Income Inequality

Does Austerity Promote Income Inequality?
A Study On Ireland
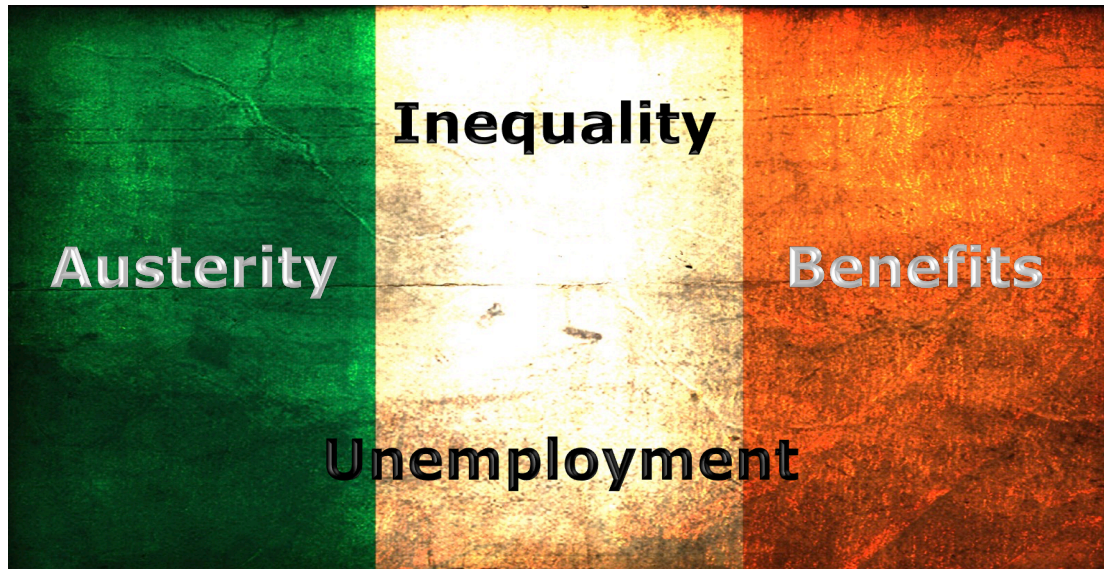
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Abstract

The purpose of this study is to investigate what kind of effect austerity had on income inequality. Many experts criticize austerity, as it does not fulfill its intended purpose. Here for, Ireland has been selected as a case to show the change of income inequality as a consequence of the austerity measures taken in 2010. The study builds on theories of income inequality, and more specifically how to measure changes in equality based on specific indicators, like the Gini coefficient.

Data has been retrieved, mainly from Eurostat, in most cases for the period 2005 to 2014 to give a full picture of the development before and after the financial, the economic and the debt crisis, as well as before and during the austerity measures were taken. The findings of this study show, that in contrast to what experts claim, in the case of Ireland income inequality has decreased as a result of austerity. However, the level of social welfare indicator suggests that inequality of social welfare has increased between the employed and unemployed.

1 Introduction

The recent financial crisis has led to unstable economic conditions because what had started as a financial crisis created by financial institutions and the loose regulation of the financial markets quickly turned into a global economic crisis. The Euro countries have quickly been pulled into a sovereign crisis where entire countries have been and one at least still is at the edge of bankruptcy because of trying to save their banking sector. The PIIGS states, namely: Portugal, Italy, Ireland, Greece and Spain; have required loans from external organizations like the European Union and International Monetary Fund. However, those loans have been provided with the requirement that the borrowers implement measures of growth oriented fiscal consolidation like reducing government spending and increasing taxes. (Blyth, 2013) This kind of economic policy to fight budget deficits is also known as austerity. (Financial Times, 2015) "Austerity measures refer to official actions taken by the government, during a period of adverse economic conditions, to reduce its budget deficit using a combination of spending cuts or tax rises." (Financial Times, 2015)

Supporters of austerity argue that the long-term effects are stable economic growth, revised budgets, lower unemployment and less income inequality. While other economic experts warn that exactly those effects can never be achieved with austere measures. (Blyth, 2013). Many voices claim that austerity has economic policies that will expose the already existing inequality and just make it worse, especially for people that rely on social transfers. (Krugman, 2013)

The objective of this thesis is to investigate how income inequality has changed due to the introduction of austerity. In order to do so, income inequality has been defined as the trend towards exclusion of individuals from society through one's limited resources.

The study does so by investigating the development in Ireland. This country has been selected as the exemplary case as it is one of the PIIGS states that had requested financial support from the EU and the IMF in 2010. Hence, Ireland had to implement policies to cut government spending and increases taxes. In addition, at the end of 2014, the Irish Taoiseach, Prime Minister, Enda Kenny declared that Ireland has made its recovery because of austerity. (Kenny, 2014) Therefore, it is of interest to see how

austere measures have affected the unemployed population and their income, unemployment benefits, of Ireland during that period between 2010 and 2014.

The thesis is divided into three parts, first the methodology and theoretical background, second the analysis, and third a discussion and the conclusion. The first part provides the ground facts on how the thesis is set up by presenting the background, the research questions, the academic justification and the theory that is supporting the problem formulation. The second part is the analysis of Ireland, its economic development in the past years and the introduction of austerity as well as the changes that it has brought for unemployed benefits and personal taxes. The third section will then discuss the findings from the analysis in regards to the theory as well as in a more international context, so to include a discussion on a still struggling country like Greece. This is done before concluding on the topic and discussing any short falls and possible further research topics.

1.1 Relevance

This topic addresses the social, political and economic problems that a welfare state faces when an economic crisis occurs. The economic aspect is how to deal with the aftermath of a crisis, especially when a country has to rely on external sources of funding which put up certain stipulations that have been determined as the best way to regain the countries' economic strength. In this case, the austere conditions then present the political aspect, as the governing party or parties have to implement such measures and explain the increase in taxes and cuts in social transfers. This binds in the social aspect that is income inequality. The subject of income inequality is a growing concern for welfare states, as the intention is to keep the income gap as narrow as possible. However, in situations when policies are taken to revert an economic unstable situation also has the potential to magnify other issues like income inequality. And those policies have a direct effect on the people and especially on the part of the population that is unemployed and relies on the social transfers.

Another aspect is that a study like this about austerity, income inequality and unemployment benefits for a one of the PIIGS countries provides the base to further studies that aim at a more international and/or historical approach, where parallels between those specific countries or even with other countries from different regions and other economic political backgrounds can be tested.

Hence, all the above makes it a relevant topic to study and to see what kind of effects austere policies in regards to unemployment benefits and personal taxes have on income inequality.

2 Background

The first part of this section provides a detailed background on austerity, the concept of it, the advantages as well as disadvantages, and why it has been decided to introduce it as the economic policy for the PIIGS states.

The second part describes what has happened in Ireland, how the country went from being known as the Celtic Tiger to one of the problem children of the Euro area, before elaborating on austerity in Ireland to see what kind of measures have been taken in regards to unemployment benefits and personal taxes.

2.1 Austerity

This chapter examines the idea of austerity and describes the underpinning theoretical arguments. Previous research on the topic is briefly discussed and important conclusions highlighted. Finally, arguments for and against austerity are summarized.

2.1.1 What Is Austerity?

Two contradicting theoretical propositions of how governments can stimulate economic growth in times of financial recession exist – the expansion of fiscal stimulus and austerity. The goal of the two policies is the same; although the methods and the mechanisms they rely on go in completely different directions. The former involves increasing the government spending, so that more jobs are created and benefits are increased. This means that both the unemployed and employed have more money to spend. This causes higher demand, which spirals into to the creation of additional jobs and further increased spending (Baker, 2010).

On the contrary, austerity refers to policies aimed at reducing government budget deficits through a reduction of government spending, and/or increasing taxes (Baker, 2010). Initially this reduces aggregate demand, which in turn reduces the aggregate supply leading to lower prices and less input. This promotes deflation and a lower valued currency. The deflation makes investment in the private sector more attractive. A lower valued currency means that importing goods becomes more expensive and imports, thus, decline, while exported goods are more competitive and exports increase. Hence, domestic growth is fostered. The austerity idea builds on that the increased demand induced by the lowered interest rates will exceed the decreased demand from the reduction in government spending (Baker, 2010).

2.1.2 Arguments In Favor Of Austerity

- Balancing the budget to reduce the deficit and take control over the debt. If the debt is not reduced the cost of borrowing money to finance the debt will increase

- Regaining market confidence, by reducing the public debt quickly as business otherwise may worry about increasing interest rates and future tax raises (Krugman, 2013).

- Making it more attractive for the private sector to invest as a smaller public sector frees up more resources for private investors (Baker, 2010)

2.1.3 Arguments Against Austerity

- Risk of causing a deeper recession because the increasing demand in the private sector does not outweigh the lower demand from the government (Krugman, 2013)

- It may cause the public to worry and start saving more instead of spending more (Krugman, 2013)

- If the interest rates are already low, austerity may not have the desired outcomes as interest rates are not greatly reduced (Krugman, 2013)

- Krugman (2013) draws upon the findings of a study by the IMF to illustrate the consequences of implementing austere policies. This study has investigated "173 cases of fiscal austerity in advanced countries over the period between 1978 and 2009. And what they [IMF] found was that austerity policies were followed by economic contraction and higher unemployment." (Krugman, 2013, s. 237) In his own words, Krugman sums it up as "the Austerian desire to slash government spending and reduce deficits even in the face of a depressed economy may be wrongheaded; indeed, my view is that it's deeply destructive." (Krugman, 2013, s. 202)

- Blyth (2013) argues that government spending cuts hits the people that rely on social transfers the most, as people with more income have other alternatives. Thus, austere measures have a negative effect on income distribution as well as income inequality.
  - o Krugman (2013) further argues that narrowing the income inequality is a long-term goal that austerity cannot achieve.

2.2 Welfare Concept

The roots of the Welfare State lay with the "industrialization and the rise of capitalism, urbanization, and population growth" (Castles, Leibfried, Lewis, Obinger, & Pierson, Introduction, 2010, s. 2) at the end of the nineteenth century. These changes are coherent with the changes in political and economic ideas as well as the "formation of nation states, secularization (…), an unusually long period of peace, and, finally, the spread of civil rights and mass democracy." (Castles, Leibfried, Lewis, Obinger, & Pierson, Introduction, 2010, s. 3) Over the next century, all this has lead to the development of the various welfare models among the Western European states (Castles, Leibfried, Lewis, Obinger, & Pierson, Introduction, 2010) in order to deal with the new arising social issues that the above-mentioned changes brought with them. And the recent economic crisis of 2008 "might have a huge impact on welfare state development and may yet usher in a new period." (Nullmeier & Kaufmann, 2010, s. 81) Thus, this process is a never ending one because any welfare model constantly has to cope with new as well as ever changing social and economic issues such as inequality, unemployment and financing itself.

2.2.1 Taxation And Government Spending

The issues are tackled through specific social programs like the unemployment schemes, which are described in the next section. These programs have the purpose of assisting people and creating a more equal environment within a welfare state (Saunders P. , 2010). The programs present a cost for a government and thus, need to be financed through taxation.

However, Obinger and Wagschal (2010) suggest that taxes in addition to the social programs can also be used to reduce inequality even though "the effect of cash benefits is generally shown to be greater than that of taxation." (Obinger & Wagschal, 2010, s. 6). Saunders concurs with this point as "most government social programmes provide income transfers to those with low incomes and impose income-related taxes on those higher up the distribution, it would be surprising if they did not reduce income equality. These expectations are confirmed by the results from a larger number of comparative (and national) studies…" (Saunders P. , 2010, s. 5)

Therefore, Obinger and Wagschal (2010) advise to look at gross public spending as a factor when investigating how much a government spends. It includes taxation on cash benefits that are subject to it and any government spending in connection with welfare benefits aim to reduce inequality

2.2.2 Unemployment Benefits

The unemployment benefit or insurance are a part of a welfare state's social policy program that plays an important role for a country's economy and labor market. (Sjöberg, Palme, & Carroll, 2010) The idea is that an unemployment benefit provides the means to maintain a certain standard of living and tries to keep individuals' anchored in society by providing the incentive to find new employment. From a "political-economic perspective" (Sjöberg, Palme, & Carroll, 2010, s. 10), it is a tool to stabilize and/or counteract economic fluctuations.

The idea has its origin the beginning of the twentieth century where a "voluntary state-subsidized insurance" (Sjöberg, Palme, & Carroll, 2010, s. 2) had been introduced in several regions before France as a country adopted the idea in 1905. (Sjöberg, Palme, & Carroll, 2010) Members of such insurances were entitled to receive a daily flat-rate amount (Sjöberg, Palme, & Carroll, 2010), which later mostly was changed to "earnings-related forms". (Sjöberg, Palme, & Carroll, 2010, s. 2) Other countries had chosen to introduce targeted programs that were based on testing one's needs in comparison to one's assets. "The United Kingdom introduced the world's first national compulsory insurance scheme in 1911". (Sjöberg, Palme, & Carroll, 2010, s. 2) This system allowed for all unemployed to receive a flat-rate cash transfer, no matter any former membership and membership fees. (Sjöberg, Palme, & Carroll, 2010)

In the light with previous economic crisis, Sjöberg et al. (2010) state that in an economic recession or stagnation, austere policies as well as "party-political factors" (Sjöberg, Palme, & Carroll, 2010, s. 8) affect unemployment schemes as more unemployed mean a decreasing tax base and therefore, larger strains on a government's budget. And while Sjöberg et al. (2010) acknowledge that "in the 'new politics' perspective, 'permanent austerity' defined in terms of government budgetary pressures is viewed as a largely exogenous factor driving welfare state retrenchment" (Sjöberg, Palme, & Carroll, 2010, s. 8), they conclude based on their study that budgetary constraints are coming from within in such a period.

Additionally, Sjöberg et al. (2010) come to the conclusion that politicians' use and design unemployment programs more for the macroeconomic effect then to encourage the unemployed and hence, counteract inequality.

2.3 Ireland

This following chapter explores the Irish economic development in the past couple of years. It touches briefly upon the topics of how Ireland became known as the Celtic Tiger, before going into a bit more detail on how the burst of the housing bubble and the following financial crisis turned Ireland into one of the troubling cases with the Euro area. Following this, the chapter will further describe that Ireland decision to apply for financial aid from external creditors and the conditions connected to receiving loans. The section will conclude why Ireland has been chosen to act as the sample country for this research and the problem formulation.

2.3.1 Ireland – The Way Of The Celtic Tiger Into The Crisis

During the last decade of the twentieth century and before the introduction of the single currency, the Euro, the countries throughout Europe faced rising unemployment in connection with a decrease in employment-population ratio. (Schettkat, 1999)

Not Ireland, while the country struggled in the 1970s and 1980s and was running a rather substantial public deficit, things were turned around in the 1990s and Ireland became known as the Celtic Tiger. Irelands decision to open its economy and to indirectly fix its currency to the Deutsche Mark made it possible to become more competitive, which led to a higher employment rate. In contrast to most other European countries, Ireland was able to create new employment opportunities in both the service as well as the manufacturing sector. (Schettkat, 1999) This in turn influenced the disposable income of households that grew on average by 4.1% during the 1990s, in comparison to 1.6% a decade earlier. (Schettkat, 1999) However, the country was able to still keep the income level lower than in other European countries, which had a direct effect on its competitiveness. This again had a positive effect on the domestic demand, which developed by 80% of GDP. In the same time Ireland was able to decrease its government spending steadily and to reduce inflation rates within the limits of other European countries rates. The open economy with a focus on a strong currency, low inflation and a consolidated budget made it possible for Ireland to have an average GDP growth of 5.9%, which outperformed most of Europe. (Schettkat, 1999)

Ireland decided to join the European Monetary System and adopted the Euro as its currency in 1999. Even though certain economic aspects changed because of this, Ireland's strategy of creating an educated workforce and exporting to expanding countries helped it remain in a strong economical position. (Blyth, 2013) Furthermore,

the advantages of being an English speaking country and being in a good geographical location as well as the low corporate taxes made Ireland attractive for multinational corporations. This led to increases in wages, consumption, tax revenues and migration of educated workforce.

By 2007, Ireland had become "best in class in terms of debts and deficits" (Blyth, 2013, s. 65). In the between 2000 and 2008, the Irish GNP (gross national product) increased by 74%, and the government increased its expenditure on welfare by 160%, on health care by 186% as well as its spending by 128% for that period. (Kinsella, 2012) At the same time, the Irish government was able to reduce the net debt to GDP ratio to 12% and the government debt to GNP to 25%, in comparison the government debt to GNP was 112% in 1986. (Blyth, 2013)

So how was it that Ireland ended up being one of the countries that was effected the hardest by the bursting of the housing bubble and the following financial crisis? Ireland's economic growth had also led to an increase in the need for real estate objects, either for usage or investments. (Blyth, 2013) This increase in need for property translated into a price increase of 64% between the start of the millennium and 2006. It also led to a rapid growth within the Irish construction sector, which was responsible for almost a quarter of GNP in 2006, 13% of total employment in 2007, which in turn accounted for approximately 18% of the Irish tax revenue. (Kinsella, 2012) At the same time, the Irish banks were able to borrow money cheaply from other big European banks through their bond-buying activities and because of low interest rates. (Blyth, 2013) However, to satisfy the Irish demand for property loans the Irish banks turned to the US repo market. With this strategy the three major Irish banks accumulated assets that were combined as much as 400% of the Irish GDP in 2007. (Blyth, 2013)

It was the collapse of the US property market that started the crisis but for Ireland and its banks it was not until the bankruptcy of Lehman Brothers. At that point, the interbank market was no longer accessible, which in Ireland led to the deterioration of the property prices and consequently, the Irish banks were no longer able to service their loans and had to deleveraged. (Kinsella, 2012) (Blyth, 2013)

The Irish government reacted by guaranteeing to save the Irish banks and backing up their loans. (Blyth, 2013) They did so in order to establish confidence in the investors. However, this guarantee also meant that the acquired debt went straight into the

public budget as around 70 billion Euros were injected into the banking system. (Blyth, 2013) The bailouts accounted for 14.5% in 2009 and respectively, 32% in 2010 of the nominal GDP. (Kinsella, 2012) This drove the general government debt to increase by 320% (Kinsella, 2012) and to exceed 110% of the Irish GDP. This turned the financial crisis into a sovereign crisis and with it into a problem for the taxpayers. (Blyth, 2013)

2.3.2 Ireland – In The Crisis

This 70 billion Euros program, named National Asset Management Agency, was decided upon in September 2008 and by April 2009; the Irish government had bought up the 'bad' assets and liabilities. (Kinsella, 2012) While doing this has been deemed necessary by the Irish government it also was the initial spark to move Ireland into a debt crisis. The bailout of the banks created a budget deficit and this with "running a pro-cyclical taxation and expenditure mix" (Kinsella, 2012, s. 224) drove the debt to GDP ratio from 32% in 2007 to 97% in 2010 (Kinsella, 2012) Overall in the period between 2007 and 2010 Ireland experienced the "largest compound decline in gross national product (GNP) of any industrialised economy" (Kinsella, 2012, s. 224) and its GDP decreased by 27%. (Kinsella, 2012) In the meantime, the absolute government spending want from 52.5 billion Euros in 2007 to 61 billion Euros in 2010, while its revenue was decreased by 14 billion Euros, from 61 billion Euros to 47 billion Euros during the same period. (Kinsella, 2012) This had an influence on the Irish credit rating that during this time was downgraded to the same level as the one for Portugal and Greece. Furthermore, being part of a common currency makes its members vulnerable to panic attacks during economic crises. This has a magnifying effect, as investments are not just withdrawn from a single country but from the common currency area. (Krugman, 2013)

All this was also felt in the domestic market and in the private households. Consumers increased their savings so that the net savings rate went from 1.6% in 2007 to 14.6% in 2010. And even though the "domestic prices […had] fallen for nine consecutive quarters, especially in the private sector" (Kinsella, 2012, s. 224), private consumption as well as investment dropped by around 31% in 2009. (Kinsella, 2012) Kinsella (2012, s. 224) sums up "the drop in consumption and investment following the bursting of the property bubble in late 2007, allied to drops in capital spending by the government and the ramping up of national debt, both private and public, has resulted in the Irish economy's highly fragile state."

Consequently, this affected the labor market and the unemployment rate rose from 4.7% in 2007 to 14.7% in 2011. (OECD, 2015) (Eurostat, 2015) And of those 14.7%, 59.3% were long-term unemployed. (OECD, 2015) (Eurostat, 2015) This topic will be analyzed and discussed in more detail throughout the thesis, since unemployment is part of the thesis problem formulation.

And in 2012, Kinsella's (2012) best estimate was for a stabilizing Irish economy with a general government debt (GGD) at around 108% was for 2014.

2.3.3 Ireland And The Loans

Ireland had itself maneuvered into as "highly fragile" (Kinsella, 2012, s. 224) state. And in order to overcome this crisis, had to rely on financial aid by external creditors. At the end of 2010, Ireland had received €157 billion from the ECB, €67.5 billion in a rescue package from the European Union's European Financial Stability Mechanism (EFSM) and the European Financial Stability Fund (EFSF), the United Kingdom, Denmark, Sweden and the International Monetary Fund (IMF). (Kinsella, 2012) Additionally, Ireland received another 3.9 billion Euros from the IMF in late 2011. (BBC News, 2015)

However, those loans were only given if Ireland agreed to the stipulations of its creditors. Those procedures were to be implemented over a four-year period and included certain austere measures.

One aspect of it has been the fiscal consolidation. The creditors made it a condition that taxes had to be increased. Part of this was the lowering of personal tax bands and credits had to be pursued. Furthermore, Ireland agreed to cut down on social protection expenditure and public sector workers as part of reducing its government spending. (Kinsella, 2012)

Other conditions were to reduce the interest rate (BBC News, 2015), restructure certain aspects of the labor market and the reform the financial sector. (Kinsella, 2012)

2.4 Ireland And Its Unemployment Benefits and Taxation

The two aspects that are of interest for the thesis are the unemployment benefits and the taxation in Ireland. The following parts elaborate on what changes have been made to these two aspects as consequence of introducing austerity. In order to have a good foundation, the following paragraphs define terms of unemployment, long-term unemployment and taxes.

The succeeding sub-chapters then provide an overview on the Irish unemployment benefits as well as the taxes and how both have been changed since 2010.

An unemployed person is someone between the age of 15 and 74 years that is actively seeking and available for work because he/she is without employment. Hence, the unemployment ratio counts all "unemployed persons as a percentage of the labour force." (Eurostat, 2015) A long-term unemployed person is someone that fulfills the conditions for an unemployed person and has been without work for at least 12 months. (Eurostat, 2015)

The taxes that are analyzed in this study are the total tax revenue; taxes on income and profits, value added tax as well as the taxes on the average worker. This in combination with looking at the change in disposable income will provide an indication what kind of change the employed experienced.

2.4.1 Ireland And The Unemployment Benefits

Ireland has two different systems to help its unemployed, which are both paid out by the Department of Social Protection. (Department of Social Protection, 2015)

The first is called 'Jobseeker's Benefit', which is a flat-rate unemployment benefit and is categorized as comprehensive basic security unemployment insurance. (Esser, Ferrarini, Nelson, Palme, & Sjöberg, 2013) Such a model pays out a flat rate to the eligible people without considering their individual contributions or income levels. (Esser, Ferrarini, Nelson, Palme, & Sjöberg, 2013) In the Irish case those rates are based on a person's previous gross yearly income divided by PRSI contributions in the applicable tax year, which is determined as two years prior to the claim. (Department of Social Protection, 2015)

For a person to qualify for 'Jobseeker's Benefit' the following requirements have to be met: (Department of Social Protection, 2015)

- "Be fully unemployed or unemployed for at 4 days out of 7"
- "Be over 18 and under 66 years of age"
- "Have enough social insurance (PRSI) contributions"
- "Be capable of work"
- "Be available for and genuinely seeking work" (Department of Social Protection, 2015)

It is paid out on a weekly basis and the duration depends on the previously paid contributions into the PRSI. People with 260 and more credits are allowed to receive 'Jobseeker's Benefit' for nine months, and people with fewer credits get six months. (Department of Social Protection, 2015)

Below shows the weekly Jobseeker's Benefit payment in 2015. The payments are taxable.

Average weekly earnings	Personal rate	Increase for a qualified adult	Increase for a qualified child
Less than €150	€84.50	€80.90	€29.80
€150 - €219.99	€121.40		
€220 - €299.99	€147.30		
€300 or more	€188	€124.80	

Table I: Weekly Jobseeker's Benefit Payment In 2015 (Department of Social Protection, 2015)

The second tier unemployment benefit in Ireland is the 'Jobseeker's Allowance'. This is the general support from the Irish state for unemployed people. Unemployed people can apply for it if they are no longer or not eligible for 'Jobseeker's Benefit'. To do so they have to fulfill the factors below: (Department of Social Protection, 2015)

- "Must be over 18 and under 66 years of age"
- "Be fully unemployed or unemployed for at least 4 days out of 7"
- "Be capable of work"
- "Be available for and genuinely seeking work"
- "Satisfy the mean test"
  - "Means are below a certain level"
- "Meet the habitual residence condition"
- "Be able to show evidence of this to the Department of Social Protection" (Department of Social Protection, 2015)

The Department for Social Protection investigates each applicant's "household sources of income including [...] spouse's, civil partner's or cohabitant's income." (Department of Social Protection, 2015) This 'test' accesses the means of the individual and if it falls below a determined level. The level depends on other factors, like other income within the person's household, savings, etc. (Department of Social Protection, 2015)

As it states above to receive 'Jobseeker's Allowance', the claimant has to be a 'habitual residence. This means that the person needs to prove to the Department of Social Protection that he/she has a connection to Ireland and/or has been a resident for some time and intends to stay "for the foreseeable future." (Department of Social Protection, 2015)

Every 'Jobseeker Allowance' recipient is allowed two weeks of vacation per year while receiving the allowance. (Department of Social Protection, 2015)

There are certain circumstances that can lead to reduction and/or disqualification for nine weeks of a person's 'Jobseeker Allowance':

- "Left work voluntarily and without just cause"
- "Lost […] job through misconduct"
- "Refused an offer of suitable alternative employment or suitable training"
- "If […] refuse or fail to attend meetings requested by the Department"
- "If […] refuse or fail to participate in an appropriate employment support scheme, work experience or training" (Department of Social Protection, 2015)

There are some special regulations for students. They can only apply for 'Jobseeker Allowance' three months after they have left school. Furthermore, during their full-time studies, including the summer break, they are also not eligible to receive this kind of benefit.

The Figure II shows the current maximum 'Jobseeker Allowance' rate for different ages. The personal rate is the maximum an individual for that specific age group can receive per week. Each person can receive additional means depending on the level of education and/or if the recipient has a qualified child. (Department of Social Protection, 2015) The Department of Social Protection does not include the "increase for a qualified child" for the ages 25 and below.

Age	Personal rate	Increase for a qualified adult	Increase for a qualified child
≥26	€188	€124.80	€29.80
25	€144	€124.80	-
18 - 24	€100	€100	-

2.4.2 Ireland And Personal Taxes

Ireland has, according to a report by Ibec[2], a highly progressive and redistributive tax system with a narrow tax base and a high marginal tax rate. (Ibec - For Irish Business, 2015)

It is defined as progressive as the system puts burden towards the top of the income range. In order for a single person to have an effective income tax rate of 5% he/she needs to earn at least 20,000 Euros per year. Additionally, figure III illustrates the topside of the system. "The top 1% of all income tax cases in Ireland are responsible for 9.1% of the income and pay 30.4% of the taxation, the top 5% pay almost 55% of all taxation from 22.7% of the income." (Ibec - For Irish Business, 2015) And this shows that the top 10% of the income tax cases pays almost 60% of the Irish income taxes, which in turn also highlights the redistributive effect of the tax system. (Ibec - For Irish Business, 2015)

	Income	Cases	Tax %	Income %
Top 1%	200,000+	18,741	30.4	9.1
Top 5%	100,000+	99,129	54.6	22.7
Top 10%	75,000+	199,802	58.1	33.9

Table III: Total Distribution Of Income And Tax (Ibec - For Irish Business, 2015)

The Irish income tax system is favorable with low taxation for people with a low yearly income. The limit here is 39,000 Euros per year or 120% of the average wage. At this point the Irish effective income tax rate becomes higher than the OECD's average one. (Ibec - For Irish Business, 2015)

Those two factors, progressiveness and redistribution, have a balancing effect for income inequality. The report by Ibec (2015) mentions that this has a positive influence on the Gini coefficient.

2.5 Conclusion

Ireland has been chosen as sample case because out of the PIIGS states it is the one that has announced the end of austerity at the end of 2014. (Kenny, 2014) The country has returned to economic growth, has a functioning tax system and fulfills the

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[2] Ibec – For Irish Business is an organization that represents the interests of the Irish businesses

requirement to introduced austerity as part of the deal with its creditors. It is therefore of interest to see what kind of effect the austere measures had on the Irish income inequality.

3 Research Problem

3.1 Research Question

The main research question is:

What kind of effect has austerity had on income inequality in Ireland?

In order to narrow down the research question and its outcome, the following sub-questions are answered:

How has the introduction of austerity influenced government spending, taxation, as well as unemployment and unemployment benefits?

How did disposable income and savings change after the introduction of austerity?

In comparison to the employed population of Ireland, has the income distribution for the unemployed population changed after the introduction of austerity?

4 Theoretical Background

The aim of the thesis is to look into how the implementation of austere policies impacts inequality, by looking at the changes to the unemployment benefits and the income distribution. Austerity is claimed to influence inequality by reducing government spending, which induces cuts to unemployment benefits, and tax changes that can have an overall effect on the income distribution at both ends of the equality scale. Hence, the following section explains the theories on inequality and unemployment to establish the basis for how these concepts can be quantified and measured.

4.1 Theory On Income Inequality

This section defines the term income inequality as it is used throughout the paper, and then names the factors that need to be considered when selecting the appropriate theory before the chosen theory for measuring income inequality is explained.

4.1.1 Definition

The Oxford Dictionary describes inequality as "difference in size, degree, circumstances, etc.; lack of equality" (Oxford Dictionaries, 2015), while the Oxford Dictionary of Economics specifies inequality in respect to economic matters by defining it as:

> "Differences in the distribution of economic stocks or flows among economic agents. For example, wealth inequality refers to the distribution of the stock of wealth, whereas income inequality refers to the distribution of the flow of income. Inequality can arise among individuals or groups within an economy, or among nations. Inequality can be graphically represented by the Lorenz curve or measured by a range of indicators including the Atkinson index and the Gini coefficient." (Black, Hashimzade, & Myles, 2013)

These are two general definitions and it depends on an individual's background, view and/or approach to the topic of inequality, but all definitions have at their cores that the idea of "'inequality' obviously suggests a departure from some idea of equality." (Cowell, 2011, s. 1)

Cowell (2011) quotes in his book several definitions by Professor Rein and Miller on equality of which the following three build the basis for the author's own definition.

"*The social minimum*: here one aims to ensure that no one falls below some minimum standard of well-being." (Rein & Miller, 1974 as cited in (Cowell, 2011, s. 1))

"*Economic inclusion*: the objective is to reduce or eliminate the feeling of exclusion from society caused by differences in incomes or some other endowment." (Rein & Miller, 1974 as cited in (Cowell, 2011, s. 1))

"*Avoidance of income and wealth crystallization*: this just means eliminating the disproportionate advantages (or disadvantages) in education, political power, social acceptability and so on that may be entailed by an advantage (or disadvantage) in the income or wealth scale." (Rein & Miller, 1974 as cited in (Cowell, 2011, s. 2))

From the three equality definitions it can be seen that Rein and Miller (1974) define the essentials to equality for all individuals as inclusion in society, which does depend on one's income. And with this in mind, the chosen definition that is used throughout the thesis is:

Income inequality is the trend towards exclusion of individuals from society through one's limited resources.

This deducted definition is rather widely phrased in order to include all aspects of the problem formulation. Consequently, it is aimed at the lower end of the inequality distribution because this includes the unemployed population and the problems that come with the issue on relying on a welfare state's unemployment benefits as counter measurement to an widening income gap and social exclusion.

4.1.2 Factors

Jenkins and van Kerm (2013) make out three essential factors that have to be considered when analyzing income inequality. The first one is the economic variable, which in many inequality studies is either defined as household income or

consumption. According to them there are two different perspectives on which might be better suited to make an inequality study. Jenkins and van Kerm (2013) counter the welfarists, who prefer consumption as a measure because "consumption is a more appropriate measure for distributional analysis than income because it is consumption that enters an individual's utility function" (Jenkins & van Kerm, 2013, s. 42), with the argument that having money and spending it are two very different things, thus considering income to be the better measurement.

The demographic unit is another variable that according to Jenkins and van Kerm (2013) needs consideration when attempting to measure inequality. One standard is to analyze a household and assume that income and consumption is equally distributed among all members of a household. This is a faulty assumption considering that the composition of an average developed country household is normally accepted to be four people, consisting of two adults and two children. It can be assumed that the children do not contribute to the income and that the needs in regards of consumption also differ among all members in any given household. The other "widely accepted" method is to examine "the income or consumption of a population of individuals" (Jenkins & van Kerm, 2013, s. 44). In regards to the population, Cowell (2011) points out that a change through migration can play a role when analyzing inequality.

The time period is the third factor that has to be included when measuring inequality as a fitting time variable can illustrate a more or less accurate picture of inequality (Jenkins & van Kerm, 2013). The choosing of the time frame can also decide if a researcher wants to put its focus on consumption or income as the measurement for inequality. Jenkins and van Kerm (2013) suggest that income is better analyzed over a short period of time as this decreases the likelihood an individual's income is streamlined while consumption should exactly for the same reason be measured for a longer period.

While the above points out the factors that need to be considered when deciding on an inequality measure, Cowell (2011) mentions additionally different characteristics that have to be thought of prior to the final decision. First, he points out that an income index should be measurable and comparable. These two separate factors provide different meanings but if both attributes are fulfilled the reliability of a study is increased. Second, Cowell (2011) defines an income index as "a scalar numerical representation of the interpersonal differences in income within a given population."

(Cowell, 2011, s. 7) Scalar is the representation of various inequality elements as a single number in an index that makes it possible to come up with a 'yes' or 'no' answer when looking development of inequality. Hence, the use of several indices gives a more complex answer to the same question as the different measurements look at it from other angles. The numbers have to be sorted in a predefined way to be able to analyze them, which is the numerical representation. The next part of the statement is the income variance, which Cowell (2011) suggests not to reflect when researching income distribution, as it is difficult to account for the variation that some people require and others deserve more resources than others.

4.1.3 Diagram

When measuring inequality diagrams, index and rankings can be used to illustrate the development and/or the current situation.

A first way to visualize this is by presenting the basic data in form of a diagram and here; "Jan Pen's Parade of Dwarfs" (Cowell, 2011, s. 18) is the underlying concept. The idea behind this visualization is that people are lined up according their income from lowest to highest income, just like when lining up in PE class in school according to height. This is used as basis for various diagram concepts that deal with inequality measurement, one of which is the Lorenz curve. This concept illustrates the distribution of income proportionally to its population. Figure I (Cowell, 2011) below, is an example how a Lorenz curve can look like. The blue dotted line shows the case of perfect equality while the fictive red line represents how income could be distributed among a population. The Lorenz curve never crosses the 'perfect equality' line (Wondon & Yitzhaki, 2002) and thus, always draws towards the lower right corner but the baggier the curve the greater inequality is.

When two or more Lorenz curves are plotted in the same diagram that do are not identical or cross each other, it is possible to establish an order, also called the Lorenz ordering. (Jenkins & van Kerm, 2013) This allows to draw the conclusion that the baggier the curve the higher the inequality distribution.
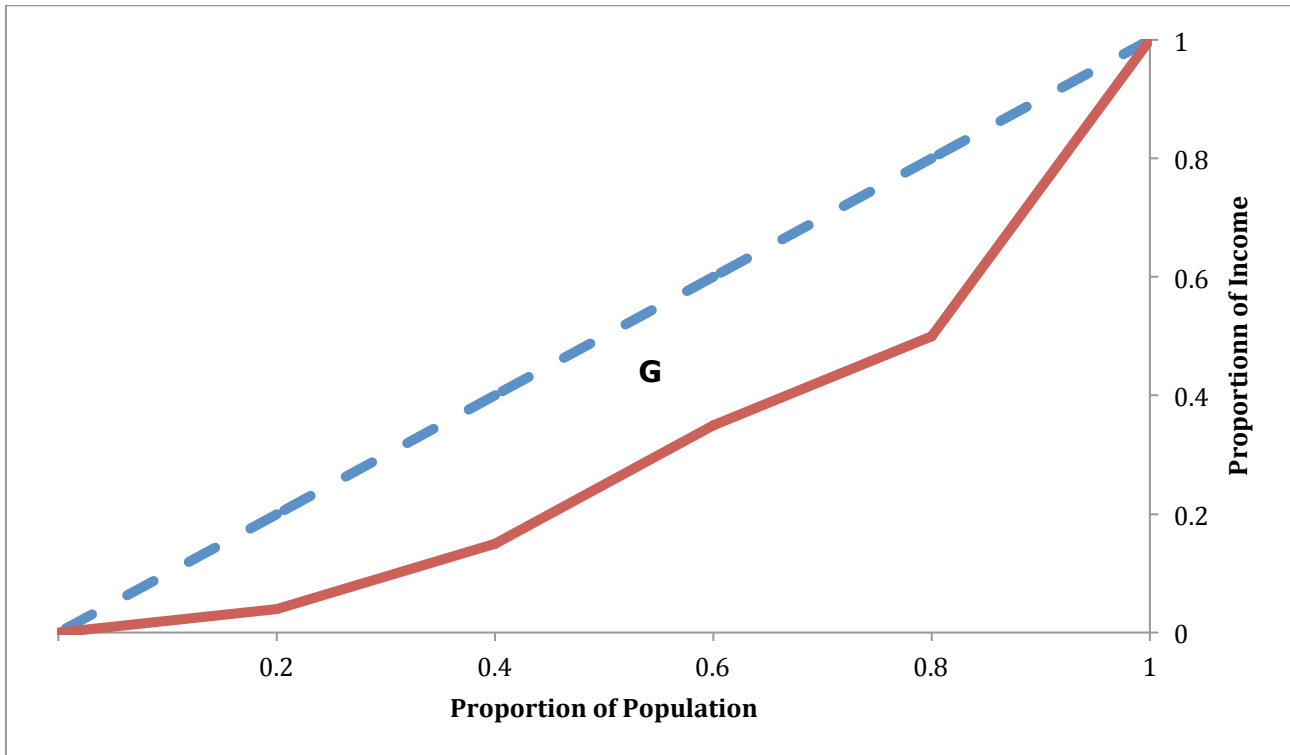
Figure I - Lorenz Curve Of Income (Cowell, 2011, s. 22)

4.1.4 Indices

The second tool is to use one index or several indices as a measurement, and "the most commonly used inequality index is the Gini coefficient." (Jenkins & van Kerm, 2013, s. 50) This index is directly derived from the Lorenz curve (Cowell, 2011) and while Cowell describes it "as the average difference between all possible pairs of incomes in the population expressed as a proportion of total income." (Cowell, 2011, s. 26), Beck et al. (2007) define it shortly as the "deviations of the perfect income inequality" (Beck, Demirgüç-Kunt, & Levine, 2007, s. 4), Eurostat explains it a bit more detailed as:

> "The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income, to the cumulative share of the equivalised total disposable income received by them." (Eurostat, 2015)

In comparison to the Lorenz curve the Gini coefficient provides a number, which is always between "0 (perfect equality) and 1 (perfect inequality)". (Jenkins & van Kerm, 2013, s. 50) It is the area between the line of perfect equality and the Lorenz curve

divided by the area below the perfect equality line (Jenkins & van Kerm, 2013), which in Figure I is depicted as **G**. (Cowell, 2011)

Other indices are the percentile ratios, which are normally referred to as 'P90:P10', 'P90:P50', 'P50:P10' or other possible combinations that show the relationship between the top, median and bottom income distribution. (Jenkins & van Kerm, 2013)

Another index that is of interest is the "Level of Social Welfare" index (Wondon & Yitzhaki, 2002, s. 5). This index allows to measure and to compare social levels in relative terms for different states by using the following equation:

$$W = \mu(1 - G)$$

Where W is the level of social welfare, μ is the mean income of the state, and G represents the Gini coefficient. (Wondon & Yitzhaki, 2002)

"With a Gini index of 0.60, a society with mean per capita income of $1,000 would have a level of social welfare of $400. This would be lower than the level of social welfare of a society with mean per capita or equivalent income of $800 and a Gini index of .40, yielding a social welfare level of $480." (Wondon & Yitzhaki, 2002, s. 5)

In this study the "Level of Social Welfare" is used to analyze the different available mean income stages; the total population, the employed and the unemployed. This can be done since the Gini coefficient is weighted the same way for all three mean income stages. The intention is to see how the "Level of Social Welfare" has developed for the individual income groups.

5 Methodology

5.1 Objective

The objective of this thesis is to analyze the development of the income inequality under austere policies in a recovering economy for a limited time frame with the focus on the unemployment benefits in comparison to the top income percentile. With this in mind, to see if the propositions from well respected experts about austerity and income inequality hold true for the specific case of Ireland. The research question and its sub-questions have been defined as well as adjusted in the writing process and through previous knowledge, review of existing literature, discussions and personal interest. This chapter highlights the methods used for the analysis as well as the argumentation and justification as to their effect on the research.

5.2 Reliability And Validity

The right research design for any kind of study is essential in order to produce reliable and valid output. (Saunders, Lewis, & Thornhill, 2009) A particular threat to the reliability for this study is that either an observer error and/or bias will enter the research, as no individual is inerrable. (Saunders, Lewis, & Thornhill, 2009) Hence, to minimize both and to create an objective study, the main components are clearly defined and the data sources are challenged throughout the thesis.

The chosen casual research approach explains the relationship between the two variables, austerity and income inequality, which provides the ground for the validity of the study. (Saunders, Lewis, & Thornhill, 2009) This study looks exclusively at how austerity changes income inequality and restrains from being a generalizable research (Ghauri & Grønhaug, 2005). While it might be possible to conduct the same research for other countries, it can be assumed that it yields different results because of the differences in the alignment of the countries economies, their welfare state philosophies, government spending and other factors.

5.3 Research Design

The guidelines to writing a Master's Thesis set certain limits, like space and time allowed, hence a research design needs to be effective as it provides the outline for conduction of the aspirational analysis. (Ghauri & Grønhaug, 2005)

The chosen research question investigates if austerity has an effect on income inequality. Here a casual research fits best, as it is a structured approach to examine a 'cause-and-effect' problem. (Ghauri & Grønhaug, 2005) For this research the cause is defined as the introduction of austere policies and the effect is the change in income inequality. However, according to Ghauri and Grønhaug (2005), three factors need to be fulfilled in order to have a justified 'cause-and-effect' relationship. The first one is the "covariation between cause and effect" (Ghauri & Grønhaug, 2005, s. 60), which in accordance with the proposition that austerity causes a negative change in income inequality. Therefore, it is of interest to see if and what kind of 'effect' has taken place. The second factor is that the cause precedes the effect (Ghauri & Grønhaug, 2005). Here, the stipulations of the European Union for obtaining loans from first the European Financial Stability Facility and later the European Stability Mechanism are the ratification of the fiscal pact and the implementation of austere measures (European Financial Stability Facility, 2013) (Die Bundesregierung, 2015) (European Stability Mechanism, 2015) are assumed to be the reason for the effect. The intention of the stipulations is to revise budgets and to return to a stable economic growth. Hence, the introduction of austere measures precedes the possible effect. And the third aspect is the exclusion of other factors that might impact the effect. (Ghauri & Grønhaug, 2005) In connection with the previous two factors, it is assumed that austerity is the sole direct cause for the change in government spending policies and thus, the effect. However, it cannot be absolutely eliminated that a change in the unemployment benefits and taxes has been done because of other policies so that the delimitation serves as the tool to exclude other causes.

5.3.1 Quantitative Research

Quantitative research uses measurement of numerical data or data that is quantifiable (Saunders, Lewis, & Thornhill, 2009) and comes up with a conclusion through statistical means (Ghauri & Grønhaug, 2005).

The decision to use a quantitative research method is based on the problem formulation in connection to the analysis of Ghauri and Grønhaug (2005), who define a quantitative approach as a logical as well critical approach that is result oriented on testing hypotheses. This study tests the hypothesis if austerity has an effect on income inequality by being objective and analytical through using numerical data.

Saunders et al. (2009) state that the numerical data has to be analyzed and interpreted by using a coherent quantitative analysis technique. Here, it is of importance to understand what type of data is used to use the best possible measurement. The data in accordance with the theory on measuring inequality is thus defined as numerical and ratio data since the obtained data can be measured on a scale and it is possible to show the variance within the data. (Saunders, Lewis, & Thornhill, 2009)

Therefore, the casual research design and the quantitative research method compliment each other and follow the same line of thought, which builds a strong justification to find a conclusion to the research problem.

5.4 Secondary Data And Data Sources

This study is solely conducted on the basis of secondary sources. Secondary data has the advantage that it is easy accessible and provides a large foundation, which allows for reliable data to be compared. However, exactly this is can also be seen as the main disadvantages as an easy access can also translate to a lower reliability. Additionally, the data has been collected for a different reason with differently defined intentions. (Ghauri & Grønhaug, 2005) It is essential to question the sources precisely on these attributes and therefore, the following section provides a short description on the various used sources to create an academic foundation in order to create a consistent, trustworthy and applicable foundation that can conclude on the problem formulation.

5.4.1 Databases

The statistics and figures are taken from Eurostat[3], which is the statistic provider for the European Union. It has been established in 1953 and since then has established an extensive data collection covering a wide range of subjects not only for European countries. This is done with the aim to provide a "solid basis of reliable and objective statistics" (Eurostat, 2015) to citizens as well as decision makers. (Eurostat, 2015)

It is believed that Eurostat is a reliable source for the statistics needed to answer the research question even though it is a direct branch of the European Union, which could lead to interference of a political organization. However, Eurostat tries to counter this dependency by providing a high degree of transparency. Their methodology is built on standards of data revision, guidelines for data collection, data

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[3] http://ec.europa.eu/eurostat/web/main/home

analysis and visualization, and survey planning, design and data compilation (Eurostat, 2015).

For the main economical statistics the entire population is chosen as no gender nor age differentiation has been made. This would open up other issues like gender inequality and/or youth unemployment and hence, would not be purposeful. In regards to population, the statistics are only divided into sub-populations, like the unemployed population.

Where deemed appropriate a comparison of the Irish statistics with the European Union is made. For this the average of the current European 28-member states has been selected. It needs to be noted that Croatia only joined the European Union in 2013 (European Union, 2015). However, Croatia is treated like a member state further this paper as Eurostat provides the data for all 28 countries and the average of them as European Union 28 for most of the time period of 2010 to 2014. Furthermore, the used figures focus on the total population since a gender specific investigation would deserve to be a topic of its own.

5.4.2 Books

The use of the two Oxford Handbooks (Salverda, Nolan, & Smeeding, 2013) (Castles, Leibfried, Lewis, Obinger, & Pierson, 2010) has been essential for this thesis, as both provide reliable and relevant information on various topics within the individual disciplines. The time limit of three months for completing the thesis has made it indispensable to locate such literature like these books as the embodied information is combinable and offers enough knowledge for the background information and the theoretical framework, which makes the two compendiums the main literature to assist in answering the welfare and inequality parts of this paper.

Both Oxford Handbooks are great to get an overview and a general understanding of the discussed topics as well as offer relevant information that include references to other works. However, the individual chapters can due to "space constraint" (Jenkins & van Kerm, 2013, s. 40) and their specific focuses only provide overviews, reviews or general views on their specific topics, which might have direct influence on the quality and depth of this study.

In conclusion, the time frame has made it necessary to rely mainly on the information provided through these two books but where it has been deemed necessary further

sources with the focus on Ireland, its unemployment and other welfare aspects as well as its economic inequality have been consulted.

Furthermore, the books that are discussed in more detail in the literature review by Schui, Krugman and Blyth on austerity as well as Cowell's book on measuring inequality have been thoroughly studied as they have been written by experts and thus, provide a scientific relevant, reliable and valid foundation for the background of the problem at hand.

5.5 Delimitations

One of the challenges for this thesis and its problem formulation is a clear separation of the effects of the financial crisis and austerity. In order to create such a division, the timeframe has been set for 2010 to 2014, where data is available. This should provide a clear distinction between the financial crisis and the period of austerity. And even though the crisis might still affect certain aspects, the austere measures mark the first steps towards intended recovery and hence, separate this period from the crisis itself. Therefore, the crisis itself and its effects are taken as fact and will not be discussed throughout the research.

Austere measures are an economic political tool, which has been introduced to reestablish a stable, productive and growing economic environment. The first issue here is to isolate the economical from the political factor. A consideration of the political part would open up the study to different direction within the time period like political movements, elections, other political trends as well as further introduced policies to fight the effects of the crisis. The second issue is that it is easy to lose track of what is at the hard of the thesis when one goes into the topic if the introduction of austere measures has led to the intended changes.

A research topic about (income) inequality generally is associated with poverty as both topics are closely connected but Saunders writes "inequality and poverty are related but distinct issues" (2010, s. 3). And just like the financial crisis and austerity, economical and political, these two topics cannot be clearly divided but for this study are seen as separate factors in order to establish a solid background that solely focuses on change in income inequality caused by the introduction of austerity.

The selection of the population parameters is essential as the population can be split up in various sub-populations such as gender and/or age and by doing so each study can lead to different outcomes. Both those factors also bare the potential to be a

thesis by themselves since for example the topic youth unemployment is a challenge most of the crisis-ridden countries have to deal with because of the introduction of austerity. The same counts if the population is expanded to include unemployed people that are also eligible to receive other subsidies like housing aid. Therefore this thesis looks at the total Irish unemployed population that has the right to obtain the Irish Jobseeker Allowance and Benefit.

As the study combines income inequality and austerity as well as the benefits of the unemployed, it is deemed important to look at the changes for the top percentile on the income scale. The study looks closer how taxation for the highest 10% earners has been influenced the austere policies. Inflation is another subject that plays a role in this matter, which is only touched upon as an individual topic of the thesis as most data that is affected by it has already been adjusted by the secondary data source.

In conclusion all these factors are connected and hence, it is hard to distinguish them very clearly from one another but the study will attempt to do so in order to create a clear answer to the research question.

6 Ireland – Analysis

The following chapter presents the collected data and analysis thereof, in the form of figures and tables. Firstly, the economic development of Ireland is studied. This is followed by a closer look at the changes in government spending. Thereafter, the taxation and inflation of Ireland is investigated, before studying the unemployment and the unemployment benefits. Lastly, the income distribution and the income inequality are scrutinized.

6.1 Ireland And Its Economic Development

Figure II shows the development of the GDP index at market prices for Ireland and the EU28, with 2005 values set at 100. The red line illustrates Ireland's changes, while the blue bars show the development for the EU28. It shows that the development of the Irish GDP prior to the crisis was greater than the one of the EU28. However, Ireland's GDP decreased already in 2008, while the EU28 only registered a decrease in 2009. The Irish GDP fell for three consecutive years and by 2010 had almost returned to the level of 2005. It took until 2011 before Ireland saw some progress again and this was short lived, as the GDP level almost stagnated from there on until 2014.

The statistics for the EU28 countries shows that on average all 28 countries had returned to GDP growth in 2010. However, as the Irish case shows, the statistic of the EU28 represents an average and hence, the development of individual countries can differ greatly.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU28	100.00	103.40	106.60	107.10	102.40	104.60	106.40	105.80	105.90	107.30
Ireland	100.00	105.50	110.70	107.80	100.90	100.60	103.40	103.10	103.30	108.20
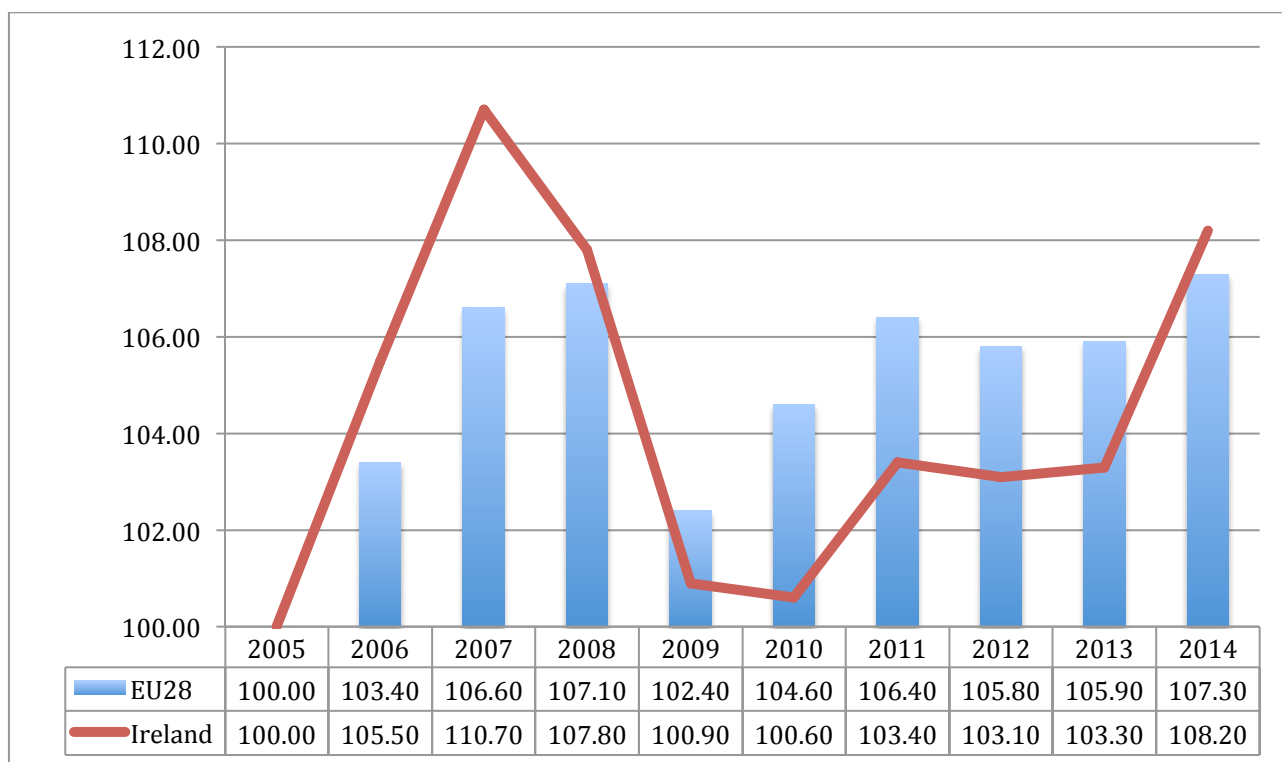
Figure II: Gross Domestic Product (GDP) At Market Prices - Chain Linked Volumes, Index 2005=100 (Eurostat, 2015; Eurostat, 2015)

The following figure III illustrates the development of the Irish and EU28 exports and imports on goods and service. Ireland's change is shown as the red (exports) and purple (imports) line, while the EU28 are represented through the blue (exports) and green (imports) bars. Both follow the same trend with the exception that again Ireland experienced a decline in both factors already in 2008. Prior to the crisis, both Ireland as well as the EU28 show an almost balance in the exports and imports. In 2009, this changes and exports become greater than the imports. The gap between exports and imports for Ireland was 17.2 in 2011 and 17.9 in 2014, while it was 3.9 and 7.4 respectively for the EU28.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Exports - EU28	100.00	109.50	116.20	117.90	103.90	114.80	122.50	125.40	127.80	132.50
Imports - EU28	100.00	109.30	116.20	117.30	103.70	113.70	118.60	118.40	119.90	125.10
Exports - Ireland	100.00	105.20	114.50	113.50	109.00	115.70	122.00	127.70	129.20	145.50
Imports - Ireland	100.00	107.10	115.60	112.70	102.30	105.40	104.80	112.00	112.80	127.60
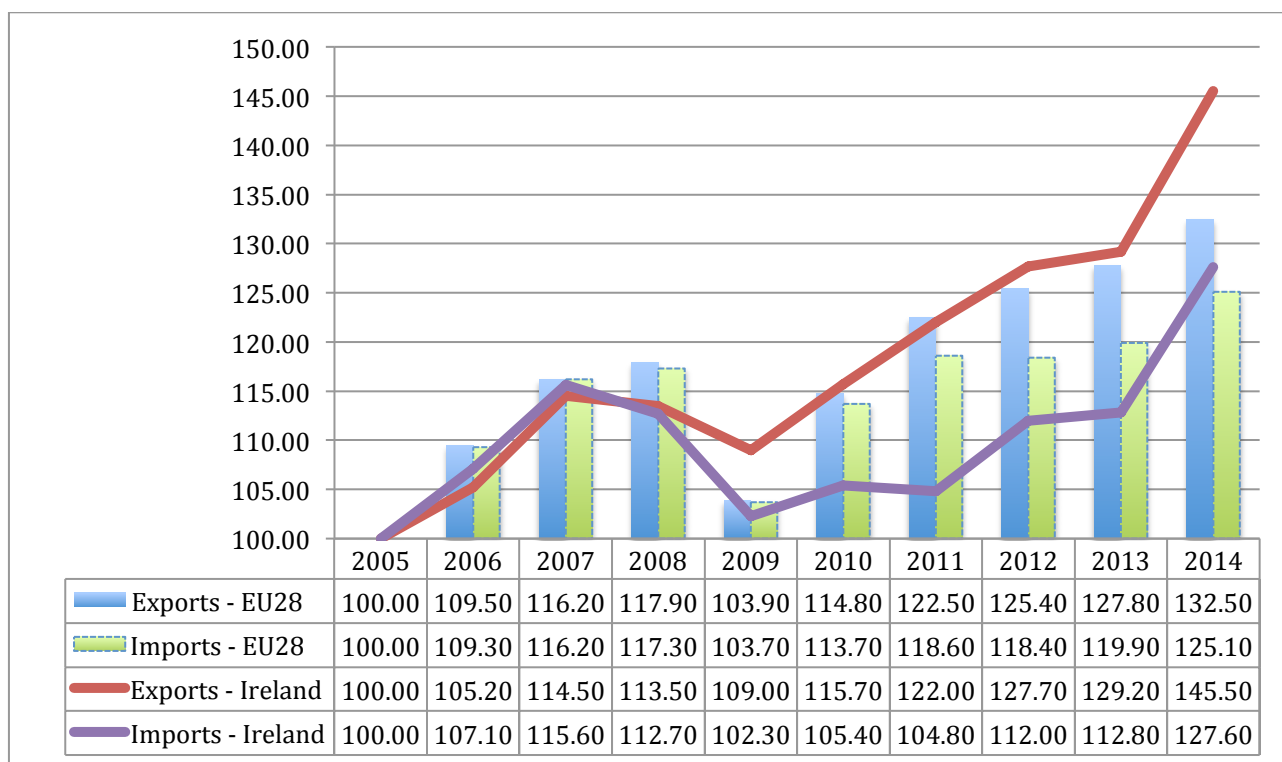
Figure III: Exports And Imports Of Goods And Services - Chain Linked Volumes, Index (2005=100) (Eurostat, 2015)

6.2 Ireland And Its Government Spending

Figure IV shows the government revenue, expenditure, deficit and debt for Ireland. The government revenue, shown as the red bars, was slightly larger than the expenditure, illustrated by the blue bars. The government revenue has almost remained around the same level as percentage of GDP with 33.5 being the lowest and 36.9 being the highest. In 2008, government expenditure surpasses the government revenue. This opened up a gap between the two that had its peak in 2010 where government expenditure was almost double that of government revenue in terms of percentage of GDP. However, since then both numbers have been moving towards each other.

The government deficit is represented through the green line, which is named net lending / net borrowing. It shows that the Irish government deficit has had a negative trend from 2008 onwards with its dip in 2010. Since then it has shown signs of recovery. In connection to this the purple line illustrates the government debt. Here Ireland has experienced a sizeable increase after 2007, where it was 24% of GDP. Since then it increased continuously so and peaked in 2013 with 123.2% of GDP.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total general government expenditure	33.50	34.10	35.90	42.00	47.60	66.10	46.30	42.30	40.70	39.00
Total general government revenue	34.80	36.90	36.20	35.00	33.60	33.60	33.50	34.20	34.90	34.90
Net lending (+) /net borrowing (-)	1.30	2.80	0.30	-7.00	-13.90	-32.50	-12.70	-8.10	-5.80	-4.10
Government consolidated gross debt	26.20	23.80	24.00	42.60	62.30	87.40	111.20	121.70	123.20	109.70

Figure IV: Government Revenue, Expenditure, Deficit And Debt As Percentage Of GDP (Eurostat, 2015)

The following graph V of the public social expenditure is in line with the development of the total general government expenditure in figure III. As the black trend line shows, public social expenditure has been increased between 2007 and 2009, after which it started to drop slightly.

	2007	2008	2009	2010	2011	2012	2013	2014
Public social expenditure % of GDP	16.59	19.54	23.41	23.28	22.34	22.02	21.87	20.99
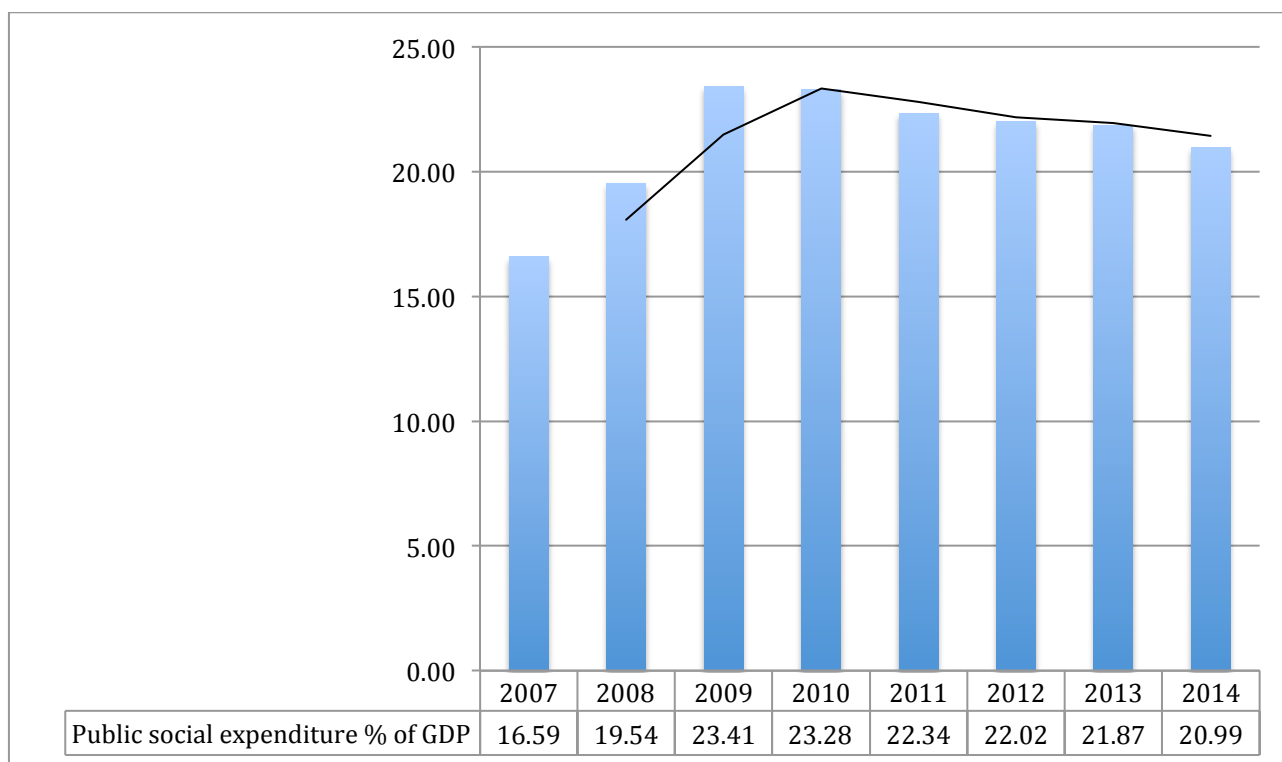
Figure V: Public Social Expenditure As Percentage of GDP (OECD, 2015)

6.3 Ireland And Its Taxation

The next graph VI shows the changes in total tax revenue (blue bars) as well as taxes on income and profits (red line) and taxes on goods and services (green line) as percentage of GDP. The total tax revenue has abated after 2007 and has been on average slightly below 28% of GDP since 2009. The taxes on income and profits as well as the taxes on goods and service make up a similar share until 2011 when the taxes on income and profits become about 2% greater than the taxes on goods and services.

	2007	2008	2009	2010	2011	2012
▬ Total tax revenue % of GDP	31.12	29.23	27.59	27.38	27.90	28.28
▬ Taxes on income and profits % of GDP	12.22	10.98	10.07	9.97	11.43	12.11
▬ Taxes on goods and services % of GDP	11.23	10.84	10.02	9.89	9.58	9.87
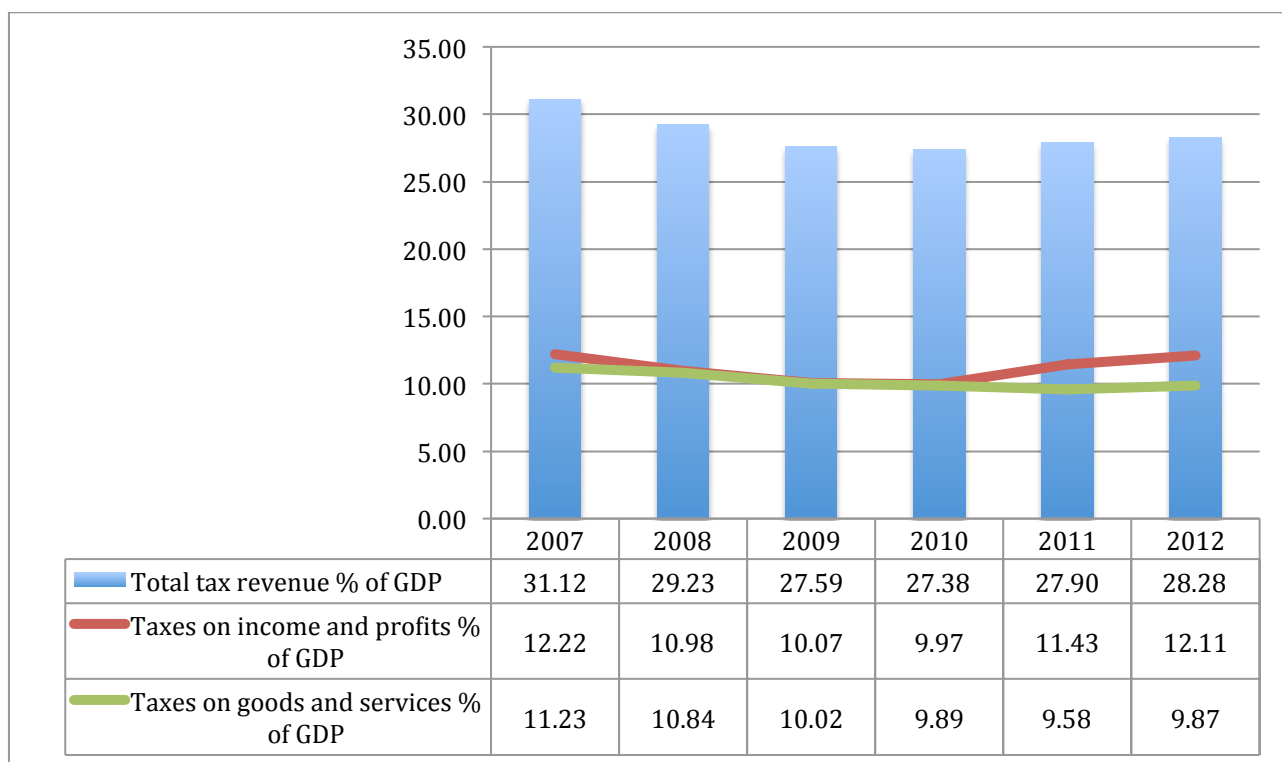
Figure VI: Taxes - Total Revenue, On Income and Profits, And On Goods And Services - As Percentage Of GDP (OECD, 2015)

Table IV shows the current taxes on income, wealth, etc., receivable for Ireland and the EU28. For both these taxes have constantly increased since 2010 as percentage of GDP but the Irish taxes make up almost double the percentage than the EU28.

	Current Taxes On Income, Wealth, etc., Receivable			
	Ireland		EU28	
	Million Euros	Percentage of GDP	Million Euros	Percentage of GDP
2010	19.892,90	12,1	1.549.046,30	12,1
2011	21.159,90	12,4	1.619.083,00	12,3
2012	22.595,30	13,1	1.698.991,50	12,7
2013	23.205,40	13,3	1.738.817,30	12,9
2014	25.216,30	13,6	1.794.200,70	12,9
Total Change	**26,76%**	**12,40%**	**15,83%**	**6,61%**

Table IV: Current Taxes On Income, Wealth, etc., Receivable - edited by the author (Eurostat, 2015)

The next table V illustrates the value added tax, receivable, which for both, Ireland and EU28, has little variation as percentage of GDP.

	Value Added Tax, Receivable			
	Ireland		EU28	
	Million Euros	Percentage of GDP	Million Euros	Percentage of GDP
2010	10.067,20	6,1	866.884,80	6,8

2011	9.755,10	5,7	909.134,00	6,9
2012	10.219,30	5,9	928.759,90	6,9
2013	10.371,90	5,9	939.139,90	6,9
2014	11.472,10	6,2	975.666,60	7,0
Total Change	**13,96%**	**1,64%**	**12,55%**	**2,94%**

The last figure VII in this section demonstrates the changes to the taxes on the average worker as percentage of the labor cost in Ireland. The first significant increase can be seen after 2008 where this index increased from 22.3% in 2008 to 25.83 in 2010. After a two-year period of almost remaining the same, it increased the following two years by a little over 1% in each year.
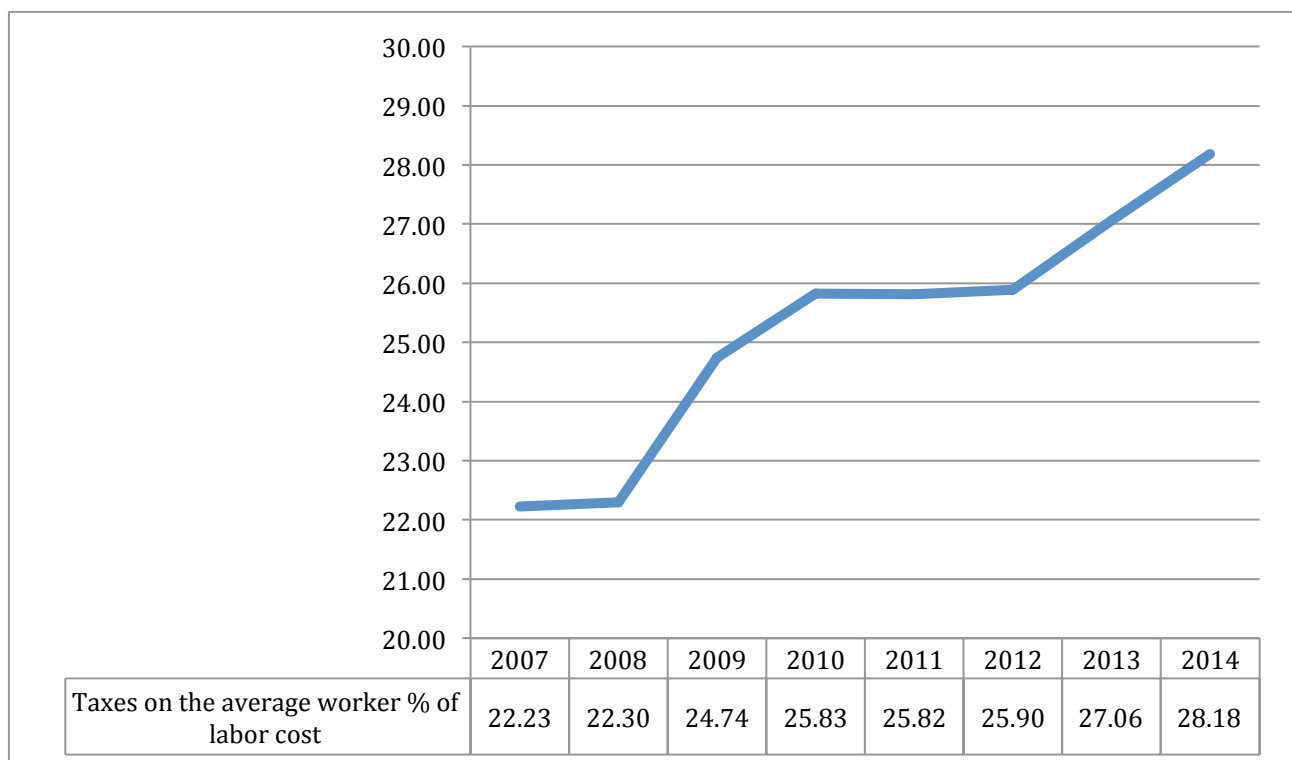
	2007	2008	2009	2010	2011	2012	2013	2014
Taxes on the average worker % of labor cost	22.23	22.30	24.74	25.83	25.82	25.90	27.06	28.18

6.4 Ireland And Its Inflation

Figure VIII shows the Harmony Index of Consumer Prices for Ireland and the EU28. This index is used by the European Central Bank (ECB) to measure the changes in inflation and price stability. The ECB and the European member states try to keep this at an average annual change of 2% (European Central Bank, 2015), which shows in this graph. However, both experienced a spike in 2008 before index drop in the following year. Ireland, illustrated as red line, experienced a deflation in in 2010 and 2011. After that the Irish inflation started following the EU28 again but at a lower level.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
▬ EU28	2.30	2.30	2.40	3.70	1.00	2.10	3.10	2.60	1.50	0.60
▬ Ireland	2.20	2.70	2.90	3.10	-1.70	-1.60	1.20	1.90	0.50	0.30
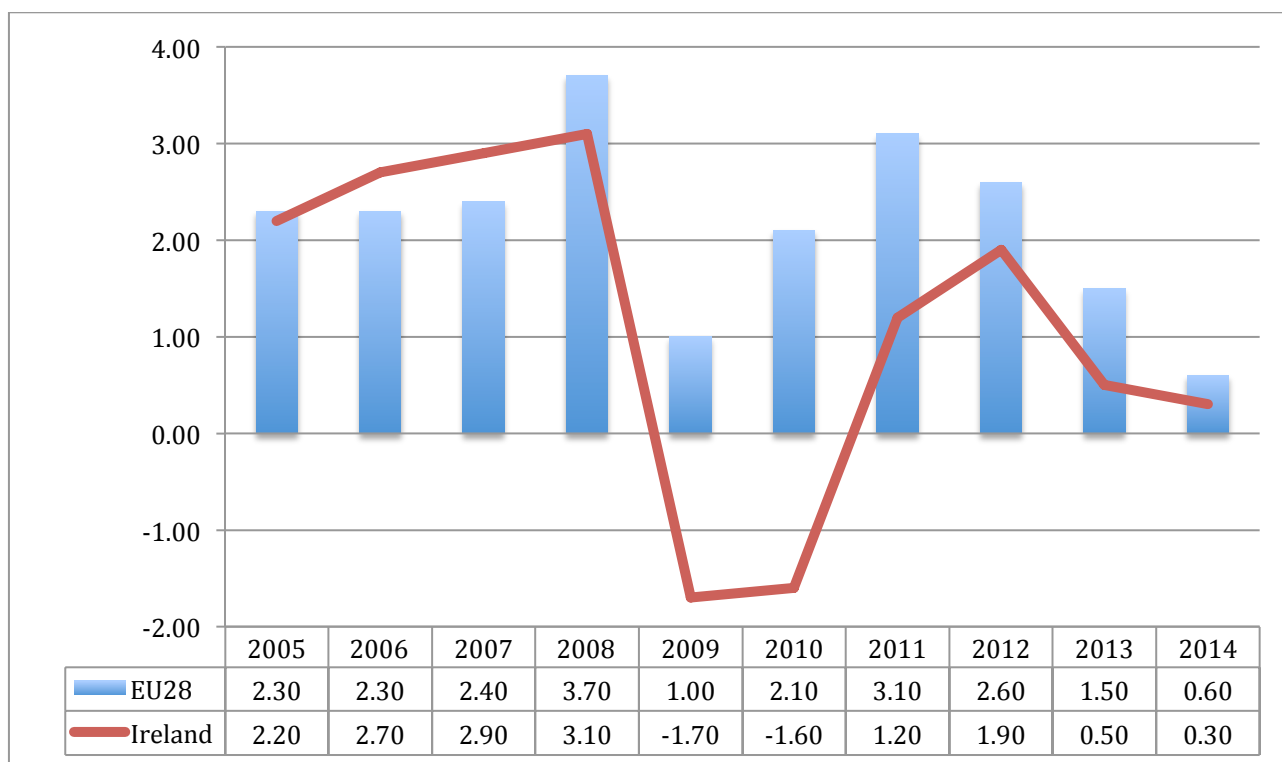
Figure VIII: HICP - All Items - Annual Average Rate Of Change (Eurostat, 2015)

6.5 Ireland And Its Unemployment

This Chapter analyzes the development of unemployment and the changes in unemployment benefits for Ireland.

The first graph, figure IX, shows the changes of unemployment rate, blue bars, and the long-term unemployment, red bars, as percentage of the total active population. The upper black line demonstrates the trend for the development of the unemployment rate, while the lower one does the same thing in regards to the long-term unemployment. For both there is increase after 2008, which had almost doubled in 2009. Both statistics reached a peak in 2012 and since they have slightly decreased but are still significantly higher than prior to the crisis.

The following table VI is directly related to figure IX as it shows the long-term unemployment as part of the unemployment. This shows that there is drop in 2009, just to double within the next two years. And since 2011 the long-term unemployment as percentage of unemployment has been consistent.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Unemployment	4.40	4.50	4.70	6.40	12.00	13.90	14.70	14.70	13.10	11.30
Long-Term	1.50	1.40	1.40	1.70	3.50	6.80	8.70	9.10	7.90	6.70
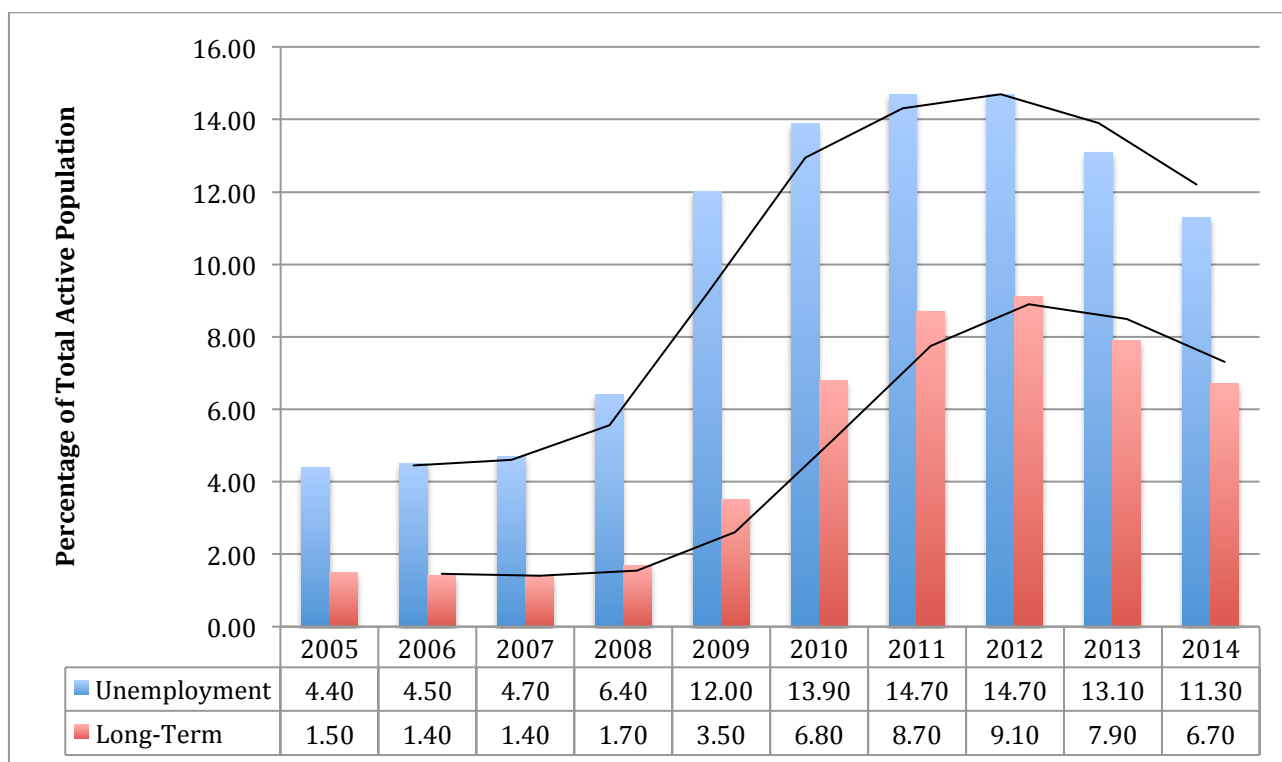
Figure IX: Ireland's Unemployment And Long-Term Unemployment (Eurostat, 2015)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ireland	33,4	31,6	30,0	26,5	29,1	49,1	59,3	61,7	60,6	59,2

Table VI: Long-Term Unemployment As Percentage Of Unemployment (Eurostat, 2015)

6.5.1 Ireland And Its Unemployment Benefits

The 'Jobseeker's Benefits' and the 'Jobseeker's Allowance' max weekly rates have been reduced in 2010 to 196.00 Euros. Those have previously been 204.30 Euros. Furthermore, the additional rate for qualified people was also reduced from previously 135.60 Euros to 130.10 Euros in 2010. In 2011, the max weekly rates were reduced even further to 188.00 Euros, and the additional rate for qualified individuals was further lowered to 124.80 Euros. (Citizens Information Board, 2015)

6.6 Ireland And Its Income Distribution

The net savings rate in household disposable income, red bars, and household disposable income, blue line, are illustrated in figure X. The savings rate was negative in 2007 and became positive as more of the disposable income was put into savings. At the same time, the disposable income dipped and became negative in 2010 and stayed this way until 2013. 2009 saw with almost 7% the biggest drop in disposable income and at the same time the savings rate had its biggest increase with 5.90%.

	2007	2008	2009	2010	2011	2012	2013
Net saving rate in household disposable income %	-0.69	6.30	12.20	9.56	7.25	8.47	8.13
Household disposable income Annual growth %	6.36	7.55	0.88	-2.37	-3.42	-0.24	-0.86
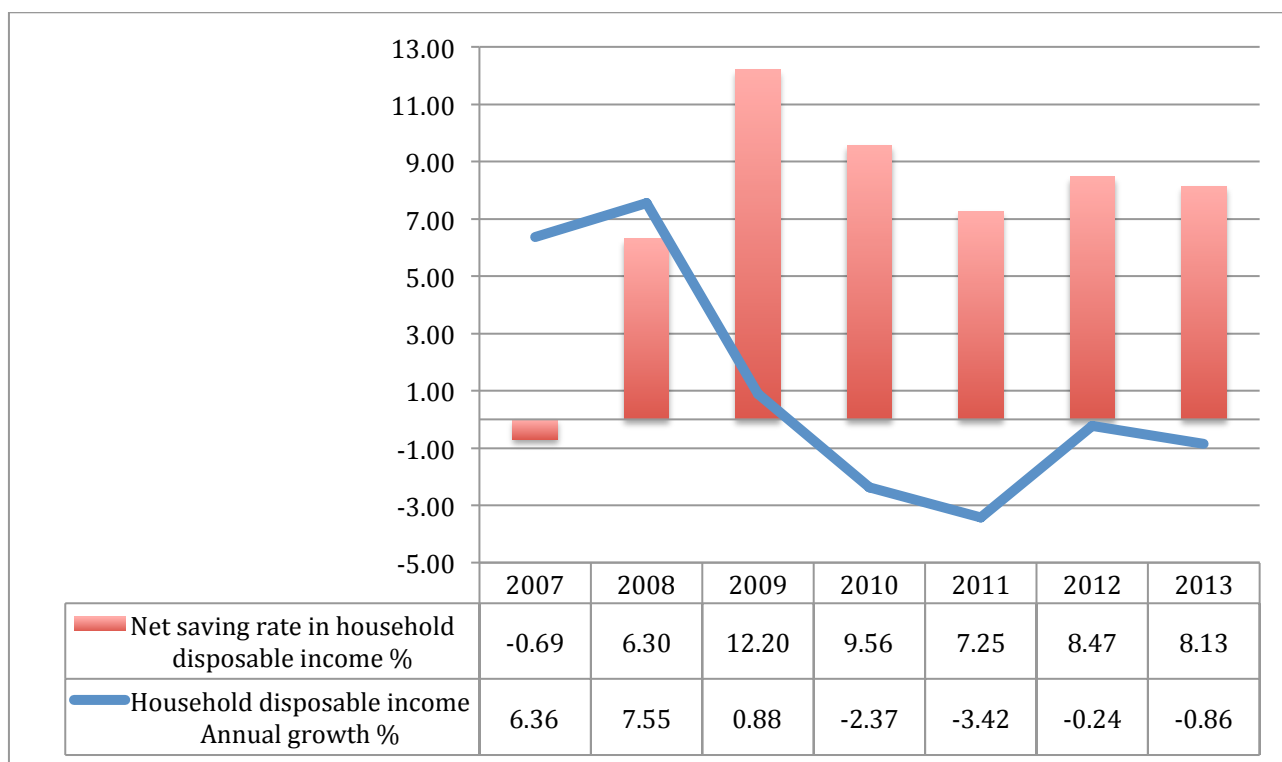
Figure X: Household Disposable Income And Net Saving Rate Of Household Disposable Income (OECD, 2015)

After looking at the change in household disposable income, figure XI and table VII illustrate the change for the individual person. It shows a similar picture as the development of the household disposable income. In the period between 2007 and 2012 total income per person (blue line) as well as the disposable income with (red bar) and without rent (green bar) decreased overall. Only the total income had a slight increase after 2010.
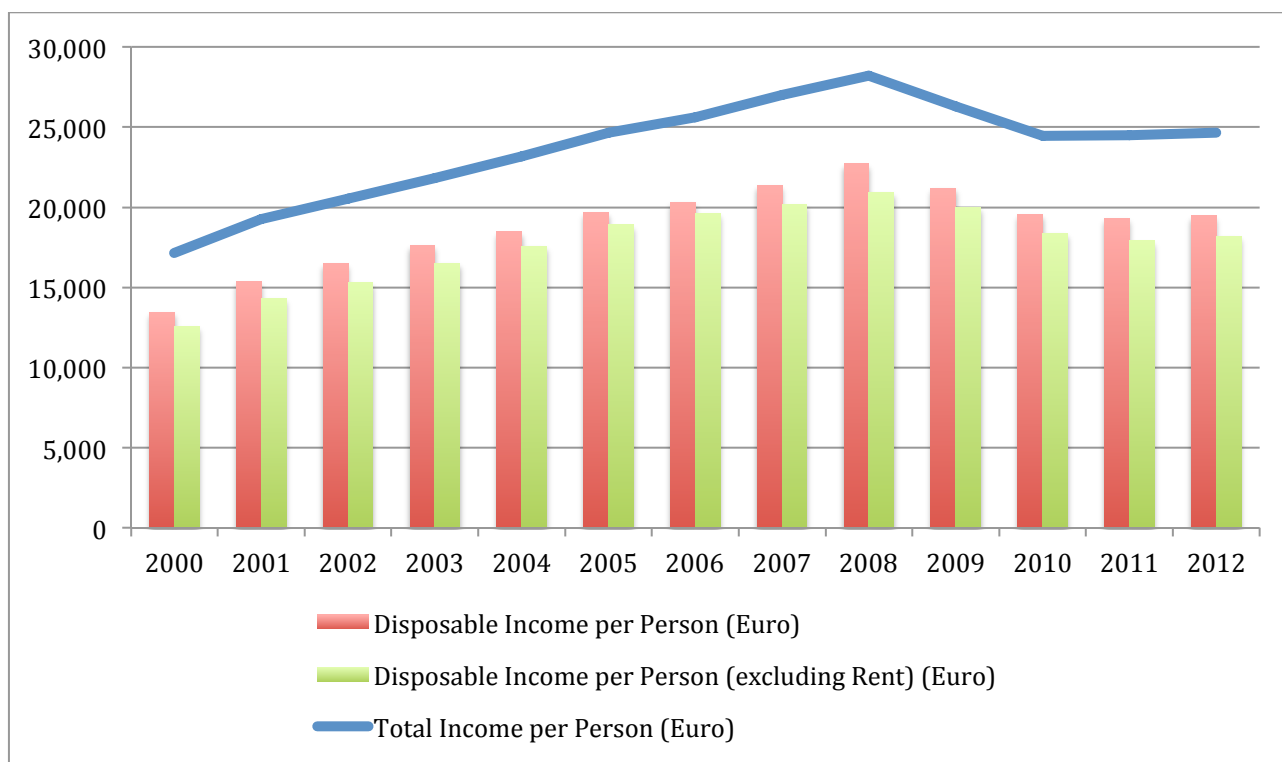
Figure XI: Total And Disposable Income For A Single Person (Central Statistics Office, 2015)

	Total Change	Δ 2000-2007	Δ 2007-2012	Δ 2007-2010	Δ 2010-2012
Total Income per Person (Euro)	43,72%	57,38%	-8,68%	-9,37%	0,76%
Disposable Income per Person (Euro)	44,55%	58,66%	-8,89%	-8,40%	-0,54%
Disposable Income per Person (excluding Rent) (Euro)	44,43%	60,27%	-9,88%	-8,91%	-1,07%

Table VII: Changes In Total And Disposable Income For A Single Person – edited by the author (Central Statistics Office, 2015)

The next figure XII illustrates the income distribution for the individual deciles. Table VIII supports this by showing the for different time segments. The time segments have been chosen in correlation with the economic events; 2005 to 2007 was the boom; 2007 to 2010 crisis; and 2010 to 2013 austerity. The lowest decile's income has not increased for the overall period. Nevertheless, it shows that the income increased both during the boom and the austerity period. The top decile's income on

the other hand has decreased in all three periods. However, contrary to the bottom decile the top decile decreased more during the boom and austerity period.
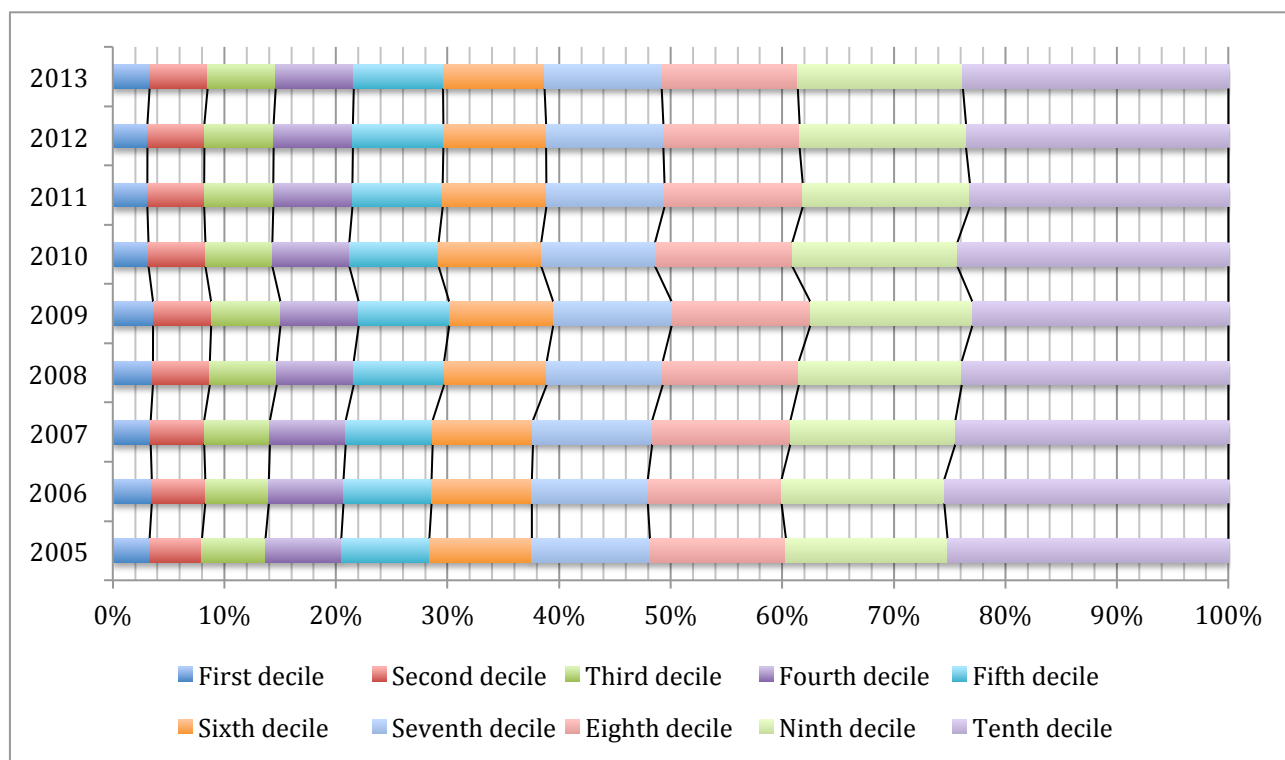
Figure XII: Distribution Of Income By Deciles (Eurostat, 2015)

Decile	Total Change in %	Total Change in % 2005 - 2007	Total Change in % 2007 - 2010	Total Change in % 2010 - 2013
1st	0,00%	3,03%	-5,88%	3,12%
2nd	10,64%	2,13%	6,25%	1,96%
3rd	7,02%	3,51%	1,69%	1,67%
4th	2,94%	0,00%	1,47%	1,45%
5th	1,27%	-1,27%	2,56%	0,00%
6th	-1,09%	-2,17%	2,22%	-1,09%
7th	-0,94%	0,94%	-4,67%	2,94%
8th	0,00%	1,64%	-0,81%	-0,81%
9th	2,07%	2,07%	0,00%	0,00%
10th	-5,56%	-2,78%	-0,82%	-2,06%

Table VIII: Distribution Of Income By Deciles - edited by the author (Eurostat, 2015)

Table IX presents the development of the mean and median income distribution for the total Irish population, the employed and the unemployed. The same is shown for the EU27 in order to have some comparable data. The table shows that both the unemployed and the employed population's mean and median income have increased overall. However, the employed experienced a decrease in income during 2007 to

2013. The unemployed however, only saw one in the period of 2010 to 2013 but then it was triple the one of the employed.

All three groups of the EU27 saw a much higher overall increase and only the unemployed experienced a decrease in the mean and median income during period of 2010 to 2013.

Nevertheless, the actual numbers show for both Ireland and EU27 show that the gap between the mean income for the employed and the unemployed has increased.

Income By Activity Status Age 18 to 64						
	Ireland					
	Mean			Median		
	Population	Employed	Unemployed	Population	Employed	Unemployed
2005	23.405	27.310	13.852	20.372	24.282	11.839
2006	25.145	28.891	14.887	21.502	25.187	11.829
2007	27.406	31.817	15.711	23.861	28.690	14.170
2008	28.233	32.091	18.410	24.770	28.695	16.394
2009	26.879	31.624	19.806	23.697	29.170	16.463
2010	25.088	29.776	17.720	21.751	26.609	15.506
2011	23.852	28.723	15.858	21.076	26.135	14.474
2012	22.715	27.113	15.501	19.760	24.486	14.045
2013	23.040	28.058	14.524	19.654	24.753	13.318
Total Change in %	-1,56%	2,74%	4,85%	-3,52%	1,94%	12,49%
Total Change in % 2005 - 2007	17,09%	16,50%	13,42%	17,13%	18,15%	19,69%
Total Change in % 2007 - 2010	-8,46%	-6,41%	12,79%	-8,84%	-7,25%	9,43%
Total Change in % 2010 - 2013	-8,16%	-5,77%	-18,04%	-9,64%	-6,98%	-14,11%
	EU27					
	Mean			Median		
	Population	Employed	Unemployed	Population	Employed	Unemployed
2005	15.164	17.172	8.957	13.346	15.148	7.798
2006	15.516	17.642	9.096	13.797	15.702	7.938
2007	16.345	18.490	9.404	14.522	16.454	8.261
2008	17.201	19.239	10.542	15.110	16.939	9.145
2009	17.534	19.541	10.963	15.502	17.386	9.630
2010	17.668	19.850	10.888	15.634	17.623	9.462
2011	17.865	20.094	10.718	15.764	17.890	9.262
2012	18.253	20.620	10.634	16.170	18.421	9.220

2013	18.203	20.587	10.372	16.059	18.381	9.075
Total Change %	**20,04%**	**19,89%**	**15,80%**	**20,33%**	**21,34%**	**16,38%**
Total Change in % 2005 - 2007	**7,79%**	**7,68%**	**4,99%**	**8,81%**	**8,62%**	**5,94%**
Total Change in % 2007 - 2010	**8,09%**	**7,36%**	**15,78%**	**7,66%**	**7,10%**	**14,54%**
Total Change in % 2010 - 2013	**3,03%**	**3,71%**	**-4,74%**	**2,72%**	**4,30%**	**-4,09%**

Table IX: Income By Activity Status – edited by the author (Eurostat, 2015)

Table X below shows the mean and median income distribution for Irish and EU27 households that are able to make ends meet with either any kind of ease or any kind of difficulty. These parameters have been chosen in order to include as many observations as possible and so not too solely focus on the top and end bottom end of the income distribution.

It shows that the income level for both criteria have positively changed since 2005. The calculated change in percentage indicates that the gap between the two factors has become smaller for Ireland but the actual numbers show an increase by 270 Euros. The EU27 shows the same behavior. Both factors have an overall positive development but the actual numbers show that the gap has widened.

Households Making Ends Meet					
		Ireland			
		Mean		Median	
		With Any Kind Of Ease	With Any Kind Of Difficulty	With Any Kind Of Ease	With Any Kind Of Difficulty
	2005	27760	17230	24328	15403
	2006	30320	18506	25646	16432
	2007	32567	20472	29181	17988
	2008	33853	21983	29521	19283
	2009	32334	22105	29396	19546
	2010	31511	20524	27447	17985
	2011	30285	19817	26552	17557
	2012	29524	19084	26890	17047
	2013	30405	19545	26845	17292
Total Change %		**9,53%**	**13,44%**	**10,35%**	**12,26%**
Total Change in % for 2005 - 2007		**17,32%**	**18,82%**	**19,95%**	**16,78%**

	With Any Kind Of Ease	With Any Kind Of Difficulty	With Any Kind Of Ease	With Any Kind Of Difficulty
Total Change in % for 2007 - 2010	**-3,24%**	**0,25%**	**-5,94%**	**-0,02%**
Total Change in % for 2010 - 2013	**-3,51%**	**-4,77%**	**-2,19%**	**-3,85%**
	EU27			
	Mean		Median	
	With Any Kind Of Ease	With Any Kind Of Difficulty	With Any Kind Of Ease	With Any Kind Of Difficulty
2005	20837	11441	18167	10404
2006	20323	11027	17985	10080
2007	21424	10858	18818	9887
2008	23253	12461	20222	11310
2009	22949	12219	20008	11136
2010	23238	12256	20372	11104
2011	23579	12220	20575	11114
2012	24417	12504	21532	11417
2013	24643	12626	21704	11479
Total Change %	**18,27%**	**10,36%**	**19,47%**	**10,33%**
Total Change in % for 2005 - 2007	**2,82%**	**-5,10%**	**3,58%**	**-4,97%**
Total Change in % for 2007 - 2010	**8,47%**	**12,88%**	**8,26%**	**12,31%**
Total Change in % for 2010 - 2013	**6,05%**	**3,02%**	**6,54%**	**3,38%**

Table X: Income By Most Frequent Activity – Households Making Ends Meet - edited by the author (Eurostat, 2015)

Figure XIII combines tables XI and XII for Ireland and graphically shows what can be seen from the numbers. All parameters follow the same trend. However, the gap between the mean income for the employed and the unemployed as well as the gap between the household making ends meet with any kind of easy and any kind of difficulty have become slightly wider in 2013.

6.7 Income Inequality

Figure XIV shows the development of Gini coefficient for Ireland, red line, and the average of all the 28 EU member states, blue bars, for the years 2005 to 2013. The Irish Gini coefficient drops with the onset of the crisis to a low point of 28.80 in 2009. After a spike in 2010, the Gini coefficient leveled off in 2011 to 2013 at around 30.00. The Gini coefficient for the EU28 has been consistent since 2005 at an average of 30.54.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU28	30.60	30.30	30.60	30.90	30.50	30.40	30.70	30.40	30.50
Ireland	31.90	31.90	31.30	29.90	28.80	30.70	29.80	29.90	30.00
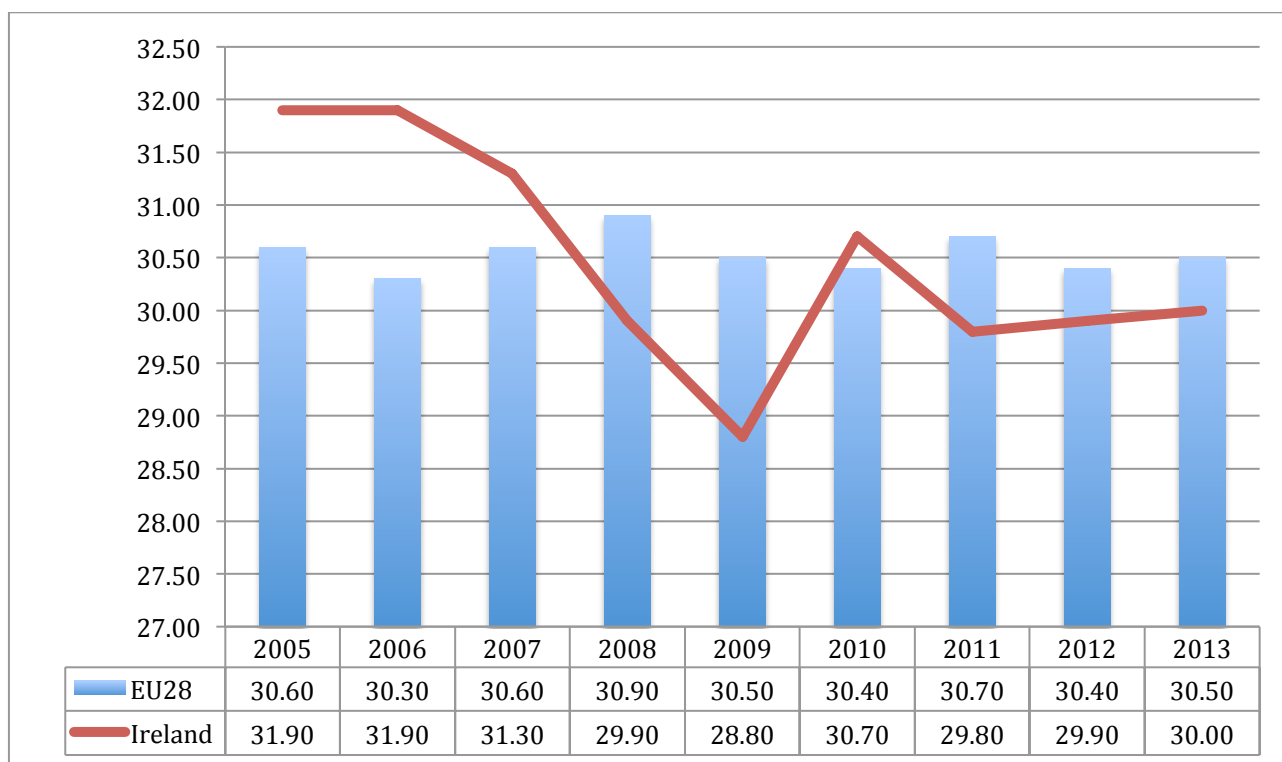
Figure XIV: Gini Coefficient Of Equalized Disposable Income For Ireland And EU27 (Eurostat, 2015)

Figure XV represents the quintile share ration, which measures the income distribution inequality. "It is calculated as the ratio of total income received by 20% of the population with the highest income (the top quintile) to that received by the 20% of the population with the lowest income (the bottom quintile)." (Eurostat, 2015)

The EU27 ratio varies only by 0.1 over the entire period, while the Irish ratio drops overall by 0.8 points between 2005 and 2009. In the following years it rises again but stays below its peak level of 2005.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU27	5.00	5.00	5.00	5.00	4.90	4.90	5.00	4.90	5.00
Ireland	5.00	4.90	4.80	4.40	4.20	4.70	4.60	4.70	4.50

Figure XV: S80/20 Income Quintile Share Ratio (Eurostat, 2015)
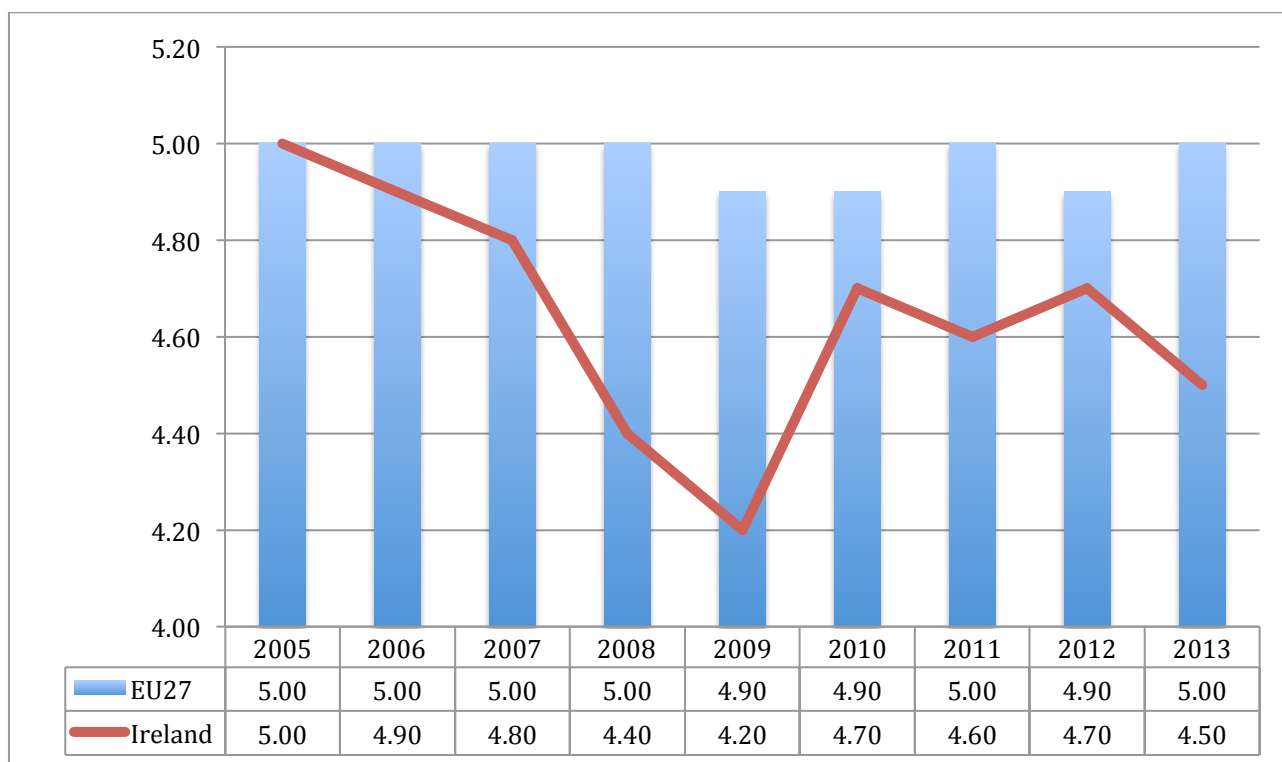
6.7.1 Level Of Social Welfare

The following section shows the "Level of Social Welfare" for the three mean income stages; the total population, the employed, and the unemployed. The index is calculated by multiplying the mean income with one minus the Gini coefficient. (Wondon & Yitzhaki, 2002)

The level of social welfare, in the tables XI to XIII, shows that all three groups have a higher level in 2013 than in 2005. Nonetheless, the increase for the entire population and the employed results from strong increases during the boom period. Only the unemployed experienced a further improvement during the crisis years. However, the austerity period had the greatest effect on the unemployed population's level of social welfare as it decreased by 17.21%.

	Gini Coefficient	Population	Level of Social Welfare
2005	0,319	23.405	15.939
2006	0,319	25.145	17.124
2007	0,313	27.406	18.828
2008	0,299	28.233	19.791
2009	0,288	26.879	19.138
2010	0,307	25.088	17.386
2011	0,298	23.852	16.744
2012	0,299	22.715	15.923
2013	0,300	23.040	16.128

			1,19%
Total Change in %			1,19%
Total Change in % for 2005-2007			18,13%
Total Change in % for 2007-2010			-7,66%
Total Change in % for 2010-2013			-7,24%

Table XI: Level Of Social Welfare For The Irish Population - edited by the author (Eurostat, 2015)

	Gini Coefficient	Employed	Level of Social Welfare
2005	0,319	27.310	18.598
2006	0,319	28.891	19.675
2007	0,313	31.817	21.858
2008	0,299	32.091	22.496
2009	0,288	31.624	22.516
2010	0,307	29.776	20.635
2011	0,298	28.723	20.164
2012	0,299	27.113	19.006
2013	0,300	28.058	19.641
Total Change in %			5,61%
Total Change in % for 2005-2007			17,53%
Total Change in % for 2007-2010			-5,60%
Total Change in % for 2010-2013			-4,82%

Table XII: Level Of Social Welfare For The Irish Employed - edited by the author (Eurostat, 2015)

	Gini Coefficient	Unemployed	Level of Social Welfare
2005	0,319	13.852	9.433
2006	0,319	14.887	10.138
2007	0,313	15.711	10.793
2008	0,299	18.410	12.905
2009	0,288	19.806	14.102
2010	0,307	17.720	12.280
2011	0,298	15.858	11.132
2012	0,299	15.501	10.866
2013	0,300	14.524	10.167
Total Change in %			7,78%
Total Change in % for 2005-2007			14,42%
Total Change in % for 2007-2010			13,77%
Total Change in % for 2010-2013			-17,21%

Table XIII: Level Of Social Welfare For The Irish Unemployed - edited by the author (Eurostat, 2015)

Figure XVI compliments tables XI through XIII and shows graphically how the level of social welfare has changed between 2005 and 2013. The taller red bars and the top black line show the change for employed population, while the shorter green bar and the lower black line show the change for the unemployed population. The takeaway is that the difference in the level of social welfare is almost the same in 2013, 5117 Euros as it was in 2005, 4776 Euros. The biggest difference was in 2007 with 6147 Euros and the smallest one was in 2009 with 2710 Euros.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Employed	18,598	19,675	21,858	22,496	22,516	20,635	20,164	19,006	19,641
Unemployed	13,852	14,887	15,711	18,410	19,806	17,720	15,858	15,501	14,524
Population	15,939	17,124	18,828	19,791	19,138	17,386	16,744	15,923	16,128

Figure XVI: Level Of Social Welfare (Eurostat, 2015)

7 Discussion

This section discusses the finding of the analysis in light of the previous research and theory. It tries to do so by firstly answering the individual research sub-questions and then secondly, come up with an answer to the main research question. For easy reference the questions are listed below.

The last part of the discussion attempts to include the international aspect by putting this studied case into perspective with the current development in Greece.

1. *What kind of effect has austerity had on income inequality in Ireland?*
   a. *How has the introduction of austerity influenced government spending, taxation, as well as unemployment and unemployment benefits?*
   b. *How did disposable income and savings change after the introduction of austerity?*
   c. *In comparison to the employed population of Ireland, has the income distribution for the unemployed population changed after the introduction of austerity?*

How has the introduction of austerity influenced government spending, taxation, as well as unemployment and unemployment benefits?

Government expenditure decreased by 26.1% of GDP, while government revenue increased slightly between 2010 and 2013. This led to a reduction in government deficit. It was reduced by 28.4% from being -32.5% in 2010 to -4.1% in 2013. This shows that Ireland had introduced austerity, which in turn reduced government spending while increasing the government revenue and cutting down the government deficit. However, the government debt kept increasing between 2010 and 2013. The first effect was only seen in 2014 when it dropped by 13.5%.

These changes indicate for government expenditure, government deficit and especially the change for government debt indicate that austerity in this specific case had the desired effect in the long-term.

The investigated taxation statistics show only a minor raise for the total tax revenue. Even though the data is limited and ends with the year 2012, a trend towards higher

total tax revenue can be assumed. The increase in taxes on income and profits can be seen and just like with the total tax revenue, a further increase could be assumed. This is supported when looking at the current taxes on income, wealth, etc., receivables as well as the value added taxes. The change as percentage of GDP does not show it but the change in million Euros does. Here, the taxes on income, wealth, etc., receivable increased by 26.76%, and the value added tax increased by 13.96% between 2010 and 2014. When looking a bit closer at those two statistics it shows that the biggest change has happened between 2013 and 2014. Furthermore, the change on the taxation on the average worker as percentage of labor cost draws a similar picture as it stagnates 2010 to 2012 and then has a steady increase in 2013 and 2014.

The picture is hence comparable to the government spending, the effects of austerity in this specific case happened in the long-term.

The rate of unemployment increased between 2010 and 2011 but then stagnated over the next two years before declining the following two years. The biggest drop is between 2013 and 2014. The long-term unemployment rate follows the same trend when looking at it as percentage of total active population. As percentage of unemployment, the long-term unemployed rate stays very high at around 60% throughout the entire time. However, for both measurements it also shows an improvement from 2013 to 2014.

Again it shows that it takes some time before a positive effect can be observed under austerity.

The unemployment benefits have been lowered in 2010 and again 2011. This is in line with a lower government spending and hence, less social expenditure. Until now there has been no further development in regards to the unemployment benefits.

In conclusion all individual parts show that changes were not immediate. It seems that in the case for Ireland between 2010 and 2014and for these particular factors, effects can only be seen in the long-term under austerity.

How did disposable income and savings change after the introduction of austerity?

The net savings rate dropped after 2011 and it seems like that investments have become more attractive for the private sector. However, the savings rate increases already in 2012 again and remains at the same level for 2013.
It can therefore be concluded that private investment did not pick up.

The growth of household disposable income is negative throughout the entire period. It had its biggest slump in 2011 with -3.42%.
For single persons the total income shows a slight increase but the disposable income with as well as without rent illustrates a decline. This can be a directly related to the increase in taxation on income and profits.

In this case austerity has not had the intended effect. The household savings rate increased so that it can be assumed that private investment was not stimulated. This can be associated to the falling disposable incomes and people choosing saving over spending.

In comparison to the employed population of Ireland, has the income distribution for the unemployed population changed after the introduction of austerity?

The distribution of income by decile shows that between 2010 and 2013 the bottom 4 deciles experienced an increase. In the same time period the top three deciles had a stagnating or declining development. Even further the 10th decile shows the largest decrease for that period.
This indicates that income distribution has change. It shows that the income distribution has become narrower during the time of austerity in Ireland.

The income by activity illustrates that the mean income for the unemployed declined with 18.04% far more than the one for the employed. The change there was -5.77% for the time between 2010 and 2013. Taking a closer look at the actual number it

shows that the mean income for the unemployed fell constantly in those years. ON the other hand the one for the employed rose again in 2013. In 2010, the difference in mean income was 12056 Euros and the median 11103 Euros, while in 2013 it was 13534 Euros and 11435 Euros respectively.

The above indicates that for both mean and median income the gap between the unemployed and the employed became wider since the introduction of austerity.

The last indicator is the making ends meet. Here, the unemployed population falls under the category that can make ends meet with any kind of difficulty. The employed population is regarded as part of the group that can make ends meet with any kind of ease. It is notable that both the unemployed and the employed average income levels are below the respective level of the making the ends meet.

The group of making ends meet with any kind of difficulty has a larger decrease in the years 2010 to 2013 with 4.77%. However, the actual difference in mean income only varies by 127 Euros between the two groups when comparing the difference of 2010 and the one of 2013 with each other.

Therefore, this indicator does not suggest a clear change in the income distribution.

In conclusion all three data sets show a different outcome. Therefore, the result is inconclusive for this question and it is not possible to provide an answer to the sub question.

What kind of effect has austerity had on income inequality in Ireland?

The Gini coefficient as a indicator for income inequality shows that since the introduction of austerity the index has fallen. Hereafter, the index stabilizes and only increases slightly over the years of 2011 to 2013.

This shows that the Irish income inequality has been reduced and stabilized after 2010 and the introduction of austerity.

The S80/20 index was on the same level in 2010 and 2012. It dropped by 0.1 in between those years and 0.2 in 2013. This indicates that also the gap between the top and bottom 20% has become narrower overall since the introduction of austerity.

The calculation of the level of social welfare illustrates that the indicator dropped for both the employed by 4.82% and for the unemployed by 17.21%, in the time since 2010. This indicator however does not solely measure the change in income inequality, as its function is to measure the change in the level of social welfare. And this shows that in the Irish case the social welfare level has dropped for the unemployed. The gap of social welfare level has become larger over the time of austerity between the employed and the unemployed.

Hence, from this it can be concluded while the income inequality measures show a reduction in income inequality, the level of social welfare increased during the period of austerity – showing that another kind of inequality increase has taken place.

And even though sub-question three is inconclusive, the other two sub-questions complement the income inequality measures. Higher taxation and lower disposable income indicates that the employed population should have less income. For the unemployed government spending and hence unemployment benefits have been reduced but the effect seems to be less than factors of higher taxation and lower disposable income. Therefore, all relevant aspects point to a narrowing gap of income inequality during the period of austerity in Ireland.

Greece has been facing a similar situation, in which the government debt has become too large to handle for Greece alone. It therefore has also requested loans from inter alia the IMF and the European Union. Parallels between this case and Greece can be drawn. However, the political instability and a different economic set up seem to make it rather challenging for Greece to implement austerity for a longer time. And one of the results of this thesis is that austerity needs time to take affect.

8 Conclusion

This study has investigated how austerity has influenced income inequality in the case of Ireland. It has done so by analyzing general economic factors like government spending, taxation, income distribution and income inequality indices.

Based on this particular research with the set out parameters, it suggests that income inequality has decreased after the introduction of austerity. Therefore, the taken measures of reducing government spending and increasing taxes have helped to narrow the gap in the Irish income distribution. Nevertheless, the level of social welfare shows that the gap has become bigger between the employed and the unemployed.

Another finding of this study is that for austerity to take affect it has taken some time. The intended changes only became visible mainly after three years. It seems that those changes made it possible for Ireland to return to its own economic policies, which are not dictated through any creditors.

8.1 Implications

Through analyzing several economic factors specifically for the case of Ireland between 2010 and 2014, this study was able to take a more in depth look on how austerity affects those factors. It was concluded that austerity has had an effect but it was only in the long-term that this could be observed. This further indicates that for austerity to have the intended effects it requires the right economic environment, time and patience. Hence, the finding can be used to see if in other cases the same can be observed as well as to show that austerity has an effect under the right circumstances.

This finding could not have been assumed at the start of this thesis, especially since many economic experts take a critical approach towards austerity, which shows in the available literature.

Another finding not directly related to the research question is the development of the long-term unemployed in this particular case. The percentage of long-term as a part of the unemployment had been rather high with approximately 60%. And while the unemployment rate started to decline, the long-term unemployment stayed

consistent. This indicates that it is more challenging for long-term unemployed people to re-enter the job market.

8.2 Limitations

The thesis was conducted to the best knowledge and intention but there are always oversights and possible improvements that can be made.

In regards to the data collection, including primary data could have given a more intimate view on how income inequality changes. The comparability of data is another issue as different sources have data available for different time. This complicates to draw conclusion from them especially if times frame differ. In that respective it is also limiting if some data is not available, e.g. detailed income statistics to create the Lorenz curve.

Some shortcomings are
- Not investigating the change in currency
- Leaving out the development of the political landscape
- Not including the development of the Irish interest rate and private investments
- The comparison done in Figure XII is faulty as it compares the individual with household income. This should have been corrected but was only discovered shortly before finishing the thesis. It has not been deleted as it still provides a certain insight. It shows that the inequality gap, between the average individual income of the unemployed and the employed as well as the average household income for making ends meet with either any ease or any difficulty, has increased slightly in 2013
- The evaluation of the pros and cons of austerity as part of the discussion

Lastly, the most challenging factor has been to understand the statistical approach and the mathematical formulas when researching the theory. Both are necessary to understand but the chosen literature has provided only an abstract review on the matter, which has made it difficult to understand and to choose the most suited method to tackle the problem formulation. The time factor and time division but also lack of well describing literature has restricted this the most. Hence, an interesting approach would have been to come up with an own Social Welfare Function (Cowell, 2011) that satisfies all necessary properties and takes a look at income change for the

unemployed due to the changes in the unemployment benefits. This is interesting, as the single factors would be combined in a unique index that generates a single comparable number for these specific conditions. However, to construct such an index it requires time and a good understanding of the theory, which are two factors that have excluded this approach in this paper.

8.3 Further Research

This thesis scratches only on the surface of an immense subject with many different possibilities to be further investigated. And even this topic could have been looked at from different angles.

- How does austerity change income inequality for two or more countries with similar conditions?
- How does income inequality change when comparing two or more countries where the countries follow a different fiscal policy?
- Why has income inequality not increased in Ireland between 2010 and 2014?

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