Mendel University in Brno
Faculty of Business and Economics

Global Financial Crisis in Greece and Ireland

Diploma thesis

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Abstract

Střelková, J., *Global Financial Crisis in Greece and Ireland.* Diploma thesis. Brno: Mendel University, 2016

This Diploma Thesis deals with the causes and consequences of the Global Financial Crisis in Greece and Ireland. Both countries are compared based on main macroeconomic indicators and causes of the crisis are derived from the development of their economies. Historical background and their relationship with the rest of the European Union are also taken into account. Thesis focuses on time range 1973-2013 so development of both countries since they became members of European Economic Community (later European Union) can be analysed in detail.

Keywords

Financial crisis, European Union, sovereign debt, budget deficit, GDP

Abstrakt

Střelková J., *Světová finanční krize v Řecku a v Irsku*. Diplomová práce. Brno: Mendelova univerzita v Brně, 2016.

Tato diplomová práce se zabývá příčinami a dopady Světové finanční krize na řeckou a irskou ekonomiku. Obě země jsou srovnány pomocí hlavních makroekonomických ukazatelů a z vývoje jejich ekonomik jsou následně vyvozeny příčiny a důsledky krize. Práce bere v úvahu i jejich historicý vývoj a jejich vztahy se zbytkem Evropské Unie. Text je zaměřen na časové období od roku 1973 do roku 2013 a umožňuje tak podrobnou analýzu vývoje obou zemí již od jejich vstupu do Evropského hospodářského společenství (později Evropská Unie).

Klíčová slova

Finanční krize, Evropská Unie, státní dluh, deficit státního rozpočtu, HDP

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1 Introduction and objective

1.1 Introduction

The Global Financial Crisis of 2008-9 is by many considered the worst financial crisis since the Great Depression which hit the USA in 1930s. Once again, it originated in the USA as a result of subprime mortgage lending and bursting of several asset bubbles and due to greater global market integration it quickly spread throughout the world. In Europe it resulted in European sovereign debt crisis and liquidity crisis and even threatened the collapse of Eurozone. This crisis quickly eroded the rising optimism in the process of European Integration and changed the economic and political relations throughout the world. Within Europe it had a key impact on confidence and fiscal responsibility in different Member States and functioning of the European Union as a whole. The two countries under the focus, Greece and Ireland, were affected by the crisis on a large scale and questions even arose about the right of those two countries to be members of the Eurozone. As the crisis struck, they both, among others, found themselves in such a situation that required financial help from the third parties to be able to survive it.

There is still no consensus on the solution of the crisis, whether a fiscal austerity or a fiscal stimulus is more effective. Billions of euros have been spent on recovery packages, to inject liquidity into dried-up economies and to keep vital public services running. Even 'independent' central banks have pumped money into economies to overcome the crisis. But sharp rises in public debts of affected economies have shifted the policy priority from much needed fiscal stimulus to fiscal consolidation in a fear of moral hazard and possible defaults of governments on their debt.

Even though recessions are natural part of economic cycle and after a boom European economies were experiencing in early 2000 there had to be a downturn of economic activity, the Global Financial Crisis was an extreme case. It was a result of irresponsible borrowing and overspending, mainly by peripheral economies of European Union. It was a crisis on global scale with dramatic macroeconomic and social consequences with many countries being affected until nowadays.

1.2 Objective

This Diploma thesis focuses on the effects of Global Financial Crisis in Europe, especially in Greece and Ireland. At first, general overview and nature of the crisis are provided and theoretical background of how crises work is analysed. Second part of this work focuses on historical background of Greece and Ireland, their social differences, their economic relationships with the rest of Europe and current economic situation in both countries. Finally, the focus turns to the economic development of Greece and Ireland since they became members of EEC (later EU) and both countries are looked at in detail based on the main macroeconomic indicators. The task of the last part of this thesis is to sum up the results and point out the most important findings.

My research question for this thesis will be: "What are the main differences in the structure of Greek and Irish economy that led to relatively fast and not so pain-

ful recovery from the Crisis in Ireland while Greece has suffered much more for much longer?"

The main objective of this thesis is to answer the above-mentioned research question as to how Greek and Irish economies vary and what they have in common and what were the foundations that determined the development of the Crisis in both countries. Greece and Ireland are assessed from more points of view and causes and consequences of the Global Financial crisis for those two countries are stated. I will try to find out where was the difference in the structure of Irish and Greek economy, mainly in public finances and financing from the EU and describe why especially those two countries were affected by the Global Financial Crisis more than other Member States. Historical context will be taken into account and particular sectors of the economy will be compared. Partial aim is to find out why Ireland was able to recover relatively quickly and Greece is still having problems.

2 Methodology

This diploma thesis has got a nature of a comparative study where thorough analysis of both Greece and Ireland is conducted. The work itself is composed of three main parts and comprises seven chapters.

The first part is literature review where all the theoretical information about Global Financial Crisis is provided and thus relevant background is given for the practical part. Both Greece and Ireland are analysed from historical, social and economic point of view where important attributes of their development are assessed. Because the topic is quite recent, the sources of literature were taken mainly from the internet but academic literature was used as well to gather the concept on how financial crisis work in general.

Second part is practical, applying theoretical background into particular topic 'Global Financial Crisis in Greece and Ireland'. This chapter is divided into five subchapters according to 8-years-long time periods. In this chapter, Irish and Greek economic developments are compared based on the most important economic indicators- GDP per capita (measured in US dollars), the volume of international trade of both countries- exports and imports expressed as percentage of GDP, government deficit and debt indicated again as a proportion of country's GDP, inflation measured as annual percentage change in CPI and unemployment rate (annual percentage change). At the end of each chapter, volume of EU subsidies in million EUR each of analysed countries received is depicted to see how much each of them benefited from EU membership. Individual items of Greek and Irish export portfolio and which of them increased and decreased over the time are also looked at in detail in each time period. Level of Foreign Direct Investment is being assessed as well because it is an important indicator of economy growth- its level is compared for both countries under examination.

In the last part, discussion and conclusion, the deduction method is used to summarize all main facts and findings, fulfil the objective of this thesis and answer the most important questions related to the reasons, consequences and solutions of the crisis by both countries.

For elaboration of this thesis, secondary data were used. All the data used in this thesis to compare Ireland and Greece were obtained from Eurostat, European Commission, OECD and The World Bank databases or from webpages of Irish Central Statistics Office or the Greek ELSTAT (Hellenic Statistical Authority). All the graphs are of own elaboration based on those data.

To obtain, elaborate and sort information and materials, classical analytical procedures were used in this thesis. They focus on analysis of technical literature, articles, publications and information databases. Further on, simple mathematical-statistical methods were used (time-series and their analysis, arithmetical average, annual percentage growth rate and basic mathematical operations) to analyse and evaluate obtained numeric data. Microsoft Excel was used as a computer software to create graphs and analyse large amount of data.

From the time point of view, this work focuses on the time period from 1973 when Ireland became a member of EEC until 2013 to be able to fully analyse consequences of the crisis. This 40 years long time period is further divided into five parts, each of them eight-years-long and analysed separately. In the first period,

only Ireland is being looked at as Greece was not a part of EEC yet (1973-81). In the consecutive periods (1981-1989, 1989-1997, 1997-2005, 2005-2013), Greece and Ireland are always compared based on the above mentioned criteria (GDP per capita, volume of export and import, government deficit and debt, inflation, unemployment, FDI inflows and amount of EU subsidies received). Where possible, EU average is included to provide better overview of the general situation in Europe.

When referring to Ireland, it is always meant the Republic of Ireland and when referring to Greece, it is meant the Hellenic Republic. The terms EU and EEC might be used interchangeably.

3 Literature review on Global Financial Crisis

The Global Financial Crisis, also called the financial crisis of 2007-2008 is by many economists considered to be the worst financial crisis since the Great Depression in 1930's. It led to significant economic downturn which resulted in global recession between 2008 and 2012 and markedly contributed to the European sovereign-debt crisis which in some Member States lasts until now.

The theory behind how this financial crisis happened is well described in Economics of Monetary Union (Paul de Grauwe, 2012). It started already during 1980's and 90's when the US and the European banking systems were getting more and more deregulated. At the same time, financial institutions were developing sophisticated financial instruments promising high returns at perceivably low risk. Those high returns were promised not because the offered products would be more profitable but because they were backed up by massive (usually short-term) borrowings of the banks to fund the new investments. Following asset bubbles (e.g. IT bubble, housing bubble and commodities bubble) were then fuelled by the new investments and when those bubbles burst (as they always do) banks were hit for two reasons. First was that prices of those assets quickly went down, leading to a solvency problem. Consequently, solvency crisis led to a liquidity crisis as everyone withdrew their deposits because they did not trust the banks anymore, forcing banks to sell even more assets which only made their solvency situation worse.

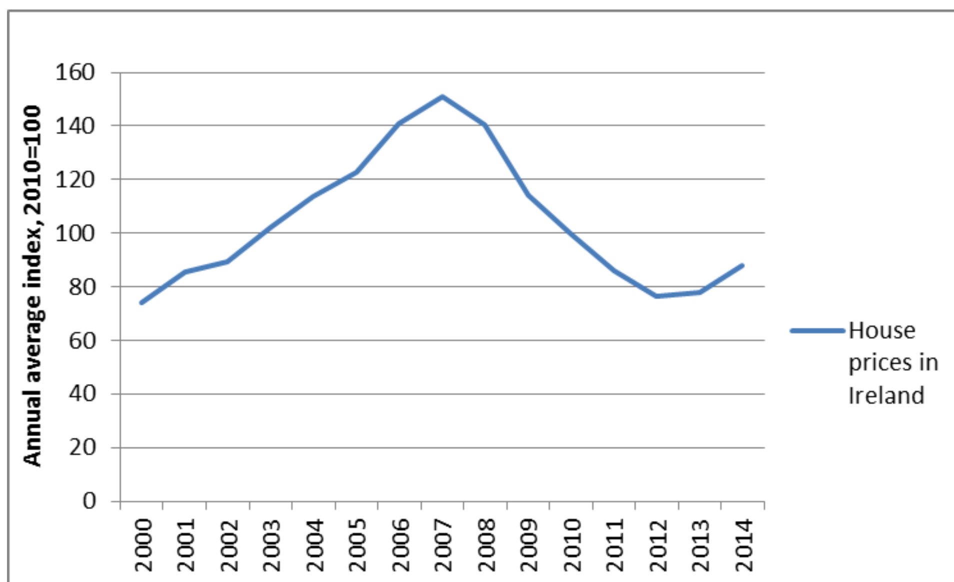

Figure 1: Prices of residential properties in Ireland (2000-2014), Index value 2010= 100

Source: Eurostat 1

Countries that let their banks expand in such an unsustainable way were of course hit by liquidity and solvency crisis. This happened no matter if those countries stood alone or were members of Euro zone- there seem to be no evidence that being a member of a monetary union makes a country more likely to be hit by a crisis.

Both Greece and Ireland are members of the Eurozone- the monetary union EU has created. It is, however, only an incomplete monetary union lacking a common budget. This system has proven to be very fragile for one reason. Currently there are 19 sovereign governments in the Eurozone but only 1 central bank. Usually, the central bank of a state serves as a lender of last resort in case government gets into trouble and needs to be provided with additional liquidity. ECB cannot do this because it is an independent institution over which no member state has control. Thus when a country of Eurozone is issuing a debt, it is doing so in a currency it has got no direct control of. Such a government can be easily forced into default by investors who have lost faith that this government is willing and able to repay its debt. The inability of ECB to provide liquidity to Greece and Ireland in the time of needs has contributed to deepening the recession of 2007-08. Moreover, the loss of credibility of a government in the eyes of investors affects the country's banks as well. When investors pull out from domestic bond market, the interest rate on government bonds goes up. This means significant losses for domestic banks because they are usually the main investors in domestic sovereign bond market. Also, there is a lack of liquidity in the domestic economy (ECB cannot intervene and there is no national central bank to provide the liquidity) which causes even bigger problem. Thus, even if the domestic banks were sound before, the sovereign debt crisis quickly spills over into a domestic banking crisis. This was exactly the case of Greece. In the case of Ireland the problem was opposite- the banking crisis more or less triggered the sovereign debt crisis which then only made the problems of domestic banks worse.

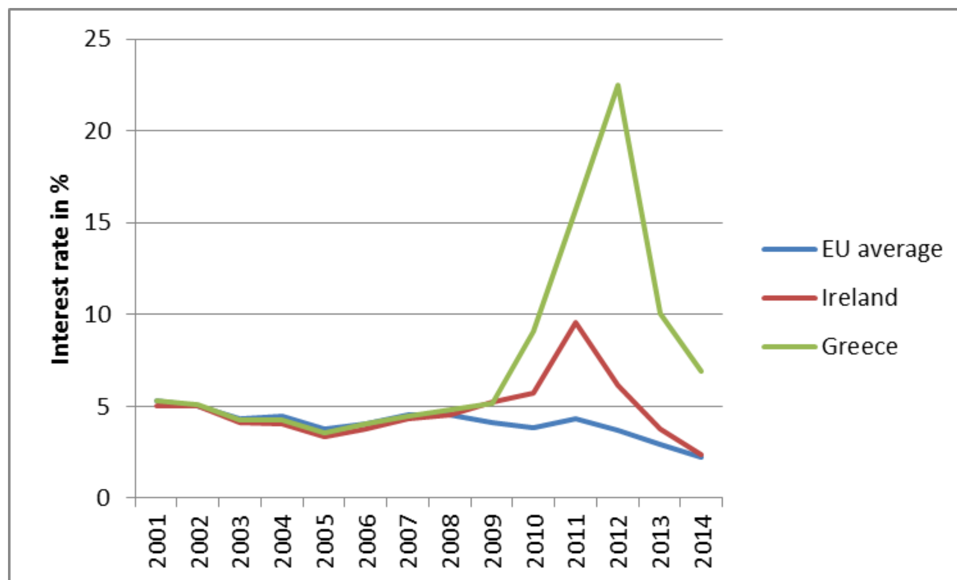

Figure 2: Long term government bond yields in EU, Ireland and Greece (2001-2014)

Source: Eurostat 2

Another issue in the Great Recession was the functioning of the Euro system itself. According to the Second banking directive of 1989, the responsibility of supervision of banks is entrusted to the authorities of the country where the banks have their head office. That means that Germany, for example, will be responsible for supervising Deutsche Bank branches based in Germany as well as in Italy, Bel-

gium, France and other EU countries. The same directive also states that host country is responsible for financial stability in its own market, i.e. French monetary authorities are responsible for maintaining the stability of the whole banking system operating in France (including branches of Deutsche Bank based in France). Taking into account significant internationalization of banking system in last decade, this system of bank supervision became a problem. National authorities need information on the soundness of the banks operating on their territory to be able to detect potential problems of the banks. A significant part of that information is, however, held by the supervisory institutions in other countries, which have shown to guard this information quite strictly in a fear of possible run on the banks in case of a problematic situation in the bank. The banks themselves have profited from this system quite well- it has allowed them to act recklessly and take excessive risks. This made their balance sheets extremely sensitive to bubbles and crashes of all sorts. The lack of surveillance of banks in the EU has helped to trigger the solvency and liquidity crisis in Europe in 2007-08.

It is still not entirely clear how the stock market bubble that started in 2003 and crashed in 2007/8 was triggered. It does not appear to be driven by a technology shock, as most bubbles do but rather by a combination of animal spirits, i.e. optimistic believes of investors and excessive credit creation. That raises stock prices and lowers cost of capital which raises supply of capital. At the same time the bubble in asset markets raises aggregate demand because credit is more available and higher stock prices are perceived as increased wealth (higher asset prices increase collateral value of those assets for banks and thus potential for bank credit). In this case, ECB which focuses only on price stability fails to recognize this problem and does nothing. This has an effect of output expansion which is, unfortunately, not sustainable in the long run because it is based on credit creation linked to artificially high asset prices. The debt accumulation by households and firms is excessively high and is scaled down rapidly when the bubble bursts, creating recession (aggregate demand and supply usually fall well below its original level). This recession was unfortunately very long and painful for both of the countries under analysis.

3.1 Analysis of Greece

Located on the edge of West Asia and Europe, Greece has always been a little bit outside of things. Being outsiders, though, has given people who live there more freedom to experiment with new ideas and new ways of doing things. To give an example, Olympic Games, organized troops of soldiers, democracy, theatre, and logical proofs have all come from Greece.

3.1.1 Historical context

First settlements of people in Ancient Greece are dated already to the Palaeolithic era (11,000-3,000 BC). During the second millennium BC, Greece gave birth to the great stone and bronze civilization: the Minoans (2600-1500 BC), the Mycenaeans (1500-1150 BC) and the Cycladic civilization. These were the first important civilizations in the Greek history.

6th-4th century BC mark the most important era in Greek history, called the Classical period. The peak of this Classical period was the 5th century BC, when the foundations of the western civilization were created in Athens. This so called city-state became the greatest naval power of ancient Greece which developed all aspects of culture, including philosophy, music, drama, rhetoric and so on. It is, however, the most famous for introducing a new political regime called democracy. It is not exaggerating to say that this period changed the history of the world. Together with Athens, Sparta was the most powerful city-state in ancient Greece, both having the other city-states allied to one or the other. In the 5th century, the allied Greek city-states managed to repel a huge invasion of the Persians. Unfortunately, the Peloponnesian War that followed between Athens and Sparta led to the decline of the glorious Classical era. That was when the kingdom of Macedon, a tribe residing in northern Greece, led by Phillip of Macedonia came to power, defeating and conquering the other Greek city-states which were not united anymore and thus vulnerable. It was Phillip's son Alexander who became probably the single most influential person in Greek history, marking his era as the Hellenistic Age. Having famous Greek thinker Aristoteles as a teacher, he started conquering the known world, spreading the Greek thinking everywhere his army went. By 323 BC, his empire reached all the way from Mediterranean Sea to India. Alexander the Great died the same year at the age of 33 when reaching ancient city Babylon and his Macedonian empire is torn apart and governed by his heirs. This is the end of a famous, prosperous and mainly independent Greek history- from now on, Greece is being under dominion of someone else.

In 168 BC, Greece is conquered by the Roman Empire, Greek cities being invaded and destroyed together with its famous culture. After a Roman emperor Octavion defeats Mark Antony and Cleopatra (of the line of Greek Ptolemaic Pharaohs) the period of peace which follows is known as Pax-Romana, lasting 300 years. It is the longest period of peace in the history of Greece where Romans take a lot from Greek culture and architecture, they base their religion on the Olympian gods and Greek is the second official language of the Roman Empire.

In the first century AD Christianity starts spreading to Greece namely through Apostle Paul and elements of monotheism begin to affect so far purely polytheistic Greek religion. The first Christian church in Rome is Greek, in fact all the first churches of the west are Greek, their services in Greek, their scriptures and liturgy in Greek. So it was through the Greeks, after all, that Christianity spreads throughout the world. In 64 AD the city of Rome burns down and the Emperor Nero blames the Christians. This begins a long period of persecution but by the 4th Century the Christian Church is the most popular institution in the world.

However, the power of Roman Empire starts to decline and it is divided in two pieces, the Eastern and the Western Roman Empire in the 3rd century AD. While the Western Roman Empire was gradually conquered by barbaric North-European tribes, the Eastern Roman Empire with Constantinople (Byzantium) as capital thrived and developed and was turned into the Byzantine Empire that lasted for about 1,000 years. At this point of history, Christianity becomes the official religion of the new empire, while worshipping the ancient Greek and Roman Gods is outlawed and reading and studying the ancient Greek philosophers of the Classical period becomes illegal. The Byzantine Empire lays foundations of Orthodox Christianity in Greece, Balkan countries and Russia. But Greek replaces Latin again in

being the first official language of the empire and Byzantine Scholars brought with them from Constantinople the knowledge and art that would play a pivotal role in bringing about the Renaissance in Western Europe (which unfortunately bypassed Greece entirely). The purely Christian era in Greece continues until 8th century when Arabs start attacking its territories and Islam is on the rise. Greece then goes through a period of time when it is being torn apart by crusades, broken-up into states, Constantinople being sacked and half-destroyed many times.

In 1453 BC, the Ottoman Turks conquered Constantinople and gradually the rest of Greece. Fall of Constantinople is one of the major events of world history marking the end of the Byzantine Empire and the beginning of the Ottoman empire. It also meant the end of Christianity in the Middle East, the rise of Ottoman-Muslim power and the beginning of the East-West friction that exists until nowadays.

The country suffered a lot under the Ottoman occupation which controlled the entire Middle East and the Balkans as far as the gates of Vienna. Frequent rebellions would rise in Greece but most of boys from conquered territories were conscripted to serve in the Turkish army and Islamized. As these revolutions were unorganized, they were all suspended by the Ottoman army. On the other hand, Greek monasteries became the centres of learning and many intellectuals escaped there with their books and libraries to keep Hellenism alive during these dark ages. Byzantine descended Greeks clergy had enormous privileges under the Turks and were paid by the Ottoman state. The Patriarch was literally the head of all of the Orthodox Christians and had a position like that of the Vizier. His authority was quite emphatic and bishops (for the first time) were funded from Imperial sources as they acted as leaders of the Christian citizens of the empire and were responsible for their behaviour. The Ottoman era was also the time period when the famous Pantheon, the jewel of Athens, got destroyed when attacked and bombarded by Venetians.

It was not until March 1821 when the Greek War of Independence broke out. This year is a cornerstone for the history of the country. After many fights, massacres and seizes, the country finally got its freedom in 1829, when the first independent Greek state was formed and Ioannis Kapodistrias, a Greek diplomat in the Russian courtyard, was set as governor. The first Greek state included Peloponnese, Sterea and the Cyclades islands and its existence was ensured when the Treaty of London, backed by Britain, Russia and France, declares that the three great powers can intervene 'peacefully' to secure the autonomy of the Hellenes.

After Kapodistrias was assassinated in 1831, prince Otto from Bavaria became the first king of Greece, followed by George I from Denmark in 1863, both appointed by Great Britain. At that time, the Ionian islands were donated to Greece by Britain as a gift to the new king and then Thessaly was attached to the Greek state by the Turks. In the early 20th century, Macedonia, Crete and the Eastern Aegean islands were also attached to the Greek state after the First World War. This was the time when the figure of an important Greek politician raised, Eleftherios Venizelos, the most famous prime-minister of modern history. The year 1922 was troublesome for Greece as many Greek refugees from Asia Minor came to the mainland, part of population exchange with Turkey. Although at first, it was very difficult for the refugees to adapt in their new lives, they gradually contributed a lot in the development of the country.

During World War II, Greece resisted a lot the Axis forces, but eventually most of the Greek territory was conquered by the Germans and some parts by the Italians. At the end of WW2, however, both British troops and Greek resistance forces, led by Communists (ELAS) could take credit for the final departure of German troops in 1944. Armed conflict then broke out between British troops and ELAS forces with UK prevailing. They restored the pre-war constitutional monarchy, however asking for US support. This initiated the Truman Doctrine- the long-term American strategy to ensure that communists did not take control in western Europe by lending them their military support.

After the Second World War, the Dodecanese islands that were still under Italian occupation since the early 20th century, also became part of the Greek state. Three decades of political turmoil followed, including a military government from 1967 till 1974. Since 1975, the regime of Greece is Parliamentary Republic. Only this event allowed Greece to apply for membership in the European Economic Community, then consisting of only 9 countries, which became reality in 1981. From the economical point of view accepting underdeveloped and politically unstable Greece among EEC countries did not make much sense but EEC members at that time were pursuing different goal- it was the middle of the Cold War and Greece was surrounded by countries which were under Russian sphere of influence. So it was politically much more convenient to take them in than to leave them out to the mercy of USSR. Even after being excluded from the first round of countries joining Euro area in 1999, Greece managed to come around and accepted Euro as their single currency in January, 2001 just one year before the Euro was introduced in its cash form. Greece is also a member of Schengen area since year 2000 [History of Greece, 2016 and AHISTORYOFGREECE, 2016, Neal Larry, 2007].

3.1.2 Social differences, economic relations with Europe

Greece is the most southern state of the Balkan peninsula, strategically located at the crossroads of Europe, Asia and Africa. Being torn between European and Asian style of living, religion, politics and culture has put Greece in a unique position, having different attitudes and opinions then most of the rest of Europe. It is, however, quite similar to Spain, Portugal and Italy, sharing their easy-going Mediterranean lifestyle and way of dealing with problems which has also put those countries in a similar position during the Great Recession.

The history of Greek national default is closely tied to this troubled relationship with Europe. As some have noted, the country has been in default for roughly half of its existence as an independent state (which is not actually that long). The pattern is more complicated than just a repeated failure to pay debts. It's a vicious cycle of foolish lending by European creditors and wasteful mismanagement by Greeks going back nearly 200 years. The country's first default came during the course of the independence struggle, when rebels couldn't pay back European loans made to fight the war. The Great Powers made more loans in 1832 when King Otto was installed; in 1843, a coup forced him to submit to constitutional limits, and Greece defaulted again. In the late 1870s, Greece paid off its sovereign debt and once again had access to foreign markets. It promptly over borrowed and defaulted again in 1893. In response foreign creditors created an "International

Committee for Greek Debt Management" to force reforms and oversee Greek debt. Greece's most recent default before June 2015 came in 1932, during the international Great Depression (The Atlantic, 2015).

This problematic relationship also gets blamed for many other problems that the country is facing. Greek textbooks assign hefty blame to the hated Turks for stifling Greek nationalism and education. But if the Ottomans did this to them and it is so bad, why haven't they overturned it since they got independent. They have had 185 years to fix their problems, and they have not done it. It has also been repeated many times that tax-shirking was a patriotic gesture in Ottoman Greece, a way to resist Istanbul's authority. It is true that an inability to effectively enforce tax laws has drained the Greek government of revenue, but Ottoman historians are also sceptical about this claim. One barrier to more effective taxation is that Greece has no land registry. This has been blamed on the Ottomans as well, but other Ottoman territories did have land registries; in fact, the old central registry building still stands in central Istanbul (The Atlantic, 2015). In this age of satellite images when everything is digitalized, most of Greece's land transactions are handwritten, logged in by last names. There are no lot numbers, no clear boundaries and thus no way to tell who is an actual owner of land. This scares off foreign investors, makes it really hard for state to privatize its assets (as it promised to do in order to get the bailout money) and makes it almost impossible to collect property taxes (The New York Times, 2013).

Culture

Greece is a country of many diverse cultures, influenced by its location, at the junction between the East and the West and by the many occupations of the Greece throughout history. Geographically Greece is a mountainous peninsula surrounded by water. Due to its 13,676 km long coastline and the 2,000 Greek islands the Greeks have a long tradition in navigation, ship building and marine trade, which historically led to interconnection with other people. As the country is located on the corner spot between Europe, Asia and Africa, the Greek culture is actually a mixture of European and Eastern elements influenced heavily by Roman, Byzantine, Ottoman and British Empires (Greeka.com, 2016). In ancient times, Greece was the birthplace of Western culture. Modern democracies owe a lot to Greek beliefs in government by the people, trial by jury, and equality under the law. The ancient Greeks pioneered in many fields, including biology, geometry, history, philosophy, physics and mathematics. They introduced important literary forms such as epic and lyric poetry, history, tragedy, and comedy that strongly influenced Western art (Civilization and its contents, 2004).

Language

Greek language comes from Indo-European branch of languages. It has a long and well-documented history—the longest of any Indo-European language—spanning 34 centuries. Greek language went from being considered the language of intellectuals and philosophers to being an official language of the Roman Empire. Nowadays the Greek language is spoken by 11 million Greeks. The Greek alphabet, still in use today in Greece in the form it reached during the Hellenistic period, has enjoyed an extraordinary success as a direct or indirect model for other alphabets- the writing systems employed in a great part of the modern world are based on it. Notably, both Latin and Cyrillic scripts are derived from and it also serves as a

source of technical symbols and labels in many domains of mathematics, science and other fields. (Encyclopaedia Britannica, 2014).

Religion

Religion plays an important role in the understanding of daily culture. 98% of Greeks are Christians Orthodox. The rest of the population are Muslims, Roman Catholics and Jewish. Greece and Russia are the only countries to have such a big proportion of Christians Orthodox. The Orthodox Church forms the third largest branch of Christianity, after the Roman Catholics and the Protestants. However, the dominant religion in the EU is Catholic- 48% of all EU citizens claim to be Roman Catholics, compared to only 8% of Orthodox Christians (European Commission, 2012). Even though religious practices have been on decline within the EU (or EEC before) over the past few decades, this might still be causing friction and differences in opinions between Greece and the rest of the EU.

3.1.3 Current situation in Greece

Greece has a capitalist economy with a public sector accounting for about 40% of GDP and with per capita GDP about two-thirds that of the leading euro-zone economies. The most important sector of Greek economy is the service sector, making up for nearly 83% of GDP and employing around 72% of the entire Greek labour force. From the service sector, tourism alone provides 18% of GDP. Second most important is industry (13.3% of GDP) and agriculture accounts for 3.7% of Greek GDP. Immigrants make up nearly one-fifth of the work force, mainly in agricultural and unskilled jobs. Greece's main export partners are Turkey (12%), Italy (9%) and Germany (7%) while its main import partners are Russia (10%), Germany (10%) and Iraq (8%), (CIA, 2014). When measuring standard of living of in a country, GDP per capita as well as Human Development Index are good indicators. Greek GDP per capita scores 27% below EU average. In Human Development Index (measured by UN and published in its Human Development report of 2014), Greece scored a value of 0.865, ranking 29th out of all analysed countries (188 in total) and thus making it one of countries with very high HDI.

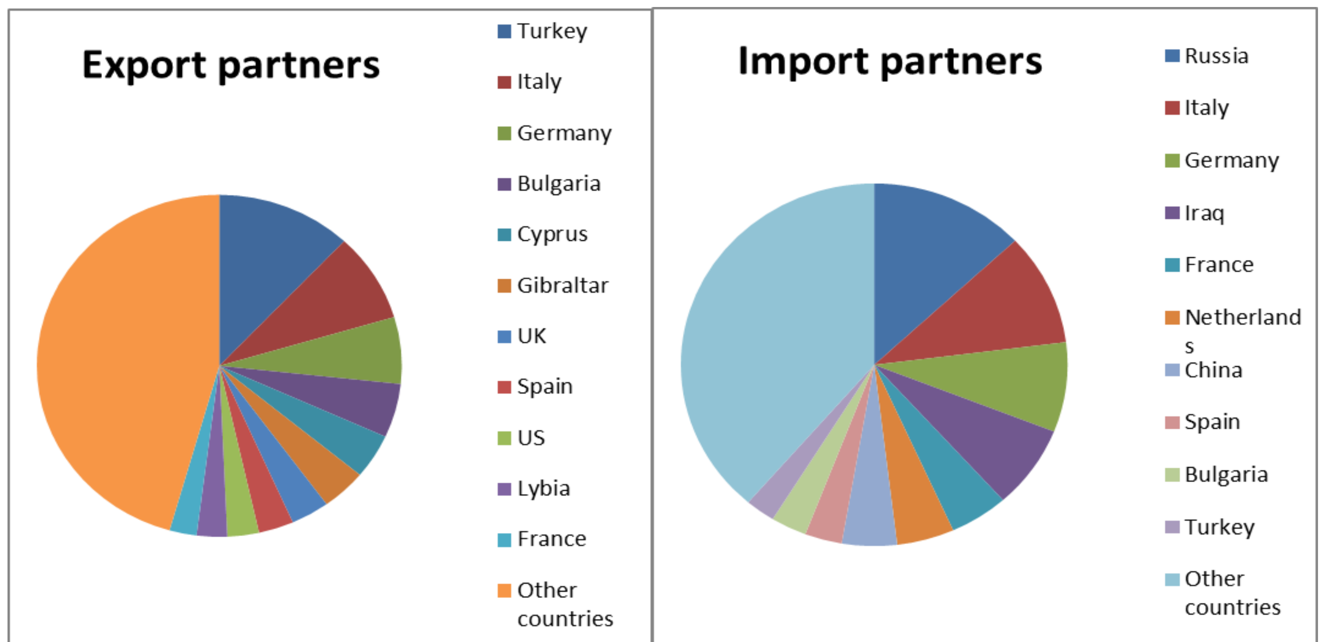

Figure 3: Main trading partners of Greece (2013)

Source: OEC, 2015

Member countries' financial contributions to the EU budget are shared fairly, according to means. Generally, the larger your country's economy, the more it pays – and vice versa. The EU budget does not aim to redistribute wealth, but rather to focus on the needs of all Europeans as a whole (European Commission, 2014).

Greece is a net receiver of EU funds. In fact, the initial reliance on the redistribution mechanisms of EU funds, mainly coming from the agricultural and regional development funds, reduced the incentive of the Greek government to make radical changes in their economic policies after their accession into EU. This is a clear example of what economists label as the 'moral hazard'- unconditional support of other EU countries let Greece stay poor indefinitely by enabling it to maintain its dysfunctional economic policies. The generous subsidies and agricultural protection provided by EEC are directed by the Greek socialist governments as political favours inside Greece rather than being used as an incentive for promotion of economic growth and efficiency. Only the fact that Greece was excluded from the European Monetary System and later from the first round of countries to join Euro finally brought the much needed incentive to make some changes in domestic economic policies (Neal Larry, 2007).

From the Operational Programme 2007-2013 Greece received most money for Accessibility Improvement (almost 6.4 billion Euro), the second place belongs to the Regional development fund where 4.5 billion Euro was spent on Macedonia-Thrace region development and third biggest package was sent to region of Attica, for regional development as well (Anaptyxi, 2015).

Historically, agriculture was always an important sector for Greece and after its accession into EEC Greece benefited greatly from the CAP subsidies which allowed them to create a net agricultural surplus in trade with the rest of EU. However their agricultural comparative advantage from specializing in olives and Mediterranean fruits and vegetables quickly turned into comparative disadvantage in

1990's as they were no longer able to import cheap animal products from their traditional sources in Mediterranean region because of the quantitative restrictions on imports of meat from Third World countries. Thus Greek farmers shifted the agricultural production to grain products (for which one receives the highest subsidies under CAP), which improved their economic situation but on the other hand retarded the structural changes in Greek economy aimed at productivity increases and economic growth (Neal Larry, 2007).

Another long-term problem of Greece is high inflation combined with high unemployment. This is due to rigid labour market (it is quite hard for private firms in Greece to dismiss employees) and generous unemployment benefits. Before Greece joined the Euro zone, those benefits were financed by expansionary monetary policy initiated by Greek central bank, which was very much under the control of Greek government and thus inflation could never be kept quite under the control. Socialist-inspired policies managed to sustain employment but only in state-owned or state-subsidized industries. Greek economy actually still shows a continued trade-off between unemployment and inflation. The problem is that privatization of state-owned enterprises results in labour redundancies that raise unemployment. The proceeds of privatization gained by government can be used to lower the government debt, however it is offset by raising expenditures on unemployment benefits and early pension payments provided to the workers that have been laid off during the privatization. The labour market reform seems to be the only viable solution here (Neal Larry, 2007).

3.2 Analysis of Ireland

Ireland, the third largest European island located in the North Atlantic, is divided between the Republic of Ireland which covers most of the island and the Northern Ireland which is part of the United Kingdom. This analysis focuses on the independent Republic of Ireland, further referred to simply as Ireland. Despite being a relatively small country and always under supervision of its bigger neighbour, the UK, Ireland has always influenced the course of events happening in Europe.

3.2.1 Historical context

Irish history reaches all the way to 8000 BC when its earliest settlers, the hunter-gatherers, were first mentioned. Later on Celtic tribes reached Ireland-around the 6th century BC. The Irish language is a member of the Celtic language family, and Irish art and culture were also heavily influenced by the Celts.

It was Saint Patrick, the patron of Ireland who introduced Christianity to Ireland in the 5th century AD. Ireland in the early Christian era was an agrarian society and, in the absence of large towns or cities, large monasteries played a major role in Irish social and political life. From 795 AD Ireland was under regular attack by Viking raiders who targeted the rich monasteries and caused their eventual decline. Raiding in the 9th century was followed by settlement of Vikings in Ireland. They founded trade outposts there which later developed into major towns and cities such as Dublin, Cork, Limerick and Waterford.

The period of English supremacy followed and lasted until late 19th century. It started with Norman invasion in 1169. The Normans had a profound impact on

the island, but many eventually assimilated into Irish culture, learning to speak the native language and marrying into Irish families. By the end of the 15th century English rule in Ireland was effectively limited to a small enclave around Dublin known as the Pale. However, the Tudors who ruled England in the 16th century, wanted to regain control of Ireland. Henry VIII declared himself King of Ireland and he and his successors established English settlements and fought many battles and wars, as well as making persistent efforts to replace Catholicism by Protestantism which was dominant in England. The conquest of Ireland was effectively complete in 1601 following the Battle of Kinsale. An Irish rebellion during the English Civil War was crushed by Oliver Cromwell between 1649 and 1652 with great losses on lives. Large pieces of fertile land owned by Catholics were confiscated and redistributed among Cromwell's soldiers and Scottish colonists, displacing many families and leaving a legacy of bitterness that has endured for centuries. Penal laws against Catholics were introduced throughout the seventeenth century, excluding them from holding public office, entering professions, teaching, owning firearms, restricting their ownership of property and inheritance of land and outlawing Catholic clergy, while at the same time forcing Catholics to pay tithes to Protestant clergy.

Tension between the British rulers and the Irish population continued. Following another rebellion in 1798, the Irish Parliament was abolished and Ireland formally became part of the United Kingdom. Religious situation got better in 1829 when a campaign for emancipation of Catholics succeeded in removing many restrictions on Catholics. In 1845 the potato blight destroyed most of the crop of potatoes which was the main source of staple food for the poor in Ireland, followed by the Great Famine which lasted for 7 years. Exacerbated by the laissez-faire economic policies of the British government, it led to the death by starvation and disease of a million people and the emigration of a million more, out of a population of about eight million. The island's population fell by a quarter and high emigration continued in succeeding decades, with huge demographic effects: Ireland's population is roughly the same now as in the 1870s. Use of the Irish language declined catastrophically.

Ongoing discontent with British rule led to repeated rebellions and agitation for land reform and home rule in the later 19thcentury. In 1914 the British Parliament passed a Home Rule Bill intended to grant the right to self-government to Ireland, but it was postponed due to the outbreak of the World War I. On Easter Sunday of 1916, the Irish Volunteers and the Irish Citizen Army staged an armed rebellion in Dublin, and proclaimed Ireland's independence. The Easter Rebellion was defeated after several days of fighting. While the rebellion was initially opposed by the mass of the population, the execution of several of its leaders turned Irish public opinion against British rule.

At the 1918 election, the pro-independence Sinn Féin party won a landslide victory and instead of taking up their seats in British Parliament they set up the first Dáil, an independent parliament in Dublin, led by Eamon de Valera (who later became President of Ireland). The subsequent War of Independence (1919-1921) ended with the signing of the Anglo-Irish Treaty in December 1921, which divided the country into the independent Irish Free State (26 counties) and six counties in Ulster which remained with the United Kingdom and which are today known as Northern Ireland. A civil war (1921-23) followed between the new government

and those opposed to the Treaty, who felt it did not provide full independence. The civil war shaped and determined political allegiances for decades: the two largest political parties in Ireland are descended from pro-Treaty (Fine Gael) and anti-Treaty (Fianna Fáil) parties. Bunreacht na hÉireann, the second Irish Constitution, was enacted by the people in 1937 but Ireland was still a part of the British Commonwealth. The Irish Free State became a Republic in 1949, breaking the final links to the British monarchy.

Ireland was neutral during the Second World War, although large numbers of Irish citizens fought in Allied forces. Ireland joined the UN in 1955 (Archive EU, 2013).

Another big chapter in Irish history started in 1973 when Ireland joined European Economic Communities (EEC), together with UK and Denmark. As Europe integrated more and more, the Eurozone was established with the purpose of introducing a single currency and Ireland became a part of it at its very beginning in 1999 together with other eleven Member states.

Even though tied by close economic and forced political relations, a position of Northern Ireland was not clearly resolved until much later- the Anglo-Irish Agreement was only put on a table in 1985. Signed by British Prime Minister Margaret Thatcher and her Irish counterpart Garret FitzGerald, it paved the way for regular conferences between British and Irish ministers on matters affecting Northern Ireland. This gave Dublin a role in Northern Ireland for the first time in more than 60 years. The 1998 Good Friday Agreement, which reaffirmed Northern Ireland's constitutional status in the UK while also repealing the law by which Ireland was partitioned, was approved by 94% of Irish voters in a referendum *(BBC News, 2014).*

3.2.2 Social differences, economic relations with Europe

Geographically, Ireland is one of the peripheral European countries thus usually far from the centre of events. But even though it is quite a small island, the course of events has always affected Ireland a lot. The most important European player which influenced Ireland economically, politically, socially and culturally was undoubtedly the UK- its closest neighbour and ruler for most of the Irish history.

Ireland could have joined the project which is nowadays called the European Union when it was first launched in 1950s but it chose not to, simply because of its relations with the UK, mainly the economic ones. Citizens of both UK and Ireland were always allowed to travel freely throughout those two countries (this agreement was formally ratified in 1950s creating a full common travel area). UK, however, was not interested in the EU project then- it was still a world empire after the WWII, it still had its colonies. That changed quite quickly though. During ‘50s and ‘60s UK gradually lost power over most of its colonies and thus lost its most important trading partners. UK applied for then EEC membership in 1961 but because every enlargement always had to be approved by unanimity, British application was turned down- vetoed by French president Charles de Gaulle. It is believed that Charles de Gaulle had political as well as personal reasons for this decision. From political and economic point of view UK just represented too much of a

competition due to its size and economic power. Once refused, UK initiated its own European project- the European Free Trade Area (EFTA), in which Ireland also took part, further deepening economic relations between those two countries. This, in its time a very successful project meant that if Ireland wanted to join EU without the UK, it would have to raise customs towards British goods and services, potentially harming their own economy in a substantial way. After Charles de Gaulle had passed away in 1970 UK was finally free to join the EU- a year later UK together with Ireland and Denmark becomes one of the Member States.

Membership of the European Union was a central factor that changed the nature of that relationship. Ireland and the UK remained economically interdependent, but other trading relationships flourished and reduced Irish dependence on the UK. For Ireland, and especially the Irish government, Brussels was slowly extending its sphere of competence, highlighting the importance of Irish-EU relations. This marked a shift in Irish-British relations from post-colonial dependence to a 'normal' relationship between two independent neighbouring states *(Centre on Institutional Change, 2013)*. However, b

efore Ireland adopted euro in 1999, the Irish punt was pegged to sterling for much of the 20th century.

Culture

Irish geographic isolation has helped it to develop a rich heritage of culture and tradition that was linked initially to the Gaelic language. Ireland is also well-known for its wealth of folklore (tales of leprechauns with hidden pots of gold, their patron saint, Patrick, with his legendary ridding the island of snakes and his reputed use of the three-leaved shamrock as a symbol for the Christian Trinity).

Although Ireland is now both urbanized and Europeanized, its culture retains many unique characteristics, and its people prize folkloric and social traditions that largely derive from the country's rural past.

Dependent on agriculture and subject to extremes of climate, Ireland was long among Europe's poorest regions- the main reason of mass migration from Ireland, especially during the cycle of famine in the 19th century. Around 40 million Americans trace their ancestry to Ireland, as do millions of others throughout the world-remainder of the huge emigration waves which always occurred after the country was hit by one of its common famines. This trend has only shifted around at the end of 20th century where the key factors in increased immigration were the more-open labour market provided by the European Union and the globalized nature of the contemporary Irish economy, both of which have attracted a wave of new residents. However, the crisis of 2008-09 has again changed this dramatically, drawing away the highly skilled and educated workforce *(Encyclopaedia Britannica, 2015).*

Language

According to the constitution, Irish language is the first official language and English the second. All official documents are published in both Irish and English. The modern Irish language, which is very similar to Scottish Gaelic, was widely spoken up to the time of the Irish potato famine of the 1840s and the subsequent emigrations. The use of Irish continued to decline even after 1922, when the language was introduced into schools; despite its decline, Irish never stopped having a strong influence on Irish consciousness. English is universally spoken. Compulsory Irish in schools has come under some criticism from the business sector, which would prefer to see students develop more-diverse language skills. While modern

society might question the utility of t he language, it remains an important element of the Irish identity *(Encyclopaedia Britannica, 2015).* Despite keeping Irish language for historical and cultural reasons, English is an official language in Ireland and that gives them a huge advantage. Speaking the world language allows easier labour mobility from all around the world and makes Ireland more attractive and credible for investors and foreign companies looking to do business there.

Religion

Since the conversion to Christianity, Roman Catholicism has been Irish main religion. After the Reformation, Catholicism became closely associated with Irish nationalism and resistance to British rule. After the devastating Irish Potato Famine in the 1840s, there was a remarkable surge in devotional support of the Catholic Church, and over the next century the number of Irish priests, nuns, and missionaries grew dramatically. This trend, however, significantly declined during the end of 20th century due to a robust economic growth, which made the country much wealthier, and many scandals connected to the Church. Nevertheless, the Roman Catholic Church continues to play a prominent role in the country even in the 21st century, including maintaining responsibility for most schools and many hospitals *(Encyclopaedia Britannica, 2015).*

3.2.3 Current situation in Ireland

Ireland is a small but very open economy (it was ranked 5th most open economy in Europe, just behind Luxembourg, Belgium, Malta and Netherlands) *(Independent.ie, 2013).* Ireland's largest European export destination is the UK, with 14% of total exports in 2013, lagging only behind its worldwide biggest export partner, the USA and followed by Belgium and Luxemburg. Regarding imports, 34% of all goods brought to Ireland from abroad come from the UK, 10% from the USA and 9.2% are of German origin *(The Observatory of Economic complexity, 2013)*. The most important sector in Ireland is the services sector, accounting for almost 73% of country GDP, employing 76% of the total labour force. It is followed by industry which makes up 26% of Irish GDP and agricultural production is worth 1.6% of GDP (CIA, 2014). Irish GDP per capita scores 32% above the EU average and Ireland reached a value of 0.916 in Human Development index (UN Human development Report, 2014) which, together with Germany, makes it a country with 6th highest score out of all analysed countries (188). So it can be concluded that Ireland has got a very high standard of living.

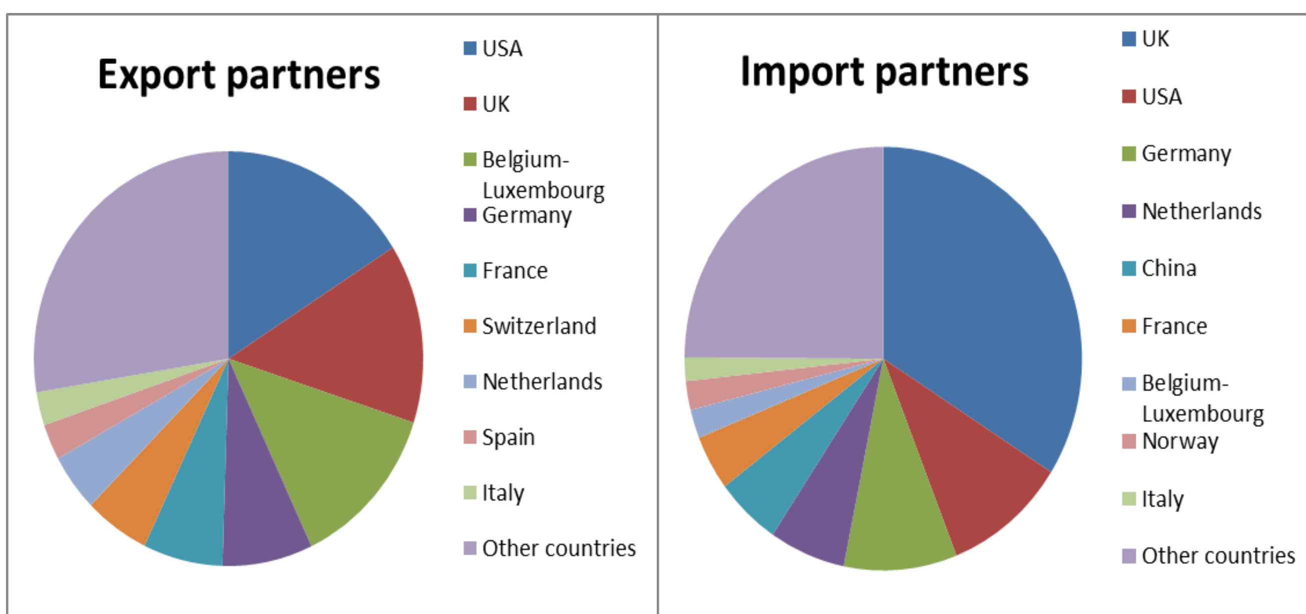

Figure 4: Main trading partners of Ireland (2013)
Source: OEC, 2015

The UK-Irish trade relationship is crucial. Ireland is the 5th largest recipient of UK industrial exports - almost 6% of the total. The stock of UK's Foreign Direct Investment in Ireland yearly amounts to around $69 billion and Ireland's stock of FDI in the UK is the same. An estimated 208,000 jobs in the UK result from exports to Ireland; an estimated 198,000 Irish jobs depend on exports to the UK. However, the nature of the UK-Irish economic relationship has changed in recent decades. Although still important for both nation-states, Irish dependence on the UK for both imports and as an export destination has declined significantly since Ireland joined the EU. Ireland also has an important economic as well as political relationship with the United States - the US is its most important single partner country for trade in goods - and the health of the Irish economy has been dependent upon FDI, especially from US multinationals *(Centre on Institutional Change, 2013).*

That might be the main reason why even in the depths of the crisis of 2009 the Irish economy managed to keep some of its main strengths. It continues to appeal to American multinationals as a European production base, thanks to a well-educated labour force and a low corporate-tax rate of just 12.5%. Ireland is favoured by pharmaceutical giants such as Pfizer and has also become a magnet for tech and social-media firms. Apple continues to build up its activities in Cork; Dublin hosts Facebook and Google. The multinationals' presence in Ireland helped when the rest of the economy stood still to offset the domestic downturn. Ireland has benefited from the fact that it exports heavily to America and Britain, both of which have outperformed the torpid euro area *(The Economist, 2015).*

In Ireland, EU funding represents 1.4 % of the country's GNI. The EU budget targets areas where EU money can generate added value so it does not fund defence expenditure or social protection, but it mostly covers investment spending. For example, the EU is co-financing a project aiming at making high-speed Internet available everywhere in Ireland. Ireland is one of the EU Member States which receives more from the EU budget than it contributes, and this will remain so

throughout the next budgetary period (2014-20). It should be kept in mind, however, that European investments are intended to benefit the EU as a whole, and European funding in one country can benefit other Member States as well. For example, Irish companies have unlimited access to a single market of 508 million consumers. With about 57 % of its exports going to EU countries in 2013, this is of significant benefit for the country (European Commission, 2013).

A major part of the money that Ireland receives from the EU goes towards agriculture, rural development and environmental protection (82 % in 2013). For instance, EU funds have provided computer training for rural communities on Ireland's east coast. The second-largest share of the money that Ireland receives goes to research (10%), an area crucial for its competitiveness and economic development. Almost 2 thousand Irish participants (e.g. universities, research institutes and SMEs) have already received funding through the EU's 2007-13 research programme. For example, scientists from Trinity College Dublin are taking part in an EU-funded research project investigating a new treatment for strokes. Regional policy is the third most widely used policy in Ireland- it aims at reducing the economic, social and territorial disparities between Europe's regions. Regional funds invest in a wide range of projects supporting job creation, competitiveness, economic growth, improved quality of life and sustainable development (European Commission, 2013).

4 Results

This part of the thesis provides mainly graphs depicting economic situation in Ireland and Greece and possible reasons and explanations why those trends occurred.

4.1 Period 1973 - 1981

In this chapter, time period between 1973 and 1981 will be analysed. It is characteristic by the two oil shocks (first one in 1973 and the second one in 1979) which substantially increased price of oil as a result of events in the Middle East. Regarding the fact that Greece was not a part of EEC then, only Irish economic performance will be assessed based on GDP per capita, volume of foreign trade (export and imports), inflow of FDI, government deficit and debt, inflation, unemployment and volume of EU funds provided to Ireland.

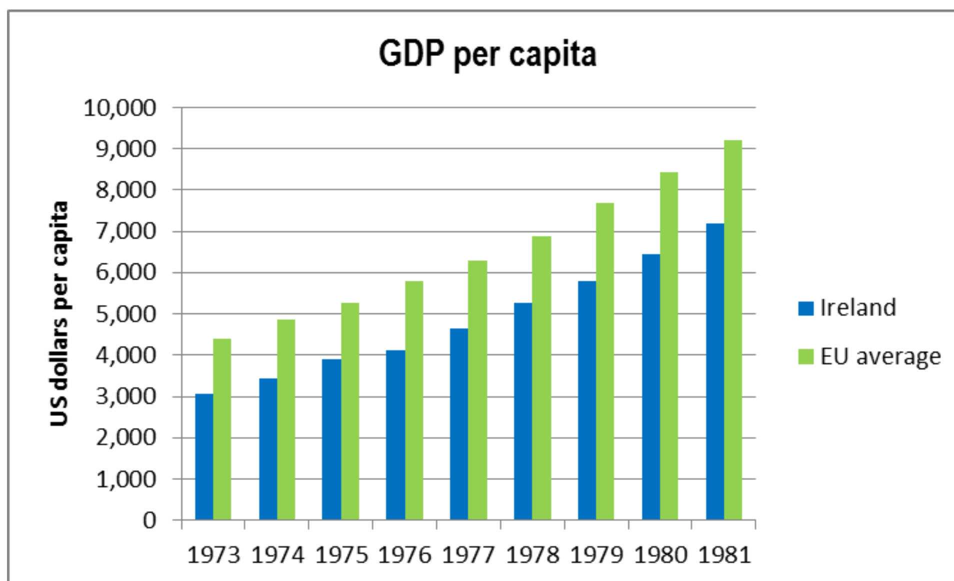

Figure 5: GDP per capita in Ireland compared to EU average, in US dollars, current prices, current PPPs, 1973-1981

Source: OECD Statistics 1

For much of the post-war period, the Irish economy significantly underperformed compared to its European neighbours. This trend is still apparent in Figure 5 where Irish GDP per capita is well below EU average. Actually, the differences are getting bigger (from 1 380 US dollars per capita in 1973 to 2 030 US dollars per capita in 1981) since Ireland joined the EEC in 1973. This worsening situation can be ascribed to the negative effects that both of the oil shocks, which occurred during '80s, had on Irish economy. Ireland, unlike the UK, had no oil or natural gas deposits off the coast, so there was no defence against the supply side shocks. On the other hand, we can observe rising trend in Irish GDP/capita which over the 8-years-long period more than doubled. It was so because Ireland, after its accession into EEC, benefited greatly from agricultural price supports and financial help for regional development which is also visible from Figure 12.

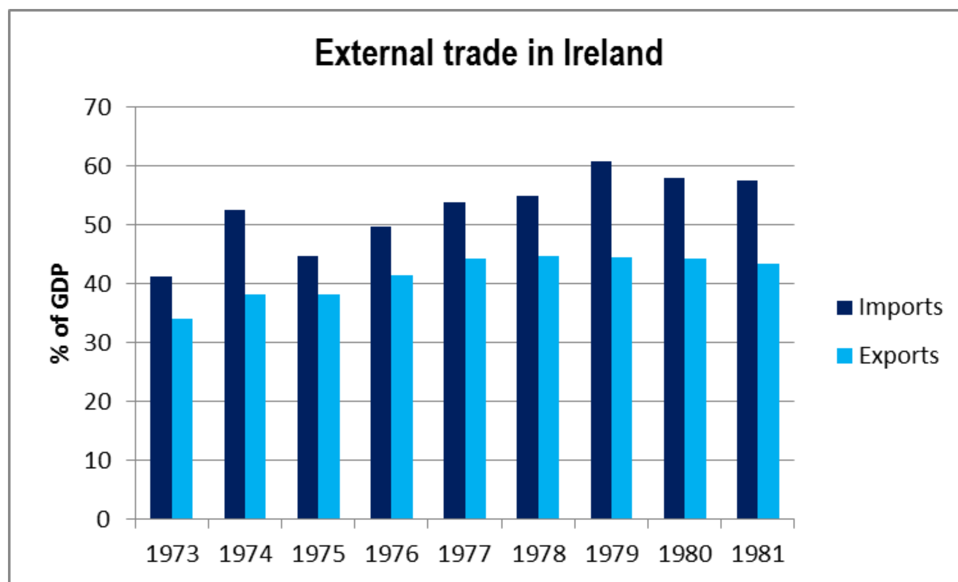

Figure 6: External trade of Ireland between years 1973-1981 expressed as a % of GDP

Source: OECD Statistics 2

As mentioned earlier, Ireland is a small but very open economy thus its imports and exports proportioned to its GDP always have and will be high. During '70s Ireland has been import-oriented country with a trade deficit. The decline in imports as well as in exports in 1980 can be attributed to the second oil shock in 1979 and Ireland joining the EMS in 1978 even though the UK opted out. This meant that Irish punt appreciated against the British pound, which in turn led to a loss of a large part of British market for its exports (despite their complicated relationship UK was still the biggest trading partner of Ireland). Due to a deep recession in continental Europe, potential exports there were stagnant and the 2nd oil shock hit Ireland especially hard. The expansionary fiscal policy pursued by Irish government only made things worse- inflation soared, as did the government debt (Figure 8) and Irish unemployment was amongst highest in Western Europe (Figure 11). In this period, the strongest export SITC category was the Food and live animals, in particular Meat and meat preparations. This confirms Irish strong agricultural position within EEC. Most imports were recorded in the Machinery and transport equipment category, particularly then Power generating machinery and equipment and Road vehicles (Appendix B).

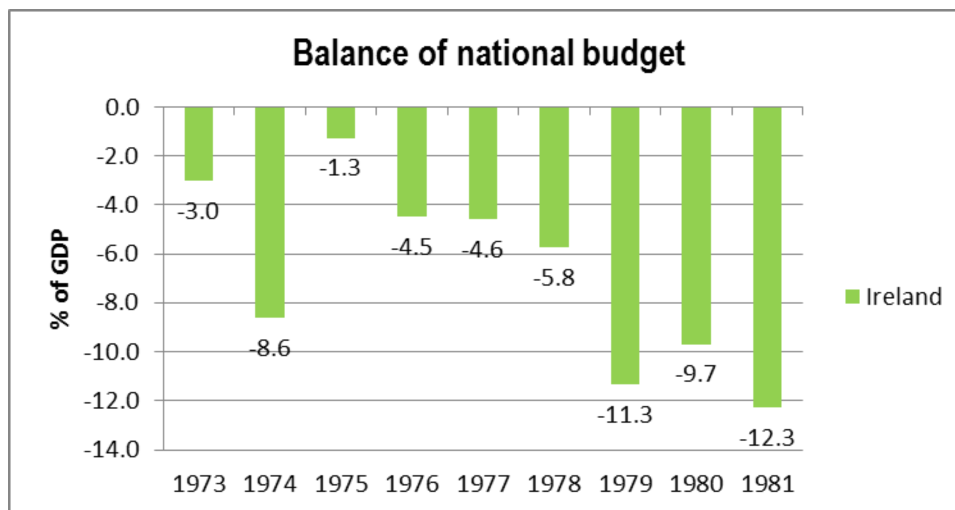

Figure 7: Deficit/ surplus of Irish national budget expressed as % of GDP

Source: AMECO 1

From 1973 to 1977 Ireland was led by Fine Gael, the liberal-conservative centre-right political party (Department of Taoisigh, 2013). To become an equal partner for other EEC members and catch up with them economically, Irish government was running substantial budget deficits throughout this period. To boost the economy, government was spending large amounts on social welfare, health and education, housing, telecommunications and other infrastructure and administrative services. They were also creating a lot of new jobs to fight rising unemployment which stood at 9% in 1976 (Dorgan, 2006). For the rest of the period since 1977, Fianna Fáil, the Republican, centre-right political party was in charge, pursuing extensive expansionary policy (Department of Taoisigh, 2013). By 1980 public-sector employment represented a third of the total workforce (Dorgan, 2006).

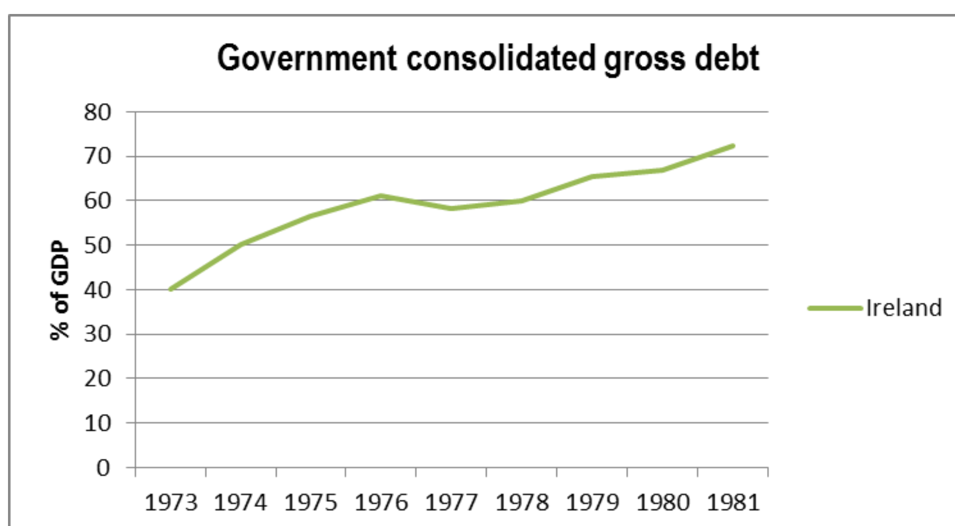

Figure 8: Government debt as % of GDP in Ireland between 1973-81

Source: AMECO 2

Ireland joined the EEC with a very sustainable level of public debt amounting to 40% of their GDP. But to finance such a high levels of budget deficit and spending to deal with the oil shocks and to boost the economy, Ireland had to borrow heavily. The '70s saw a rapidly growing government debt which by the end of this period reached over 70% of Irish GDP.

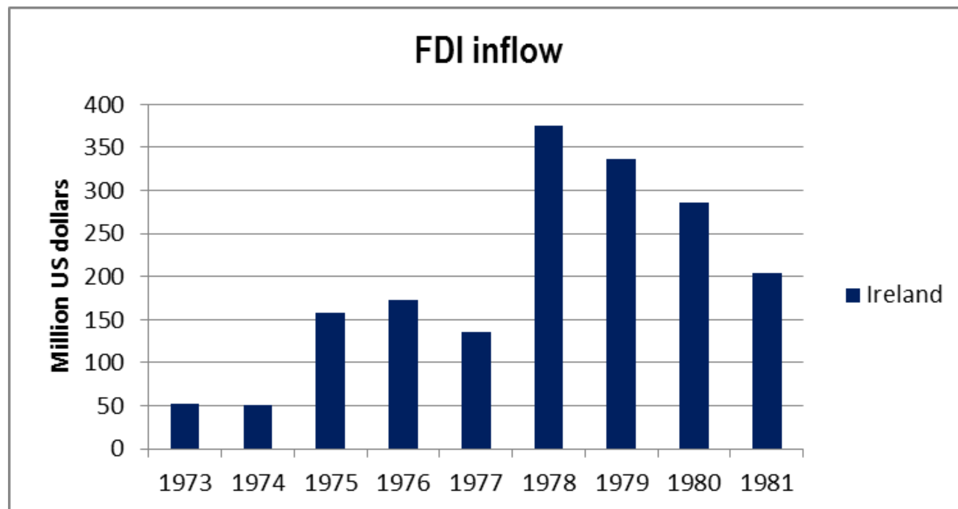

Figure 9: Net inflow of FDI into Ireland in million US dollars between 1973-1981

Source: The World Data Bank 1

It is crucial for every small and open economy to attract FDI as it is a good presumption of growth. It was IDA (Industrial Development Authority) that played a central role in the drive for success. While still funded by state, it was the first agency in the world to undertake a massive and sustained campaign to establish a modern manufacturing base by attracting large-scale foreign investment. It focused on companies that represented the future-high technology, high output, and high skills as computer industry, pharmaceuticals and medical technology, followed by international services. Soon investments were won from leading companies, including Amdahl, Baxter Travenol, Digital, Merck Sharpe, Wang, and Warner Lambert. All of these companies were persuaded of the value of using Ireland as an export platform to serve Europe and other markets (Dorgan, 2006). In 1978 Ireland managed to attract up to now a record of $ 375 million in one year.

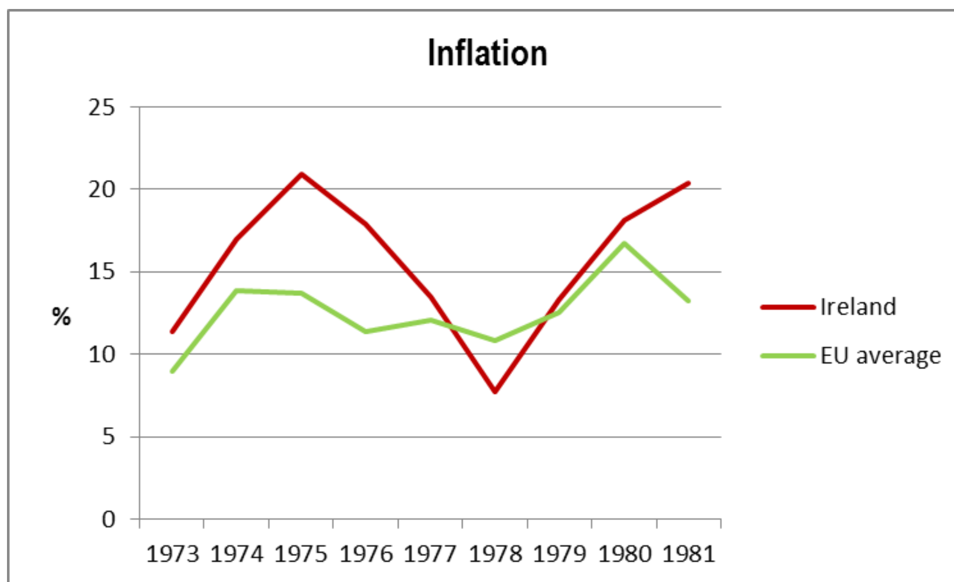

Figure 10: Inflation of Ireland and EU between 1973-81 measured as annual % change in CPI

Source: OECD Statistic 3 and The World Data Bank 2

Ireland accessed EEC with annual inflation change of 11% which was only 2% higher that the EU average and Irish inflation basically copied a trend of the European one for the whole period of 1973-81, only with much bigger fluctuations. While Europe managed to keep its inflation under 14% after the first oil shock, the Irish one soared to over 20% due to ineffective expansionary fiscal policy. In 1978 Ireland managed to get inflation under control and even under EU average, amounting to only 7.7% but this situation changed again after the second oil shock in 1979 which increased prices of inputs and inflation soared above 20% again.

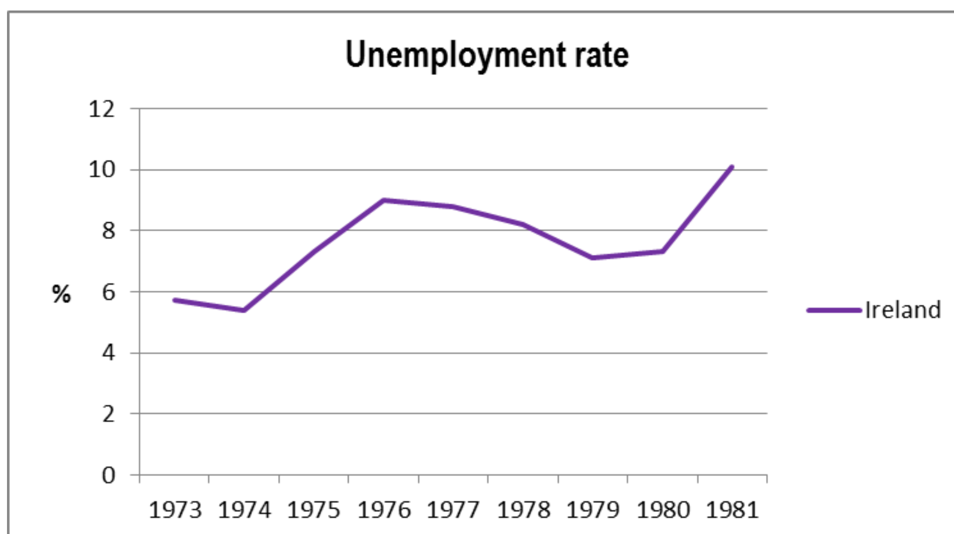

Figure 11: Unemployment rate in Ireland between 1973-81

Source: CSO 1

Despite of the government efforts to create more jobs, at least in the public sector, unemployment rose in Ireland during the first 9 years of its EEC membership. Right after accession unemployment fell a little but as a result of the first oil shock in 1973, unemployment rose by more than 3% over 4 years. Ireland was then again trying to push it back down but with second oil shock, as the economy slowed down, it shot up again, reaching double digit figures.

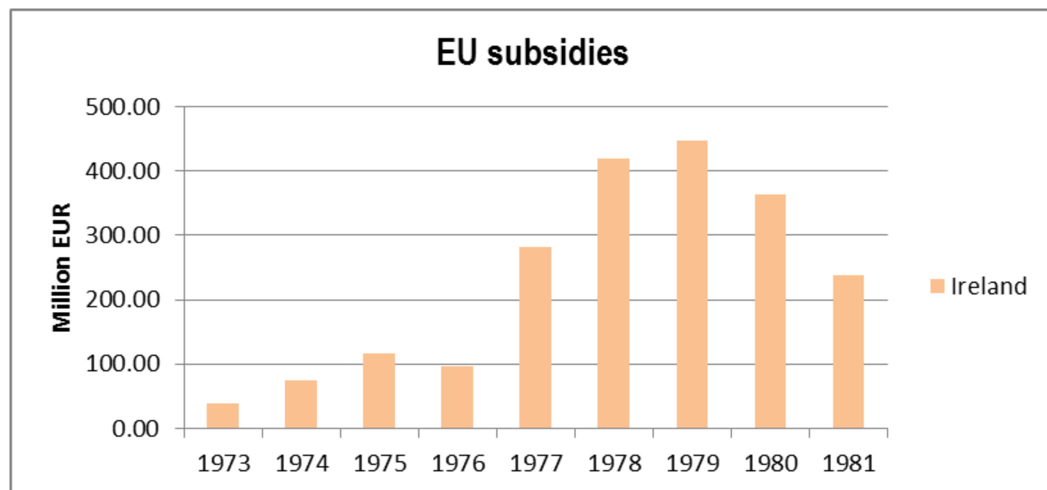

Figure 12: Net inflow of EU subsidies given to Ireland in million EUR during 1973-81

Source: CSO 2

As mentioned earlier, Ireland was a net beneficiary of EEC funding, especially of the Common Agricultural Policy and Regional Development Funds (Irish roads were in a catastrophic shape) (Neil, 2007). From Figure 12 we can see that the inflow of EU money into Irish economy started right after its accession into EEC. Over the first 6 years, the amount of money Ireland received in subsidies from the common budget increased more than 10 times, from 40 million EUR in the accession year to more than 400 million EUR in 1979. The subsequent decrease over the next two years can be ascribed to the recession European economies experienced after the second oil shock, their lower GDP and thus less money to be redistributed.

4.2 Period 1981 – 1989

In 1981 Greece became 10th Member State of the EEC and so its comparison of economic performance with Ireland is now possible. Comparison will be again conducted based on GDP per capita, volume of foreign trade (export and imports), inflow of FDI, government deficit and debt, inflation, unemployment and volume of EU funds provided to both countries. This period is characteristic by an economic recession that occurred in most of European countries.

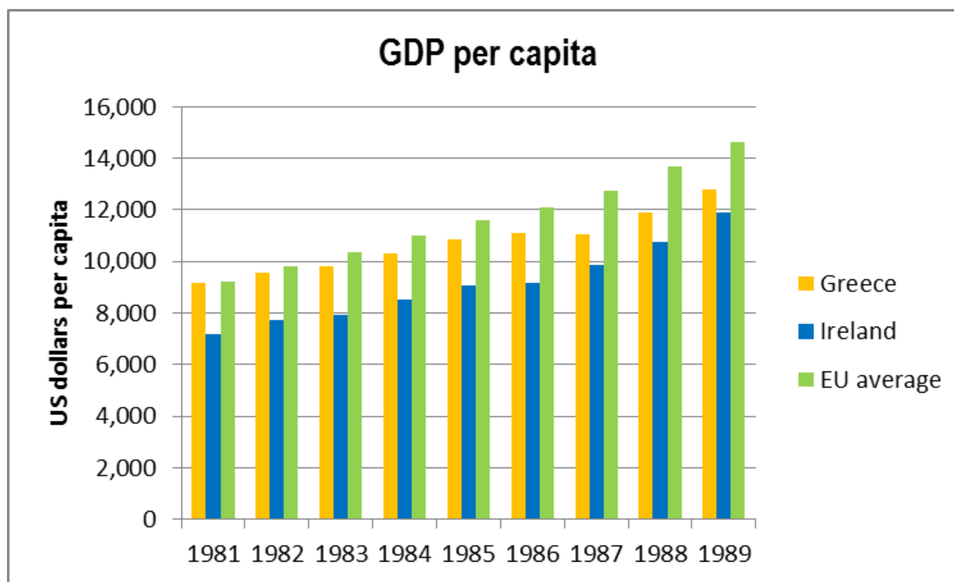

Figure 13: GDP per capita in Ireland and Greece compared to EU average, in US dollars, current prices, current PPPs, 1981-1989

Source: OECD Statistics 1

During ‘80s, GDP per capita of both Greece and Ireland had an increasing trend with Greece performing much better than Ireland and even starting at the same level as was the average of GDP per capita in the whole EU. Taking into account Greek turbulent political history, the fact that Greek GDP was on the same level as in most of the highly developed western countries is quite surprising. The disappointing fact is that it did not manage to keep up the pace even during the first 8-years of its membership despite generous subsidies it received from EEC (Figure 20). Even though Ireland still lags behind EU average, it starts catching up with Greek GDP per capita quite quickly. Irish underperformance compared to the rest of EEC can be attributed to the consequences of events in the ‘70s- oil shocks and the loss of competitiveness on British market. The massive waves of emigration where whole classes of university graduates would leave the country were draining Ireland of human capital, further worsening the situation (Dorgan, 2006).

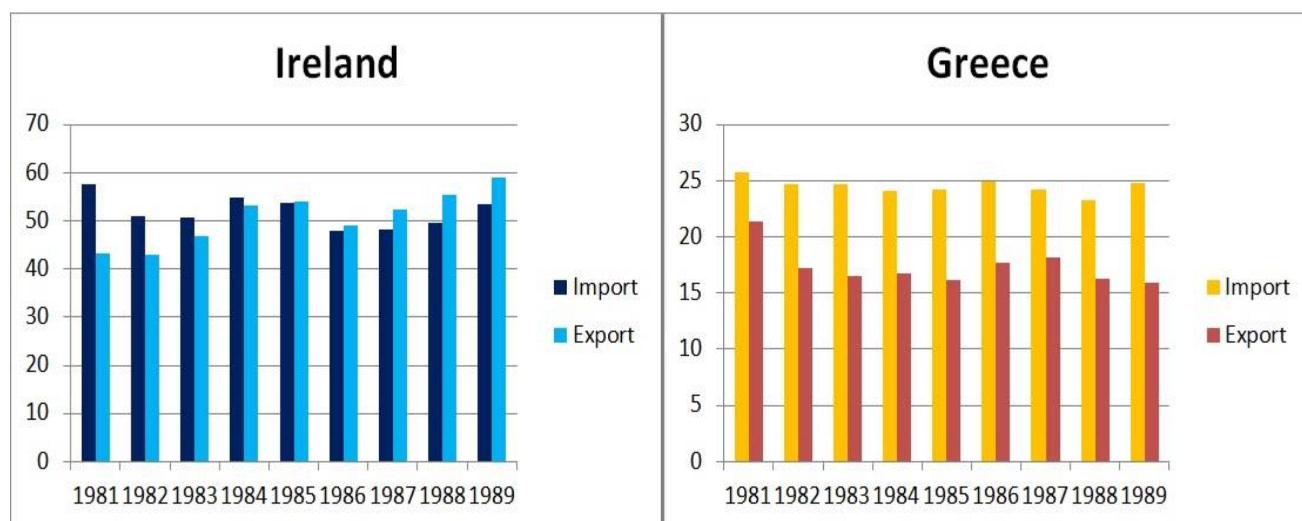

Figure 14: External trade of Ireland and Greece between years 1981-1989 expressed as a % of GDP

Source: OECD Statistics 2

Figure 14 shows that both Ireland and Greece started 1980s with trade deficit- there was a larger inflow of foreign goods than there was outflow of the domestic ones. However, Ireland managed to turn this situation around already in mid-'80s and had a positive trade balance of more than 5% of GDP in 1989 while Greece deepened its trade deficit from 4% in the accession year to 9% in 1989. Irish success can be assigned to the consequences of its accession into EEC itself- Irish agricultural sector thrived due to subsidies received from EEC and access to EEC market allowed Ireland to diversify its export portfolio, both boosting exports. We also need to take into account the scale of the graph. Ireland is very much opened economy with its imports and exports ranging between 40-60% of its GDP. By contrast, Greek imports and exports achieve values only between 15-25% of its GDP. Having highly opened economy means having few barriers to trade and thus being very attractive for international trade but it also means being vulnerable to global shocks which transfer quickly throughout economies.

When it comes to the division of trade according to SITC, Greek strongest export category in this period was 6- Manufactured goods. Important was also category 0- Food and live animals, mainly at the beginning of the period and 8- Miscellaneous manufactured articles towards the end of the period. Greece imported most from the category number 3- Mineral fuels and lubricants and 7- Machinery and transport equipment (Appendix A). At the beginning of this period the biggest export category for Ireland was still 0-Food and live animals (meat was the biggest subcategory) but in 1983 category number 7- Machinery and transport equipment took the first place (office machines and automatic data processing equipment accounted for most within that category). Regarding imports into Ireland, the Machinery and transport equipment category is the leader, out of which the Road vehicles imports are the most significant ones within that category. However, Petroleum, petroleum products and related materials are very strong import group as well (Appendix B).

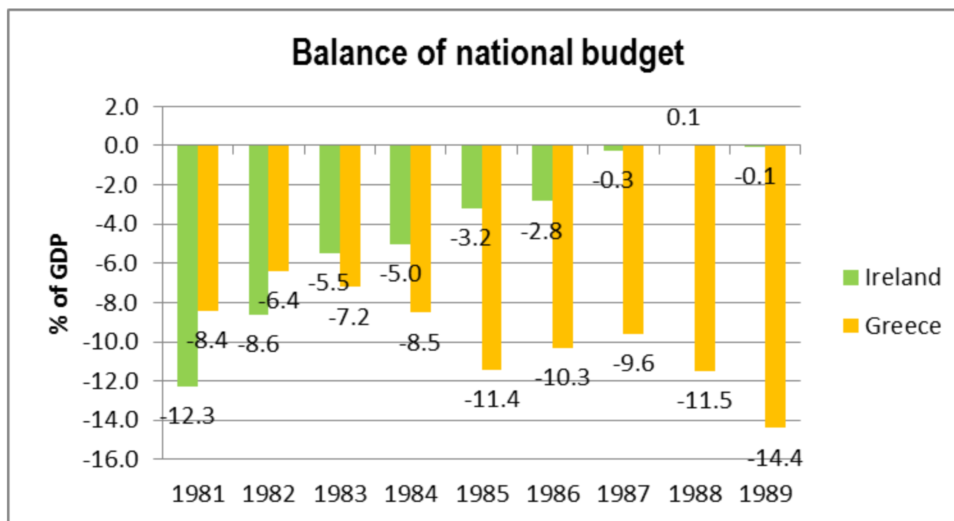

Figure 15: Deficit/ surplus of national budgets of Ireland and Greece expressed as % of GDP

Source: AMECO 1

Both Ireland and Greece started the '80s with large deficits in national budgets (12% and 8% respectively). But while Irish deficit was being slowly but surely reduced over the studied period, the Greek one was getting bigger still, reversing the position of those two countries. This has got to do with the political situations in both countries. In Greece, it was the New Democracy (centre-right political party) headed by K.G. Karamanlis that led Greece into EEC but in the very first year of their membership, Greek people elected PASOK (Panhellenic Socialist Movement) with Andreas Papandreou as their leader (Nations Encyclopedia, 2016). In Ireland the two strongest political parties (Fianna Fáil and Fine Gael) were taking turns in the office but both of them were acting quite responsibly. But it was the Fianna Fáil which surprised many by finally getting the Irish public finances under the control in 1987 (Department of Taoisigh, 2013 and Dorgan, 2006). While Irish people finally elected a government which started cutting public expenditures, Greek people preferred to go the easy way, with socialist government spending public money on social contributions. Greece also had to finance a significant current account (trade) deficit while Ireland was slowly creating a current account surplus which brought money into economy rather than taking them out. This resulted in Greece ending the '80s with budget deficit over 14% of GDP in a single year when Ireland managed to have only minor deficit of 0.1% of its GDP.

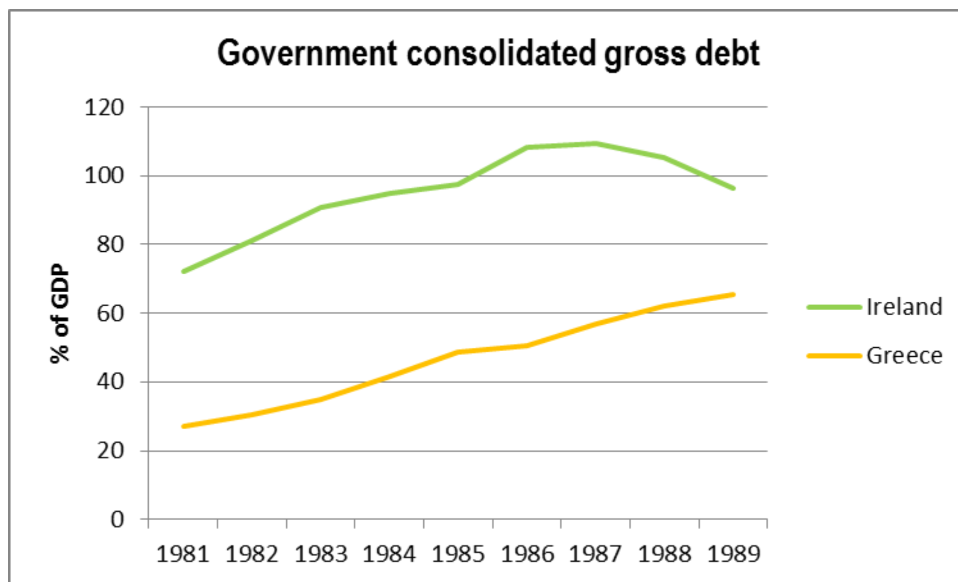

Figure 16: Government debt as % of GDP in Ireland and Greece between 1981-89

Source: AMECO 2

The development of public spending of both countries is reflected in their public debt (Figure 16). Even though Irish public debt is rising for most of this period, reaching an alarming 109% of GDP in 1987, the cuts in public spending start to show towards the end of the period when Irish debt finally starts to fall to levels below 100% of GDP again. Greece, on the other hand, starts this period with very sustainable public debt of 27% of their GDP. But due to large public expenditures it grows rapidly, reaching more than 65% of GDP in 1989.

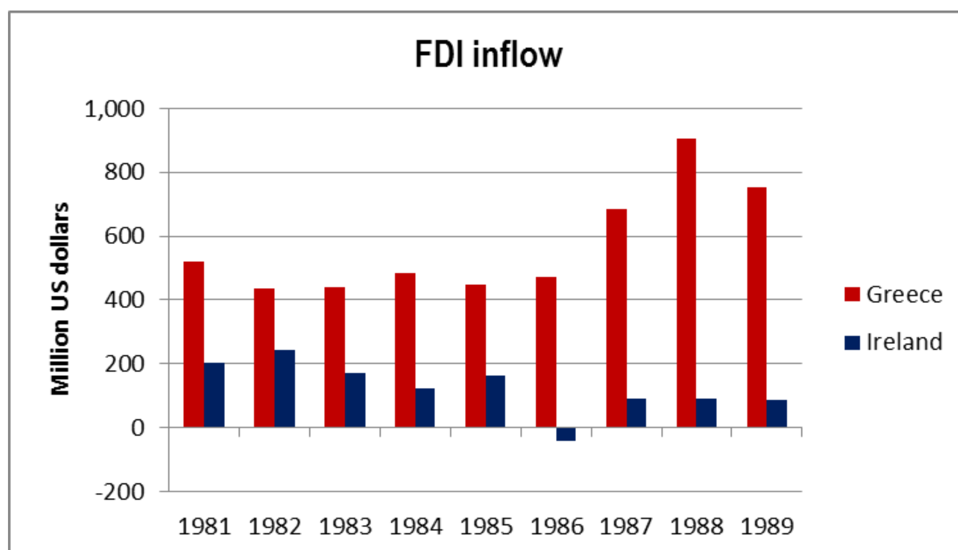

Figure 17: Net inflow of FDI into Greece and Ireland in million US dollars between 1981-1989

Source: The World Data Bank 1

Even though IDA (Industrial Development Authority) continued to attract foreign investors (IBM, Lotus, Microsoft, and Bausch & Lomb, among many others) in the 1980s (Dorgan, 2006), the inflow of FDI into Ireland was disappointing. The

average annual FDI inflow during this period amounted to mere $ 125 million, compared to almost $ 200 million in previous period. There was even a net outflow in 1986 of $ 40 million. Greece, on the other hand, managed to attract an average of $ 570 million in FDI every year between 1981 and 89, with a record of over $ 900 million in a single year of 1988. Greek success in attracting FDI can be ascribed to government incentives and consequences of the entry to EEC itself which always rises confidence of investors in newly accepted state.

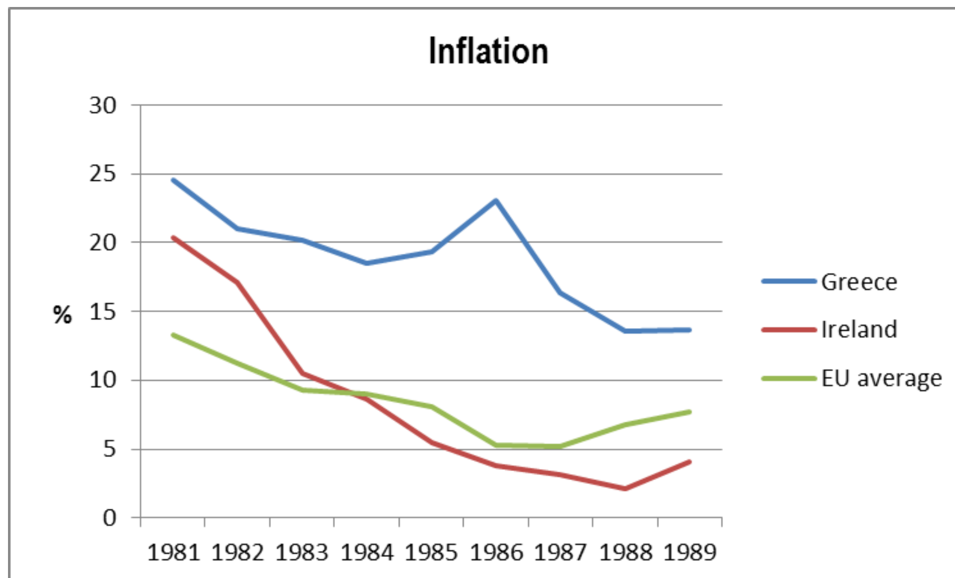

Figure 18: Inflation of Greece, Ireland and EU between 1981-89 measured as annual % change in CPI

Source: OECD Statistic 3 and The World Data Bank 2

To sustain employment and to be able to pay for generous unemployment benefits, Greek central bank which was very much under the control of Greek government, had to run expansive monetary policy for quite some time (Neil, 2007). This resulted in inflation far in excess of other EEC countries even though Greece managed to push it down by more than 10% in the first eight years of their membership (from 25% in 1981 to 14% in 1989). Ireland also started with high level of inflation in 1981 but managed to push it down by incredible 18% (from 20.4% in 1981 to 2.1% in 1988 which was its lowest level in this period). That way Irish inflation was even well below EEC average.

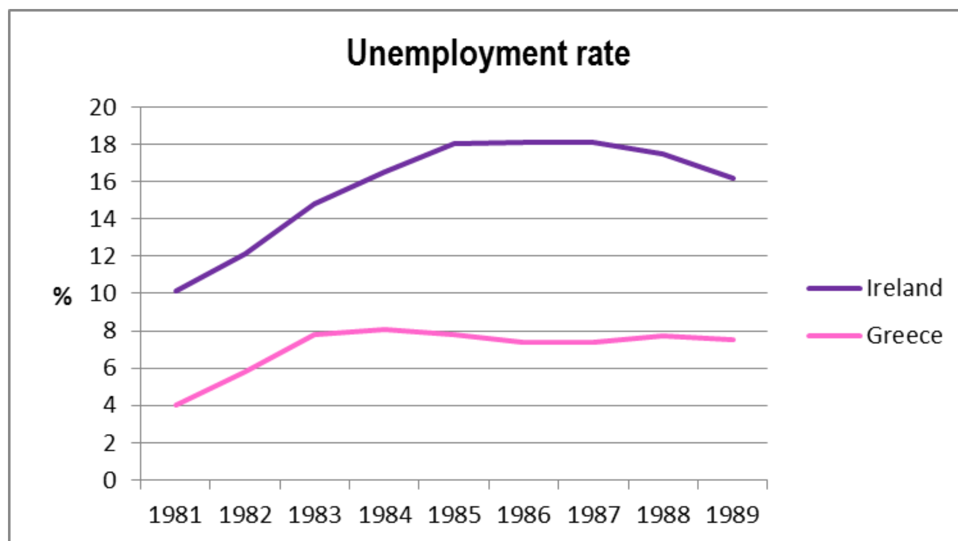

Figure 19: Unemployment rate in Ireland and Greece between 1981-1989

Source: CSO 1, Eurostat 3 and ELSTAT

When looking at unemployment rate figures, Greek performance is much better than the Irish one during the whole period. Even though the unemployment rates of both countries went up, Greece managed with an average of 7% while almost 16% of Irish labour force was unemployed. Jobs created by new foreign investment in Ireland were substantial but still inadequate to employ the growing workforce and counter the failure rate of older businesses which could not cope with rising international competition (Dorgan, 2006).

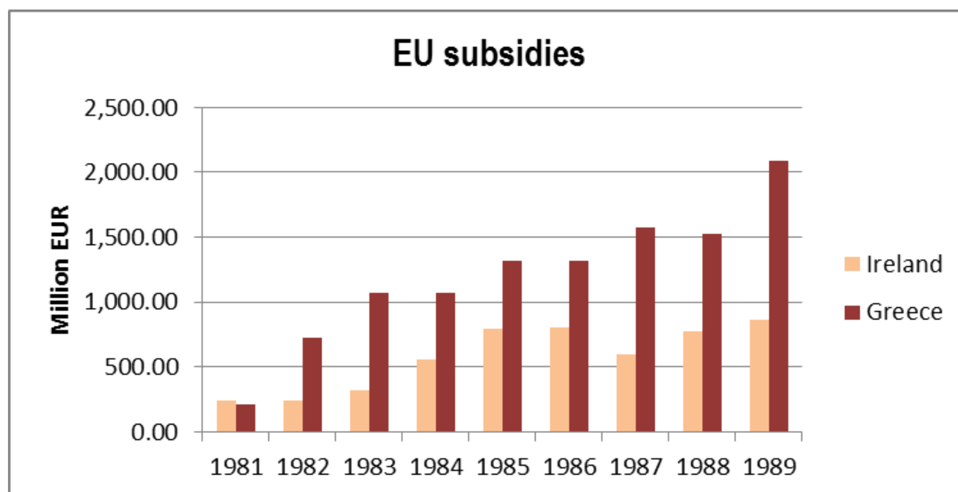

Figure 20: Net inflow of EU subsidies given to Ireland and Greece in million EUR during 1981-89

Source: CSO 2 and Money-Go-Round.Eu

Even though Greece received generous subsidies from EEC in the first 8 years of its membership, the figures on economic performance bear no sign of that. As shown earlier in this chapter, Greek GDP per capita was at the same level as the EEC average in the accession year but immediately started lagging behind. The reason is that instead of being used to boost the economy, the subsidies and agricultural protection provided by EEC were directed by Greek socialist governments

as political favours inside Greece (Neil, 2007). Nevertheless Greece received on average 1200 million EUR every year during this period from the common budget which was more than double the amount Ireland did. Ireland, on the other hand, thrived under the EEC membership. The average yearly amount of subsidies received from EEC more than doubled compared to previous period (Ireland received 230 mil EUR annually in '70s compared to almost 600 mil EUR every year in the '80s), with agriculture being heavily subsidized (Neil, 2007).

4.3 Period 1989 – 1997

The period between 1989 and 1997 was very turbulent. The Soviet Union falls apart, allowing Austria, Finland and Sweden to become EU members. EEC officially becomes the EU and the project of monetary union within Europe is launched. This period is known for Ireland becoming the 'Celtic Tiger' and overall favourable economic conditions in the whole Europe. Greece and Ireland will again be compared based on GDP per capita, volume of foreign trade (export and imports), inflow of FDI, government deficit and debt, inflation, unemployment and volume of EU funds provided to both countries.

This is the period when the 'Irish Economic Miracle' happened. The effects of deregulation, reduced interest rates and foreign investor's confidence in Irish punt that started in the'80s now finally show results. Due to this, investments grew rapidly which in turn led to sharp economic growth, rising per capita incomes and rapid fall in government deficits and stock of debt. Much lower interest rates demanded by bondholders reduced government expenditures on debt service, turning national budget deficit into surplus reducing public debt even further. This also caused the crowding-in effect of private investment (mostly financed by foreigners) and turned net emigration into immigration when Irish workers finally started returning to Ireland as it was now much more attractive for them (Neil, 2007). However, those are also the years when the unsustainable boom of Irish economy started and later inevitably had to lead to recession and bubbles bursts and unfortunately ended up in the Global Financial Crisis of 2008-9.

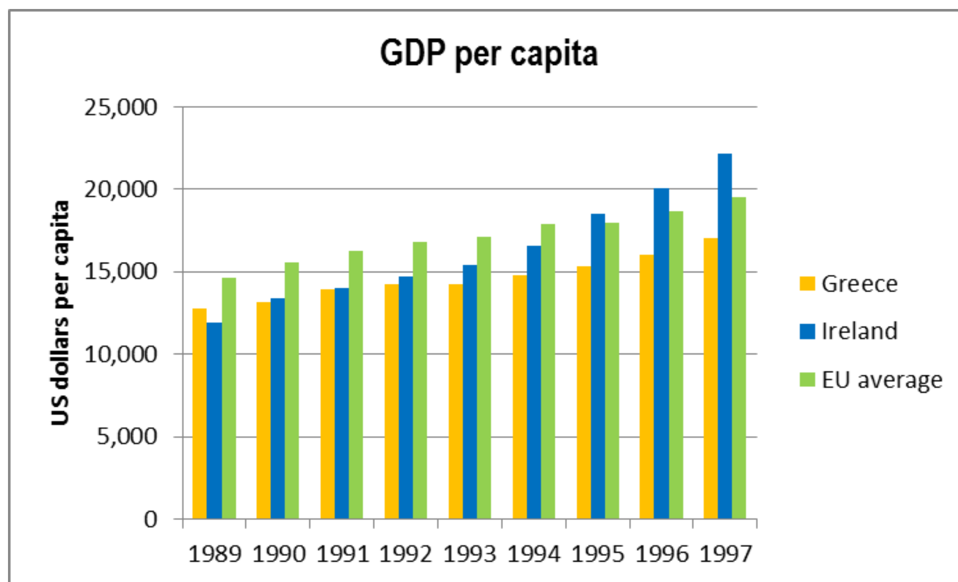

Figure 21: GDP per capita in Greece and Ireland compared to EU average, in US dollars, current prices, current PPPs, 1989-1997

Source: OECD Statistics 1

It was already in 1990 when Ireland outperformed Greece and started getting closer to the EEC average. In 1995 economic growth of Ireland finally picked up and even outpaced other European countries. A number of factors, including favourable demographics, a well-educated workforce, high productivity and a business-friendly environment, with low corporate tax rates, allowed for this growth and enabled Ireland to position itself as a gateway to EU markets (Dorgan, 2006). For most of the '90s Greece kept a steady growth pace. It was still lagging behind EU average and getting well behind Irish performance but it was growing. The reason for the slow growth is the same as in the previous decade- ineffective use of generous EU subsidies towards political favours rather than to promote economic growth and high public spending on social contributions and defence (Neal, 2007).

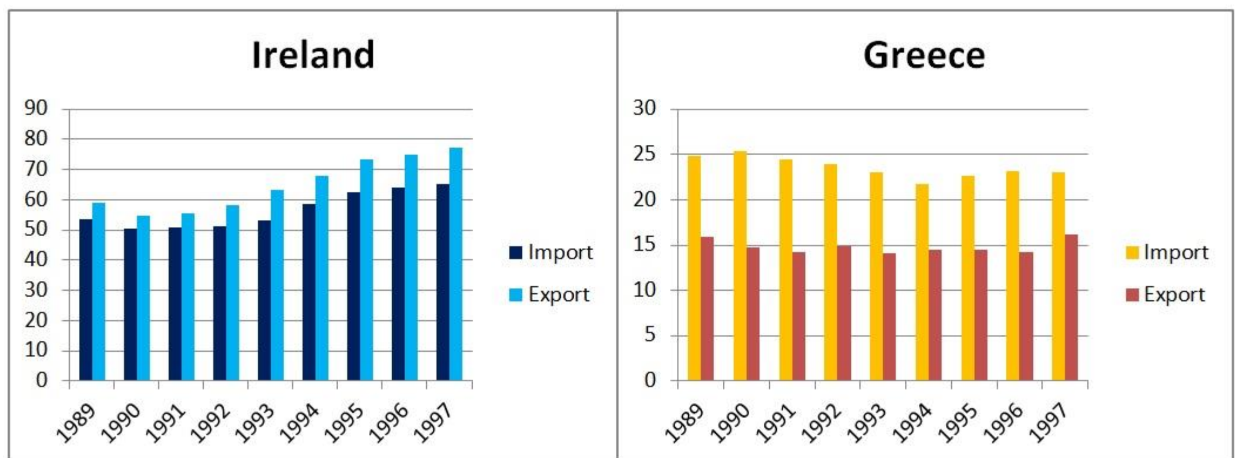

Figure 22: External trade of Ireland and Greece between years 1989-1997 expressed as a % of GDP

Source: OECD Statistics 2

During this period, Irish external trade has been doing especially well. It managed to keep its positive trade balance (it exported more than it imported) and recorded overall steep growth in both exports and imports. While the average external trade of Ireland represented between 40-60% of GDP in the previous period, it does not fall below 50% this period and even reaches a record of 65% of imports and 77% of exports in 1997. Situation in Greece, compared to the previous period, is getting worse. While exports are now stagnating around 15% of GDP the whole period between years 1989-97, imports to Greece have even decreasing trend, reaching only 21.7% in 1994. Due to the reform in CAP introduced in 1992, which put quantitative restrictions on imports of meat from the Third World countries, Greece was not able to import cheap animal products from traditional Mediterranean regions anymore and thus lost their comparative advantage in agriculture (Neil, 2007).

When we look at the SITC division of trade again, Greece exported most of Miscellaneous manufactured articles and the largest part of imports was within the Machinery and transport equipment category (Appendix A). In Irish import portfolio it is still the Machinery and transport equipment category being the most dominant one, within which the Office machines and automatic data processing equipment subcategory prevails. The situation on the export side is the same- Office machines group is leading the Machinery and transport equipment category while being the single most important export subcategory (Appendix B).

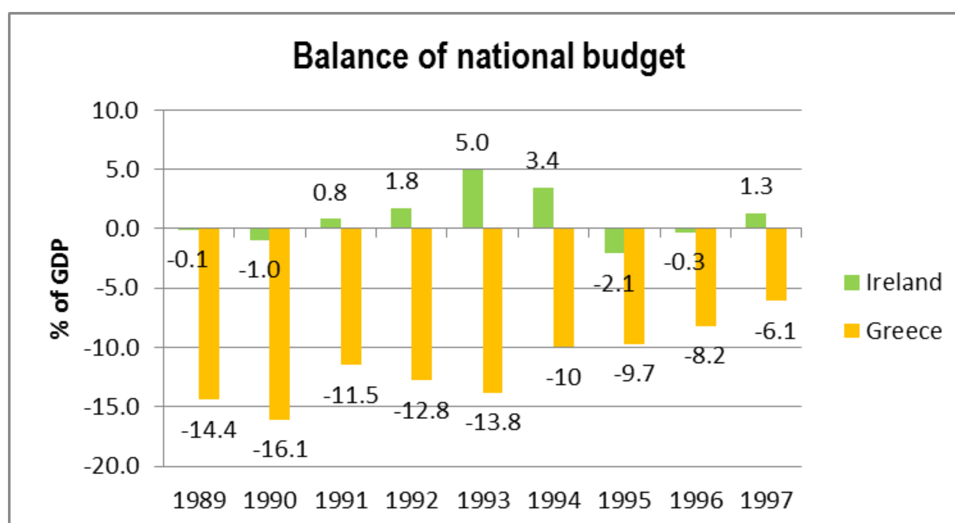

Figure 23: Deficit/ surplus of Irish and Greek national budgets expressed as % of GDP

Source: AMECO 1

Irish path to success started with severe cuts in government spending as we can see in Figure 23 which was pursued by newly elected government of Fianna Fáil in the previous period, led by Ch. Haughey and later by A. Reynolds (Department of the Taoisigh, 2013). In first two years of this period Irish government ran very moderate budget deficits and year 1991 finally brought a budget surplus. The positive development continued and led to a record of 5% budget surplus in 1993. Even though the cuts in public spending were initially heavily criticized, the depth of budgetary crisis made government, businesses, trade unions and farmers to agree on their necessity. Where government did invest, however, were telecom-

munications. Late but heavy investments in this sector served Ireland well because it provided the most advanced and comprehensive digital network in Europe (Dorgan, 2006). In late 1994 Fine Gael comes into power again, turning budget surplus into deficit but only a moderate one (Department of the Taoisigh, 2013). The same cannot be said about Greece. Throughout the whole period, Greek government runs a budget deficit on average amounting to 11% of Greek GDP, partly in need to finance its current account deficit. The return of centre-right New Democracy between 1990 and1993 does not seem to help with getting the public finances under the control (Nations Encyclopedia, 2016). Greek government does, however, manage to cut public spending and lower the budget deficit towards the end of the 1989-97 period as a result of the need to fulfil Maastricht convergence criteria to adopt euro (the cabinet in charge was PASOK again, led firstly by Andreas Papandreou and later by Costas Simitis) (Nations Encyclopedia, 2016).

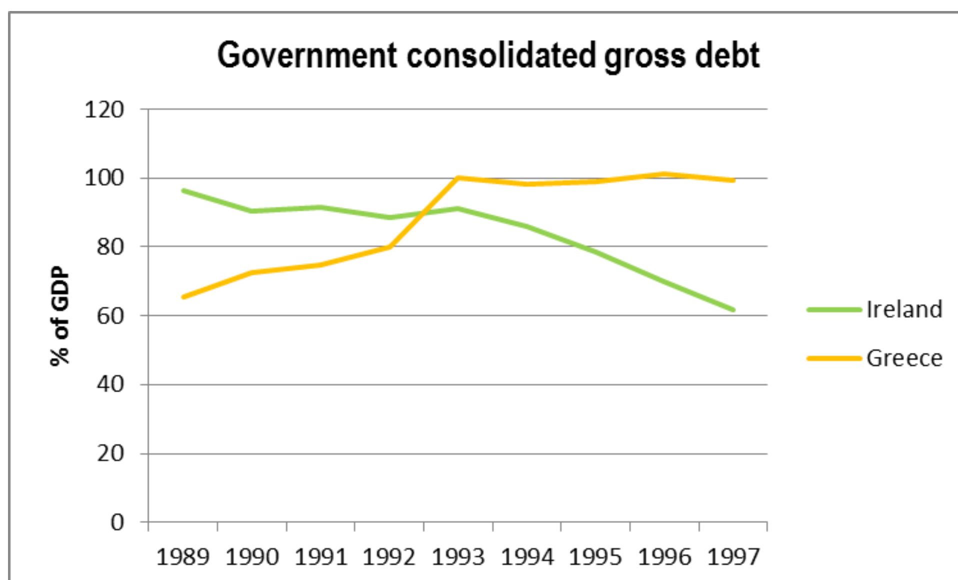

Figure 24: Government debt as % of GDP in Ireland and Greece between 1989-97

Source: AMECO 2

Better budget balance results of Greek government are not reflected in the level of public debt though. What started as 66% of GDP in 1989 became 100% of GDP in 1993 and has been oscillating around this value for the rest of this period. The case of Ireland seems to be the very opposite. Irish government started to bring its debt down right after the second oil shock and continues with this trend throughout the whole '90s, almost breaking the 60% line. Figure 24 shows the result of the cuts in government spending- effects of restrictive fiscal policy which started in '80s were finally paying off.

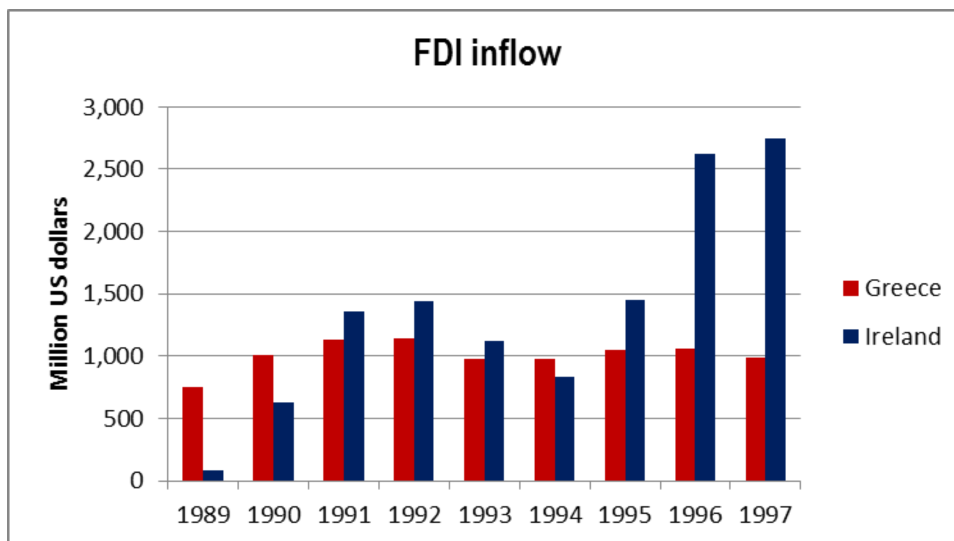

Figure 25: Net inflow of FDI into Greece and Ireland in million US dollars between 1989-1997

Source: The World Data Bank 1

The '90s saw a huge increase in FDI inflow into Ireland which is believed to be due to the very favourable conditions in business environment, mainly low corporate tax companies had to pay on their income and resumed confidence of investors in Irish punt. The changes towards attractive taxing policies started already in the '80s and the period of 1989-97 finally show the results of that. It must be pointed out, however, that the primary source of FDI inflow was the USA (Dorgan, 2006). Until 1995 Greece managed to keep pace with Ireland- on average their FDI inflow was comparable, with Greece still outperforming Ireland in some years. From 1996, however, the amount of FDI inflow into Ireland more than doubles while Greek FDI still stagnates around $1 billion annually and this trend is not about to change during next two decades.

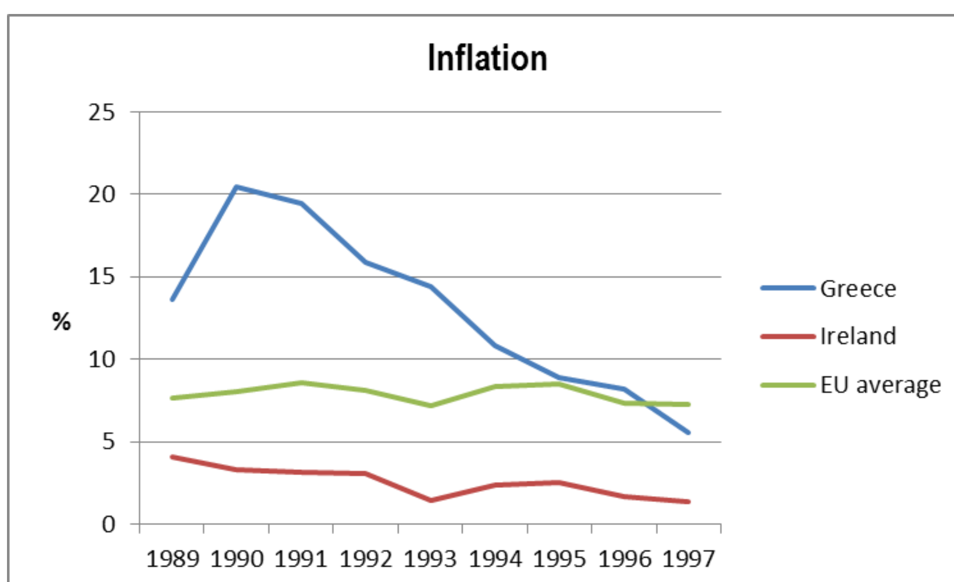

Figure 26: Inflation of Greece, Ireland and EU between 1989-97 measured as annual % change in CPI

Source: OECD Statistic 3 and The World Data Bank 2

During '90s Ireland managed to keep its inflation among lowest in Europe. This can be attributed to expenditure cuts, only moderate wage increases and reductions in direct income taxes pursued by a Fianna Fáil government elected in 1987 (Department of the Taoisigh, 2013). This Program for National Recovery helped to break the spiral of inflationary wage increases and ensured industrial peace (Dorgan, 2006). Greece, on the other hand, emerged as a country with one of the highest inflation in the EEC (in 1990 Greece had 20% annual increase in prices even though it managed to bring it down to 14% in the previous period). However, in order to be able to replace drachma and accept Euro as their single currency, Greece desperately needed to bring its inflation down to meet the Maastricht criteria. A significant decline in the level of inflation can be seen in the Figure 26- Greek inflation decreased by incredible 15% over 7 years and managed to get below EU average by the end of 1996.

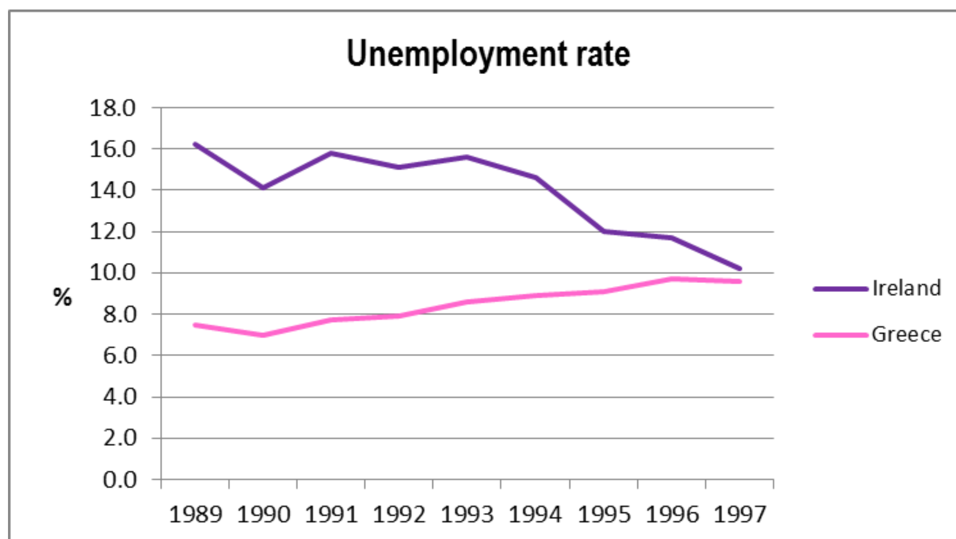

Figure 27: Unemployment rate in Ireland and Greece between 1989-1997

Source: CSO 1, Eurostat 3 and ELSTAT

Persistent labour market rigidities (restrictions on private firms dismissing employees and generous unemployment benefits) stood behind rising unemployment level in Greece. Even though Greece started this period much better off than Ireland (7.5% compared to Irish 16%), the amount of unemployed in Ireland was continuously decreasing (it went down by 6% over 9 years) while there were more unemployed in Greece by 1997 when Ireland almost caught up with Greece. The fall in Irish unemployment level is an overall result of the 'Celtic Tiger' economy, mainly high level of investments which led to creation of many new jobs.

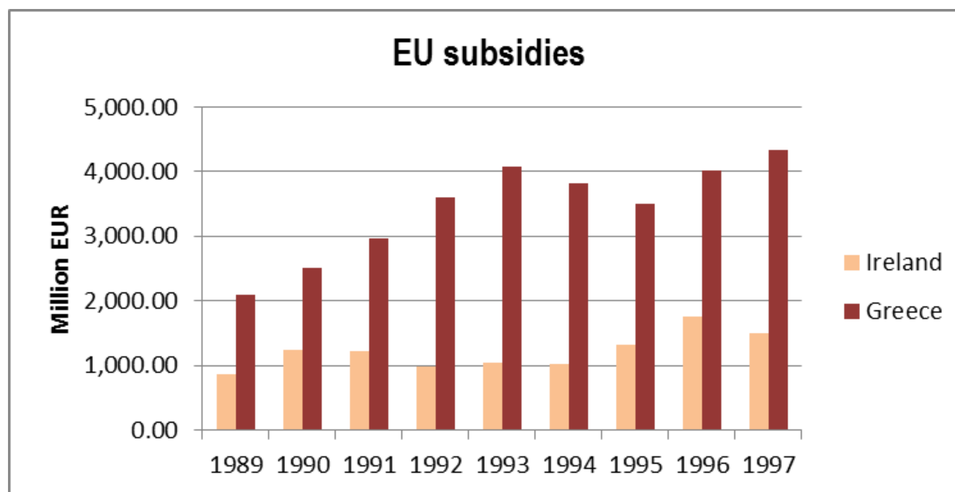

Figure 28: Net inflow of EU subsidies given to Ireland and Greece in million EUR between 1989-97

Source: CSO 2 and Money-Go-Round.Eu

To support slowly growing economy, Greece was receiving more and more money in EU subsidies, most of which were to help agriculture and later in the period, structural development of Greek economy (Money-Go-Round.Eu, 2014). In 1997, Greece received the highest amount of EU support so far, amounting to more than 4.3 billion euro in a single year. Ireland, on the other hand, kept receiving quite stable amounts of EU support as their economy was performing quite well already. On average, Ireland got 1.2 billion euro annually during this period.

4.4 Period 1997 – 2005

Period between 1997 and 2005 saw the full strength of the Celtic Tiger. Irish economy expanded rapidly, mainly because of huge FDI inflows. European Union made its largest enlargement ever, accepting 10 new members in 2004, most of them post-communist countries with newly established democratic regimes and market economy. Internet boom led to the 'dot-com bubble' burst and Irish economy started showing first signs of unhealthy growth. Both Greece and Ireland enter Eurozone (Ireland in 1998 and Greece in 2000) and thus adopt euro as their single currency. Greek Eurozone entry later turned out to be a big controversy as Greek government was accused of under-reporting some statistics, mainly the level of budget deficit and public debt to fulfil the Maastricht criteria. GDP per capita, volume of foreign trade (export and imports), inflow of FDI, government deficit and debt, inflation, unemployment and volume of EU funds provided to both countries will be again the basic criteria for comparison of Greece and Ireland in this period.

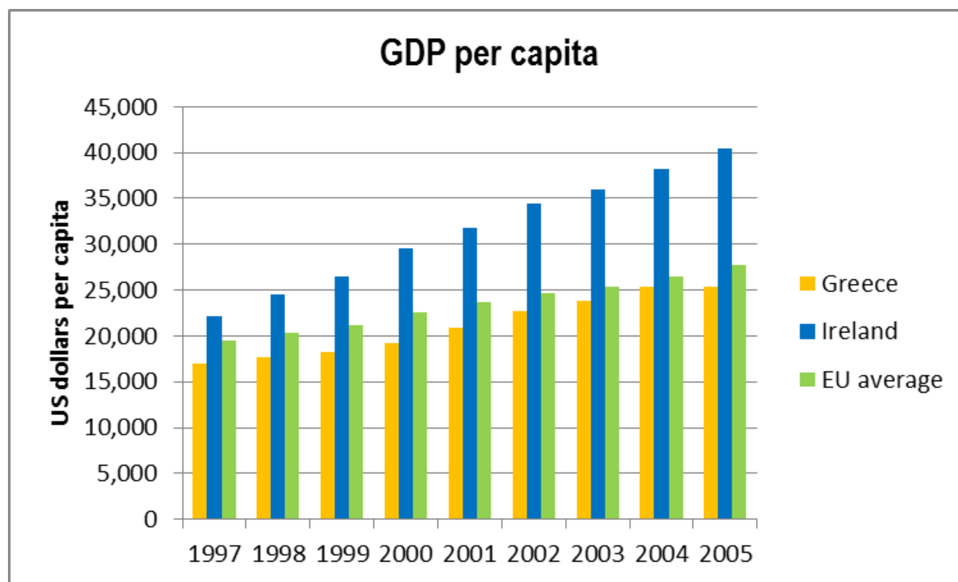

Figure 29: GDP per capita in Greece and Ireland compared to EU average, in US dollars, current prices, current PPPs, 1997-2005

Source: OECD Statistics 1

The economic growth in Ireland in this period is remarkable. Irish GDP per capita continues to outperform the Greek one as well as the EU average by a lot. Irish economy grows on average by more than 7% annually, compared to 4% annual growth of Greek GDP (which is still a very good result). From mid '90s productivity in Ireland was increasing, their fiscal position was very strong and Irish economy was experiencing healthy expansion. However, from year 2002, the nature of the boom began to change. Labour productivity was no longer increasing and growth in GDP became increasingly related to the housing market. Across the entire economy, wage increases started threatening competitiveness (European Commission, 2012). Greece, however, experiences boom as well. 4% annual growth of GDP is indeed a great performance and from the Figure 29 we can see that the differences between Greek GDP per capita and EU average are getting smaller. Neither in the Greek case was the growth healthy though. The problem was not only that government spent more than it collected in taxes but also private sector was borrowing money abroad to finance its overconsumption which resulted in this illusive economic growth (Higgins and Klitgaard, 2014).

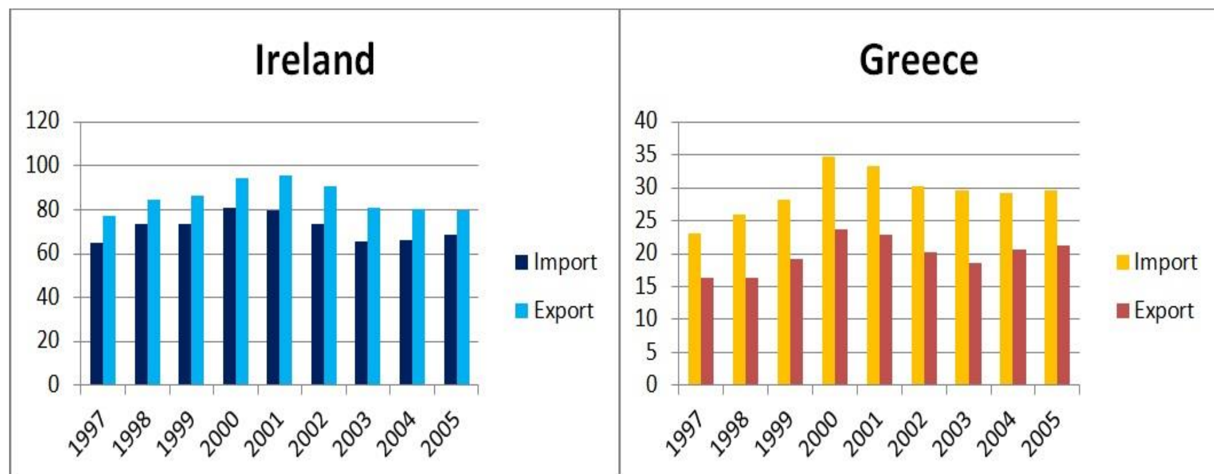

Figure 30: External trade of Ireland and Greece between years 1997-2005 expressed as a % of GDP

Source: OECD Statistics 2

As we can see from the Figure 30, Irish exports and imports were still growing until year 2001 where exports reached more than 95% of Irish GDP and imports broke the 80% line the year before. From 2002, however, both imports and exports started falling, showing that Irish goods were not competitive anymore due to the rising inflation (prices as well as wages went up while labour productivity went down) (European Commission, 2012). A similar trend can be observed in the case of Greek external trade. Exports but mainly imports were increasing until year 2000 quite rapidly when they reached their peaks. Over the next two years imports fell by 5% but after that remained almost constant till the end of this period. Exports fell as well after year 2000 but soon resumed their growth. Greece is, however, still running large trade deficits.

According to SITC, Greek strongest exports were within two categories- 6-Manufactured goods and 8- Miscellaneous manufactured articles. On the other hand, Greece imported most from 7- Machinery and transport equipment category (Appendix A). Until 2001, the subcategory Office machines and automatic data processing equipment still prevails in Irish export portfolio. From 2002, however, the export focus shifts from the Machinery and transport equipment to Chemicals and related products category. In particular, the most important subgroups are the Organic chemicals and medicinal and pharmaceutical products. Regarding Irish import portfolio, the Office machines and automatic data processing equipment still makes the most important group. Electrical machinery, appliances etc. make a significant import category as well (Appendix B).

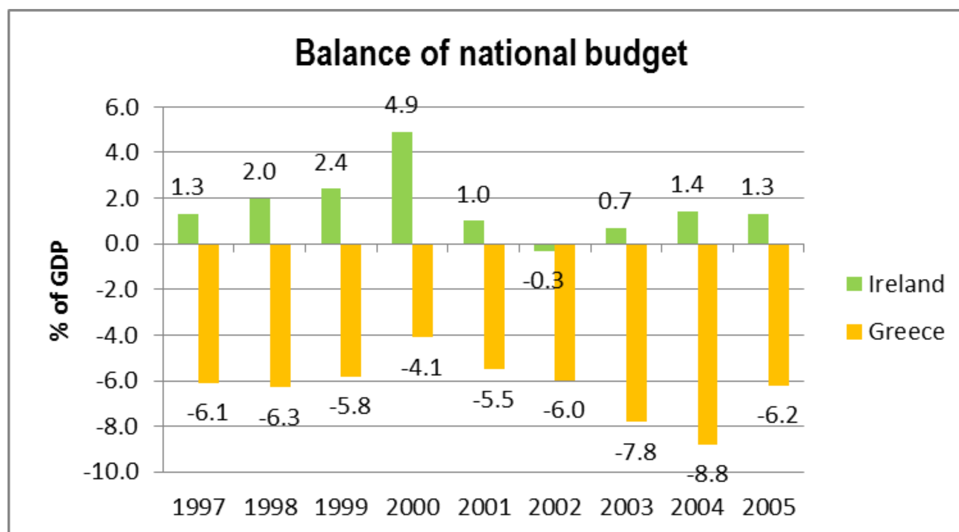

Figure 31: Surplus/ deficit of Irish and Greek national budget expressed as % of GDP

Source: AMECO 1

Irish performance in the area of public finance is extraordinary. With just couple of exceptions, Irish government managed to run budget surplus since 1991 and continues doing so for most of this period, thus radically reducing its debt (see figure 32) as Fianna Fáil remains in the office for the entire period, headed by Bertie Ahern (Department of Taoisigh, 2013). Unfortunately, since the resumed growth of budget surplus in 2003 most of state's revenues came from only one source of income- taxes related to the property market. From now on we can observe how the property market bubble, which was the main cause of the troubles Ireland had later, is being created. Greek government with PASOK still in power (Nations Encyclopedia, 2016), on the other hand, is running its typical expansionary policy in this period, spending huge amounts of money on defence in a fear of their neighbours from the Middle East, mainly Turkey (The Guardian, 2015). The deficit of Greek budget amounts on average to 6% of GDP annually and shows no sign of improvement. Figure 31 also shows that Greece failed to fulfil the deficit-to-GDP ratio criterion (one of the Euro convergence criteria) but was accepted into Euro zone anyway (even though with one year long delay). Only in 2004, the socialist government PASOK is finally replaced by New Democracy, now led by Kostas Karamanlis and Greek budget deficit finally stops growing (Encyclopaedia Britannica, 2016).

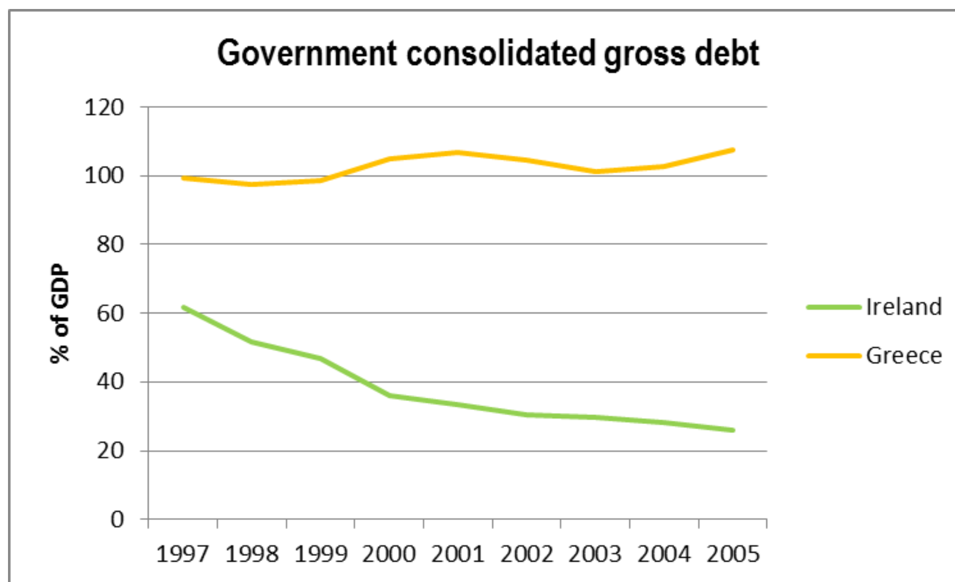

Figure 32: Government debt as % of GDP in Ireland and Greece between years 1997-2005

Source: AMECO 2

Figure 32 shows the results of Greek long-term overspending. Greek debt does not grow rapidly but reaches more than 100% of GDP, breaking again one of the Maastricht convergence criteria by 40%. Greek overspending can be ascribed to adoption of euro in 2001. The new currency kept borrowing costs down for government as well as for the commercial banks who could now borrow for rock-bottom interest rates, as the financial markets ascribed the same risk premium to all the countries using euro (The Guardian, 2015). Figure 32 also shows the positive results of Ireland's cumulated budget surpluses. Its debt went down by more than 35% of its GDP during the period of 1997-2005.

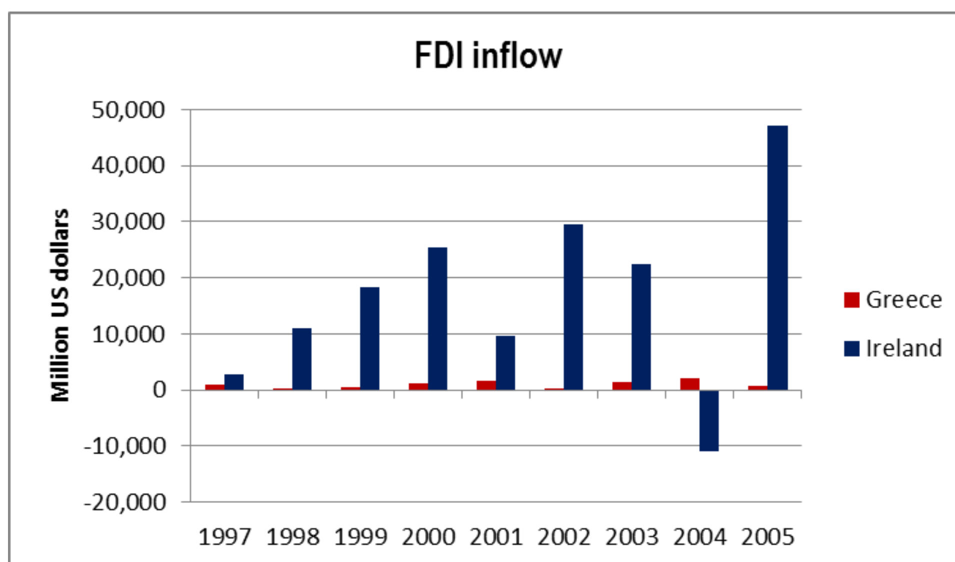

Figure 33: Net inflow of FDI into Greece and Ireland in million US dollars between 1997-2005

Source: The World Data Bank 1

Over the previous period the average annual FDI inflow into Ireland was around 1.3 billion USD. In this period FDI inflows started growing so rapidly that Table 1 had to be used to allow us to see the FDI amounts Greece received. Between 1997 and 2005 more than 17 billion USD was invested from abroad to Irish economy on average every year- 13 times more than in the previous period. As we can see in the Table 1, FDI inflows into Greece are fluctuating a lot but are nowhere near comparable to the Irish levels. On average, 940 million USD was invested in Greece every year.

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	984.00	73.28	567.30	1,083.40	1,585.00	53.06	1,331.69	2,104.99	689.96

Table 1: Net inflow of FDI into Greece in million USD

Source: The World Data Bank 1

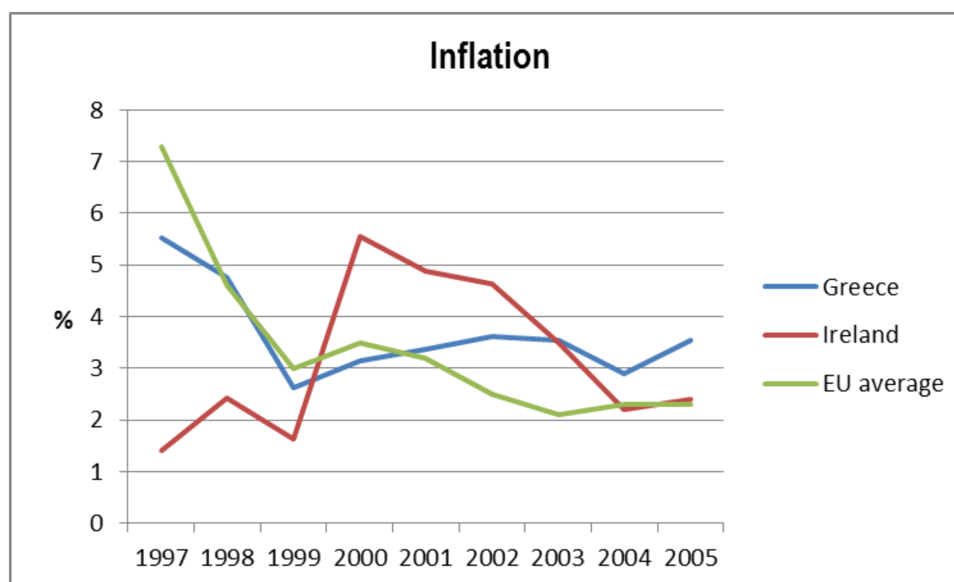

Figure 34: Inflation in Greece, Ireland and EU between 1997-2005 measured as annual % change in CPI

Source: OECD Statistic 3 and The World Data Bank 2

The inflation of both Greece and Ireland soared after they accepted euro. However, the case of Ireland was much more dramatic. Their inflation managed to jump up by 4% within only one year and was brought down to its previous levels by the end of this period. However, the IMF warned Ireland already in 2000 that Irish property prices were almost certainly heading for a collapse in the medium term since "no industrial country in the last 20 years had experienced price increases on the scale of Ireland without suffering a subsequent fall" (IMF, 2000). Greece, as well as other European countries, had to bring its inflation down to more sustainable levels at the beginning of this period to be able to adopt euro and it managed to do so. After its lowest value of 2.6% in 1999 Greek inflation did rise a bit again but stayed around 3% annually for the rest of the period.

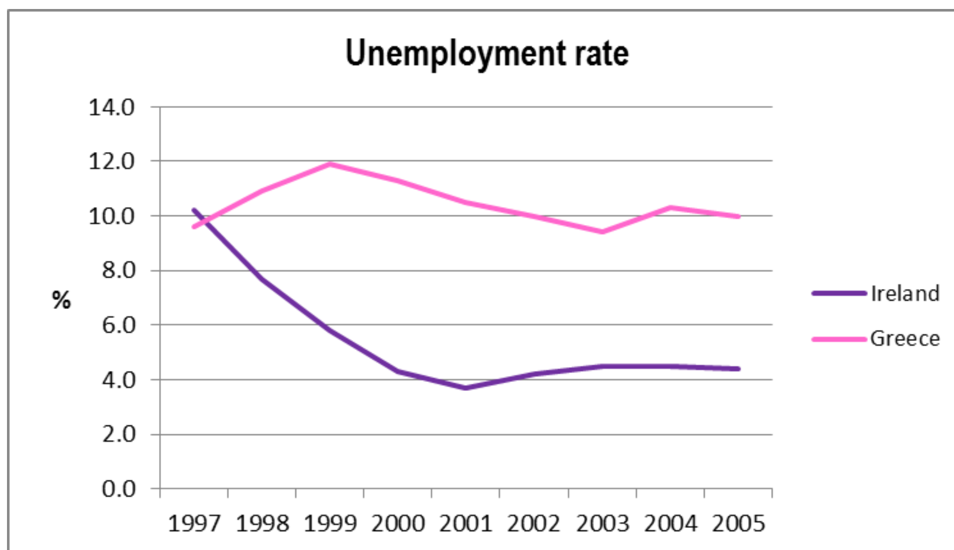

Figure 35: Unemployment rate in Ireland and Greece between 1997-2005

Source: CSO 1, Eurostat 3 and ELSTAT

Even though Greece managed to bring its unemployment levels down by 2.5% over four years, rigidities on Greek labour market continue to discourage the private sector to hire more people and thus the amount of people who are out of work in the whole country remain high. And even the increase in employment between 1999 and 2003 can be ascribed only to the public sector (Neil, 2007). In Ireland, on the other hand, the period between 1997 and 2001 saw drop in unemployment by 6% to only 4%- this level is being considered by economists as to be around "full employment". Moreover, Ireland managed to keep this level for the rest of the period.

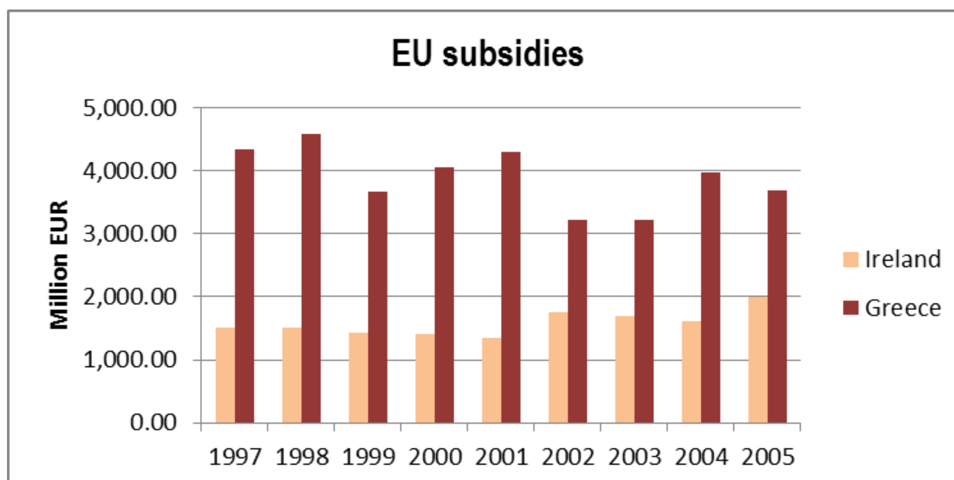

Figure 36: Net inflow of EU subsidies given to Ireland and Greece in million EUR between 1997-2005

Source: CSO 2 and Money-Go-Round.Eu

After a long period as one of the EU's main recipients of investment aid, the amounts of money Greece received per year stopped growing. Brussels switched

its support to new joiners in the east and the Baltic nations that had entered the EU and wanted to join preparations for the euro (Guardian, 2015). However, Greece still receives high levels of EU support, almost 3.9 billion EUR on average every year during this period. EU subsidies going to Ireland amount to 'only' 1.6 billion EUR on average annually during this period and have rising trend towards the end. Most heavily subsidized sector of Irish economy is still agriculture. Greece received most of the money from the Structural Fund to help underdeveloped regions (Money-Go-Round.Eu, 2014).

4.5 Period 2005 - 2013

The final period of 2015-13 is the most important period of this thesis as it is the one when the crisis actually happened. It started in the USA in 2007 after the housing bubble burst, threatened the collapse of many large financial institutions (starting with Lehman Brothers which actually went bankrupt), spread throughout the world and ultimately led to European sovereign-debt crisis. Greece and Ireland will again be compared in those hard times based on GDP per capita, volume of foreign trade (export and imports), inflow of FDI, government deficit and debt, inflation, unemployment and volume of EU funds provided to both countries.

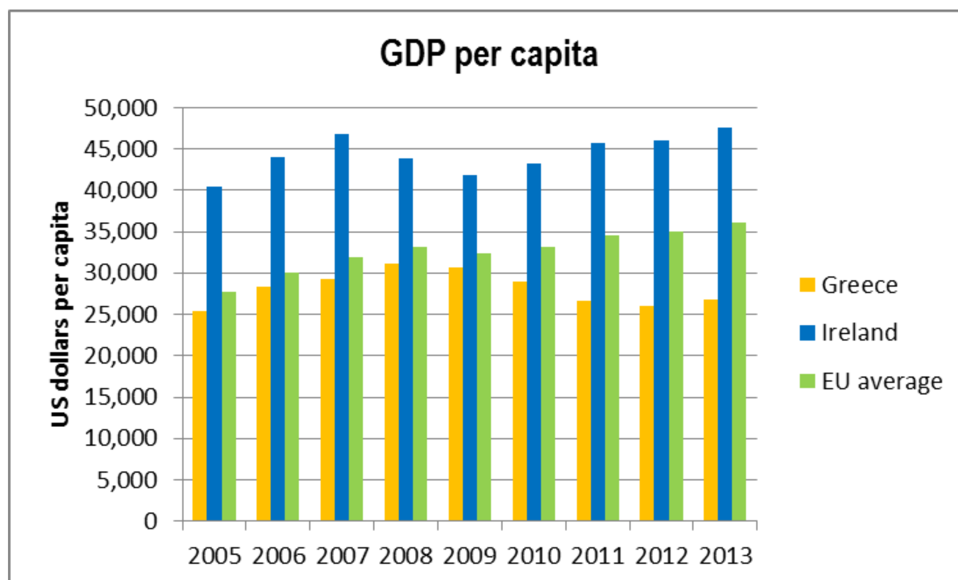

Figure 37: GDP per capita in Greece and Ireland compared to EU average, in US dollars, current prices, current PPPs, 2005-2013

Source: OECD Statistic 1

Figure 37 shows development of GDP per capita in Greece, Ireland and EU as whole just before, during and after the crisis. On the EU average development of GDP per capita we can hardly observe any signs of recession. There was a slight slump in 2009 but the GDP growth picked up the very next year and continues to grow until the end of this period. Ireland, on the other hand, was hit by the Great Recession quite hard. In 2008 Irish economy contracted by 6% and in 2009 by another 5%, showing sharp declines in consumer and investment spending. Even though Irish economy went through a big shock during those two years, it man-

aged to pick up and start growing again in 2010 and by 2012 performed at the pre-crisis levels. The initial recovery was largely driven by multi-national companies (MNCs) that account for a large share of production in sectors that are less sensitive to cyclical fluctuations, such as pharmaceuticals and medical devices (OECD Economic Surveys: Ireland, 2015). Unfortunately, the same recovery cannot be observed in case of Greece. Its economy seems to be hit by the Great Recession a year later than Irish one but did start declining in 2009 and did not manage to get out of troubles until nowadays. Its sharpest decline occurred in 2011 when Greek economy contracted by 8%.

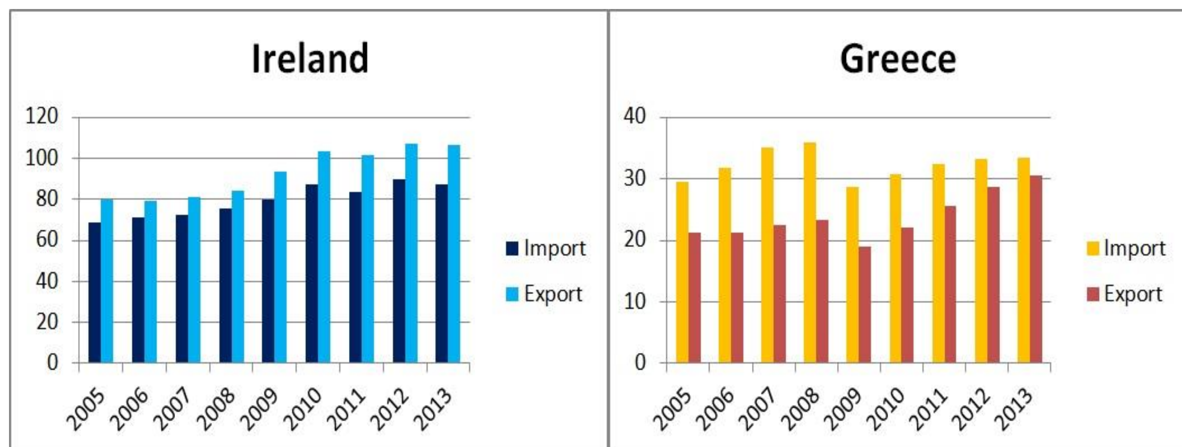

Figure 38: External trade of Ireland and Greece between years 2005-2013 expressed as a % of GDP

Source: OECD Statistics 2

When looking at external trade of Ireland during the crisis years we can barely observe any signs of economic downturn. Exports as well as imports are still growing between 2007 and 2010 and exports are even breaking the 100% line in 2010. There is a slight slump in 2011 in Irish external trade but both of its items pick up the very next year and start growing again. When the Irish construction sector collapsed and consumer spending and business investment declined rapidly in 2008, the export sector, dominated by foreign multinationals, has become a key component of Irish economy (The economy in Ireland, 2015*)*. Export growth has been strong since 2009 as Ireland had gained market shares abroad again thanks to improved cost-competitiveness- labour costs adjusted quickly after the onset of the crisis (OECD Economic Surveys: Ireland, 2015).

Since the introduction of euro as a common currency in 2001, cost of trading among Eurozone countries was reduced as a result of it and the traded volumes were increasing. Both imports and exports as proportion of GDP were growing in Greece before the crisis, reaching one of the best results from all examined periods (imports represented 36% of GDP and exports 23%). However, because labour costs increased more in Greece (and other peripheral countries) than in the rest of the Eurozone, Greek exports were less competitive and thus its trade deficit was increasing (FED, 2013). This became a problem when the crisis erupted. With a common currency and thus irrevocably fixed exchange rate, Greece could not devaluate its currency to make exports to Eurozone cheaper. It could only increase the volume of exports which would in turn boost domestic production and increase income from exports, decreasing the need to cut on spending. But with high

labour costs, Greek exports were too expensive and so uncompetitive. Thus, with recession in global economy, Greek external trade declined too. However, since 2010 the growth in Greek external trade picked up and in 2013, Greece is much closer to having balanced external trade- exports are almost catching up with imports. This is a result of the only solution possible- due to the financial bailouts, which will be described later, Greece was forced to decrease its cost of labour (wages), decreasing cost of inputs of production thus making its exports more competitive. It has to be noted though that Greek exports still make up only 30% of GDP, compared to more than 100% of GDP in Ireland. Thus Greek exports can play only minor role in boosting Greek economy and to deal with the crisis. Another issue with running large current account deficits for a long time is that they need to be financed by equally large amounts of capital inflows which are usually coming from the surplus countries (mainly Germany in this case). Much of this money went into real-estate purchase and development which are non-tradable goods, taking funds from the tradable goods and thus Greece (and this was a case of Ireland as well) was losing an opportunity to make money on those capital inflows (in fact loans) and thus to pay them off. Due to this, private debt of both Greece and Ireland was continuously rising (Centre for Economic Policy Research, 2012).

Taking into account particular SITC categories, Greece shifted its exports more towards Mineral fuels, lubricants and related materials but Manufactured goods stayed a very important export category as well. In Greek import portfolio, two categories remain equally important- 3- Mineral fuels, lubricants and related materials and 7- Machinery and transport equipment (Appendix A). In 2009 Irish imports shifted their focus from Office machines and automatic data processing equipment subcategory to the Other transport equipment subcategory but still remain within Machinery and transport equipment category. The Chemical and related products category remain the most important one in Irish export portfolio in this period, with Organic chemicals and Medicinal and pharmaceutical products subcategories making up the biggest part of it (Appendix B).

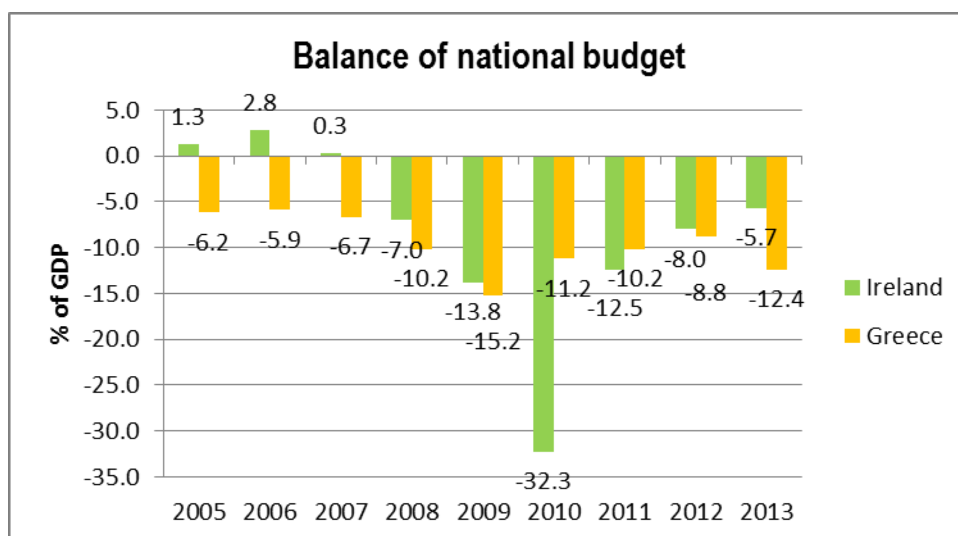

Figure 39: Surplus/ deficit of Irish and Greek national budget expressed as % of GDP

Source: AMECO 1

Until 2006 Irish public finances still appeared strong, running budget surpluses. This was deceptive, because much of the revenue Irish government collected was related to the property market. Those revenues included not only stamp duty and capital gains tax but large sums of VAT paid by developers and income tax paid by workers in the very large construction sector as well. The tax base was extremely narrow, very much dependent on the housing boom. Despite of this, Irish government kept investing in expensive capital projects, supporting the speculative bubble in property market. The bubble was also fuelled by increased bank lending. Due to greater integration of financial markets, the introduction of euro and more short-term borrowing from abroad, Irish banks did not have to rely only on the deposit base to fund their lending and their balance sheets grew disproportionately to the relative size of Irish economy (European Commission, 2012). The real troubles started in 2008 after the property market collapsed. Irish government recognized the gravity of the situation and made a decision to guarantee all bank deposits and liabilities and recapitalize the banking system in response to the country's economic downturn. In 2009 the National Asset Management Agency (NAMA) was established to buy problem commercial property and development loans from Irish banks. With sharply reduced revenues and increasing budget deficit, the Irish Government introduced the first of draconian budgets in 2009 with across-the-board cuts in spending as well as wage reductions for all public servants. But even a combination of all those measures was not sufficient. In 2010, the budget deficit reached 32.4% of GDP—the world's largest deficit, as a percentage of GDP—because of additional government support for the banking sector (The economy in Ireland, 2015). To avoid a total collapse of public services, Ireland had to accept a financial assistance package from EU and IMF in the amount of 85 billion euro. Conditions for provision of this financial assistance were implementation of banking sector reforms (recapitalization of domestic banks), fiscal consolidation (restoration of long-term sustainability of public finances) and structural reforms (reforming sectoral labour market agreements). Those hard measures showed the effects already in 2011 when budget deficit fell to 12.5% of GDP and has been diminishing since. All this, however, did not persuade the Irish voters who replaced the Fianna Fáil party that was leading the government until 2011 with Fine Gael, headed by Enda Kenny who is in charge until nowadays (Department of Taoisigh, 2013).

As in all the previous periods, Greece is running its traditional budget deficits between 2005 and 2013 as well. From 2004 until late 2009 it is still the cabinet of Kostas Karamanlis, New Democracy leading Greece (Encyclopaedia Britannica, 2016). The reason of continuous negative incomes of Greek government seems to be mainly tax avoidance. Reportedly Greece lost a third of its VAT revenues in fraud and avoidance every year because of very complicated tax system which is easy to manipulate. Shipping, one of the main industries was known as a tax-free zone and income and corporate taxes, traditionally the subject of huge tax avoidance, stopped bringing money into the treasury as the financial crisis erupted (The Guardian, 2015). In 2009 PASOK, headed by George Papandreou (third member of his family to hold the office of a prime minister), sweeps into power again (Encyclopaedia Britannica, 2016) but socialist government is the last thing Greece needs at the wake of the crisis. Moreover, government has more expenditures on unemployment benefits, under-consumption and under-investment now so budget defi-

cit soars. Government deficit never reaches the heights of the Irish one but the outcomes of the crisis are much worse for Greece. In the framework of the first rescue package provided to Greece by EU and IMF, Greece is asked to cut wages but the largest item on the spending list, the defence (according to NATO, 2014 Greece is, after the USA, the second-biggest defence spender in NATO), stays intact due to persisting power of Greek military which stays very influential even 40 years after Greece has become a democratic state (The Guardian, 2015). But the larger problem in the government spending is probably the need to finance a trade deficit (current account deficit). As it is visible from Figure 38 and external trade figures shown in other periods, Greece has been running large trade deficits for decades. To be able to finance a trade deficit, capital inflows are needed which usually come in the form of borrowing, creating capital surplus which in turn drives the budget deficit up. To bring expenditures in line with revenues, Greek government introduced the Stability and Growth Programme 2010 which aimed to reform the ineffective tax collection system in a major way and to redirect governmental spending from non-growth sector, such as military, to sectors stimulating growth (European Commission, 2010).

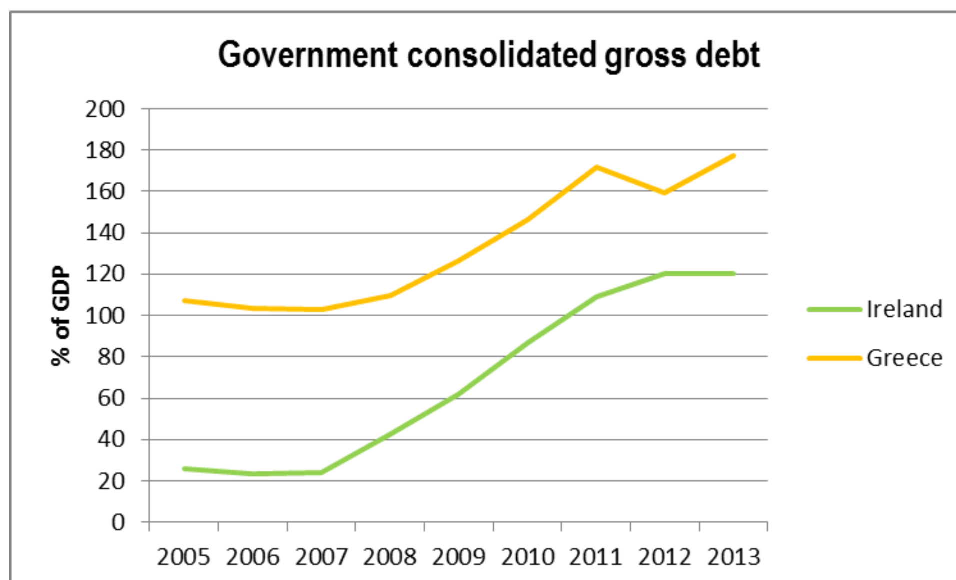

Figure 40: Government debt as % of GDP in Ireland and Greece between 2005-2013

Source: AMECO 2

At the beginning of this period Irish public debt was kept at very stable levels around 25% of GDP. However, as the Global Financial Crisis hit Ireland, public debt started increasing rapidly. The development of public debt in Ireland since 2007 reflects increasing budget deficits which financed debts of commercial banks (Irish government guaranteed all bank deposits and their liabilities to avoid a collapse of its banking sector). By 2010 international investors started questioning the sustainability of Irish debt. Yields on Irish government debt kept rising and reached an unsustainable 9% in November 2010 (Figure 2), which meant that the government was not able to borrow at international bond markets anymore. By the end of November, Irish government negotiated the before mentioned financial assistance package with the EU and the IMF in the total of €85 billion (including a contribu-

tion of €17.5 billion from Ireland's own resources). This money is being used to moderate the big shock Irish economy suffered as a result of the burst of the property market bubble and it also helped Irish government to avoid having to default on its debt. Six months later EU leaders allowed the reduction of the interest rate and extended the maturity of the EU loans which brought a significant saving to Irish taxpayers and helped to improve the sustainability of Irish debt (European Commission, 2012). By 2012 investor's confidence towards Ireland significantly improved, interest rate on Irish government bonds went down and Ireland was able to return to the bond market, issuing both short term and longer term debt. This was one of the first positive events any euro area sovereign state hit by the crisis experienced since the crisis began. Irish banks were also able to issue long-term debt once again (European Commission, 2012). However, Irish public debt is still significantly higher than is should be, settled around 120% of GDP.

The fact that Greece started this period with debt at 100% of its GDP does not look very promising from the very beginning. As the crisis transmitted throughout the Eurozone, Greek government applied a fiscal stimulus to boost the economy. But because the expenditures were far higher than revenues, it had to borrow money at the international markets. At the same time, however, Greek 'creative accounting' practices were revealed, showing the actual catastrophic state of Greek finances which in no way complied with the Eurozone rules. As a result, financial markets started raising the interest rate on Greek government bonds (Figure 2), making it much more costly for Greece to borrow new money to finance its trade and budget deficit and, more importantly, rapidly raising the cost of debt already issued so it becomes impossible for Greece to repay its debt without taking further loans. In May 2010 Greece asks for the first rescue package amounting to 110 billion euro- 80 billion from EU and 30 from IMF (European Commission, 2016). Troika grants this money to Greece under the conditions of implementation of austerity measures, structural reforms and privatization of state-owned assets (IMF, 2010). ECB contributes by breaking the no bail-out clause and buys Greek government bonds for artificially high prices. Bondholders, in particular French banks, benefit very much as it allows them to sell the unwanted Greek bonds without incurring high losses (Reuter, 2010). Due to worsening recession in Greek economy and late implementation of measures agreed upon in the first bailout, a second bailout of 130 billion euros was agreed to in July 2011, with 30 billion going to the country's private debtors and 40 billion going to the Greek banks, which reported massive losses (European Commission, 2016). In October 2011, leaders of Eurozone and the IMF announced that banks holding Greek debt agreed to accept a 50% loss (BBC, 2011). This step is visible in the Figure 40 in the form of the sudden drop in Greek public debt in 2012 by 12.5%. The growth of the debt was unfortunately restored the very next year due to inability of Greek government to successfully implement the austerity measures as hundred thousands of people started protesting against them (The New York Times, 2010). Privatization, which was ordered by creditors to pay off Greek borrowings, did not bring the desired amount of revenues either (expectations were as high as 50 billion euro which could be drained from state sell-offs, so far only 2.5 billion EUR of sales has been completed) (The Guardian, 2015). Moreover, the problem was not only the government debt being high already before the crisis but private sector was also running up high debts with the rest of the world. Greek people relied on money from

abroad to finance the housing bubble and consumption boom. When the crisis hit, it was this overspending and overinvesting that needed to be brought down to the levels of domestic incomes and thus partly restore the stability of Greek economy (Higgings & Klitgaard, 2014).

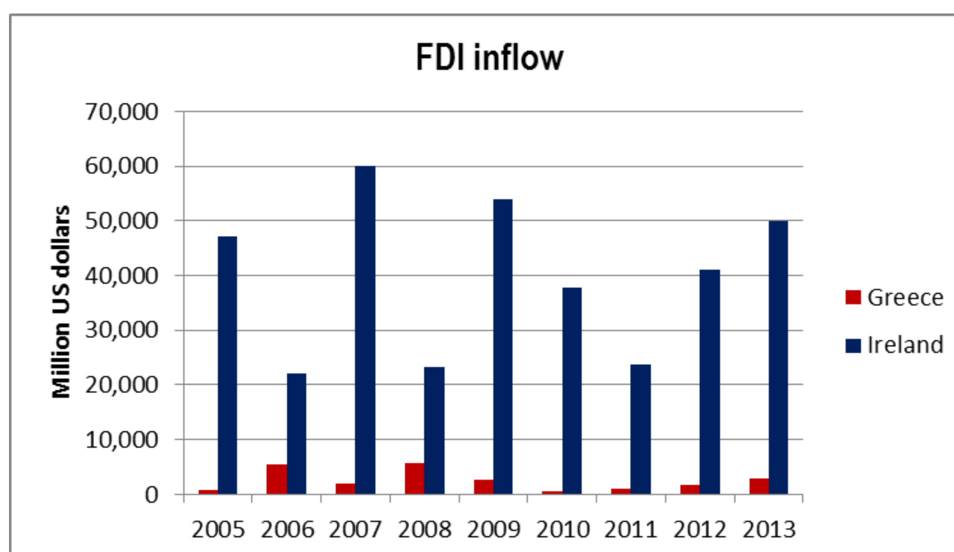

Figure 41: Net inflow of FDI into Greece and Ireland in million US dollars between 2005-2013

Source: The World Data Bank 1

FDI inflows into Irish economy in this period are very unstable. The largest jump can be observed in 2008 when there was a decline of almost 40 billion euro compared to the previous year. Surprising is year 2009 when Ireland received 54 billion euro even though the world economy was in a deep recession. In any case, the overall inflows of FDI into Ireland are still very high which played an important role in supporting the economy in the times of crisis. To assess FDI inflow into Greece we will look at Table 2 (for better visibility). Greece is traditionally attracting much less FDI than Ireland but there are quite big fluctuations in the amounts received as well. The finances received by Greece from foreign investors seem to be affected by the crisis very much. The investments started declining in 2009 and reached their bottom value of 534 million EUR in 2010. Since then the growth of FDI inflows was restored but Greece would need much more for their economy to start growing again.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Greece	689.96	5,409.24	1,957.67	5,733.41	2,762.59	533.69	1,092.09	1,663.33	2,945.42

Table 2: Net inflow of FDI into Greece in million USD

Source: The World Data Bank 1

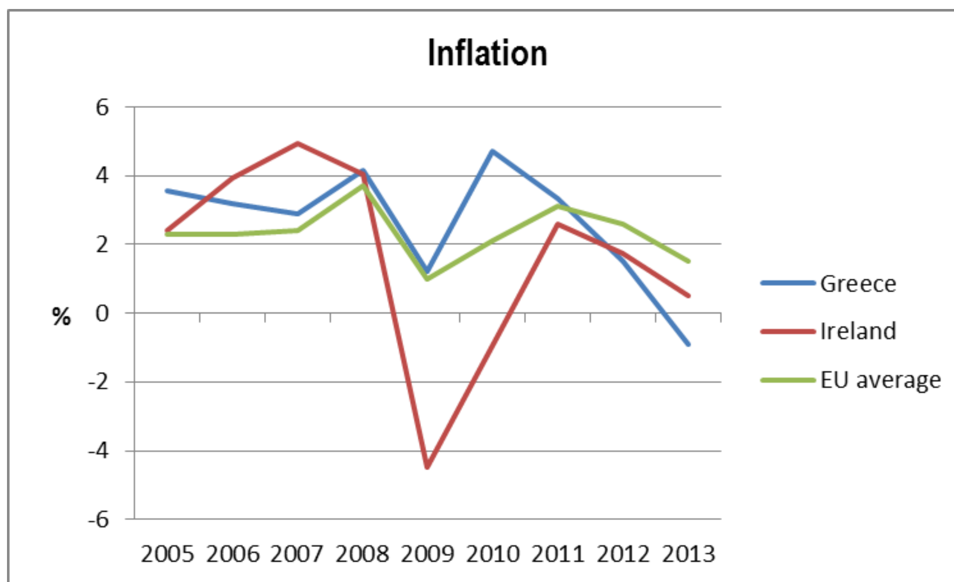

Figure 42: Inflation in Greece, Ireland and EU between 2005-13 measured as annual % change in CPI

Source: OECD Statistic 3 and The World Data Bank 2

The development in the rate of Greek, Irish and EU inflation is very turbulent in this period but all three are more or less copying the same trend. Inflation in both Greece and the rest of EU is rising just before the crisis, reaching roughly 4% and then declining sharply as the Global Financial Crisis hits Europe. Irish inflation grows to almost 5% already in 2007 as the crisis reaches Ireland a year earlier and starts dropping the very next year. The development after that is, however, much more dramatic than in the rest of Europe- Ireland experiences deflation amounting to 4.5%. Then it picks up again for all three groups, reaching 4.7% at the peak of the crisis in Greece. And then it falls again, with Greece experiencing deflation of 0.9% in 2013. Deflationary pressures can be ascribed to severe cuts in wages which were necessary to restore the competitiveness of both Greece and Ireland in the time of crisis.

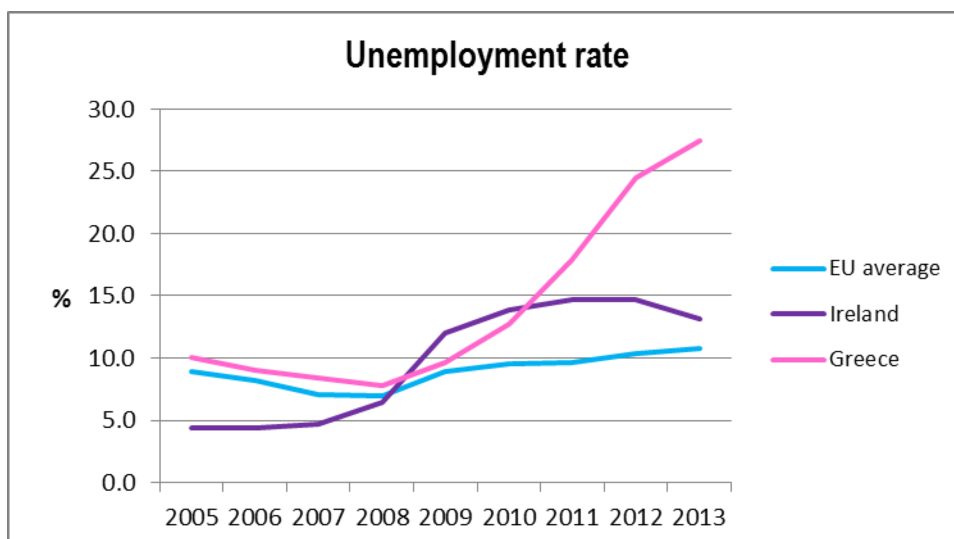

Figure 43: Unemployment rate in Ireland and Greece compared to EU average between 2005-2013

Source: CSO 1, Eurostat 3 and ELSTAT

Unemployment in Ireland stays very moderate before the crisis. However, in 2008 Ireland experiences its first big increase in unemployment in almost 10 years as the construction sector cannot employ so many people anymore. Between 2007 and 2011 the amount of people without job rose by 10%. If situation in Ireland was bad, events in Greece were in fact dramatic. As soon as Greece managed to push the unemployment levels to more sustainable values (7.8% in 2008), unemployment shot up again at the wake of the crisis, reaching incredible 27.5% by 2013. With almost one third of the entire working-age population out of job, Greek economy will have a hard time to stand on its two feet again.

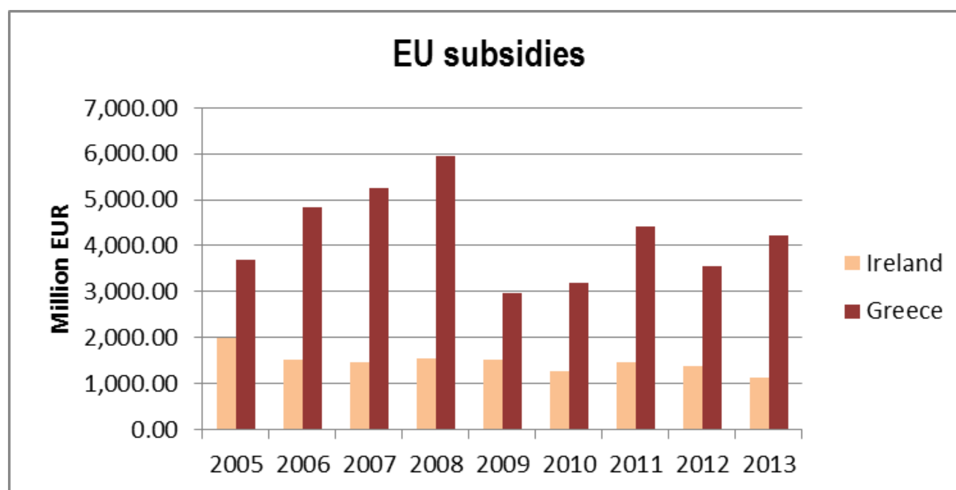

Figure 44: Net inflow of EU subsidies given to Ireland and Greece in million EUR between 2005-13

Source: CSO 2 and Money-Go-Round.Eu

The amount of money Ireland received from the EU was not affected by the crisis very much. After its initial fall in 2006 by almost half a billion euro, the levels of financial support Ireland was receiving from EU funds were stagnating around the 1.5 billion line for the rest of the period. Greek financial support in the form of subsidies, on the other hand, suffered a substantial cut in the crisis time. In 2009 Greece received only half of what they were eligible to the year before (from 6 to 3 billion euro). Next to the traditional agricultural subsidies, Greece is receiving increasingly high amounts from the Cohesion fund which is aimed at Member States whose GNI per capita is below 90% of the EU average. Ireland received most in farm subsidies (Money-Go-Round.Eu, 2014).

5 Discussion

Ireland, as a small island and a former British colony, had to fight hard for their place in the world economy. After it finally gained independence from the UK after the WWII, Irish economy was underperforming as basically the only source of income was agriculture. Due to highly interconnected markets and strong trade links, Ireland was waiting for the UK to become part of EEC to join as well. In the first years of their membership, Irish economy was not performing among the best in the Community. As a consequence of the two oil shocks which caused large supply side shock, Irish GDP growth was weak, it was running large trade deficits, inflow of FDI was low and unemployment increasing. In an attempt to boost the economy, Irish government was running large state budget deficits and debt-to-GDP ratio was increasing. Even heavily subsidized agriculture was not enough to boost economic growth. Situation started reversing at the beginning of '90s. Irish government pursued restrictive fiscal policy by cutting public expenditures, Irish debt started decreasing and inflation fell to one of the lowest levels in Europe. By 1995 Ireland outperformed most of other Member States as the effects of deregulation, decreased interest rates and increased confidence of foreign investors in Irish punt finally show results. By 2000 the full strength of the 'Celtic Tigre' is visible. Foreign Direct investment was flowing into the economy, funding strong economic growth. Low interest rates not only reduced the burden of government debt because of both lower accumulation of newly issued debt and decreased expenditures on servicing the old one but also fuelled the investment and consumption boom in private sector as companies and individuals could now borrow cheap. Trade deficit turned into surplus, further decreasing the need of government to spend money on capital inflows. However, heavy investments into telecommunications funded from public budget during the '90s (which was quite late) turned out to be a great move as it provided Ireland with a competitive advantage in the form of one of the most comprehensive and advanced digital networks in Europe. Irish emigrants started coming back to their country as employment was reaching its full potential and Ireland was prospering in every aspect. High productivity and business friendly environment with low corporate taxes which attracted many Multinational Corporations to move their business into Ireland are considered to be the driving factors of their rapid economic growth. With the adoption of euro as their single currency, the nature of Irish economic miracle began to change. Ireland kept growing by incredible 7% a year but the growth was increasingly related only to the real-estate market. Moreover, wages kept growing but labour productivity was not increasing anymore, threatening Irish competitiveness. Revenues creating impressive public budget surpluses were more and more coming only from taxes collected from the real-estate market. Low interest rates in Ireland, which was a result of adopting a highly credible common currency, boosted the mortgage borrowing but also made the prices of houses shoot up, creating the property market bubble (overvalued assets with undervalued credit). Ireland did not care much about warnings that their property prices were almost certainly heading for collapse and kept pumping money into its domestic property and construction sector. When the housing bubble burst in the US and recession on global scale quickly transmitted into Europe in 2008, Irish property and construction markets col-

lapsed as well. Irish banks were hit first as their debtors (investors in the property market) could not afford to pay off their mortgages and loans because the real-estate market generated no more revenues. Banks who borrowed internationally were suddenly unable to meet their obligation as liquidity disappeared from the banking sector. Run on banks by people trying to save last bits of their deposits was avoided only thanks to the government who stepped in and guaranteed all bank deposits and liabilities. But with no more revenues from the property market coming to the treasury and enormous expenditures to recapitalize the Irish banks, government was running one of the largest deficits as a percent of GDP in the world. As a result Irish public debt soared and investors started questioning credibility of Irish government in ever repaying it. Yields on government bonds increased rapidly, forcing Irish government into default as it was not able to borrow at international markets anymore and its current debt burden became unbearable. Unable to contain the situation, Irish government asks EU and the IMF for financial help which is granted under the conditions that Ireland will reform its banking sector, labour market and restore a sustainable public debt. In case of Ireland, one bailout was enough to avoid a collapse of the economy and restore GDP growth. The driving factors behind this success were large current account surplus (more exports than imports brought money into Irish economy and helped to pay off the debt) and multinational corporations which have got a strong position on Irish market and focus on production in sectors that are not as sensitive to fluctuations in the economy. Even though Irish public debt remains high, employment is rising again, inflation is moderate and GDP growth was resumed.

Located on the crossroad between Europe, Asia and Africa, Greece had been influenced by many nations with very different cultures and religions over the time. As soon as Greece got rid of its last dictatorship regime, it became tenth member of the EEC. The reasons for accepting Greece were rather political than economic- with few competitive advantages, Greek economy was not among the strongest in the community of highly developed economies. In terms of GDP per capita, Greece was not performing badly in the first years after the accession though. It started at the average level of the EEC but quickly began lagging behind. Greek economy can be described as relatively closed one as the exports and imports reach only between 15-25% of its GDP. From the very beginning, Greece was running trade deficit (it imported more than it managed to export) with strongest sector of economy being agriculture. Political situation in Greece favoured more left-wing governments which were spending a lot of money on social contributions and other non-profit activities, running large budget deficits. So even though Greece joined the EEC with a very low level of debt-to-GDP ratio, after years of insufficient revenues and excessive spending the debt started increasing quickly. To be able to fund the low-return spending, Greek central bank was pursuing expansionary monetary policy for years which kept inflation quite high. At the beginning, Greece was successful at attracting the FDI due to government incentives and becoming a member of well-established community of advanced and stable economies. Due to FDI inflows and large amounts of subsidies given to Greece from EEC mainly to support agriculture and regional development, unemployment stays moderate. Greek economic situation did not change much since the '90s till the time before the crisis. GDP grew slowly, more and more lagging behind the rest of the EU as the generous EU subsidies were being used more as political favours

than to support economic growth and efficiency. Poorly designed taxing system allowed billions of euros every year to be lost in tax evasion. A reform in the Common Agricultural Policy limited the cheap imports of meat into Greece and thus Greek external trade declines even further. All this led to Greece being excluded from the EMS and later made them the only Member State which was not eligible to join the Eurozone in 1998. That finally provided the incentive to make changes in domestic economic policies. In order to join the project of monetary union and accept euro, Greece needed to fulfil the convergence criteria which meant getting its public finances and other macroeconomic indicators in line. Inflation did decrease to the required level before euro was launched but the budget deficit and debt were too high and so creative accounting practises were used to make them look acceptable. However, unemployment was continuously growing as Greek government failed to implement any of labour market reforms that helped other states boost economic growth. Despite all this, Greece was accepted to the Eurozone and thus can enjoy all the benefits which come with the common currency. Economic growth picked up but as well as in the case of Ireland it was not a healthy, sustainable growth. It was a growth fuelled both by high public spending (mainly defence) for which the government had to borrow abroad and private overconsumption and overinvestment into unprofitable real-estate market for which it also had to borrow money. Moreover, Greece was still running large current account deficits. The excessive borrowing was, in fact, a result of adopting a common currency because the financial markets ascribed the same risk premium to all countries of Eurozone and so they all had the same, very low interest rates. By the time the Global Financial Crisis started transmitting from the US to Europe, Greek economy was not in a good shape. It started the crisis with annual budget deficits over 7%, soaring public debt of over 100% and highly indebted private sector. And then the crisis hit Greece with the full power as the funding from the rest of Europe dries up. With the real state of Greek public finances revealed, financial markets panic, rapidly raising interest rates on Greek government bonds, making it impossible for Greek government to borrow more money. Plus servicing the huge public debt already issued becomes almost impossible. The rest of Europe is affected by the crisis as well so the traditional inflows of money from the other member States to finance Greek private borrowing stop as well. Greece thus asks for its first financial assistance and ECB breaks the no bail-out clause by buying Greek bonds for artificially high prices so bondholders do not incur such a high losses. It is not enough, however, to save such a highly indebted economy and so Greece soon asks for a second bail-out and default on part of its debt at the same time (so called hair cut). But the required strict austerity measures invoke protests and calls for a new government, leading to an unstable political situation. Public sector borrowing was not the only cause of the deep economic downturn in Greece though. Large current account deficits Greece was running for a long time contributed to the depth of the crisis as well. With high cost of labour, Greek exports were not competitive and could not support the contracting economy. A stand-alone county would simply depreciate its currency to make exports cheaper in terms of foreign currency. By accepting euro, Greece lost an option of devaluation- a price it had to pay for being part of monetary union. Depreciation would have helped Greece with its over-indebtedness as well- it would allow them to repay its debt in cheaper currency and thus lower its debt burden. The incomes from privatization

which was ordered by the creditors and which were supposed to lower the debt burden were in fact offset by higher expenditures on unemployment benefits and early pension payments given to workers laid off during the privatization process. Not having the possibility of devaluation left Greece with only one option. It was the internal devaluation, i.e. wages decrease which lowered the input costs and made Greek exports competitive again. On the other side it resulted in reduction in income and thus spending went down, further deepening the recession. Sky high unemployment (one third of Greek workforce being out of work) was just the last consequence of the crisis which in Greece lasts until nowadays.

6 Conclusion

When looking for a common denominator of crises throughout the time we find out that it is usually the excessive debt accumulation, no matter if that debt is accumulated by the government, banks, companies or consumers. Pumping money into the economy can make a government look like it is providing bigger growth to its economy than it actually is. Excessive mortgage borrowing by the private sector inflates housing and stock prices far beyond their long-run sustainable levels and thus makes banks look more stable and profitable than they really are. These large-scale debt build-ups represent significant risks because they make an economy vulnerable to crises of confidence, mainly when the debt is short-term. Debt-fuelled booms often provide false assurance that government policies are correct, that the financial institutions are able to make oversized profits and that country living standard is higher than it is in reality. Mostly, these booms do not end well.

For almost a decade, Greece and Ireland have benefited from credibility that Euro provided them with, despite the high-indebtedness of Greek economy in particular. Once financial markets found out about differences in credibility of particular Eurozone countries and started rating individual countries instead of rating Eurozone as whole, the credibility of Euro itself suffered a lot. And so did the reputation of the whole EU which had to break the no-bail-out clause to help some countries restore a sustainable budget. The question remains what to do in the times of crisis. Is it better to keep insisting on strict fiscal rules which will keep the country in troubles on the path of stable public finances and sustainable public debt but will deepen the recession, increase unemployment and decrease the country's standard of living so people call for new government which will promise them a better life and the vicious cycle starts over? Or is it more convenient to pump as much money into the economy as possible, no matter if by fiscal expansion which creates large budget deficits and thus increases public debt to sky-high levels or by monetary one which increases inflationary pressures? Great Depression is a great example of strict fiscal consolidation leading to much deeper recession of the US economy than there needed to be (many experts argue that if FED and US government had spent much more money than they did to boost the economy instead of restlessly trying to balance the budget, Great Depression would had been only a regular recession which is a natural part of economic cycle). In case of Ireland during the Global Financial Crisis, fiscal expansion was probably the best solution government could have made. Ireland, as a small open economy was running current account surpluses, budget surpluses and low levels of debt, inflation and unemployment for a long time. The crisis was just a result of overexcitement from easy access to cheap money but otherwise their economy was healthy in the long run. The burst of the real estate bubble in Ireland was a consequence of poor supervision of banks that were investing in risky assets and lending too much. So when the bubble burst, it was quite safe to pump the missing liquidity to the Irish economy both from the government and from EU and IMF because chances are high that this prosperous, growing economy will be able to pay them back. In case of Greece, fiscal expansion and rescue packages might not be as effective because Greek economy, in its current state, does not have many areas where to make

money to pay its creditors back. Greece has been running large trade deficits for a long time; tourism, one of the most important industries, has been declining throughout the crisis as people fear the unstable banking situation in Greece (many restaurants, shops and gas stations were only accepting cash for some time, no credit cards as they did not know when they would get those money) and agriculture is not as beneficial to Greece as it used to be. With continuously large budget deficits and rising public debt, fiscal discipline should probably be a priority, even though it will take longer for Greek economy to recover. However, applying austerity measures by requesting higher taxes from private agents who can barely pay off their current debt or by cutting spending which lowers incomes will only lead to worsening of the situation for private borrowers and financial institutions. It does not seem fair to make people pay for the mistakes of the government as the crisis originated in the public, not private sector in Greece. But then, it was the Greek people who kept electing socialist governments. The financial assistance was provided to Greece for one reason- the credibility of euro was at stake and the entire EU would suffer as a consequence of decreased confidence of financial markets that countries using euro will be able to repay their debts. The moral hazard here is that repeated assistance given to Greece by third parties (be it EU, IMF or anyone else) might result it Greek government having little incentive to try to solve the excessive debt problem on its own.

One interesting observation is that the effects of the crisis started to show a year earlier in Ireland than in Greece. The reason might be that Ireland is much more opened so any crisis would transmit to their economy quickly. But more importantly Ireland has got much stronger ties with the US and also much higher mutual trade turnover so logically the US-originated crisis hit Ireland sooner than other states in continental Europe. Greece only started having troubles when the rest of the EU was hit by the crisis and the financial markets started assessing particular Member States as individual countries rather than EU members which took some time. After that they assigned different risk premium to borrowing of each Member State instead of assigning the same risk premium to the whole Eurozone. With the rating Greece obtain it became very hard for them to borrow internationally and thus finance their traditional overspending.

The very nature of the crisis in Greece and Ireland is different as well. In Ireland, it started as a liquidity crisis in the banking sector and only then transferred into sovereign debt crisis as Irish government spent a lot of money in an attempt to save its banking sector. As a result of this, financial markets started perceiving Irish public finances as not healthy, raised interest rate on Irish government bonds and thus made the Irish debt burden unbearable, forcing it into default (that did not happen as ECB broke the no bail-out clause and provided the needed liquidity as a lender of last resort, together with IMF and EU funds). In Greece, situation was quite the opposite. Greek socialist governments were running budget deficits for decades before the crisis and so their public debt was high. When the crisis struck the problems in public finances were fully revealed and financial markets reacted immediately by rapidly increasing interest rate on government bonds, effectively locking Greece out of the bond market.

Both countries are also very much different in their nature. Greece is a southern peninsula located between 3 different continents, at the crossroad of many different cultures and religions. It has got long and famous history but since the

Classical period, the times of Sparta and Greek heroes, Greek people have always been under the influence of someone stronger, invaded, subject to a rein of a different nation. They have not been their own masters for such a long time that it is possible they do not know anymore how to behave as an independent state who is in charge of their own financing while sharing a common goal with its partners, other Member States with whom they share a common currency and thus the same fiscal responsibility. Their southern, easy-going way of thinking might have contributed to their benevolent handling of public finances. Or maybe the irresponsibility in the area of common currency was some kind of defiance towards EU whom Greece might not have taken as a partner but rather as someone who is trying to control them. Ireland, on the other hand, is quite small, isolated island at the edge of Europe with harsh, northern climate. They have always had only one enemy who was, at the same time, their occupant and ruler- the Great Britain. As a former colony, Ireland had to fight for their place in the world and when they finally got a chance to show everyone that they can stand alone, they took it. The Celtic Tiger was one of the fastest growing economies at the time, showing Britain that they do not need their supremacy to be successful. And they got carried away, thinking that the boom would last forever.

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Attachments

A Greek trade portfolio according to SITC

EXPORT PORTFOLIO- GREECE in $ million										
	0- Food and live animals	1- Beverages and tobacco	2- Crude materials, inedible, except fuels	3- Mineral fuels, lubricants and related materials	4- Animal and vegetable oils and fats	5- Chemicals	6- Manufact goods classified chiefly by material	7- Machinery and transport equipment	8- Miscellaneous manufactured articles	9- Commod. & transacts. Not class.
1981	879.212	213.066	267.301	403.951	32.877	234.177	1,421.443	202.393	568.976	26.059
1982	949.749	227.882	258.196	462.327	82.523	242.096	1,268.750	199.344	587.781	18.016
1983	971.071	236.977	271.195	305.516	252.397	215.315	1,316.008	154.185	651.466	38.097
1984	1,070.706	225.132	316.501	492.151	183.557	228.625	1,433.462	124.047	755.813	34.156
1985	967.164	207.317	306.508	546.375	94.016	216.095	1,279.111	133.152	775.720	10.707
1986	1,250.103	287.385	315.127	371.391	206.664	204.193	1,510.499	166.946	1,280.815	67.036
1987	1,357.434	364.719	386.254	436.265	211.249	247.636	1,653.913	177.501	1,653.374	0.993
1988	962.075	297.345	303.910	281.603	75.666	238.914	1,473.372	174.131	1,398.095	225.131
1989	1,567.881	368.718	483.099	410.395	355.639	376.316	2,042.188	249.152	1,674.910	14.857
1990	1,627.652	443.609	404.216	587.970	302.518	404.968	1,967.916	338.709	1,972.016	9.895
1991	1,918.778	492.327	386.561	772.032	221.829	376.481	1,882.835	372.731	2,026.162	197.405
1992	2,084.456	650.564	367.761	518.596	550.527	428.853	2,015.084	473.979	2,441.719	306.723
1993	1,736.702	550.160	462.953	687.697	314.171	454.256	1,659.762	548.233	2,194.310	175.306
1994	1,887.952	516.682	558.412	971.946	345.017	444.247	1,860.302	577.347	2,017.001	219.643
1995	1,985.242	615.378	706.058	713.239	605.486	599.701	2,285.670	878.031	2,311.670	247.147
1996	2,016.813	720.116	793.668	1,000.092	758.663	681.252	2,282.765	959.450	2,393.040	273.155
1997	1,926.727	670.083	613.354	926.256	406.642	710.568	2,206.919	980.818	2,507.967	211.524
1998	2,000.889	596.506	505.513	736.388	357.695	769.883	2,226.202	1,170.431	2,340.026	163.149
1999	1,838.128	640.769	586.937	1,004.625	562.984	840.519	2,003.609	1,164.614	2,217.093	175.342
2000	1,579.292	507.968	536.190	1,594.316	244.337	914.899	1,884.001	1,300.847	1,943.778	341.290
2001	1,728.659	466.640	514.382	1,158.326	244.387	974.836	2,055.843	1,191.001	1,872.129	195.895
2002	1,743.473	471.999	482.179	872.563	208.752	1,061.679	2,068.811	1,365.556	1,897.880	154.371
2003	1,973.128	634.475	685.278	939.241	354.998	1,734.033	2,789.515	1,739.069	2,538.046	266.963
2004	2,169.434	614.979	743.389	1,049.439	200.100	2,137.868	3,323.500	2,048.218	2,586.836	372.631
2005	2,576.595	694.170	742.371	1,641.154	494.527	2,644.723	3,521.331	2,209.232	2,460.380	449.953
2006	2,935.319	639.050	1,167.125	2,729.411	604.009	2,893.055	4,255.911	2,627.309	2,522.719	565.932
2007	3,451.245	686.516	829.736	2,857.655	481.434	3,440.905	5,073.216	3,145.895	2,746.794	773.140
2008	4,435.161	910.565	1,066.828	6,736.200	543.765	3,675.201	6,129.355	3,739.363	3,061.566	829.149
2009	4,104.921	847.877	956.125	4,924.868	457.715	3,161.935	4,125.514	2,795.383	2,375.366	482.413
2010	4,294.365	744.209	1,261.895	7,194.213	433.883	3,400.322	4,530.926	2,745.875	2,270.264	708.131
2011	4,752.716	816.232	1,241.939	10,297.133	499.005	3,474.120	5,875.178	3,088.753	2,381.944	926.295
2012	4,584.438	810.709	1,510.478	13,686.395	514.545	3,232.006	4,942.604	2,927.908	2,162.767	714.629
2013	4,789.317	775.910	1,402.773	14,438.333	767.617	3,526.490	4,871.698	2,653.838	2,262.387	701.884
	Category with the highest amount of exports									
	Category with the second highest amount of exports									

Table 3: Greek export portfolio, division according to SITC, in $ million, 1981-2013

Source: UN Comtrade

IMPORT PORTFOLIO- GREECE in $ million

	0- Food and live animals	1- Beverages and tobacco	2- Crude materials, inedible, except fuels	3- Mineral fuels, lubricants and related materials	4- Animal and vegetable oils and fats	5- Chemicals	6- Manufact goods classified chiefly by material	7- Machinery and transport equipment	8- Miscellaneous manufactured articles	9- Commod. & transacts. Not class. Accord. To kind
1981	891.533	44.746	554.682	1,933.472	21.804	870.886	1,647.908	2,463.579	336.340	15.685
1982	1,145.129	67.433	601.409	2,871.051	16.826	787.982	1,560.381	2,557.241	355.533	49.203
1983	1,119.415	71.595	586.497	2,606.043	13.081	798.231	1,571.101	2,363.858	334.657	35.105
1984	1,106.943	71.044	563.959	2,626.441	10.318	866.359	1,512.026	2,469.588	379.980	4.340
1985	1,164.305	79.165	586.823	2,993.441	16.674	875.862	1,602.021	2,378.952	433.376	7.309
1986	1,674.776	101.057	700.710	1,959.251	35.337	1,190.307	2,140.609	2,864.580	566.994	6.865
1987	2,153.227	142.601	776.306	1,785.856	74.259	1,429.417	2,652.637	3,132.791	758.901	2.125
1988	1,876.833	152.451	757.604	624.053	59.254	1,451.664	2,587.785	3,629.515	952.855	136.471
1989	2,230.749	243.189	866.143	1,035.754	51.213	1,715.385	3,609.019	4,937.985	1,374.391	38.995
1990	2,512.525	324.414	996.538	1,526.823	81.624	2,080.480	4,253.153	6,110.036	1,842.112	15.540
1991	2,368.487	364.848	965.777	2,084.292	189.686	2,215.559	4,241.422	7,077.320	2,015.386	29.384
1992	2,764.140	464.386	750.279	2,298.589	73.173	2,472.800	4,167.832	7,930.116	2,372.162	126.681
1993	2,471.434	476.127	639.314	2,343.387	53.130	2,417.913	3,568.962	7,671.482	2,223.879	96.984
1994	2,758.202	452.188	731.825	2,112.280	87.702	2,706.577	3,884.681	6,042.652	2,526.840	146.020
1995	3,398.988	532.577	915.431	1,886.872	89.595	3,397.314	5,134.858	7,043.039	3,446.101	36.933
1996	3,410.095	578.802	945.104	2,496.020	108.227	3,549.799	5,157.520	8,492.310	3,622.703	36.291
1997	3,222.072	524.539	928.630	2,114.597	100.797	3,430.928	5,069.281	7,967.773	3,550.316	41.963
1998	3,301.985	559.668	892.104	2,226.810	112.612	3,695.353	5,216.798	10,401.399	3,711.587	130.316
1999	3,197.323	577.408	739.296	1,691.035	82.664	3,650.810	4,700.843	11,802.113	3,861.356	116.550
2000	2,697.335	483.738	703.392	3,966.314	52.523	3,414.190	4,452.319	10,021.970	3,434.757	256.371
2001	2,666.359	511.881	730.406	4,329.932	65.814	3,481.662	4,200.136	8,891.040	3,411.105	143.557
2002	3,200.587	605.734	880.204	4,354.170	95.728	3,405.383	4,293.448	10,176.134	3,894.554	386.396
2003	4,142.432	685.506	1,080.548	6,172.863	193.573	5,680.622	6,051.712	15,527.002	5,036.295	260.910
2004	4,825.354	810.869	1,304.598	6,706.122	165.805	7,082.714	7,445.817	17,924.433	6,419.553	83.597
2005	4,974.107	860.730	1,360.066	9,831.893	160.654	7,882.931	7,393.561	15,629.576	6,693.302	74.242
2006	5,527.118	903.107	1,485.099	12,217.023	207.901	8,683.420	9,048.716	17,970.168	7,473.481	187.138
2007	6,817.894	1,012.067	2,077.093	11,522.203	302.632	10,585.485	11,074.044	22,369.676	9,715.642	135.298
2008	8,074.142	1,146.495	2,482.820	20,395.556	462.544	12,489.875	12,326.961	25,096.426	11,679.134	144.004
2009	7,030.949	1,181.509	1,486.239	12,304.704	310.936	10,837.633	7,646.454	21,219.819	9,446.735	54.346
2010	6,682.126	922.300	1,601.908	16,301.125	324.022	9,783.805	7,420.463	15,675.904	7,682.896	20.663
2011	7,365.976	797.231	1,893.678	20,620.606	368.057	9,840.765	7,255.585	11,701.570	6,809.776	20.611
2012	6,376.267	646.795	1,626.911	23,507.013	382.185	8,293.104	5,720.261	10,666.411	5,254.455	22.972
2013	6,698.083	653.139	1,556.735	22,806.506	361.639	8,499.754	6,007.290	9,163.333	5,373.967	15.325

Category with the highest amount of imports

Category with the second highest amount of imports

Table 4: Greek import portfolio, division according to SITC, in $ million, 1981-2013

Source: UN Comtrade

B Irish trade portfolio according to SITC

IMPORTS TO IRELAND BY SITC in million EUR

	Total food and live animals (0)	Beverages and tobacco (1)	Crude materials, inedible, except fuels (2)	Mineral fuels, lubricants and related materials (3)	Animal and vegetable oils, fats and waxes (4)	Chemicals and related products, n.e.s. (5)	Manufactured goods classified chiefly by material (6)	Machinery and transport equipment (7)	Miscellaneous manufactured articles (8)	Commodities and transactions n.e.s. (9)
1973	150.684	32.109	97.772	98.424	7.964	156.545	321.747	390.197	134.055	54.496
1974	212.362	38.163	137.438	287.579	14.018	238.607	444.618	452.546	177.070	62.587
1975	242.922	45.010	89.440	309.443	11.952	243.682	422.813	532.275	200.292	65.949
1976	320.086	46.380	140.387	397.401	16.033	326.000	587.636	754.901	283.124	96.616
1977	451.160	50.049	163.735	493.691	23.829	436.735	752.437	1,054.542	376.291	122.150
1978	490.055	60.081	163.757	477.617	22.509	562.670	907.754	1,410.006	494.487	125.727
1979	629.502	71.661	210.578	745.053	31.657	716.627	1,180.209	1,737.205	655.877	128.972
1980	727.508	72.102	214.908	1,019.859	31.524	711.324	1,258.369	1,870.672	804.902	171.708
1981	968.406	83.710	260.017	1,226.920	38.368	877.386	1,430.501	2,293.035	974.331	200.179
1982	956.595	94.988	236.859	1,281.879	39.376	936.071	1,464.649	2,377.566	1,057.471	209.278
1983	1,073.180	92.343	280.837	1,260.874	42.739	1,071.004	1,488.981	2,691.600	1,133.239	219.078
1984	1,184.628	107.840	375.591	1,405.242	69.185	1,310.281	1,739.148	3,527.938	1,310.125	286.144
1985	1,262.680	131.932	377.516	1,424.680	74.621	1,400.842	1,796.649	3,740.410	1,384.771	377.239
1986	1,248.381	122.795	319.118	930.456	52.271	1,330.462	1,739.462	3,433.332	1,423.734	346.769
1987	1,251.288	132.542	326.768	858.996	47.750	1,430.031	1,831.884	3,892.173	1,489.134	364.148
1988	1,353.844	159.399	374.094	721.212	55.373	1,640.693	2,079.329	4,465.136	1,708.930	412.054
1989	1,464.964	177.064	435.947	856.193	62.288	1,935.984	2,345.456	5,900.051	1,971.607	448.244
1990	1,420.359	195.998	429.889	1,018.684	50.957	1,972.508	2,443.165	5,685.469	2,161.437	453.666
1991	1,560.438	231.979	408.071	957.748	52.528	2,167.871	2,453.553	5,662.657	2,361.414	460.898
1992	1,625.265	262.201	370.129	868.755	52.948	2,175.061	2,457.959	5,971.324	2,495.797	474.628
1993	1,572.571	236.044	422.188	906.847	69.709	2,350.031	2,231.311	6,948.388	2,490.845	362.129
1994	1,790.204	267.788	505.610	839.551	85.199	2,840.785	2,562.839	8,527.307	2,710.510	393.111
1995	1,873.245	264.613	518.815	850.978	103.357	3,347.791	3,014.739	11,206.962	3,078.861	421.299
1996	1,962.761	296.357	517.164	1,045.883	104.499	3,507.144	3,076.321	12,022.134	3,634.244	737.464
1997	2,103.067	350.194	569.097	1,139.717	105.388	4,076.621	3,405.565	14,920.057	3,965.138	725.782
1998	2,325.906	410.633	653.026	1,008.045	123.546	4,340.346	3,768.583	20,058.306	4,423.260	856.819
1999	2,555.983	500.150	671.057	1,294.117	138.274	4,931.917	3,806.929	22,820.622	4,891.158	846.407
2000	2,825.700	522.100	819.700	2,299.700	121.900	6,105.200	4,350.600	29,752.400	5,893.000	1,088.300
2001	3,116.200	679.400	798.800	2,218.700	122.800	6,340.500	4,390.700	30,282.100	6,299.700	1,232.200
2002	3,156.500	728.500	800.400	1,932.200	115.800	6,922.300	4,338.300	28,751.700	6,115.900	1,369.100
2003	3,159.800	705.700	790.100	1,969.000	120.700	6,897.400	4,245.000	22,205.900	6,302.600	1,265.800
2004	3,273.100	696.100	843.900	2,813.500	116.800	7,139.600	4,619.800	23,294.300	6,331.600	1,307.900
2005	3,681.200	776.100	934.800	4,020.300	129.500	7,419.000	4,947.200	26,987.900	7,086.400	1,253.500
2006	4,086.100	804.800	1,069.000	4,719.400	162.900	7,963.600	5,569.400	29,593.000	7,360.000	1,142.100
2007	4,592.900	903.100	1,102.500	5,728.200	160.400	8,126.600	6,082.300	28,924.400	7,610.200	1,373.700
2008	4,681.100	835.800	831.900	6,594.500	208.000	8,282.100	5,456.800	22,789.700	6,860.600	1,602.200
2009	4,417.000	769.500	582.800	4,445.300	176.900	7,371.800	3,427.700	18,209.400	6,122.300	1,621.100
2010	4,578.800	821.800	678.200	5,601.700	180.600	8,758.200	3,498.800	16,042.500	6,152.600	1,383.500
2011	5,018.500	806.000	725.500	6,945.800	248.200	10,415.400	3,711.800	17,977.400	6,013.500	265.800
2012	5,589.400	861.700	693.600	7,159.700	250.600	10,265.200	3,712.800	19,315.900	6,068.600	187.400
2013	6,032.900	823.200	672.200	6,886.100	235.100	10,872.600	3,876.400	17,948.400	6,119.400	209.500

Category with highest amount of imports

Category with second highest amount of imports

Table 5: Irish import portfolio, division according to SITC, in $ million, 1973-2013

Source: UN Comtrade

EXPORTS FROM IRELAND BY SITC in million EUR

	Total food and live animals (0)	Beverages and tobacco (1)	Crude materials, inedible, except fuels (2)	Mineral fuels, lubricants and related materials (3)	Animal and vegetable oils, fats and waxes (4)	Chemicals and related products, n.e.s. (5)	Manufactured goods classified chiefly by material (6)	Machinery and transport equipment (7)	Miscellaneous manufactured articles (8)	Commodities and transactions n.e.s. (9)
1973	447.240	30.014	63.632	8.446	4.174	74.523	186.252	108.768	112.473	68.118
1974	535.069	33.276	84.777	18.861	7.824	124.422	254.518	148.162	154.000	79.331
1975	816.029	39.783	85.173	24.243	7.955	137.379	254.822	204.716	178.718	88.960
1976	933.372	48.236	98.999	15.622	10.332	212.665	354.517	322.279	240.728	123.792
1977	1,216.127	52.646	121.812	21.212	13.391	309.852	485.817	484.020	324.975	167.564
1978	1,448.416	66.302	152.729	15.446	13.533	450.672	520.612	520.683	392.975	181.096
1979	1,537.578	83.087	217.072	21.155	13.909	573.541	584.424	712.686	482.018	190.349
1980	1,737.969	106.620	230.592	33.931	11.698	660.207	660.889	968.763	567.404	205.628
1981	1,788.472	160.007	230.856	40.171	8.828	815.877	752.174	1,332.581	684.868	252.426
1982	1,949.268	215.242	291.550	45.731	9.623	1,022.672	813.074	1,770.508	820.242	288.730
1983	2,214.159	231.567	361.089	100.943	11.247	1,223.544	921.121	2,303.499	1,056.102	393.583
1984	2,620.960	264.249	641.366	135.658	17.803	1,569.763	1,073.063	3,238.155	1,258.521	477.988
1985	2,799.753	300.144	571.472	157.025	20.182	1,785.875	1,147.692	3,668.821	1,372.112	548.029
1986	2,786.723	289.846	516.780	93.168	13.208	1,588.444	1,123.206	3,618.954	1,408.039	464.553
1987	3,398.077	300.604	558.224	98.036	13.043	1,659.762	1,196.406	4,272.069	1,656.069	463.743
1988	3,682.951	319.047	700.822	81.959	14.613	2,047.558	1,315.515	4,876.289	2,039.913	545.265
1989	4,074.503	378.217	799.014	87.175	16.354	2,647.243	1,458.618	5,907.398	2,495.913	669.982
1990	3,627.894	414.528	655.976	115.069	14.248	2,886.560	1,461.876	5,697.857	2,588.659	741.206
1991	3,850.133	450.344	626.698	113.466	15.501	3,373.559	1,530.116	5,605.411	2,853.034	651.829
1992	4,802.911	478.691	594.745	122.657	18.030	4,061.638	1,594.156	5,691.855	3,251.926	643.630
1993	5,013.307	556.145	591.317	148.432	22.728	4,854.971	1,463.627	7,302.899	3,545.363	663.692
1994	5,429.781	593.476	693.785	139.544	25.776	6,038.874	1,609.647	8,853.249	4,183.914	665.089
1995	6,158.230	613.664	716.386	153.003	29.966	6,694.694	1,715.670	12,186.692	5,494.030	926.020
1996	5,260.779	657.470	706.863	148.051	35.553	8,538.100	1,724.812	13,494.395	5,843.208	1,542.097
1997	4,602.166	697.848	771.493	187.032	36.441	11,342.570	1,749.953	16,963.574	6,044.461	1,857.373
1998	4,947.027	721.084	740.638	150.718	51.170	18,155.985	1,803.536	21,443.718	6,705.233	1,941.556
1999	5,483.618	803.617	797.522	177.001	28.950	21,168.692	1,812.805	26,193.173	7,638.490	2,123.891
2000	5,948.400	958.200	942.300	285.400	27.300	27,360.500	1,973.100	34,108.800	8,864.000	2,576.200
2001	5,801.100	984.700	953.200	296.900	23.600	32,281.400	1,954.700	37,647.200	8,969.100	2,799.200
2002	5,779.700	1,003.000	862.700	361.900	25.700	39,060.600	1,925.900	33,554.500	8,284.900	2,579.200
2003	5,779.400	1,107.500	865.500	201.200	31.300	35,785.500	1,792.100	24,029.900	9,456.900	2,697.200
2004	6,063.000	1,036.700	991.400	399.800	25.300	37,491.800	1,817.400	23,474.700	9,910.000	2,874.400
2005	6,379.800	1,103.400	1,077.100	616.200	18.400	40,420.800	1,755.000	23,150.100	9,066.000	2,671.000
2006	7,034.200	1,359.000	1,493.000	562.300	19.500	39,695.800	1,714.400	23,910.500	8,650.900	2,167.800
2007	7,602.900	1,407.600	1,538.900	686.500	27.600	43,069.200	1,817.700	23,159.800	8,489.300	1,905.200
2008	7,085.300	1,236.800	1,312.900	832.100	41.300	44,225.500	1,660.700	19,965.800	9,410.100	1,981.300
2009	6,280.000	1,079.100	972.200	594.800	20.100	49,315.000	1,245.100	15,081.300	9,701.900	2,464.100
2010	7,003.200	1,204.400	1,444.200	1,027.500	27.000	53,236.700	1,448.900	11,299.500	10,878.400	2,710.800
2011	7,874.400	1,177.300	1,764.300	1,353.600	54.500	56,030.700	1,657.900	11,718.200	10,846.100	179.200
2012	8,132.300	1,208.500	1,732.600	1,646.500	55.500	55,044.800	1,689.600	11,562.200	11,400.900	483.500
2013	8,733.900	1,174.100	1,732.500	822.700	51.600	50,394.200	1,711.000	11,859.000	11,529.200	542.800

Category with highest amount of exports

Category with second highest amount of exports

Table 6: Irish export portfolio, division according to SITC, in $ million, 1973-2013

Source: UN Comtrade