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Eurozone Debt Crisis

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Declaration of Authorship

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Abstract

The aim of the thesis is to analyse recent Eurozone debt crisis with focus on PIIGS (Portugal, Ireland, Italy, Greece and Spain) countries. The main goal of this thesis is to identify causes of the crisis for individual PIIGS countries. In order to do it is necessary to look more in the past. Further attention was paid to the course of the crisis, especially to financial help provided by European Union and International Money Fund. In the end is explained how economic imbalances increasing external debt and what impact financial crisis had on the European economies.

Key words: Eurozone, debt crisis, PIIGS, deficit, ESM, public debt, interest rate

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List of Abbreviations

EC = European Commission

EU = European Union

CAC = Collective Action Clause

ECB = European Central Bank

ECU = European Currency Unit

EDP = Excessive Deficit Procedure

EMS = European Monetary System

EMU = Economic and Monetary Union

ERM = European Exchange Rate Mechanism

ESM = European Stability Mechanism

EUR = Euro Currency

GDP = Gross Domestic Product

HICP = Harmonized Index of Consumer Prices

IMF = International Money Fund

MoU = Memorandum of Understanding

PSI = Private Sector Involvement

SGP = Stability and Growth Pact

EFSF = European Financial Stability Facility

EFSM = European Financial Stabilization Mechanism

NAMA = National Asset Management Agency

OECD = Organisation for Economic Co-operation and Development

PASOK = Panhellenic Socialist Movement

PIIGS = Portugal, Ireland, Italy, Greece, Spain

1 Introduction

The year 2008 will remain in the memory of many economists as the year when US mortgage crisis broke out which has fundamentally affected the economic situation not only in the United States, but also worldwide including Europe. The European Union went through one of the most complex and perhaps the most important periods of its history. Some countries are still going through consequences caused by a debt crisis. The main problems include the over-indebtedness of countries known as PIIGS, Portugal, Italy, Ireland, Greece and Spain, which asked for financial help. The most serious situation was probably in Greece whose problems, despite financial support, are improving very slowly.

PIIGS countries are the main focus of this thesis. Not only that they were hit the hardest but also for completely different reasons. The main objective of this work is to identify causes of the debt crisis in individual PIIGS countries. The development of the economy before the crisis in Greece, Portugal, Spain, Italy and Ireland are very different and had a very great influence on where the countries are heading today.

The work is written in such a way that the chapters follow each other and provide a comprehensive view of the causes of the financial crisis and its subsequent course in the euro area.

The first chapter deals with general explanation of the concept of financial crisis and its division into several types. It also describes four generations of financial classic crisis models. It is very important to mention how such crises emerge and expand.

The second chapter is divided in five subchapters describing the causes of the crisis in PIIGS. For a good understanding of todays problems in chosen countries, we have to go back to the past.

The third chapter chronologically follows the second chapter and describes the course of the financial crisis which was also very diverse. Problems of Greece, Ireland, Portugal and Spain's escalated to that point that they had to ask for financial aid.

In the fourth chapter is explained impact of financial crisis on PIIGS countries. How indebtedness, government debt and deficit, and all economic imbalances increasing external debt and manifest through current account which is the main cause why crisis emerged.

The reader has to take the individual causes as part of a larger, more complex package. Therefore, the causes need to be thoroughly investigated so that we can understand their interconnections and avoid wrong conclusions. To do this, we will use an analysis to decompose the individual causes into their basic parts and search for their substance and the connections that exist between them. We use a comparison to compare individual causes. Since some of the causes date back to the past, much information is simply a description of the sequence of events, and we will use the description method.

2 Financial Crisis and Its Definition

Even though the term crisis, or financial crisis, is a very discussed topic today, there is no uniform definition of this term (Musílek, 2004, p. 11). The financial literature does define the term financial crisis differently. The complexity of the problem reflects the approach of Claessens and Kose (2013). According to the authors, the financial crisis may be associated with more phenomena such as substantial changes in credit volume and asset prices, serious disruption to financial intermediation, major problems of balance sheets (companies, states, households and financial intermediaries), extensive government support (in the form of liquidity support and recapitalization). In their opinion, financial crises are typically multidimensional events and it is very difficult to describe them with a single indicator (Claessens, Kose, 2013). For example, Mishkin operates with a definition that sets the financial crisis as "*non-linear disruption to financial markets, where the problems of bad choice and moral hazard are getting worse, so financial markets are not able to effectively shift funds to those who have the most productive investment opportunities*" (Mishkin, 1996). A more understandable definition is presented by Musílek for his research study. It defines the financial crisis as "*a significant deterioration in the vast majority of financial indicators, manifested by a lack of financial system liquidity, extensive financial institutions' insolvency, an increase in the volatility of financial instrument yield rates, a significant decline in financial and non-financial assets, and a significant reduction in the allocation of savings in the financial system*" (Musílek, 2004, p. 12). According to the International Monetary Fund (IMF) financial crises are "*potentially severe disruptions of financial markets that, by impairing markets' ability to function effectively, can have large adverse effects on the real economy.*" (IMF, 1998, p. 75).

2.1 Types of Financial Crisis

In theoretical analysis, the following basic cases are included under the term financial crisis:

- currency crisis,
- banking crisis,
- debt crisis,
- systemic financial crisis, involving the manifestations of all or most of the above types with different causality (Dvořák, 2004, p. 4).

In times of financial crisis, types of crisis describe above often overlap and intertwine. For this reason, it is very difficult to determine exactly what kind of crisis it is (Musílek, 2004, p. 12).

2.1.1 Currency crisis

Until the emergence of the "modern crises" of the 1990s, the primary cause of the currency crisis was seen as an overestimation of the real exchange rate of the currency which was nominally part of the fixed exchange rate regime which was generally due to an increase in the country's inflation rate (Baim, Calomiris, 2000, p. 296).

By currency or foreign exchange crisis we understand a situation where the domestic currency is unexpectedly and sharply weakened. This may be due to speculative exchange rate attacks that result in a devaluation or even a strong depreciation of the currency (Dvořák, 2004, p. 6). But the causes of currency crises may be different. One of the causes of the currency crisis may be the inflow of foreign borrowing capital into a country against which the central bank of the country intervenes. If it does not conduct sterilized foreign exchange interventions, the money supply grows, the interest rate decreases and the reason for foreign capital inflow disappears. However, non-sterilized foreign exchange interventions lead to a performance deficit. Moreover, the inflationary effect on interest rate growth is neglected (Mandel, Tomšík, 2008).

The currency crisis according to the International Money Fund approach is a speculative attack on the exchange value of currency which manifests itself in a devaluation or considerable depreciation or when an attack on the currency forces authorities (state institutions) to use a large amount of foreign reserves to protect the currency (IMF, 1998). The cause of the crisis is usually unexpectedly excessive outflows of foreign capital in response to the state of economic variables. Thus, the crisis is usually not just a devaluation or depreciation of the currency, but also phenomena accompanying the course's defence which have a negative impact on the economy. The central bank intervenes in defending a fixed exchange rate from depreciation, buys a large amount of domestic currency and if the fixed exchange rate does not resist it, interest rates will rise and the money supply will rapidly and significantly decrease. The result is a deep economic recession (Wróblewski, 2008).

Nonetheless, the governments of the affected countries refer to speculators, for example George Soros, as the main cause of the crisis to get rid of their responsibility for this

negative economic phenomenon. Speculative attacks will accelerate a crisis that would sooner or later break out and are not the primary cause of the crisis (Baim, Calomiris, 2000, p. 297).

In the situation, already mentioned above, the sharp depreciation of the currency in some cases the government and the central bank are taking steps to defend it. In this case, foreign exchange reserves are drawn off in connection with interventions on the foreign exchange market or interest rates increase. This type of crisis is sometimes referred to as the balance of payments crisis (IMF, 1998).

Balance of payments crises may develop when foreign investment is weak or there are significant outflows from a country as a result of economic suffering or the deterioration of the country's financial infrastructure. This means that a country cannot sufficiently satisfy its debt or pay for necessary imports. This is accompanied by a very fast devaluation in national currency (DayTrading, 2019). If policymakers stand face to face to the threat of balance of payments crisis they have multiple possibilities how to react: "*sell reserves, raise interest rates, impose capital controls, apply trade restrictions or depreciate the currency"* (Broz, Duru, Frieden, 2015).

Together with the rising currency exchange rate subjects are in a very difficult situation of reduced demand for their products. Countries facing these problems then have to import more than to export. The result is a negative balance of the goods or services account. In worse cases when the situation does not improve balance may continue to deepen (Mandela, Tomšík, 2008).

The currency crisis usually comes with a debt and banking crisis. A purely currency crisis is quite rare, but the classic example of this may be the events associated with the collapse of the European monetary system in 1992 (Dvořák, 2004, p. 6). In the second half of 1992 and in the first half of 1993 during the European Monetary System crisis suffered a number of European countries that applied a collective peg system or a strong domestic currency link to the ECU when directing integration. The crisis has caused the UK and Italy to abandon the exchange rate mechanism of the European Monetary System and lead to its disintegration (Dvořák, 2008, p. 182).

2.1.2 Banking crisis

According to the IMF (International Monetary Fund) the banking crisis is referred to as a potential (or real) run[1] on banking institutions. It is defined by the problems associated with the lack of liquidity which will directly affect the decline of some or most banks. The banking crisis can also be seen as a situation in which the bank did not fail, but was prevented by government interventions. A common cause of the banking crisis in developing countries is the loss of debtors' confidence which will be reflected in the bank run mentioned above. On the contrary, in developed economies there are problems resulting from a significant decline in the value of bank assets which will manifest problems in bank balance sheets (Dvořák, 2008, p. 180).

Several banking crises are born every year and no market-oriented country is resilient to banking crises. The International Monetary Fund marks the banking crisis as such a problem in the banking system where two conditions are met (Jílek, 2013 and, p. 323).:

- Significant signs of financial problems in the banking system (significant bank panic, bank liquidation or bank system losses);
- Significant interventions in the banking system in the wake of significant losses of the banking system - interventions are significant if at least three of the following six conditions apply:
    a) significant liquidity support (at least 5% of deposits of residents and non-residents and liabilities to non-residents);
    b) gross bank restructuring costs of at least 3% of GDP;
    c) significant nationalization of banks;
    d) significant guarantees provided;
    e) significant purchases of bank assets (at least 5% of GDP);
    f) freezing of deposits and bank holidays (Jílek, 2013 and, p. 323).

The banking crises mostly arise due to high indebtedness of banks abroad, but also due to debt or currency crises. One example is the US banking crisis in the late 1980s, or the crisis in the Nordic countries and Spain in the early 1990s. As we have seen before the banking crisis can arise in connection with the currency or debt crisis. In the case of the currency crisis the sudden depreciation of the exchange rate leads to a change in the value of the bank's foreign

[1] A run on a banking institution is a mass collection of deposits by creditors who fear the bank's future insolvency.

liabilities. While in the case of a debt crisis the bank's borrowers are unable to repay their loans until the bank's liquidity crisis (Dvořák, 2008, p. 180).

A sub-crisis of the banking crisis is the liquidity crisis when banks have insufficient funds to pay out deposits or lending money. This situation often leads to the freezing of the credit market or to a bank run. Freezing the credit market can also lead to a decline in investment activity the so-called investment crisis. In such cases, economic subjects do not get to loans. In the event of low liquidity, a situation may arise where the bank does not have sufficient resources to pay out the deposits required to be paid to the saver. Such a situation can lead to bankruptcies of banks which in the worst case are then dealt with by government and central bank interventions (Kohout, 2011).

As a special type of liquidity crisis we can consider the exhaustion of liquid government funds to cover liabilities and necessary expenditure. In such a situation, the country may become insolvent. This situation is characterized by a rise in interest rates on long-term government bonds increasing debt servicing costs and a high government budget. One of the starting points is a loan from foreign creditors which is usually compensated for by a number of conditions that must be met by specific countries as exchanges for financial assistance (Kohout, 2011).

In connection with the banking crisis, it is appropriate to mention the mortgage crisis, characterized by a sharp decline in property prices on the real estate market, or a decline in mortgage prices linked to these properties, which occur in the balance sheets of individual banks. The mortgage crisis is largely linked to the banking crisis as a consequence, and in some cases may be the cause of, for example, when borrowers are unable to repay loans or mortgages (Musílek, 2008).

2.1.3 Debt crisis

Debt crisis is a situation where debtors are unable to repay loans. The financial sector is entering into liquidity problems that can result in the decline of individual financial institutions. The debt crisis may also be a situation where the economy is unable to pay off its foreign debt. In the case of individual countries' debt problems this situation may end with the declaration of bankruptcy (Candelon, Palm, 2010).

Two debt crises can be distinguished - external and internal. External debt crises are manifested by the inability of the government or the private sector to repay foreign debt. For

example, Mexico in 1982 and 1995, or Russia in 1998. Internal debt crises, which have so far been largely neglected, while are a very dangerous type of financial crisis, manifest themselves in chronic internal over-indebtedness of economies, insolvency of enterprises, households or government and an increase in the volume of classified loans which can reach the banking crisis and cause credit crunch. An example of the emergence of an internal debt crisis is Japan and its economic development in the early 1990s. Or the recent crisis in Greece which this work will deal with in more detail in the following chapters (Dvořák, 2004, p. 7).

Over-indebtedness is not a threat until its level exceeds a specific psychological threshold for the lender which is a signal to the lender for a demand for early repayment. At this point, the financial crisis may erupt in its debt form (IMF, 1998, p. 75).

In subchapter 1.3 past debt crises examples will be described in more detail.

2.1.4 Systemic financial crisis

Systemic crises are not a new type of crisis, they are a superior term for a combination of currency, banking and debt crises. This differs from the financial crisis which has only one type of problem. The International Monetary Fund formulates the definition of a systemic crisis as a "*... potentially serious disturbance in the financial markets that, by undermining the efficient functioning of markets, can have major adverse effects on the real economy*" (Kalínská, 2010, p. 16). Characteristic features of the systemic financial crisis have the financial crisis in the USA which has grown from a debt crisis to a banking and currency crisis.

In addition to these traditional types of financial crises there is often mentioned type of crisis which associated with failure of financial and capital markets and these are speculative bubbles and falls. According to economists every financial asset becomes a bubble when its price exceeds the value of future holdings to maturity. The presence of a bubble may indicate a situation where most investors buy these assets on the assumption of their future sale at a higher price and not for the income from them (Sahiti et al., 2013).

2.2 Models of Financial Crisis

First, Eichengreen, Rosea Wyplosz, used the term first and second generation financial crisis models in the mid 1990s. Financial crisis models differ from generation to generation. The following will briefly outline the nature of financial crises across generations; from first to

fourth generation. First and second generation of financial crisis models focus on the monetary crisis. The next two generations are a shift from the currency crisis to the banking and debt crisis (Dvořák, 2008).

The First Generation model: this model was first described by Salant and Henderson (1978). In their work they developed the idea of a model with a declining supply of gold which led to a change in the fixed price of gold. In 1979, Paul Krugman exchanged gold for exchange rates in his job creating the basis for first generation models. The balance of payments crisis model explains the emergence of the first generation financial crisis. Krugman only applied the model to economies with a fixed rate in the form of a pegged exchange rate. The course of the financial crisis according to the Krugman's model says that the cause of the financial (or monetary) crisis is speculation on the unsustainability of the peg (Dvořák, 2008, p. 174). If the currency moves from a fixed rate to a floating rate it will be weakened. The impending monetary crisis is being prevented by the central bank through interventions in the form of drawing its foreign exchange reserves. Asset holders begin to sell their assets for foreign currency and the bank is forced to draw even more from its foreign exchange reserves (Claessens, Kose, 2013). Krugman explored when the central bank is willing to defend its firm exchange rate. There are speculative attacks and asset holders continue to sell their assets for foreign currency. When the central bank depletes its foreign exchange reserves, the currency will weaken, the floating rate will weaken the currency and fall to the corresponding fundamental level (Dvořák, 2008, p. 174).

Krugman described the causes of the monetary crisis as inconsistent between government economic policy and domestic economic operators. Another cause is the long-term excessive monetary expansion that the government is covering its budget deficits and the fact that the central bank is trying to maintain a fixed exchange rate. This model has only been successfully applied to economies with the long term high inflation. After 1992, following the crisis of the European Monetary System, the model was modified because it wasn't sufficient explanation anymore (Dvořák, 2008, p. 175).

The Second Generation model: the need to develop second generation models emerged in the mid 1990s following the crisis of the European Monetary System as well as after the crisis that erupted in Mexico in the same period (Goldstein, Razin, 2013, p. 48). In the aftermath of the EMS crisis, questions were often asked in which people were particularly incomprehensible about the causes of the outbreak of the crisis in developed countries and why

the crisis recurs in certain areas. As the main cause of the emergence was pointed at speculation (Dvořák, 2008, p. 185).

The second generation crisis model marks a wave of speculation as the immediate cause of the financial crisis. According to model the cause of the financial crisis is not the fundamental problems of the currency but the subsequent speculation that causes it itself. The strong German mark turned out to put pressure on other European currencies. By the speculation, that some countries will not be able to defend the currency, the financial crisis has deepened (Dvořák, 2008, p. 185).

Another cause of the currency crisis was the incorrect setting of the exchange rate at the start of the ERM I. The EMS crisis cast doubt on the benefits of tying domestic currencies to the ECU. According to this model, the biggest weakness is the inelastic reaction of set exchange rate parities to the different development of economies in individual European countries. It has turned out that efforts to maintain a fixed exchange rate are very costly (Dvořák, 2008, p. 185).

Dvořák (2008, p. 182) wrote: "*If the estimated cost of a fixed exchange rate defence outweighs the benefits of maintaining it (i.e., largely a recurring situation), the country is very likely to leave the system.*" It is speculation that can cause abandonment from a fixed exchange rate before it happens without them. This is the main idea of the second generation crisis model (Dvořák, 2008, p. 185).

Models, mentioned above, are divided according to what they consider to be the causes of the financial crisis. Some models see the main cause in the realities of real economies and others in the interconnection of financial markets, recession and unemployment. However, models focus not only on causes, but also on how the financial crisis spills over into other countries or economies (Dvořák, 2008, p. 185).

The Third Generation model: the difference between first and second generation models is that the third generation financial crisis model considers the state of the domestic economy and the crisis in other states to be the main cause of the financial crisis. The lack of foreign reserve assets and the devaluation of the currency in the already affected country is considered a circumstance that leads to the crisis (Cihelková et al., 2008).

The third generation crisis model was built on the Asian financial crisis. The Asian financial crisis was a serious case of financial collapse in the late 1990s.

Krugman is his article said "*Third-generation currency crisis models are actually not very specific to currency crises: the mechanisms for speculative attack and self-fulfilling pessimism that these models identify, while they do make room for an Asian-style crisis in which capital flight leads to plunging currencies that validate the initial loss of confidence,also allow with small modification for other types of financial crisis. In particular, some third-generationcrisis models are very close in spirit to the closed-economy "financial fragility" models of Bernanke and Gertler (1989)*" (Krugman, 2001).

The concept is indicative of the current evolution of the nature of financial crises, which is no longer just about money problems, manifested as currency crises, but more generally about asset issues, whose speculation of expelled prices can cause a crisis (Dvořák, 2004, p. 21).

The Fourth Generation model: The biggest difference in the fourth generation crisis model compared to previous generations is the more comprehensive understanding of the financial crisis. The financial crisis is not only seen as a monetary crisis but a crisis that is heavily influenced by monetary, banking and debt problems. The third generation is mainly concerned with the causes of the financial crisis and the causality between banking and debt problems. (Dvořák, 2008, p. 196).

Dvořák (2008) states that a model of systemic financial crisis was created in the fourth generation. The analyses do not focus here only on macroeconomic variables but also on microeconomic variables. In addition, channels of financial contagion that have been previously neglected are being explored. Most attention is paid to the so-called debt problem as the main cause of financial crises (Dvořák, 2008, p. 197).

According to IMF "*Systemic financial crises are potentially severe disruptions of financial markets that, by impairing markets' ability to function effectively, can have large adverse effects on the real economy. A systemic financial crisis may involve a currency crisis, but a currency crisis does not necessarily involve serious disruption of the domestic payments system and thus may not amount to a systemic financial crisis*" (IMF, 1998, p. 75). The exchange rate volatility in this case is not the cause of the crisis, but just one of its manifestations. Adopting this concept shifts the traditional understanding of the issue in the following aspects:

- Leads to a transition from an isolated analysis of monetary and banking crises to an analysis of their context;

- it allows to create a general scheme of systemic financial crisis regardless of differences in the causality of banking and monetary problems;
- underlines the need to analyse in more detail the debt problem which in many cases is the root cause of the common occurrence of banking and monetary problems (Dvořák, 2008, p. 210).

2.3 Causes of Financial Crisis

In his 2004 study, Musílek summarizes the findings of world monetary and financial theory and presents basic models that clarify financial crises in contemporary monetary and financial economics. These models include (Musílek, 2004):

The financial crisis caused by excessive credit expansion: proponents of this model include for example, well-known economists such as Fisher, Minsky, or Kindleberger. The origins of the financial crisis are seen in excessive credit expansion. For example, Fisher (1932) gives great importance to exogenous events such as new inventions and discoveries that encourage new investments that are financed through debt. Banks will increase lending, money supply and price levels increase. This will reduce the fair value of the liabilities encouraging further borrowing. The more the indebtedness increases, the more increases the risk of insolvency and the financial crisis can be triggered at any time by both borrowers and creditors (Musílek, 2004).

Financial crisis caused by wrong macroeconomic policy: this financial crisis model is based on Krugman's balance of payments crisis model. He sees the causes of the financial crisis in inadequate macroeconomic policy. The balance of payments crisis arises when the central bank's monetary expansion is inconsistent with the exchange rate regime of a fixed exchange rate. The central bank's monetary expansion will cause the foreign exchange reserves to be exhausted, which attracts foreign exchange speculators who are attacking a firmly suspended exchange rate. This leads to further falls in foreign exchange reserves. In this situation the central bank has to leave the system of fixed currency exchange rates and move to a floating exchange rate causing panic among investors. They begin to massively sell out the domestic assets which in turn leads to a financial crisis (Musílek, 2004).

Financial crisis caused by excessive financial liberalization: the essence of this model is that if the financial system is liberalized (the liberalization of bank business, the elimination of restrictions on the activities of banks and other financial institutions in the

provision of financial services, the abolition of administrative regulatory instruments, the liberalization of the capital account of the trade balance), banks will start to behave prudently. In the case of the fixed exchange rate regime there will be an inflow of short-term and speculative capital that will allow banks to implement an expansionary credit policy. However, banks are inexperienced and unable to adequately manage credit risk thereby gradually deteriorating their credit portfolio. Subsequent detection of high losses will cause an outflow of foreign capital causing a currency crisis and a large real depreciation of the domestic currency. The currency crisis will lead to the insolvency of non-financial corporations, the deterioration of bank asset quality and consequently to the widespread financial crisis (Musílek, 2004).

Financial crisis caused by financial panic: proponents of this theory are, for example, Dybvig and Diamond (1983) who have developed a theory of banking panic. This theory says that as a result of some negative information (such as unexpected economic results, government statements, etc.) bank panic may be started. The condition for starting bank panic is the concern of individual depositors that other depositors will also withdraw their funds prematurely. If depositors start to make massive withdrawals there will be a financial panic that will cause significant economic losses (premature stopping of investment projects, insolvency, asset deflation) and a financial crisis occurs (Musílek, 2004).

The financial crisis caused by the burst of the price bubble: for example, Blanchard and Watson (1982) are the classical representatives of the theoretical approach that the financial crisis is caused by the bursting of price bubbles. They assume that a rational price bubble arises when investors buy assets at higher prices than their intrinsic values is in anticipation of future capital gains. The burst of asset price bubbles (real estate, gold, or stocks) is a trigger for a deep financial crisis, as the value of these assets will fall sharply (Musílek, 2004).

Financial crisis caused by market failure: for example, Krugman or Mishkin are a supporters of the direction that sees the causes of financial crises in market failures of the financial system. They say that market failures are caused by information asymmetry. Full information is a prerequisite for efficient allocation of savings in the financial system. However, in markets are different participants who have more or less complete sets of information and have a different ability to evaluate this information. Information asymmetry then manifests itself in the financial markets in the form of adverse selection or the occurrence of moral hazard (Musílek, 2004).

Financial crisis caused by excessive inflow of foreign capital: this method is mainly used by the International Monetary Fund to address the causes of the Asian crisis of the 1990s. IMF see the problem in large capital inflows into successful economies. Over time, however, monetary and institutional problems have emerged which together with other negative factors such as government failure, overheating of economies, information asymmetry, etc. have resulted in a financial crisis (Musílek, 2004).

The financial crisis caused by the institutional imperfection of the economy: this method examines the link between financial crises and the protection of external investors' rights, inefficient debt settlement and "friendly" capitalism. This theory says that the lack of protection of external investor rights causes a massive sell-off of financial assets, leading to a collapse of their prices. "Friendly" capitalism is based on friendly relations between state and financial institutions and causes an inefficient allocation of finances. Bank friendly credit policy and its ineffective regulation have a negative impact on the quality of banks' credit portfolios (Musílek, 2004).

Financial crisis caused by economic cycles and structural problems: Hutchinson and McDill (1999) are proponents of the model which claim that economic fluctuations are one of the main causes of financial crises. They say the financial sector is one of the cyclical sectors that show prosperity in the period of expansion. On the contrary the financial sector is experiencing significant problems in a recession. The deep recession characterized by a long duration, a significant decline in real economic output and a large number of bankruptcies is the cause of the financial crisis (Musílek, 2004).

Financial crisis caused by a group of factors: many economists believe that financial crises are not caused by one or a few factors, but by a whole set of causes. For example, Goldstein and Turner (1996) consider credit expansion, asset price collapse and foreign capital outflow, macroeconomic volatility, inadequate preparation for financial liberalization, imperfections in the accounting, information and legal environment, excessive government engagement and inadequate currency regime the most important causes of financial crises (Musílek, 2004).

2.4 Spread of Financial Crisis

The fact that the currency crises of the 1990s demonstrated themselves in three regional waves (the European EMS crisis of 1992-1993; the Latin-American crisis of

1994-1995; the Asian crisis of 1997-1998) attempts to explain theories of crisis contagion. The essence of this theory is that given the increasing global financial interconnection a financial defect from one country is expanding to other countries that have close business or financial ties with the affected area. The content is still modified according to current developments and there are many definitions. Dornbusch presents three definitions. "*In its broadest sense, this involves the transmission of positive or negative shocks or more general externalities between countries, which is not necessarily limited to crises. In the narrower sense, this is a correlation of external shock responses a generally explainable "herd behaviour" of investors. In the narrowest sense, this problem occurs only in times of crisis for which the intensified interconnected behaviour of investors in the region is typical*" (Dornbusch, 2000). Czech author Pavel Dvořák describes four specific ways of spreading the crisis as follows (Dvořák, 2004):

- asset market channel,
- banking channel,
- currency channel,
- debt channel.

In the case of **asset market** imperfections, a shock in the price of an asset may arise which may trigger massive sales of other risky assets. The influence of this channel is particularly significant in emerging markets where asset market shock in a third country can cause massive sell-offs of domestic assets. This, combined with an imperfect domestic financial market and weak financial ties abroad, can be a sufficient source of liquidity problems, fire sale and the emergence of a financial crisis. Therefore, attention is paid to the circumstances of the emergence of inflation in asset markets that trigger price bubbles. Inducing financial bubbles in the asset market is associated with both inflation and speculators buying financial assets even at overvalued prices assuming price and profit growth. Primarily, there is a panic (herd) behaviour of investors which is caused by the asymmetry of information.

There are interconnected banking markets in the **banking channel**, whose imperfections cause limited availability of liquidity, moral hazard and information asymmetry. That is why today's attention is paid to banking supervision and the creditors' role of last instance.

The **currency channels** are mainly about the conditions of balance and the setting of individual exchange rates. The foreign exchange markets are being manipulated by strong speculators. If a country is threatened with a currency run as a result of speculation to abandon

a fixed exchange rate or as a result of herding behaviour by investors, a large investor can profit if it closes its short positions first and then deliberately induces a crisis through public appearances or by clearly selling domestic currency. An example of such behaviour was George Soros' attack on the British pound in 1992.

The **debt channel** can also be a disseminator of the financial crisis through international credit operations. If banks and firms have a high share of short-term and unsecured foreign loans in their sources, exchange shocks can cause serious problems. If the banks of the affected region are interconnected, financial problems between countries are transferred very quickly.

The movement of international capital has a significant place in all described financial channels. It is therefore necessary to pay particular attention to the question of what are the reasons for the fact that the inflow of capital, in traditional macroeconomics clearly as a positive factor, may be one of the crucial causes of the financial crisis. (Dvořák, 2004, p. 31-34).

2.5 Past debt crisis

2.5.1 Mexican crisis 1994-95

At the beginning of the 1990s, the Mexican economy showed very dynamic economic growth, but it was largely funded through foreign capital inflows. The Central Bank of Mexico used a fixed exchange rate system against the US dollar to control inflationary risks more effectively. Huge amounts of speculative foreign capital flowed into the Mexican economy. The system like this operates as long as the central bank has sufficient credibility. However, the central bank has gradually succumbed to political pressures and has allowed significant monetary expansion during 1994, causing investors uncertainty about future inflation (Musílek, 2004. p.59).

In addition, the increasing current account deficit reaching 8% of gross domestic product and political uncertainty has undermined foreign investors' confidence in the Mexican currency who started selling out Mexican assets. On December 20, 1994, the central bank had no choice but to devalue the Mexican peso by 12.7% and move to a freely variable exchange rate. On December 20, 1994, the central bank had no choice but to devalue the Mexican peso by 12.7% and move to floating exchange rate. The Peso immediately lost another 15%. By March of the following year, the peso lost another 25% against the dollar. The massive outflow of foreign capital caused not only a dramatic collapse of the Mexican currency, but also a sharp rise in

interest rates. Interest rates on short-term state Mexican bonds grew from 14% to 70% between November 1994 and March 1995. Without a US $ 52 billion timely rescue program, the Mexican financial system is likely to break down completely (Musílek, 2004. p.59).

2.5.2 Russian crisis 1998

In the mid-1990s, the Russian government used more and more foreign financial markets to finance the state budget deficit. At the time of the Asian crisis (autumn 1997), the uncertainty of foreign investors investing in Russian securities also began to increase. For the first time, the Russian ruble came under strong pressure from foreign exchange speculators at the end of October 1997, the second at the beginning of January 1998. Although the Central Bank of Russia has maintained a fixed exchange rate against the US dollar, lost more than $ 8.8 billion of foreign exchange reserves from October 1997 to March 1998, and total foreign exchange reserves fell to $ 10 billion. And that wasn't all because interbank interest rates rose from 20% to almost 40% over the same period, while Russian stock prices lost almost 50% from their value. It is estimated that from Russia, between October 1997 and February 1998, foreign capital totalled USD 7 billion. However, the exposure of foreign investors to Russian securities remained relatively high (Musílek, 2004. p.61).

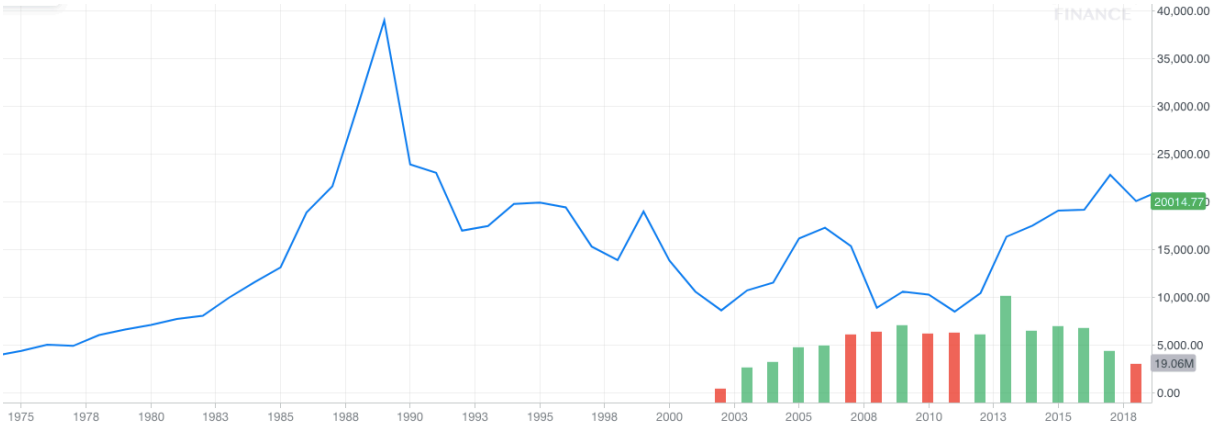
In the summer of 1998, foreign investors' confidence in the Russian economy continued to fall selling off Russian financial instruments which led not only to a decline in their prices but also to the ruble depreciation pressures. Panic broke out on August 17, 1998, when Russian government devalued the Russian ruble, declared a moratorium on repaying government securities, and reduced capital movements. It was practically a declaration of bankruptcy of the Russian state. The main cause of the collapse of the Russian financial system was a flawed economic policy, leading to an unsustainable state budget deficit and an increase in public debt and debt service to a level that was no longer sustainable. The Russian financial crisis has spread very rapidly to advanced and emerging financial markets (Musílek, 2004. p.61).

2.5.3 Japanese crisis

During the 1980s, Japan's economy was at the peak of the business cycle. Although economic growth has slowed down from 9% growth in the 1960s to 4% growth after 1973. This growth was still half that of the USA’s and Japan was catching up with the United States as the

first economic and technological superpower. Despite the warning signs the Bank of Japan kept low interest rates which together with a high saving rate led to a bubble of asset markets where stock and real estate prices rose three to five times over the period. Thus, at the beginning of the 1990s the total share price of all enterprises and firms in Japan exceeded the same sum of US shares at half the population and half of GDP. It was so overestimated that the price of one square mile in Tokyo was worth more than all the land in California (Krugman, 2009, p.56-58).

Graph No. 1: Nikkei 225 index 1975 - 2018



Source: Yahoo Finance [online]; https://finance.yahoo.com/quote/%5EN225?p=^N225&.tsrc=fin-srch

As shown in graph no.1 the Nikkei 225 index thus reached around 11.500 points in 1984, rising to 38.916 points by December 1989. However, during 1990s the Japanese central bank raised interest rates from the current 2.5% to 6% causing stock and property prices to fall. The value of the Nikkei index dropped to around 20,000 points during the year 1990 and down to 16,925 points in 1992. Real estate prices reached a highest point in 1991 and then were declining for 15 years about 70-75% below their highest level. This situation has sent several Japanese banks to bankruptcy, as borrowers who have been provided with these banks have been liable for just depreciated real estate (Žídek, 2007, p. 248).

After the bubble burst, the Japanese economy slumped. The Japanese government has stimulated aggregate demand by fiscal expansion where hundreds of billions of dollars have been invested in the pursuit of economic recovery which has significantly increased until than low national debt. Deflation occurred in Japan with the ongoing recession and stagnation when the nominal economic output in 2005 was lower than in 1996 and was mainly driven by weak demand and overcapacity. The Japanese economy thus appeared in the so-called liquidity trap when even very low interest rates did not cause a reversal of the crisis. When the Japanese

economy recovered in 1997, the Japanese government made a mistake by raising excise duties, staggering again the following year (Žídek, 2007, p. 249-53).

Japan's economy has been stagnating for a long ten years and this period is known as the "*lost decade*." The recovery occurred in 2003 when real GDP grew by over 2%, the unemployment rate fell and deflation retreated (Krugman, 2009, p. 71).

3 Causes of the Eurozone debt crisis

In 1992 an economic and monetary union was launched. It was an important step in the integration of European Union economies. This union brought the coordination of economic and fiscal policies, the common monetary policy and the euro currency. All of the 28 EU Member States belong to the economic union, but some countries have gone even further and have adopted the euro. These countries together form the Euro area. The single currency has certain benefits: it reduces the financial transactions costs, facilitates travel and increases the EU's position at global level (European Commission a, 2017).

In the context of economic and monetary union, the European Central Bank determines a single monetary policy which is completed by a harmonized fiscal policy and a coordinated economic policy. Economic and monetary union doesn't have any institution responsible for the economic policy of all member states. Instead, responsibility is shared between the member states and the different EU institutions (European Commission a, 2017).

The founding treaties refer to the economic and monetary union in relation to the euro. However, in reality monetary union has been established without an economic union. In doing so, the European Union tried something that had not had many precedents before. The monetary union creators believed that after the introduction of the common currency the member economies would converge and in the future the economic union would emerge (Bydžovská, 2019).

In fact, the opposite has happened. Differences between strong and peripheral economies have deepened. The same monetary policy did not suit economically different members of the currency club. In addition, the uniform interest rate has stimulated the overheating of some peripheral economies and the slower growth of more developed countries (Bydžovská, 2019).

Partial compensation for the economic union was the establishment of binding rules for the economic policies of the Member States in the Stability and Growth Pact (SGP). In addition, the so-called no bail-out clause has become part of the Maastricht Treaty[2] to ensure

[2] Maastricht Treaty or Treaty on European Union was singed in 1992 and brought important changes as "*establishment of the European Union and introduction of the co-decision procedure, giving Parliament more say in decision-making. New forms of cooperation between EU governments – for example on defence and justice and home affairs and preparation for European Monetary Union and introducing elements of a political union (citizenship, common foreign and internal affairs policy)*" (Europa.eu).

that other states do not rescue a country that is in trouble with irresponsible fiscal policy. None of these measures have been complied with (Bydžovská, 2019).

"*Maastricht criteria are the rules determine whether a country is ready to adopt the euro as it's national currency*" (Dedek, 2016). The evaluation of the Maastricht criteria is carried out by the European Commission and the European Central Bank in documents called the Convergence Report. The evaluation is held on a regular basis at two-year intervals or exceptionally at the request of the applicant country. For entry into the Euro area (or Eurozone) it is essential that all Maastricht criteria must be met at the time of the evaluation. There are four economic criteria:

1) **Price stability:** The criterion on price stability means that a member state exhibits long-term sustainable price stability and the average inflation rate observed during the one year prior to the survey which does not exceed by more than 1,5% the inflation rate of the at most three member states with the best results in the area of price stability. Inflation is measured using the Harmonized Index of Consumer Prices (HICP).
2) **Long-term sustainability of public finances:** The criterion on the long-term sustainability of public finances means that the country is not covered by the excessive deficit decision. The Criterion has two parts:
    - The public deficit criterion means that the ratio of the planned or actual government deficit to gross domestic product at market prices does not exceed 3%, except where either the ratio has substantially decreased or has been steadily decreasing to a level close to the reference value or exceeding above the reference value was only exceptional and temporary and the ratio remained close to the reference value. Public deficit means a deficit related to the central government including regional and local authorities and social security funds, with the exception of commercial operations defined in the European Macroeconomic Account System.
    - The public debt criterion means that the ratio of government debt at market prices to gross domestic product does not exceed 60%, except where the ratio is sufficiently low and approaching the reference value at a satisfactory pace. Public debt means the gross total debt at

nominal value at the end of the year consolidated within and between individual sectors of the government sector.

3) **Exchange rate stability:** The criterion on the stability of the exchange rate and the participation in ERM II means that a member state has respected the normal margins set by the exchange- rate mechanism of the European Monetary System without significant tensions during at least the last two years. In particular, the country should not devaluate on its own initiative the bilateral exchange rate of the domestic currency against the currency of any other member state.
4) **Interest rate stability:** The long-term interest rate criterion means that during the one year before the survey the average long-term nominal interest rate of the member state did not exceed by more than 2% the interest rate (at most three) of the member states that achieved the best results in price stability. Interest rates are determined on the basis of long-term government bond yields or comparable securities (Dedek, 2016).

In 2007, a financial crisis broke out in the United States and the bubble that was on the mortgage market began to burst. The financial crisis has also reached Europe, but has changed its character to a debt crisis. The process was different in that the public sector is indebted, not a private one as in American case. Public debt is the result of the accumulation of annual government deficits. These are deepening in countries after their integration into the Euro area and most of them run a higher public deficit than 3% of GDP (Gonda, 2013, p. 7).

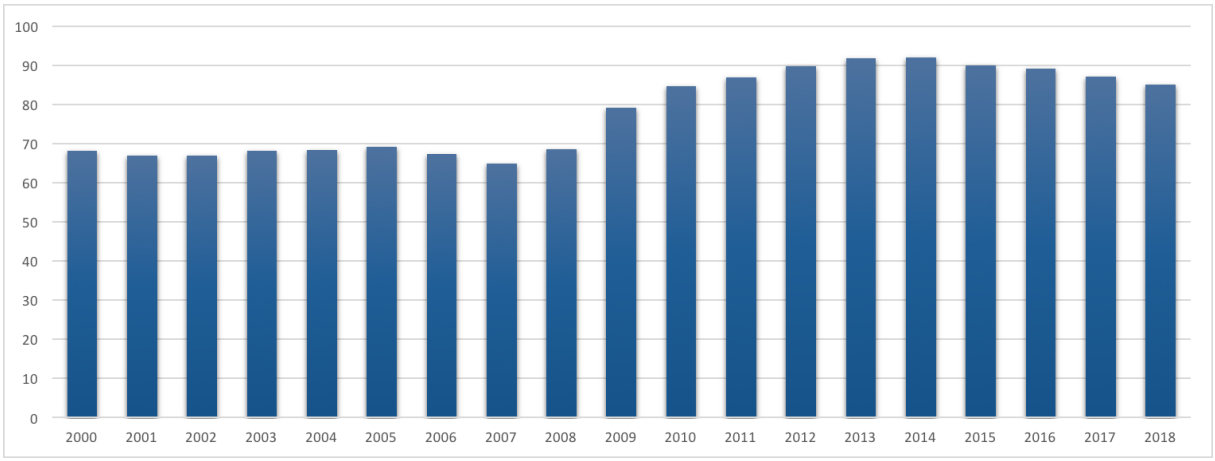
Europe was in a debt crisis and many countries were unable to pay their debts and government debts were at record levels. The economies of Euro area member states have been marked by a combination of low economic growth and high debt since the Eurozone debt crisis began. This development is shown in graph No. 1 below.

Graph No. 2: Euro area GDP growth rate (%)

Source: Trading Economics [online]; https://tradingeconomics.com/euro-area/gdp-growth

Since 2000, Euro area GDP growth has been similar from year to year. In 2009 GDP decreased to -3%. The Euro area economy has seen the biggest fall in the last 10 years. Since 2010, the Eurozone has been in an economic recession. The Euro area economy has recovered since late 2010, at 0.2% at the end of 2018.

Graph No. 3: Government debt to GDP (%) - Euro Area



Source: own creation; Eurostat [online].; https://ec.europa.eu/eurostat/data/database

The graph no. 3 shows the development of public debt on average for the whole Eurozone from 2000 to 2008 which was below 70% of GDP. In 2009 it rose sharply by 10% annually and the Euro area's indebtedness reached 79.2% of GDP. Since that year Euro area indebtedness has grown continually until 2014. The value of euro area public debt at the end of 2018 was 85.1% of GDP. The highest share of public debt in the total Eurozone debt is the debt of Greece and the peripheral countries.

We consider 2010 to be the start of the debt crisis in Europe, when the Greek government was no longer able to pay its debt on the market. Growing fears of Greek problems soon spread to peripheral countries given by the lack of common institutions in the Euro area to absorb shocks and increasing uncertainty about the proper understanding of the EU no bail-out clause and absence of a goodwill of Eurozone member states to support weaker member states and the monetary union itself. The reliance of peripheral countries on external capital and the interconnections between banks and governments has only deepened these problems (Wijffelaars, Loman, 2015).

Greece's problems with financing public debt have sharpened the situation inside the Euro area. The southern countries of the Eurozone have been accused of frivolity and violation of discipline. Not only Greece, but also Portugal, Italy and Spain had problems with over-indebtedness. Nowadays, Ireland also counts among these countries. In the case of Greece, it should be noted that its long-term tendency towards government debt has been camouflaged by "improved" statistics. One of the typical manifestations of the Greek trend was government officials who were paid better than private sector employees (Janáčková, 2010, p.74).

Table No. 1: Government debt as % of GDP - PIIGS countries

GEO/TIME	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ireland	23,6	23,9	42,4	61,5	86,0	110,9	119,9	119,7	104,1	76,8	73,5	68,5	64,8
Greece	103,6	103,1	109,4	126,7	146,2	172,1	159,6	177,4	178,9	175,9	178,5	176,2	181,1
Spain	38,9	35,6	39,5	52,8	60,1	69,5	85,7	95,5	100,4	99,3	99,0	98,1	97,1
Italy	102,6	99,8	102,4	112,5	115,4	116,5	123,4	129,0	131,8	131,6	131,4	131,4	132,2
Portugal	69,2	68,4	71,7	83,6	96,2	111,4	126,2	129,0	130,6	128,8	129,2	124,8	121,5

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

It is evident from table No. 1 that none of PIIGS countries comply to the established threshold of maintaining public debt below 60% of GDP as set out in the Stability and Growth Pact. Greece is ranked first in public debt since 2006, showing the highest value in comparison with other PIIGS countries. Only in one case did Greece managed to reduce its debt by bigger amount from 172.1% of GDP in to 159.6% of GDP in 2012. This decline can be attributed to the government cuts that Greece had to make if wanted to receive financial assistance from the rescue mechanisms. In 2014, Greek debt represents a record level of debt in the Euro area at 178.9% of GDP and in 2018 break the record again with 181.1 % of GDP. The second of the PIIGS countries which is high in debt is Italy. However, for Italy the increase in public debt since the crisis begun is less aggressive than in Greece and reaches the highest value in 2018 at 132.2% of GDP. Ireland had its peak in 2012 with 119.9% of GDP and since than decreasing

and getting closer to meet Maastricht criteria again. Spain maintained the level of public debt in 2009 below 60% of GDP as the only country in PIIGS. Spain's and Portugal's debt is decreasing but at a very slow pace.

The following subchapters of this paper will focus on the causes in each PIIGS country.

3.1 Greece

The problems Greece facing today originate in the politics of 1980s and 1990s. The Panhellenic Socialist Movement (PASOK) was founded in 1974 by Andreas Papandreou and is now one of the most powerful political parties in Greece. In 1981, there was great dissatisfaction with both the social and the economic situation. Andreas Papandreou promised "*allaghi*", the big change in Greek politics and society (Pappas, 2010). The PASOK party was the first Social Democratic Party in Greek history to win a majority in parliament. The main goals of this government were extensive reforms of education and health. Furthermore, the increase in salaries and pensions of employees in public and state sector including the introduction of their automatic adaptation to the current inflation rate using the ATA system (Hradečný et al., 2007, p. 538).

Papandreou was elected to the office thanks to the generous spending promise. He won a total of three elections (1981, 1985 and 1993) and won with such a large number of votes that in the relative electoral system of Greece he gained an absolute majority in parliament. But at that price the total state debt more than quadrupled. Since poor Greece was unable to collect such amounts of taxes to finance his plans, he began financing it by selling government bonds. However, during his fifteen-year career in high-level politics he managed to worry about the problems that Greece would worry about for generations to come. His legacy is, besides laying the foundations for Greek debt, a pension system that (again from borrowed money) was extremely generous and allowed for early retirement under very favourable conditions (Kechlibar, 2017).

The Greek state thus became the main Greek employer for PASOK members to secure significant positions in the state sector and in state-owned companies. It is in these years, along with the increase in the number of civil servants, that the corruption that has become one of the most serious Greek problems has been markedly growing. The fact that the state is the main employer in Greece and the number of officials is constantly growing can be illustrated by the example of the Greek Parliament. In the Greek Parliament, which has 300 members, some 500

officials worked in the early 1990s. There were already 800 people in 2004, and just before elections in 2009, at a time when deficit problems were more or less known, the number of parliamentary officials exceeded 1.600 employees. And these workers receive annually many benefits (Tsivos, 2010).

As an example, the following benefits are given to Greek civil servants:

- In addition to the fourteenth salary, parliamentarians are entitled to two additional salaries which are not taxed;
- The bonus is given to civil servants who go to work on time or can work with a computer (Horáček et al., 2010).

The state sector employs about one million people (25% of all working Greeks) and their salaries are on average 2.5 times higher than those in the private sector (Horáček et al., 2010). The civil service provides its employees with life-long definitions, allowances and other social security for under-performing and often corrupt behaviour. The opposite is true in the private sector: social insecurity, high workload, low wages (Tsivos, 2010).

It is well known that tax revenue is an integral part of the state budget. It is particularly this income that is missing in Greece and therefore there is one of the causes of the current Greek crisis. Fight with tax non-payers is one of the main programs of many governments in different European countries. If there would be less tax non-payers the problems in Greece would not be as extensive as now. Meghir, Vayanos and Vettas presented two major problems of the Greek tax system in their study (Meghir et al., 2010):

- Tax non-payers are robbing the state of large amounts of money, which in turn are lacking in public service funding.
- According to Meghira, one of the objectives of the tax system should be that taxes on the income of socially stronger people will be used for the socially disadvantaged. Wealthier people also have to pay higher taxes. The problem with this system is that these wealthy people avoid paying taxes much more than poor people.

The problem in Greece is the lack of respect for tax laws, which mainly wealthy Greeks would force taxes to pay. Investing in creating a new tax collection institution would return to Greece many times. But against this theory is the Greek nature of trying to avoid paying everything and the ubiquitous high level of corruption. Since Papandreou's administration Greeks got used to living on debt.

Although Greece was not economically in the best situation, Greece showed an interest in being one of the founding members of the Euro area. In 2001 Greece become Eurozone member (Kubátová, 2015). And with the entry came a boom of cheap loans. With the adoption of the euro in the country cheaper loans occurred and life on debt has become more accessible to all - government, Greeks and companies. To this day, economists are surprised that by simply adopting the euro Greece dropped interest rates to the level of a robust German economy. (Horáček, 2015). However, three years later it turned out that entrance data was based on statistical fraud. Indeed, the Greeks did not include defence spending and many other items in the general government deficit (Kubátová, 2015).

Table No. 2: Government deficit as % of GDP - Greece

GEO/TIME	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Greece	-5,8	-4,1	-5,5	-6,0	-7,8	-8,8	-6,2	-5,9	-6,7	-10,2	-15,1	-7,5

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

Table No. 3: Government debt as % of GDP - Greece

GEO/TIME	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Greece	98,9	104,9	107,1	104,9	101,5	102,9	107,4	103,6	103,1	109,4	126,7

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The deficit of year 2000 was not reported at 2% of GDP, but 4.1% as showed in table no. 2 above, which is more than the 3% allowed by convergence criteria. In general, none of the following two fiscal criteria during the Euro area membership were met. As shown in table no. 3 Greece has had public debt to GDP at around 100% since 2000, with an average Greek deficit of 7.5 between 1999 and 2009 shown in table no. 2.

In 2004, the Greek Government had to answer to the European Parliament for the falsified figures on the general government deficit. Normally Greece could not accept the euro with their economic results. But the country escaped without punishment and remained in the Eurozone (Zdechovský, 2015).

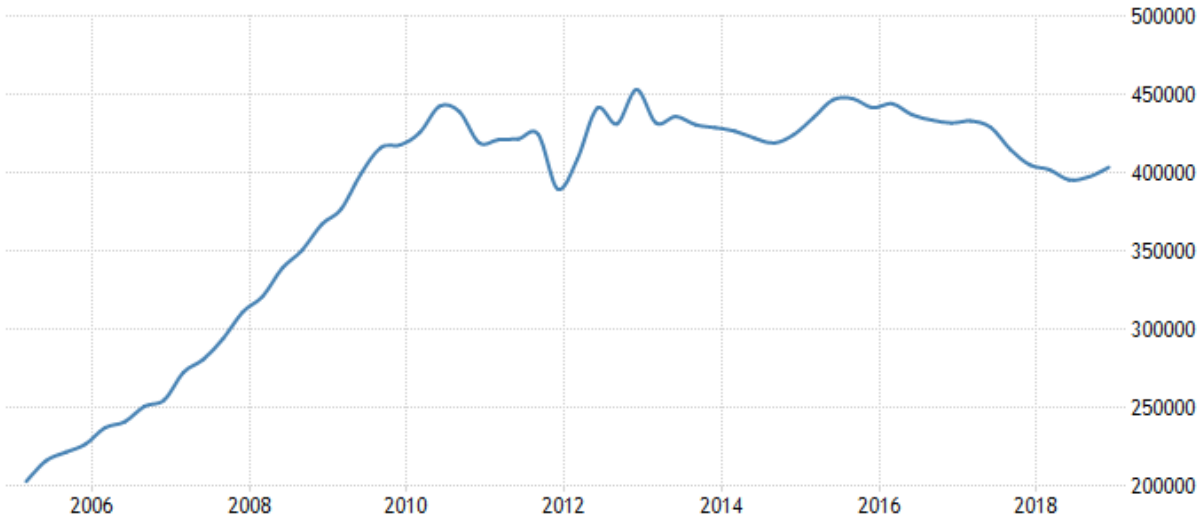
During following years' government borrowing and spending was rising but tax revenues were decreasing because of a very insufficient tax administration. Wages grew more rapidly than productivity growth which caused a reduction of Greece's competitiveness. An

outcome was that Greece's economy has decreased and unemployment has started to rise to alarming levels (ESM 1, 2019).

In 2009, the Greek government announced that the former government had incorrectly reported government budget figures (ESM 1, 2019). According to table no.2 budget deficit at the end of 2009 reached 15.1 percent of gross domestic product. The former government claimed that the deficit would not be even four percent (Adámková, Houska, 2009).

As a result, the announcement of a downgrading of the credit rating from A- to BBB+ which rating agency Fitch had taken shortly after S&P threatened Greece with a similar move. Rating strongly influences how much a country can borrow on international markets and has an impact on its ability to repay liabilities (Euractive.cz, 2009). The situation came to the point when Greece was no longer capable to refinance its loans and was forced to request aid from its European partners and the IMF (ESM 1, 2019).

Graph No. 4: Total External Debt - Greece (in mil. EUR)



Source: Trading Economics [online]; https://tradingeconomics.com/greece/external-debt

In the graph no. 4 is shown how external foreign debt started to increase with the start of the crisis. In Greece, external debt is a part of the total debt that is owed to creditors outside the country. The growing external debt resulting from the current account deficits was the key underlying problem that Greece wasn't able to get any loan because of limited access to capital markets and had to request EU and IMF.

3.2 Ireland

For two decades Ireland has been an example of a successful, growing economy and a showcase for the European Union and the Euro area. However, the financial crisis almost put its economy down. To understand the current crisis, it is necessary to return to the beginning of the 1990s. At first glance, it may seem that Ireland's bad situation is similar to another country of the Euro area - Greece. However, such a comparison is not fair. While Greece withdrew the budgetary irresponsibility of both populist right and left governments, Ireland suffered mainly from the collapse of banks at the beginning of the global crisis (Němec, 2010).

Ireland was one of Europe's poorest countries in the 1970s. Its growth has increased and in the 1990s it has turned into a country with one of the highest per capita income in the European Union (ESM 2, 2019), right after Luxembourg (Němec, 2010). Signs of overheating have multiplied in 1999 when Ireland became a member of the Eurozone. Although the euro has eliminated exchange rate risks in Ireland it has largely contributed to further inflating the credit bubble. The European Central Bank was keeping interest rates low. Ireland's inflation was higher than in the rest of Europe. That caused real rates had fallen negative at the turn of the millennium. Advantageous loans have generated great interest in loans. Banks supported development projects that would normally be they had no chance at credit (Němec, 2010).

To understand what happened, it is necessary to differentiate, according to Honohan, between two different growth phases. First phase was until 2000, there was a genuine "*Celtic Tiger period of exceptional export-led growth with moderate wage and price increases and sound public finances*" (Honohan, 2009). This began at the end of the 1980s when the government finally resolved its excessive indebtedness with severe cuts in spending and achieved to agree on a series of centralized social partnership agreements which seem to think that wage rate moderation was bought for the income tax concession. This political package which restores confidence and competitiveness increase through the successful devaluation of 1986 (Honohan, 2009). Low corporate income taxes (12.5 %) attracted investors to the country and big companies like IBM, Intel, Dell and many more (Němec, 2010).

Moreover, the state's investment in science has prompted the arrival of companies from the hi-tech and pharmaceutical industries. The basic economic indicators showed a great condition for the economy. For example, in the growth of gross domestic product Ireland has easily beaten most European countries and at the end of the 1990s the country grew at a rate of between eight and eleven percent a year. Unemployment statistics were similarly optimistic. It fell from 1990 to 2000 from almost fifteen to five percent. Reasonable fiscal policies and the

creation of budget surpluses have also reduced the country's debt (Němec, 2010). The table no. 2 below shows that public debt was 61.6 % of GDP in 1997 and by the beginning of the crisis, in 2007 Ireland had knocked it down to 23.9%.

Table No. 4: Government debt as % of GDP - Ireland

GEO/TIME	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Ireland	78,5	69,9	61,6	51,5	46,6	36,1	33,2	30,6	29,9	28,2	26,1	23,6	23,9

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

Second phase was from year 2000 when the convergence phase ended but very quick growth maintained in Ireland. Although the sources of growth have now clearly changed. The untenable real estate prices growth and the construction boom which started earlier in Ireland than in the USA or the United Kingdom, and went further than prices and quantities, took over the main driver of Irish growth. Initially prompted by increased household production (in connection with an unprecedented level of net immigration) and a sharp fall in interest rates that accompanied the transition to EMU membership, the property boom was increasingly funded after 2003 with foreign bank lending (Honohan, 2009).

"*Towards the end of this era of rapid growth, the economy started to overheat. Government spending increased rapidly and tax revenues became less reliable. Wages were climbing too rapidly, making products expensive for buyers abroad. The booming economy was fed largely by aggressive bank lending*" (ESM 2, 2019).

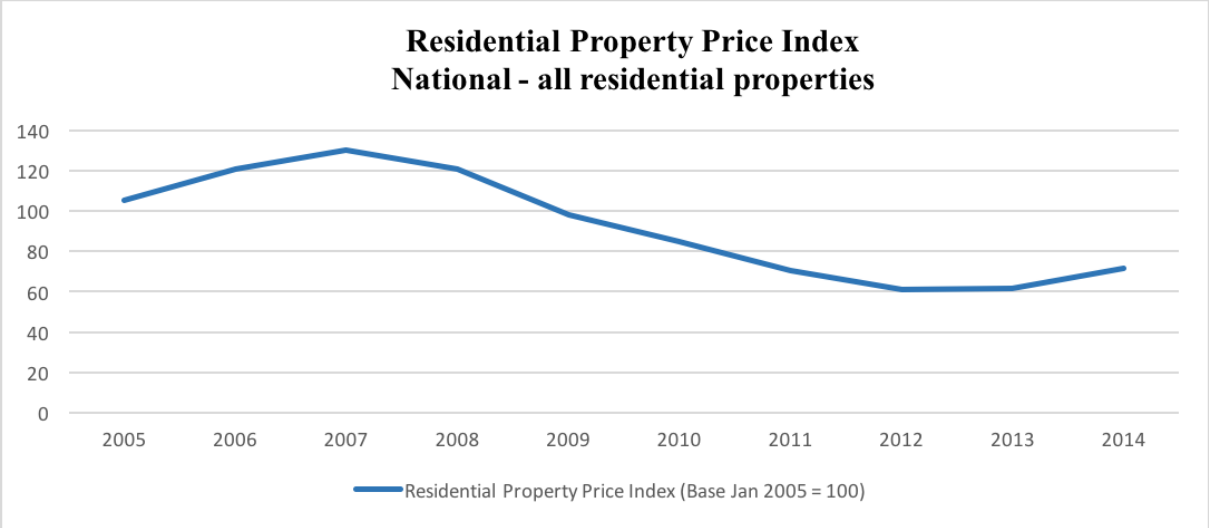
The availability of cheap credit has led to a construction boom, and the credit bubble has soared. Banks lent to almost everyone, including development projects which would never normally obtain credit. Ireland was in deep recession after the bursting of the domestic real estate bubble in 2007 and the collapse of Lehman Brothers. When the economic crisis came, it turned out that banks had almost no money. They borrowed money for mortgage loans from abroad and had a liquidity of only five billion from a total of 100 billion euros (Ondráček, 2016).

Ireland has, in September 2008, guaranteed all bonds and deposits with its banks to prevent panic and run on banks but this trust was dearly redeemed. The value of bad loans reached to colossal 150 billion euros (Němec, 2010).

Europe's most well-established economy has come to the bottom. Debts of private banks have turned into debts of the state and citizens. Households had to fight with falling of

their home prices by almost half of their original price and facing massive economic cuts (Ondráček, 2016). As you can see on the graph no. 5, home prices started to decrease in 2007 and continuously were lowering until 2012. Since then property prices increasing but very slowly.

Graph No. 5: Residential Property Price Index - Ireland (%)



Source: Own creation according Central Statistics Office, Ireland [online]; https://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=HPA06&PLanguage=0

Unemployment has increased fourfold compared to 2007 (to 15 percent in 2012). A huge number of people left the country but they were mostly foreign workers (Ondráček, 2016).

The situation finally reached the point when Ireland poured billions of euros into other financial institutions on the verge of bankruptcy (Němec, 2010). The situation with the Irish banks has gone so far that Anglo Irish Bank, which lent mainly to development projects, was nationalized (Honohan, 2009).

Graph No. 6: Total External Debt - Ireland (in mil. EUR)

Source: Trading Economics [online]; https://tradingeconomics.com/ireland/external-debt

In the graph no. 6 is shown how external foreign debt started to increase with the start of property boom in Ireland. With decreasing liquidity of Irish banks, interest rates starting to increase and people and companies weren't able to pay their loans. In Ireland, external debt is a part of the total debt that is owed to creditors outside the country. The growing external debt resulting from the current account deficits was the key underlying problem that Ireland was forced by EU to get a loan from Eurozone to repay debts with bearable interest rates.

3.3 Spain

Spain has been an example of a state that has managed to overcome the crisis. In 1975, the dictatorial regime came to an end in Spain, and over the next few years it has made considerable economic progress. Admission to the EU as part of its southern enlargement in 1986 was crucial (European Commission b, 2017).

In the 1980s and early 1990s, the Spanish economy was characterized by a significant budget deficit. The deficit was primarily the responsibility of the central government. About 80% of the general government deficit in 1998. The decline in the general government deficit below 3% of GDP occurred after 1998 and a balanced budget was reached in 2004. Spain recorded a surplus budget of 1.2% of GDP in 2005. This improvement caused lower interest payments related to euro adoption, strong tax revenue growth and increasing employment (Dvořák, Pilař, Režná, 2012).

Prior to the financial crisis, through the second half of the 1990s until early 2000s, Spain experienced a long period of high economic growth to become the 5th largest European economy with GDP per capita at 90% of the Euro average. The traditionally high unemployment declined to below 1% despite the increasing number of immigrants coming to the country with up to 5.7 million foreigners living in Spain in 2010, representing circa 12.2% of the population (Élteto, 2011).

Table No. 5: Government deficit as % of GDP - Spain

GEO/TIME	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average
Spain	-0,4	-0,4	0,0	1,2	2,2	1,9	-4,4	-11,0	-9,4	-9,6	-10,5	-3,7

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The Spanish fiscal position was excellent with 3.7 percent average growth over the last 10 years with the Euro area only growing at average of 2.3 percent. The central government was among the most fiscally responsible in the Eurozone with half of the pre-crisis average Euro area debt at 35.6 percent of gross domestic product (GDP) and a government budget surplus of 1.9 percent of GDP, the third highest and above the average Euro deficit of 0.7 percent in 2007 (Joint Economy Committee, 2012).

Table No. 6: Government debt as % of GDP - Spain

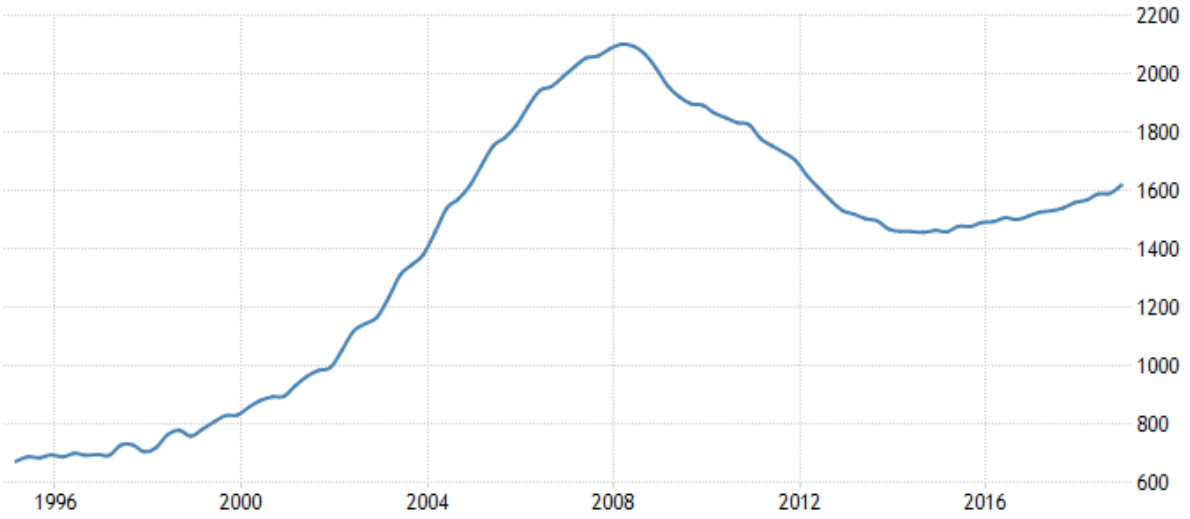
GEO/TIME	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Spain	51,3	47,6	45,3	42,3	38,9	35,6	39,5	52,8	60,1	69,5	85,7

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The rapid economic growth was primarily fuelled by the Spanish entry into the Economic and Monetary Union with material drop in the Spanish interest rates from 11.7 percent in 1992 down to 3.4 percent in 2005, and 15 percent increase in the labour force through the immigration (Joint Economy Committee, 2012).

The prudent spending of the Spanish central government did not follow through to the overspending autonomous regional governments resulting in the unsustainable regional real estate investment boom (de la Dehesa, 2011). Over the ten-year period prior to the global financial crisis, the Spanish property prices increased by approximately 300%, as you can see in the graph no. 7 below, and the amount of real estate lending went up from 10% of GDP in 1992 to 43% of GDP in 2009 (Joint Economy Committee, 2012).

Graph No. 7: House Prices (EUR/Sq. meter) - Spain



Source: Trading Economics [online]; https://tradingeconomics.com/spain/housing-index

The property boom was accelerated by extremely low real interest rates which sharply dropped after Spain's entry into the Eurozone. The Spanish pre-crisis economic growth of 3.7 percent, combined with higher inflation rates of 2.9 percent, 1.1 percent difference to the Euro area, resulted in the real interest rates close to zero (de la Dehesa, 2011).

Large increase in employment and disposable income with the household's income growing with inflation rate and the influx of over 4 million immigrants created a large credit boom absorbed by the real estate and the construction sectors which at the time were adding up to 16 percent of GDP and around 20 percent of the country's total employment. As such, the lack of oversight from the Spanish central bank and the inadequate lending policy and risk governance by the regional banks led to a high concentration of the risk in these sectors (Élteto, 2011).

The Spanish financial crisis and economic recession, the worst in the last fifty years, started back in 2008 with the world 2007-08 financial crisis. The underlying reasons of the financial crisis occurring across the Eurozone states vary to large extent but similarly to Ireland, the main cause of the Spanish crisis was the burst of the housing bubble associated with a large increase in the unemployment exceeding 25% in 2012, the highest rate in the western Europe (Joint Economy Committee, 2012).

The regional savings banks hit by the collapse of the real estate bubble post-2007 with a plunge in the value of the assets underlying the past property market growth drive the banking crisis in Spain putting the Spanish government under pressure to having have to bailout the

Spanish bank despite the initial efforts via the mergers among the troubled banks. The growing government debt and consequent difficulties in sovereign markets borrowing led the Spanish domestic banks to buy the country's sovereign debt (de la Dehesa, 2011).

A combination of the debt accumulation and escalating real estate-related losses in the Spanish banking system, the need to bail out the banks, together with the resulting downgrade in Spain's credit rating from AAA down to BBB and higher liquidity risk leading to the Spanish bond yields just below 7 percent in 2012 underlie the Spanish economic and financial crisis (Pettinger, 2015).

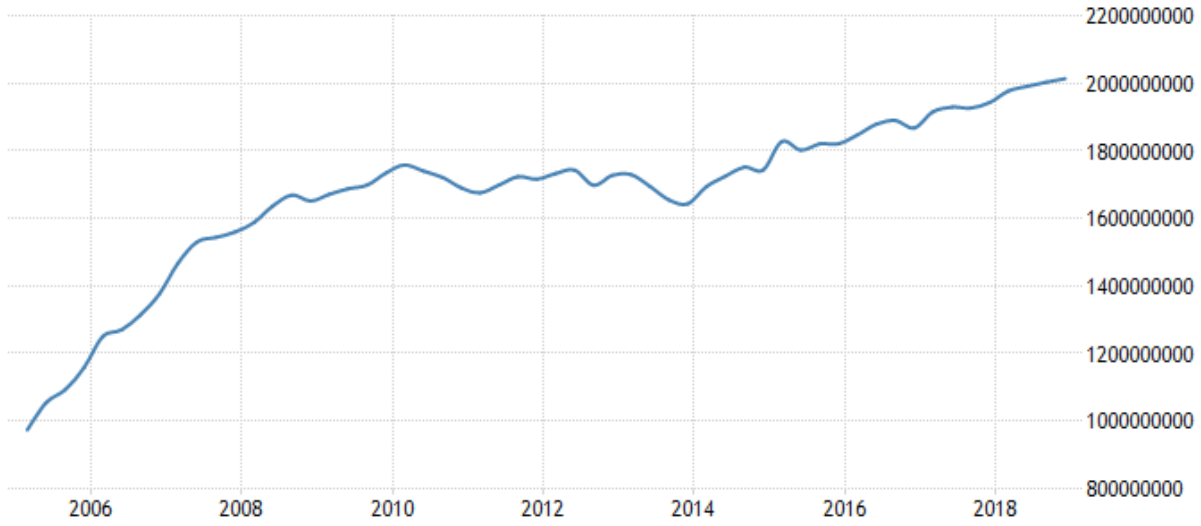
Despite the long period of high economic growth, it was achieved by the labour accumulation with very low increase in the productivity, the country started to lose its competitiveness within the Euro area. The European structural and cohesion funds started to decline from 2007 onwards (de la Dehesa, 2011).

Most importantly, Spain's current account deficit deteriorated to 10 percent of GDP in 2007, one of the highest in the world, caused by the unprecedented investment rate increase to 30 percent of GDP with roughly stable 20 percent saving rate. The accumulating debt was not offset by the public savings but rather financed with the foreign savings invested in the property boom with no means of generating foreign revenue to pay the debts (Élteto, 2011).

The trade deficit which tripled as a result of increase in imports to meet the growing domestic demand and the Spanish real exchange rate appreciation which absorbed around 60 percent of the exports was another contributing factor to the deterioration (de la Dehesa, 2011).

All these imbalances left the Spanish economy in a particularly vulnerable position to the economic turmoil and crisis-induced credit crunch in 2007-08 and exacerbated its impact on the Spanish economy and the rest of the Eurozone.

Graph No. 8: Total External Debt - Spain (in mil. EUR)



Source: Trading Economics [online]; https://tradingeconomics.com/spain/external-debt

In the graph no. 8 is shown how external foreign debt started to increase with the American financial crisis. Investors started to worried, interest rates starting to growth and rating agencies downgrade Spain's' credit. In Spain, external debt is a part of the total debt that is owed to creditors outside the country. The growing external debt resulting from the current account deficits was the key underlying problem that Spain had limited access to capital markets and cost of borrowing were too expensive. Spain had to request EU and IMF for financial help.

3.4 Portugal

During the period of democracy in the country, after the revolution in 1974, Portugal never achieved a budget surplus. Deficits were the rule without exception and were considered normal before the crisis (Pereira, Wemans, 2012). Since 1989, the country has received considerable resources from the Cohesion Fund, for national policy, and from the Structural Funds, for regional policy, to invest in infrastructure, physical and human capital (OECD, 2008).

Unlike Greece, Ireland and Spain, Portugal had experienced a decade of weak economic growth before the crisis during which the GDP went up at an average rate of 1%, significantly slower than the Euro area and the high growth countries in particular (Correia, 2016). Portugal entered a recession in 2003 with a negative economic slowdown of -0.9 percent as the only

European country that year alongside Germany, compared to Greece's 5.9 percent, Ireland's 4.4 percent and Spain's 3.1 percent growth (Lourtie, 2011).

Despite the decline in the economic growth following the Portugal's entry into EMU, the credit risk spread flattened across all Euro area countries which led to the relatively low inflation and interest rates, and easily accessible credit resulting in a significant increase in lending (Correia, 2016). Just before the Euro introduction, the real interest rates dropped to 0 percent, lower than the EU core countries, and the amount of loans provided increased by almost 29 percent (Gurnani, 2016).

The credit expansion and excessive private and public consumption outpaced the GDP growth contributed to the substantial internal demand growth and reduction of household saving, high private debt levels and unsustainable public finances. During the period Portugal's public indebtedness with the budget deficit of 3 percent of GDP in 1999 continued to increase to reach 9.8 percent in 2009. The public debt similarly deteriorated from 51 percent of GDP in 1999 up to 96.2 percent in 2010 (Correia, 2016).

Table No. 7: Government deficit as % of GDP - Portugal

GEO/TIME	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Portugal	-3,0	-3,2	-4,8	-3,3	-4,4	-6,2	-6,2	-4,3	-3,0	-3,8	-9,8

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

Table No. 8: Government debt as % of GDP - Portugal

GEO/TIME	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Portugal	51,0	50,3	53,4	56,2	58,7	62,0	67,4	69,2	68,4	71,7	83,6	96,2

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

Continuous wage growth, at a faster rate than in the Euro area, exceeding the Portuguese increase in the productivity accelerated the decline in the country's exports as the products were getting relatively more expensive abroad. The stringent labour market with high job protection and wage setting measures together with the underinvestment in education led translated into low productivity and further added to the loss of Portugal's external competitiveness within the European market and in turn put the employment rates under pressure (Portugal, 2015).

The enlargement of the European Union had an adverse effect on the Portuguese international trade with new entrants benefiting from higher skilled and educated workforce,

lower labour costs and geographical position to the main European markets while pulling out and attracting more the foreign direct investments previously directed to Portugal economy (Lourtie, 2011).

At the same time, the country's vast resources received from the European Cohesion Fund and the Structural Funds aimed to invest in infrastructure, physical and human capital started to diminish, putting more pressure on the public accounts and the fiscal responsibility. The significant increase in public deficit and debt culminated in 2000 when Portugal became the first state to be subject to the Excessive Deficit Procedure (EDP) initiated by the European Commission under the Stability and Growth Pact (Pereira, Wemans, 2012).

As a result, the Portuguese economic slowdown in the international trade was considerably aggravated and the loss of external competitiveness within the Eurozone reflected in high current account deficit about 10 percent GDP since 2000. The large external debt accumulation led to a gross external debt exceeding 230 percent of GDP in 2010 (corresponding to a net value of 84 percent of GDP) (Correia, 2016).

In a nutshell, the Portuguese economic conditions deteriorated since the country joined the Euro area and the combination of macroeconomic imbalances and untenable public and private debt left the country vulnerable to the volatility in the financial markets before the global financial crisis hit Europe in 2010 (Correia, 2016).

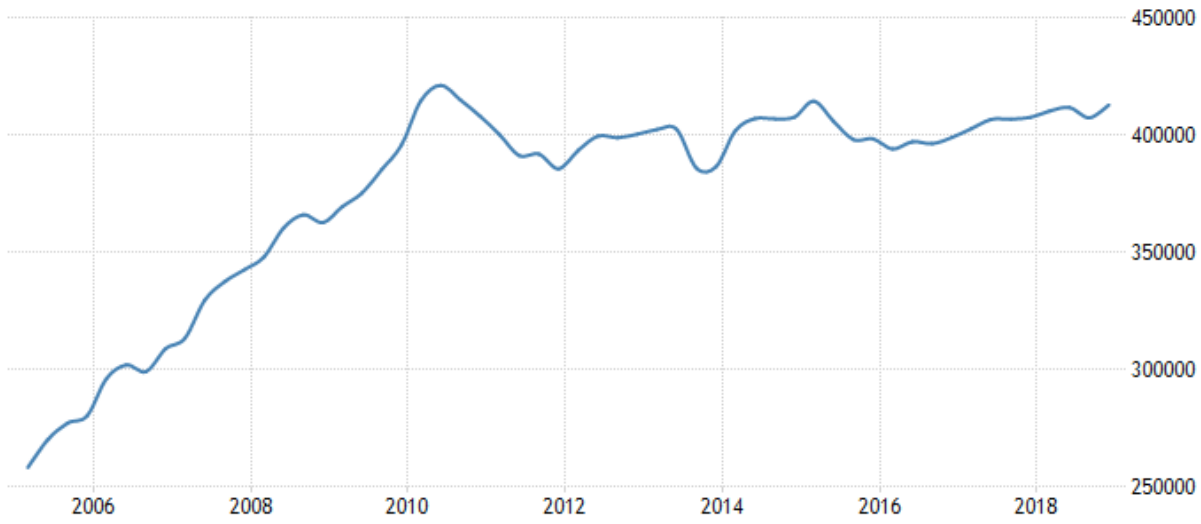
The underlying trends remained unchanged attributable to the continuous decline in the economic growth, the current account deficit increased, and the government budget deficit, public and private debt reached the historic highs. The country did not take advantage of low interest rates and financing cost to keep the budget under control and broke the Euro area rules on multiple occasions. The household investments and savings crumbled, their proportion of GDP persistently went down, and were insufficient to finance the private investments. Investors' worries regarding the country's financial condition and a weak business environment translated into much higher interest expected on its debt, soaring Portugal bond yields, in return to compensate for the country's higher perceived credit risk (Gurnani, 2016).

The global financial crisis in 2008 further aggravated these economic imbalances. The Portugal government's decision to alleviate the impact of the crisis on the economy by fiscal budget expansion led to the debt spiralling out of control, Standard and Poor's lowered Portugal's rating from A- to BBB- in 2011 which consequently drove the spread of sovereign

debt to the unsustainable level, making it too expensive to borrow on financial markets (Gurnani, 2016).

With no longer having access to foreign credit markets, the country was exposed to default and requested the European Union for the financial assistance in 2011 (Gurnani, 2016).

Graph No. 9: Total External Debt - Portugal (in mil. EUR)



Source: Trading Economics [online]; https://tradingeconomics.com/portugal/external-debt

In the graph no. 9 is shown how external foreign debt started to increase with the start of the crisis. In Portugal, external debt is a part of the total debt that is owed to creditors outside the country. The growing external debt resulting from the current account deficits was the key underlying problem that Portugal wasn't able to get any loan because of limited access to capital markets or because of very high borrowing costs. Portugal was forced by EU to get a loan from Eurozone to repay debts with bearable interest rates.

3.5 Italy

The Italian debt has been around 90% of GDP since the Unification of Italy and the creation of the Italian state in 1861. It was decided that the newly created state would take over all the commitments of the previous states which totalled about 45% of GDP. Over the next 10 years, the debt-to-GDP ratio was more than doubled by war spending related to connection of the eastern territories of the country. During the 20th century the debt reached the peak under Mussolini's rule. After the creation of the Italian Republic in 1948 and the start of economic growth, the debt-to-GDP ratio gradually declined. The 1950s and 1960s some analysts call an

Italian miracle (miracolo economico in Italian), in which GDP growth was 6% per year, and the debt-to-GDP ratio was reduced to 30% (Sartor, 1999, p. 300).

Oil shocks and restrictive US policy during the 1970s and 1980s caused production restrictions and public budget burdens. The 1970s and 1980s were also accompanied by high inflation. It was up to 25% in the mid-1970s, largely contributing to the loss of Italy's competitiveness. From this period, we can follow the re-growth of the relative debt (Sartor, 1999, p. 302-3).

Italy is ranked among the founding members of the European Communities in 1952 and also ranks among the first eleven countries to join the third phase of Economic and Monetary Union in 1999. Despite the fact that Italian economy belongs among developed countries, Italy has been struggling with the problem of high debt for a very long time which has placed it among PIIGS countries. Public debt is the second highest in the Euro area after Greece (Business Info, 2019).

How was mentioned before, Italy was admitted to EMU and adopted the euro in 1999. Italy, like Greece, did not meet the Maastricht criteria before adoption. Silvio Berlusconi, head of the Forza Italia party which governed, was most responsible for adopting the euro. Italy was unable to reduce its total debt below 60% of GDP by 1997, so Berlusconi tried to push the 3% deficit-to-GDP ratio to be the main admission criterion. The budget deficit has been cut mainly by financial engineering and by concealing the real amount from the public (Erber, 2011).

The adoption of the euro had a similar impact to the Italian economy as it did to the Greek economy. Inflation has decreased and security has increased. In addition, interest rates were reduced which caused reducing the burden on debt management. As in the case of Greece, interest on the 10-year bond of the Italian government was equal to the bonds issued by the German government. This decline in borrowing costs, even for Italy, meant an increase in the overall debt (Erber, 2011).

Italy, after the adoption of the euro, had the second lowest real GDP growth until the start of the crisis. The growth rate between 1999 and 2008 was on average 0.6% of GDP per year. The decline in the debt-to-GDP ratio has slowed down since 2000 and has risen again in 2005 and 2006 (OECD, 2009). In the 2009, when crisis was starting, the debt-to-GDP ratio reached 112.5% and continued to rise to 123.4% in 2012 as shown in table no. 9. Italy's public finance deficit has been above 3% since 2009, but remained slightly below the Euro area average. Unemployment rate increased from 6% to 8.5% between 2007 and 2012 (IMF, 2012).

Table No. 9: Government deficit as % of GDP - Italy

GEO/TIME	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Italy	-1,8	-2,4	-3,4	-3,0	-3,3	-3,5	-4,1	-3,5	-1,5	-2,6	-5,2	-4,2	-3,7

Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

Table No. 10: Government debt as % of GDP - Italy

GEO/TIME	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Italy	105,1	104,7	101,9	100,5	100,1	101,9	102,6	99,8	102,4	112,5	115,4	116,5	123,4

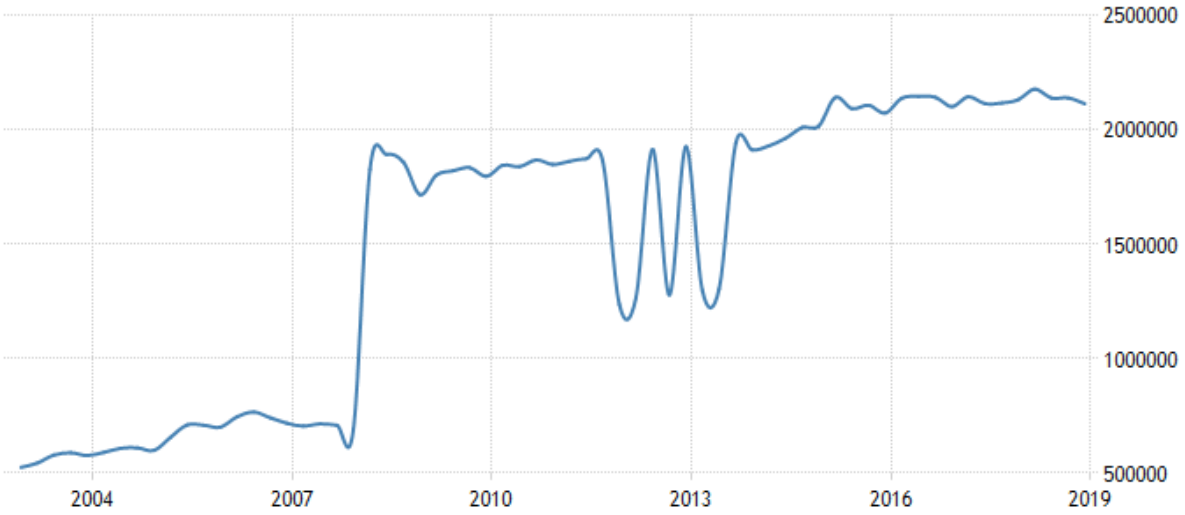
Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The start of Italian economic problems has scare European leaders much more than the problems in Greece. Given that Italy is the third strongest economy in the Eurozone after Germany and France, its bankruptcy for other European countries and for the euro would be invincible. And similarly financial assistance for economic and political reasons. The financial crisis has hit Italy particularly hard because of the previous decade of weak productivity and declining competitiveness (OECD, 2009).

In parallel with the deteriorating debt crisis, Italy also entered a political crisis in the second half of 2011. Silvio Berlusconi's government has increasingly shown signs of instability that have negatively affected the confidence of financial markets and European leaders. The pressure of financial markets on Italy has deteriorated dramatically at the end of October and the beginning of November 2011. The yields on Italian 10-year bonds rose to 7.5% which was 575 basis points above the German standard. Under pressure from Italian President Napolitano, Berlusconi resigned on 12 November 2011 and thus formally opened the government crisis. His successor was the former European Commissioner Mario Monti whose reform agenda focused on the pension system, labor market regulation and tax evasion to help Italy out of the crisis (Cencig, 2012).

The ECB's response to the strong rise in Italian interest has not long been waiting for itself. Despite Germany's opposition, the European Central Bank has started to buy Italian government bonds in bulk. Economists agree that central bank buying of bonds is the only way to return their interest to a tolerable limit and ensure that investors lend the country again. The measure is intended to prevent the further spread of the crisis. Moody's downgraded its rating at the end of 2011 and during 2012 when the rating fell six degrees to current Baa2. S&P and Fitch rank Italy at BBB+ (Němcová, 2011).

Graph No. 10: Total External Debt - Italy (in mil. EUR)



Source: Trading Economics [online]; https://tradingeconomics.com/italy/external-debt

In the graph no. 10 is shown how external foreign debt started to increase with the start of the crisis. In Italy, external debt is a part of the total debt that is owed to creditors outside the country. The growing external debt resulting from the current account deficits. But Italy's government or external debt does have just a little impact on on its credibility. Investor or rating agencies aren't afraid. Due to remaining credibility Italy still have access to good interest rates and capital markets.

4 Course of the Eurozone debt crisis

If the government is in a situation where it is unable to borrow in the financial markets, the standard response is to submit a request for emergency aid to the International Monetary Fund (IMF), which provides emergency loans under conditions related to the correction of government economic policy. These are drastic measures, but are still a better alternative compared to a complete cessation of funding and the need to take immediate action to achieve balanced land management. Usually, the IMF loan is mediated by the home central bank. However, the PIIGS' central banks are part of the Euro system. The European Central Bank has publicly opposed IMF interference in the Euro area. The European Council decided in May on a joint three-member rescue operation, International Money Fund, European Commission and European Central Bank, the so-called Troika. At the same time, a new European Financial Stability Facility (EFSF) was set up to address just such crises (Baldwin, Wyplosz, 2013).

The European Financial Stabilization Mechanism (EFSM) was created by Council Regulation (EU) No 407/2010 on 11 May 2010 in response to the deepening Euro area debt crisis by agreement between all EU Member States, including the Czech Republic. The EFSM authorizes the European Commission to mobilize funds by issuing bonds that are covered by the EU budget. According to the statutes, it operated until June 2013. Within it, Member States have created the European Financial Stability Facility (Euractiv.cz, 2012).

As a rescue system and temporary solution debt crisis arising on 9 May 2010 **European Financial Stability Facility** (EFSF) to ensure financial stability in Europe by providing financial assistance to euro area countries. For this purpose, the EFSF has the power to issue bonds or other debt securities and to intervene on both primary and secondary debt securities markets. Credit capacity in 2011 was up to nearly 780 billion euros. Financial assistance from this instrument was provided to Ireland, Portugal and Greece (ESM 3, 2019). Since May 2013, when the European Stability Mechanism started its activity, the EFSF was no longer involved in new aid programs. It will be liquidated after its financial operations have finished. (Dedek, 2015). "*Nevertheless, the EFSF continues to operate in order to:*

- *receive loan repayments from beneficiary countries;*
- *make interest and principal payments to holders of EFSF bonds;*
- *roll over outstanding EFSF bonds, as the maturity of loans provided to Ireland, Portugal and Greece is longer than the maturity of bonds issued by the EFSF*" (ESM 3, 2019).

Both instruments, ESFM and EFSS, were set up on a temporary basis. The Union shall not incur any additional costs in providing the funds to the Member State whereas these are paid to the beneficiary of that amount, including interest. Prior to obtaining funds for the benefit of a state, the government had to submit, together with the justification for the request, a correction program. For example, the way the negative situation will be resolved on a sustainable basis. In case of approval, the detailed conditions of program are specified in the so-called Memorandum of Understanding (MoU). The Commission was responsible for the EFSM and lending on financial markets and their provision to Member States (Štěrbová, 2013, p. 212-213).

At the end of 2010, the establishment of a permanent **European Stabilization Mechanism** (ESM) was approved, replacing EFSF and EFSM from mid-2013. The ESM is an important part of the European Union's comprehensive strategy for ensuring financial stability in the Euro area as well as its predecessor, the temporary European Financial Stability Fund (EFSF). The ESM provides financial assistance to Eurozone member states if they have the problem of financing (ESM 4, 2019).

In addition to the constancy element, the most significant change brought about was the inclusion of the possibility of involving private creditors in solving problems. It was a collective bargaining clause where creditors can, by qualified majority, decide to justify a binding change in the maturity conditions of debt instruments, e.g. suspension of interest reimbursement, interest rate cuts, and maturity extensions (Štěrbová, 2013, 215-217).

The establishment of the ESM should not, in its essence, be regarded as a response to the debt crisis itself, but rather as a complementary instrument to the measures adopted, a series of adopted structural reforms within the European Union (ESM 4, 2019).

The total subscribed capital was set at EUR 700 billion and was distributed to shareholder countries according to the revised key paid-in capital of the ECB, with a temporary benefit to economically less advanced members. The paid-up capital was EUR 80 billion. The ESM's net lending capacity put the ceiling at EUR 500 billion, in the interest of a premium rating for its securities. The ESM set out to be the preferred creditor, the second in the IMF ranking (Dedek, 2015).

In table no. 11, are identified the main differences between the European EFSF and the ESM permanent mechanism in the main points.

Table No. 11: Main differences between EFSF and ESM

	EFSF	ESM
Legal structure	Private company under Luxembourg law	Intergovernmental institution under international law
Type of organisation	Temporary (no new lending since July 2013)	Permanent
How bonds are guaranteed	Backed by guarantees of EFSF Member States	€80.55 billion in paid-in capital, plus €624.3 billion in committed callable capital
Creditor status	Pari passu (equal among other creditors)	Preferred creditor status (after IMF)

Source: ESM [online], https://www.esm.europa.eu/explainers

4.1 Greece

The Greek government responded to the worse situation by adopting new reforms to change the level of taxation, cuts in civil servants' salaries, increase the retirement age and privatize state-owned enterprises. These reforms met with a negative reaction from the Greek public (Guardian, 2010). ADEDY, the largest public sector employee union in Greece, announces a strike to protest the government's new austerity measures (Zítková, 2010). Most of the civil servants were involved in this important strike on 10 February 2010. Greek airports, schools, tax offices or hospitals had to be closed (Guardian, 2010).

In April 2010, Greece officially requested the European Commission, the European Central Bank and the International Monetary Fund to avoid bankruptcy. In the first aid package Greece received a promise of 110 billion EUR of which 30 billion EUR from IMF and 80 billion EUR On the basis of bilateral agreements from individual Euro area member states. Interest ranges between 3.4% and 4% (Goliaš, Kičina, 2013). Troika's demands on the Greek State have been anchored in a Memorandum of Understanding (Karasová, 2014).

The Greek Parliament has accepted this assistance and has ensured that further austerity measures have been taken to save 30 billion euros by 2012 and to reduce the budget deficit below 3% of GDP by the end of 2014. Greece can only achieve these values with other austerity measures (Ihned.cz, 2010).

The most important public sector savings measures in 2010 include:

- Thirteenth and Fourteenth Salary Limits (Employees earning at least € 3000 a month were completely cancelled on 13th and 14th salary, replaced by bonuses of € 1000);
- the introduction of a replacement rule by only 20% of retired employees;
- 8% government bonus reductions and 3% reductions for public service employees who have no other benefits;
- freezing salaries for three years;
- reducing government sector intermediate consumption by at least EUR 300 million in 2011, in comparison with the 2010 level. The reform of the state administration and the reorganization of local councils should bring savings of 1.5 billion euros from 2011 to 2013, with a minimum of € 500 million savings in 2011 (Egyed, 2010).

The most important private sector savings measures in 2010 include:

- Wage growth in the private sector was set at 1.6% for 2011 and 2012 (5.6% for 2011);
- enhancement of staff redundancies (companies with up to 20 employees unlimited, companies with a staff of 20 to 150 could let go up to 6 employees per month and companies with more than 150 employees could dismiss to 30 employees per month);
- workers under the age of 21 could apply for an annual contract with a salary of 80% of the minimum wage, people aged 15 to 18 could apply for 70% of the minimum wage and the first time employee under 25 should be paid less than the minimum wage;
- company with a profit of at least 100.000 EUR in 2009 had to pay a one-off tax of 4% of profit if their net profit was between 100.000 and 300.000 EUR, 6% if it was between 300.001 and 1.000.000 EUR, 8 % in the range of 1.000.001 to 5.000.000 EUR and 10% with a net profit of more than 5.000.001 EUR;
- increasing all three VAT rates (from 21 to 23%, from 10 to 11% and from 5 to 5.5%);
- an increase in excise duty on alcohol, cigarettes and fuel by 10%;
- 20% taxation on all TV commercials (finally postponed to 2013) (Papadimitriou, 2011).

In the first half of 2011, the individual rating agencies are reducing the Greek rating. International creditors say that the Greek reforms are not deep enough for the local economy to recover (Vondřich, Bazgierová, 2015).

The austerity measures taken by the Greek government, which has brought some short-term success in reducing the budget deficit, have ultimately led to a deepening of the recession. The required structural reforms have practically not taken place. A new agreement on financial assistance was agreed in 2012 which assumed involvement of the private sector in the process of restructuring private debt (Private Sector Involvement - PSI) (Karasová, 2014). Under the second aid package, Greece received 129 billion EUR in further aid of which 20 billion from the IMF and 109 billion from the newly created European Financial Stability Facility (Goliaš, Kičina, 2013).

By selling shares in state and semi-state firms, the Greek government expected to raise 50 billion EUR by the end of 2015 while ready to sell the remaining shares in state-owned enterprises. Further sales of assets were to earn 7 billion euros in 2013, 13 billion in 2014 and 15 billion in 2015. Public control should remain limited to key infrastructure networks. For the sake of privatization, the government has shifted its activity to the Property Development Fund of the Hellenic Republic. Among the most important assets that were transferred to the privatization fund were (ČMKOS, 2012):

- Alpha Banka (0.619% stake)
- National Bank of Greece (1.234% stake)
- Piraeus Bank (1.308% stake)
- Piraeus port operator (23.1%)
- Thessalonika Port Operator (23.3% stake)
- Elefsin, Lavro, Igoumentsia, lexandropoulis, Volos, Kavala, Corfu, Patra, Rafina, Heraklion Port Operatores (100% share)
- Athens Water and Sewage Company (27.3%)
- Thessalonica Water and Sewage Company (40%)
- Regional State Airport (transfer of license rights)
- Offshore Gas Storage Facility "South Kavala" (transfer of rights of current and future concessions)
- Greek motorways (transfer of economic rights of current and future concessions)
- Egnatia Odos (100%)

- Greek Post (90%)
- OPAP (betting monopoly), SA (29%)
- 4 state buildings (ČMKOS, 2012).

In 2011, 10% of Greek Telecom was sold to German hands, power plants, Greek Post, Hellenistic oil or also state soil. This divestment has put nearly 5 billion euros into the Treasury (ČMKOS, 2012).

this step by Papandre's government met with severe criticism from a number of experts and a violent reaction from Greek citizens. In addition to the dramatic increase in unemployment, the real income of public sector workers has been reduced by 20 to 50% and above all to reduce the scope and availability of public services (Karasová, 2014).

The second loan also bring a totally unprecedented restructuring of the Greek government debt. The Greek government agreed on the exchange of Greek government bonds held by the private sector in February 2012 with representatives of Europe's largest banks. Holders were offered short-term EFSF bills and new government long-term bonds instead of existing bonds. The exchange of bonds was voluntary, but Greece imposed two restrictive points in the agreement (Zettelmeyer, Trebesch, Gulati, 2013):

- Collective Action Clause (CAC) - if less than 90% of bonds are claimed for exchange, the Greek Government has the right to replace the remaining bonds without the permission of the owners;
- if less than 75% of the bonds are entered for the exchange, the agreement is cancelled.

At the beginning of March 2012, private investors agreed to exchange about 85% of Greek debt which triggered the above mentioned first point of the agreement. By the end of April 2012, 96.9% (nominal value of 199.2 billion EUR) of private bonds had been exchanged. 29.7 billion EUR in short-term EFSF bills and 62.4 billion EUR in long-term bonds were returned to investors. Thus, the total write-off of debt held by private individuals at nominal value was 54%. Given that the new bonds offered less interest and higher maturities, the value actually written off was even higher (Zettelmeyer, Trebesch, Gulati, 2013).

At the beginning of 2013, unemployment in Greece is almost 27% and is thus the highest in the EU. Especially youth unemployment is a problem, reaching up to 60%. Greece agrees with other austerity measures required by Troika. The deal is seen as a step towards getting more financial aid. At the same time, the Greek Parliament approves the law abolishing

15,000 government jobs. People in the state administration had previously had a constitutional guarantee that they could not lose their jobs. Which causes another strikes and protests (Vondřich, Bazgierová, 2015).

Also in early 2014, Greek unemployment is still high reaching a record 28% in February. But Greece was optimistic for a moment when the recession ended and the state budget reached its primary surplus. The Parliament closely endorses the large reform package that will open up more retail sectors to competition. The package was part of an agreement between Greece and its international creditors. In April, Eurozone finance ministers announce that they will release an additional 8 billion euros in financial aid to Greece. At the same time, Greece is gaining nearly 4 billion EUR of global financial markets from its first sale of long-term government bonds after four years. This step is seen as important in the economic recovery of the country. After a very long time rating agency Fitch increased the Greek rating (Vondřich, Bazgierová, 2015).

A failed presidential election caused early parliamentary elections. Once again, the country got into recession, tax revenues began to fall, and citizens began to collect money from banks. On January 25 2015, an extremely left-wing party Syriza won an early Greek parliamentary election. Allied in the government became the right-wing Party of the Independent Greeks. Both ruling parties have sharply defined themselves against the austerity policy that their creditors wanted from Greece. The new prime minister and leader of the winning party, Alexis Tsipras, demanded forgiveness of much of Greek debt. If not, he threatened to leave the Euro area. The Eurozone states, headed by Germany, opposed the easing of debt repayment conditions, insisting that Greece continue its reforms (Vondřich, Bazgierová, 2015).

In July 2015, Greece has become the first advanced economy which has not paid to the IMF a part of the 1.6 billion EUR rescue program debt on time Greece then requested the International Monetary Fund to extend the time to pay the amount due. (ESM 1, 2019).

New government begins negotiation for third rescue package. Three years after the approval of the second rescue package, the European Commission approved an additional loan of 86 billion EUR for Greece in July 2015. The loan supposed to be paid out in the horizon of 2015–2018. As in the first and second rescue package, the payment of the pledged funds was linked to the fulfilment of the binding conditions contained in the Memorandum of Understanding (ESM 1, 2019).

Table No. 12: Euro area, EFSF/ESM and IMF assistance for Greece

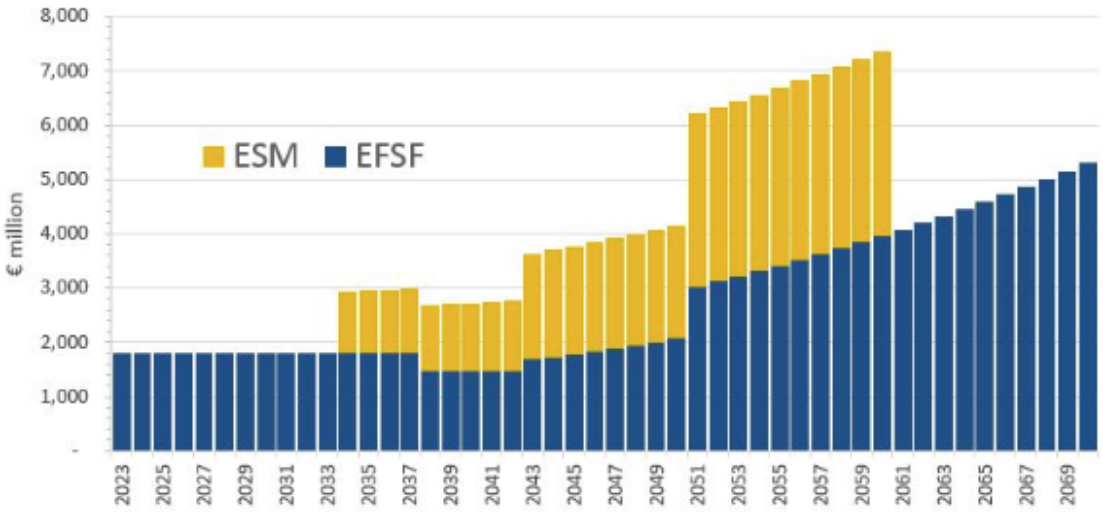
Financial assistance programmes for Greece	Disbursed (€ billion)	
1st programme	GLF (euro area) IMF Total	52.9 20.1 73.0
2nd programme	EFSF IMF Total	141.8 12.0 153.8
3rd programme	ESM	61.9
Total from euro area, EFSF and ESM Total from IMF Total loans disbursed		256.6 32.1 288.7

Source: ESM [online]; https://www.esm.europa.eu/assistance/greece#programme_timeline_for_greece

As shown in table no. 12, during three programmes of assistance Greece received 288,7 billion EUR. Financial assistances from other European countries and the International Monetary Fund ended on 20 August 2018 and the country is back on its own feet. Respectively, Greece borrows on international bond markets again just like other states (Wolf, 2018).

"*Greece will repay the ESM loans from 2034 to 2060. The EFSF loans are currently scheduled to be repaid from 2023 to 2056, but according to the medium-term debt relief policy it is approved by the Eurogroup in June 2018, there will be an extension of the maximum weighted average maturity by 10 years on € 96.4 billion EFSF loans. This extension requires approval by the EFSF Board of Directors*" (ESM 1, 2019). In the graph no. 11 below is shown the Greece's repayment schedule.

Graph No. 11: Redemption Profile (Annual repayment amount) for EFSF and ESM loans to Greece (in million EUR)



Source: ESM [online]; https://www.esm.europa.eu/assistance/greece#programme_timeline_for_greece

4.2 Ireland

Ireland officially confirmed that it is in a recession in 2008. The main reason for the crisis that hit it in 2008 was the bursting of the real estate bubble, which resulted in a sharp drop in property prices. This slump influenced the high rate of banks, which found themselves in problems caused by loan defaults. During 2008, Irish banks also faced a lack of liquidity. The Irish government has responded to liquidity problems, issuing an unlimited bank guarantee on 29 September 2008 for the six most vulnerable Irish banks. Ultimately, the cost of this bank guarantee was much greater than the government had originally set (RTE, 2018).

In April 2009, the government filed a proposal to establish a National Asset Management Agency (NAMA) to take over the bank's risky and toxic assets for which the state would pay government bonds and recover the outstanding loans. It should have helped banks to regain liquidity. The proposal was adopted and NAMA was officially established on 21 December 2009 (European Commission, 2011). The aforementioned events caused an increase in public debt which was 65% of GDP in 2009, a 40 percent increase since 2007 as shown in table no. 1.

Ireland officially requested financial assistance in November 2010. In the aid package agreed for 2010-2013, aid in amount of 67.5 billion EUR was committed to Ireland (45 billion EUR from the EU and Euro area temporary rescue mechanisms and 22.5 billion EUR from the

IMF). 17.5 billion euros was Ireland able to contribute. The average interest rate that Ireland pays for loans is 5.8%. In April 2013, Ireland has been prolonged its average maturity by 7 years to facilitate its return to financial markets (Goliaš, Kičina, 2013).

Table No. 13: Euro area, EFSF/ESM and IMF assistance for Ireland

	EFSF	European Commission (EFSM)	IMF	Bilateral loans (UK, SWE, DK	Irish contribution	**Total**
€ billion	17.7	22.5	22.5	4.8	17.5	**85**

Source: ESM [online]; https://www.esm.europa.eu/sites/default/files/irishexitpresentation.pdf

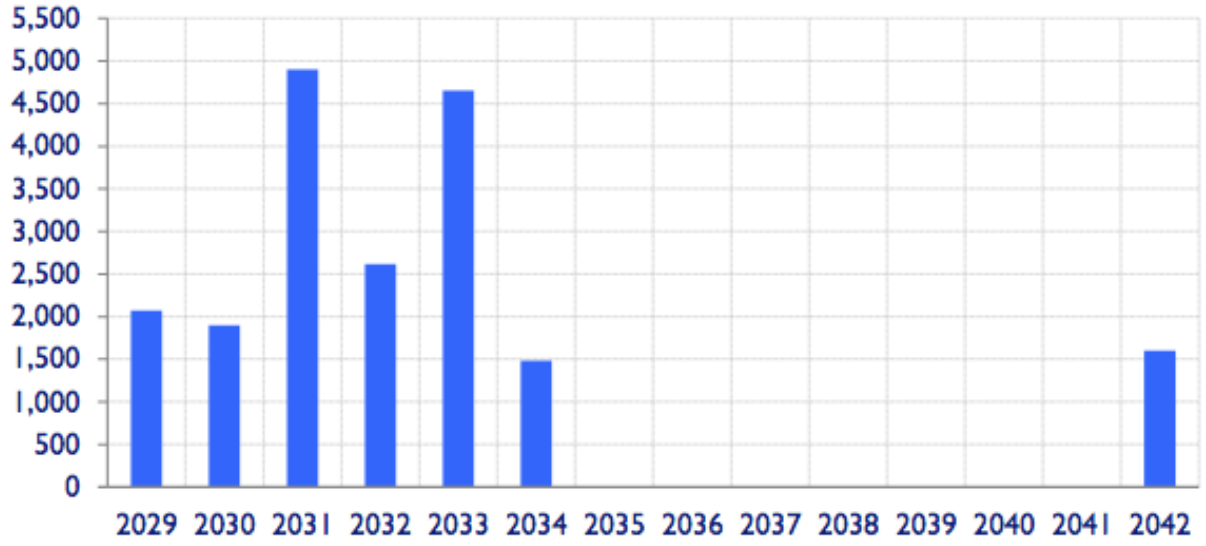
Of this amount, 35 billion were for the banking system. Namely 10 billion EUR for immediate recapitalization and 25 billion for the pivot basis. The condition of the program was to carry out stress tests and increase the capital of banks by a total of 24 billion EUR, and the banks should also undergo a central bank liquidity and capital assessment. The program contained three main elements. The first was the financial sector strategy, which was supposed to help Ireland to the more capitalized banking sector. The second area was fiscal consolidation in order to achieve a sustainable public finances medium term. The third part was an ambitious program of structural reforms to restore competitiveness and increase the growth potential of the economy (OECD, 2011).

In July 2013, European Commission confirms that Ireland is meeting the demands of the Troika pretty successfully. The report contains an evaluation of 26 specific targets of which 25 (96%) are fully fulfilled and only 1 (4%), the capital ratio of 12% is not met. Since 2012, Ireland has been able to partially finance its public spending through long-term loans on the financial markets, making it the most successful country among the bailout states. Nevertheless, reforms will still be needed after 2013 for long-term fiscal consolidation (European Commission, 2013).

"*During its three-year assistance programme, Ireland fixed many of these problems. Two major banks were closed down, while some of the remaining firms received a capital boost. A bad bank was set up to deal with problem loans and isolate them from the healthy banking business. The country reduced its fiscal deficit, and successfully exited its EFSF programme without the need for any further assistance in December 2013. Portugal will repay the principal*

of the loan tranches starting from 2025, and the repayment is scheduled to end in 2040" (ESM 2, 2019). Ireland has become the first real example that recovery programs are working.

Graph No. 12: Irish EFSF repayment profile (in millions EUR)



Source: ESM [online]; https://www.esm.europa.eu/sites/default/files/irishexitpresentation.pdf

4.3 Spain

Prime Minister José Luis Rodríguez Zapatero responded to the US financial crisis in such a way that its relevance to the Spanish economy is minimal. Due to the good condition of the Spanish budget, incentive measures were taken in 2008 and 2009. the main stimulating steps of the government include (Élteto, 2011):

- Introducing tax credits and increasing family allowances;
- corporate income tax reduction;
- integrated plan for the automotive industry to stimulate demand and investment (€ 4 billion);
- reduce wealth tax and increase the minimum level of old-age pensions (Élteto, 2011).

As a result of these steps, government deficit budgets have been created. There was a decline from 1.9% in surplus to GDP in 2007, to 4.4% in 2008 and 11% in 2009 as shown in table no. 5. The government debt-to-GDP ratio between 2007 and 2009 increased from 35.6% to 52.8% as shown in table no. 6. In the light of these facts and given the evolution of the situation in Greece, in 2010 Zapatero's government changed the direction of fiscal policy. In order to achieve the 6% budget deficit in 2011 and the 3% deficit in 2012, both revenue and

expenditure reforms of the government budget were introduced (Élteto, 2011). The main reform steps included:

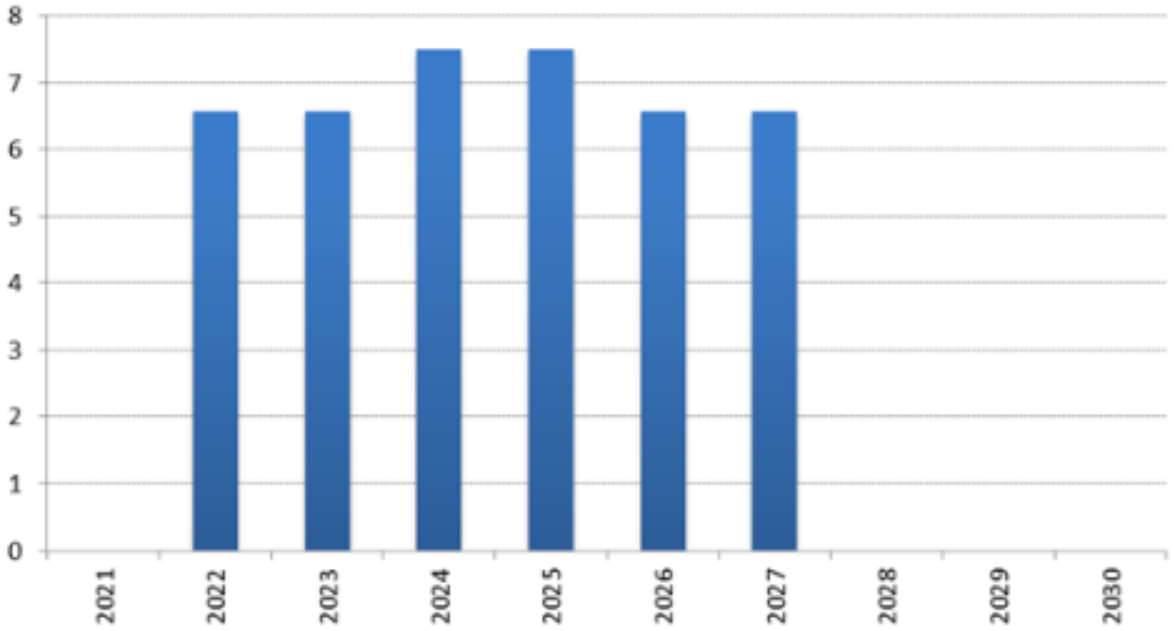
- Increasing base VAT rate from 16% to 18% and lower rates from 7% to 8%;
- Partial privatization of airport company and state lottery;
- 5% cuts in public sector employees' salaries and their freeze for 2011;
- the abolition of the adjustment of the old age pension about inflation for 2011 and the increase in the retirement age from 65 to 67;
- 15% reduction in politicians' salaries;
- abolishing child allowances (Dellepiane, Hardiman, 2012).

Year 2012 was the most challenging year for Spain. GDP decreased by 1.6% year-on-year, unemployment was over 20% and youth unemployment was twice that size. Spain officially requested financial assistance in 2012. The ESM offers Spain a loan up to EUR 100 billion in assistance. But in the end Spain used only needed 41.3 billion (ESM 5, 2019). These events were followed by a downgrade of Spain's rating by Standard & Poor 's agency by two degrees to BBB+ (The Telegraph, 2012).

Conditions attached to the financial assistance, in the case of Spain, "*were strictly directed to the banking sector. There were three main conditions: first, identifying individual bank capital needs through an asset quality review of the banking sector and a bank-by-bank stress test. Second, recapitalising and restructuring weak banks based on plans to address any capital shortfalls identified in the stress test. Finally, problematic assets in those banks receiving public support (without any credible plans to address their capital shortfalls by private means) were to be segregated and transferred to an external asset management company (Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria – SAREB)*" (ESM 5, 2019).

ESM programme for Spain lasted only 18 months. In December 2013 Spain didn't need it anymore. In graph no. 13 below is shown original loan repayment profile.

Graph No. 13: Spain's loan repayment profile (in billion EUR)



Source: ESM [online]; https://www.esm.europa.eu/sites/default/files/spanish_exit.pdf

But as shown in table no. 14 Spain started voluntarily repayment of the debt just seven months after exited ESM programme. Until today Spain repaid 17.612 billion EUR.

Table No. 14: Spain's loan repayment

Date of repayment	Amount repaid	Cumulative amount repaid	Details
08/07/2014	€1.304 billion	€1.304 billion	Early repayment (voluntary)
23/07/2014	€0.308 billion	€1.612 billion	Scheduled repayment of unused funds
17/03/2015	€1.5 billion	€3.112 billion	Early repayment (voluntary)
14/07/2015	€2.5 billion	€5.612 billion	Early repayment (voluntary)
11/11/2016	€1 billion	€6.612 billion	Early repayment (voluntary)
14/06/2017	€1 billion	€7.612 billion	Early repayment (voluntary)
16/11/2017	€2 billion	€9.612 billion	Early repayment (voluntary)
23/02/2018	€2 billion	€11.612 billion	Early repayment (voluntary)
23/05/2018	€3 billion	€14.612 billion	Early repayment (voluntary)
16/10/2018	€3 billion	€17.612 billion	Early repayment (voluntary)

Source: ESM [online]; https://www.esm.europa.eu/assistance/spain#programme_timeline_for_spain

Big part of this success was that Economy Minister Luis de Guindos copied the successful German model, focusing mainly on the country's export orientation. To achieve this, the Spanish economy's competitiveness and productivity had to be increased. This was mainly due to painful labour market reforms. Wages were suddenly frozen, their inflation-related increases abolished, fixed-term contracts and part-time contracts provided the economy with cheap labour. The advantage was that trade unions, eventually, also worked with this government policy. Their clients wanted only one thing - after five years of unemployment to be finally over even if the monthly salary was less than 1000 euros (Rose, 2017).

Spain is now second largest car producer in the Euro area after Germany. Since the crisis car exports have risen by nearly 50% to 34 billion EUR. Spain has 17 automakers and 85% of its production goes to export. Spain also owe good numbers from the economy to the flowering tourism, mainly due to the outflow of tourists from countries such as Tunisia and Turkey. Nowadays, every eighth job is related to tourism making tourism one of the most important drivers of Spanish employment (Rose, 2017). The unemployment rate, which was 26.1% at the worst point of the crisis in 2013 was reduced to 15.3% in 2018.

4.4 Portugal

As a result of the global crisis, the Portuguese economy entered the recession at the end of 2008, with GDP falling by 2.9%, which was the worst result since 1975, but less than in the Euro area as a whole. This relative resilience can be explained by the absence of a real estate bubble in the years preceding the crisis and the overall good condition of the financial sector confirmed by bank stress tests (OECD, 2012).

The Portuguese Government responded quickly to the demands of the European Union and took decisive steps to restore financial stability. Government decisions included increasing government guarantees for bank deposits from 25.000 to 100.000 EUR and providing 20 billion euros for guarantees to Portuguese banks, as well as funds to recapitalize banks up to 4 billion euros (OECD, 2012). Discretionary fiscal policy measures in the form of a stimulus following the EU challenge in combination with other discrete measures have led to a significant increase in public deficit. Public debt also increased in 2009 (Pereira, 2012, p. 14)

At the end of 2010, the Portuguese economy began to recover from a challenging year 2009, yet high public and external debt, and the prospects of low economic growth caused that the financial markets started to focus on the country and press for a sharp reduction in debt. The

Portuguese debt got out of control. Portuguese bond interest rates have risen very quickly and rating agencies have subsequently downgraded the country's rating (Pereira, 2012, p. 18-19).

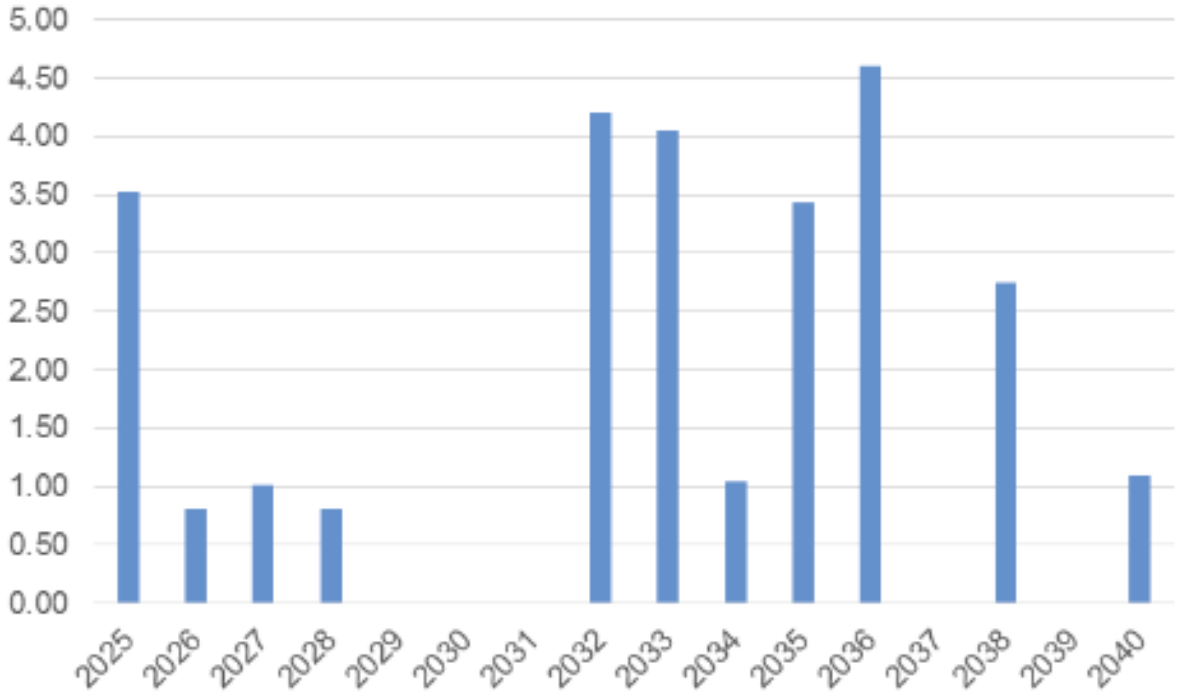
The government's response to the deteriorating economic situation did not wait long. Portuguese Prime Minister José Socrates proposed reforms that included cuts in social benefits, cuts in unemployment benefits, cuts in government pay and rising public transport prices. But the Portuguese Parliament did not approve these reforms, as Prime Minister Sorcrates responded with his resignation on March 23. Just a day after his resignation, the rating agency Fitch hit the Portuguese rating down to A-. Portugal initially refused aid, but over time it had no choice but to formally request financial assistance (Břešťan, 2011).

In April 2011, Portugal responded to the political crisis triggered by the opposition which rejected several austerity measures by asking the European Commission, the European Central Bank and the International Monetary Fund to help. In the framework of the aid package agreed for 2011-2014, Portugal is pledged to receive aid of 78 billion EUR (26 billion EUR from the EFSF, 26 billion from the EFSM and 26 billion from the IMF) at 5.5% to 6%. In April 2013, Portugal has been prolonged its average maturity by 7 years to facilitate its return to financial markets (Goliaš, Kičina, 2013).

"*The majority of the EFSF programme amount was used for budget financing needs, while a smaller portion was used for the purpose of recapitalisation of banks (Millennium, Banco BPI and Caixa General de Depositos)"* (ESM 6, 2019). Wages in the public sector have been reduced by an average of 25%, while the minimum wage has been frozen at 485 EUR. Then the export started to recover again. Ten percent contributes to the export of the Portuguese strong and highly specialized textile sector in the north of the country. Despite the relatively low population of 11 million, Portugal is one of the most important exporters of textiles in Europe. Many leather and leather fabrics work for the most luxurious fashion brands around the world (Rose, 2017).

"*Exports started growing faster than the Euro area average, as the economy became more competitive. A two-digit current account deficit was erased. The budget deficit shrank, and growth resumed. Portugal was able to issue bonds again." Portugal exited the programme in June 2014* (ESM 6, 2019).

Graph No. 14: Portugal's loan repayment profile (in billion EUR)



Source: ESM [online]; https://www.esm.europa.eu/sites/default/files/portugal_exit_pppresentation.pdf

Thanks to the favourable economic development, the Portuguese left-wing government could even relax its austerity measures. Public service workers have already been added and the hospitality tax has been reduced. While in the times of crisis, restaurants were paying a 23% rate for luxury goods, now only 6% (Rose, 2017).

4.5 Italy

The relative debt-to-GDP ratio in the first wave rose from a long-term low of 103.3% in 2007 to 120.7% in 2011. The increase in debt compared to Greece had little impact on Italy's credibility with investors. In the first wave, there was no downgrading of the Italian rating by rating agencies, nor did the large increase in the return on Italian bonds. The situation in the banking system also contributed to investor confidence. Rather, Italian banks focus on traditional products and relationships with their customers, so they have not invested so much in financial derivatives created during the mortgage bubble, their relatively small exposure to toxic assets, the characteristics of their sources of financing for the Italian household, which relied only limited on the credit market. Banking supervision has played an important role in ensuring that Italy's banking sector is not exposed to increased risk. Prudent regulation and supervisory practices included. Indeed, the depreciation rate of Italian banks was not as

catastrophic as in other countries, but due to the high complexity and transnational interconnection of Italian banks, there was also a loss of liquidity and a reduction in credit supply. Households entered into the crisis with less debt than other countries, leading to a drop in consumption (OECD, 2009).

At the end of 2011, Italian debt was 120% of GDP and bond interest rates rose to seven percent. And because Italy is the third largest Euro area economy and is not a means of saving it, as was the case, for example, in Greece, anti-crisis measures had to be implemented. The new Prime Minister Monti has promised up to 30 billion euros in addition to these measures, and in 2013 he planned to reach a balanced budget (Vlk, 2011).

Mario Monti had a year-long mission to introduce reforms that would consolidate Italian public finances and restore Italy's economic growth. During the Monti government three major reform packages were adopted. The first package, informally called “save Italy” was adopted in December 2011. Its main objective was to reduce the 2012 budget by 34 billion euros and balance revenue and expenditure by 2013. Second two, “Italy's growth” and “simplify” Italy were adopted in the spring of the following year (OECD, 2013).

As the situation was not fiscal in comparison with Greece, and Italy did not have to answer to international institutions, there was no need for such drastic austerity measures. Most of the reform steps introduced by Monti's government focused on increasing competitiveness, liberalizing business support, cutting red tape, reducing tax evasion and protecting customers. An important different feature of these reforms compared to the Greeks was their weaker immediate impact and thus longer-term returns (OECD, 2013).

Due to a protracted recession, the Italian government, headed by new Prime Minister Enrico Letta, approved a package of measures to support the economy. The plan was drawn up on the basis of a recommendation from the European Commission. At the same time, Letta promised to keep the budget deficit below three percent of gross domestic product as required by the EC. These measures were created in response to a protracted recession following the previous cuts in the state budget. These cuts, as mentioned earlier, were supposed to stop the growth of sovereign debt and restore market confidence. Pro-growth measures include:

- 3 billion euros for infrastructure projects, which should create 30,000 jobs;
- mitigation of fines imposed by Equitalia, which oversees tax collection;
- possibility to employ more researchers at universities;

- tax cuts on ships and yachts to boost industry recovery affected by earlier austerity measures (E15, 2013).

Matteo Renzi became Italy's youngest prime minister in 2014. He led a Democratic Party party with a 41% election, which he founded himself. He had a lot of ambitious ideas about the new reforms he wanted to push within 1000 days of his government. His most important reform is the Jobs Act (Mejstřík, 2015).

The flagship of the Renzi program is the extensive labour market reform, known as the Jobs Act. The Italian government also decided to do so at the initiative of the European Commission which in its assessment of the 2013 reform program in Italy, strongly recommended reforming the rigid labour market in order to increase the country's competitiveness and reduce labour costs, especially in the southern regions. Thus, the government proposed major changes in employment patterns, increased incentives for employers, and increased the attractiveness of open-ended contracts, but at the cost of weakening Article 18 of the Employee Regulations where a relatively high level of employee protection is mentioned. However, in promoting the Jobs Act, the prime minister had to deal with a loud opposition. Trade unions have convened several large demonstrations. However, Renzi has persisted and on December 4, the Jobs Act was finally approved giving more opportunities to young people while limiting the protection of employees from dismissal. Admittedly, the reform has certainly become a good news for the EU. Although it remains a question of to what extent reform alone will contribute to relaunching the Italian economy (Mejstřík, 2015).

But Renzi has not gone through other reforms. Making the mistake of including his reforms in one package where some have been more or less popular. According to some, the package has failed on the much discussed reform of registered partnership rather than discussing and deciding on substantial reforms. Which was his end as a prime minister because he connected the disapproval with his resignation (Lidovky.cz, 2016).

From previous information is very obvious that Italy has a huge political crisis. Prime ministers are changing almost every year. The Italian economy is suffering from chronic problems, be it too much public debt excessive tax burden on the population, inefficient administration, the problem of tax cuts or overly complex taxation in Italy's so-called grey economy. All these shortcomings have been repeatedly pointed out by foreign institutions, whether EU, IMF or OECD (Mejstřík, 2015).

The poor condition of the Italian banks worries European regulators. According to many analysts due to the size of the total problem debts in the banking sector and given the large debt the Italian state has, this is a significantly greater systemic problem than Greece. Due to the interconnectedness of banking systems in Europe and the drying-up of the liquidity of the market, there is a risk that the crippling of the banking system in Italy would not even endure banks in other European countries. Italy has asked for so-called preventive recapitalization. Thus, a mechanism that use an exception from EU rules to protect taxpayers from paying for healing of their banks before the bank's owners and creditors suffer losses (Ginterová, 2017). Italy is using this mechanism to rescue the oldest bank in the world Monte dei Paschi di Siena. The state is expected to pump about 6.6 billion euros with subordinated bond owners carrying the remainder to a total of 8.8 billion EUR. But Monte dei Paschi di Siena isn't the only bank which Italian government wanted to rescue. Two troubled bank, Popolare di Vincenza and Banca Veneto, clear themselves of bad loans and sell competitors for symbolic one euro. The government will give it 12 billion euros (Horáček, 2017).

Last example of a bank in troubles is from January 2019. The bank failed to obtain shareholder support for the issue of new shares for EUR 400 million. The European Central Bank has therefore appointed a conservator (Ihned.cz, 2019).

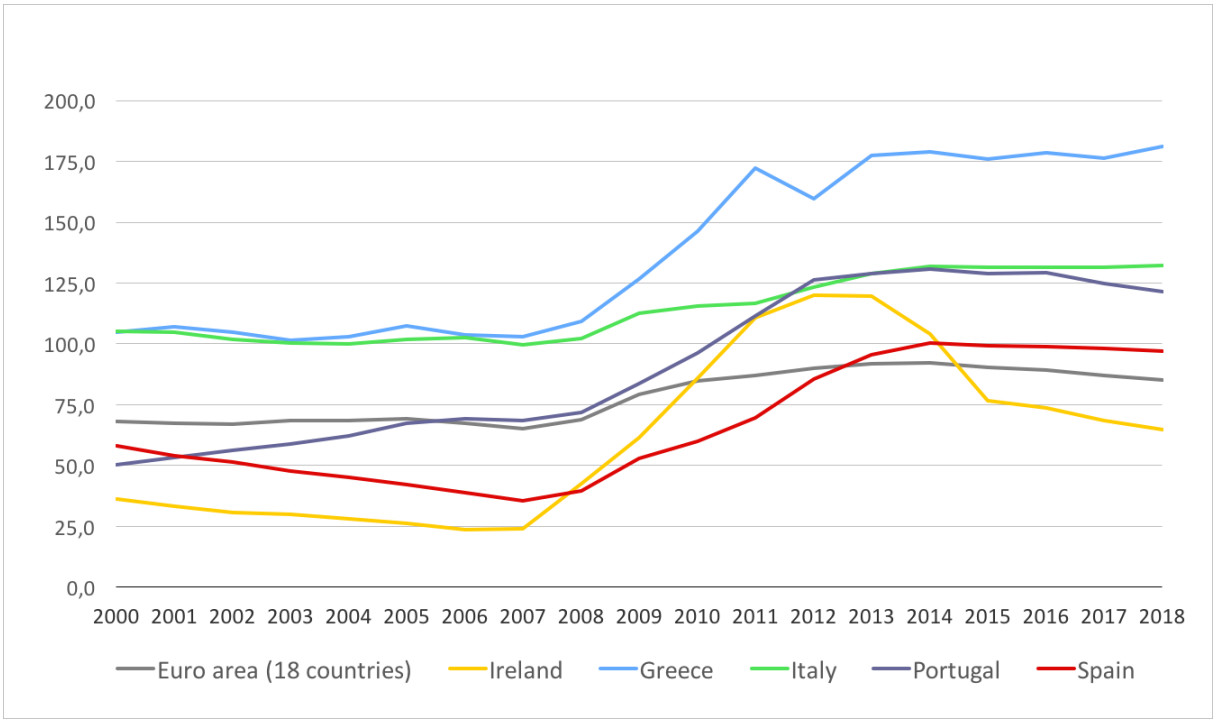
The problems of the Italian banking sector are linked to the problems of the real economy which have been accompanying Italy for more than two decades. Real economic growth slowed, especially after Italy surrendered the national currency and adopted the euro instead. Initially, the government solved slower growth with debt. Italy's debt to GDP, which has grown record-breaking over the past 20 years, has risen to over 130 percent. Indeed, the Italian debt which is the second largest in Europe is slow and difficult to stabilize in view of zero GDP growth and continues to burden the Italian budget with relatively high interest rates (Ginterová, 2017).

5 The Impact of the Financial Crisis on the European Economies

Despite there is no single explanation for the European financial crisis and the underlying causes vary by country, the external debts of the European countries aggravated by the pre-crisis fiscal imbalances and macroeconomic vulnerabilities, are at the centre of the crisis in 2008-11.

Among other factors, the interest rates decline associated with the Euro introduction, consequent increase in both public and private spending financed by borrowing and the decrease in the external competitiveness led to the debt accumulation in the non-core countries involved in the crisis, in particular predominant in case of Greece and Portugal. Nevertheless, the growing indebtedness across the countries is depicted below through the development of the general government debt to GDP ratio for countries most impacted by the European debt crisis.

Graph No. 15: General Government Gross Debt as Percentage of GDP (%)



Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

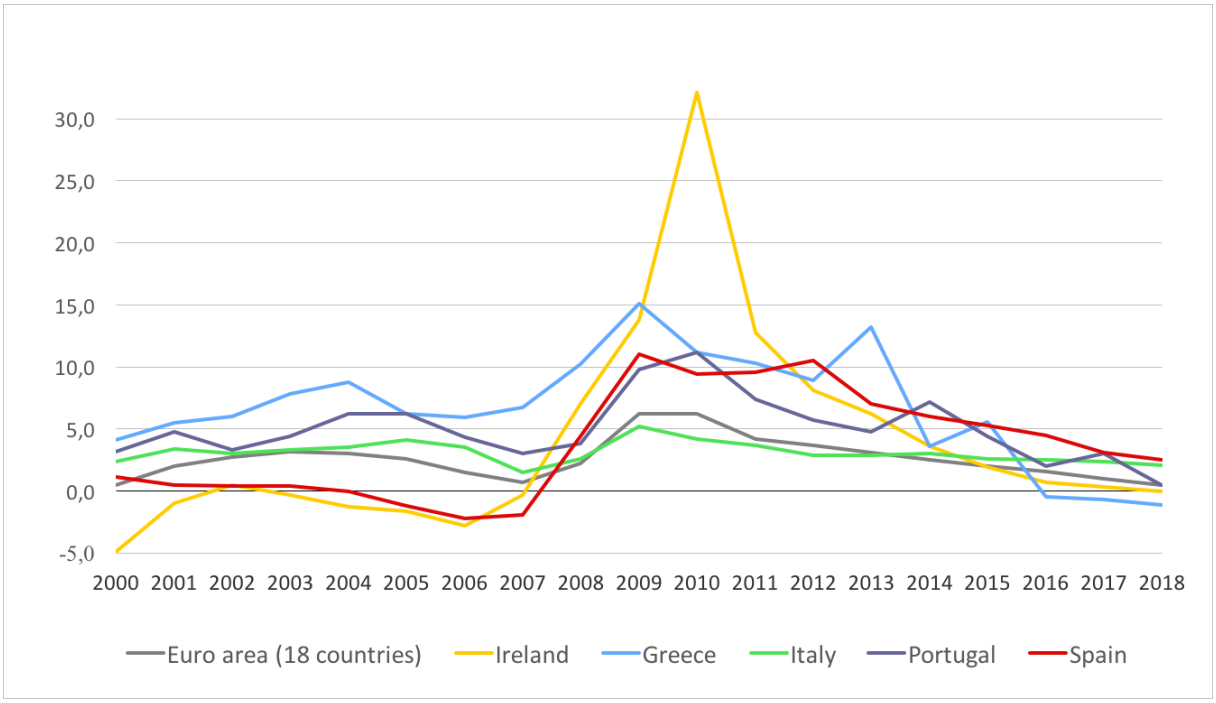
By comparing the countries' debt situation preceding the crisis and after the crisis burst out, a clear distinction can be made between the countries which already had the high debt problems before 2007-08 and did incur the lowest relative increase in the debt ratios thereafter in 2008-10 including Greece, Italy, Portugal and the countries including Ireland which debt escalated with the highest relative increase in public debt ratio as a direct result of the crisis.

Greece's and Italy's public debt to GDP ratio were already above 100 percent during 2000-07, in excess of the 60 percent limit stated in the Stability and Growth Pact and the Maastricht criteria.

On the other hand, Spain's debt to GDP ratio was lower than the Euro area average or Germany and only marginally higher than the Maastricht limit in 2010. However, the worries about the stability of its banking sector hit by the collapse of the housing bubble and potential bailout from the Spanish government necessary to elevate the worsening situation led to the difficulties in sovereign debt markets borrowings and the bond yields soared.

The fiscal deficits arising from the economic slowdown during the European financial crisis together with the unsustainable debt accumulation stimulated by the excessive optimism and credit boom in the pre-crisis years, further extended the external deficits. During the period Greece's budget deficit reached 15 percent of GDP and Ireland spiked at over 32 percent in 2010.

Graph No. 16: Government Deficit/Surplus as Percentage of GDP (%)



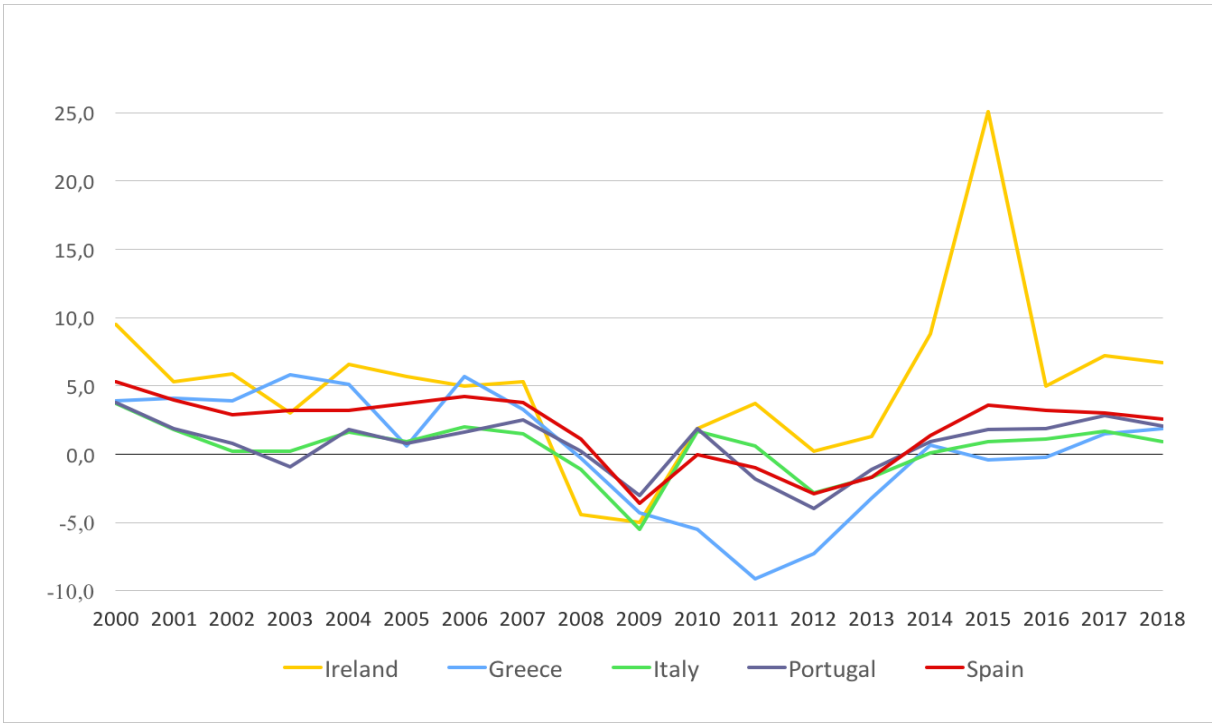
Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The Eurozone crisis exhibited its full force in 2010 when the gap between the economic growth rates around 1 to 2 percent for the non-core countries impacted by the downturn and the core countries i.e. Germany with 4.1 percent GDP growth widened while Greece continues to suffer from the economic decline. The divergence between the countries has even increased

since then and after the years of post-crisis stagnation, the European economy has recently showed signs of improvement due to the flexible monetary and fiscal policy and a recovering global economy.

Greece economy entered an economic recession right after the global financial crisis emerged with the GDP continuously declining since 2008, dropping by 9.1 and 7.3 percent in 2011 and 2012, respectively. Last two years with the growth exceeding 1.5 percent indicate an improvement going forward. Unlike Greece, Portugal experienced a period of low economic growth before the financial crisis with GDP going up on average by l percent annually. During the financial crisis Portugal posted 1.7 percent annual decline in GDP before finally recovering in 2014 and exceeding the pre-crisis growth at over 2 percent rate. The Irish economy tipped into the recession in 2008 while being the first country to recover and return to growth in 2010 at 1.9 percent rate after having received the financial bailout.

Graph No. 17: Gross Domestic Product - Annual Growth (%)



Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The increasing government deficit and the growing domestic demand for non-tradable accelerated by the cheap credit led to the real exchange rates appreciation and subsequently the deterioration of the current account deficit and external debt. In case of Greece, Portugal and Ireland, the external debt essentially comprised of the government debt. Both Ireland and Spain

experienced real estate boom stemming from high economic growth and low interest rates producing a current account deficit financed by the external debt.

The capital inflows directed towards non-tradable sectors rather than supporting the countries' export capabilities, alongside with the implied rise in wages and costs, induced the material loss of the external competitiveness and consequently the exports. The sharp increase in the debt financed domestic demand and related imports contributed to high current account deficits associated with the high foreign borrowing (Stein, 2011).

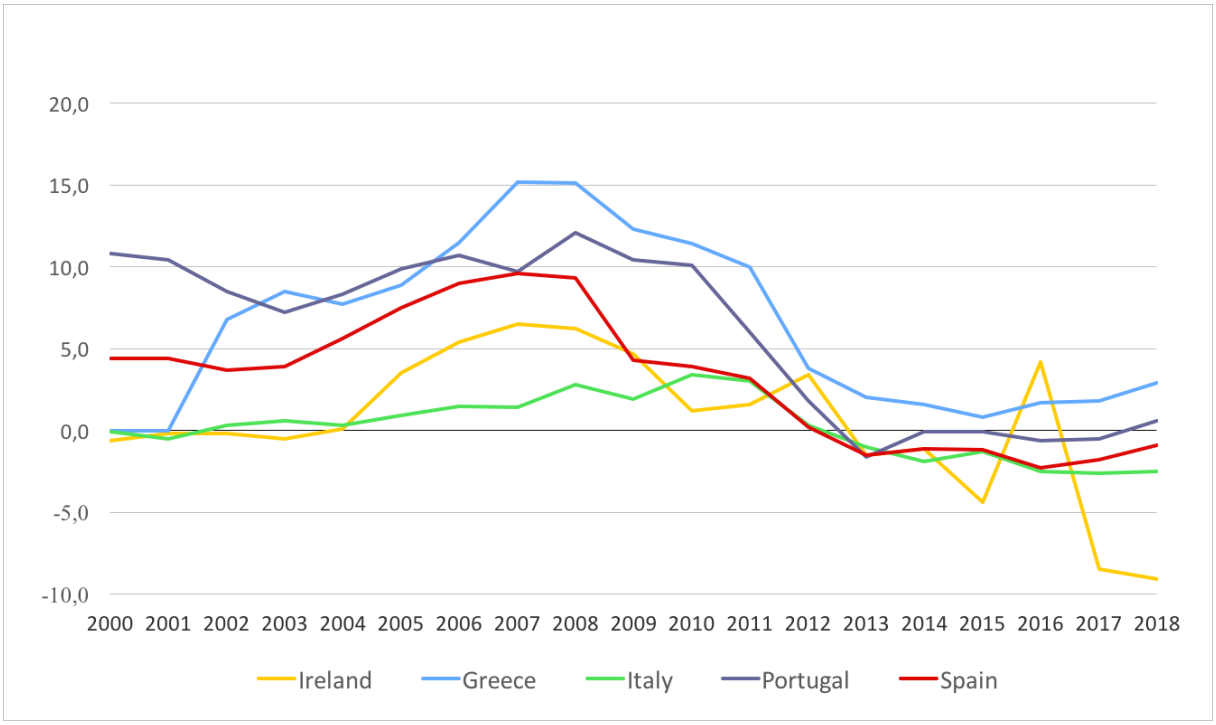
The growing external debt resulting from the current account deficits was the key underlying problem in the European debt crisis emergence with the negative current account balance incurred by most countries concerned. The deficit reflected the increasing foreign indebtedness as fundamental macroeconomic imbalance and vulnerability should the economic condition change as they did in 2007-08 with debt service payment becoming unsustainable.

After the financial crisis blew up and the external deficits were high across the countries, the governments revenue from taxes dropped and had to assume the private debt creating the public debt crisis.

All countries with high current account deficits including Greece, Ireland, Portugal and Spain ended up receiving financial bailout despite not having high debt to GDP ratios and vice versa. Italy with government debt over 100 percent of GDP did not require the financial assistance while Spain and Ireland with 40 percent ratios needed bailout (Stein, 2011).

The aggregated current account across Euro area countries remained more or less balanced during the whole crisis with Germany benefiting from the large surplus and the crisis country deficits.

Graph No. 18: Current Account Deficit as Percentage of GDP (%)

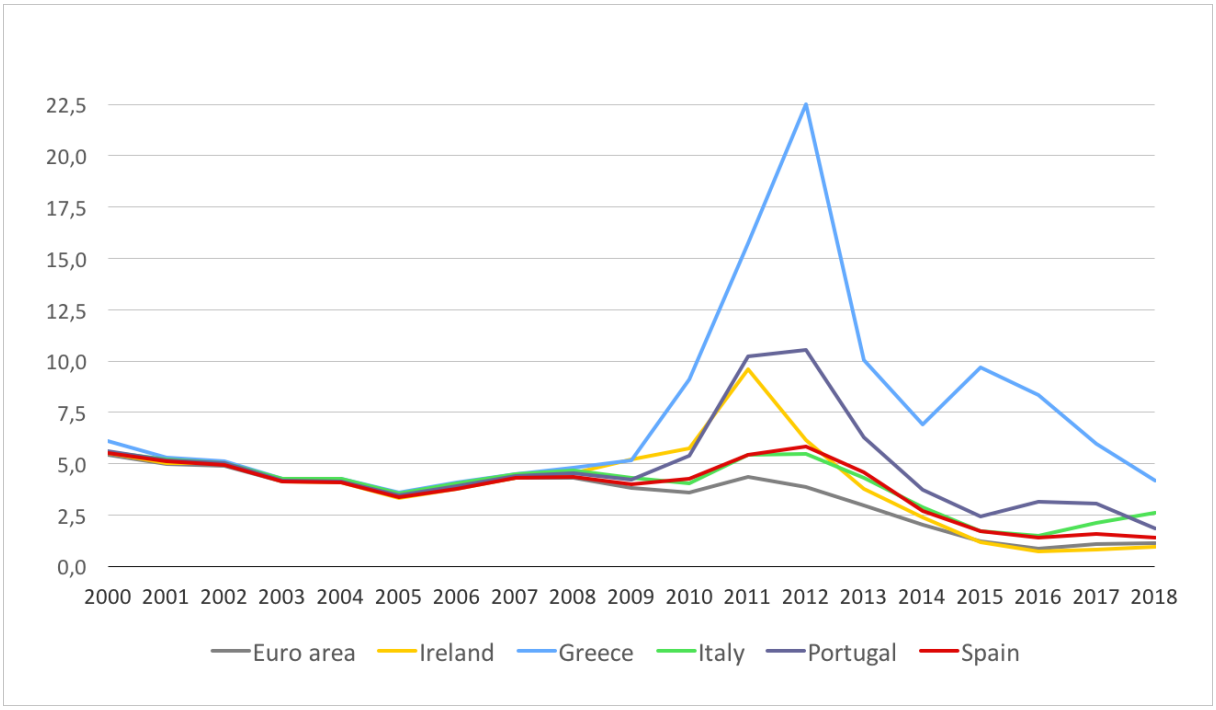


Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The economic imbalances and the excessive sovereign debt worsened the investors' fears especially after several countries including Greece, Portugal and Ireland got downgraded by the international credit rating agencies and the spread of sovereign debt and the bond yields reached the previously unprecedented levels in 2011.

The loss of confidence in the financial markets caused by the worsening financial position of the Euro area countries, debt to GDP ratios were rising since 2008, prompted the public debt spreads to increase in Greece at first, followed by the rest of the highly indebted countries. The high interest rates reflected individual countries' liquidity risk, perceived risk of potential default and the possibility of some countries abandoning the Eurozone.

Graph No. 19: EMU Bond Yield (%)

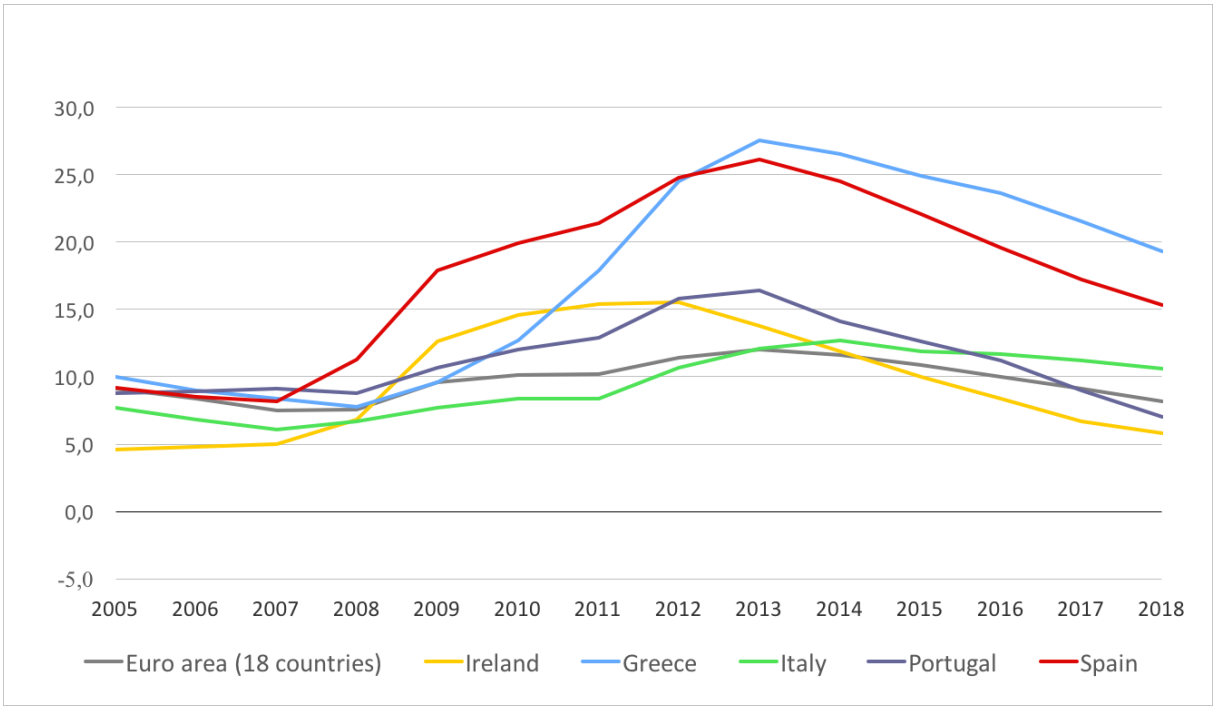


Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The GDP decline with the public debt soaring was inevitably accompanied by the substantial increase in the unemployment across all highly indebted countries most dramatically in Greece and Spain where the unemployment rate exceeded 25 percent in 2012 and continues to remain above 15 percent until now with several other countries still having two-digit rates.

While Ireland and Portugal's unemployment rates got back to the pre-crisis levels, Greece, Spain and Italy's current rates are almost double of the pre-crisis levels in 2007. After the years of long economic recession, the overall unemployment in the Euro area just recently returned to 2007 levels (Marelli, 2016)

Graph No. 20: Unemployment as Percentage of Active Population (%)



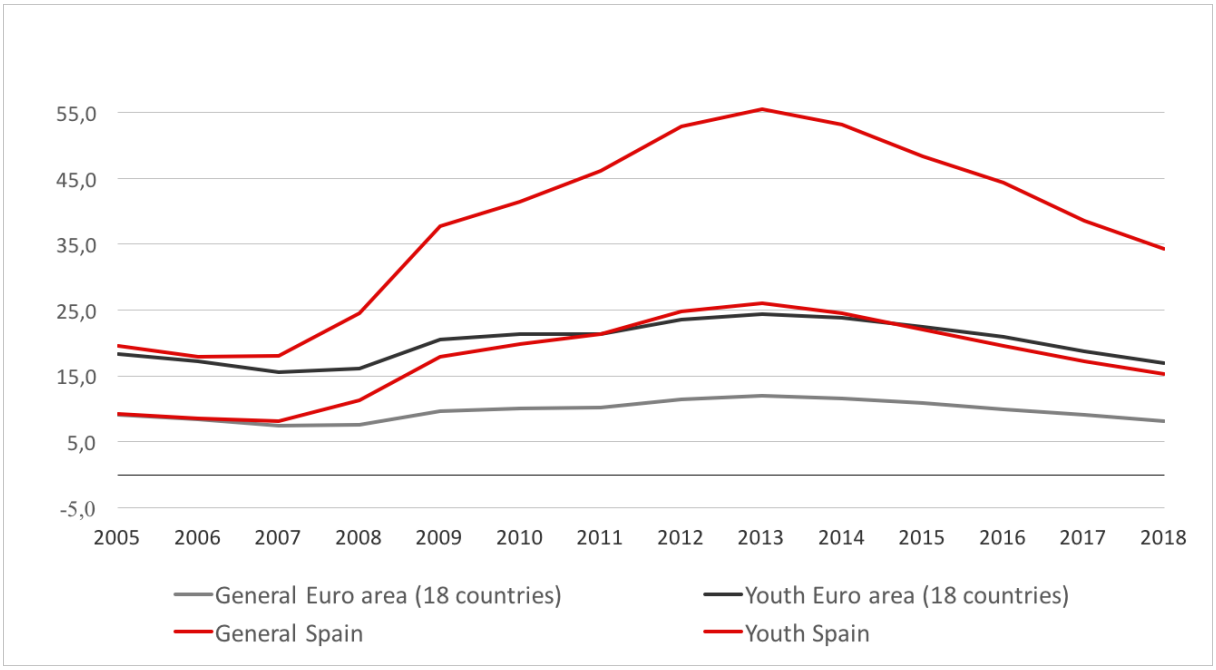
Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

The financial crisis impact on the labour market is most pronounced in the youth unemployment which dramatically surged across all crisis countries, Spain and Greece in particular where it reached unprecedented levels in the Eurozone context.

In case of Greece, the youth labour force participation has traditionally been one of the lowest in Europe, facing the problems related to an outdated education system which struggles to address the current business world needs. The youth unemployment rate in Greece reached its peak in 2013 at over 58 percent and has been decreasing since. In spite of the structural changes in the economy and continuous adjustment the youth unemployment remained at 43.7 percent in 2017, still the highest in the Europe Union.

Unlike other European countries, all age groups were not affected by the crisis to the same extent with young people being hit the hardest. The unemployment is rather characterized by the higher employee turnover than the prevalence of the long-term unemployment. Youth unemployment, while still awfully high, has recently dropped from its 2013 peak of over 50 percent. The number of young people emigrating to look for the job opportunities abroad is also slowly declining.

Graph No. 21: General and Youth Unemployment as Percentage of Active Population (%)



Source: Eurostat [online]; https://ec.europa.eu/eurostat/data/database

6 Conclusion

The European financial crisis had long roots in economic imbalances long before they became apparent through the crisis emergence throughout Europe in 2009. Despite there is no single explanation and the causes substantially vary across the countries, the key issues and dynamics provide valuable insights into the crisis fundamentals necessary to fully grasp its broader social and economic impact on the Eurozone.

The consequences are great. A decade of economic stagnation with many countries facing the fallout of the soaring sovereign debt and austerity. The crisis just amplified the economic imbalances giving rise to the polarizing crisis and raised the question regarding the sustainability of the Eurozone in its current form. The real estate bubble and surging domestic demand financed by low interest debt rather than long term investments to improve the external competitiveness had the detrimental effect on the less resilient economies with high pre-crisis vulnerabilities, bringing them to the brink of bankruptcy. The European debt crisis in all PIGS countries manifested similar underlying dynamics associated with the rising indebtedness and current account deficit.

A credit crunch induced by the global financial crisis exacerbated the Ireland's ability to access the capital markets which turned into the public debt after the government's intervention to boost the banking sector. Similarly, abrupt reduction of interest rates stimulating unsustainable credit growth and subsequently real estate boom, unhealthy banking system with no lender of the last resort translated banking crisis into sovereign debt crisis in Spain. Greece, Italy and Portugal were facing the pre-crisis budget imbalances stemming from the fiscal irresponsibility and policy failures. Increasing public indebtedness and growing difficulties to service their debt limited their access to the capital markets and resorted to IMF and European bailout packages in an attempt to stabilize their public finances.

In order to provide the recapitalization packages directly to the financial sector rather than utilizing the national treasuries, the new European Stability Mechanism was established in addition to the Single Supervisory Mechanism and European Central Bank started assuming the sovereign debts of the crisis countries. Along with the long-term changes in the fiscal and monetary policies and effective reform in the European institution and governance these were the first steps towards recovery from the European Union's worst recession. Recent economic improvements are promising but a lot remains to be done to fully recover and overcome the legacy of the crisis years 2009-12.

7 References

Books

BEIM, D., CALOMIRIS, C. W. Emerging Financial Markets. 1st edition. McGraw-Hill/Irwin, 2000. 384 pages. ISBN 978-0072425147.

BALDWIN, R., WYPLOSZ, C. Ekonomie Evropské Integrace. 4.vydání. Praha: Grada, 2013. 584 pages. ISBN 978-80-247-4568-8.

CIHELKOVÁ, E., et al. Mezinárodní ekonomie II. 1. vydání. Praha: C.H. Beck, 2008. 258 pages. ISBN 80-740-0054-0.

DORNBUSCH et al. (2000).; citováno dle: DVOŘÁK, Pavel. Finanční krize jako globální problém a možnosti jejího vzniku v ČR. Praha: Národohospodářský ústav Josefa Hlávky, 2004. Studie (Národohospodářský ústav Josefa Hlávky). 158 pages. p. 31. ISBN 80-86729-09-5.

DVOŘÁK, P. Finanční krize jako globální problém a možnosti jejího vzniku v ČR. Praha: Národohospodářský ústav Josefa Hlávky, 2004. Studie (Národohospodářský ústav Josefa Hlávky). 158 pages. ISBN 80-86729-09-5.

DVOŘÁK, P. Veřejné finance, fiskální nerovnováha a finanční krize. 1. vyd. Praha: C. Beck, 2008. 343 pages. ISBN 978-80-7400-075-1.

DVOŘÁK, P., PILAŘ, T., REŽNÁ, I. Fiskální důsledky finanční krize. 1. vyd. Praha: Bankovní institut vysoká škola, a. s., 2012. 134 pages. ISBN 978-80-7265-223-5.

GONDA, P. Eurozóna a alternatívy Európskej ekonomickej integrácie. Bratislava: Trim Broker, 2013. 125 pages. ISBN 978-80-971407-3-1.

HRADEČNÝ, P. et al. Dějiny Řecka. Praha: NLN - Nakladatelství Lidové noviny, 2007. 768 pages. ISBN 80-7106-192-1.

JANÁČKOVÁ, S. Krize eurozóny a dluhová krize vyspělého světa. Praha: CEP. 2010. 104 pages. ISBN 978-80-86547-95-4.

JÍLEK, J. Finance v globální ekonomice I. Peníze a platební styk. První vydání. Praha: Grada Publishing, 2013. 664 pages. ISBN 978-80-247-3893-2.

KALÍNSKÁ, E. a kol. Mezinárodní obchod v 21. století. Praha: Grada, 2010. 227 pages. ISBN 978-80-247-3396-8.

KOHOUT, P. Finance po krizi: Evropa na cestě do neznáma. 3.rozš.vyd. Praha: Grada Publishing, 2011, 328 pages. ISBN 978-80-247-4019-5.

KRUGMAN, Paul R. Návrat ekonomické krize. 1. vyd. Praha: Vyšehrad, 2009. 168 pages. ISBN 978-80-7021-984-3.

MANDEL, M., TOMŠÍK, V. Monetární ekonomie v malé otevřené ekonomice. 2. vyd. Prague: Management Press, 2008. 367 pages. ISBN 978-80-7261-185-0.

ŠTĚRBOVÁ, L. Mezinárodní obchod ve světové krizi 21. století. 1.vydání. Praha: GradaPublishing, 2013. 368 pages. ISBN 978-80-247-4694-4.

ŽÍDEK, L. Dějiny světového hospodářství.1. vyd. Plzeň: Aleš Čeněk, 2007. 391 pages. ISBN 978-80-7380-035-2.

Internet sources

Adámková, A.; Houska, O. (2009). Řecko falšovalo údaje o schodku svého rozpočtu. [online]. iRozhlas.cz [cit. 2019-05-20]. Available at: https://www.irozhlas.cz/zpravy-svet/recko-falsovalo-udaje-o-schodku-sveho-rozpoctu_200910201531_aadamkova

Broz, J. L.; Duru, M. J.; Frieden, J.A. (2015). Policy Responses to Balance-of-Payments Crises: The Role of Elections. [online]. Ver. 1, November 4, 2015. [cit. 2019-04-20]. Available at: http://scholar.harvard.edu/files/jfrieden/files/brozfriedenduru_ver1.pdf?m=1447100152

Břešťan, R. (2011). Noční můra z Portugalska. [online]. ekonom.ihned.cz, 31. 3. 2011. [cit. 2019-05-27]. Available at: https://ekonom.ihned.cz/c1-51411030-nocni-mura-z-portugalska

Business Info. (2019). Souhrnná teritoriální informace. [online]. BusinessInfo.cz. 24.05.2019. [cit. 2019-05-26]. Available at: https://www.businessinfo.cz/cs/zahranicni-obchod-eu/teritorialni-informace-zeme/italie.html

Bydžovská, Marie. (2019). Kořeny a průběh krize eurozóny. [online]. Euroskop.cz [cit. 2019-04-20]. Available at: https://www.euroskop.cz/9026/sekce/koreny-a-prubeh-krize-eurozony/

Candelon, B., Palm, F. C. (2010). Banking and Debt Crises in Europe: The Dangerous Liaisons?. [online]. De Economist vol. 158, No. 1, 2010. DOI 10.1007/s10645-010-9138-1. [cit. 2019-04-20]. Available at: https://link.springer.com/content/pdf/10.1007%2Fs10645-010-9138-1.pdf

Claessens, S., Kose, A. M. (2013). Financial Crises: Explanations, Types, and Implications. [online]. IMF Working paper. WP/13/28. January, 2013. [cit. 2019-04-20]. Available at: https://www.imf.org/external/pubs/ft/wp/2013/wp1328.pdf

Correia, L. (2016). The European Crisis: Repercussions on the Portuguese Economy [online]. Athens Journal of Mediterranean Studies-Volume 2, Issue 2–Pages 129-144, April 2016. [cit. 2019-05-25]. Available at: https://www.athensjournals.gr/mediterranean/2016-2-2-1-Correia.pdf

ČMKOS. (2012). ANALÝZA: Finanční krize a sociální úpadek v Řecku. [online]. DayTrading.com. [cit. 2019-04-20]. Available at:

Day Trading. (2019). Balance of payments. [online]. DayTrading.com. [cit. 2019-04-20]. Available at: https://www.daytrading.com/balance-of-payments#balance-of-payments-crises

Dedek, O. (2016). Maastricht criteria. [online]. ZavedeniEura.cz [cit. 2019-05-15]. Available at: https://www.zavedenieura.cz/en/maastricht-criteria

Dedek, O. (2015). Záchranné mechanismy. [online]. ZavedeniEura.cz [cit. 2019-05-26]. Available at: https://www.zavedenieura.cz/cs/euro/eurozona/zachranne-mechanismy

de la Dehesa, G. (2011). Spain and the Euro Area Sovereign Debt Crisis. [online]. Peterson Institute for International Economics and Bruegel, September 2011. [cit. 2019-05-23]. Available at: https://piie.com/publications/papers/dehesa20110913.pdf

Dellepiane, S., Hardiman, N. (2012). The New Politics of Austerity: Fiscal Responses to the Economic Crisisin Ireland and Spain. [online]. UCD Geary Institute Discussion Papers, February 2012. [cit. 2019-05-27]. Available at: http://www.ucd.ie/geary/static/publications/workingpapers/gearywp201207.pdf

E15. (2013). Nová italská vláda schválila balík opatření na podporu růstu. [online]. E15.cz, 16.června 2013. [cit. 2019-05-27]. Available at: https://www.e15.cz/zahranicni/nova-italska-vlada-schvalila-balik-opatreni-na-podporu-rustu-998413

Egyed, M. (2010). Řecká dieta: Berete nad tři tisíce eur? Nedostanete 13. a 14. plat. [online]. Lidovky.cz, May 2010. [cit. 2019-05-27]. Available at: https://www.lidovky.cz/byznys/moje-penize/recka-dieta-berete-nad-tri-tisice-eur-nedostanete-13-a-14-plat.A100505_222528_moje-penize_glu

Élteto, A. (2011). The economic crisis and its management in Spain. [online]. Eastern Journal of European Studies, June 2011, Volume 2, Issue 1, p. 41-55. [cit. 2019-05-23]. Available at: http://ejes.uaic.ro/articles/EJES2011_0201_ELT.pdf

Erber, G. (2011). Italy's Fiscal Crisis. [online]. Intereconomics, Review of European Economic Policy, Vol. 76, No. 6, p. 332-339, September 2011. [cit. 2019-05-26]. Available at: https://poseidon01.ssrn.com/delivery.php?ID=981008064022107022093084088090112087127032028046050025014118075088115086027096119022018060099009024042113101099117005010006004042051088034039081002098123123111001032062081089084096114118118073102013070096099081006123099095071110002007029120028088&EXT=pdf

ESM 1. (2019). PROGRAMME TIMELINE FOR GREECE. [online]. Esm.europa.eu [cit. 2019-05-20]. Available at: https://www.esm.europa.eu/assistance/greece#programme_timeline_for_greece

ESM 2. (2019). PROGRAMME TIMELINE FOR IRELAND. [online]. Esm.europa.eu [cit. 2019-05-21]. Available at: https://www.esm.europa.eu/assistance/ireland#programme_timeline_for_ireland

ESM 3. (2019). Before the ESM: EFSF - the temporary fiscal backstop. [online]. Esm.europa.eu [cit. 2019-05-26]. Available at: https://www.esm.europa.eu/efsf-overview

ESM 4. (2019). Explainers. [online]. Esm.europa.eu [cit. 2019-05-26]. Available at: https://www.esm.europa.eu/explainers

ESM 5. (2019). PROGRAMME TIMELINE FOR SPAIN. [online]. Esm.europa.eu [cit. 2019-05-27]. Available at: https://www.esm.europa.eu/assistance/spain#programme_timeline_for_spain

ESM 6. (2019). PROGRAMME TIMELINE FOR PORTUGAL. [online]. Esm.europa.eu [cit. 2019-05-27]. Available at: https://www.esm.europa.eu/assistance/portugal#programme_timeline_for_portugal

Euractiv.cz. (2009). Řecko chce deficit stáhnout pod 3 % HDP do čtyř let. [online]. Euractiv.cz [cit. 2019-05-20]. Available at: https://euractiv.cz/section/ekonomika-a-euro/news/recko-chce-deficit-stahnout-pod-3-hdp-do-ctyr-let-006859/

Euractiv.cz (2012). Evropský stabilizační mechanismus. [online]. Euractiv.cz [cit. 2019-05-26]. Available at: https://euractiv.cz/section/ekonomika-a-euro/opinion/evropsky-stabilizacni-mechanismus-010365/

EU Treaties. (2019). [online]. Europa.eu [cit. 2019-04-21]. Available at: https://europa.eu/european-union/law/treaties_en

European Commission. (2011). The Economic Adjustment Programme for Ireland [online]. 2011, Occasional Papers 76, February 2011. [cit. 2019-05-27]. Available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2011/pdf/ocp76_en.pdf

European Commission. (2013). Economic Adjustment Programme for Ireland Spring 2013 Review. [online]. European Commission, Occasional Papers 154, July 2013. ISSN 1725-3209. [cit. 2019-05-27]. Available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp154_en.pdf

European Commission a. (2017). The EU and Economic and Monetary Union. [online]. [cit. 2019-04-21]. Available at: http://publications.europa.eu/webpub/com/factsheets/emu/en/

European Commission b. (2017). From 6 to 28 members. [online]. [cit. 2019-05-22]. Available at: https://ec.europa.eu/neighbourhood-enlargement/policy/from-6-to-28-members_en

Ginterová, M. (2017). Trable některých italských bank mohou strhnout evropskou lavinu. [online]. ČT24, 2.4.2017. [cit. 2019-05-28]. Available at: https://ct24.ceskatelevize.cz/ekonomika/2073624-trable-nekterych-italskych-bank-mohou-strhnout-evropskou-lavinu

Goldstein, I.; Razin, A. (2013). Three Branches of Theories of Financial Crises. [online]. National Bureau of Economic Research, January 2013. [cit. 2019-04-21]. Available at: https://www.researchgate.net/profile/Assaf_Razin/publication/256043813_Review_of_Theories_of_Financial_Crises/links/552390e70cf29dcabb0f0411/Review-of-Theories-of-Financial-Crises.pdf?origin=publication_detail

Goliaš, P., Kičina, R. (2013). Ukazovatele konkurencie schopnosti a ozdravný program Grécka, Portugalska a Írska. [online]. INEKO v spolupráci s Podnikateľskou alianciou Slovenska (PAS), September 2013. [cit. 2019-05-27]. Available at: http://www.ineko.sk/file_download/715

Guardian. (2010). 24-hour strike in Greece. [online]. Guardian.co.uk. 10 February, 2010. [cit. 2019-05-26]. Available at: https://www.theguardian.com/world/gallery/2010/feb/10/greece-globalrecession

Gurnani, S. (2016). The Financial Crisis in Portugal: Austerity in Perspective. [online]. Lehigh University, Lehigh Preserve, The Libraries Student Research Prize, 2016. [cit. 2019-05-25]. Available at: https://preserve.lehigh.edu/cgi/viewcontent.cgi?article=1009&context=library-research-prize

Honohan, P. (2009). What went wrong in Ireland. [online]. Trinity College Dublin, May 2009. [cit. 2019-05-21]. Available at: https://www.tcd.ie/Economics/staff/phonohan/What%20went%20wrong.pdf

Horáček, F. (2015). Kořeny řecké krize: rozhazovačné vlády a slepí finančníci. [online]. iDnes.cz. [cit. 2019-05-20]. Available at: https://www.idnes.cz/ekonomika/zahranicni/puvody-recke-krize.A150707_161739_eko_euro_fih

Horáček, F. (2017). Itálie zachraňuje dvě problémové banky. Prodává je za jedno euro. [online]. iDnes.cz, 26. června 2017. [cit. 2019-05-28]. Available at: https://www.idnes.cz/ekonomika/podniky/italie-zachrana-bank-spatne-uvery-benatky.A170626_092149_ekoakcie_fih

HORÁČEK, F.; VENTURA, T. (2010). Hitparáda řeckých nesmyslů: zemi potopily vládní experimenty. Idnes.cz. 6.5.2010. [online]. [cit. 2019-04-26]. Available at: https://www.idnes.cz/ekonomika/zahranicni/hitparada-reckych-nesmyslu-zemi-potopily-vladni-experimenty.A100506_123319_eko_euro_fih

Ihned.cz. (2010) Ministři financí eurozóny přiklepli Řecku rekordních 110 miliard eur. [online]. byznys.ihned.cz, 2.5.2010. [cit. 2019-05-27]. Available at: https://byznys.ihned.cz/c1-43065780-ministri-financi-eurozony-priklepli-recku-rekordnich-110-miliard-eur

Ihned.cz. (2019). Desátá největší italská banka Carige je v problémech, akcionáři nepřijali záchranný plán. Evropská centrální banka proto jmenovala nucené správce. [online]. Ihned.cz, 3.1.2019. cit. [2019-05-28]. Available at: https://archiv.ihned.cz/c1-66414770-desata-nejvetsi-italska-banka-carige-je-v-problemech-akcionari-neprijali-zachranny-plan-evropska-centralni-banka-proto-jmenovala-nucene-spravce

IMF. (1998). Financial Crises: Characteristics and Indicators of Vulnerability. [online]. International Money Fund. [cit. 2019-04-21]. Available at: https://www.imf.org/~/media/Websites/IMF/imported-flagship-issues/external/pubs/ft/weo/weo0598/pdf/_0598ch4pdf.ashx

IMF. (2012). 5. Report for Selected Countries and Subjects. [online]. International Money Fund, 2012. [cit. 2019-05-26]. Available at: https://www.imf.org/external/pubs/ft/weo/2011/02/weodata/weorept.aspx?sy=2001&ey=2013&scsm=1&ssd=1&sort=country&ds=.&br=1&c=136&s=NGDP_RPCH%2CPCPIPCH%2CLUR%2CGGXWDG_NGDP%2CBCA_NGDPD&grp=0&a=&pr.x=61&pr.y=11

Joint Economy Committee. (2012). The Spanish Financial Crisis: Economy the Size of Portugal, Ireland, and Greece Combined is at Risk. 8.8.2012. [online]. United States Congress. 30.1.2010. [cit. 2019-05-23]. Available at: https://www.jec.senate.gov/public/_cache/files/27a9d1b4-e654-4528-89b6-cd874a8474c1/spanish-crisis-update-final.pdf

Karasová, N. (2014). Průběh a důsledky řecké krize. [online]. Neograeca Bohemica 14, 2014, p. 89-104. [cit. 2019-05-27]. Available at:https://www.academia.edu/11458442/Pr%C5%AFb%C4%9Bh_a_d%C5%AFsledky_%C5%99eck%C3%A9_krize_Evolution_of_the_Greek_Economic_Crisis_and_Its_Consequences_Neograeca_Bohemica_14_2014_89-104

KECHLIBAR, Marian. (2017). Ta druhá krize. 3.2.2017. [online]. [cit. 2019-04-26]. Available at: https://kechlibar.net/2017/02/03/ta-druha-krize/

Krugman, P. (2001). Crisis: The next generation?. [online]. Razin conference, Tel Aviv University, March 25-6, 2001. [cit. 2019-04-21]. Available at: https://www.princeton.edu/~pkrugman/next%20generation.pdf

Kubátová, E. (2015). Ekonomové: Vstup Řecka do eurozóny byla chyba. [online]. Euractiv.cz. [cit. 2019-05-20]. Available at: https://euractiv.cz/section/aktualne-v-eu/news/ekonomove-vstup-recka-do-eurozony-byla-chyba-012429/

Lidovky.cz. (2016). Italský premiér Renzi po porážce v referendu nabídl demisi. Vládu povede do přijetí rozpočtu. [online]. Lidovky.cz, 5. prosince 2016. [cit. 2019-05-27]. Available at: https://www.lidovky.cz/svet/italsky-premier-renzi-po-porazce-v-referendu-nabidl-demisi.A161205_202143_ln_zahranici_ele

Lourtie, P. (2011). Understanding Portugal in the Context of the Euro Crisis. [online]. Peterson Institute for International Economics and Bruegel, September 2011. [cit. 2019-05-25]. Available at: http://bruegel.org/wp-content/uploads/imported/events/lourtie20110913.pdf

Marelli, E. (2016). The impact of the crises on European unemployment and the need for new policies. [online]. University of Brescia, Department of Economics and Management, 2016. [cit. 2019-05-29]. Available at: https://pdfs.semanticscholar.org/b40a/a90245d5dd36641c46a8767bb9198b4c6034.pdf

MEGHIR, C.; VETTAS, N.; VAYANOS, D. (2010). The economic crisis in Greece: The time of reform and opportunity. 5.8.2010. [online]. [cit. 2019-04-26]. Available at: http://greekeconomistsforreform.com/wp-content/uploads/Reform.pdf

Mejstřík, M. (2015). Reformy po Italsku: Renziho snaha změnit Itálii. [online.] Europeum: Institute for European Policy, May 2015. [cit. 2019-04-26]. Available at: http://www.europeum.org/data/articles/mejtk-itlie.pdf

MISHKIN. F.S.: Understanding Financial Crises: A Developing Country Perspective. In: Bruno, M. - Pleskovic, B.: Annual World Bank Conference on Development Economics 1996. World Bank, Washington, 1996, p.29.; citováno dle: MUSÍLEK, Petr. (2004) Analýza příčin a důsledků české finanční krize v 90. letech [online]. Výzkumná studie grantové agentury ČR GA 402/02/1308. S.12. [cit. 2019-04-20]. Available at: http://nb.vse.cz/kbp/TEXT/Grant_krize_1a.pdf

MUSÍLEK, Petr. (2004) Analýza příčin a důsledků české finanční krize v 90.letech [online].Výzkumná studie grantové agentury ČR GA 402/02/1308. Praha. [cit. 2019-04-20]. Available at: http://nb.vse.cz/kbp/TEXT/Grant_krize_1a.pdf

MUSÍLEK, Petr. (2008) Příčiny globální finanční krize a selhání regulace [online]. Český finanční a účetní časopis, 2008, roč. 3, č. 4, s. 6-20. [cit. 2019-04-20]. Available at: https://www.vse.cz/polek/download.php?jnl=cfuc&pdf=285.pdf

Němcová, V. (2011). ECB se nákupem dluhopisů snaží odvrátit pád Itálie, zatím neúspěšně [online]. Idnes.cz, 9. listopadu 2011. cit. 2019-05-26]. Available at: https://www.idnes.cz/ekonomika/domaci/ecb-se-nakupem-dluhopisu-snazi-odvratit-pad-italie-zatim-neuspesne.A111109_151608_ekonomika_vem

Němec, J. (2010). Z keltského tygra prasetem. Irsko je žhavým kandidátem na bankrot. [online]. Ekonom.ihned.cz. 20.11.2010. [cit. 2019-05-21]. Available at: https://ekonom.ihned.cz/c1-48242970-z-keltskeho-tygra-prasetem-irsko-je-zhavym-kandidatem-na-bankrot

OECD. (2008). PORTUGAL. [online]. OECD Economic Surveys 2008, Volume 2008/9, June 2008. [cit. 2019-05-25]. Available at: https://read.oecd-ilibrary.org/economics/oecd-economic-surveys-portugal-2008_eco_surveys-prt-2008-en#page1

OECD. (2009). ITALY. [online]. OECD Economic Surveys 2009, Volume 2009/8, June 2009. [cit.2019-05-25]. Available at: http://osservatoriocrisi.progetti.informest.it/docs/archivio/altri/OERARC46.pdf

OECD. (2011). IRELAND. [online]. OECD Economic Surveys 2011, October 2011. [cit.2019-05-27]. Available at: https://books.google.cz/books?id=6aV4TSu04JwC&pg=PA89&lpg=PA89&dq=oecd+economic+surveys+ireland+2011&source=bl&ots=2mv7DfsGFL&sig=ACfU3U3yS99dGR8O2Qj7Dzujb_AKwFUeoQ&hl=cs&sa=X&ved=2ahUKEwiB7ZOhxsPiAhUGalAKHbsqDnA4ChDoATABegQICRAB#v=onepage&q&f=false

OECD. (2012). PORTUGAL. [online]. OECD Economic Surveys 2012, July 2012. [cit.2019-05-27]. Available at: http://www.oecd.org/eco/surveys/PORTUGAL_2012_Overview.pdf

OECD. (2013). ITALY. [online]. OECD Economic Surveys 2013, May 2013. [cit.2019-05-27]. Available at: https://www-oecd-ilibrary-org.zdroje.vse.cz/docserver/eco_surveys-ita-2013-en.pdf?expires=1559245537&id=id&accname=ocid195691&checksum=04C9D15AA31E50E3C0578D8CA3E2F955

Ondráček, V. (2016). Jak šel čas se zadluženými evropskými 'prasátky': Kdo zbohatl a kdo krachuje. [online]. Tiscali.cz. 19.2.2016. [cit. 2019-05-21]. Available at: https://zpravy.tiscali.cz/jak-sel-cas-se-zadluzenymi-evropskymi-prasatky-kdo-zbohatl-a-kdo-krachuje-271584

Papadimitriou, D. (2011). The debt crisis in Greece. [online]. August 2011. [cit. 2019-05-27]. Available at: https://studenttheses.cbs.dk/bitstream/handle/10417/2529/dimitrios_papadimitriou.pdf

Pappas, Takis S. (2010). The causes of the Greek crisis are in Greek politics. [online]. [cit. 2019-04-25]. Available at: https://www.opendemocracy.net/en/openeconomy/causes-of-greek-crisis-are-in-greek-politics/

Pereira, P. T., Wemans L. (2012). Portugal and the Global Financial Crisis – short-sighted politics, deteriorating public finances and the bailout imperative. [online]. Lisbon: School of Economics and Management, Technical University of Lisbon, 2012. Working Papers ISSN Nº0874-4548. [cit. 2019-05-25]. Available at: https://www.repository.utl.pt/bitstream/10400.5/4647/1/wp%20de26-12.pdf

Pettinger, T. (2015). Spanish Economic Crisis Summary. [online]. EconomicsHelp.org. July 13, 2015. [cit. 2019-05-23]. Available at: https://www.economicshelp.org/blog/5525/economics/spanish-economic-crisis-summary/

Portugal, P. (2015). The Portuguese Economic Crisis: Policies and Outcomes. [online]. Social Inclusion monitor EU, Bertelsmann Stiftung, 2015. [cit. 2019-05-25]. Available at: https://www.bertelsmann-stiftung.de/fileadmin/files/user_upload/policy_brief_The_Portuguese_Economic_Crisis_2015.pdf

Rose, K. (2017). Fénixové povstali z popela: Neuvěřitelný vzestup Španělska a Portugalska. [online]. Roklen24.cz, 30. května 2017. [cit. 2019-05-27]. Available at: https://roklen24.cz/a/wB4cM/fenixove-povstali-z-popela-neuveritelny-vzestup-spanelska-a-portugalska

RTE. (2018). Banking guarantee bolsters Irish market. [online]. RTE.ei, 30 Sep 2008. [cit. 2019-05-27]. Available at: https://www.rte.ie/news/2008/0930/108605-economy/

Sahiti, A., et al. (2013). Types of Financial Crisis. [online]. Asian Journal of Business and Management Sciences ISSN: 2047-2528 Vol. 2 No. 12 [p. 31-39]. [cit. 2019-04-23]. Available at: http://www.ajbms.org/articlepdf/3ajbms20132122751.pdf

Sartor, N. (1999). Generational Accounts for Italy. [online]. National Bureau of Economic. Research Volume Title: Generational Accounting around the World. University of Chicago, Press Volume, January 1999. ISBN: 0-226-03213-2. [cit. 2019-05-26]. Available at: https://www.nber.org/chapters/c6695.pdf

Stein, J. L. (2011). The Diversity of Debt Crisis in Europe. [online]. CESifo Forum 4/2011. [cit. 2019-05-29]. Available at: https://www.ifo.de/DocDL/forum4-11-focus8.pdf

The Telegraph. (2012). S&P cuts Spain's credit rating by two notches to BBB+. [online]. TheTelegraph.co.uk. 26.4.2012. [cit. 2019-05-27]. Available at: https://www.telegraph.co.uk/finance/financialcrisis/9230367/SandP-cuts-Spains-credit-rating-by-two-notches-to-BBB.html

Tsivos, Kostas. (2010). Než to v Řecku praskne. [online]. Euroskop.cz. 30.1.2010. [cit. 2019-04-25]. Available at: https://www.euroskop.cz/9008/15242/clanek/nez-to-v-recku-praskne/

Vlk. (2011). Itálie si dala naspěch. Tamní vláda urychleně schválila škrty za 30 miliard eur. [online]. Byznys.ihned.cz, 4. 12. 2011. [cit. 2019-05-27]. Available at: https://byznys.ihned.cz/c1-53969500-italie-si-dala-na-spech-tamni-vlada-urychlene-schvalila-skrty-za-30-miliard-eur

Vondřich, M.; Bazgierová, P. (2015). Řecko na cestě z krize 2009-2015. [online]. Euractiv.cz, 21. 1. 2015. [cit. 2019-05-27]. Available at: https://euractiv.cz/section/aktualne-v-eu/linksdossier/recka-dluhova-krize-mesic-po-mesici-000124/

Wijffelaars, M.; Loman, H. The eurozone (debt) crisis – causes and crisis response. [online]. Economic report. December 18, 2015. [cit. 2019-05-05]. Available at: https://economics.rabobank.com/publications/2015/december/the-eurozone-debt-crisis--causes-and-crisis-response/

Wolf, V. (2018). Řecko si přestalo půjčovat peníze. Čekají ho desítky let splátek. [online]. ceskapozice.lidovky.cz, 18.9.2018. [cit. 2019-05-27]. Available at: http://ceskapozice.lidovky.cz/recko-si-prestalo-pujcovat-penize-cekaji-ho-desitky-let-splatek-pwn-/tema.aspx?c=A180913_181548_pozice-tema_lube

Wróblewski, D. (2008). International Monetary Fund and financial crises in the global economy. [online]. University of Wrocław GARNET Working Paper: No40/08, April 2008. [cit. 2019-04-21]. Available at: https://warwick.ac.uk/fac/soc/pais/research/researchcentres/csgr/garnet/workingpapers/4008.pdf

Zdechovský, T. (2015). EVROPA: Chce Řecko rubl místo eura? [online]. Neviditelnypes.lidovky.cz [cit. 2019-05-20]. Available at: http://neviditelnypes.lidovky.cz/evropa-chce-recko-rubl-misto-eura-dqp-/p_zahranici.aspx?c=A150209_180528_p_zahranici_wag

Zettelmeyer, J.; Trebesch, C.; Gulati, M. (2013). The Greek Debt Restructuring: An Autopsy. [online]. 28 Economic Policy 513-563, July2013. [cit. 2019-05-27]. Available at: https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=5343&context=faculty_scholarship

Zítková, P. (2010). Řecko schválilo úsporná opatření ve výši 4,8 miliardy eur, stávka je na spadnutí. [online]. Byznys.ihned.cz, 3. 3. 2010. [cit. 2019-05-27]. Available at:

https://byznys.ihned.cz/c1-40844270-recko-schvalilo-usporna-opatreni-ve-vysi-4-8-miliardy-eur-stavka-je-na-spadnuti

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