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Fiscal Compact - Implications for Ireland

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Abstract[1]

This note examines the longer term implications for Ireland of changes to EU budgetary rules embodied in the Fiscal Compact. On the basis of fiscal projections to 2015, it presents illustrative scenarios showing the on-going correction in the budgetary position post-2015 needed to support compliance with these new rules. Using a newly developed fanchart modelling approach, it examines the near-term uncertainty around future fiscal outturns, demonstrating the budgetary implications which could arise were growth to diverge from its currently projected path. The fanchart methodology demonstrates graphically the degree to which fiscal outcomes depend jointly on exogenous shocks and policy decisions.

1 Introduction

This Letter spells out some of the implications for Ireland arising from recent changes to the European economic surveillance framework. Specifically, it focuses on the longer-run budgetary implications of the Treaty on Stability, Coordination and Governance (or Fiscal Compact). It examines the prospects for compliance with the Compact on the basis of existing consolidation commitments.

Although these projections demonstrate that the fiscal targets are on track to 2015, many uncertainties remain around these central projections. To capture this uncertainty, fanchart analysis is used to demonstrate plausible ranges of outcomes around the central forecast. Fancharts demonstrate graphically the degree to which fiscal outturns depend jointly not only on policy decisions but also on exogenous shocks.

The paper is structured as follows; section 2 outlines fiscal projections out to 2015. This horizon is then extended to 2025 assuming a 0.5pp improvement in structural balance per annum in line with Stability and Growth Pact requirements already in place. In order to assess the implications for Treaty compliance, the government debt and primary deficit profiles which result are contrasted against minimum paths needed to satisfy Compact requirements.

Having outlined point-estimate fiscal profiles, Section 3 assesses the risks attaching to these fiscal outcomes using a newly developed fanchart methodology. These fancharts demonstrate the range of fiscal outcomes that could arise given a range of possible growth outturns. Using recursive simulation techniques, probability-bounded alternate growth paths are produced, alongside indicative fiscal trajectories. These simulations represent

[1] Irish Economic Analysis Division, Central Bank of Ireland. The views expressed in this paper are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the ESCB. Comments from Ronan Hickey and Loretta O'Sullivan (CBI) are gratefully acknowledged.

an advance on forecasting approaches used to date, as they permit shocking various macro inputs to ascertain the sensitivity of the fiscal path to these inputs. Section 4 concludes.

Background to Fiscal Compact

At its core, the *Fiscal Compact* requires commitment to reach for a budgetary position that is balanced or in surplus. This is supported through the imposition of two binding fiscal rules, alongside a requirement for a nationally-legislated 'correction mechanism' to ensure compliance with these rules. This mechanism will be set out on the basis of 'common principles' to be proposed by the European Commission.

The first rule (Balanced Budget Rule) requires that the structural general government balance (the headline deficit stripped of its cyclical component and one-off measures) be at its Medium-Term-Objective (MTO), or converging sufficiently towards it, subject to a lower limit of -0.5% of GDP. Currently, country-specific MTOs are under revision by the Commission. Once this is complete, a timeframe for convergence towards these MTOs will be proposed on a case-by-case basis, accounting for country-specific sustainability risks.

The second rule, (Debt Rule) requires that where the general government debt-to-GDP ratio is in excess of 60% of GDP, it must be reduced at an average rate of 1/20th per year.

For the purposes of this paper, and in line with the existing derogation[1] set out in the EU Six Pack, the Debt Rule is assumed to bind from 2019 onwards. This assumes Ireland exits Excessive Deficit Procedure (EDP) in 2015 as planned. The government remains strongly committed to delivering the deficit below 3% of GDP by 2015, and have indicated they stand ready to take all necessary measures to ensure this is achieved. The May 30th 2012 European Council Decision deemed existing budgetary cuts outlined over 2012 to 2015 to represent 'sufficient progress' towards compliance with the debt reduction benchmark of the SGP. Sufficient progress is currently taken to mean a structural improvement of 0.5pp of GDP per annum on average, in line with requirements of the SGP[2]. On this basis, the structural improvement to 2015 implied in the figures below is sufficient to adhere to the Commissions definition of 'sufficient progress towards MTO'.

From 2016 onwards, this paper assumes a 0.5pp improvement in the structural balance each year until the existing MTO of a structural balance of -0.5% of GDP is achieved (and sustained thereafter).

2. FISCAL OUTLOOK

A set of fiscal projections are described below. Projections assume a 'no policy change' €12.4bn (7.3% of GDP) in consolidation over 2012 to 2015, as set out in *Budget 2012*. The general government balance is estimated on a bottom-up, item-by-item basis. The structural deficit is estimated directly to 2015 using ESCB cyclical adjustment and temporary measures methodology[3].

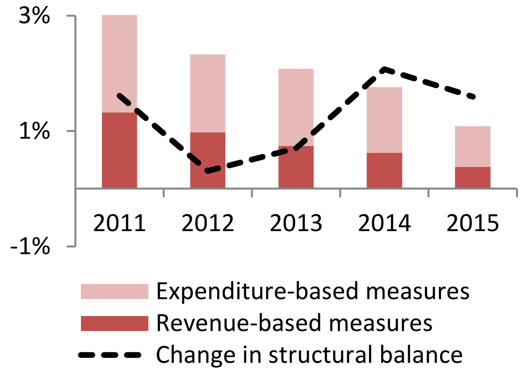
[1] Under Regulation No. 1177/2011 a derogation was granted to countries already subject to EDP as of November 2011, such that the 1/20th debt rule would not be enforced until three years after exit from their then -existing EDP procedure.

[2] 'Specifications on the implementation of SGP' (http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/coc/code_of_conduct_en.pdf) defines 'sufficient progress' as simultaneously respecting that (i) the annual structural adjustment not deviate by more than 0.25pp of GDP from the linear structural adjustment ensuring compliance with the debt rule by the end of the period, and (ii) at no point during the transition period can the annual structural adjustment remaining exceed 0.75pp of GDP. It outlines that 'Member States who have not yet reached their MTO should pursue annual structural adjustment of 0.5% GDP as a benchmark'. Regulation No 117/2011 para (18) stipulates that 'the 0.5% of GDP annual benchmark should be understood as an annual average'.

[3] This involves a bottom-up approach using individual budgetary components responsive to the economic cyclic and linking each to their macroeconomic base via elasticities. This differs to the aggregate production

The figure below outlines the broad composition of consolidation measures profiled to occur between 2011 and 2015, relative to the improvement in the structural balance which these forecasts envisage[4].

Consolidation efforts relative to projected budgetary improvement as % GDP



Source: Central Bank of Ireland

The general government balance is projected to improve from -8.3% of GDP in 2012, (under the EU-IMF permitted ceiling of -8.6% of GDP) to -7.5% GDP in 2013 and -4.9% GDP in 2014. The Irish government remains committed to take all necessary measures to observe EU IMF Programme and EDP deficit ceilings. Existing ceilings require to deficit to fall under 3% of GDP by 2015.

The general government debt is projected to peak at just over 117½% of GDP in 2013, before gradually tapering off thereafter. A more detailed decomposition of contributions to the general government debt is outlined below.

The structural balance estimated using ESCB methodology, deducts the cyclical component of the general government balance together with one-off measures from the headline balance. Temporary measures fell from 20.6% of GDP in 2010 to 3.6% of GDP in 2011, each relating to banking related assistance measures. The structural balance is projected to improve by an average of 1.2% of GDP per annum over 2012 to 2015.

The macroeconomic projections underlying these outturns are based on the July 2012 Quarterly Bulletin projections, extended to 2015 for the purposes of this paper.

Headline Fiscal Aggregates 2012-2015

as % GDP	**2012**	**2013**	**2014**	**2015**
Gen Government Balance	**-8.3**	**-7.5**	**-4.9**	**-3.0**
Primary Balance	-4.4	-2.0	0.3	2.4
Structural Balance (SB)	-7.4	-6.7	-4.6	-3.0
Improvement in SB	+0.3	+0.7	+2.1	+1.6
Gen Government Debt	**116.3**	**117.7**	**117.2**	**115.3**

Source: Central Bank of Ireland.
Note: Based on ESA95 methodology. Consistent with revised 2011 outturn (September 2012 NIE, CSO). Primary balance is the headline deficit less interest payments. Structural balance estimated on basis of ESCB cyclical adjustment methodology[5]. Debt figures assume no revenue from State assets.

A bottom-up decomposition of the fiscal projections underpinning these headline deficit figures is outlined in the table below.

Components of General Government Balance

as % GDP	**2012**	**2013**	**2014**	**2015**
Gen Government Balance	**-8.3**	**-7.5**	**-4.9**	**-3.0**
Total tax revenue	24.1	24.6	25.0	24.8
Total non-tax revenue	8.5	8.2	7.6	7.4
Total Revenue	**32.6**	**32.9**	**32.7**	**32.2**
Total current expenditure	38.5	38.1	35.4	33.2
Current transfers	17.8	16.7	15.4	14.1
Comp of Employees	11.7	11.2	10.6	9.9
Interest	4.0	5.5	5.2	5.4
Total capital expenditure	2.4	2.3	2.2	2.0
Total Expenditure	**40.9**	**40.4**	**37.6**	**35.2**
Nominal GDP €bn	*163.4*	*168.6*	*175.9*	*184.1*
Nominal GDP growth	2.8	3.2	4.3	4.7

Source: Central Bank of Ireland.
Note: Based on ESA95. Underlying macro projections based on Quarterly Bulletin No. 3 2012 (July) extended to 2015. Capital expenditure figures assume no savings from prospective revenues from sale of State assets.

In spite of 7% of GDP in revenue raising measures undertaken over 2008 to 2015, revenue as a share of GDP is projected to remain relatively flat, reflecting the

function and semi-elasticity approach used by the EC and OECD.

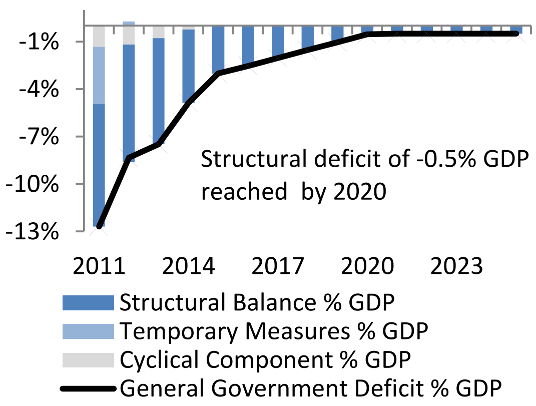
[4] For further details on composition of consolidation see Weymes (2012) *Economic Letter* Vol 2012 No. 7.

[5] For further details of approach see http://www.ecb.de/pub/pdf/scpwps/ecbwp077.pdf

narrowness of the Irish tax base. The majority of the improvement in the deficit is projected to be driven by a contraction in the spending ratio (including interest payments) which is expected to improve by over 5½ percentage points between 2012 and 2015.

In the chart below, from 2016 onwards the primary and general government balance are assumed to evolve to support a 0.5pp improvement in the structural balance path per annum until the Compact required lower limit of -0.5% of GDP is achieved and sustained thereafter. Since it is assumed that the economy is operating at potential by 2016, the structural balance converges with the general government balance from that point on. These extended projections assume average nominal growth of 4.7% of GDP per annum and an average implicit interest rate of 4.9% per year over 2016 to 2025. This is a highly stylised illustrative scenario and does not represent a forecast. On the basis of a 0.5pp per annum structural improvement, Ireland would converge towards, but not obtain, a Fiscal Compact compliant structural deficit of -0.5% GDP until 2020.

Composition of General Government Deficit



Source: Central Bank of Ireland
Note: The positive offset from temporary measures in 2012 relates to UMTS spectrum licence revenues (0.3% GDP) assumed to be received in 2012.

As the chart above indicates, the vast majority of the general government deficit is structural in nature and does not relate directly to the position of the economic cycle. In other words, from 2014 onwards only a small component of the deficit is reflective of tax revenues being lower and transfers higher due to the downturn. It is noted however that considerable uncertainty surrounds the estimation of the structural balance. On average, the cyclical component of the deficit amounts to just 0.7% of GDP per annum over 2011-2015.

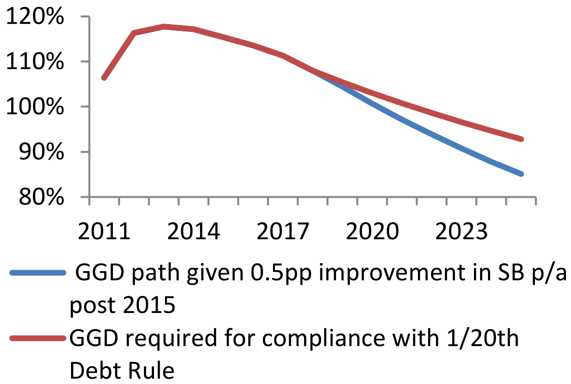
The year in which compliance with the Compacts' Budget Rule is secured will of course be highly sensitive to the policy action undertaken post-2015. The structural reform timetable dictating such necessary action remains to be proposed by the European Commission. It should be noted that from 2016 onwards the estimates below are highly stylised and do no attempt to apportion the contribution to the structural improvement generated by dividend from past structural reforms undertaken, relative to additional consolidation effort.

For illustrative purposes, were the assumed structural improvement achieved each year to reach 0.75pp per annum, this would result in the Budget Rule being reached one year earlier, by 2019. Sensitivity around compliance with the 1/20th Debt Rule would also be lessened were the per annum structural improvement to be higher than 0.5pp. To support compliance with a 0.5pp structural improvement over 2016 to 2020 this would require an average primary balance of 3.6% of GDP per annum. To support a 0.75pp per annum correction, this would require an average annual primary balance of 3.9% of GDP out to 2019. Cumulatively however, over 2016 to 2019 this amounts to 0.6pp GDP more correction.

Interestingly, the charts below highlight the extent to which the two rules under the Compact imply different implementation burdens. The Budget Rule is relatively more binding in the Irish context than the Debt Rule, both in terms of implied debt path and the necessary primary balance to support compliance with these rules. This differential largely reflects the fact debt dynamics are already expected to be on a downward path by the time the Debt Rule becomes binding. The red line below indicates the debt path required to ensure compliance with the $1/20^{th}$ Debt Rule under the Compact from 2019 onwards. The corresponding blue line illustrates the debt path secured as a result of securing a 0.5pp improvement in the structural balance.

Given a 0.5pp per annum improvement in the structural balance, compliance with the $1/20^{th}$ Debt Rule is achieved by 2018, one year earlier than its assumed entry into force. Compliance is however sensitive to the nominal growth rate assumed. In these figures nominal growth of 4.7% per annum over 2016 to 2025 is assumed.

General Government Debt ensuring compliance with Fiscal Compact

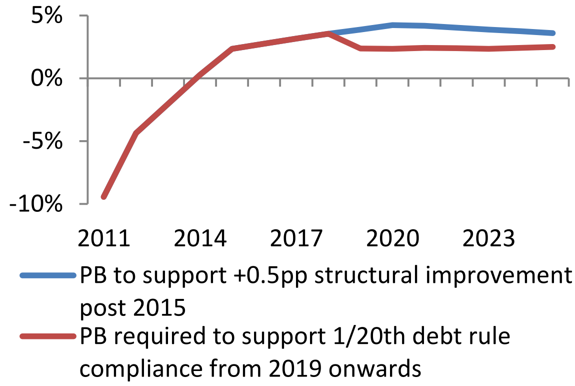


Source: Central Bank of Ireland

In terms of the post-2015 primary balance needed to support compliance with the Fiscal Compact, the level needed to support a structural improvement of 0.5pp per annum is relatively more binding than the equivalent balance needed to support the $1/20^{th}$ debt rule in isolation. This is based on an average implicit interest rate on the debt per annum over 2016 to 2025 of 4.9%.

What is important to note here is that the year in which the Debt Rule becomes binding has a critical bearing on the likely compliance burden.

Required Primary Balance to comply with Fiscal Compact



Source: Central Bank of Ireland

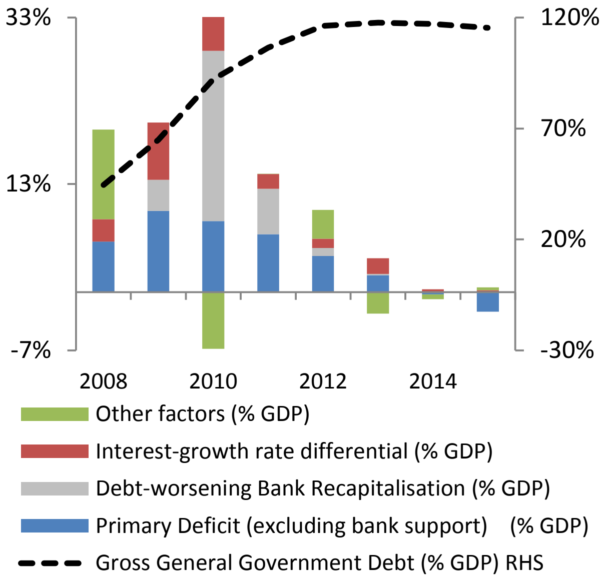
Naturally, it becomes easier to secure a $1/20^{th}$ per annum improvement in the debt ratio in an environment where debt dynamics have already began to stabilise and the debt trajectory is firmly on a downward path.

To get a sense of the factors driving the headline debt ratio over the period to 2015 the chart below indicates the various components driving these dynamics. As is evident, bank related transactions have weighed heavily on Irish debt dynamics over 2009 to 2012, adding cumulatively some 31 percentage points of GDP over the period. Whilst 'other factors' benefitted the debt position in 2010, largely reflecting run down in cash balances, they are expected to weigh on debt accumulation in 2012, reflecting provisions for Insurance Compensation Fund (ICF) support, together with ESM paid-in-capital contribution provisions. These amounts are in line with April 2012 SPU nominal provisions. Cash balances held, another component of 'other factors' are projected to evolve in line with the latest EU-IMF programme assumptions.[6]

As the chart below indicates, banking injections and the primary deficit contributed in broadly equal measure to the 14pp increase in the debt ratio in 2011. From 2014 onwards, a primary surplus, together with beneficial interest–growth rate dynamics

[6] These are outlined as financial buffers detailed in the European Commissions' *Summer 2012 Review,* Table 4.

Contributions to General Government Debt



Source: Central Bank of Ireland.

Note: Nominal bank recapitalisation amounts based on April 2012 Maastricht returns data. 2012 bank recap impact refers to €1.3bn ILP injection in July 2012 plus provision for credit union assistance. 'Other factors' in 2008 refer mainly to accumulation of cash balances.

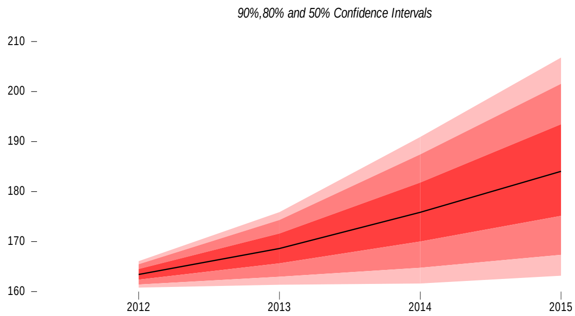
(signalled above as the near absence of the red bar from 2014 onwards), are projected to contribute positively to the improvement in debt dynamics.

3. RISK ANALYSIS

In terms of implications for compliance with these fiscal rules from 2015 ownards, the starting position of the economy is important. With this in mind, we explore the uncertainty around macroeconomic and fiscal projections over the 2012 to 2015 period using a fanchart modelling approach. Taking the above deficit and debt paths as a central position, it demonstrates how fiscal outturns would be affected if nominal GDP were to deviate from its projected path. Results are shown by means of probability bounded fan charts below. Previous fanchart analyses[7] conducted in the Irish context relied on elasticities between macroeconomic aggregates. The relationship between the deficit and output gap is typically established by estimating the elasticity between these two variables[8]. In contrast, the approach employed below identifies separate equations for each spending and revenue component of the deficit, which respond to macro inputs. To simulate alternate growth outturns, the standard deviation for the normal distribution is constructed using random draws with a standard deviation calibrated based on past *Quarterly Bulletin* forecast errors and econometric forecasting models.

The advantage of this approach is that it replicates the structure of the public finances when generating measures of uncertainty. While uncertainty surrounding the outlook for nominal GDP is focused on in this Letter, the approach can also be used to conduct a variety of other exercises, such as varying the sensitivity of government revenue and expenditure to GDP. It can also be used to demonstrate the impact of changes in other specific tax bases. The simulated path for the level of nominal GDP in 2015 has a range from €162 to €206 billion at the 90% confidence level, relative to a Baseline estimate of €184bn by 2015.

Nominal GDP prediction intervals (€bn)



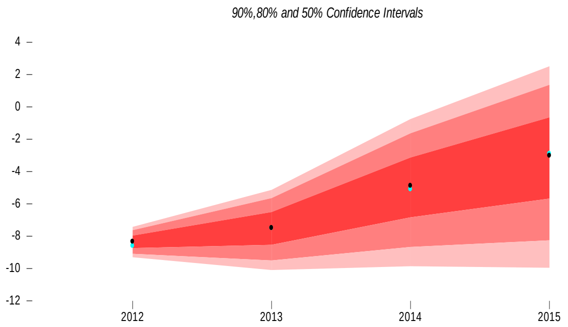
Note: Shaded bands illustrate the 90%, 80% and 50% confidence intervals.

Plausible deviations from the expected growth path could, assuming current policy measures, result in a wide deficit ratio range of 12 percentage points by 2015. That the fancharts widen out over time reflects the greater level of uncertainty at longer time horizons.

[7] Cronin & Dowd (2011)

[8] See work by UK *Office of Budget Responsibility*: 'Economic & Fiscal Outlook', March 2012. Also Irish Fiscal Advisory Council, September 2012.

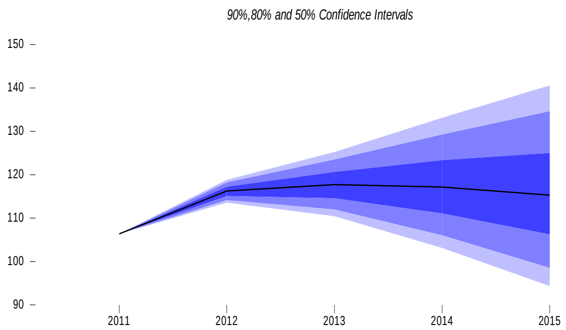
General Government Deficit ratio (% of GDP) prediction intervals



Note: Shaded bands illustrate the 90%, 80% and 50% confidence intervals. Blue dots represent EDP deficit targets, black dots the baseline forecast. Lower bounds represent a bigger deficit.

The chart for the debt trajectory below has a similar interpretation. The 2015 confidence interval for the debt ratio ranges from a lower bound of 95% of GDP, to a higher bound of 140% of GDP, at the 90% confidence interval. These simulations show that there is considerable uncertainty surrounding the future path of GDP and the implied paths for the fiscal variables.

General Government Debt ratio (% of GDP) prediction intervals



Note: Shaded bands illustrate the 90%, 80% and 50% confidence intervals.

4. CONCLUSIONS

The paper examines the likely future budgetary adjustment (post-2015) which would be necessary to support compliance with recent changes to the EU fiscal rules. It finds that were an on-going 0.5pp per annum structural improvement to be secured from 2016 onwards, this would require a primary balance of 3.6% per annum. On this basis it would be 2020 before a Fiscal Compact compliant structural deficit of -0.5% of GDP was secured. It demonstrates that, of the two fiscal rules in the Fiscal Compact, the Budget Rule is relatively more binding than the Debt Rule for Ireland. This disparity relates largely to the assumption that the Debt Rule become binding at a relatively later point, in 2019 when debt dynamics have already begun to stabilise.

In explicit acknowledgement of the wide range of uncertainty around future growth and fiscal outturns, the paper also illustrated a range of uncertainty around the projected fiscal profiles to 2015, were nominal growth to diverge from its anticipated path. Despite weaker than expected external demand since late 2010, budget measures have continually delivered to ensure necessary adherence to the targets set under the EU-IMF programme and EDP procedure. Whilst ex-ante policy decisions can impact the central projections, the fanchart methodology used here demonstrates graphically the degree to which debt and deficit outturns depend on the interaction of these policy actions with potential exogenous shocks (both positive and negative) which the economy might be subjected to.

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