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Banking resolution. Between the systemic risk and the consumer protection.

João Eduardo Calça Leão

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BANKING RESOLUTION. BETWEEN THE SYSTEMIC RISK AND THE CONSUMER PROTECTION.

JOÃO EDUARDO CALÇA LEÃO

SUPERVISOR:
JOSÉ MANUEL DIAS LOPES

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Abstract

Recent banking crises demanded decisive actions from the authorities to protect the consumers, the taxpayers and the banking sector as a whole. Based on the European legislation from 2014 this paper intends to analyse the authorities' decisions in Iceland and Ireland. We provide a brief summary of the environment during the crises and refer some possible causes. The problems with depositors on Icesave bank are also taken into account. The resolution processes are explored and authorities' decisions for the main banks are analysed. Three aspects were chosen to evaluate resolutions such as the achievement of resolution objectives, past conditions met and resolution tools used, based on the European legislation principles, and decisions on individual institutions are analysed according these aspects. Some similarities were found such as the conditions met prior to the resolution, most resolution tools used and the achievement of greater financial stability after the process. We found differences regarding the tools utilized by the authorities notably the lack of "bail-in" for senior bondholders on Ireland case and the recapitalizations by the government were lower on Iceland. Despite the higher stability the protection of consumers was divergent, with Icelandic authorities covering only the depositors on the country and not foreign depositors on branches or subsidiaries belonging to Icelandic institutions.

Keywords: Banking resolution, European legislation, Ireland, Iceland, bail-in, bail-out, financial stability, consumer protection

Resumo

Crises bancárias recentes requerem ações decisivas por parte das autoridades de forma a proteger os consumidores, os contribuintes e o sector bancário como um todo. Tendo como base a legislação europeia de 2014 este trabalho tem como objetivo analisar as decisões das autoridades na Irlanda e Islândia. Elaborámos um breve sumário das condições envolventes durante as crises e referimos algumas causas possíveis. Os problemas sofridos pelos depositantes no banco Icesave também são tomados em consideração. Os processos de resolução são explorados e as decisões das autoridades relativas as principais bancos são analisados. Foram escolhidos três aspetos para avaliar resoluções tais como o cumprimento de objetivos de resolução, as condições prévias encontradas e os mecanismos de resolução utilizados, baseados nos princípios da legislação europeia, e análise das decisões tomadas em instituições de acordo com estes aspetos. Foram encontradas algumas semelhanças tais como as condições prévias ao processo de resolução, a maior parte dos mecanismos utilizados e foi alcançada uma maior estabilidade financeira depois do processo. Encontramos diferenças relativas aos mecanismos utilizados pelas autoridades particularmente a não utilização de “bail-in” para obrigações sénior no caso da Irlanda e as recapitalizações por parte do governo foram menores na Islândia. Apesar da maior estabilidade financeira a proteção dos consumidores foi diferente, as autoridades Islandesas apenas cobriram os depósitos no país e não depositantes estrangeiros em sucursais e filiais pertencestes a instituições Islandesas.

Palavras-chave: Resolução bancária, legislação europeia, Irlanda, Islândia, bail-in, bail-out, estabilidade financeira, proteção dos consumidores.

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1. Introduction

Under scrutiny by academics, governments, press and general public the banking sector attained a lot of attention. Mostly motivated by mistrust caused by the recent financial crisis the banking sector and regulators receive criticism related to the resolution mechanisms applied in the crisis and the use of taxpayer money.

It is crucial to note that the banking sector has many vital functions that are essential for several segments of the economy and society as a whole. Banking institutions receive savings from their clients, as saving account deposits or other types of deposits, and in return pay interests to the clients. They use these deposits to provide credit to firms or families. The banking sector also creates ways to manage risk for their clients by screening and diversifying the risk of investments and also providing faster and easier access to funds for borrowers (Pyle 1999 and Santomero 1997 among others).

The importance of the financial sector and the banking sector in particular on the increment of economic growth is a well researched subject (for example by Beck et al 2000, Valickova et al 2013 or Levine et al 2000). Based on the fundamental role of the banking sector on the real economy and the financial system the governments decided to use public funds during the financial crisis, focusing the need for resolution mechanisms to prevent and determine the best course of action during a collapse of banking institutions.

Financial crisis put a strain on the banking sector stability and the increasing interconnected financial system increased the burden have to bear. The risk of an individual institution failure can spread to other institutions and create widespread shocks (European Central Bank 2010). Banking resolution process aim to restructure failing institutions and maintain financial stability (European Commission 2014).

2. Literature Review

For the literature review three main aspects were studied the banking resolution processes per se, the systemic risk costs and the consumer protection mechanisms. Finally there is a brief review on the main points.

2.1. Banking Resolution

Banking resolutions take place when the authorities conclude that a financial institution is deteriorating and it is near insolvency. There circumstances where the authorities should go forward with an intervention are explained in the Regulation No. 806/2014 of the European Parliament and the Council (2014a). Authorities should only intervene all the three conditions are observed: the institution is failing or it is expected to fail in a near future; alternative private sector or other kind of intervention are not enough to solve the problem whether because of time or another significant issues and finally regular insolvency procedures promote risk of financial instability, do not protect depositors, investors and clients interests and that resolutions implied a lower cost for the public funds. Both retail and investment institutions are covered in this directive, with the European Commission highlighting the investment institutions susceptibility to cause lack of confidence in the financial system as a whole.

Resolution procedures should be in accordance to specific principles according to Directive 2014/59/EU of the European Parliament and the Council (2014b). Those principles are that the losses are supported by the shareholders first and after that by the creditors (except covered depositors and investors). These losses for the creditors cannot be higher than the expected losses in a regular liquidation process. Regarding the management body, it is required to assist in the procedure and it should be replaced

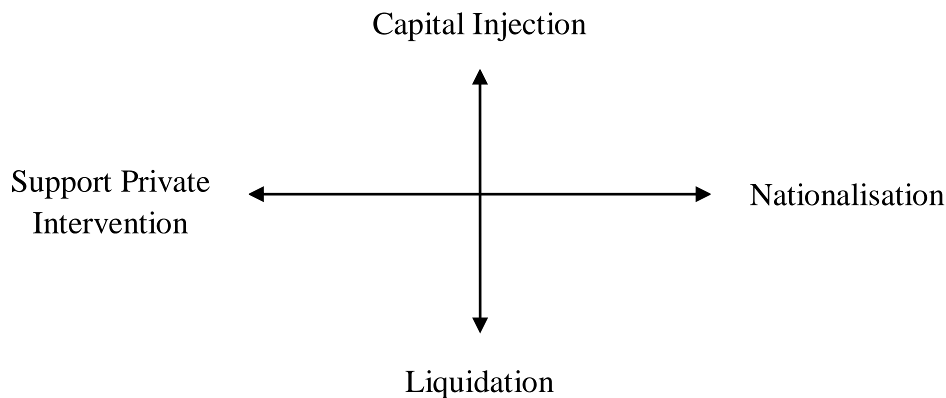
unless it is deemed necessary for the process. In addition legal actions should be taken against liable persons for the responsibility in the failure of the institution.

According to the Regulation No. 806/2014 of the European Parliament and the Council (2014a) resolutions should strive for specific resolution objectives to be achieved. Those objectives consist of: ensuring the continuity of critical functions; evading negative effects on the financial system by preventing contagion and preserve market discipline; minimizing the use of public funds; protecting covered depositors and investors and lastly defending client funds and assets. These objectives should be accomplished taking into account the minimization of costs and avoid destruction of value, except when it conflicts with objectives. The importance of the different objectives is weighted the same, with none taking precedence above the others.

The resolution measures that can be used in interventions are dependent on the circumstances and should be planed for specific institutions. Major tools at the disposal of the authorities consist in the selling of parts of the bank to private sector without the need for shareholder approval or the creation of temporary institutions (labelled as "bridge banks") to continue some functions of the institution under resolution process. Some other measures consist in the separation of toxic assets and liabilities from the institution creating "good" and "bad" banks dichotomy or finally "bail-in" creditors, reducing liabilities or turning debt into equity. These instruments can be applied in conjunction and authorities are able to use other measures if needed. Is important to emphasize that all the measures are only possible after the shareholders and creditors bear losses of 8% of the institution liabilities but still, under very specific conditions, the losses can be supported by the tax payers and not fully by the private creditors (European Parliament and Council 2014a).

Authorities have several options when committed to intervene, Hoggarth et al (2003) sort the strategies between two axes, the first is whether the bank should be closed or not and the second is the degree of involvement of the authorities. The two extremes in the first axis are the injection of capital to keep the bank open and the opposite strategy the closing of the bank with assets sold. According to the same authors the level of involvement of the authorities can vary between supporting private sector interventions or nationalisation by the government.

Figure 1. Banking resolution strategies



Source: Hoggarth et al (2003)

According to the Key Attributes of Effective Resolution Regimes for Financial Institutions from the Financial Stability Board (2011) and Regulation (EU) No. 806/2014 (European Parliament and Council 2014a) the resolution authorities should pursue financial stability and guarantee continuity of vital financial services. Also authorities should, when possible, protect covered depositors, client assets and public funds. The costs of resolutions should be kept to a minimum and unnecessary loss of value should be avoided if the measures are in accordance with the other objectives.

Finally authorities have to contemplate the impact of the resolution in the financial stability in other jurisdictions.

Some other principles can be added to the basis for bank resolution measures including efficiency and speed of the process that help keep costs at a minimum (Beck 2003 and Goodhart 2005) or some flexibility of actions used in intervention processes (Fonteyne et al. 2010).

The importance of transparency towards the financial sector and cost-effectiveness is noted by several authors (for example Nier and Baumann 2006 or Hakenes and Schnabel 2010), were greater disclosure tend to moderate the negative effects of banking resolutions.

Fonteyne et al. (2010) goes further and consider the importance of transparency not just from a fiscal and financial viewpoint but as a political issue. The reason given is the weight of the political cost in the decision making process concerning authorities intervention. According to the authors the indispensable aspects of cost effectiveness should consist in of three traits such as no loss for insured depositors, minimum negative effect on the economy and low impact on government budget.

Cost effective banking resolutions act as a defence against another important aspect of banking resolution, moral hazard problems. Moral hazard occurs when the shareholders and managers feel that the authorities will support most of the banks causing the threat of bankruptcy to be ignored, encouraging the high-risk high-reward behaviour from the banks (Čihák and Nier 2009).

By comparing past crisis with the recent financial crisis Laeven and Valencia (2010) found some differences particularly the most affected countries were advanced economies and resolution policies were implemented faster, which can be explained by

the robust institutions present in the developed countries that were involved. Authorities also used a wider diversity of measures and in larger scale and there is a higher cost of recent crisis in terms of GDP and bigger impact on public debt but a lower fiscal cost.

2.2. Systemic Risk

The dire implications of a systemic banking crisis are felt not only on the financial sector but on the economy as a whole, with banking system instability causing high cost in the economy. This makes systemic risk one of the most important aspects for the authorities to consider in regard to Banking Resolution.

Costs are divided in two types of losses, the fiscal costs and output costs as costs endured by the economy. The costs of a banking crisis in terms of output range from 15% to 25% of annual GDP in average (Hoggarth et al. (2002), Laeven and Valencia (2010)).

Table I. Costs of Banking Crises from 1970 to 2009

	Direct Fiscal Cost	Increase in Public Debt	Output Losses
		Median (% of GDP)	
Old Crises (1970-2006)	10.0	16.3	19.5
New crises (2007-2009)	4.9	23.9	24.5

Source: Laeven and Valencia (2010)

Laeven and Valencia (2010) compared the costs of banking crises in three vectors: the direct fiscal costs, the output costs and the increase in public debt. Comparing the increase of public debt relative to the GDP for the recent crises with the past information the authors found that the values are higher now by almost 8% of GDP. The output losses also increase 5% of GDP in comparison to older crises values.

In contrast by comparing the data related to fiscal costs the conclusions are that these costs are significantly lower, reaching half of the costs recorded for previous crises.

The authors highlighted some reasons for the fiscal cost reduction between the new and old crises such as the specificity that several highly developed countries with large financial institutions were affected by the crisis urging involvement from the authorities. The interventions were quicker and much earlier in recent crises contributing to lower fiscal expenses of recapitalizations, also there were a wide variety of procedures that indirectly supported the financial system, for instance government guarantees. On the other hand the disadvantages of using indirect measures to support the financial sector are evident in the increase of public debt and interconnected budget concerns that elucidate the reason for higher output losses.

Hoggarth et al. (2002), refer that is difficult to separate costs of banking crisis and recessions since the relations between them are not clear, is difficult to find if the output costs are caused by banking crisis or that recession caused the banking crisis in the first place. In any case the authors concluded that the costs are intensified during a banking crisis whether banking crises are created by recession or it is the other way around.

Systemic risk is as a rule connected to the banking and currency crisis. There are several definitions of systemic risk, the European Central Bank (2010) characterize it as a widespread risk in the financial networks , Kaufman (2000) identifies systemic risk as the probability of collapse of the entire system caused by the failure of individual fractions. The interdependences between different banks emphasize this threat for the financial system.

Other designations focus on additional aspects such as externalities (Group of Ten 2001) and impact on the economy (Financial Stability Board 2009) or imbalances in capital flows (Caballero 2010).

2.3. Consumer Protection

The investors fear of losing their deposits origins a widespread panic and a “run to the banks” phenomenon. The protection of clients is then a major piece concerning Banking Resolution because the suspicion of institutions and the financial system cause liquidity concerns.

Legislation regarding deposit-guarantee has started in the European Union with Directive 94/19/EC (European Parliament and Council of Europe 1994) requiring that each depositor must have its aggregated deposits covered in 20,000 € to at least 90% of deposit value. In March of 2009 Directive 2009/14/EC (European Parliament and Council of Europe 2009) revises the previous Directive to 50,000 € in order to better hold depositors trust, and the raises the coverage in 2010 to 100,000 €. This increase was motivated by disparity in coverage rates in EU countries that could cause depositors to flee lower coverage countries for others with higher coverage rate.

Ireland influenced the revision of Directive 94/19/EC by giving unlimited coverage not just to deposits but also to senior unsecured certificates of deposit, senior unsecured commercial paper and senior unsecured bonds and notes (credit institution Eligible Liabilities Guarantee scheme 2009). Irish minister of finance announced in a press conference that no to new liabilities receive this guarantee starting 28 March 2013 (Department of Finance 2013).

Depositors guarantee in Iceland is based on the EU Directive 94/19/EC and guarantees deposits for at least 20,887 €, it is managed by the Depositors' and Investors Guarantee Fund (*Tryggingarsjóður innstæðueigenda og fjárfesta)*.

A report made by Oxera Consulting (2007) for the EU reached the conclusion that guarantees should not apply to large firms because these firms are better equipped to evaluate risk and have more options to attenuate that risk, that way the guarantees are used in costumers that most need them. A press release by the Council of the European Union (2013) also reaffirms the priority to depositors and micro, small and medium size enterprises in accessing resolution funds.

There is some criticism to deposit guarantees because of increased risk taking by the banks and subsequently higher instability (Demirgüç-Kunt and Detragiache 2002), creating a moral hazard. There is also opposing argument made by Gropp and Vesala (2004) that previous conclusions may be affected by data from developing countries that do not necessarily apply to countries with a more credible authorities and the exclusion of certain creditors from guarantees reduce the moral hazard.

2.4. Main Aspects of Resolution Processes

According to the literature the basis for interventions are numerous but the main motives are the continuity of the institution; no solutions available by private means and that those resolutions guarantee financial stability (European Parliament and Council 2014a). If the intervention is needed it should be endorsed to retail and investment institutions.

Authorities abide by the protection of covered depositors, costumers assets and public funds. On a secondary level the costs of resolution should be reduced, authorities

should minimize loss of assets value and the impact on other countries should be considered (Financial Stability Board 2011). Other important factors are the speed of the process (Goodhart 2005 and Beck 2003), flexibility of actions (Fonteyne et al. 2010), transparency, depth of intervention and degree of socialisation of burdens (Honohan 2012).

The major instruments at the disposal of the authorities are capital injection to keep the stability of both the institution and the banking system; the liquidation of portion of the bank under court order; creation of "bridge banks" to facilitate the process of resolution; split the institution according to assets and liabilities viability and lastly to bail-in creditors in order to restore capitalisation (European Parliament and Council 2014a).

3. Banking Crises

The banking crises analysis focused on Iceland and Ireland cases, with a summary of the banking crisis itself, the international assistance and the resolution measures for each country.

3.1. Iceland

The first country studied was Iceland that experienced singular incidents regarding consumer protection.

3.1.1. Icelandic Banking Crisis

The damage done to Iceland's banking system and the economy as a whole caused by the financial crisis is tremendous. Iceland had GDP growth of over 6% on average in from 2004 to 2007 but after 2008 Iceland experienced severe recession, with a drop in GDP of 6.6% in 2009 and for a second time in 2010 with a drop of 4.1%.

Danielsson (2009) called the Iceland financial crisis the “deepest and most rapid financial crisis recorded in peace time”.

The financial crisis in Iceland is considered to be one of the harshest financial crises since 1970 (Laeven and Valencia, 2013). It is considered the third costliest in terms of fiscal cost (44% of GDP) and the seventh that most increased public debt (72% of GDP).

Mid-2007 was the beginning of the end for Iceland’s financial sector, Credit Default Swap spreads fast climb were a warning sign that investor were worried. The Iceland banking system suffered a huge blow with the failure of the three major banks (Glitnir, Kaupthing and Landsbanki) in less than two weeks. The board of directors of Landsbanki was dismissed on the 7 October and on the same day authorities took control of Glitnir in addition on the next day Kaupthing is nationalised. In relation to the total banking assets of the country 90% of Iceland’s banking institutions required government assistance over the period between 2007 and 2009, making Iceland the country with the highest value of bank assets intervened in the world for this specific period. Iceland is also the country that between 2007 and 2009 incurred in highest fiscal cost, 13% of GDP (Laeven and Valencia (2010)).

Glitnir, Kaupthing and Landsbanki had immense growth from the beginning of the 21st century until the collapse of Lehman Brothers, increasing their consolidated assets from 100% of Iceland GDP in 2004 to close to 900% in the end of 2007 (OECD 2009). The majority of these banks assets were in foreign branches and subsidiaries, making them very susceptible to international threats. Also the banks growth was supported by the wholesale market, causing the financial crisis to have a stronger impact

on them mostly from increased risk of default of the clients (International Monetary Fund 2008).

3.1.2. Icesave Crisis

Landsbanki had a deposit plan named Icesave especially for clients from the United Kingdom and Netherlands that was involved in an international disagreement. The nationalisation of the main banks of Iceland caused a general “run to the banks”, which caused the shortages of funds of the Depositors’ and Investors’ Guarantee Fund of Iceland (Jackson 2010). Also the government of Iceland proceeded to guarantee all depositors funds in Iceland but not the deposits of present in branches and subsidiaries on foreign countries (Centonze 2011).

In retaliation the United Kingdom froze the assets of Landsbanki and several other assets related to the bank but owned by the government of Iceland (Barker et al. (2008)). The governments of the United Kingdom and Netherlands return the funds to Icesave depositors in the respective countries, supporting the minimum deposit expenses with the national guarantee scheme and the values remaining were paid by the government (Centonze 2011).

On the 6 March 2010 a referendum was called by the President of Iceland in order to decide if the authorities should reimburse the governments of the United Kingdom and Netherlands of the minimum deposit expenses guarantee (Ministry of Foreign Affairs 2010a). This reimbursement was rejected in public consultation with the vast majority of voters choosing not to reimburse (Ministry of Foreign Affairs 2010b). A second referendum was held again in 2011after the President of Iceland decision not the sign legislation for the compensation of the governments of the United Kingdom

and the Netherlands (Ministry of Foreign Affairs 2011a). This referendum was also rejected and the reimbursing was disallowed (Ministry of Foreign Affairs 2011b). The President of Iceland justified his refusal to sign the legislation with petition signed by a considerable amount of Icelandic citizens and the ultimate purpose to give the voters options and responsibility (Declaration by the President of Iceland 2010).

EFTA (European Free Trade Association) Surveillance Authority applied for the EFTA Court on 15 December 20011the basis that Iceland authorities had not complied with the Directive 94/19/EC of the European Parliament and the Council (1994). On 28 January 2013 the Court decided to clear Icelandic authorities of all claims (Case E-16/11, EFTA Surveillance Authority v Iceland 2013).

3.1.3. International Monetary Fund Assistance

The strict measures brought by the International Monetary Fund made the Iceland's authorities consider the assistance as a last resort measure. The evolution of the banking sector crisis and economic recession confirmed the need for an agreement between Icelandic authorities and the International Monetary Fund. The agreement was approved on 19 November 2008 in the form of a Stand-By Arrangement for a period two year (International Monetary Fund 2008c) in addition to a loan of US$2.5 billion granted by Norway, Finland, Sweden and Denmark. The Stand-By Arrangement of US$2.1 billion with US$827 million made available straight away and with the rest divided by eight instalments of US$155 million dependent on quarterly reviews.

The main objectives of Icelandic and International Monetary Fund program was to prevent the depreciation of the Icelandic króna, to support the strategy for bank

restructuring and to promote medium-term fiscal sustainability (International Monetary Fund 2008b).

Exchange rate stabilization was an immediate priority and was tackled by raising the interest rate, lowering króna volatility and there were temporarily restrictions on capital outflows (International Monetary Fund 2008b).

Fiscal policies objectives were to emphasize Iceland's debt sustainability. No additional commitments were expected by the authorities on fiscal matters before 2010 (International Monetary Fund 2008b). Iceland fiscal deficit was reduced dramatically from 2010 forward, going from a 9.7% of GDP deficit in 2010 to 1.7% of GDP deficit in 2013. Government debt was still high in 2012, reaching 96.4% of GDP according to Eurostat.

The strategy for restructuring the banking sector had two main intentions maximize asset recovery as transparently as possible and to fulfil the legal obligations toward depositors and creditors. A review of the banking sector regulatory framework and supervisory guidelines was needed in order to protect the financial sector from further financial crises (International Monetary Fund 2008b).

3.1.4. Resolution Process

The financial crisis in Iceland overwhelmed the banking system which required extreme measures by the Icelandic authorities. The explanation given by the authorities for the need of intervention caused the banking sector crisis was based on the defence of the sustained operations of the sector and the downsizing of the banking sector to a more standard level considering similar economies. The authorities took control of six

different financial institutions Glitnir, Kaupthing, Landsbanki, Straumur-Burdarasand, SPRON and Sparisjódabankinn, all in 2008 (Laeven and Valencia 2013).

The three major banks were authorities intervened (Glitnir, Kaupthing and Landsbanki) were separated into a "new bank" and an "old bank" (Centonze 2011). The new banks included the operations supported by Icelandic depositors, the assets and a large part of liabilities while the old banks were composed of the operations present in the bank's foreign branches and subsidiaries, supported through bonds and deposits from foreign, and also the financial derivatives (International Monetary Fund 2008b). From Glitnir was created Íslandsbanki, first called Nýi Glitnir or New Glitnir. The bank was owned by the creditors of the old Glitnir by 95% of equity and the residual equity owned by the government of Iceland (Íslandsbanki Consolidated Financial Statements 2008). New Kaupthing become Arion Banki and creditors from the old Kaupthing hold 87% of equity (New Kaupthing Bank Consolidated Fiancial Statements 2008). Landsbanki was converted to Landsbankinn and was owned by the Icelandic State Financial Investments in 81.3% and the remaining 18.67% were owned by the creditors of the old Landsbanki (Landsbankinn Consolidated Financial Statements 2010).

A committee constituted of representatives of the Prime Minister Office, the Ministry of Finance, the Ministry of Commerce, the Financial Supervisory Authority and the Central Bank of Iceland with an expert in banking as the chairman organize and coordinated the procedures for the banking sector reorganization. This committee had the purpose of resolve intervened banks and to maximize asset recovery value (International Monetary Fund 2008b).

In order to make sure the creditor rights are guaranteed and that the measurement of the assets in old and new banks is correct international auditors were hired (International Monetary Fund 2008b).

Authorities wanted to ensure that treatment of depositors and creditors in the resolution process was fair, equitable and non-discriminatory. Independent auditors were hired to value assets moved from old to new banks to guarantee fair payment for those assets. Insured depositors in Iceland were under the Depositors' and Investors Guarantee Fund (*Tryggingarsjóður innstæðueigenda og fjárfesta)* and were fully guaranteed by the government.

The Depositors' and investors' guarantee Fund is constituted by the compulsive contributions of commercial and savings banks. It is supervised by the Financial Supervisory Authority (FME) and is a private institution since 2000.

Insolvency laws were altered in order to better manage banking resolution. One example is the amendment in 2011 on the Bankruptcy Act that ensured a restructuring or insolvency process was needed in order to make distributions to the creditors when previously simply a liquidation process was sufficient to allocate creditor claims.

3.2. Ireland

Ireland was the second country to be studied, it is remarkable for the early blanket guarantee and the strain on the public budget.

3.2.1. Irish Banking Crisis

The global financial crisis heavily affected Ireland and it was considered systemic in 2009 (Laeven and Valencia, 2013). The impact was also felt on economic growth, in 2007 GDP growth was almost 5% but after the crisis GDP plummet more

than 7% in 2010. Ireland was the first country in the Eurozone to fall into recession in the middle of 2007.

Laeven and Valencia (2013) ranked Irish banking crisis as one of the most severe by output loss since the 1970 totalling 105% of GDP. The Irish crisis is also seventh most expensive crisis in terms of fiscal costs (41% of GDP) and contributed to a massive increase in public debt (73% of GDP).

The great dependence of the housing market is one of the causes for the global financial crisis vast impact in the Irish economy. The banks had an increment in housing sector related assets motivated by apparently eternal lower interest rates, higher property prices and increasing household income. The public finances were also reliant on housing sector; in 2006 almost 20% of tax revenues came from property related taxes (including VAT, stamp duty and capital gains tax) (European Commission 2011).

The foreign exposure to Irish banks was also a concern for the European authorities. The Bank for International Settlements (2010) estimated that countries in the Eurozone and the United Kingdom were exposed to more than US$110 billion to Irish banks and more than US$550 billion of total exposure to Ireland assets. The countries more exposed to Irish banks were Germany with an exposure of US$47.5 billion, United Kingdom with US$31.1 billion and France with US$18.9 billion.

With the failure of Lehman Brothers several difficulties arise for the Irish banking sector. The major problem was the reduced short-term liquidity of banking institutions (Honohan 2012). Liquidity problems occurred from the freeze of interbanking short-term loans that were very important for Irish banks, in addition there were substantial deposits taken from institutions.

Market turmoil on the banking sector required the Irish authorities to intervene on 29 September 2008 by granting a two year guarantee (Governor of the Central Bank 2010). On this date the Ministry of Finance guaranteed all deposits (retail, corporate and interbank), covered bond, senior debt and dated subordinated debt for the banks that evidence liquidity concerns (Allied Irish Banks (AIB), Bank of Ireland, Anglo Irish Bank, Irish Life and Permanent, Irish Nationwide Building Society and EBS) as well as the respective subsidiaries (European Commission 2008).

Irish authorities also created the Eligible Liabilities Guarantee Scheme for the credit institutions on 9 December 2009. This scheme backed liabilities of systemically important institutions and was review at six months intervals. Liabilities guaranteed include deposits and senior unsecured debt (House of Oireachtas 2009).

Despite the authorities focus on the liquidity problems later there were also concerned with solvency problems in the banking sector (Honohan 2012). In Ireland these problems were caused by a decline of loans given to property deals, reduced price of properties, recession and difficulty to assess the risk related to property deals (Honohan 2009). The reduced value of assets of the institutions in conjunction with the preservation of the values of the liabilities provoked solvency concerns.

Ireland authorities reacted to the concerns evident on Irish banks and decided to resort to injection of capital for the largest Irish banks; AIB, Anglo Irish Bank, Irish National Building Society, EBS and Bank of Ireland (Laeven and Valencia 2013). For the purpose of managing the state intervention on the banking sector the government created the National Asset Management Agency (NAMA). For the period between February 2009 and December 2010 approximately €46 billion were injected on Irish banks, the equivalent of 29% of Ireland's GDP (European Commission 2010).

3.2.2. External Financial Assistance

Several events during 2010 forced the Irish authorities to request International assistance. There were doubts on the possibility of default by Irish state bonds raising the yields to extremely high values, causing investors to take their funds from Irish banks. The need for fiscal correction in 2011, the negative growth of GDP and the pressure on public finances were the incentives that ignited the suspicions of financial markets (European Commission 2011, International Monetary Fund 2010a).

On 21 November 2010 Irish authorities apply for assistance from the European Union and the International Monetary Fund. A total of €85 billion were approved by the European Commission, European Central Bank and the International Monetary Fund combined. The conditions for the loan were agreed on 28 November 2010 and required policies to be implemented by the Irish authorities (European Commission 2011).

The main intentions for the assistance programme were to restore confidence both on the banking sector and on sovereign debt of Ireland. The methods for re-establish that confidence were based on four pillars: financial sector restructuring; return fiscal viability; economic growth and support by the assistance programme (European Commission 2011).

In order to achieve fiscal consolidation the Irish authorities promoted a correction totalling 9% of GDP between 2011 and 2014. The measures focused on the reduction of expenditures notably decrease of public service numbers, correction of pensions and savings on public transfers. An increment of revenues was supported by raise of income tax (International Monetary Fund 2010a).

The restoration of economic growth was based on legislation that encourages trade and competition, adjust the electricity and gas prices and to correct the labour market, reducing unemployment.

The assistance programme was financed by the IMF on €22.5 billion, by the European Financial Stability Mechanism/European Financial Stability Facility on €45 billion and also an Irish part from the National Pension Reserve Fund that amount to €17 billion. The programme was review quarterly on a series of performance measures and on the implementation of structural reforms (International Monetary Fund 2010a).

The reform of the financial sector involve downsizing of banking sector and the restructuring of institutions. To promote this reform the banks were required to deliver plans in order to reduce their leverage (International Monetary Fund 2010a).

3.2.3. Resolution Process

Irish authorities acted upon the devastated banking system and created the NAMA with the sole purpose of managing the assets of restructured banks. The procedures needed to reignite the viability for the banking sector were mainly the substantial downsizing and deleverage processes. Capital injections were needed to support these processes, justifying the need for external assistance. For the stability of the system the authorities also created specific resolution legislation (International Monetary Fund 2010a).

The authorities' structure for dealing with resolution processes before the crisis did not include procedures that are considered standard at the moment. Special legislation was created in order to provide specific measures to address resolution processes effectively and efficiently (Čihák and Nier 2012). The legislation granted the

Central Bank powers to create bridge banks; a resolution fund was created; proceed to transfer assets and liabilities from one institution to another; appoint special management for institutions under intervention; manage liquidation of institutions and require recovery and resolution plans from banks (House of Oireachtas 2011).

The restructuring process of the banking sector had a cost further than 40% of GDP to Irish authorities. Nationalization procedures were needed on major Irish institutions: Anglo Irish Bank in 2009; EBS, Irish Nationwide and AIB in 2010 and more recently Irish Life and Permanent in 2011 (Laeven and Valencia 2013).

Authorities establish a plan for the restructuring of the banking sector constituted of several components. Initially banks had to clear all their non-core assets, by transferring the property loans to NAMA or by securitise or sell non-performing assets (International Monetary Fund 2010a).

On December 2008 the Irish government announced an injection of €2 billion each on AIB and Bank of Ireland. An injection of €1.5 billion was schedule for Anglo Irish Bank but instead it was nationalised on January 2009 following capital outflows. Caused by this nationalisation conditions worsened for AIB and Bank of Ireland and the value received was in fact €3.5 billion (Honohan 2012). With the realization that the losses on property loans were higher than expected even the nationalised Anglo Irish Bank obtained €4 billion in capital in June 2009.

The reason for creation of the NAMA was put into effect with the purchase of property loans in an attempt to reduced losses for Irish banks. Still the projected losses were extremely high, almost €31 billion, and the fact that most of the value had to be supplied by the authorities caused the Irish authorities to request external assistance from the International Monetary Fund and the European Union (Honohan 2012).

Anglo Irish Bank need for successive adjustments to meet capital requirements, totalling €25.3 billion, denoted a complex problem for the authorities. In September 2010 the authorities decided that the best solution was to split the bank into two parts; the Funding Bank with the deposits, Central Bank capital and assets guarantee and a Recovery Bank holding the remaining assets and liabilities (Honohan 2012). Authorities merged Anglo Irish Bank and Irish Nationwide on July 2011 and formed Irish Banking Resolution Corporation. On February 2013 the government gave the order to liquidate this institution (House of Oireachtas 2013).

As a part of the reorganization of the Irish banking system EBS was acquired by AIB in July 2011 (EBS 2011). Ireland Central Bank required further €14.8 in capital requirements from the two institutions, €13.3 for AIB and €1.5 for EBS. In order for the institutions to meet the necessary capital requirement the Irish authorities contributed with €6.1 billion and an additional contingent capital notes values €1.6 billion. The Irish State owns, through the National Pension Reserve Fund, 99.8% of equity from the conjoined institutions (AIB Annual Financial Report 2012).

Bank of Ireland repaid the€6 billion regarding the €4.8 billion invested by the Irish authorities in 2013. The Irish State holds 14% equity of the institution (Bank of Ireland Group Annual Report 2013).

Concerning Irish Life and Permanent the authorities nationalised the institution by injecting €2.7 billion, controlling 99.2% equity. In April 2012 the Irish authorities took signed a share purchase agreement paying €1.3 billion for 100% of Irish Life Group (Irish Life and Permanent Group Annual Report 2011). The Irish Life Group was sold on February 2013 to Great-West Lifeco for €1.3 billion (Great-West Lifeco Inc. Annual report 2013). To the remaining part of the institution authorities injected €2.7

billion in capital and changed the name to Permanent tsb (Permanent tsb Group Annual Report 2012).

Honohan (2012) highlighted the instruments used by the Irish authorities for the processes of banking resolution. The initial measures consisted of injection of cash on the intuitions under pressure (AIB, Bank of Ireland and Irish Life and Permanent) and promissory notes to banks later liquidated (Irish Banking Resolution Corporation constituted by Anglo Irish and Irish Nationwide).

Other measures included the split of institutions into “good” and “bad” banks (Anglo Irish Bank and Irish Life and Permanent) with the Irish Life Group sale to a private company. Extensive guarantees were also offered (Eligible Liabilities Guarantee 2009).

As final remarks Honohan (2012) evaluated the restructuring in the banking sector in three dimensions: Transparency, depth and socialisation. The resolution process was considered transparent but the expected losses were taken as a definitive value, which later caused several adjustments for capital requirements. On terms of depth the capital requirements were proved to be insufficient and after 2010 the recapitalisation goals were revised. The early choice for a blanket guarantee was criticised because it included institution severely affected by the losses on problem loans, in addition the International Monetary Fund and European Union did not allowed losses to reach unguaranteed senior bondholders making the socialisation of losses seemed excessive.

The severe disadvantage of unreliable and inaccurate information regarding losses from problematic loans was a major problem that became more evident with the choice to grant a blanket guarantee early on. The combination of this factors put

tremendous pressure on Irelands' finances, making over-capitalisation of institutions not possible.

The existence of the blanket guarantee also required the authorities to mind certain resolution measures in order to not incur on excessive expenses, since there could be deposit runs that were covered by that guarantee. The legislation required for proper resolution measures was only present after the beginning of the crisis, making the authorities ability to deal with the problems less effective. In any case some form of guarantee was to be expected as an imposition from the International Monetary Fund and European Union.

4. Method for Analysis

In order to provide an analysis to resolution processes it was needed to select some relevant aspects that should be focused. The components of the analysis were divided into three parts the achievement of resolution objectives, conditions for intervention met and finally tools used.

The main information source regarding resolution analysis constituent was the European Union legislation, notably Regulation No. 806/2014 and Directive 2014/59/EU of the European Parliament and the Council.

The analysis will investigate whether the following two main resolution objectives were achieved: maintenance of financial stability and protection of covered consumers (depositors and investors). The cost of procedure to public funds will also be examined.

This analysis will examine if the following three conditions are observed: the institution is on the verge of collapse; the collapse cannot be prevented by private sector

measures and that the normal liquidation process of the institution clash with the resolution objectives.

For the purpose of this analysis the resolution tools considered are divided in four main groups: the sale of business; asset separation; bail-in tool and recapitalisation supported by the sate. For clarification reasons the tools will be explained in accordance to European Parliament and Council (2014a). The sale of business consists in the sale of an assets or liability belonging to the institution to another party. The asset separation process is the transfer of assets and liabilities from an institution to an entity responsible for the management, in this analysis bridge institutions are also considered. The bail-in tool consists in the conversion to equity, or reduction of the principal amount, of debt instruments transferred to bridge institution (to grant capital) or involved in sale of business or asset separation processes. The recapitalisation supported by the state is considered the last resort because it involves using public funds, it can also be called bail-out.

5. Resolution Analysis

The analysis was centred on the resolution objectives, conditions for intervention met and resolution tools.

5.1. Resolution Conditions

The circumstances were a institution is considered on the verge of collapse are that in the near future the liabilities are greater than the assets, the institution is unable to support debts or other liabilities and for preserving financial stability a public sustain is needed. Iceland’s Financial Supervisory Authority (2009) considered the banks intervened to be failing and hold responsible the risk eagerness of the institutions.

Ireland's authorities were forced to intervene since the projected losses on property were substantial (Honohan 2012).

The reasons for not finding an alternative private measure or that normal insolvency processes were not considered are mostly related to the size of the institutions affected, both relative to the country and total assets. Iceland's three major banks before the crisis accounted for 85% of the banking system and their total assets were about eight times the size of the country's GDP (Centonze 2011). In the case of Ireland the banking sector assets amount to 900% of GDP and the five largest banks compose about 55% of total assets (European Central Bank 2013).

Table II. Iceland and Ireland resolution conditions met

	Iceland	Ireland
Verge of Collapse	Yes	Yes
Alternative Private Measures not viable	Yes	Yes
Normal Insolvency not viable	Yes	Yes

Source: Author

5.2. Resolution Tools

The analysis for the resolution tools will be split into four groups the sale of business, asset separation, bail-in tool and state recapitalisation.

The sale of institutions is very straightforward in terms of function, consists in the sale of part of an organization to private buyers (European Parliament and Council 2014). The sale of institutions was used by the authorities of Iceland in October 2008 with the sale of the Norwegian subsidiary of Glitnir bank, called Glitnir ASA, to SpareBank 1 an Alliance of Norwegian savings banks (BN Bank ASA Annual Report

2011). Irish Life Group was sold by Irish authorities to Great-West Lifeco, a Canadian firm, in February 2013 (Great-West Lifeco Inc. Annual report 2013).

The asset separation instrument was heavily used by the authorities of both countries. For the analysis the creation of bridge institutions is also considered. In Iceland all the three major banks were all separated into old and new banks and the majority of the assets and liabilities were transferred to the new banks (Centonze 2011, International Monetary Fund 2008b). Irish authorities determined the split of the Anglo Irish Bank and posterior creation of a bridge institution formed by Anglo Irish Bank and Irish Nationwide (Honohan 2012). Irish Life and Permanent was also separated and one fraction named Irish Life Group was sold to Great-West Lifeco (Irish Life and Permanent Group Annual Report 2011).

The bail-in instruments involve converting debt into equity for institutions under resolution. In Iceland the allocation of the assets to the new banks also converted creditors into shareholders of these new banks. These creditors of the old banks were a majority in Íslandsbanki and Arion Banki and owned almost 19% in Landsbankinn. Perhaps caused by the possibility of decreasing confidence in the financial system and the debt holders this measure was not widely used in Ireland. Senior bondholders in Ireland were included in the state guarantee and were not called to contribute (Honohan 2012).

According to European Parliament and the Council (2014a) legislation state recapitalizations should be considered only after significant losses to the creditors. Iceland's decision to transfer most of the assets to new banks after separating the domestic operations from the foreign ones in the three main banks manages to contain the potential losses making the recapitalisations relatively low (International Monetary

Fund 2008b). On the contrary Honohan (2012) noted that in Ireland the authorities had to injected capital into major institutions for impossibility to reach recapitalization requirements.

Table III. Iceland and Ireland resolution tools used and institutions

	Iceland	Ireland
Sale of Business	Glitnir ASA (Glitnir bank subsidiary)	Irish Life Group (Irish Life and Permanent subsidiary)
Asset Separation	Glitnir; Kaupthing and Landsbanki	Anglo Irish Bank and Irish Life and Permanent
Bail-in	Íslandsbanki; Arion Banki and Landsbankinn	Senior Bondholders not affected in any institution
State Recapitalization	Íslandsbanki; Arion Banki and Landsbankinn (Lower than in Ireland)	AIB; Bank of Ireland; Irish Life and Permanent; Anglo Irish and Irish Nationwide

Source: Author

5.3. Resolution Objectives

The resolution objective is one of the most important aspects in the analysis of the intervention process. It is related with the resolution tools, the different instruments use identify the priorities of the authorities. The bail-in tool is used to impose losses on the bondholders preserving public funds for diverse purposes, such as guarantee deposits.

For the analysis of financial stability we can consider the capital adequacy ratio, the liquidity ratio and the credit rating (Gadanecz and Jayaram 2009). Iceland accomplished better results in those two ratios compared to the periods before

intervention (International Monetary Fund 2013). Regarding Ireland Moody's raise the sovereign credit rating to Baa1 in October 2014 and Fitch maintain BBB+ stable outlook rating (Department of Finance 2014).

Considering the protection of costumers the countries studied illustrate two different realities. In Ireland authorities granted a guarantee that included all deposits, covered bonds and senior debt in 2008 (European Commission 2008) that fully protected consumers. On the other hand in Iceland the authorities had a guarantee for the depositors in the country but not the deposits in foreign countries, causing the authorities of those foreign countries to intervene and protect those depositors (Centonze 2011).

Table IV. Iceland and Ireland resolution objectives achieved

	Iceland	Ireland
Financial Stability	Yes	Yes
Protect Covered Consumers	Only depositors from Iceland	Yes

Source: Author

6. Conclusion

With the recent financial crisis and the subsequent banking crisis the banking resolution processes gained and higher relevance. We decided to analyse the situation in Iceland and Ireland in the light of recent European legislation. The analysis focused on the existing conditions before the resolution, the instrument applied in the resolution process and the objectives accomplished.

The situation on both countries analysed was very similar in terms or conditions present before the authorities intervention. Ireland and Iceland authorities were forced to intervene on the greater part of their respective banking sector on the concern of

financial instability. The systemic risk was high and alternatives, whether private or insolvency process, were considered not viable motivated on the sheer size of the troubled institutions' assets.

Regarding instruments used we can clearly acknowledge some differences between the interventions of the two countries. Icelandic authorities minimized state recapitalizations and prioritize bail-in measures on the institutions intervened. On the contrary in Ireland the bail-in tool did not affect the senior bondholders of any institution and recapitalizations were more common than in Iceland. It should be noted that both countries the fiscal costs and public debt increase were tremendous and required international assistance.

The objectives considered were the financial stability maintenance and the protection of consumers. Financial stability was achieved after the resolution measures in both countries and was one of the main motivations for intervention. Regarding protection of consumers the depositor's protection was the focal point, with guarantees in Ireland forcing the European Union to update deposit guarantees values. Irish guarantee did not just included depositors but also some bond holders. Iceland's situation is more complex with the full value of the guarantee used on Icelandic depositors and foreign depositors on subsidiaries could not retrieve their deposits. We can conclude that Icelandic authorities valued financial stability higher than the depositors of branches and subsidiaries.

For future research additional objectives can be considered such as the minimisation of losses of institutions' assets, swiftness of the process or the transparency. The impact of resolution processes on other countries is also effect that should be considered.

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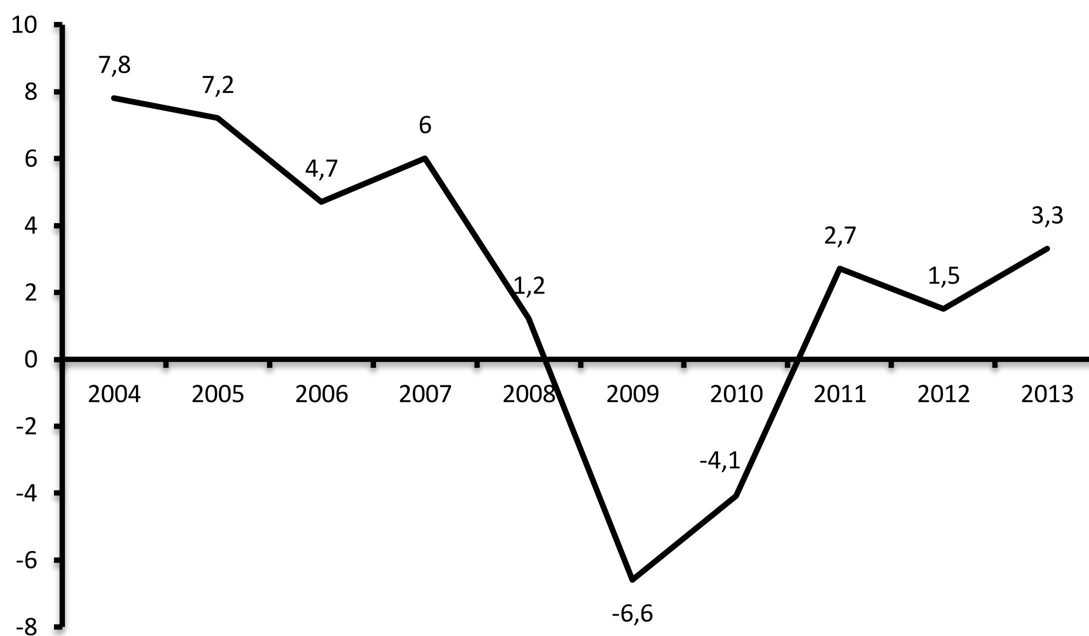
Appendix

Figure 2. Iceland GDP growth 2004-2013



Source: World Bank national accounts data

Table V. Fiscal costs of crisis on 2008 for Iceland and Ireland

	Fiscal Cost (% of GDP)
Iceland	44
Ireland	41

Source: Laeven and Valencia 2013

Table VI. Increase in public debt on 2008 for Iceland and Ireland

	Increase in public debt (% of GDP)
Iceland	72
Ireland	73

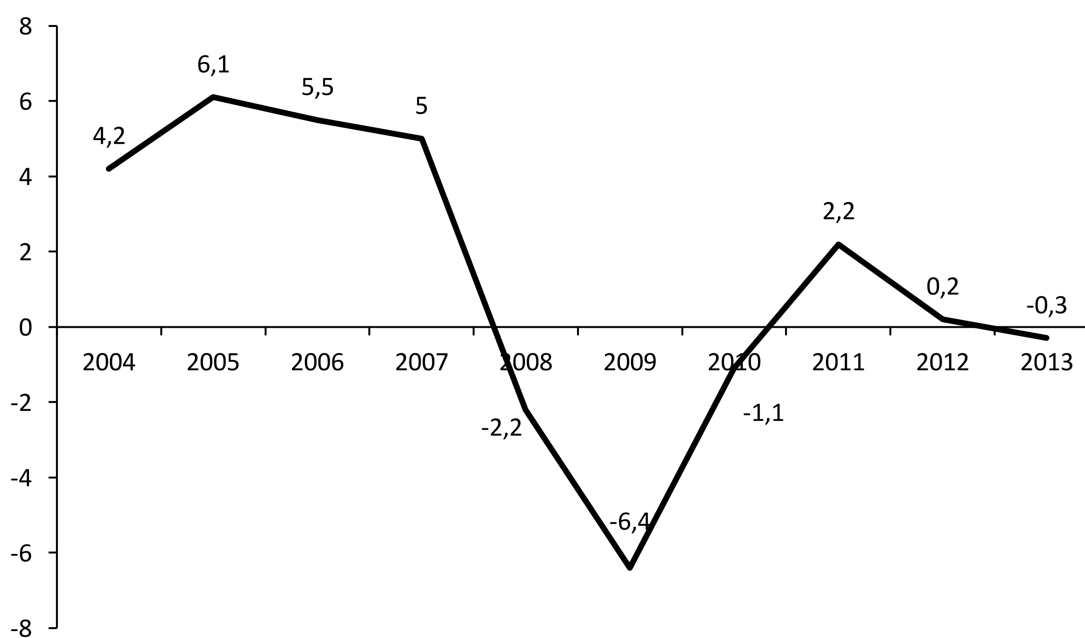
Source: Laeven and Valencia (2013)

Table VII. Structure of Iceland Financial System

	Asset Percentage
Banks	85.8
. Deposit-taking institutions	79.7
. Investment Banks	6.1
Institutional Investors	13.1
. Insurance Companies	1.1
. Pension funds	10.0
. Investment Funds	1.9
Other Financial intermediaries	1.1
Total	100.0

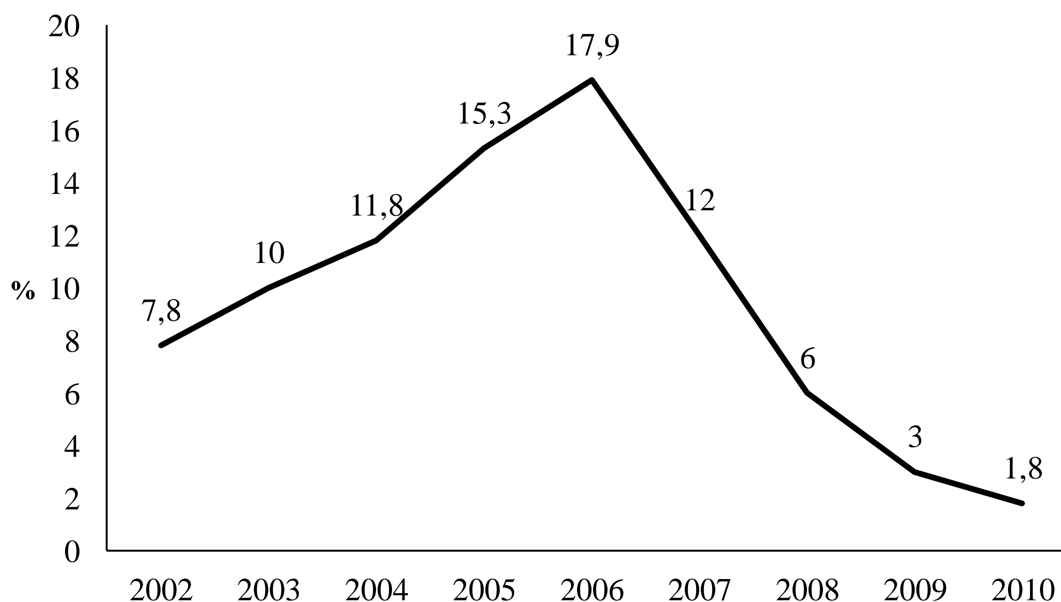
Source: International Monetary Fund (2008)

Figure 3. Ireland GDP growth 2007-2014



Source: Eurostat

Figure 4. Ireland's property tax revenue percentage on total tax revenue from 2002 to 2010



Source: European Commission (2012)

Table VIII. European Union countries foreign exposure to Irish banks, values in US$ billion in June 2010

	Germany	Spain	France	Italy	Other Eurozone	United Kingdom
Ireland banks	47.5	3.3	18.9	2.9	8.8	31.3

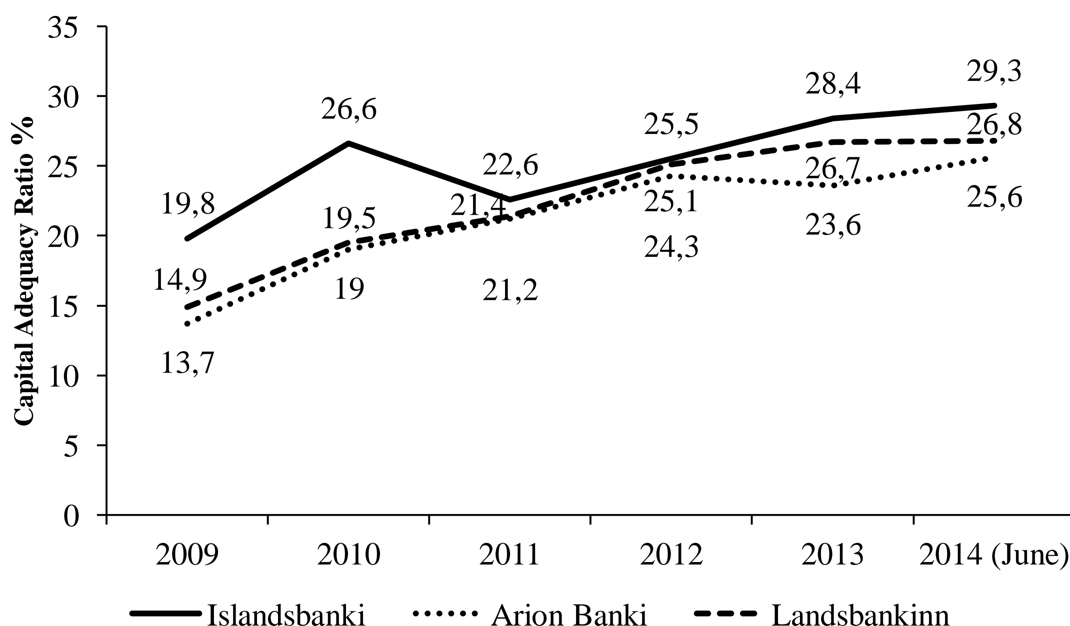
Source: Bank for International Settlement (2010)

Table IX. Increasing recapitalisation requirements for Irish Banks, values in € billion, 2009-2011 period

Time	Bank of Ireland	Allied Irish Banks	Anglo Irish Bank	Irish Nationwide Building Society	EBS	Irish Life and Permanent
Early 2009	3.5	3.5	4.0	0	0	0
March 2010	2.7	7.4	18.0	2.6	0.9	0
September 2010	0	3.0	7.3	2.8	0	0.1
March 2011	5.2	13.3	0	0	1.5	4.0

Source: Honohan 2012

Figure 5. Capital Adequacy Ratios of Iceland's largest commercial banks



Source: Íslandsbanki, Arion Banki and Landsbankinn financial statements

Table X. Ireland Credit Rating (Long Term/Foreign currency rating)

	Fitch	Moody's	S&P
2007	AAA	Aaa	AAA
2008	AAA	Aaa	AAA
2009	AA+	Aa1	AA
2010	BBB+	Baa1	A
2011	BBB+	Ba1	BBB+
2012	BBB+	Ba1	BBB
2013	BBB+	Ba1	BBB+
2014	BBB+	Baa1	A-

Source: Moody's, Fitch and Standard & Poor's rating services