corporate tax stay low, there no reason why to move their subsidiaries. (O'Hearn 1998) Also large share on Irish GDP have pharmaceutical companies like Pfizer, which have more stable demand for its products.

Ireland has one of the highest productivity per worker in Europe, and according to Eurostat Ireland managed to decrease ULC by approximately 20% compared since 2008, which will further improve Irish competitiveness. According to Eurostat, in 2008 Ireland had the second highest per capita GDP from the whole Eurozone, In 2011 Irish GDP is the third highest and exceeds even the GDP of Germany. Irish economy seems to be working well as in the 2011 Q1 its external balance of goods was the third highest in the Eurozone.

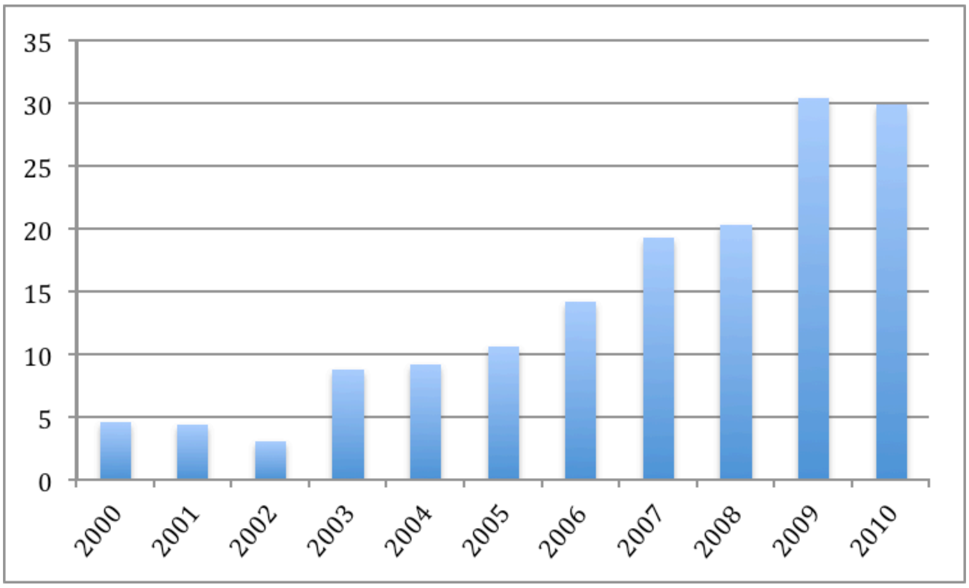
Figure 10: Unemployment in Ireland



Source: CSO Ireland, (2011 – CSO estimate).

The biggest threat of the Irish long-term recovery is the unemployment rate. Emmigration is growing fast. It seems like another Irish as was witnessed many times in the past. There is threat that the emigration wave will wash out the most perspective generation of young Irishmen with a university degree as they have serious problems finding a job in Ireland.

Figure 11: Emmigration age 25-44



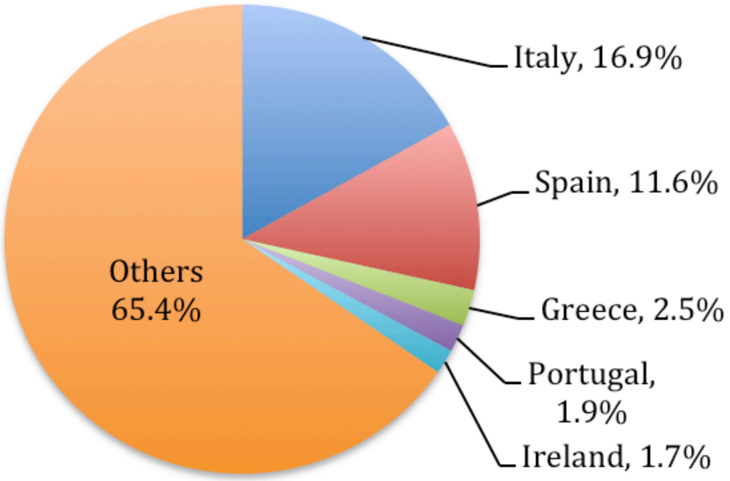
Source: CSO Ireland, (thousands).

The problem of Ireland is rather different than the problems of other PIIGS countries. Irish economy was performing extraordinary well, public finances were healthy and unemployment low. All of todays Irish troubles stems from the Irish banking crisis. Irish banking sector was overgrown as was the Icelandic. Irish Prime Minister Brian Cowen made the unfortunate decision in 2008 and guaranteed for banking obligations. Iceland was lucky not to make any similar promise. Sovereign debt of Iceland also increased during the Icelandic banking crisis, but the increase was much smaller than the one of Ireland, because Iceland could default on part of banking obligations. Also unlike Ireland, Iceland could devaluate its currency, which helped to increase competitiveness and to decrease the debt burden. There is no reason to blame Eurozone for any of the contemporary problems of Ireland. Even though the interest rate differential between Ireland and the rest of the Eurozone might have helped to blow the property bubble, there were many other real-estate bubbles all around the world. In July 2011, the maturity of Irish financial assistance was extended and interest decreased to 3,5%.

4. Greece

Greece, officially called the Hellenic Republic, used to be a cradle of modern civilization, which inspired the rest of Europe and basically the whole world. Nowadays the old glory is long gone and the whole world wishes Greeks would accept some wisdom from them. Greece became a symbol of European sovereign debt crisis and from now on it will forever be a textbook example of how public sector should not have been governed. Contemporary situation in Greece is a riddle causing to many political leaders and investors countless sleepless nights. Only one thing is clear – there are none but painful solutions to this problem. The only question is who and how much should suffer and pay. Quite ironically, Greece is one of the smallest European economies, yet it has managed to jeopardize further European integration and the existence of the Eurozone itself.

Figure 12: Share of Greek economy on the Eurozone



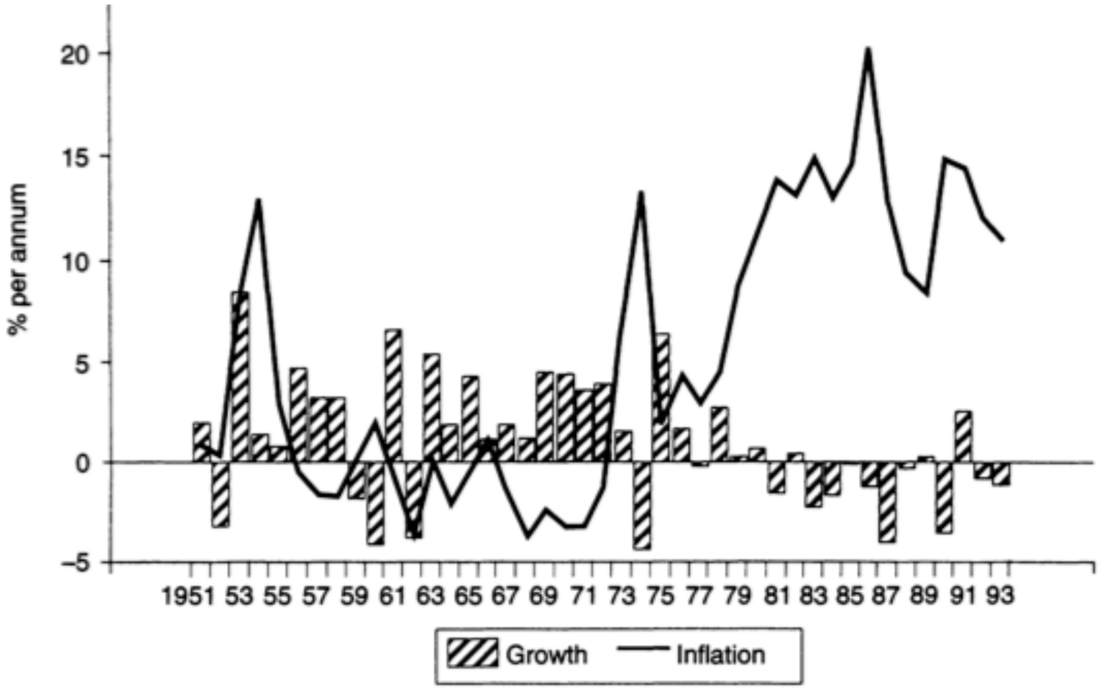
Source: Eurostat, (2010 data).

4.1 History of Greece

Despite a rich history of the Ancient Greece, the modern history of Greece is much less glorious. After the World War I, fought agianst the Ottoman empire, Greece led another war with Turkey. After the World War II, Greece suffered again, because of the Civil War between left-wing and right-wing supporters between years 1944-1949. After the 35 years period of wars, Greek economy was weak. Despite the war, Greece was a founding member of OEEC and participated in the Marshall Plan, which speeded up the post war recovery. Moreover, in 1952 Greece joined NATO. After the elections in 1952, new Greek government helped to reinstate economic growth, by reduction of trade barriers and significant devaluation of drachma in 1953. After the devaluation, the currency was pegged to the American dollar in Bretton Wood system.

Until the 1963, greek governments had conservative fiscal and monetary policies and managed to atract foreign capital and industrialize the country. (Alogoskoufis 1995) In 1967 came a military cupe and followed over 6 years of government of military junta. Junta kept a tight control of economy and especialy unions, but also supported Greek companies, by some tarrifs and cheap bank loans. Despite some government protectionism, Greece joined the General Agreement on Tarifs and Trades.

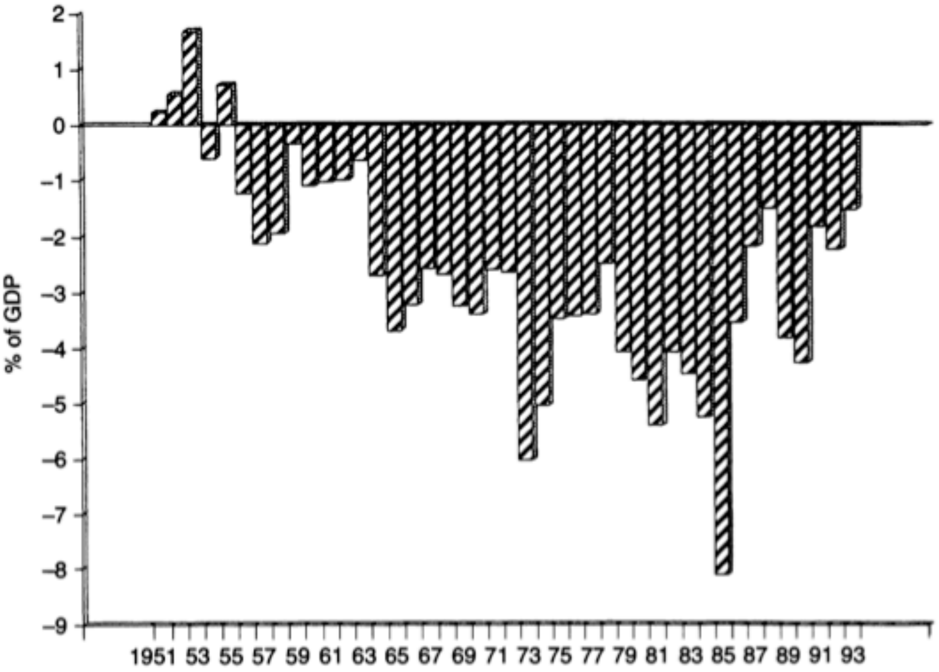
Figure 13: Greek growth and inflation



Source: Alogoskoufis (1995), pp.150.

During the period between 1954 - 1973, Greece had a stable annual growth of average 7,1% followed by a low inflation reaching only 3,8%. (Alogoskoufis 1995) Greek military After the breakup of the Bretton Wood system followed a high inflation and the economy of Greece was hit especialy hard. Government controled both wages and prices, but wasnt able to adjust to such external shock. Junta was tolerated only because if decent economic growth, but as Greece entered a deep recession combined with a high inflation, people didn't tolerate the loss of standard of living and the dictatorship fell in 1974 and once again the democratic regime was reinstated. New government increased rapidly military expenditures, wages, and the overall size of public sector in an act of populism. Role of state was further increased by a controversial nationalization, which caused a decrease in foreign investment. Unsustainable fiscal policies led to high deficits and problem of primary deficit was compensated by a decrease of infrastructure investments. Wages were indexed and the economic suicide continued even though Greece joined the EU in 1981. Greece allways suffered from current account deficits, but during the pre-1974 era it was compensated by a decent economic growth.

Figure 14: Greek curent account deficits



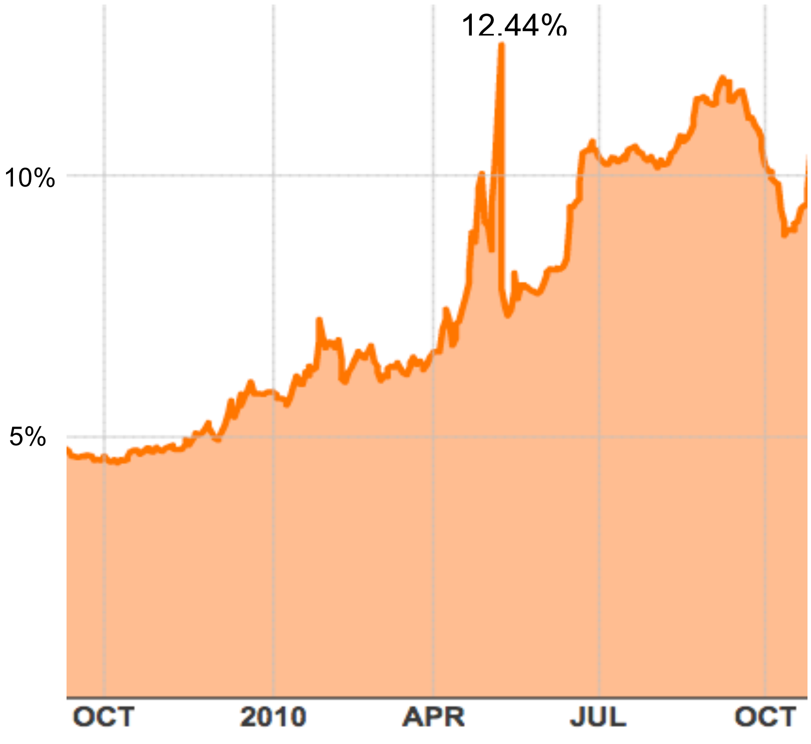
Source: Alogoskoufis (1995), pp.151.

After 1974 Greece entered a long perod of stagflation – negligible growth and 18%. Nationalized companies suffered from poor corporat governance and had a low profit. As the public finance were getting out of control, in 1985 was drachma devaluated and governmen froze wages for two years. After 1989, process of privatization and economic liberation was started, but it was slowly implemented. Until today, Greece failed to achieve a fiscal consolidation and improve competitiveness.

4.2 Greek debt crisis

Greek sovereign debt problem was a trigger event for the European sovereign debt crisis. There were several factors why the Greek debt crisis became so grave. The most crucial reason was a market panic following uncertainty caused by the Financial Crisis and bad state of public finances in Europe. Markets were gravely affected by severe impacts of the credit crunch on financial sector and by following economic recession. Panic on markets got even worse when it got revealed that Greece has much higher debt than was officially stated. After Greek elections in 2009 Greek Prime Minister, George Papandreou, found out that Greece has far higher debts than was declared in official statistics and the budget deficit for 2009 will be at least 12,7%. (Baldwin 2010) Previous government hired experts from the Goldman Sachs, who advised them how to manipulate debt statistics using creative accounting. According to IMF between 1997 and 2007 Greece had an average real GDP growth over 4%, but it was mostly driven by budget deficits and fiscal expansion, as the biggest growth was related to the Olympic games in Athens in 2004.

Figure 15: Greek 10-year bond yield



Source: Bloomberg.

Greece had to refinance €54 bn of its sovereign debt in 2010, of which €20 bn was maturing by the end of May 2010, but the market panic following questionable Greek solvency further increased lending costs well above the sustainable 7% level. Because of the market panic there was an extreme risk of contagion to other underperforming and heavily indebted Eurozone Members including Spain and Italy. European Commission and IMF had to develop an immediate rescue plan in order to buy some time and calm down private investors.

4.3 Problems of Greece

There are multiple reasons leading to the current desperate situation of Greece. The first and most obvious are problems related to the financial crisis – recession, and market panic, but Greece suffer from many longterm economic problems, whose origins dates many years back. Greek economy always had serious problems and it was just a matter of time till they show up. Financial crisis just speeded up the process.

It can be argued that benefits of Greek membership in the Eurozone are questionable. Unlike the rest of the Eurozone, Greece has just a negligible share of both exports and imports on GDP. As a result it is loosing one of the key benefits of membership in the common currency area.

Table 9: Comparison of Greek exports and imports to Euro area average

	Imports	Exports
Greece	29.4	21
Eurozone	39.4	40.7

Source: Eurostat; (Goods and services as a % of GDP in 2010).

Apart from questionable benefits of Greek Membership in the Eurozone, There is no doubt, that Greece should have never been accepted in the first place. Greek had an excessive budget deficit prior to its accession in the Eurozone thus violating Maastricht criteria. For violation of convergence criteria Greece wasn't allowed to join the newly created Eurozone in 1999. Greece finally joined the Eurozone in 2001, but only thanks to cheating of statistics. Greece managed to manipulate statistics to artificially decrease budget deficit below the 3% limit.

Table 10: Revision of Greek budget deficits and debt

	1997	1998	1999	2000	2001	2002	2003
Unrevised	4	2.5	1.8	2	1.4	1.4	1.7
Revised	6.6	4.3	3.4	4.1	3.7	3.7	4.6
Difference	2.6	1.8	1.6	2.1	2.3	2.3	2.9

	1997	1998	1999	2000	2001	2002	2003
Unrevised	108	106	105	106	107	105	103
Revised	114	112	112	114	115	113	110
Difference	6	6	7	8	8	8	7

Source: IMF (2005), pp.6.

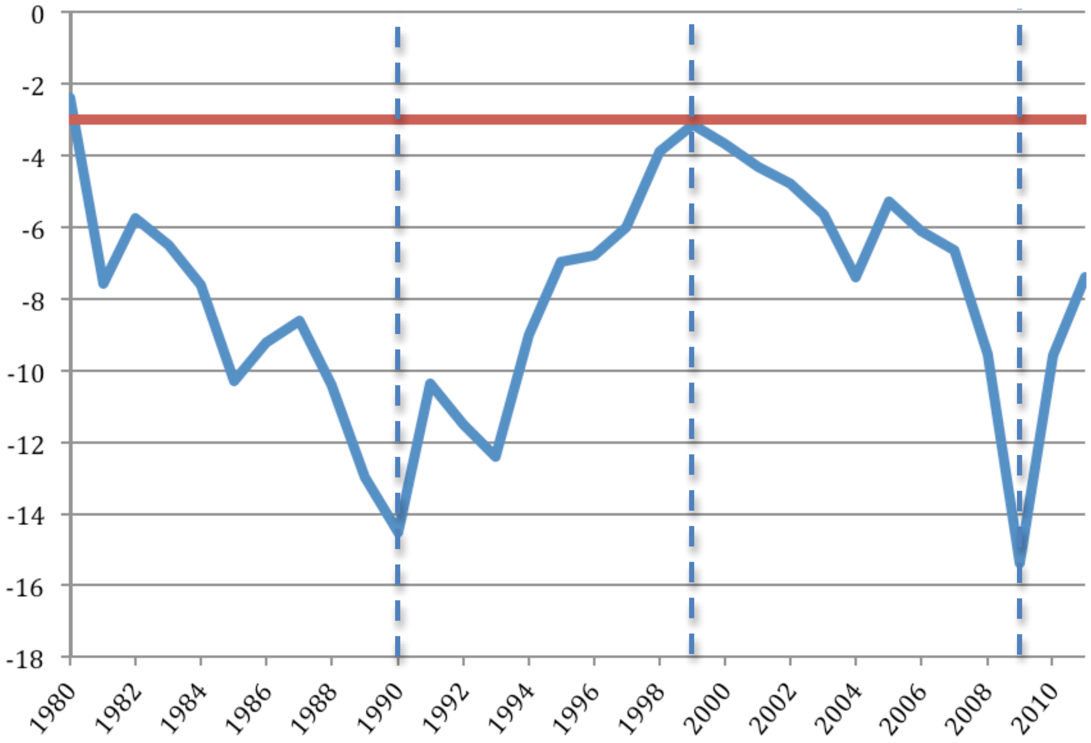
Similarly to other debtors, Greece was allowed having debt above the limit, by claiming it would be decreased in future. Accession of Greece was based on manipulated debt and deficit statistics, so the Commission came to a wrong conclusion that in 2002 Greece will have its debt decreased to 98% of GDP and having a budget surplus of 0,2%. (ECOFIN 31.1. 2011). Such accounting tricks were not officially admitted until 2004, when Greece became subject to excessive deficit procedure. As Wyplosz (2004) notes, Greece wasn't the only country that used some tricks to achieve the deficit limit. France improved budget through privatization, Italy collected taxes for the following year and Germany attempted to sell its golden reserves, but was stopped by Bundes bank. On the other hand, compared to Greece these countries only bended rules to improve figures, but Greece directly cheated statistics.

Apart from cheating, Greece suffer from huge corruption and a large volume of grey economy. According to Transparency International (2011) Greece had the 2010 corruption index of 3.5, which is the same level as Albania scoring 3.2 or 3.1 for Mexico. Italy has a rather similar problem scoring only a little better at 3.9 out of ten point scale.

Tax collection is another problem typical both for Greece and Italy. According to estimates, Italy fails to collect annual taxes reaching €100 bn (6% of GDP) and Greece €15 bn (6,5% of GDP). (The Economist, 12.8. 2010) Greek Ministry of Finance announced in 2011 that it will attempt to collect €41 bn of unpaid taxes and fines. (Forbes 8.7. 2011)

Greece has a persistent problem with its public finance and the only thing, which has changed since the Greek accession to the Eurozone is the cost of borrowing. Unfortunately, it allowed cheaper refinancing of the sovereign debt and further worsened budget deficits as can be seen in the following chart. Budget deficits were decreasing only with the prospect of joining the Eurozone.

Figure 16: Greek budget deficits



Source: IMF revised data, (% of GDP).

The main problem of Greek public finance are structural deficits. Greece has one of the oldest populations in Europe, yet the pension system didn't reflect demographic trends at all. Greece had a generous pension system while keeping the retirement age at only 61 years. Combined with the demographic trend, it was a road to perdition. On top of the pension system, Greece has a huge public sector, which together with pension system accounts for 75% of the annual primary balance. (IMF

Greece has problems with market competition, which is reduced by extensive regulation leading to monopolistic behavior. There are about 150 regulated professions in Greece including lawyers, architects, or pharmacists. Regulation in most cases allows for creation of local monopolies, as the competition is restricted from entering market with existing firms. State owned companies often have a dominant position on the market, which influence both competitors and consumers, as it leads to increased prices, decreased choice, and quality of products.

The only Greek problem related to the EU is Schengen. Greece serves as a transition country for tens of thousands immigrants coming annually through Turkey from various countries like Iran, Pakistan, Somalia, Algeria, or Afghan.

4.4 Saving Greece at all costs

Right after the start of the European sovereign debt crisis in 2010 initiated by Greek illiquidity or rather an insolvency, there was an imminent risk of contagion. Whilst the financing troubles of Ireland and Portugal were inevitable, it was crucial to protect economies of Italy and Spain, as their possible financing issues would have exceeded European capacities. European banking sector was severly weakekned after the credit crunch in the United States and it might not withstand a sovereign default. In order to protect Europe from serial defaults of both banks and sovereigns it was important to step in and stabilize European finances. Possible Greek bailout is not feared for the cross border exposition, as the most of the Greek debt is held by Greek banks, but it is for the risk of contagion. (See Table 2)

4.4.1 Greek Loan Facility

After start of the Greek debt crisis, there was no EU facility that could help it to deter a risk of bankruptcy and IMF itself wasn't able to provide enough funds. In March 2010 all Eurozone Members except for Slovakia agreed on the emergency loan. For a non-existence of immediate alternatives, the financial help was negotiated in form of bilateral loans. Those bilateral loans are pooled into €80 bn package, which is being released in scheduled installments and administered by EU. Eurozone cooperates on the loan with IMF and ECB. IMF participates by €30 bn (SDR 26,4 bn) in form of a Stand-By Arrangement, making the theoretical ceiling for Greek rescue package of upto €110 bn. Only four month after the long awaited Treaty of Lisbon became effective, it has been already distorted by using Article 122.2 as a justification for providing bailout to troubled Greece. Bail-out plans calculated with the option that Greece will be able to access capital markets by the end of 2012, which happened to be highly exaggerated assumption less than a year later. The initial loan had an average interest 5,2% and maturity 3,5 years. (European Commision 2010)

Table 11: Greek loan disbursement

Disbursements	Euro-area	IMF	Total
May 2010	14.5	5.5	20.0
Sept 2010	6.5	2.5	9.0
Dec 10 / Jan 11	6.5	2.5	9.0
March 2011	10.9	4.1	15
July 2011	8.7	3.3	12
Total	47.1	17.9	65

Source: European Commission (2011d).

4.4.2 Conditions of the bailout

As with other loan facilities, the loan is subject to strict conditionality. Disbursement of the loan is made on a quarterly basis and prior to disbursements will be compliance of conditions reviewed by the Commission, IMF, and ECB. (Conditions 11.4. 2010.)

Conditions consist of a strict austerity plan and economic reforms. Greek government needed to increase revenues and decrease cut spending. Value-added taxes were increased from 10 to 11% and from 21 to 23%, and new taxes were imposed on cigarettes, alcohol, and fuel. Tax increase was expected to yield extra €800 millions in 2010. Public wages were cut by €1,1 bn in 2010 and the public sector employment and expenditures need to be reduced over following years. Part of the fiscal adjustment plan is a partial deregulation of professions and privatization. Important is the reform of pension system as the current system is unsustainable. Retirement age was increased from 61 to 65 years and pensions were reduced in 2010. Starting 2011 pensions should be frozen for several years. Budget deficit target for 2010 was set to 8,1% and revenues should have increased by 0,5% and expenditures reduced by 2%. In following years the plan projects higher revenues (over 3,5%) and bigger revenue cuts (over 3,1%) and both further increasing upto 6,6% in 2014. (European Commission 31.5.2010)

After the condition review at the beginning of 2011, Greece was criticized for slow implementation of reforms. Furthermore government revenues in 2010 increased less than expected, because there was a decrease in consumption and economy stood in a deep recession. After several downgrades by rating agencies and continuing recession, it became clear, that Greece wouldn’t be able to return to capital markets in 2012. In March 2011 maturity of the Greek loan was extended from initial 3,5 years to 7,5 years and interest was reduced by 100 bp. (European Commission 20.4.2011)

Table 12: Greek economic development

	2008	2009	2010	2011	2012
GDP growth	1.02	-2.05	-4.54	-3.04	1.08
Inflation	4.24	1.35	4.70	2.54	0.50
Unemployment	7.68	9.38	12.46	14.76	14.97
Budget deficit	-9.54	-15.37	-9.57	-7.39	-6.23
Current account	-14.69	-10.99	-10.45	-8.16	-7.06

Source: IMF; 2011 & 2012 figures are IMF estimates.

4.4.3 New Austerity

Since the first bailout the economic situation of Greece improved just a little. Economy is still in a recession and unemployment still increases. Budget deficit in 2010 breached the 8,1% target. Situation in Greece worsened in June 2011 during the condition review, which found out that Greece is seriously missing targets of the fiscal adjustment program. There were massive and violent protests in Greece and the Prime Minister offered resignation, but in the end only a Minister of Finance was replaced.

In order to obtain further disbursements of the financial help, Greek government had to pass a new austerity measures. New austerity package was approved by a tight majority of 155 out of 300 Members of Parliament at the end of June 2011. If the package wasn't passed, it would mean an immediate default, because Greece had enough finances only till the middle of July. New austerity measures and reforms were a condition to disbursement of another part of the Greek loan and a precondition to receiving a new financial assistance from EU and IMF. The new austerity package consists of increase of taxes, further government expenditure cuts, and extensive privatization. Greece has increased taxes on alcohol, petrol, cigarettes and imposed new taxes on luxury goods and a temporary "solidarity tax" reaching of up to 5% of salary. Wages in public sector should be further slashed by 15% and government should decrease expenditures on military, healthcare and social security system. Moreover, 150 000 jobs in public sector should be cut. Greece hopes it will obtain by this austerity €28 bn over following 5 years.

Greece has introduced a bold privatization plan to raise €50 bn until 2015. Just in 2011 Greek government hopes to privatize assets worth €15 bn. Greece promised to privatize part of its assets, which is a condition for further external financing. It has introduced a vast privatization scheme, which will be supervised by an independent committee with a EU supervisor in order to make the privatization transparent and efficient. Greece has a lot of property and shares in numerous state-owned companies.. It owns shares in a great variety of companies –mobile carrier OTE, lottery company OPAP, airports, railways, power generation company PPC, or military manufacturer EAS and many others. The main problem is that majority of those firms are indebted. Unfortunately, Greece has no central register of state-owned assets, so the final outcome might differ significantly. Another issue is the speed of privatization. Such a fire sale will result in much lower revenues then if the sales were dispersed over a longer period of time.

4.5 Default

Sovereign default can have a numerous forms ranging in severity of loss to creditors. Within the framework of the European debt crisis, it is necessary to follow the definition of rating agencies, because they might have a different view on classification of a credit event. Standard & Poor's rating agency defines sovereign default as follows:
"Sovereign is in default in any of the following circumstances:

- For local and foreign currency bonds, notes and bills issued by the central government and held outside the public sector of the country, a sovereign default occurs when the central government either fails to pay scheduled debt service on the due date or tenders an exchange offer of new debt with less favorable terms than the original issue.

- For local currency issued by the central bank, a sovereign default takes place when notes are converted into a new currency of less-than-equivalent face value.

- For private-sector bank loans incurred by the central government, a sovereign default occurs when the central government either fails to pay scheduled debt service on the due date or negotiates a rescheduling of principal and/or interest at less favorable terms than under the original loan with the bank creditors." (Standard & Poor's, 2011)

Although Greece has de facto defaulted in May 2010, when it needed to refinance about €20 bn of its maturing sovereign debt and lost an access to capital market thanks to increasing interest rates on Greek sovereign bonds, reaching far over the perceived 7% sustainability limit. (Baldwin et al. 2010) The factual default was averted until July 21st 2011, when European officials and private investors agreed on a selective default. Even though the participation in debt restructuring is on the voluntary bases, it offers “less favorable terms” to creditors, which is an S&P’s definition of sovereign default. Similarly to the Brady bonds introduced in Latin American debt crisis, private investors can exchange their existing bonds for bonds with an extended maturity, or use other options. The total involvement of private investors is estimated at €106 bn between 2011-2016.

Selective default is a part of a new financial assistance to Greece. The new package reaches €109 bn with a maturity between 15 and 30 years and interest of 3,5%. Maturity of debt provided by the previous financial assistance will be extended from 7,5 years to at least 15 years. Part of the rescue package is a bank recapitalization and guarantees scheme reaching €55 bn in total. Compared to previous assistance this one will be shared only between IMF and EFSF. The financial assistance will be accompanied by EU investment program through European Investment Bank and other facilities to stimulate an economic growth. (European Commission 21.7.2011)

There were attempts of Finland to collateralize the new loan, by Greek public assets, but it didn’t pass through.

4.6 Outlook of Greece

The main problem of the international financial assistance and Greek austerity plans is the fact that neither Greek citizens, nor markets have a faith in them. Both Greece bond yields and CDS spreads are rising. Lack of confidence in the rescue plans results in ongoing bank run. Yet the situation hasn’t reached a critical level, but it could possibly destroy already weakened banking sector in Greece. According to Bank of Greece clients have withdrawn more than 9,5% of deposits since the beginning of the year 2011.

Table 13: Greek Deposits

	Nov-10	*Dec-10*	*Jan-11*	*Feb-11*	*Mar-11*	*Apr-11*	*May-11*
Households	-3,427	259	-2,694	-1,531	-3,315	-1,400	-4,734
Total	-4,632	701	-2,021	-1,216	1,647	-5,825	-14,167

Source: Bank of Greece (2011), (millions of EUR).

Part of Greeks withdraws money to compensate for a decreased real income. Others are afraid of possible bankruptcies of banks or believe that Greece will leave Eurozone and Drachma would afterwards depreciate, so they would lose a part of their savings. Deposits are usually transferred abroad, often to Switzerland.

Problems of Greek economy started after 1974 and it will take many years more to stabilize the economy. Greece needs to stay committed to structural reforms and keep tight fiscal policies. There were some arguments if Greece was better off by leaving the Eurozone, but it would solve only part of the problem. Greece doesn't have a problem with Euro, but with a low competitiveness, weak institutions and a desperate state of public finance. Moreover after the currency reform, Greece would be more vulnerable to speculative attacks. If Greece defaulted even tougher austerity and balance budget would need to follow. The question remains why markets or rating agencies didn't penalize Greece earlier. Serious problems of Greek economy are known since 2004 and yet nothing happened until the start of sovereign debt crisis. Stability and Growth pact failed as a safeguard mechanism, and rating agencies acted too slowly.

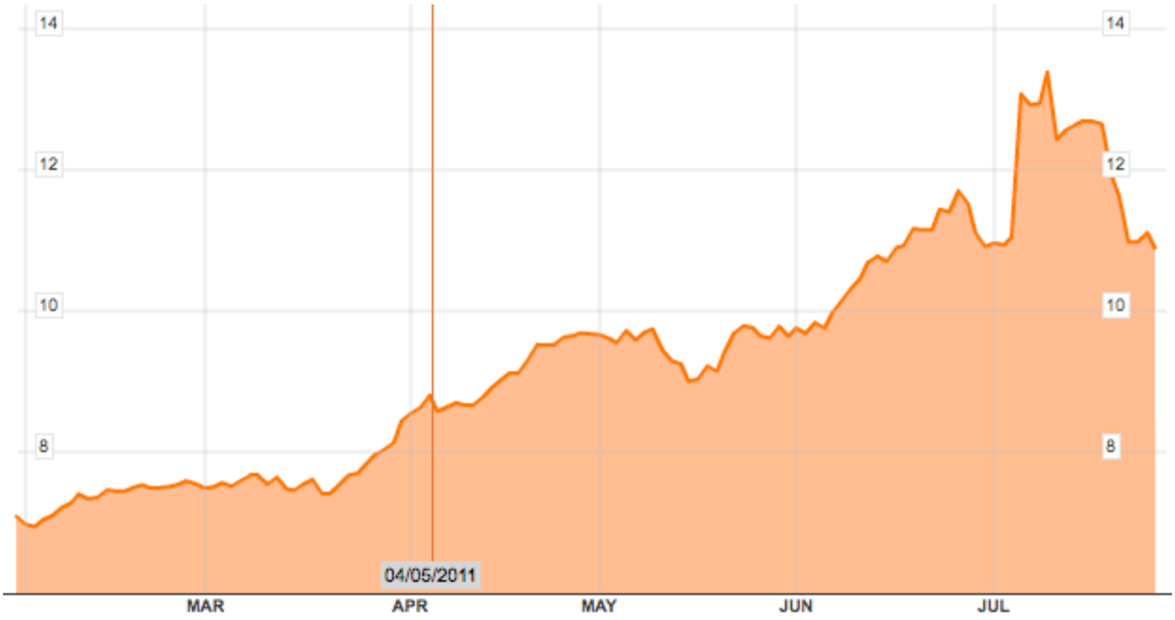
5. Other Eurozone economies in jeopardy

Even though Greece, Ireland, and Portugal are so far the only Eurozone countries relying on external financial assistance, situation can change with a speed of lightning. Several other Members are vulnerable to the threat of contagion. There are several sources of possible contagion. As the situation of Greece was partially solved by selective default, it might have some negative effects on Portugal and Ireland by increasing pressure on their default. Even though EBA stress test showed that the European banking sector is in a decent shape, test conditions were once again criticized for being too soft. The real state of the banking sector might be much worse than the stress test suggests. Further worsening of interbank market would cause another liquidity crisis, which might be beyond a capacity of ECB. Full scale banking crisis might cause a domino effect and it might be a European Lehman Brothers moment. Last, but not least there are risks of default in the United States, or economic slowdown in China, which has problems with inflation.

5.1 Portugal

Portugal was the third Eurozone Member that was forced to seek a bailout. Portugal was being pushed for several months to accept the bailout, because there was a real danger of contagion to neighboring Spain. Despite the external pressure to accept help, there was also an internal. Banks threatened government to accept help otherwise they would stop buying government bonds. The reason why Portugal persistently refused the bailout might be its experience with IMF during Portuguese economic crises in 70’s and 80’s. Portugal was forced to ask for bailout in April 2011 because it needed to refinance part of maturing debt and the 10-year bond yield increased over 9%.

Figure 17: Portuguese 10-year bond yield



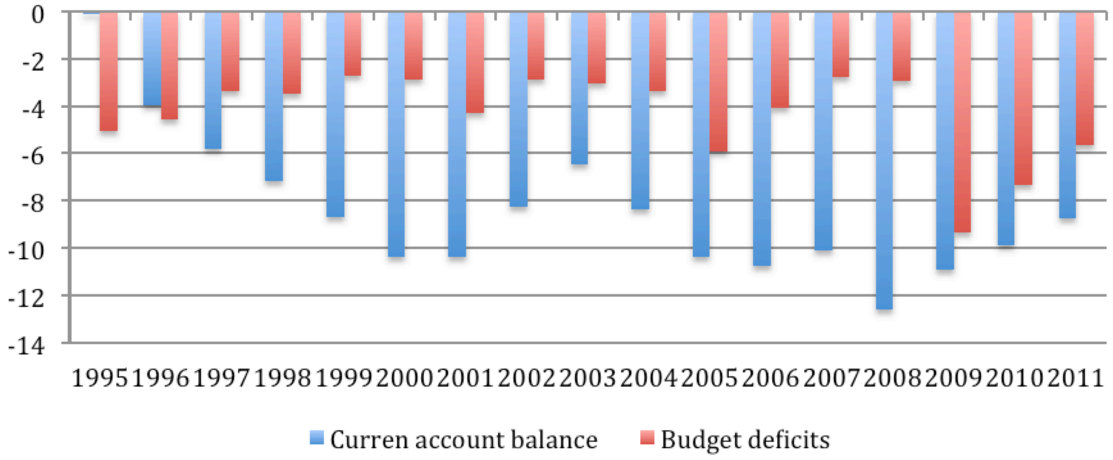
Source: Bloomberg

In 2010 Portuguese parliament approved strict austerity measures. Prior to the bailout Portuguese Prime Minister José Socrates tried to pass a further austerity measures in the parliament, but it was slashed by opposition. In reaction to unsuccessful attempt to impose austerity measures, Portuguese rating was downgraded and as a reaction bond yield rose above the sustainable level. Additionally, government failed to meet target budget deficit in 2010 of 7,3% and the deficit was 8,6% instead.

The total amount of bailout is €78 bn and it is equally shared between EFSF, EFSM, and the IMF funds. Unlike Greece and Ireland, Portugal is required to lower its budget deficits below 3% till 2013, which is a year earlier. The loan has a maximum maturity of 7,5 years and average interest will be 5,7%. The bailout is conditioned by austerity measures. Wages in public sector needs to be cut by 5%, and taxes will be increased, some state owned companies will be privatized. Furthermore Portugal needs to improve labor market flexibility and undergo structural reforms. Unlike Ireland or Spain, in Portugal there was no property bubble, but the banking sector is weakened, because the private sector in Portugal is heavily indebted. Portuguese bank rely on the liquidity support from ECB. Part of the bailout package (€12 bn) is set for bank recapitalization. (ECOFIN 17.5. 2011) Austerity measures were followed by countrywide protests and strikes.

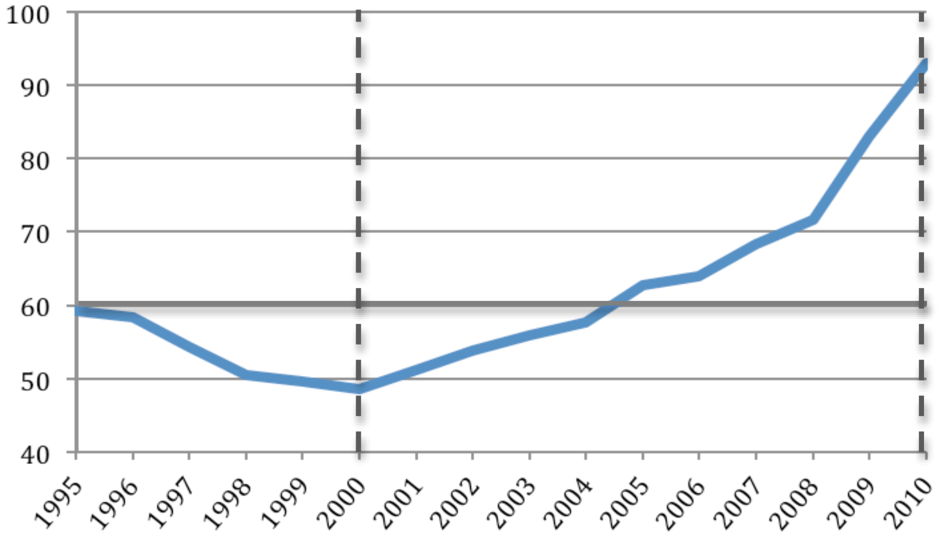
Like Greece, problems of Portugal started decades ago after the Carnation Revolution. Portugal has a persistent problem with structural deficits and anemic growth.

Figure 18: Portuguese deficits



Source: IMF

Figure 19: Portuguese debt-to-GDP



Source: Eurostat.

Portugal joined the Eurozone from the beginning in 1999. Lack of structural reforms and access to a cheap lending caused the increasing sovereign debt. Once again the biggest problem of Portugal is a lack of motivation to undergo reforms.

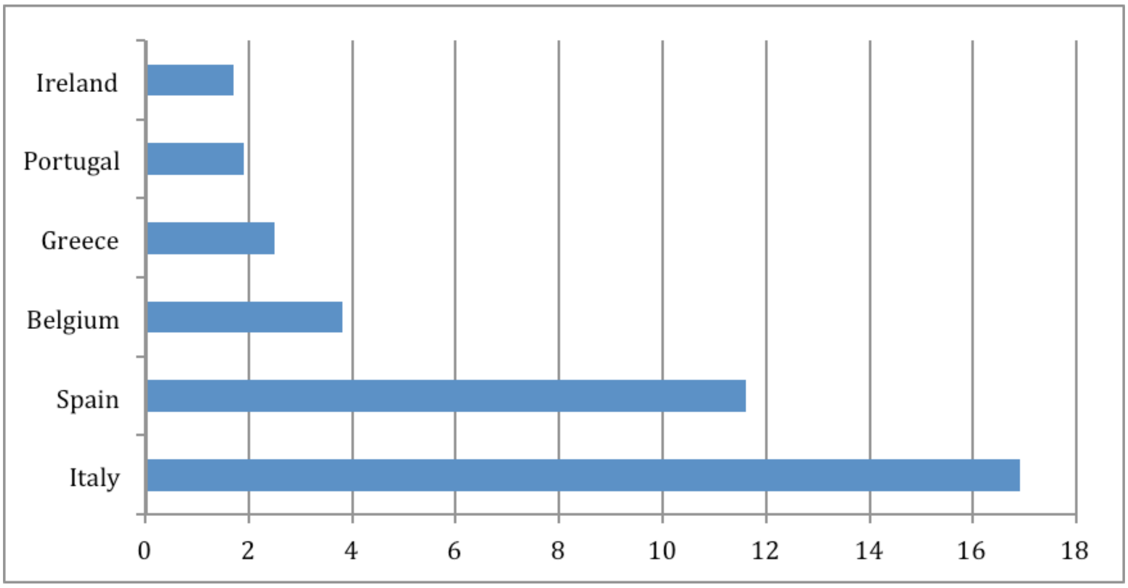
Portuguese bailout plan was criticized for being too soft, compared to Ireland or Greece. The reason is that Portugal implemented some austerity measures before it asked for the bailout. Alternative explanation is a conflict of interest. President of the European Commission, Jose Manuel Barroso is a former Portuguese Prime Minister, so he is motivated to apply softer approach towards Portugal. His patriotism was proved when he angrily criticized Portuguese rating downgrade by Moody's agency. (Stearns 2011)

In June 2011 were general elections in Portugal and José Zapatero's social party lost to a right wing. New Prime Minister Pedro Passos Coelho promised to go beyond the rescue package with privatization and reforms. It might be only cheap promises, but he has a majority in parliament, so it would be possible. (The Economist 9.6.2011)

5.2 Italy

Almost from the very beginning of the Sovereign Debt Crisis, Italy was branded as a member of PIIGS. After Greece, Italy is the biggest European debtor and one of the 10 biggest in the world, measured by its debt-to-GDP burden. Yet its position is rather different compared to majority of other indebted countries. Sovereign debt of Italy is quite similar to the situation of Japan. Even though Japan has an enormous sovereign debt, there are little concerns from markets, because most of the Japanese debt is held by domestic investors. Similarly, majority of Italian sovereign debt is held by Italian investors, thus we haven't seen so intense reaction of capital markets compared to other countries from the PIIGS group - Greece, Ireland and Portugal. Even though all PIIGS countries share some similarities, Italy and Spain for instance are much bigger economies compared to the rest of the bunch.

Figure 20: GDP compared to the Eurozone



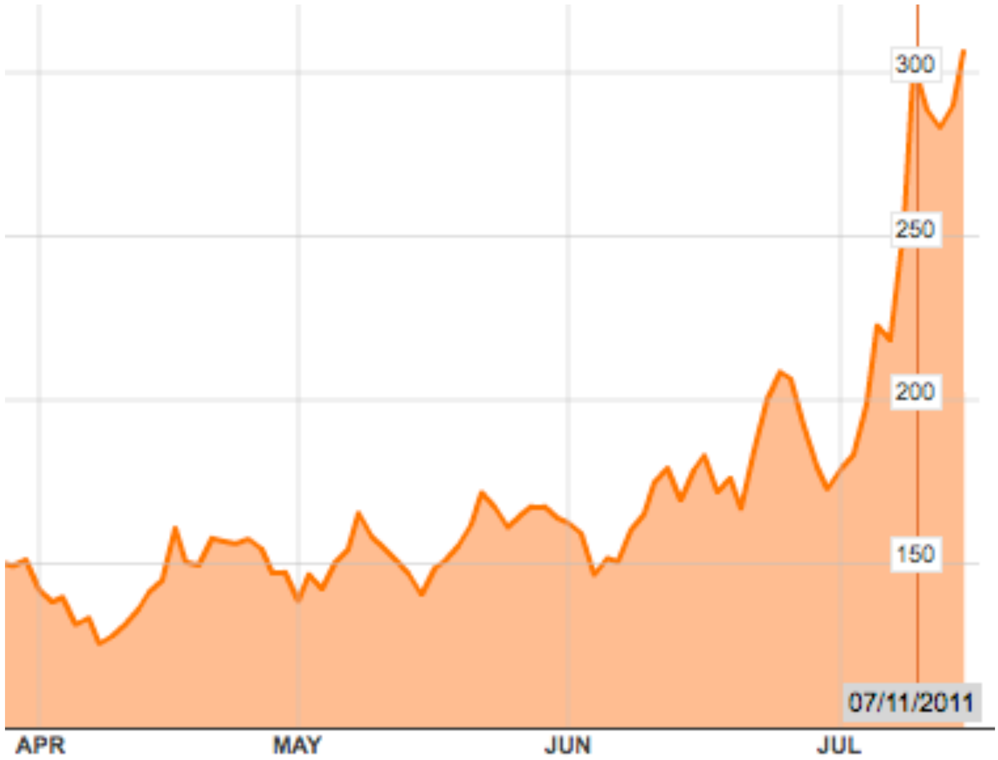
Source: Eurostat, (2010).

Italian economy is almost seven times bigger than economies of Greece or Ireland and Italy has about six times higher the absolute amount of debt than Greece. More importantly, Italy has the biggest sovereign bond market in Europe and the third biggest in the world (The Economist 14.7. 2011). If the Italian economy got into serious troubles, it would affect severely not only the European economy, but also the entire global economy. Similarly to Belgium, Italy had a very high amount of debt from the 90's, but unlike Belgium Italy hasn't substantially lowered its debt burden to get closer to the 60% debt target set by Maastricht Treaty.

According to Eurostat, in 2009 Italy had a budget deficit of 5,4%, but managed to stabilize the deficit for 2010 with a 4,6% being bellow the 5% target. Moreover Italian primary balance has improved from - €11,3 bn in 2009 to - €1 bn in 2010, but still it is much lower than the positive primary balance of €38,6 bn in 2008. All of this thanks to the Italian Minister of Finance, Giulio Tremonti. Only because of him, Italy managed to stabilize deficits and is still able to roll-over its huge sovereign debt. Italy has approved some austerity measures in 2010, but as the 2011 was the year of local elections in Italy, those measures were just mild. Italian Prime Minister, Silvio Berlusconi, didn't want to make austerity too strict, as it is highly unpopular among voters. In the end, Berlusconi's political party has lost in 2011 elections.

After the elections Italian government was supposed to adopt another and much more strict set of austerity measures, but Berlusconi criticized in public both the reform package and the Financial Minister Tremonti. It went so far that Tremonti made a threat that if the austerity package doesn't pass, he will resign. Such a behavior of Berlusconi was immediately punished by markets and contributed to rating downgrade warning by the Moody's rating agency. Another adverse factor for markets was presentation of new banking stress test by the EBA in July 2011. Several Italian banks were thought to be vulnerable to adverse economic development in Europe including the biggest, Unicredit Bank, but all of them passed the critical part of the test. Italian banks hold around €150 bn of Italian sovereign debt, so the health of banking sector is closely monitored by markets. After Moody's threat to downgrade the rating of Italy, the cost of debt financing for Italy has become the highest since the 1997. The cost of the new 6M bond issue rose by almost 20% from 1,657% to 1,988%. (Sanati 2011) Also the CDS spread has increased dramatically. Part of the reasons for increased CDS are recent downgrades of Portugal and Ireland, which were sent to a speculative band.

Figure 21: CDS of Italy



Source: Bloomberg [Accessed 17.7. 2011].

After such a strong market response, government swiftly passed the new austerity package and it was approved by parliament in a record time. Austerity measures should save around €48 bn between 2011 and 2014. Italian government plans to achieve a balanced budget by 2014. Even though by economic performance Italy belongs among countries of the core, it has many problems typical for peripheral countries. Italy has some structural problem. The biggest one is the staggering differences between the north and the south of Italy, which also creates a significant political tension. Another Italian problem is a high immigration and tax evasion. According to government estimates the tax evasion accounts for €120 bn in 2010. Unemployment has increased from 6,2% in 2007 to 8,2% in 2011Q1. It is quite high, but compared to other PIIGS countries it is much lower and even bellow Euzone's average of 9,9%.

Table 14: Labor productivity of Italy

	2008	*2009*	*2010*	*2011*	*2012*
Italy	-1.6	-3.6	2.0	0.4	0.8
Euro Area	-0.4	-2.3	2.2	1.6	1.3

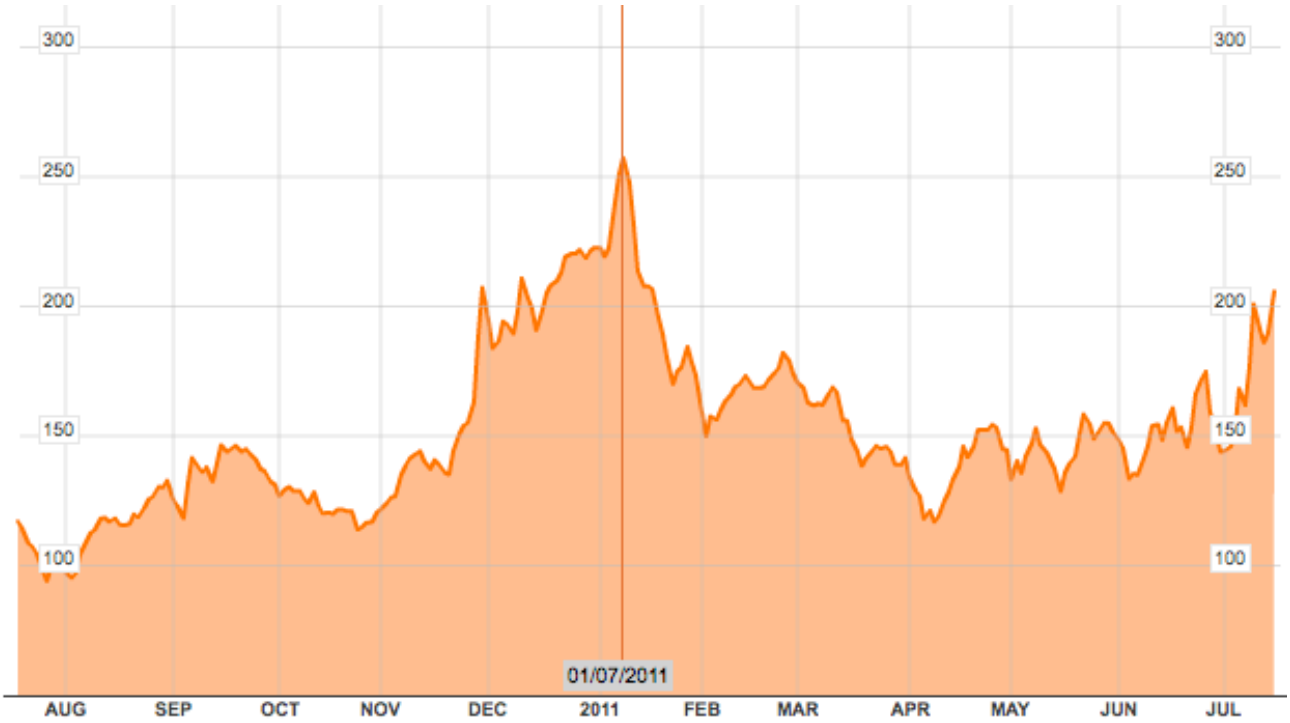
Source: OECD, (y/y change).

From the table above can be noticed, that Italy has also problems with productivity. Italy is lacking behind the Eurozone average in the growth of labor productivity. If Italy manages to persuade investors that its austerity plan is going to work, then it should be able to withstand the Debt Crisis with no bigger harm. On the other hand if it fails and rating agencies or investors lose confidence, it would cause catastrophic consequences. Not only for the Eurozone, but also for the whole global economy.

5.3 Belgium

Unlike other PIIGS countries, Belgium is not a peripheral country and managed to escape the full attention of media and investors. Despite the huge amount of sovereign debt of Belgium, markets are still not worried and Belgian risk premium paid for sovereign bonds stays low.

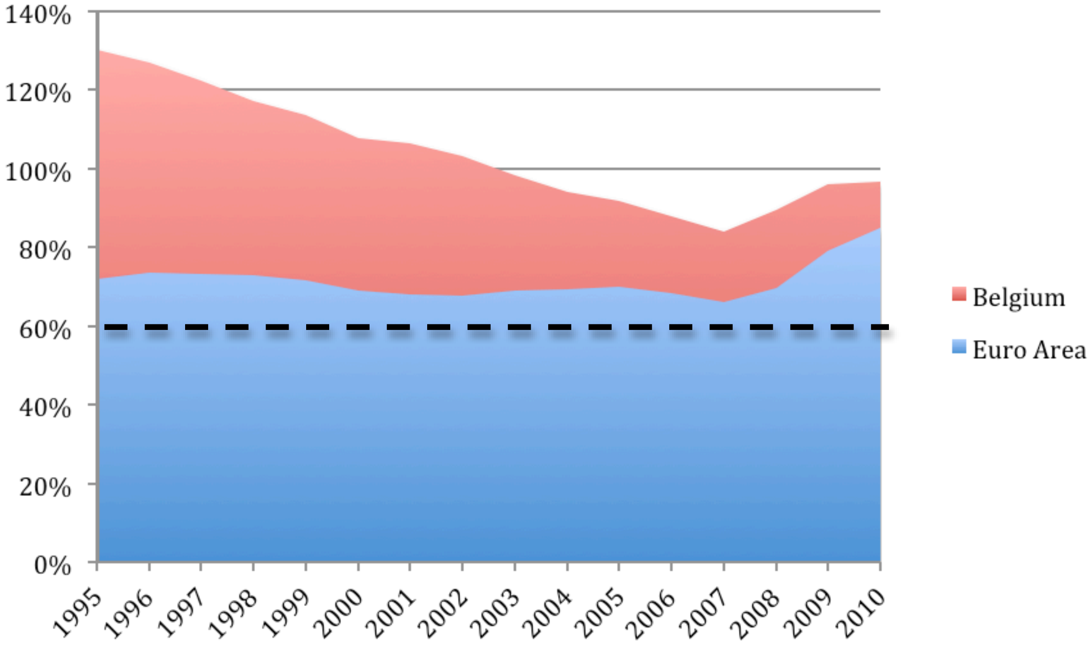
Figure 22: Belgian CDS



Source: Bloomberg (17.7. 2011)

One of the possible explanations is the long history of Belgian debt burden. Since the 90's Belgium has had an extraordinary high debt-to-GDP ratio. In 1995 Belgian debt was 130% of GDP, yet Belgium managed to stabilize the debt. During the preparation period before creation of the Euro Area, Belgium managed to negotiate an exception from the convergence criteria similarly to Italy, and Greece later on. In 1999 Belgium and Italy had a debt-to-GDP reaching 113,7%, which was way over the agreed 60% level required by the Maastricht Treaty. Belgian government had to promise to gradually decrease its sovereign debt during the following years. As can be seen in the graph bellow, Belgian commitment remained strong for more than a decade. Belgian debt hasn't increased until the start of the Financial Crisis in 2007. Belgian debt-to-GDP ratio used to be the highest in Euro Area, but in the last decade it has been surpassed by Italy and Greece.

Figure 23: Belgian debt



Source: Eurostat.

Despite the amount of sovereign debt, Belgian economy is in a decent shape and unlike many other Eurozone Members it remained competitive. In 2010 it has grown by almost 4,1% and according to Eurostat its prediction for growth is 4,3% in 2011 and 4,31% in 2012. The only problem is that such a growth is quite high and it will create an inflation pressure. In July 2011 ECB has increased interest rates by 25bp to 1,5%, but it doesn't seems to be enough for Belgium and another countries like Germany, which are growing by more than 4%.

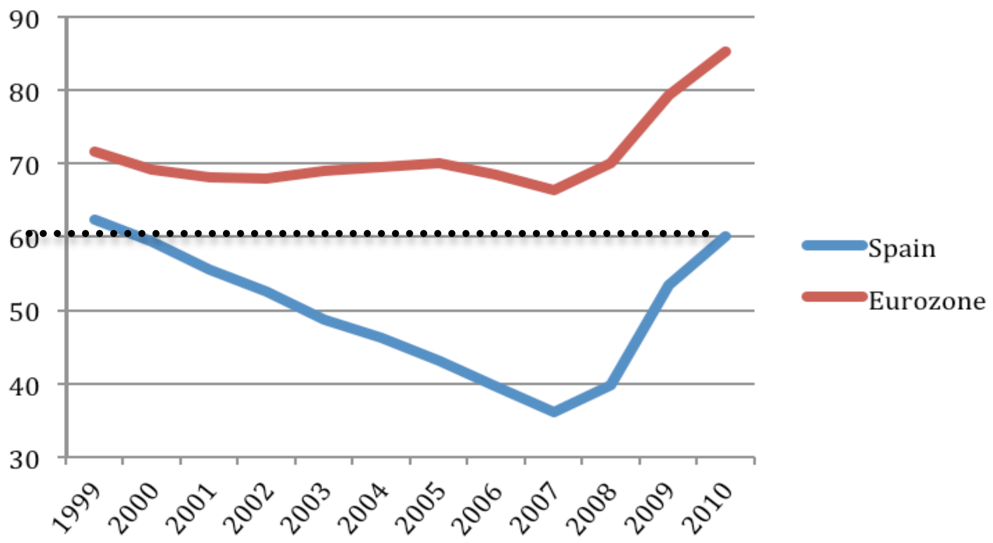
Nowadays the biggest concerns of investors are a lack of proper government. Belgium holds the world record for having the longest period without a government previously held by Afghanistan. There are two competing political parties of Flemish and Walloons, which have almost an equal support. As a result of divided Belgian society, Belgium has had no government ever since the elections in May 2010 that resulted in a stalemate situation. Contemporary interim government has just a limited mandate and it might result in numerous issues if the market situation deteriorates and Belgium will need to take immediate reform or austerity actions.

Another reason why still has investors a confidence in Belgium is its ability to quickly react to adverse situations if necessary. It has been already proven during the previous period without a government, when Fortis bank got into serious financial troubles and had to be nationalized. Such emergency situations work like a unifying element, which makes opposing political parties cooperate and react promptly. The future of Belgium depends on patient of investors and confidence of rating agencies.

5.4 Spain

Spain, similarly to Italy, perfectly fits the notion of "too big to fail". Economy of Spain is the fourth biggest in the Eurozone. On the first sight, Spain seems to have no problem with sovereign debt. Spanish debt-to-GDP ratio used to be one of the lowest in the whole Eurozone and in the last decade it hasn't crossed the 60% level until 2010.

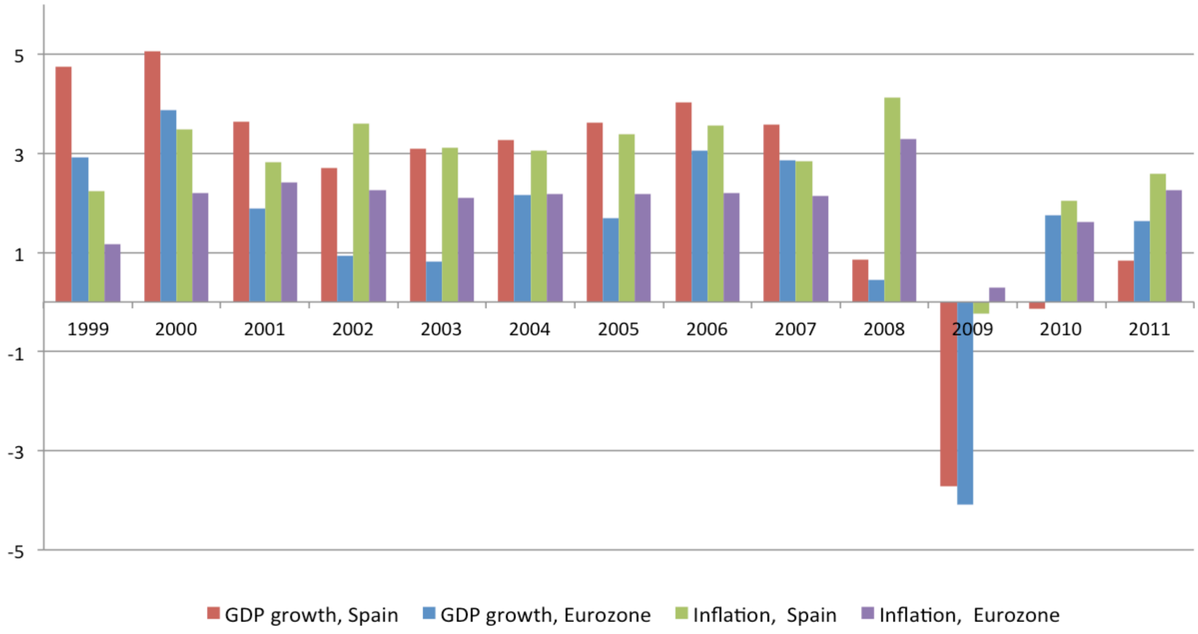
Figure 24: Spanish debt vs. Eurozone



Source: Eurostat, Note: Debt-to-GDP.

Even though the past development of Spanish debt is quite remarkable, the speed of debt increase since the start of the Financial Crisis is alarming. According to IMF between 2007 and 2011 the debt will increase by 30% of GDP. Similarly to Ireland, Spain used to have a balanced budget before the Crisis. Over the last decade Spain had a decent real GDP growth above the Eurozone average, but paid for it by a higher inflation.

Figure 25: GDP growth and inflation of Spain and Eurozone



Source: IMF, Note: Constant prices; 2011 figures are IMF estimates

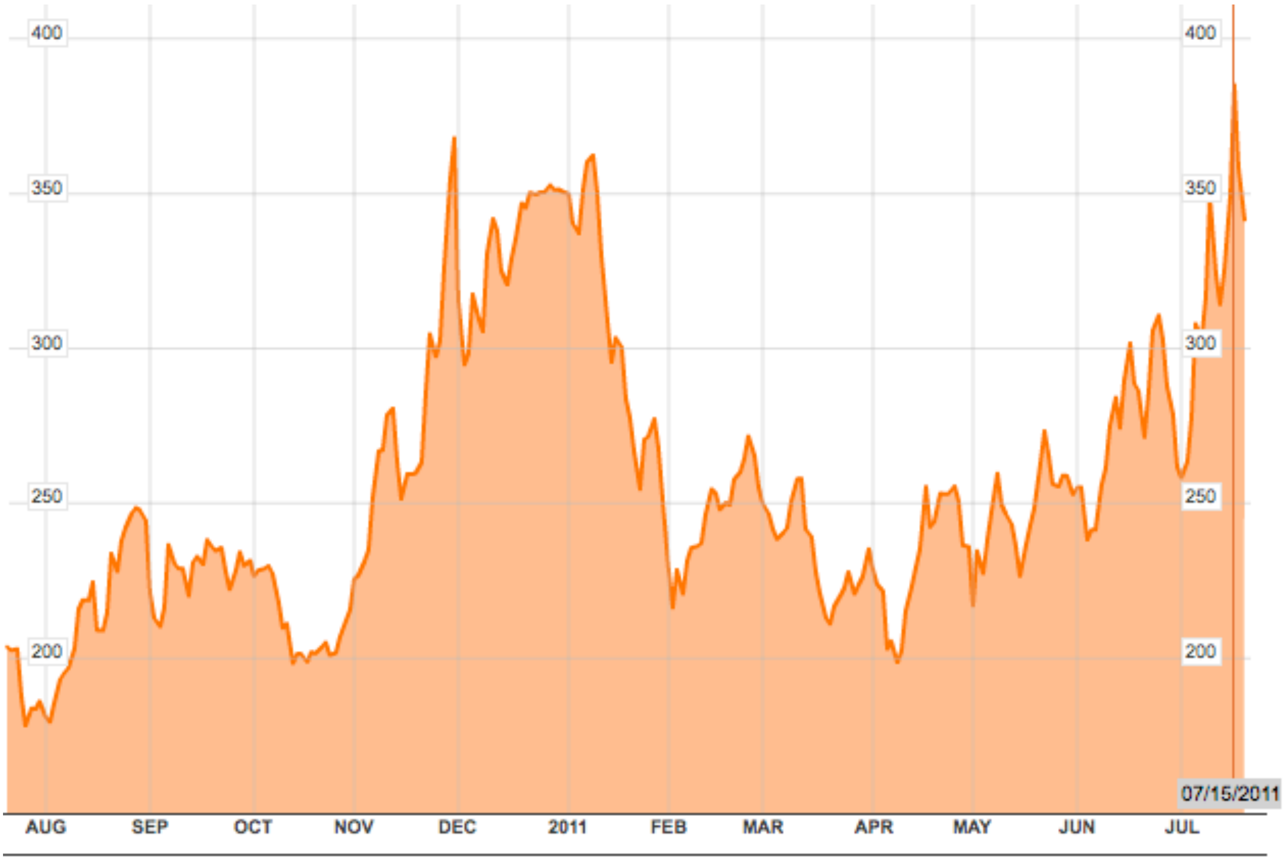
The main reason behind the economic crisis in Spain is the construction sector. During the boom, economy of Spain was performing well and people got richer. Shortly, there was an excessive demand for real estates and developers started building all over the Spain. Overheated property market in Spain was further pushed by banks and mainly by unlisted savings banks (Cajas) as they were supporting developers and granting mortgages willingly. Spanish economy became overly dependent on the construction industry, which at its peak employed about 13% of all labor. After the Credit Crunch came to Europe, real estate bubble burst and economy slowed down. Subsequent decrease in construction further worsened unemployment in Spain, which reached 20,1% in 2010 compared to 8,3% in 2007. Such a high unemployment creates a pressure on social security system and thus on the whole public finance. All of sudden, Spain had to face budget deficits of 11,1% in 2007 followed by 9,2% in 2010 and IMF estimates the deficit for 2011 at 6,2%, which is a little over he 6% government target.

Unlike other countries, in Spain 17 regional governments decide a large share of public spending. As a result, it is quite cumbersome to effectively reduce public spending. Several regions like Barcelona or Catalunia has substantially increased debt beyond the government debt target of 1,3% of GDP. Since the GDP of Catalunia itself equals the GDP of Portugal Spanish government is afraid it might not meet the 6% deficit target this year. (Mallet 2011) Spanish national debt is still bellow the EU average and also compared to the USA, or the UK. Problem is that the economic growth is negligible since the start of recession in 2008 and unemployment is sky high, especially the youth unemployment being over 45%. Contributing factor to unemployment is the wage indexation, which makes the wages increase even though the economy is stagnating, thus further lowers the competitiveness of Spanish economy.

Real-estate bubble has seriously weakened the Spanish banking sector. As the savings banks are unlisted, it is hard to estimate the exposure of Cajas to bad debts and thus markets are quite nervous about the future development in Spain. In February 2011 government decided to take preventive step and ordered to banks and Cajas to increase their core Tier 1 capital to 8% and 10% respectively. Higher capital requirements for cajas were justified by a lower capacity and a higher involvement of cajas in the construction industry and mortgages. Those banks that will fail to increase the capital will be nationalized or merged with a bigger bank. Government pumped €15 bn of capital in convertible shares to banking sector through the Fund for Orderly Bank Restructuring (Central Bank of Spain, July 2011). By that time government estimated that about €20 bn more will be required, but some estimates were much less optimistic. (The Economist 3.2. 2011) New stress test carried out by the European Banking Association (EBA) has shown that five Spanish banks failed to meet 5% capital requirements and in adverse scenario without an increase of capital since December 2010, it might be even nine banks (Appendix 1). Right after the July 2011 stress test report, Central Bank of Spain has announced that the capital increase after February 2011 was sufficient and no Spanish bank will be required to increase its capital (Appendix 2).

Spain has lost its AAA rating during the Crisis. Because of the weakness of financial sector and high deficits of autonomous regions, Spain was in March 2011 further downgraded by Moody's to Aa2 rating. After the downgrade, Spanish prime minister, José Zapatero, negotiated with China it will keep buying Spanish bonds to decrease the rising CDS and bond yields. (Wang 2011) In the following picture can be seen, that Spanish CDS has reached its maximum after disclosure of EBA stress test on July 15th, but now the panic seem to cool down.

Figure 26: CDS of Spain



Source: Bloomberg, [Accessed 18.7. 2011].

Spain has quite high exposition towards Portugal and tight economic connections. Because of that France, Germany and ECB were pushing on Portugal to accept bailout.

As was mentioned before, Spain is too-big-to-fail, but on the other hand also can be "too-big-to-be-saved", because European Union might not have enough funds to bail it out.

In order to fight the crisis, Spain needs to undergo major reforms. It is crucial to foster economic growth, stabilize public finance and decrease unemployment. Spain has already accepted a strict austerity plan, which is followed by numerous protests. Austerity was so unpopular, that Zapatero's Socialists have lost election in May 2011 to the conservative People's Party. Despite the high economic growth during the past decade, Spain had always problems with a high unemployment and nowadays those problems are even worse.

6. Case studies summary

Despite all PIIGS countries are treated as a one compact group the reality is radically different. PIIGS phenomenon itself is just a media image and it should be taken too seriously. Case studies shown that differences among countries outnumber similarities. Table bellow illustrates, that those countries should be rather divided into different sub-groups according to broader similarities, not just according to the amount of government debt.

Table 15: Economic comparison

	Unemployment		*Real GDP growth*		*Gross debt*		*Primary balance*	
	2007	2011	2007	2011	2007	2011	2007	2011
Germany	8.4	6.6	2.78	2.54	64.9	80.0	2.7	-0.3
Belgium	7.5	8.4	2.79	1.71	84.2	97.1	3.3	-0.5
Italy	6.2	8.6	1.48	1.05	103.6	119.0	3.3	0.2
Ireland	4.6	14.5	5.63	0.55	25.0	96.1	0.3	-7.5
Greece	8.3	14.8	4.28	-3.04	105.1	142.0	-1.9	-0.9
Portugal	8.1	11.9	2.39	-1.51	62.7	83.3	-0.1	-1.6
Spain	8.3	19.4	3.57	0.83	36.1	60.1	3.0	-4.6

Source: IMF, (2011 figures are IMF estimates).

All countries from covered by case studies links the fact, that they are highly vulnerable to loss of confidence by capital investors. It can be ilustrated on the example of Portugal, as its sovereign debt used to be bellow the Euro Area average. As the Portugese economy got into recession and underwent rating downgrades, capital markets lost a confidence in Portugal and it became the third country that had to apply for emergency funding to roll over the sovereign debt. Spain could face a similar destiny like Portugal, because Spanish economy has anemic growth, and Spain suffer from extraordinary high unemployment. Spanish debt is rapidly rising because of the high unemployment, which pressures on social security system and creates primary deficits. This is the case of all four GIPS countries facing high unemployment rates. Both Spain and Ireland were hit by a housing bubble. Spain similarly to Ireland has a large banking system, but luckily Spanish banks didn't loose as much in relative terms as did the Irish banks. Investors are still vigilant to the informations about the Spanish banking. Especially Cajas savings bank are threatened by low capacity to absorb losses. The newest stress test showed that the Spainish banking system is the weakest one, but so far the Spanish government managed to recapitalize exposed banks and the government is ready to nationalize or merge weak financial institutions. Spanish governemnt was lucky not to guarantee for bank deposits. So far the situation of Spanish banking system is stabilized. On the other hand, in case of some adverse economic event Spanish bond yields can increase during several weeks to unssutainable levels. As the Spanish economy is about seven times larger than the economy of Ireland, it can absorb bigger shocks. It must be noted, that the nomial debt of Spain is four times larger than the debt of Ireland and the theoretical bailout package might be beyond the current capacity of rescue funds.

Ireland is a unique case compared to other reviewed countries. Irish debt problems are only a result of poorly handled banking crisis. Irish banking sector bacame an economic death trap as it was out of scale compared to the economy. Ireland was a tax heaven for financial instutions and also the regulation wasn't so strict, just like in Iceland. Irish business model is criticaly dependent on exports, so with the world-wide recession Irish economy significantly slowed down and the unemployment rocketed up. On the other hand, Irish external trade balance of goods remains the third highest in the Eurozone and way above the EU average. Irish economy works, but the public finance is suffocating with the banking crisis.

The biggest threat for the Eurozone would be the contagion of Italy. Italian economy is the third biggest in Europe and the Italian financial market is one the most important in the world. Italy struggles with a small economic growth and the already high sovereign debt increases. The rise of unemployment in Italy is much lower than in GIPS countries, so the pressure on public finance is not as high. Like Greece Italy faces high tax evasion.

Greek debt crisis was the trigger to the European sovereign debt crisis. Greece has serious structural problems, weak institutions and low competitveness. All of these problems date some 40 years back, when Greek government started the economic suicide through intensive populism and nationalization. Greece managed to enter the Eurozone using accounting tricks and forgered statistics covering the real budget deficits and size of the sovereign debt. Even though the cheating of statistics was revealed in 2004, nothing has changed since then and the similar situation repeated in 2009 only with the difference that during the financial crisis it had catastrophic consequences. The only thing that has changed with the Greek accession to the Eurozone was the cost of debt funding. Greece got an access to cheaper funding and as result Greek budget deficits increased every year and so did the sovereign debt.

Belgium was one of the very few countries which commited to lowering of debt burden and kept the promise. The only real threat for Belgium is its provisory government which has a limited mandate. Belgian economy returned to growth and Belgian CDS remains about ten times lower compared to Greece. Nowadays there is a low probability that Belgium would need a bailout.

More than a year has passed since the outbreak of the European Sovereign Debt Crisis. Hundreds of billions of Euro were spent and yet the end of the Crisis is out of sight and the situation seems to be he same as was on the beginning. The main purpose of the bailout plan was to protect the Spain, Italy and Italy from contagion. So far only three countries were forced to apply for financial assistance. Spain is threatened by slow recovery and high unemployment. Even though the Spanish authorities claim that the banking sector is fully capitalized, the reality might be rather different. Italy is in the mercy of investors and rating agencies. If the Italian austerity plans turn out to be credible, Italy will be safe.

6.1 Role of the Euro in the Debt Crisis

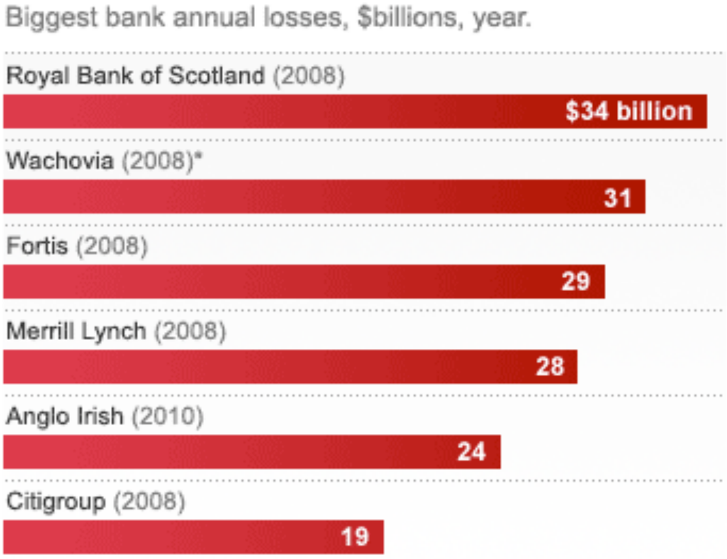
During the Credit Crunch and following Financial Crisis, naturally there has been a lot of effort put in finding causes – someone or something to blame. Everyone was pointing fingers either to central banks, national regulators, investment funds, rating agencies, or financial instruments like credit default swaps and mortgage-backed securities. No matter what has been the real cause, the biggest victims of every financial crisis are common people. Unsurprisingly a rather similar attitude follows the European Sovereign Debt Crisis. Many Europeans thing that the Euro currency is responsible for the Debt Crisis. It is a reasonable assumption as all bailouts were Eurozone Members. They argue, that debt problems of Eurozone countries would have been more easily fought if they had independent national currencies. Some problems might have been solved through currency devaluation, but as the Euro has negatives, it has some benefits also. The risk in the Eurozone is pooled among all Members, so if for example Greece returned to Drachma, it would have been much easier to over speculate.

Euro is unprecedented project. For the first in the history currency was created sooner than the State. Euro is successful, because there has been no devaluation yet. Eurozone is a political project, because it still misses some properties of the optimal currency area as was outlined by Mundell and others. The biggest issue is the lack of fiscal transfers. On the other the current bailout packages can be perceived as a sort of huge fiscal transfers. Moreover the Euro Plus Pact might be seen as a first step towards fiscal federalism.

6.1.1 Is Euro the cause of crisis?

Thanks to globalism of markets, the financial crisis has fast spread from the United States to Europe and hit hard financial and banking sectors. The very first victim was the Republic of Iceland. Icelandic economic model was based on numerous tax incentives and low regulation of banking sector. Such conditions have lured to Iceland numerous foreign banks and as a result right before the Financial Crisis, banking sector was almost ten times bigger than the entire economy of Iceland. Iceland tried to recapitalize banks through nationalization, but it was a lost fight and Iceland had to default on part of its obligations. Another country, which got into serious troubles, was the United Kingdom. Royal Bank of Scotland (RBS) suffered substantial losses during the Credit Crunch. The loss of RBS was so high, that it instantly became the worst bank in history measured by its annual losses.

Figure 27. Record bank losses



Source: Barr (2011).

Benelux based Fortis Bank, a member of RBS Group was another victim of the crisis and had to be nationalized. Another problem of the United Kingdom is its increasing debt. Its sovereign debt has almost doubled since the year 2007.

Table 16: Sovereign debt of UK vs. Greece

	2007	*2008*	*2009*	*2010*	**Increase**
Greece	105.4	110.7	127.1	142.8	**37.4**
United Kingdom	44.5	54.4	69.6	80.0	**35.5**

Source: Eurostat.

From the table above can be seen, that the debt-to-GDP in United Kingdom rose during the financial and sovereign debt crisis virtually by the same amount as the Greek debt. Among other reasons, United Kingdom has a persistent current account deficit and during the Crisis government got involved in the bailout of banking sector, which resulted in such an increase of the sovereign debt.

Table 17: Economic outlook of the UK

	2006	2007	2008	2009	2010	2011	2012
Real GDP growth	2.788	2.685	-0.065	-4.875	1.251	1.659	2.33
Inflation	2.3	2.3	3.6	2.1	3.3	4.2	2.0
Unemployment rate	5.4	5.395	5.551	7.453	7.841	7.833	7.692
Net lending/borrowing	-2.646	-2.674	-4.891	-10.295	-10.441	-8.56	-6.938
Primary deficit	-1.108	-1.096	-3.305	-8.488	-7.815	-5.515	-3.861
Current account balance	-3.383	-2.597	-1.645	-1.71	-2.492	-2.429	-1.877

Source: IMF, (Percents, 2011 & 2012 figures are IMF estimates).

In order to fight structural deficits, government had to pass a very strict austerity program in 2010. In fact those austerity measures were the strictest since the end of the World War II. The austerity plan consists of extensive budget cuts reaching £81 bn and including decrease of public sector employees by almost 450,000 till 2015, which by no surprise was followed by numerous strikes and thousands of people protests across the UK. (Pimlott et al. 2010). Last but not least, there was a real-estate bubble in the UK, which burst right after the one in the United States in 2008 and there were another bubbles in Australia and New Zealand.

The real-estate bubble in the USA and subprime mortgages were responsible for the credit crunch, which turned into the financial crisis. Financial crisis caused a deep recession in the United States, which lasts until today. Recession has caused a deterioration of public finance and several States like Illinois or California are facing a severe financing issues and a risk of default. Even though the position of those states and their regional governments is substantially different from the situation of heavily indebted European countries, the main principle stays the same. American states benefit from the fiscal federation. Sovereign debt of the United States has rapidly increased over past years.

Table 18: Economic outlook of the Unite States

	2006	2007	2008	2009	2010	2011	2012
Real GDP growth	2.673	1.947	0	-2.633	2.834	2.758	2.872
Inflation	3.222	2.867	3.817	-0.327	1.646	2.173	1.605
Unemployment rate	4.608	4.617	5.8	9.275	9.633	8.537	7.751
Net lending/borrowing	-2.036	-2.738	-6.477	-12.669	-10.586	-10.793	-7.534
Primary deficits	-0.061	-0.656	-4.514	-10.903	-8.876	-9.034	-5.744
Current account balance	-5.99	-5.107	-4.655	-2.68	-3.208	-3.243	-2.838
Debt-to-GDP	61.122	62.159	71.222	84.577	91.552	99.519	102.903

Source: IMF, Note: Figures in % and % of GDP. 16.7. 2011

Debt has increased substantially due to enormous bailout of the banking sector. The rest accounts for a lack of reforms, recession and attempt to stimulate growth through an extensive fiscal expansion. Total amount of national debt is limited by a debt ceiling, which is regularly increased when necessary. Since the start of the Credit Crunch, debt has increased by 30% of GDP and unemployment has more than doubled. Nowadays, there is a sovereign debt crisis in the United States, because opposition blocks further rising of the debt limit and government will run out of money by the beginning of August 2011. Rating agencies are concerned over the rising debt and made a threat that the sovereign rating might be downgraded, which would have serious consequences.

If we focus back on the European Union, Romania, Hungary, and Latvia were the very first countries, which applied for an external funding by the EU through the Balance of Payments facility.

It is crucial to realize, that the European Sovereign Debt Crisis is European and it is a crisis of the sovereign debt, not the Euro currency per se. Even though there are some critiques of the Euro claiming that the lack of homogeneity within the Eurozone caused real-estate bubbles in Ireland and Spain, it was not the only reason as the same bubbles appeared all over the world. There were real-estate bubbles outside of the Eurozone, so despite the fact that ECB rates might be sometimes unfavorable to a part of Member States, real-estate bubbles can’t be fully avoided through independent monetary policy. Neither FED, nor the Bank of England has shown the ability to prevent creation of bubbles and none of those countries managed to survive the Financial Crisis without the substantial increase of its sovereign debt and a bailout of the banking sector.

The biggest problem of Eurozone is the lack of motivation to undergo structural reforms and keep sound fiscal policies. Some countries like Greece or Portugal were only free-riding and enjoying merits of the Eurozone without satisfying Maastricht criteria needs to be followed only by prospective Members, as the SGP pact fails to enforce fiscal discipline. This should change with the proposed update of the SGP pact.

7. Fostering European economic stability

During the financial and debt crisis in Europe, it became apparent that contemporary state of Stability and Growth Pact (SGP) is unsatisfactory and the Pact needs to be revised. Economic situation in Europe nowadays is rather different than it used to be in early 90's. European Union is struggling both in terms of stability and growth. Impact of the Financial Crisis on Europe was striking. There is no doubt that Europe wasn't prepared for a crisis of such extent. Banking sector showed how weak it was during the crisis and marked the importance of performing regular stress test. Overall financial supervision in Europe needs to improve. Moreover Europe had no plans regarding increase in competitiveness and towards a long-term and sustainable growth as the SGP was aimed at short and medium term stability. According to initial believes Euro was a key to a further European integration and by its design it was supposed to promote mutual trade and convergence of poorer performing countries towards the leading core. For several reasons it didn't happen. Euro itself offer many benefits to Eurozone Members, but from the very beginning some countries started to exploit its merits. Maastricht criteria included in the Stability and Growth pact soon became rules only to be followed by prospective Members. So as a result, prospective Members had tougher conditions than current Members. Simply the benefit of cheaper lending was too tempting, especially for poorer countries lacking structural reforms like Greece or Portugal.

7.1 SGP update

Stability and Growth Pact was meant to be a safeguard of the stability in the Eurozone. The problem is that it has low enforceability, as the so/called excessive deficit procedure was deemed non-enforceable after Germany and France breached the Maastricht criteria in 2003 and managed to persuade ECOFIN commission to postpone the application of the Pact. In March 2011 European Council presented a proposal of an update to the Pact. Proposed update targets both preventive and corrective arms of the Pact, leaving the excessive deficit procedure intact. Excessive deficit procedure concept will be broadened to excessive imbalances procedure targeting the main macroeconomic indicators. If the excessive imbalance is identified, Member will be given a recommendation and deadline for correction of the imbalance. If the Member repeatedly fails to comply with the recommendation, it will be penalized by an annual sanction of 0,1% of GDP.

Preventive arm will introduce an expenditure benchmark, which will be used in assessment of Members' medium term objectives. If the Member significantly deviates from its medium term objectives it can be sanctioned.

Corrective arm of the Pact will be significantly strengthened. Every country with a deficit above the 60% level set in Maastricht criteria will be required to decrease by average annual rate of at least one twentieth of the debt over the three-year period. On the other hand, even the update of the Stability and Growth Pact leaves a plenty of maneuvering space for Members as the debt rule will be applied only taking into account a broader context, such as ageing of population or reform costs. This leaves too many opportunities to avoid application of the rule by Member States.

Sanctions will tightened and paid in the early stage of the excessive deficit procedure. When country will be found subject to the EDP, it will have to deposit an amount of 0,2% of GDP. If the country manages to reach its deficit targets, the deposit will be returned. Otherwise the deficit will be used to cover financial sanctions. If the Member State violates the Pact repeatedly, sanctions will gradually increase. Unlike nowadays, the application of the sanctions will be automatic and could be reverted only by a qualified majority of the Council. (EU 15.3. 2011)

This proposal means an immense improvement to the functioning of the SGP and by automatizing sanctions it decreases risks of political manipulation like we saw in case of excessive deficit procedures of Germany and France in 2003. Moreover it broadens the scope of the Pact to all major macroeconomic indicators.

7.2 Euro Plus Pact

Euro Plus Pact is meant to be a supplement to the existing Stability and Growth Pact, addressing broader aspects of a long-term convergence and competitiveness. It is designed especially to increase economic policy coordination among its Members. Members are supposed to discuss any major economic reform, which might have a spillover effect. Despite it is primarily a designated instrument of Eurozone Countries, it has been also accepted by several prospective members - Bulgaria, Denmark, Latvia, Lithuania, Poland, and Romania.

The original name of the successor of Stability and Growth pact was Pact for Competitiveness. As some aspects of the original Pact for Competitiveness changed compared to the original proposition, the name changed to Pact for the Euro and then finally to the Euro Plus Pact. Plus in the name indicates that also non-Eurozone countries are joining the Pact. According to Hermann von Rompuy, president of the European Council, it also indicates that the Pact goes beyond existing treaties and further strengthens integration among its Members. (The Economist, 25.3. 2011)

The pact will be implemented on a national level and pursue of its goals will be left on individual member states, but regularly supervised. The choice of particular policies to achieve these goals is left on each member. Progress in fostering competitiveness and growth will be assessed every year by Head of state or Government and reported to European Commission. Also annually they will set new targets and commitments for following year. Success of following promised goals will be measured by benchmarks and best practices among all member states. Main targets for countries were set in following points:

- **Foster competitiveness**. The main stress is put on the growth of wages. Competitiveness will be measured by the extent to which changes in wages goes hand in hand with changes in productivity. As an index will be used unit labor costs (ULC). Competitiveness will be measured not only for the whole economy, but also for all major sectors. Findings will be confronted with the rest of Eurozone and with similar trading partners. Increased attention should be paid to the existing systems of wage negotiation, which should be changed if necessary in order to ensure growth in competitiveness. Additionally, wages in public sector should set example to private sector. Increased productivity should be achieved also through a support of small and medium enterprises, including removal of legal and administration obstacles. Furthermore protection of certain industries or occupations should be lessened or abolished. Last but not least, governments should support education, R&D and infrastructure.

- **Foster employment**. Long-term employment, youth employment and participation ratio are the key indicators to be observed. Employment should be supported by lifelong learning and tax incentives. Furthermore, so-called “flexicurity” model should be promoted. It is an economic policy, which balances between job flexibility and security of transition between jobs.

- **Enhance the sustainability of public finances**. In order to meet requirements of Stability and Growth Pact, governments should take into account several aspects. Most importantly, countries should focus on its mandatory expenditures, namely pension system, health care system, and social transfers. It is crucial for all countries to keep those mandatory expenditures sustainable. Whole Europe undergoes demographic implosion and as a result the population is ageing. Additionally, the expected life length is increasing. Those two factors combined exert immense pressure on fiscal sustainability of contemporary pension and health care systems. By this proposition is silently intended, that the retirement age will be increased across all member states of the pact. Even more important an incorporation of national fiscal rules. It is up to any member how it incorporates in its own legislation, but it should be easily enforceable and last for a sufficient time. It can take a form of expenditure rule limiting annual budget deficits, or a debt brake. The choice of a particular fiscal rule should be consulted with The European Commission, which should ensure the compliance with existing EU acquis.

- **Reinforce financial stability**. In a reaction to financial crisis, EU is improving regulation and supervision of financial sector. Members should cooperate with EU through national banking legislation. Furthermore, member states commit to performing regular banking stress test, which will be coordinated at EU level. EU will be also watching over the amount of private debts in banks, non-financial firms, and households. Eventual macroeconomic or macro-financial issues will member states discuss with presidents of ESRB and Eurozone in order to find an optimal solution.

- **Tax policy coordination**. There is a need to cooperate on common corporate tax base to make national tax systems consistent and consequently to improve competitiveness of European businesses. Additionally, governments should work on limitation of tax evasion and tax frauds and promote an exchange of best practices.

(European Commision 20.4. 2011)

Euro Plus Pact has some controversial aspects for which it is being criticized. The preliminary concept of the Pact update was designed by German Chancellor Angela Merkel and French president Nicholas Sarkozy to suit best their national preferences. It might seem quite unfair with a respect to the rest of Eurozone and EU Members, but France and Germany both have an unusually strong negotiating position during the sovereign debt crisis, so they can pre-negotiate some advantages for their nations. Both countries have a keen interest on adoption of the tax clause. Whilst it is officially meant to be a protection against tax evasion and frauds, between lines can be noticed it is targeted on specific countries like Bulgaria and Ireland having very low corporate taxes. Even though the tax clause is very vague and voluntary, Ireland perceives it as a “back-door” to tax harmonization. Especially France exerts an immense pressure on Ireland to increase its 12,5% corporate tax. Despite the pressure, Irish Prime minister Enda Kenny stated that Irish tax is ”unmovable”. (Irish Times, 20.4. 2011)

Tax clause is not the only source of disputes. Baltic countries claims they cannot comply with increasing retirement age, because the average life span in those countries belongs to the lowest in Europe. Another case is Luxembourg and Belgium, which oppose abolition of wage indexation. Thousands of people across the Europe were protesting against the Pact. The biggest concerns for them were related to the abolition of wage indexation and fear that social securities and pension plans will be significantly reduced. People feel that the Pact gives too much power too employers and are afraid that they will use it to exploit their employees.

7.3 European Semester

Improvement of the Stability and Growth Pact allowed implementation of the so-called “European Semester”. It is a tool for closer economic policy coordination in the European Union. The first semester started on March 2011. European Commission and the Council will present at the beginning of each semester targets and issues for the following year. Each government is then supposed to present its proposed national reforms, which should help overcome presented threats in line with the Europe 2020 plan requirements. Both budget and reforms will be then reviewed by the Commission and Council, which will serve as advisory bodies. After the review, budget and reforms should be implemented on national levels.

Part of the European Semester is a Europe 2020 strategy. Europe 2020 is a long-term strategic plan for the European Union. As the name suggests, it is a 10 year plan addressing five economic areas responsible for the long-term and sustainable economic growth. It aims to help unemployed back to work, attract private capital to finance growth, increase investments on education and research, and supports a reform of pension systems. National progress towards these goals will be assessed based on the following target indicators:

“ The 5 targets for the EU in 2020

1. **Employment**

   75% of the 20-64 year-olds to be employed
2. **R&D / innovation**

   3% of the EU's GDP (public and private combined) to be invested in
   R&D innovation
3. **Climate change / energy**

   greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990

   20% of energy from renewables

   20% increase in energy efficiency
4. **Education**

   Reducing school drop-out rates below 10%

   at least 40% of 30-34–year-olds completing third level education
5. **Poverty / social exclusion**

   at least 20 million fewer people in or at risk of poverty and social exclusion”

Source: European Commission (2011e).

Each Member State will implement those targets on a national level. Europe 2020 progress will be monitored during the Euro Semester. European Semester should help achieving targets of the Europe 2020 program by focusing on improvement of budgetary discipline and macroeconomic stability. Europe 2020 is highly important, because it is the first initiative, which focuses on long-term sustainability of the growth, not just growth itself.

7.4 Improved supervision

With no doubts, without the Financial Crisis spreading from the United States across the world, there would be no Sovereign Debt Crisis in Europe, or its extent and depth would have been significantly reduced. One of the reasons why the sovereign debt crisis is so serious is a weakened financial system, which hasn't fully recovered from the credit crunch and financial crisis. Among the key factors, which caused the financial crisis was an insufficient financial supervision. Similarly to the United States, European Union had to react to such a deficiency and reformed the financial supervision framework. Four new supervisory bodies were established in 2010 creating the European System of Financial Supervision and becoming operational by January 1st 2011. (European Commission 20.4. 2011)

- **European Systemic Risk Board (ESRB)** – is the main supervisory body based in Frankfurt. As the name suggest, its main scope is to supervise stability of the European financial sector and protect it from systemic risks. ESRB is doing so by monitoring macroeconomic development.
- **European Banking Authority (EBA) –** is a successor body of the Committee of European Banking Supervisors (CEBS) and is based in London. It has numerous responsibilities related to supervision of the banking system. The main attention is currently focused on stress tests of the European banking sector. EBA will be performing stress tests on a regular basis. Stress tests will be tightly coordinated with the ECB, ESRB, Member States' national supervisors and the European Commission. Compared to stress test performed by CEBS in July 2010, new stress performed by EBA should be more extensive and cover much worse conditions compared to CEBS test. CEBS test has been repeatedly criticized for being too soft and the worst-case scenario of test being too optimistic.
- **European Insurance and Occupational Pensions Authority (EIOPA) –** is an authority based in Frankfurt and its main scope is to support stability of the financial sector by supervising insurance companies and pension funds. EIOPA replaced the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS).
- **European Securities and Markets Authority (ESMA) –** is an authority based in Paris. It replaced a Committee of European Securities Regulators (CESR) and it is main scope is to support stability of financial markets by supervising securities markets. It closely cooperates with EIOPA and EBA authorities.

7.5. Assessment of institutional changes

European Union managed to react on he crisis and created a set of supporting safeguard mechanisms that will help to protect the stability both of the Eurozone and the European Union. Improved financial market supervision should prevent, or at least lessen, future banking crisis. On the other hand some criticism of previous institution still prevails. Even though EBA's banking stress tests are much more strict and realistic than the stress tests by CEBS, but they are still too soft. There is a real possibility, that the banking stress tests are designed to provide an overall optimistic image of the banking sector.

EU defined a reasonable long-term development strategy Europe 2020 targeted to provide long-term and sustainable growth. Within the Euro Semester and Euro Plus Pact was introduced regular cooperation on fiscal policies, which is a stepping-stone for a future fiscal union. Even though Germany is against any kind of fiscal transfers, as it rightfully fears it will have to pay for everyone else, the fiscal union doesn't have to provide fiscal transfers. It can have a form of a fiscal supervisory body as suggests Wyplosz (2005, 2008). It would be a fiscal version of independent central bank. Wyplosz hopes such institution would eradicate influences of political cycle.

Such proposals use to be criticized as an interference to state sovereignty. Furthermore fiscal policy preferences differ among Members and it is not clear which type of fiscal policy should be followed. One way or another, nowadays it is a perfect timing to make another step in the process of European integration. Even the Euro Plus Pact goes a step further beyond the existing Treaties.

The biggest problem of fiscal consolidation and structural reforms is motivation. Both are extremely unpopular as was seen during the European sovereign debt crisis. People got used to budget deficits so much, that they don't sometimes realize budgets can be in surplus. As with any other debt, there is nothing particularly wrong about sovereign debt itself. On the other hand debt has to have a proper justification and has to be sustainable in the first place. Motivational problem might be solved by the update of SGP pact, which imposes much stricter fine under the excessive deficit procedure and macroeconomic imbalances procedure. Functioning of the Pact is automated, so it should be free from a political bias as was seen in case of EDP of France and Germany.

By the example of Ireland we can see that having sound public finance is not enough. Ireland had extraordinary low debt and ran budget surpluses. In just two years time Irish debt quadrupled and budget deficits crossed -30% of GDP. The old glory is long gone.

Since the crisis came, now they have one of the highest debts and deficits in Europe.

Establishment of the ESM fund was a reasonable move as the process of possible future bailouts gets automated. The possible risk is once again the motivation of Members. Governments might rely on the financial support and seek it regularly.

It is indispensable to renew stability of financial sector, achieve fiscal consolidation and improve competitiveness.

Conclusion

" Beware, If I fall, then Italy falls. If Italy falls, then so falls the euro. It is a chain.“

(Giulio Tremonti, July 2011)[1]

More than year has passed and the European sovereign debt crisis is far from being over. The reason why it is so hard to find a solution is a political division of the Eurozone. Every Member has a slightly different opinion over the ideal solution. As a result, European politicians decided to muddle through the crisis, as it is much easier to explain to voters. Finding a solution to the crisis is extraordinary complicated, because it is in fact a combination of two crises – banking crisis and debt crisis. Banking sector is weakened form the credit crunch and as the banking sector holds a large amount of sovereign bonds, those two crises are interconnected. Banking sector threatens economic stability and sovereign default would severely affect banks. It is a vicious circle and everyone is afraid of the Lehman Brothers moment repeating in Europe. Domino effect within banking sector or of sovereign defaults would ruin Eurozone, initiate a second financial crisis and threaten future of the European integration. Too much is in stake and consequences might be catastrophic. On the other hand, the crisis might be a unifying element leading to even tighter integration as can be witnessed on the example of the Euro Plus pact. It might even open doors to a fiscal federalism.

Bailout program was supposed to buy enough time for banks till they recapitalize, but for several reason it didn’t work. Firstly, recovery of recipient countries is much slower than was initially expected. Secondly, the bailout and austerity program is not perceived by investors and rating agencies as a credible solution. Rating agencies nowadays have a “death switch” as the capital market immediately reacts to sovereign rating downgrades. The question is why those agencies didn’t act sooner, prior to the outbreak of the debt crisis. European Union wants to diminish their power and establish a European rating agency, but there is a great risk of a political bias.

European Union still tries to find who should pay for the crisis and easiest and the most publicly acclaimed is a bank tax, but it is not a wise solution as the European banking

[1] Censky (2011)

sector is weakened from the crisis.

As the case studies show, Euro is not the source of the crisis. Only in some cases it was a contributing factor due to the fact that Eurozone doesn’t satisfy all conditions of the optimal currency area. Eurozone project is viable, which can be proved by accession of Estonia despite the debt crisis and last but not least, there was so far no Euro devaluation. During the crisis Euro has lost against dollar, but it can be perceived even as a positive thing as the weaker Euro supports exports. Problems of Eurozone undermined the faith in the European integration. Moreover ECB lost its good reputation during the crisis.

Eurozone is not the only troubled European project. Schengen area is showing some weaknesses too. France and Italy argues about trains of immigrants and Denmark reinstated border controls, as it fears a cross-border crime. As with the Eurozone, those weaknesses don’t mean the project is wrong, only that some details have to be improved.

The contemporary financial crisis is in some aspects even worse than the ill-famous Great Depression of the 30’s, but from the sovereign defaults point of view it is much better. According to Cantor and Packer (2005), during the Great Depression, 25 out of 58 countries defaulted on their international bonds. Nowadays only three sovereigns would have defaulted without the international financial help. Sadly, as the Great Depression in 30’s gave birth to the fascism, and bolstered socialism, nowadays both the right wing and the left wing extremists are gaining a political support. In Finland extremistic True Finns party ended third in general elections.

European recovery depends also on the recovery of the world economy. It depends whether the United States enter a double dip recession, or if the Chinese economy slow down in order to fight the inflation.

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<http://www.whitehouse.gov/omb/budget/Historicals/>

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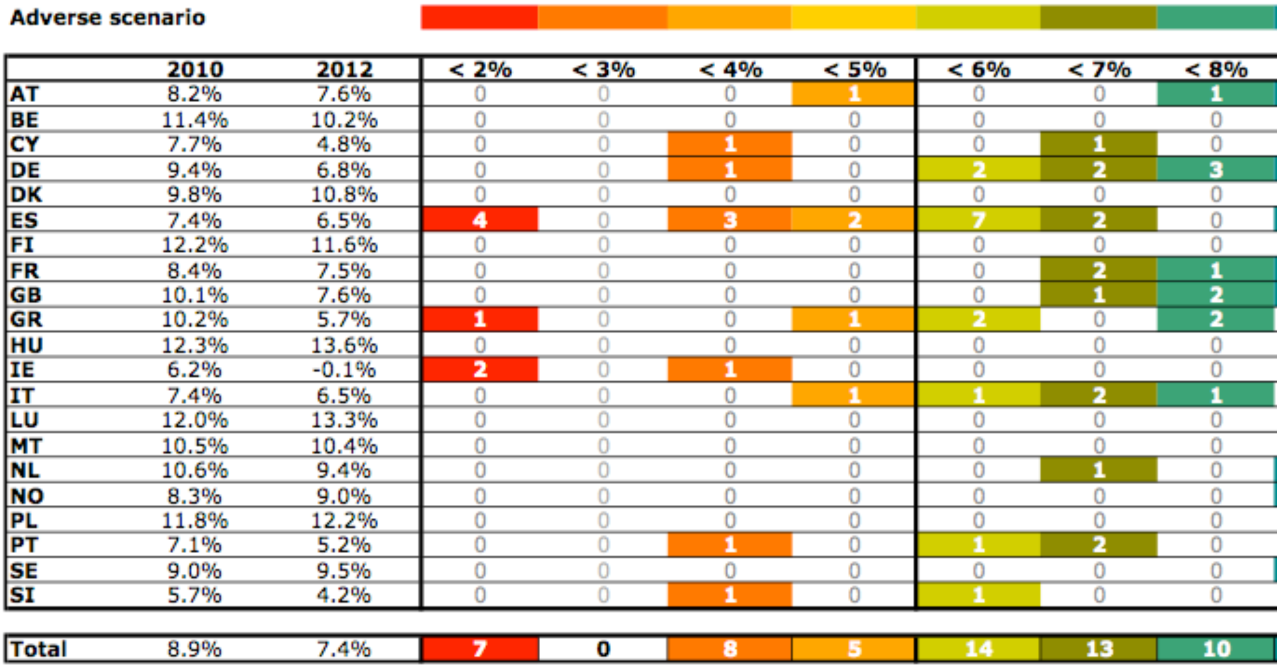
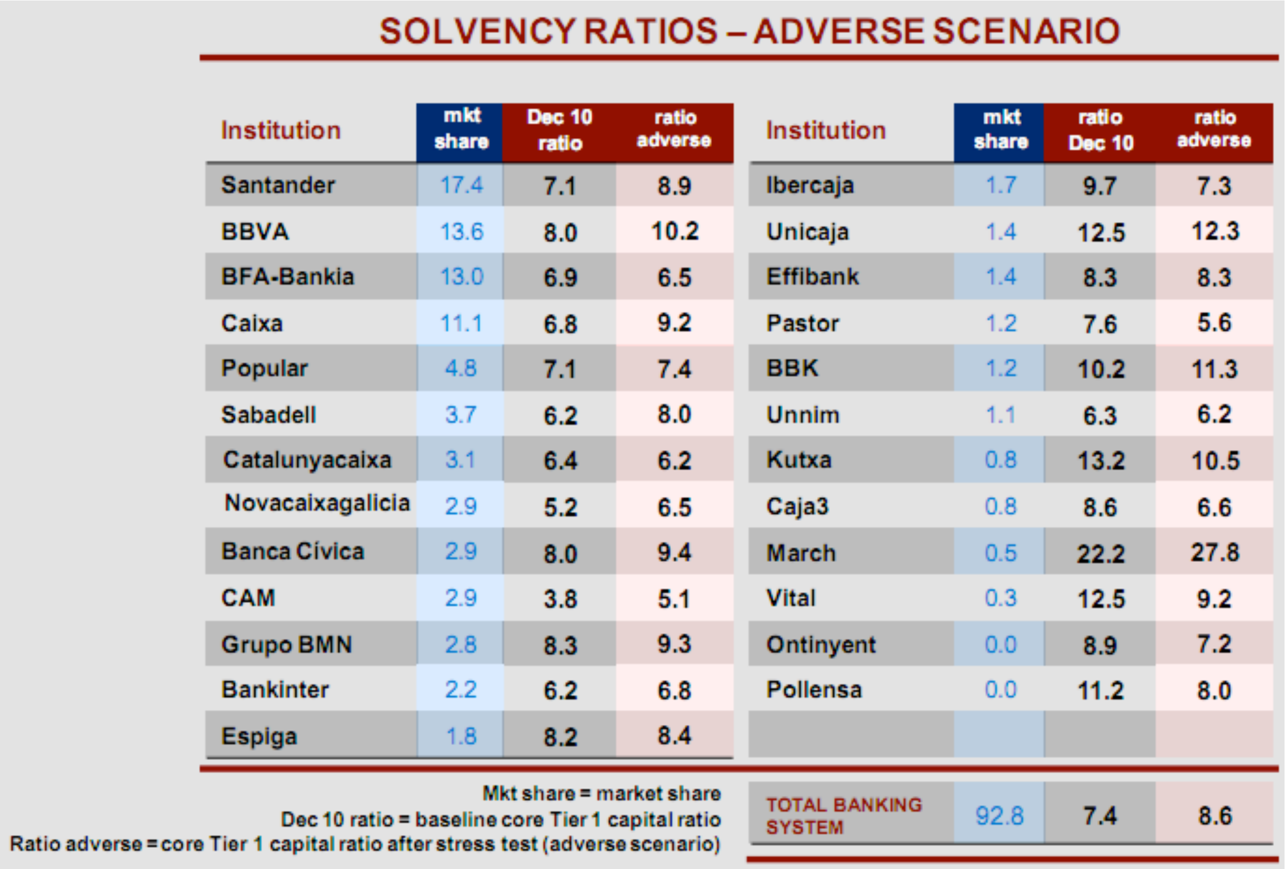
Appendix 1: Bank capital ratios without capital rising



Adverse scenario	2010	2012	< 2%	< 3%	< 4%	< 5%	< 6%	< 7%	< 8%
AT	8.2%	7.6%	0	0	0	1	0	0	1
BE	11.4%	10.2%	0	0	0	0	0	0	0
CY	7.7%	4.8%	0	0	1	0	0	1	0
DE	9.4%	6.8%	0	0	1	0	2	2	3
DK	9.8%	10.8%	0	0	0	0	0	0	0
ES	7.4%	6.5%	4	0	3	2	7	2	0
FI	12.2%	11.6%	0	0	0	0	0	0	0
FR	8.4%	7.5%	0	0	0	0	0	2	1
GB	10.1%	7.6%	0	0	0	0	0	1	2
GR	10.2%	5.7%	1	0	0	1	2	0	2
HU	12.3%	13.6%	0	0	0	0	0	0	0
IE	6.2%	-0.1%	2	0	1	0	0	0	0
IT	7.4%	6.5%	0	0	0	1	1	2	1
LU	12.0%	13.3%	0	0	0	0	0	0	0
MT	10.5%	10.4%	0	0	0	0	0	0	0
NL	10.6%	9.4%	0	0	0	0	0	1	0
NO	8.3%	9.0%	0	0	0	0	0	0	0
PL	11.8%	12.2%	0	0	0	0	0	0	0
PT	7.1%	5.2%	0	0	1	0	1	2	0
SE	9.0%	9.5%	0	0	0	0	0	0	0
SI	5.7%	4.2%	0	0	1	0	1	0	0
Total	8.9%	7.4%	7	0	8	5	14	13	10

Source: EBA stress test (2011).

Appendix 2: Solvency ratios



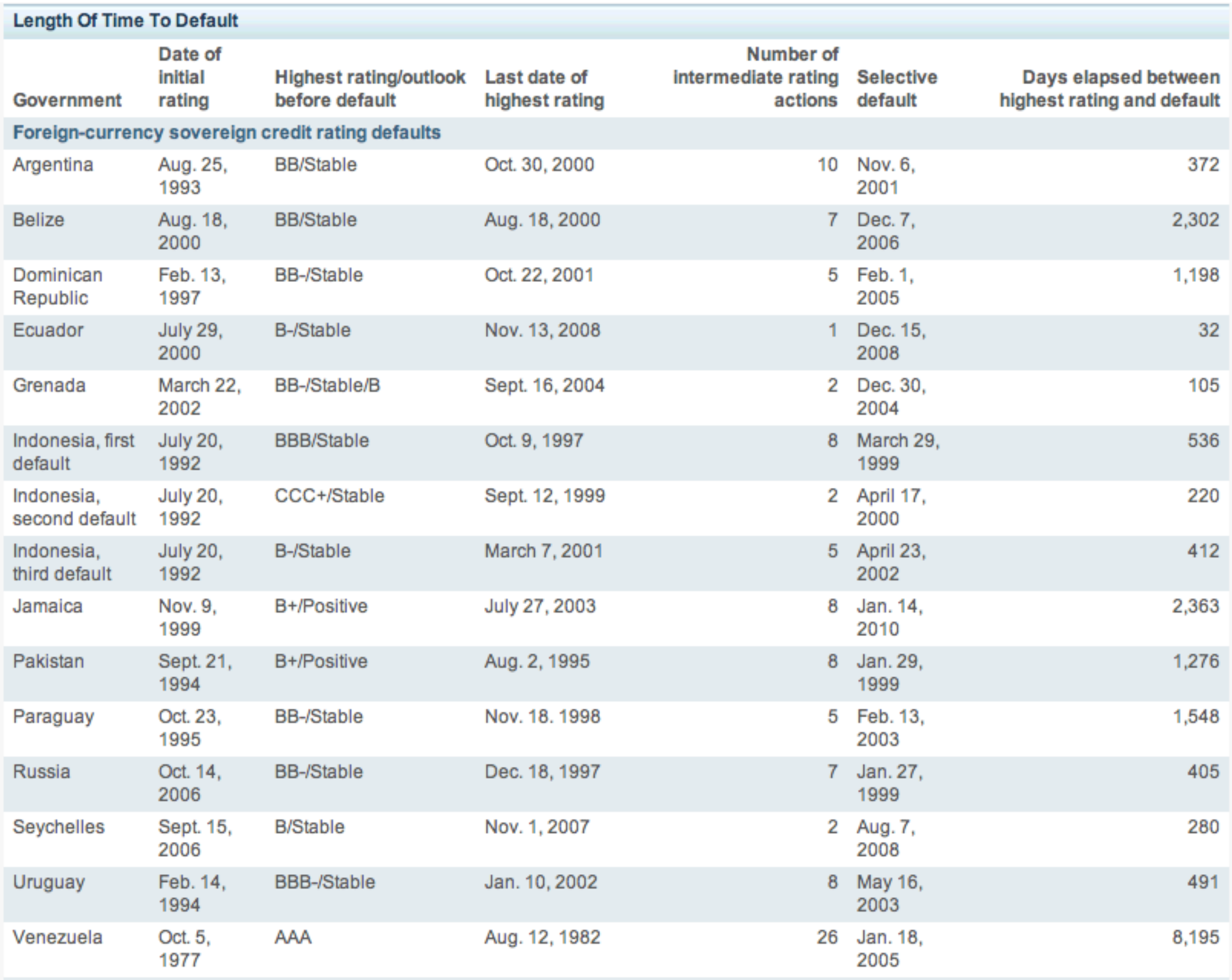
SOLVENCY RATIOS – ADVERSE SCENARIO

Institution	mkt share	Dec 10 ratio	ratio adverse	Institution	mkt share	ratio Dec 10	ratio adverse
Santander	17.4	7.1	8.9	Ibercaja	1.7	9.7	7.3
BBVA	13.6	8.0	10.2	Unicaja	1.4	12.5	12.3
BFA-Bankia	13.0	6.9	6.5	Effibank	1.4	8.3	8.3
Caixa	11.1	6.8	9.2	Pastor	1.2	7.6	5.6
Popular	4.8	7.1	7.4	BBK	1.2	10.2	11.3
Sabadell	3.7	6.2	8.0	Unnim	1.1	6.3	6.2
Catalunyacaixa	3.1	6.4	6.2	Kutxa	0.8	13.2	10.5
Novacaixagalicia	2.9	5.2	6.5	Caja3	0.8	8.6	6.6
Banca Cívica	2.9	8.0	9.4	March	0.5	22.2	27.8
CAM	2.9	3.8	5.1	Vital	0.3	12.5	9.2
Grupo BMN	2.8	8.3	9.3	Ontinyent	0.0	8.9	7.2
Bankinter	2.2	6.2	6.8	Pollensa	0.0	11.2	8.0
Espiga	1.8	8.2	8.4				
				TOTAL BANKING SYSTEM	92.8	7.4	8.6

Mkt share = market share
Dec 10 ratio = baseline core Tier 1 capital ratio
Ratio adverse = core Tier 1 capital ratio after stress test (adverse scenario)

Source: Central Bank of Spain (2011).

Appendix 3: Sovereign foreign currency defaults – time to default

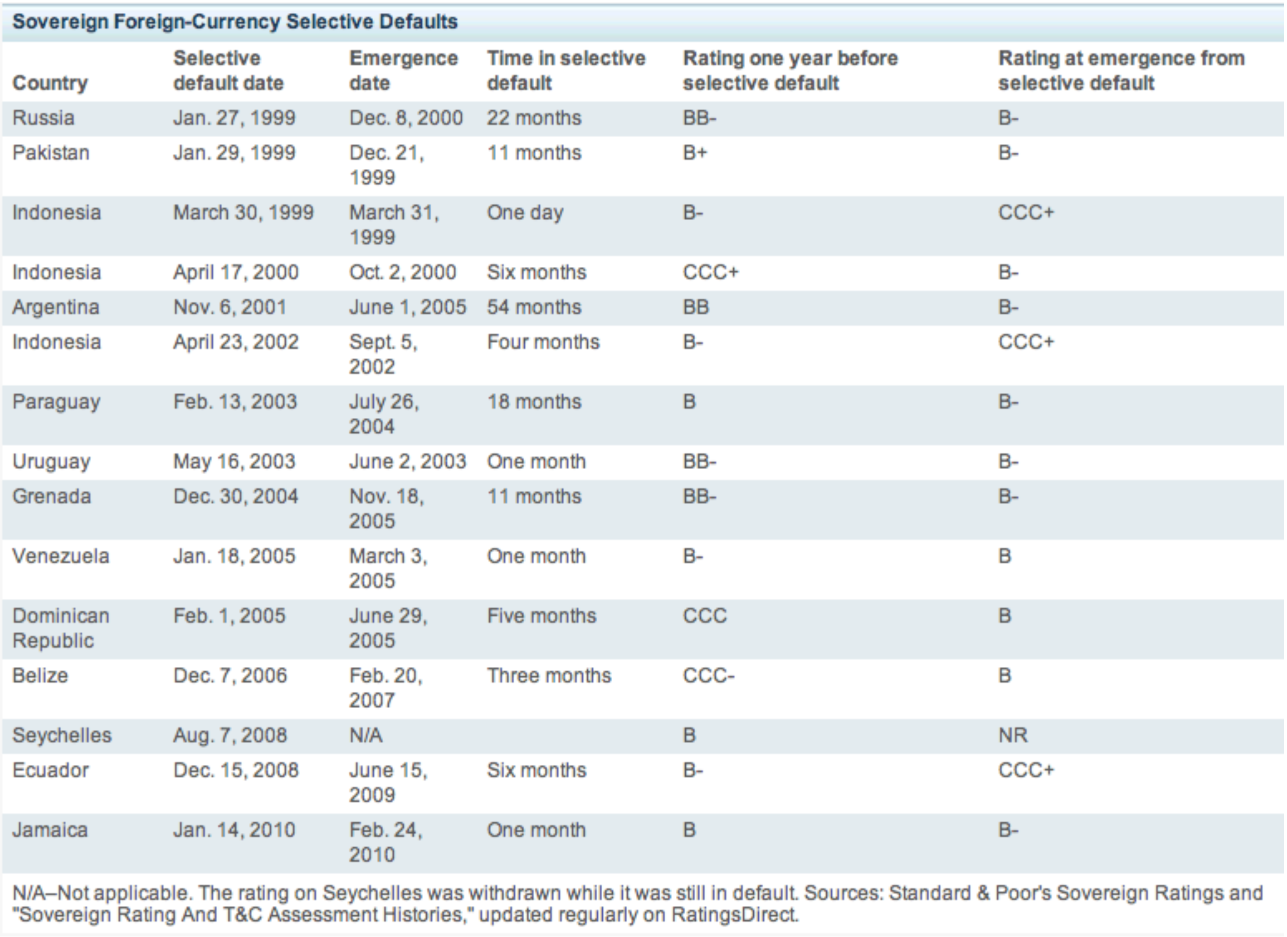


Length Of Time To Default

Government	Date of initial rating	Highest rating/outlook before default	Last date of highest rating	Number of intermediate rating actions	Selective default	Days elapsed between highest rating and default
Foreign-currency sovereign credit rating defaults						
Argentina	Aug. 25, 1993	BB/Stable	Oct. 30, 2000	10	Nov. 6, 2001	372
Belize	Aug. 18, 2000	BB/Stable	Aug. 18, 2000	7	Dec. 7, 2006	2,302
Dominican Republic	Feb. 13, 1997	BB-/Stable	Oct. 22, 2001	5	Feb. 1, 2005	1,198
Ecuador	July 29, 2000	B-/Stable	Nov. 13, 2008	1	Dec. 15, 2008	32
Grenada	March 22, 2002	BB-/Stable/B	Sept. 16, 2004	2	Dec. 30, 2004	105
Indonesia, first default	July 20, 1992	BBB/Stable	Oct. 9, 1997	8	March 29, 1999	536
Indonesia, second default	July 20, 1992	CCC+/Stable	Sept. 12, 1999	2	April 17, 2000	220
Indonesia, third default	July 20, 1992	B-/Stable	March 7, 2001	5	April 23, 2002	412
Jamaica	Nov. 9, 1999	B+/Positive	July 27, 2003	8	Jan. 14, 2010	2,363
Pakistan	Sept. 21, 1994	B+/Positive	Aug. 2, 1995	8	Jan. 29, 1999	1,276
Paraguay	Oct. 23, 1995	BB-/Stable	Nov. 18. 1998	5	Feb. 13, 2003	1,548
Russia	Oct. 14, 2006	BB-/Stable	Dec. 18, 1997	7	Jan. 27, 1999	405
Seychelles	Sept. 15, 2006	B/Stable	Nov. 1, 2007	2	Aug. 7, 2008	280
Uruguay	Feb. 14, 1994	BBB-/Stable	Jan. 10, 2002	8	May 16, 2003	491
Venezuela	Oct. 5, 1977	AAA	Aug. 12, 1982	26	Jan. 18, 2005	8,195

Source: Standard & Poors (2011).

Appendix 4: Sovereign foreign currency defaults – length to default



Sovereign Foreign-Currency Selective Defaults

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating at emergence from selective default
Russia	Jan. 27, 1999	Dec. 8, 2000	22 months	BB-	B-
Pakistan	Jan. 29, 1999	Dec. 21, 1999	11 months	B+	B-
Indonesia	March 30, 1999	March 31, 1999	One day	B-	CCC+
Indonesia	April 17, 2000	Oct. 2, 2000	Six months	CCC+	B-
Argentina	Nov. 6, 2001	June 1, 2005	54 months	BB	B-
Indonesia	April 23, 2002	Sept. 5, 2002	Four months	B-	CCC+
Paraguay	Feb. 13, 2003	July 26, 2004	18 months	B	B-
Uruguay	May 16, 2003	June 2, 2003	One month	BB-	B-
Grenada	Dec. 30, 2004	Nov. 18, 2005	11 months	BB-	B-
Venezuela	Jan. 18, 2005	March 3, 2005	One month	B-	B
Dominican Republic	Feb. 1, 2005	June 29, 2005	Five months	CCC	B
Belize	Dec. 7, 2006	Feb. 20, 2007	Three months	CCC-	B
Seychelles	Aug. 7, 2008	N/A		B	NR
Ecuador	Dec. 15, 2008	June 15, 2009	Six months	B-	CCC+
Jamaica	Jan. 14, 2010	Feb. 24, 2010	One month	B	B-

N/A–Not applicable. The rating on Seychelles was withdrawn while it was still in default. Sources: Standard & Poor's Sovereign Ratings and "Sovereign Rating And T&C Assessment Histories," updated regularly on RatingsDirect.

Source: Standard & Poors (2011).

Appendix 5: ECB contributor key

Country	**ISO**	**ESM key**
Austria	AT	2.783
Belgium	BE	3.477
Cyprus	CY	0.196
Estonia	EE	0.186
Finland	FI	1.797
France	FR	20.386
Germany	DE	27.146
Greece	EL	2.817
Ireland	IE	1.592
Italy	IT	17.914
Luxembourg	LU	0.25
Malta	MT	0.073
Netherlands	NL	5.717
Portugal	PT	2.509
Slovakia	SK	0.824
Slovenia	SI	0.428
Spain	ES	11.904
Total	**EA17**	**100**

Source: EU (20.4. 2011), pp.34