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This paper has been prepared by IGEES staff in the Department of Public Expenditure & Reform. The views presented in this paper are those of the author alone and do not represent the official views of the Department of Public Expenditure and Reform or the Minister for Public Expenditure and Reform.
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Executive Summary

This paper provides an analysis of the fiscal consolidation undertaken in Ireland during the period 2008-2014. Consolidation was a response to the collapse in Ireland’s finances provoked by an unprecedented financial crisis, bursting of the property bubble and unsustainable fiscal policies undertaken during the decade leading up to the crisis. Overreliance on windfall revenue sources and uncontrolled expenditure increases left Ireland’s open economy extremely exposed to the financial shock. Successive bank recapitalisations and financial market pressures underscored the need for an unprecedented adjustment, supported by an EU/IMF programme, in order to bring debt and deficit levels down to sustainable levels.

Eight years after the beginning of consolidation, the economic and fiscal landscape has completely changed. In 2016 real GDP grew by 5.2%, private consumption by 3%, investment by 45.5% (although heavily distorted by on-shoring of intellectual property and contract manufacturing) and exports by 2.4%. The general government balance was -0.5% of GDP (compared to an underlying deficit of 11.5% in 2009) and general government gross debt reduced to 75.4% of GDP (120% in 2012).

This paper intends to add value by producing a comprehensive assessment of how consolidation was implemented. This is important in order to understand whether the Irish consolidation episode can be considered successful and which policies have contributed to the outcomes observed.

In Section 1 we set out the theoretical and empirical background for fiscal consolidation. We address what consolidation is, how it happens and which measures and definitions are used to identify episodes of fiscal retrenchment. Reviewing existing studies, we seek to identify the strategies that are typically associated with successful consolidations. As explained later, this will be influenced by factors such as the nature of consolidation (expenditure vs tax-based), the macroeconomic environment (state of business cycle and monetary conditions), the initial conditions of the public finance, the timing (“cold shower” vs gradual consolidation) and the composition of the adjustment (“productive” vs “unproductive” expenditure and “distortionary” vs “non-distortionary” tax measures).

In Section 2 we illustrate the implementation of consolidation in Ireland, paying particular attention to the expenditure measures. Between 2008 and 2014 nine ‘budgetary events’ worth €30bn of consolidation measures were announced. Two-thirds of the adjustment burden fell on
expenditure with the remainder on tax whilst approximately half of the total adjustment took place between 2008 and 2010 with the remainder over the 2011-2014 period. Nonetheless, front-loading as an explicit policy choice was less clear in the earlier years of adjustment.

In Section 3 we contextualise the implementation of expenditure consolidation over that period against the backdrop of the increasing demands on public services in Ireland due to factors such as the severe downturn in the labour market and demographic trends. The functioning of automatic stabilisers and the increase in demand driven schemes meant that the gross consolidation did not fully follow-through to headline expenditure levels. Over the period 2009-2014 gross voted expenditure decreased by €9bn, however almost €19bn of expenditure measures were announced. Conversely, capital consolidation measures tracked more closely actual changes in capital expenditure. Attention is also paid to measures related to working age income and employment supports, pensions, public sector pay and numbers and infrastructural spending.

Finally, we conclude in Section 4 by providing a broad assessment of the consolidation measures and policy recommendations for Ireland going forward. The key principles which will shape the assessment will be the “optimal” principles identified in the theoretical and empirical literature illustrated in Section 1. Overall, the Irish fiscal consolidation can be considered successful in terms of the fiscal criteria applied and in terms of timing and composition of the adjustment.
**Introduction**

After a period of sustained economic and expenditure growth, the Irish economy suffered a severe economic and financial crash in 2008 which reduced tax revenues significantly and necessitated an adjustment programme. Aside from its broader merits in supporting stable public finances, fiscal consolidation is usually prompted in response to weak public finance conditions [Barrios *et al.*, (2010); Guichard *et al.*, (2007); European Commission (2007); Von Hagen and Strauch (2001)]. Such conditions were acutely evident in Ireland with the underlying deficit\(^1\) peaking at 11.5% GDP in 2009 and there was an urgent need to redouble the significant fiscal effort already underway since 2008 and formulate longer term fiscal plans. In late 2010, acknowledging the requirement for more thorough multi-year consolidation plans, the Department of Finance published the National Recovery Plan (NRP) which would provide the basis for much of the country’s remaining fiscal effort under the EU/IMF programme which was to follow.

Ireland, like other European Union countries, was subject to an external institutional fiscal framework by way of the Stability and Growth Pact (SGP) which necessitated corrective action in order to reduce deficits which had gone beyond 3% GDP. Under the European Commission’s Excessive Deficit Procedure (EDP) Ireland had to comply with this by adhering to a strict deficit path with specific annual targets which would ultimately bring the deficit below 3% by 2013 but this was extended twice to 2014 and 2015 as economic and fiscal conditions worsened (Council of the European Union, 2009).

Maintaining the credibility of financial markets was a further potent impetus for consolidation. The difference or ‘spread’ between Irish yields and their German equivalent began to widen from 2008 onwards (Figure 1). Despite this, the NTMA successfully conducted regular bond auctions until September 2010 when rising yields forced a suspension of regular sales and the EU/IMF programme began shortly afterwards. Extensive bank recapitalisations undoubtedly played a major role in the spread of yields as the solvency of the State was questioned by international markets. However, borrowing to fund government expenditure on public services was a greater

\(^1\) The General Government Balance net of Banking Related Costs.
contributor to increasing deficits than the direct cost of bank supports. Exchequer borrowing (minus bank transactions) over the period 2008-2014 amounted to over €100bn compared to the approx. €64bn gross banking costs, of which €21bn was supplied from the National Pension Reserve Fund (NPRF).

**Figure 1: Irish 10-Year Bond Yields (vs Germany), 2005-2015**

Source: European Central Bank.

Consolidation was necessarily emphasised as a means to improve the perceived creditworthiness of the State throughout the EU/IMF programme and ensure a successful return to international bond markets. However, the role of fiscal consolidation alone in improving market conditions should not be overstated with the significance of an accommodative monetary policy also noted as playing a crucial role in the maintenance of international credibility (Blot et al., 2015). The Euro Area benefitted greatly from a shift in policy from the European Central Bank in 2012 with the introduction of the Outright Monetary Transactions and an assurance by ECB President Mario Draghi “..to do whatever it takes to preserve the euro” (ECB, 2012). It should be mentioned that creditworthiness was also improved further as a result of a loosening of conditions on official loans through the reduction of interest rates and lengthening of maturities.
Consolidation was primarily undertaken in response to a widening gap between government expenditure and receipts which manifested itself sharply from 2008 onwards. An analysis of the key fiscal anchors underlying this gap are highlighted in Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Budgetary Adjustment</td>
<td>0.5</td>
<td>5.6</td>
<td>2.5</td>
<td>3.1</td>
<td>2.2</td>
<td>1.9</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underlying General Government Balance</td>
<td>0.3</td>
<td>(7.0)</td>
<td>(11.5)</td>
<td>(10.9)</td>
<td>(8.7)</td>
<td>(8.0)</td>
<td>(5.6)</td>
<td>(3.7)</td>
<td>(1.9)**</td>
</tr>
<tr>
<td>EDP Targets</td>
<td></td>
<td>(10.6)</td>
<td>(8.6)</td>
<td>(7.5)</td>
<td>(5.1)</td>
<td>(2.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Balance</td>
<td>(6.7)</td>
<td>(11.5)</td>
<td>(9.9)</td>
<td>(7.6)</td>
<td>(5.8)</td>
<td>(3.5)</td>
<td>(3.5)</td>
<td>(1.8)**</td>
<td></td>
</tr>
<tr>
<td>Annual Change</td>
<td>(4.8)</td>
<td>1.6</td>
<td>2.3</td>
<td>1.8</td>
<td>2.3</td>
<td>0.0</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Government Debt</td>
<td>23.9</td>
<td>42.4</td>
<td>61.7</td>
<td>86.3</td>
<td>109.6</td>
<td>119.5</td>
<td>119.5</td>
<td>105.2</td>
<td>78.6**</td>
</tr>
<tr>
<td>Annual Change</td>
<td>18.5</td>
<td>19.3</td>
<td>24.6</td>
<td>23.3</td>
<td>9.9</td>
<td>(0.0)</td>
<td>(14.2)</td>
<td>(26.6)</td>
<td></td>
</tr>
<tr>
<td>Underlying Exchequer Balance (€bn)*</td>
<td>(1.6)</td>
<td>(12.7)</td>
<td>(17.6)</td>
<td>(18.0)</td>
<td>(15.3)</td>
<td>(14.9)</td>
<td>(11.5)</td>
<td>(8.2)</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Annual Change</td>
<td>11.1</td>
<td>4.9</td>
<td>0.4</td>
<td>(2.7)</td>
<td>(0.4)</td>
<td>(3.4)</td>
<td>(3.3)</td>
<td>(8.1)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Department of Finance, AMECO.
*The Exchequer Balance (or ‘Exchequer Borrowing Requirement’) has been restated net of expenditure and receipts relating to the banking crisis.
** The improvements in the underlying GGB, the Structural Balance and the debt ratio for 2015 are driven to an extent by the denominator (the growth in nominal GDP in 2015 of 32.4%).

An analysis of the underlying exchequer balance over the period shows that, despite the negative effect on economic growth (Fatás, 2015), consolidation was certainly effective in reducing the headline deficit in nominal terms and the borrowing requirement necessary to fund essential public services with the balance improving from 2012 to effectively nil in 2015. Despite a substantial increase owing to the recapitalisation of the banking system, the fiscal effort also made an important contribution to the stabilisation of the debt-GDP ratio. Furthermore, as already mentioned, Ireland was subject to the rigors of the Corrective Arm of the Stability and Growth Pact from 2009 onwards and the fiscal effort implemented was vital in ensuring compliance with EDP targets over the period.
This paper intends to add value by producing a multi-faceted assessment of the fiscal consolidation undertaken in Ireland from 2008 to 2014. This is important to understand whether the Irish consolidation episode can be considered successful and which policies have contributed to the outcomes observed.

This article is divided into 4 main sections. In Section 1 we set out the methodological approach and seek to identify the best strategies to achieve a successful consolidation on the basis of economic theory and the empirical literature. In Section 2 we illustrate in detail the implementation of consolidation in Ireland. Section 3 contextualises the relationship between the adjustments and total expenditure in the context of the increasing demands on public services due the severe downturn in the labour market and demographics. In Section 4 we assess fiscal outcomes and discretionary aggregate measures on the basis of the “optimal” principles of fiscal consolidation design.


Section 1: Methodology

1.1 Defining fiscal consolidation

Fiscal consolidation is discretionary fiscal policy aimed at improving the state of public finances (e.g. reducing government deficit and debt). It occurs through increased revenue and/or reduced expenditure. Consolidation episodes are generally identified by changes in the Cyclically Adjusted Primary Balance (CAPB) assessed on an ex-post basis once changes in the CAPB can be accurately measured. The Cyclically Adjusted Balance (CAB) is that component of the government balance that is not affected by the business cycle. The Cyclically Adjusted Primary Balance (CAPB) is then calculated by subtracting interest payments from the CAB. Cyclically Adjusted Balances are conventionally calculated using an estimate of the output gap (the difference between actual and potential GDP). This allows policy makers to identify the cyclical position of the economy. As potential output and consequently the output gap are variables which are non-observable in nature, statistical and econometric techniques are used to estimate it.

On the basis of the CAPB, several definitions are applied in the empirical literature to identify episodes of fiscal consolidation. The main ones\(^2\) are listed below:

<table>
<thead>
<tr>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition 1</td>
<td>CAPB improves by more than 1.5 pp in a single year (“cold shower”) or if it</td>
</tr>
<tr>
<td></td>
<td>improves by least 1.5 pp in three years, with no annual deterioration larger</td>
</tr>
<tr>
<td></td>
<td>than 0.5 pp (“gradual consolidation”);</td>
</tr>
<tr>
<td>Definition 2</td>
<td>CAPB improves by at least 1 pp of potential GDP in 1 year or at least 1 pp</td>
</tr>
<tr>
<td></td>
<td>of potential GDP in 2 years with each more than 0.5 pp;</td>
</tr>
<tr>
<td>Definition 3</td>
<td>CAPB improves by at least 1.25 pp of potential GDP in 2 years or at least</td>
</tr>
<tr>
<td></td>
<td>1.5 pp of potential GDP and positive in the preceding and following year.</td>
</tr>
</tbody>
</table>

The first is the most common definition and is the one we will rely on to illustrate the Irish adjustment. The cumulative improvement in the CAPB from the start to the end of the retrenchment period is called the “size” of consolidation (Molnár, 2012). To assess if an adjustment programme is successful or not, three alternative criteria can be followed, with the first two targeting debt and the third the CAPB:

<table>
<thead>
<tr>
<th>Measuring the Success of Fiscal Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criterion 1:</strong> 3 years after the start of consolidation the debt to GDP ratio is 5 pp lower;</td>
</tr>
<tr>
<td><strong>Criterion 2:</strong> the cumulative improvement of the debt to GDP ratio is greater than 4.5 pp;</td>
</tr>
<tr>
<td><strong>Criterion 3:</strong> 3 years after the CAPB does not deteriorate by more than 0.75% in cumulative terms.</td>
</tr>
</tbody>
</table>

However, the assessment of consolidation should not only be focused on the observed outcomes for the deficit and debt. It is also essential to consider the composition of the main expenditure and taxation measures. The “optimal” principles of consolidation described in the following section will help us doing that.

### 1.2 The Optimal Principles of Consolidation

Several factors can influence the success of consolidation. A major role is played by the macroeconomic environment. When an economy is experiencing a deep recession, fiscal consolidation is not consistent with the principle of countercyclical fiscal policy and this can aggravate the downturn. By exacerbating the degree of hysteresis in the labour market\(^4\) negative long lasting effects on the economy are produced. For example in Ireland, in the aftermath of the financial crisis many workers employed in the Irish construction sector found it difficult to re-skill and find another job. This caused human capital to depreciate and made people less employable and increased unemployment above its natural rate reducing potential output. Initial conditions of the public finances also matter. Countries which start out with high levels of debt may find it

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\(^4\) The phenomenon according to which increases in the current rate of unemployment translate into structural changes
hard to achieve a successful consolidation. The same happens in presence of a financial crisis. Barrios et al., (2010) find that it is less likely to achieve a successful consolidation in the aftermath of a financial crash. However, for it to be possible, it is necessary to repair the financial sector first. Finally, monetary conditions can influence the success of consolidation. Molnár (2012) finds that low interest rates increase the probability of achieving a successful adjustment.

The timing of consolidation is also an important issue affecting its success: front-loading versus back-loading. Front-loading means the government undertakes most of the consolidation effort at the beginning of the fiscal retrenchment programme. By contrast, back-loading means that the bulk of the adjustment is postponed until the final years of the programme. Alternatively, it is possible to spread the fiscal adjustment evenly over the years. When addressing the timing of consolidation, it is important to briefly address the concept of fiscal multipliers. These play a key role in determining the magnitude of the effects of fiscal policy. Fiscal multipliers estimate how an X% change in a fiscal variable such as government spending or income taxation affects output. From a theoretical viewpoint, fiscal multipliers differ according to the theory that is considered. On the one hand, the Ricardo-Barro proposition assumes that fiscal multiplier are null. On the other hand, the Keynesian approach predicts fiscal multipliers that are higher than 1. Empirically, multipliers are found to be higher for expenditure increases rather than tax reductions, time-varying depending on the phase of the business cycle and smaller in open economies where an increase in aggregate demand can be met by imports.

Having said that, a front-loading strategy enhances credibility and market confidence, which reduce borrowing costs. However, in a recession it will aggravate economic conditions and if fiscal multipliers are high, it damages the potential capacity of the economy (Cugnasca and Rother, 2015). Barrios et al., (2010) find that the probability of achieving a successful consolidation reduces if a front-loading strategy is undertaken when the economy is experiencing a slowdown. A back-loading strategy has the advantage of giving the economy more time to recover but raises uncertainty and it is considered inferior to a front-loading approach if the debt is high and there are financial market pressures (Barrios et al., 2010).

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5 If the government generated a deficit by reducing taxation, the Ricardian equivalence would predict that consumers will not change their consumption today. Forward-looking consumers, aware of the government intertemporal budget constraint, will anticipate that a tax cut today will be followed by a tax increase tomorrow, and thus they will save the tax cut. As a result, the reduction in public saving (increase in deficit) will be offset by an increase in private saving, leaving the total saving in the economy unchanged.
The composition of the fiscal adjustment is a key issue influencing growth and inequality prospects. Empirical evidence (Alesina and Perotti (1995), Alesina and Ardagna (2012); von Hagen et al., (2002); Guichard et al., (2007); Barrios et al., 2010) suggests a focus on expenditure reductions rather than revenue raising as expenditure reductions appear to be less harmful for growth and generate durable improvements in the public finances. However, it is important to be cautious in advocating indiscriminate expenditure cuts. This is true for two reasons: first, an influential part of macroeconomic theory (endogenous growth models) predicts that “productive” types of public expenditure are key determinants of potential output growth. Second, large expenditure cuts to public benefits and transfers, which are generally received by people on low incomes, increase the level of inequality, reduce trust and social cohesion and can undermine growth. If expenditure cuts are pursued, it is recommended that they should be accompanied by improvements in the institutional fiscal framework. Multi-annual budgeting procedures, spending reviews and evaluation processes are fundamental elements in this regard. The same is true for the implementation of structural reforms which increase efficiency and make fiscal consolidation more likely to succeed (Kumar et al., 2007).

On this topic, OECD studies (Cournède, Goujard and Pina (2013); Causa, De Serres and Ruiz (2014); Fournier and Johansson (2016)) arrive at the following results: i) expenditure on education raises long-term growth mainly through increased human capital; ii) public investment in areas such as health, infrastructure and R&D increase growth; iii) subsidies, pensions and unemployment benefits are negatively correlated with economic performance. This might be explained by the negative effect that they can have on labour supply and resource allocation in the economy; iv) spending on child care and family encourage labour force participation and stimulate growth.

On the revenue side, as taxes introduce distortions in the economy the optimal tax smoothing theory recommends keeping taxation stable overtime (Barro, 1995). At a disaggregate level, it is found that personal, corporate taxation and social security contributions are the most harmful for growth unlike indirect and property taxes (Romero-Ávila and Strauch, 2008). In relation to labour income taxation, it is recommended to keep a broad tax base along with lower average and marginal tax rates.

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6 See Romer (1986); Lucas (1988); Barro (1990) and King and Rebelo (1990).
7 Endogenous growth models challenge standard neoclassical growth theory (Solow (1956); Cass (1965)). According to Neoclassical theory, fiscal policy does not affect long term growth as this is assumed to be determined by exogenous variables such as technology and population growth. Fiscal policy alters investment decisions affecting steady-state levels of capital and output but only generates transitory growth effects.
Cournède, Goujard and Pina (2013) produced the following list of consolidation instruments, ranked from the most to the least recommended, taking into account growth and equity objectives: 1) subsidies; 2) pensions; 3) other government consumption including public service pay; 4) unemployment benefits; 5) environmental taxes; 6) other property taxes; 7) sickness and disability payments; 8) recurrent taxes on immovable property; 9) taxes on sales of goods and services; 10) consumption taxes; 11) personal income taxes; 12) corporate income taxes; 13) public investment; 14) health services; 15) family policy; 16) social security contributions; 17) education.

In relation to the composition of the fiscal adjustment, particular attention should be paid to the treatment of public investment. Given that the standard metrics of fiscal performance such as the general government balance lack an intertemporal dimension (neglecting present value of future benefits), an anti-investment bias can arise (Easterly, Irwin and Serven, 2008). As current and capital spending have identical effects on the deficit, areas of current expenditure which are politically more sensitive tend to be prioritized at the expense of capital expenditure, particularly when resources are limited. This is due to the fact that most of the benefits of capital spending will be realised in the future and good projects having significant initial costs might be disregarded. As efficient public investment is considered productive public expenditure, its reduction will harm potential output growth and reduce future government revenues. The return on public investment will be higher the lower the level of the public capital stock. However, the term efficiency has to be underlined. It is not sufficient to increase capital spending to achieve long term gains if for the projects that have been selected social marginal benefits do not outweigh social marginal costs. Thus, an overall evaluation process which is rigorous, clear and transparent is a fundamental pre-condition. The IMF (2015) forecasts that the most efficient countries in terms of public investment can obtain twice the benefits experienced by countries placed at the bottom of the public investment efficiency scale. Only efficient public investment increases capital accumulation, and therefore the potential capacity of the economy.

To recap, we can draw some conclusions from the literature on how the “ideal” fiscal consolidation should be. These are summarised in table 2. Whilst keeping these principles and recommendations in mind, it is worthwhile to recognise that broader socio-political and institutional factors including but not limited to the fiscal framework will also influence the extent

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8 Easterly, Irwin and Serven (2008) argue that it would be better to define fiscal targets using long-term measures of government solvency encompassing assets, liabilities, present value of future revenues and expenditures.
to which the above principles will be implemented fully in practice. We now turn to illustrate the Irish experience. The next sections detail the size, composition and timing of the adjustment. Particular attention is paid to the impact of consolidation on the different types of voted expenditure.

**Table 2: The Optimal Principles of Consolidation**

- **based more on expenditure reductions than tax increases;**
- **however, areas of productive spending such as education, health, infrastructure, R&D and on families and children should be safeguarded;**
- **expenditure reductions should be accompanied by improvements in the institutional fiscal framework and structural reforms aimed at increasing efficiency;**
- **fiscal policies should avoid increasing the level of inequality but a possible equity-efficiency trade-off can arise in the short term;**
- **tax measures on immovable property and indirect forms of taxation should be preferred to personal, corporate taxes and increases in social security contributions;**
- **consolidation should be done when the macroeconomic environment is positive (positive output gap) and interest rates are low;**
- **the adjustment pace should be gradual;**
- **however, high debt levels and financial crashes can necessitate an accelerated adjustment process. In these cases, consolidations are more successful when the banking sector is repaired and a front-loading strategy (cold shower), which increases market confidence, is implemented.**
Section 2: Consolidation in Ireland. Implementation

It is worthwhile to start by highlighting that the measuring and assessing the Irish adjustment will be mainly based on the following two measures of fiscal adjustment:

**Measure 1: Changes in the Structural Primary Balance (SPB).** The SPB is preferred to the CAPB as it excludes one-offs and temporary measures related to bank recapitalisations;

**Measure 2: Announced (Ex-ante) discretionary measures**

Both measures have their advantages and limitations. The Structural Primary Balance is affected by measurement issues associated with potential output, but it is useful to identify the structural position of the public finances and, generally, is good for fiscal policy guidance. Announced (Ex-ante) discretionary measures are observable and thus avoid the problems related to the SPB, but can be subject to mis-estimation of the actual impact of consolidation.

Nonetheless, we believe that this approach is reasonable and has the strength of highlighting the structural/policy fiscal effort and the interactions between policy actions, economic environment and social pressures.

2.1 The composition of consolidation

Between 2008 and 2014 there was a total of nine ‘budgetary events’ announcing approximately €30bn of consolidation measures (Table 3). Two-thirds of the adjustment burden fell on expenditure with the remainder on revenue although it was not until late 2009 with the publication of Budget 2010 that this was explicitly laid out as a deliberate strategy (NRP, 2010).
### Table 3: Announced Ex Ante Consolidation

<table>
<thead>
<tr>
<th>€bn</th>
<th>Total</th>
<th>Revenue</th>
<th>Expenditure</th>
<th>Current</th>
<th>Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2008</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Budget 2009</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>February 2009</td>
<td>2.1</td>
<td>-</td>
<td>2.1</td>
<td>1.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Supplementary Budget 2009 (April)</td>
<td>5.4</td>
<td>3.6</td>
<td>1.8</td>
<td>1.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Budget 2010</td>
<td>4.4</td>
<td>0.1</td>
<td>4.3</td>
<td>3.2</td>
<td>1</td>
</tr>
<tr>
<td>Budget 2011</td>
<td>6.1</td>
<td>2.2</td>
<td>3.9</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Budget 2012</td>
<td>3.2</td>
<td>1</td>
<td>2.2</td>
<td>1.4</td>
<td>0.8</td>
</tr>
<tr>
<td>Budget 2013</td>
<td>3.1</td>
<td>1.2</td>
<td>1.9</td>
<td>1.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Budget 2014</td>
<td>2.5</td>
<td>0.9</td>
<td>1.6</td>
<td>1.5</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29.8</strong></td>
<td>11</td>
<td><strong>18.8</strong></td>
<td><strong>13.6</strong></td>
<td><strong>5.2</strong></td>
</tr>
</tbody>
</table>

Source: Budget Documentation (Various Years).

### Table 4: Main Consolidation Measures

<table>
<thead>
<tr>
<th>Budgetary Event</th>
<th>Main Spending Measures</th>
<th>Main Revenue Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2008</td>
<td>Efficiency Measures</td>
<td>Income Tax Rates, VAT, Excise, Air Travel Tax</td>
</tr>
<tr>
<td>Budget 2009*</td>
<td>Public Service Pension Levy Introduced</td>
<td>Income Tax Rates, Abolition of Tax Reliefs, DIRT,</td>
</tr>
<tr>
<td>February 2009</td>
<td>Public Service Pension Levy Introduced</td>
<td></td>
</tr>
<tr>
<td>Supplementary Budget 2009</td>
<td>Removal of Christmas Bonus, Reduction in Early Childcare Supplement</td>
<td>Income Tax Rates, Abolition of Tax Reliefs, DIRT,</td>
</tr>
<tr>
<td>Budget 2011</td>
<td>Social Welfare Rates, Capital</td>
<td>Income Tax Credits, Bands, USC, Abolition of Tax Relief</td>
</tr>
<tr>
<td>Budget 2012</td>
<td>Child Benefit, Redundancy and Insolvency Scheme, Overseas Development Budget, Payroll and Pensions savings</td>
<td>VAT, Household Charge, Excise, CAT/CGT</td>
</tr>
<tr>
<td>Budget 2013</td>
<td>Child Benefit, Drugs, Pay.</td>
<td>PRSI, Local Property Tax, Excises, Pension Relief</td>
</tr>
<tr>
<td>Budget 2014</td>
<td>Haddington Road Agreement</td>
<td>Income Tax Relief (Health Insurance), Levies (Financial Institutions and Pension Funds), Excise</td>
</tr>
</tbody>
</table>

*€2bn of revenue measures were introduced as part of Budget 2009.
The early years of the Irish consolidation experience were characterised by a greater emphasis on revenue measures with a particular focus on income tax. By mid-2009, as the downturn had yet to fully take hold, there was little immediate emphasis on expenditure reductions such as pay, social welfare or capital projects to bear the brunt of the adjustment. This was demonstrated by the 2009 Supplementary Budget’s focus on taxation and plans for such measures, albeit to a lesser extent, to form the larger part of the adjustment in 2010 (Financial Statement of the Minister for Finance, April 2009).

However, Budget 2010 brought about an explicit shift in policy in this regard with expenditure measures representing almost the entirety of the adjustment in 2010 and the majority of the fiscal effort from that point onwards. This change in emphasis came as the Government cited evidence provided by international organisations and other sources that expenditure adjustments are more successful in achieving deficit reduction (Department of Finance, Stability Update Programme 2009). The chosen composition of measures included in Budget 2010 was supported by the IMF in the 2010 Staff Report (IMF, 2010). The publication of the National Recovery Plan (NRP) in November 2010 reinforced the primacy of expenditure measures for deficit reduction with two-thirds of the planned adjustment over the 2011-2014 period allocated to expenditure. The NRP became the basis for the subsequent EU-IMF Programme of Assistance from late 2011-2013.

Within the broad area of expenditure, there was particular, even what might be considered disproportionate, emphasis on capital consolidation over the 2008-2014 period with approximately €5bn of measures introduced representing over one-quarter of all expenditure adjustments despite accounting for just 14% of all voted expenditure in 2008. Generally, reductions to capital expenditure are less politically sensitive than reductions to welfare or pay and Government priorities did include a commitment to reduce overall spending while protecting frontline services to the greatest possible extent. It is noteworthy, however, that capital investment in the period to 2008 represented unprecedented levels of funding that were directed towards addressing long-standing infrastructural deficits and bottlenecks in areas such as the roads network that were amongst the highest in the EU over the period. Furthermore, a 30% reduction in construction tender costs over the 2007-2010 period (Society of Chartered Accountants, 2015) increased the scope for greater delivery of investment projects per euro spent. In addition, the magnitude of public capital spend in the period preceding the downturn, particularly given the overheating and price inflation in the construction sector, has led to
concerns that the link between analysis and policy-making during this period, particularly in relation to capital expenditure, could have been improved to ensure more appropriate investment priorities [Morgenroth (2014); Ruane (2012)].

Historically, public investment seems to have followed a very procyclical behaviour in Ireland. Box 1 below investigates this issue using empirical tools.

Box 1. The pro-cyclicality of public investment in Ireland since 1970

In the conduct of fiscal policy, Keynesian macroeconomic principles advocate the use of a countercyclical approach. When the economy is growing, it is best not to increase government spending and accumulate savings. Conversely, in a recession, tax should be lowered and expenditure increased as this would support aggregate demand and allow the economy to recover. Countercyclical mechanisms are already built into the automatic stabilizers (i.e. in a recession (expansion) unemployment payments rise (decrease) and taxes fall (rise)), nonetheless it seems optimal to operate countercyclical discretionary fiscal policy to stabilise the economy from output fluctuations.

It is often argued that Irish fiscal policy has been highly procyclical during the last decades. In this box we investigate empirically some of these issues. In particular, we investigate the extent to which public investment has behaved pro-cyclically. We do this using correlation and regression analyses. Annual data is taken from the European Commission’s Ameco Database and the CSO and considers the period 1970-2014.

Simple correlation analysis highlights the existence of a positive relationship between output growth and capital spending growth (0.57). This means that in Ireland periods of positive output growth have been historically associated with increases in public investment. Vice versa recessions have been correlated with expenditure cuts to this area. It is noteworthy to highlight that public investment shows a very high positive simple correlation with output growth. This is statistically significant at the 5% level of significance. Results do not change if we use the output gap instead of real output growth. Using the output gap, the correlation coefficient (0.67) is statistically significant at conventional levels.

We now turn to investigate this correlation using a simple regression analysis. We estimate the model using Ordinary Least Squares (OLS) regressing the growth rate in public investment (GFCF) in year t on its lagged value and the growth rate in real output in year t. Investment and GDP growth are tested using the Phillips-Perron and Dickey-Fuller tests and found to be
stationary (MacKinnon approximate p-value for Z(t) = 0.0132 and 0.0150 respectively). Results are shown in the table below and are consistent with the correlation analysis. The regression model displayed in column 1 shows that public investment in Ireland has been not only procyclical but also highly responsive (more than proportional) to changes in GDP growth. A decrease of 1 pp in real output growth is associated with a reduction of 2.5 pp in capital expenditure growth. As a robustness check, the residuals are tested and found to be white noise (Portmanteau (Q) statistic = 7.7165). Furthermore, to address issues of reverse causality, real GDP growth is instrumented using its 2 year lagged value. The estimation through Two Stage Least Squares (column 2) supports previous findings. Finally, if the output gap is used as explanatory variable (column 3), results do not change and emphasise the conduct of a procyclical fiscal policy. When the economy operates above potential (positive output gap) investment (0.04) increases and vice versa it is cut if the output gap is negative.

<table>
<thead>
<tr>
<th>Regression results</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) OLS (2) 2SLS (3) OLS</td>
</tr>
<tr>
<td>Explanatory variables</td>
</tr>
<tr>
<td>Real GDP growth</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Lagged investment gr</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Output gap</td>
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<tr>
<td></td>
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<tr>
<td>Constant</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
</tbody>
</table>

In summary, our findings are consistent with the general consensus built around the conduct of fiscal policy in Ireland during the last decades. Fiscal policy contrasted with the Keynesian macroeconomic principles and was highly procyclical. This should be taken into account in the choice of future policy measures. However, this analysis purports to be an illustrative exercise only as several caveats apply.
2.2 The timing of consolidation

As previously noted, a number of factors appear to be affected by the decision of whether to undertake the most significant consolidation from the outset of a fiscal retrenchment programme (front-loading), to spread it evenly or to delay the bulk of the adjustment until the outer years of the programme (back-loading). A front-loading strategy can have a counterproductive effect on growth performance and debt ratios if the fiscal multiplier of the chosen adjustment instrument (public investment, income taxation etc.) is high. However, the argument for front-loading can be justified by the lack of certainty in the future which could prolong the adjustment process. A “cold shower” consolidation can strengthen a government’s credibility to financial markets and help stabilise or lower interest rates whilst prolonging the adjustment can be politically difficult as it is far from certain that the fiscal commitments of one government will be enacted by its successor (Blot et al., 2015).

Figure 2: Timing of Fiscal Adjustments in Ireland, 2008-2014

In Ireland’s case, approximately half of the total adjustment (including both expenditure and revenue measures) took place between 2008 and 2010 with the remainder over the 2011-2014 period (Figure 2). Front-loading as an explicit policy choice was less clear in the earlier years of adjustment. The rapidly deteriorating economic and fiscal conditions translated into an ever-increasing requirement for fiscal effort.
Such conditions were evidenced in 2009 (the single largest annual adjustment) when three budgetary events were necessary as the fiscal goalposts continued to shift. The Supplementary Budget of April 2009 was the first during the downturn to include a multi-annual consolidation path with consolidation packages outlined for 2010 and 2011 (Department of Finance, Supplementary Budget 2009). The smaller amounts of consolidation specified for these later years, relative to 2009, certainly demonstrated plans to frontload the adjustment thought necessary at the time. However, and as shown in Table 5 below, the consolidation actually required in 2011 was significantly higher than foreseen with significant adjustments also required in later years which has not been foreseen in earlier budgetary documentation. Budget 2010 also announced a smaller adjustment vis-à-vis the one envisaged for 2011 before a weakening economic environment in 2010 eventually required almost double the planned adjustment for 2011 (Department of Finance, SPU 2009).

Table 5: Multiannual Consolidation Plans

<table>
<thead>
<tr>
<th>(€bn)</th>
<th>Consolidation Type</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget 2009 (April)</td>
<td>Expenditure</td>
<td>1.8</td>
<td>2.25</td>
<td>2.5</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>3.6</td>
<td>2.5</td>
<td>2.1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Budget 2010</td>
<td>Expenditure</td>
<td>---</td>
<td>4.3</td>
<td>2.1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>---</td>
<td>0</td>
<td>3(^9)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRP</td>
<td>Expenditure</td>
<td>---</td>
<td>---</td>
<td>3.9</td>
<td>2.1</td>
<td>2</td>
<td>2</td>
<td>25.5</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>---</td>
<td>---</td>
<td>2.1</td>
<td>1.5</td>
<td>1.1</td>
<td>1.1</td>
<td></td>
</tr>
</tbody>
</table>

Source: Budget Documentation (Various Years).

The National Recovery Plan (2010), which eventually became the foundation for the EU/IMF programme, explicitly scheduled a process of frontloading for the remaining adjustments with 40% of the €10bn of expenditure consolidation over the 2011-2014 outlined in the documents to be enacted in 2011 (NRP, 2010). As mentioned before, the implementation of a front-loading strategy can have a negative impact on the economy, but there is little scope for a more gradual adjustment if market access is fragile or has been lost altogether (Blanchard and Leigh, 2013). The EU/IMF programme secured a three year funding line thereby eliminating the requirement, in the short-term at least, for reliance on volatile international bond markets. Some criticism at the time questioned the need for a front-loading of the adjustment given that the immediate requirement to present a position of credibility to markets was removed by the EU/IMF programme. However,

\(^9\) Budget 2010 did not specify the breakdown of the planned €3bn adjustment between expenditure and revenue for 2011 and 2012.
the same commentators recognised the potential political uncertainty attached to multi-annual consolidation at the time may have encouraged a demand from external authorities to frontload as much of the adjustment as possible despite the effect on economic activity (Whelan, 2010). Similarly, consolidation fatigue can also be a consideration encouraging authorities to ‘lock-in’ as much of the necessary adjustment as possible (Pennings and Ruiz, 2013).

Box 2. Case Study: Ireland and Greece

To see how timing and composition can play a significant role in determining the success of consolidation, a comparison of the Irish experience with that of Greece can be illustrative.

Figure 3: Fiscal Adjustment Experience: Ireland Vs Greece

Ireland’s total adjustment totalled approximately 20% GDP compared to 30% GDP implemented by Greece which can likely be explained, at least in part, to competitiveness differences between the two economies including the openness of Ireland’s economy compared to that of Greece (100% exports to GDP ratio in Ireland as compared to 20% for Greece). As well as being relatively larger, the Greek adjustment was heavily frontloaded as it took place in a shorter timeframe (5 vs 7 years). The Irish intervention was also timelier, highlighting the benefits of the early action undertaken to bring the deficit under control.

Another reason for the relative size of the Greek adjustment and failure to meet deficit targets was the composition of the adjustment. The Greek adjustment programme had less emphasis on expenditure measures than that of Ireland’s with a 1:1 ratio adopted compared to 2:1 in Ireland. The Greek Finance Ministry have concluded after the fact that a greater emphasis on expenditure measures would have been a preferable choice (Lalountas, 2014).
2.3. **Public Services Pressures (incl. Automatic Stabilisers)**

The implementation of expenditure consolidation needs to be viewed in the context of the increasing demands on public services in Ireland due to factors such as the downturn in the labour market and demographic trends. Figure 5 below illustrates the increased demands for public services arising in the education, health and social protection sectors despite reductions in expenditure allocations. The next section examines in greater detail the various programme expenditure over the consolidation period.

**Figure 5: Illustration of Expenditure Pressures and Fiscal Consolidation**

Source: CSO and Relevant Government Departments.
**Section 3: The Impact of Consolidation on Voted Expenditure**

Several years of exceptionally strong and unsustainable expenditure growth were brought to an end with the downturn. Expenditure levels in 2008 continued to increase rapidly as the year’s budget had already been confirmed and there was a marginal increase in 2009, as automatic stabilisers and demand driven schemes intensified, despite the introduction of a number of significant consolidation measures.

![Figure 6: Evolution of Gross Voted Expenditure, 2007-2014](image)

Source: Department of Public Expenditure and Reform.

Increases in expenditure in these years were common in many industrialised countries as the world downturn was met with an expansionary fiscal policy response which was supported by the IMF. However, across the EMU, this eventually gave way to adherence to the 3% headline deficit rule enshrined in the Stability and Growth Pact as well as to the deterioration in the fiscal situation in Greece which created fears of possible sovereign default and contagion (Blot et al., 2015). Over the period 2009-2014 gross voted expenditure decreased by €9bn.
Figure 6 above shows that pressures on expenditure, particular during the early years of adjustment, greatly constrained the ability of consolidation measures to ‘follow through’ to gross spending levels. Pressure on essential services meant that 2014 expenditure reduced by €9bn compared to 2009 despite the implementation of some €19bn of expenditure measures over the period. This implies some €9bn\textsuperscript{10} of expenditure pressures over the period which were essentially ring-fenced from expenditure consolidation. An examination of expenditure over the period provides us with a clearer picture of these pressures, many of which are well-known. In implementing expenditure reductions, the priority was to adopt a targeted approach in order to protect key public services and social supports, including support for the unemployed, to the greatest extent possible at a time of increasing demand.

3.1. Working Age Income Supports
The downturn had a profound effect on employment levels within the Irish economy as the number of people in employment decreasing by 302,000 (15%) between Q4 2007 and Q1 2012 with the construction and retail sectors being hit particularly badly. The corresponding effect on the numbers claiming unemployment assistance is evidenced by the substantial increase in the average number of Live Register claimants over the period. In total, almost 283,000 (174%) more claimants were on the Live Register in 2011 compared to the annual average of 2007 (CSO). The resulting claims increased expenditure on Jobseekers Allowance (JSA) and Jobseeker’s Benefit

\textsuperscript{10} €1bn of the expenditure consolidation relates to the Pension-Related Deduction (PRD) which affected net rather than gross voted expenditure.
(JBA) from €1.4bn in 2007 to a peak of €4.1bn in 2010. This increase in unemployment expenditure occurred despite reductions in JSA and JBA rates in Budgets 2010 and 2011.

3.2. Working Age Employment Supports
Growing unemployment also necessitated an increase in many demand-led employment support schemes as well as the introduction of a number of new measures to improve labour market training and activation. The Back to Education Allowance scheme experienced a 150% increase in costs as participant numbers almost quadrupled over the period. New schemes such as TUS, JobBridge, Job Initiative and JobsPlus also added to the total cost of employment supports over the period. Expenditure on employment supports increased by over €0.5bn over the period.\(^\text{11}\)

3.3. Illness, Disability and Carer
Expenditure on schemes in this area was also demand-led and increased by approximately 20% with a particular increase in a number of areas such as Illness Benefit and Carer’s Allowance.

3.4. Pensions
The State Pension rate was increased in Budget 2009 and subsequently protected from any rate reductions over the period despite demographic pressures. Expenditure by the Department of Social Protection on pension related expenditure increased from €5bn in 2007 to €6.6bn in 2014 (+32%) which was broadly in line with the CSO’s population projections for growth in the 65+ years old cohort over the period outlined in Figure 8 below.

Figure 8: Growth in Pension Expenditure

Source: CSO, Department of Public Expenditure and Reform.

\(^{11}\) The Community Employment Scheme transferred to DSP in 2011 and is excluded here.
Public service pension expenditure is also subject to demographic growth. The proportionally larger increase can partly be explained the introduction of a number of voluntary retirement schemes enacted across the public service over the period will have had the effect of frontloading retirements over this period.

3.5. **Public Sector Increments**

The payment of public sector increments, primarily relating to lower-paid and front line staff salaries, was estimated at approximately €250m annually in 2008. However, the introduction of the moratorium on public sector recruitment significantly reduced the number of newer staff entering the service whilst the reduction in numbers and higher numbers reaching the maximum point of their respective scale all contributed to the stabilisation of the marginal cost of this figure from 2011 onwards (Oireachtas, 2008 and 2012).

Table 6 below summarises the main demand-led drivers of expenditure referenced above.

| Table 6: Estimated Main Expenditure Drivers 2007-2014 (cumulative) |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
| Unemployment Expenditure (LR) | 1.4   | 2.1   | 3.7   | 4.1   | 3.9   | 3.6   | 3.7   | 3.3   |
| Pension Related Expenditure (DSP) | 5.0   | 5.5   | 5.9   | 5.9   | 6.1   | 6.3   | 6.5   | 6.6   |
| Public Service Pension Expenditure | 1.5   | 2.1   | 2.6   | 2.7   | 2.8   | 3.1   | 3.0   |       |
| Employment Supports         | 0.1   | 0.2   | 0.2   | 0.3   | 0.5   | 0.6   | 0.7   | 0.7   |
| Illness, Disability and Carer | 2.8   | 3.3   | 3.5   | 3.6   | 3.4   | 3.3   | 3.4   | 3.4   |
| Public Sector Increments    | -     | 0.3   | 0.5   | 0.8   | 0.9   | 1.0   | 1.1   | 1.2   |
| **Total**                  | **10.9** | **13.5** | **16.4** | **17.3** | **17.7** | **18.0** | **18.3** | **18.2** |

Source: Department of Social Protection, Authors’ Estimates.
Box 3. The Exchequer Pay Bill

Figure 9 shows the annual the reduction in the Exchequer pay bill during the consolidation period. Between 2009 (gross) and 2008 (net of the PRD) there was a decrease of €3.7bn or 21%.

Of the €3.7bn of FEMPI\(^\text{12}\) measures introduced during the period, €2.1bn related to direct reductions in the pay bill via gross cuts and the introduction of the Pension-Related Deduction. The balance of the savings are attributable to reductions in numbers, and to productivity measures underpinned by Public Service Agreements, the Croke Park Agreement 2010-2014 and the Public Service Stability Agreement 2013-2018 - Haddington Road Agreement and Lansdowne Road Agreement (Oireachtas, 2016).

Measures to reduce the paybill proved effective, compared to say the Social Protection bill which had other drivers during the downturn. The saving here was partially offset by an increase in the Exchequer pension bill which increased over the period as employees were encouraged to retire earlier through a number of incentivised schemes.

\(^{12}\) Financial Emergency Measures in the Public Interest
3.6. **Capital Expenditure**

As previously mentioned, capital expenditure reductions were proportionally larger than those applied to current expenditure. The reasons for this are twofold: as previously mentioned, generally cuts to capital expenditure are less politically sensitive and the capital envelopes over the period were not subject to the same expenditure pressures as current in terms of unemployment, demographics etc. This is illustrated in Figure 10 below which shows that capital consolidation measures over the period more closely tracked the annual change in capital expenditure. Consolidation measures amounting to €5.2bn were announced compared to a €4.4bn reduction in capital expenditure.

**Figure 10: Capital Consolidation Tracks Actual CapEx Changes**

![Figure 10: Capital Consolidation Tracks Actual CapEx Changes](image-url)
Box 4. A Wider Definition of Consolidation: Expenditure Forgone

Consolidation is typically considered a reduction in an existing expenditure base. However, there were numerous examples of expenditure forgone as the downturn took hold. These include the suspension and/or cancellation of expenditure commitments or through expenditure forgone as a result of staffing controls. We provide some examples analysing forgone expenditure in capital and public sector pay and numbers.

**Capital Expenditure**
Capital consolidation of €5bn can be expanded to include the expenditure plans of previous investment programmes that was never incurred. A total of four Capital Investment Plans were published by successive Governments over the period, however, as Figure 10 below illustrates, fiscal circumstances required these allocations to be curtailed significantly with each successive iteration of the Capital Plan. The actual capital outturn was approximately €29bn over the 2009-2014 period compared to the counterfactual position of approximately €50bn implied by the allocations in the 2008 and 2010 Capital Plans.

**Figure 11: Successive Iterations of Capital Envelopes Vs Actual Outturn**

Source: Various DoF and DPER Capital Reviews.
Public Sector Pay
Even if the introduction of the budgetary measures in February 2009 are primarily remembered for the introduction of the Public Service Pension-Related Reduction (PRD), there was also an additional €1bn in pay increases withheld under the ‘Towards 2016’ Social Partnership pay agreement (Department of Finance, Supplementary Budget 2009).

Public Sector Numbers
Annual growth in public sector numbers averaged 3.3% during the period 2001-2007 before the implementation of a public sector moratorium on recruitment and associated Employment Control Framework (ECF) alongside a number of incentivised retirement schemes ensured a level of natural wastage which led to a 10% reduction in number by 2014. In the absence of a public sector moratorium numbers would undoubtedly have continued to rise. A crude counterfactual assessment is outlined assuming the unfettered growth of numbers from 2008 onwards at the same rates as in the 2001-2007 period. Whilst unrealistic in terms of the underlying public finances, there is little doubt that the decision to implement the moratorium provided a substantial cost saving.

Figure 12: Counterfactual Assessment of Public Sector Numbers Growth
Section 4: Results and Policy Implications

4.1. An assessment of consolidation

This final section provides an assessment of the Irish consolidation. This is done in two stages. We first analyse the evolution of the Structural Primary Balance (SPB) and debt ratio on the basis of the definitions and criteria detailed in section 1.1. This allows us to produce an aggregate assessment on the basis of these key fiscal metrics. Next, we focus on the composition of the main expenditure and taxation measures. Therein, we are guided by the “optimal” principle of fiscal consolidation sourced from international research and illustrated in section 1.2.

The policy recommendations we derive are not only important when a country is experiencing economic difficulties, but can also be used to address fiscal policy in normal times as these can contribute to improved efficiency and effectiveness of public expenditure and help support potential output growth.

Although attempting to identify a direct causal link between consolidation measures and the current economic landscape is beyond the scope of this paper, it is noteworthy to observe that in terms of restoring stability to the public finances, supporting a return to economic growth and employment creation, the Irish experience of consolidation can be considered successful overall. In 2016 real GDP grew by 5.2%, private consumption by 3%, investment by 45.5% and exports by 2.4%. The general government balance was -0.5% of GDP (compared to an underlying deficit of 11.5% in 2009) and general government gross debt fall at 75.4% of GDP (120% in 2012). Even if recent growth developments (particularly in 2015) are largely driven by multinational activities, the recovery is broad-based and the domestic economy is in a much healthier condition than it was few years ago.
4.1.1 Structural Primary Balance and Debt

Table 7 shows the Structural Primary Balance (SPB), the debt to GDP ratio and the annual changes in these two variables from 2008-2014. Using Definition 1 (see page 7) to identify the start of consolidation, we observe that that Ireland began its retrenchment between 2009 and 2010 with a 2.5pp improvement in the SPB or “cold shower” (>1.5pp improvement). Hence, the use of this theoretical approach produces a one year lag compared to the actual start of consolidation (2008-2009). The improvement in the structural position of Ireland’s public finances is evident from 2010 onwards. Regular annual improvements considerably greater than 1.5pp of potential GDP remark the pace and severity of the adjustment. This is consistent with the findings in Weymes (2012).

The size of consolidation, the cumulative improvement in the SPB from 2009 to 2014, amounts to 10 percentage points of potential GDP.

Table 7: Key Fiscal Metrics (% GDP unless specified)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Primary Balance</td>
<td>(5.4)</td>
<td>(9.5)</td>
<td>(7.0)</td>
<td>(4.3)</td>
<td>(1.7)</td>
<td>0.7</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Annual Change</td>
<td>(4.1)</td>
<td>2.5</td>
<td>2.7</td>
<td>2.5</td>
<td>2.5</td>
<td>(0.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Government Debt</td>
<td>23.9</td>
<td>42.4</td>
<td>61.7</td>
<td>86.3</td>
<td>109.6</td>
<td>119.5</td>
<td>119.5</td>
<td>105.2</td>
</tr>
<tr>
<td>Annual Change</td>
<td>18.5</td>
<td>19.3</td>
<td>24.6</td>
<td>23.3</td>
<td>9.9</td>
<td>(0.0)</td>
<td>(14.2)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Department of Finance, AMECO.

Figure 13: Illustrating the ‘Cold Shower’ Improvement in the Structural Primary Balance

"Cold Shower" evident (>1.5pp)
Assessing the success of the adjustment on the basis of the criteria found in the literature, the Irish consolidation would not meet the Debt criteria 1 and 2 (see page 8) as the debt to GDP ratio started decreasing in 2014, but it would be considered successful under criterion 3 used by the EC and based on the balance.

Thus, we can conclude that consolidation was certainly successful in reducing the borrowing requirement and improving the structural position of the public finances. If a longer time span is allowed for, it can be noticed that the debt to GDP ratio stabilised in 2013 and then was put on a downward trajectory since 2014.
4.1.2 Assessment of the discretionary measures

Table 8 below details and assesses the main consolidation measures undertaken. It is guided by the optimal principles of consolidation design analysed in section 1.2. A ‘+’ indicates consistency with these principles, a ‘-’ indicates inconsistency.

**Table 8 - Assessment\(^{13}\) of ex-ante main measures on the basis of the optimal principles**

<table>
<thead>
<tr>
<th>€bn</th>
<th>Based more on expenditure reductions than tax increases;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2/3 of the fiscal adjustment fell on expenditure reduction, while 1/3 on revenue increases; (+)</td>
</tr>
</tbody>
</table>

**Productive spending should be safeguarded;**
- Reduction in early childcare supplement (-) 0.3
- Reduction in child benefit (+/-) * 0.6
- Reduction in capital expenditure (disproportionate) (-) 5.2
- Reduction in Government compensation of employees (+) 2.2
- Education – Third Level Student contribution (+/-) ** 0.1
- Education: Reduction in Pupil-Teacher Ratio (-) 0.1

**Improvements in the institutional fiscal framework and structural reforms aimed at increasing efficiency;**
- Intervention to reduce drug cost and other professional fees (+) 0.7
- Efficiency measures to increase productivity e.g. public sector (+) 1.6
- Multiannual budgetary framework (+) .
- Creation of Irish Fiscal Advisory Council (+) .
- Reform of Public Sector Pensions (+) .

**Fiscal policies should avoid increasing the level of inequality but a possible equity-efficiency trade-off can arise in the short term;**
- Social welfare unemployment payments reduction (-) 0.9
- Medical Card Thresholds (+) / Prescription Charges (+/-) 0.1
- Reduction in early childcare supplement (-) 0.3
- Reduction in child benefit (-) 0.6
- One-Parent family payment and Back to School Clothing and Footwear Allowance (-) 0.2
- Reduction in Student Support Grants (-) 0.1
- VAT increase (-) 0.9

**Tax measures on immovable property and indirect forms of taxation should be preferred to personal, corporate taxes and increases in social security contributions;**
- Tax base broadening (+) .
- Income taxation increase (-) 6.7
- Indirect taxation increase (+) 1.8
- Carbon / Fuel tax (+) 0.5
- Social security contribution increase (-) 0.6
- Unchanged corporate taxation (+) .
- Property taxation (+) 0.5

In cases in which debt levels are high and a financial crash has occurred, consolidation is more successful when the banking sector is repaired and a front-loading strategy (cold shower), which increases market confidence, is implemented.

- repaired banking sector (+) .
- front-loading strategy (+) .

*Assumption that Child Benefit as a universal cash transfer can only be partially linked to child welfare.
** Assumption that the benefit accrues to the user versus the possibility of lower attendance.

\(^{13}\) This table assesses the majority of the measures introduced during the period. However, this is a subset of hundreds of measures implemented over the period many of which cannot be definitely categorised.
4.2. **Safeguarding public services**

It is noteworthy to highlight that the implementation of consolidation measures faces important political and social challenges. In implementing expenditure reductions, the priority was as set out earlier in this paper to adopt a targeted approach in order to protect key public services and social supports, including support for the unemployed, to the greatest extent possible at a time of increasing demand. This was necessary to ensure a broad political consensus and public buy-in required to affect the success of the adjustment in Ireland.

4.3. **Strengthening the Institutional Framework for Fiscal Policy**

Fiscal consolidation alone was insufficient to improve Ireland’s public finances over the medium term. A Multi-annual Budgetary Framework was also introduced in Budget 2012 alongside the first Comprehensive Review of Expenditure. Ireland left the EDP in 2016 and is now in the Preventive Arm of the SGP. This means that fiscal policy is constrained by two main requirements: the structural balance (SB) and the expenditure benchmark (EB) rules. The SB captures the structural condition of the public finances, that is, the state of the finances net of business cycle fluctuations and one off measures. The SB should be in balance or close to surplus. For Ireland, fiscal effort will have to be made until a structural balance of -0.5% of potential GDP is reached (Medium Term Objective). On the other hand, the expenditure benchmark targets government expenditure and limits its year-on-year growth rate to a pace that is consistent with the economy’s sustainable growth rate as well as the achievement of the MTO. The EU framework for fiscal surveillance notwithstanding the methodological challenges to which it is subject has the potential, if effectively operationalised, to contribute to macroeconomic stability and fiscal sustainability by linking expenditure growth to the medium-term potential growth rate of the economy. This means that cyclical economic developments will be less likely to fuel permanent expenditure increases. By stripping out the effects of the business cycle, in principle, the EU rules should also guarantee that counter-cyclical fiscal policy is followed\(^\text{14}\).

The establishment on a statutory footing of an independent Fiscal Advisory Council in 2012 is another aspect of the new budgetary framework. The Council is responsible for assessing macroeconomic and budgetary forecasts, for assessing the Government’s overall fiscal stance and

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\(^{14}\) For a review of the current institutional fiscal framework applied to Ireland and an analysis of how this could have facilitated the conduct of countercyclical fiscal policy in the past in the Irish context see Bedogni and Meaney (2017).
for monitoring and assessing compliance with the fiscal rules. It implies strengthened credibility of the assumptions underpinning fiscal projections and more intense scrutiny of the achievement of stated fiscal policy objectives.

4.4. Conclusion

This paper has sought to identify the most effective consolidation strategies empirically before applying these to the Irish experience of 2008-2014. Generally, the Irish experience followed best practice in terms of broad composition of the adjustment with expenditure measures eventually taking primacy over a focus on revenue measures such as direct taxation in the early years of the adjustment. The implementation of an expenditure-based consolidation was different from previous adjustments episodes (early 1980s) which were revenue-led and turned out to be unsuccessful (Casey, Durkan and Duffy, 2013). Furthermore, the adjustment took place over an extended period and generally frontloaded in accordance with the perceived economic circumstances. The more gradual pace of consolidation recommended in the literature was not possible with the loss of unconditional market access from 2010 onwards.

A key question is whether productive spending could have been safeguarded to a greater extent. There was a disproportionate emphasis on capital consolidation measures even allowing for the unprecedented levels of investment in the period to 2008, amongst the highest in the EU, that were directed towards addressing long-standing infrastructural needs. Numerous measures were introduced to expand the tax base notwithstanding the overwhelming emphasis on direct taxation over indirect taxation in as against the relevant research literature in this area.

Some measures, such as the increase in VAT, were more regressive than others but as a whole no discernable progressive or negative effect on inequality is apparent from the measures introduced with most income groups experiencing proportional reductions (Callan et al., 2013). Nonetheless, completely protecting those groups on the lower end of the income distribution would have been difficult, if not impossible, given the requirement for such an extensive number of measures totalling approximately one-fifth of GDP.

Consolidation played a significant role in reducing the borrowing requirement as well as contributing to the stabilisation of the debt-GDP and its subsequent downward trajectory since 2014. Importantly, from a forward looking perspective, the institutional framework was also
improved with the introduction of a Medium-Term Expenditure Framework and creation of an independent Fiscal Council. A significant innovation was Ireland’s entry into the revised Preventive Arm of the SGP and the introduction of the domestic Budgetary Rule in Irish legislation. If effectively operationalised, the current fiscal framework can promote the adoption of counter-cyclical fiscal and expenditure policies.
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